





# **Kansas Statewide Intercity Bus Study**

# December 2012

# Prepared for:



# **The Kansas Department of Transportation**



with:

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# **Executive Summary**

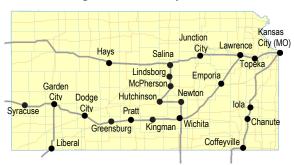
Intercity bus (ICB) service is a unique mode of transportation, able to cover long distances comparable to those of domestic air or rail travel, but using a non-exclusive right-of-way: the public highway system. Over-the-road travel gives intercity buses flexibility unavailable to other modes, allowing them to serve more remote, rural destinations. Consequently, intercity buses have the potential to serve many populations that might not otherwise have long-distance travel options.

The purpose of this study was to examine intercity bus service in Kansas, determine whether there were additional needs in the state, and develop recommendations to address those needs.

# **Existing System**

ICB service in Kansas covers approximately 1,840 route miles, with a capacity of approximately 345,400 seatmiles per day, serving 21 cities within the state. As the map at right illustrates, the state is served by two eastwest "trunk lines" and some connecting north-south routes. Some large geographic gaps are evident, most notably in the northern and western parts of the state (generally less-populated rural areas). The state has one dedicated intercity bus terminal, located in Wichita; Kansas City, Missouri, is also a hub for many Kansas ICB travelers.

## **Existing Routes and Stops in Kansas**



Kansas is served by four ICB carriers, each operating on a different business/service model: Greyhound Lines (national), Jefferson Lines (regional – Central U.S.), Prestige Bus Services (localized to Kansas and Colorado), and Los Paisanos (largely a specialty carrier oriented to the Hispanic community). Many of the stops served by these providers are low-volume stops, with just under half the stops serving less than one passenger per day.

# Ridership Markets and Stakeholders

The study developed information about current and potential ICB riders in Kansas (see Chapter 5 for more details). Existing riders were surveyed, and some of the statistics gleaned include:

- 95 percent were under the age of 65.
- 11 percent had a disability.
- 48 percent were non-white.
- 45 percent were unemployed, retired, or students.
- 54 percent had an annual income less than \$25,000.
- 74 percent were taking a one-way trip.
- 41 percent were traveling to visit family or friends.

The study also looked at specific population groups within Kansas to find out more information on their propensity to ride ICB. Groups included:

- Local transit riders
- University students
- Persons associated with the justice system
- Members of the military
- Low-income individuals

- Persons with disabilities
- Senior citizens
- Native Americans
- Hispanic individuals

Information on these groups was gathered by various outreach methods, including paper surveys, online surveys, email blasts, web postings, focus groups, and one-on-one interviews. Demographic, geographic and document research supplemented this outreach approach. Findings included:

- With the exception of senior citizens and those in the justice system, the groups listed above reported traveling via ICB at higher rates than the general public, often three to five times higher.
- Even though usage is higher among these groups, awareness of the ICB is still fairly low.
- Strong statements were made tying the loss of transportation options such as ICB to the population decline in rural Kansas, especially among senior citizens.
- Feeder services and strengthened local transit connections were cited as needs.

# **Demand Analysis and Needs**

Through analysis of ICB rider feedback, population group feedback, and demographics, the study identified several cities worth considering for new or restored ICB service or connections:

- Kansas City (KS)
- Johnson County
- Manhattan
- Leavenworth
- Pittsburg

- Great Bend
- Liberal
- Arkansas City-Winfield
- Lawrence
- Colby

Several route modification/additions were also explored:

- Re-route Kansas City-Joplin route through Fort Scott and Pittsburg
- Extend Wichita-Salina route to Manhattan, and possibly to Lincoln, NE
- Establish Wichita-Springfield route via Pittsburg and Joplin
- Establish Omaha-to-Tulsa route via Topeka

Finally, due to the sparse population and demand in western Kansas, but recognizing the need for transportation options, some sort of feeder service (probably not a daily scheduled service) was seen as a need in these areas.

Overall, needs were summarized as follows:

## *In-State Service Expansion*

- Scheduling of any new routes needs to be developed in an attempt both to serve the travel schedule needs of Kansans and to integrate with the long-haul schedules of the national carriers. This may mean considering "local" vs. "express/national" routes.
- ICB service (or a connecting service) needs to be expanded to serve the nodes, corridors, and regions indicated in Figure 7-1 (see Chapter 7). In some cases, this will involve adding stops to, or extending, existing routes. Priorities need to be established to build out the desired network.

#### **Awareness**

• ICB in Kansas needs a two-pronged marketing program: (1) information broadly available/ accessible to all Kansans as part of their trip planning, and (2) campaigns targeting the highest-potential riders (both immediate and long-term).

# Connectivity

- Rural communities in Kansas need a method to connect with the ICB long-haul lines.
- In cities with scheduled fixed-route transit, ICB needs to connect with local systems at intermodal transit centers to the extent feasible.
- The state, transit agencies, and ICB operators need to partner to create and portray a more "seamless" public transportation system, with ICB as the long-haul component.

#### Service Enhancement

- Kansas' ICB stops must be viewed from a system perspective, and priorities need to be assigned regarding the levels of comfort/amenities/security provided at each.
- ICB vehicles purchased for use in Kansas, to the extent feasible, should provide electrical outlets and wireless internet connectivity.

### Recommendations

The study resulted in the goals and recommendations listed below.

#### Goals

Promote affordable, accessible and convenient intercity bus transportation for Kansas residents.

Facilitate an interconnected network of local and long-distance bus service providers (including an information network).

Raise public awareness of the existence and benefits of intercity bus transportation.

Support improved service quality (including safety/security).

Encourage a positive view of intercity bus in Kansas (including safety/security).

### **Prioritized Recommendations**

- I. KDOT should adopt an ICB system concept and work with partners and stakeholders to implement and preserve it.
- 2. Multi-county feeder bus service should be implemented in western and central Kansas.
- 3. An ICB branding, marketing, and information campaign should be established for Kansas, with initial and ongoing components.
- 4. KDOT and partners should develop and monitor level of service targets for the ICB system in Kansas.
- 5. Station/stop locations/amenities should correspond to the station hierarchy in a context-sensitive manner.

# 1. Introduction to Intercity Bus

As a transportation mode, intercity bus (ICB) is often misunderstood or ignored in transportation planning processes. However, its unique combination of operational characteristics makes it ideal to serve travelers who might not otherwise have long-distance travel options. Further, as an affordable and spatially flexible mode, ICB has a strong ability to connect to local transit systems. These features should place it in a favored role in any state's transportation system. The purpose of this brief chapter is to describe the basic characteristics of ICB and how it operates. More details of ICB in Kansas are presented in subsequent chapters.

The Federal Transit Administration (FTA) defines ICB as –

Regularly scheduled bus service for the general public, using an over-the-road bus, that:

- 1. Operates with limited stops over fixed routes connecting two or more urban areas not in close proximity or connecting one or more rural communities with an urban area not in close proximity,
- 2. Has the capacity for transporting baggage carried by passengers,
- 3. Makes meaningful connections with scheduled intercity bus service to more distant points.

#### **General Characteristics**

Key general characteristics of ICB are described below.

- Vehicles: Vehicles typically have a capacity of 47 to 55 passengers, and are often lift-equipped to
  accommodate passengers using wheelchairs (the industry is moving toward full compliance of
  ADA regulations regarding accessibility). ICB vehicles typically have a single minimal restroom,
  and usually provide overhead lights at each seat. Some vehicles (usually market-driven) include
  additional features, such as seatbelts, wireless internet connectivity, power outlets, and video
  screens.
- *Routes:* The routes for this long-haul transportation mode usually favor the interstate system. However, in many parts of Kansas, rural highways are the only option available. Intercity buses usually need to make some use of local roads as well, to access stops within communities.
- Stops: ICB stops comprise a wide array of facility types. It is typical for a stop to be located at a restaurant or gas station, or some other commercial enterprise. In some locations there are dedicated or multimodal terminals, with interior waiting areas, ticket agents, vending machines and restrooms; while in other locations, there are only curbside stops, often without signing to demarcate them. As will be seen in this document, stops in Kansas include all the types listed above.
  - The FTA definition of ICB includes the term "limited stops". Generally, ICB will have only one stop in a given town or community. In Kansas, the average spacing between stops ranges from approximately 60 miles (Greyhound) to 36 miles (Prestige Bus Lines). Note that, nationally, a significant decline in the number of ICB stops has been noted in recent decades, as many smaller communities have been dropped from schedules due to economic/efficiency considerations.
- *Baggage*: ICB vehicles typically include luggage bays, and larger luggage is generally checked prior to departure.

# **Operational Characteristics**

Some distinguishing operational characteristics of ICB are described below.

- *Tickets:* Tickets can typically be purchased on-line, or from a ticket agent. Where an agreement can be negotiated, local businesses serving as stop locations will serve as ticket agents for the ICB operators. Electronic ticketing kiosks have also been employed and are becoming more widespread.
- Schedule: The FTA definition includes the term "scheduled service". ICB operations run on fixed, published schedules (that may be adjusted periodically). Many ICB companies also run charter bus service, but these are not regularly scheduled and do not qualify as ICB. Terminology note: In the ICB industry, a particular route running at a particular time is known as a "schedule". A given route can have multiple schedules. For example, Greyhound's Schedule 471 departs from Kansas City, MO at 8:00 a.m. on weekdays, heading west on I-70 and then south via Wichita to Oklahoma. Schedule 485 follows the same route but departs Kansas City at 1:20 p.m.
- Package Express: Most ICB operators offer a little-known freight-shipping service referred to as "package express". For a very competitive fee, goods can be shipped on ICB vehicles; the sender and receiver just need to be present at either end of the route to complete the transaction. Before the advent of shipping companies such as UPS and FedEx, this service was well utilized; in recent decades, its use has dramatically decreased. Today, package express service is typically restricted to specialty items such as cut flowers, automobile parts, and internet auction pieces.
- Reservationless: Traditionally, the ICB industry has operated on a reservationless system, meaning that a ticket does not guarantee a seat. If a bus is full, some passengers may be denied boarding. A related traditional industry practice is that tickets are generally honored for alternate dates if travel plans change. These unique characteristics of the ICB mode make some aspects of service planning, as well as intermodal coordination, difficult.

## **Transportation Interfaces**

The ways in which ICB operators interface with each other, and with other transportation modes, also shape the description of this travel mode.

- Interlining: This term generally describes a passenger's ability to make a trip using multiple ICB providers with a single ticket. Nationwide, Greyhound has developed software that allows other providers to interline with their national network. In Kansas, Prestige and Jefferson Lines interline with Greyhound. This practice includes complicated reimbursement arrangements between providers, but is designed to make the traveler's experience as seamless as possible. In general, formal interlining can only be accomplished between ICB and some other scheduled service; therefore, demand-response services are generally excluded from this practice.
- Bus Pooling: Also known as "pooled service", this term generally describes a situation wherein multiple providers operate service cooperatively with a common pool of buses and common ticketing of passengers. In Kansas, this also happens with both providers that interline with Greyhound. For example, passengers booking travel on Greyhound from Minneapolis, MN to Coffeyville, KS will travel on a Jefferson Lines bus.
- Feeder Buses: This term has at least two meanings in the context of ICB:
  - In some instances, ICB is used as a feeder service for other transportation modes.

- In many cases, "local" ICB services are used to connect smaller communities to the national network. It could be argued that the Prestige Bus Line connection from Wichita to Salina serves this function, although it also serves local trips within the region as well.

# **Funding and General Business Model**

The majority of ICB operators are private for-profit companies. Similar to airlines, these companies provide a public service, but their business decisions (including vehicles, routes, and stops) must necessarily take cost, revenue, and profit into account.

FTA and state departments of transportation play a supporting role in the industry through public funding of some services. For example, FTA's 5311(f) program specifically sets aside Federal funds to meet intercity bus transportation needs. In Kansas, 5311(f) funds have recently been used to subsidize the Prestige Bus Beeline Express service. Therefore, in this case a private firm is operating the line under contract to, and in partnership with, the Kansas Department of Transportation (KDOT). However (as is further explored in Chapter 4), subsidies for ICB are generally quite low compared to other forms of mass transportation.

The mixture of private mode, public mass transportation, low profit margins, and generally low public awareness causes ICB to occupy a unique and challenging position in the transportation system. This report examines ways that these challenges can be overcome to continue to improve ICB service throughout the state of Kansas.

# 2. Existing Intercity Bus System in Kansas

# **Routes and Stops**

The current intercity bus routes and stops in Kansas are shown in **Figure 2-1** below. The Kansas intercity bus system travels along the two major interstate facilities in Kansas - I-70 and I-35 - as well as a few other smaller state highways, including US-169 in the southeast portion of the state, and US-400 in the southwest portion of the state. Service in Kansas is primarily provided by four companies; Greyhound, Jefferson Lines, Prestige Bus Lines (Beeline Express), and Los Paisanos. Los Paisanos is in a slightly different category than the other three, as will be discussed later in this chapter.

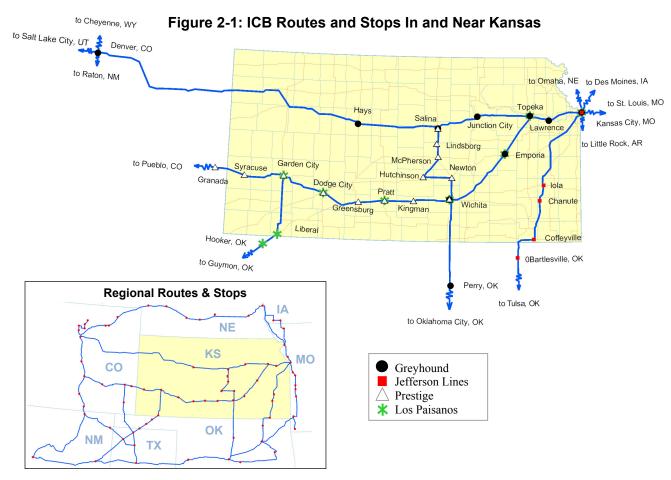


Figure 2-1 also shows what happens to each route as it exits the state; indicating the next major regional destination. The smaller map inset shows the closest routes that connect, or run adjacent, to the state. These routes run through Nebraska, Iowa, Missouri, Oklahoma, Texas, New Mexico, and Colorado.

**Table 2-1** summarizes some basic operational statistics for the four carriers shown on the previous page, based on an analysis of available schedule and route information.

As the table indicates, Greyhound provides the greatest number of route-miles due to the fact that their routes cover the longest distances within the state. Prestige, however, offers the most stop locations. Greyhound also offers the

Table 2-1: Intercity Bus Carrier Operational Statistics within Kansas (2/3/12)

|                 | Stop<br>Locations | Route-<br>Miles | Vehicle-<br>Miles/Day | Seat-<br>Miles/Day |
|-----------------|-------------------|-----------------|-----------------------|--------------------|
| Greyhound       | 7                 | 785             | 3,910                 | 215,050            |
| Jefferson Lines | 3                 | 170             | 340                   | 18,700             |
| Prestige        | 12                | 405             | 1,070                 | 58,850             |
| Los Paisanos    | 7                 | 480             | 960                   | 52,800             |
| Total           | 29                | 1.840           | 6,280                 | 345,400            |

Source: Estimated from carrier route maps and data available online.

most vehicle-miles and seat-miles per day, which is a function of both their high number of route-miles, and the fact that they operate multiple runs per day on each of their routes.

# **Station/Stop Characteristics**

Twenty of Kansas' ICB station/stops were inventoried as part of this study, including site visits and photologs. Below is a brief summary of the stop/station information collected; a more complete inventory can be found in **Appendix A** of this document.

- The majority of ICB stops in Kansas (as in most states) are at small local establishments such as convenience stores and gas stations.
   The only city that currently has a dedicated intercity bus terminal is Wichita. It is also worth noting that there is a dedicated terminal in downtown Kansas City, MO that also serves Kansas residents.
- At 13 of the 20 stops, tickets are available for purchase. The Greyhound station in Wichita has full-service ticketing with employees dedicated to ticket sales. At the remaining 12 bus

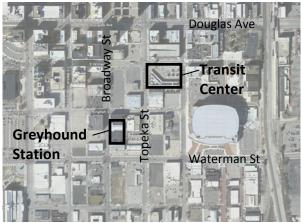


Wichita Greyhound Terminal

- stops where ticketing is available, intercity bus carriers have made agreements with the local establishments to serve as local ticket agents. The employees at these locations are given the task of selling intercity bus tickets, in addition to their regular duties. It has reportedly been difficult for the intercity bus carriers to find establishments that are willing to serve as local ticketing agents and assign that responsibility to their employees. At the national level, some intercity bus providers have installed self-serve kiosks where passengers can purchase or pick up will call tickets. These are not common, and there are not currently any in service within Kansas. Six of the stops in Kansas offer Package Express service. Again, the Greyhound station in Wichita is one of the stops that provides this service, and has dedicated personnel to handle these requests. At the remaining five locations, this service is handled by the employees of the local ticket agent.
- Amenities, including parking and places for passengers to sit and wait, are generally limited, due to the nature of the facilities housing the intercity bus stops. One stop, in Greensburg, is simply an intersection, not a physical structure; therefore any waiting passengers must remain outside in the elements. Each of the other stops do at least have physical structures (if not designated waiting areas or seating) where waiting riders can be inside, during regular business hours. Outside of regular business hours, riders would likely need to wait outside; and given the 24-hour-a-day nature of intercity bus service, bus arrivals at odd hours are not uncommon. However, nearly half (10) of the state's stops are housed in places such as gas stations and truck stops, which likely have fairly long business hours, potentially staying open 24 hours a day.

Currently, Wichita has the only dedicated intercity bus terminal in Kansas. It serves both Greyhound and Prestige's Beeline Express. Recently however, a lease agreement has been reached between Wichita Transit and Greyhound that will result in the closure of the existing Greyhound terminal and integration of the Greyhound and Prestige services with the Wichita Downtown Transit Center. This will require some limited modifications to the existing transit center to accommodate the relocated services, such as counter space and signage. The move will have the distinct benefit of co-locating the intercity bus operations with the major transfer point on Wichita's fixed-route transit service. The move is expected to occur by the end of the 2012.

# Wichita Greyhound Locations



Approximately 500'

#### **Modal Connections**

Transit connections to intercity bus stops are limited. Only seven of the cities with ICB service offer any sort of regular fixed-route transit service. Out of the seven, only four have designated transit stops at the ICB stop. In addition, the 24-hour-a-day nature of ICB service impacts the ability of passengers to make transit connections, since most transit agencies have more limited hours of operation. All of the cities with ICB stops do have at least some sort of demand-response transit service. However, hours of operation, again, make an impact on ICB connections.

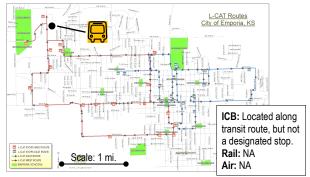
Six of the cities that are served by intercity bus are also served by Amtrak (Dodge City, Garden City, Hutchinson, Lawrence, Newton, and Topeka). All of these cities lack a direct transit connection between the ICB stop and the Amtrak Station. However, in a few cases there is a transit route that runs within a few blocks of the Amtrak Station.

There are eight commercial service airports in the state. Six of the airports (all but Manhattan Regional and Great Bend Municipal) are located in cities that are also served by intercity bus. In Wichita, there is a fixedroute transit connection between the ICB stop and the airport. In the remaining cities – Dodge City, Garden City, Hays, Salina, and Liberal – there are no scheduled connections between ICB and the airports.

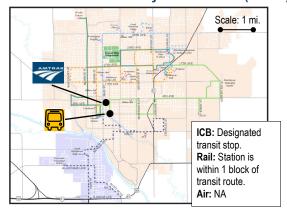
Figure 2-2 on the following page illustrates the geographic relationship between ICB and fixed-route transit systems for each of the seven cities that operate one. It also describes the connections between transit and other long-distance travel modes.

Figure 2-2: Fixed Route Transit and Modal Connections

# Emporia – Lyon County Area Transportation (L-CAT)



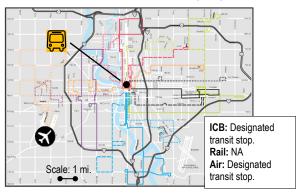
# **Hutchinson – Reno County Area Transit (RCAT)**



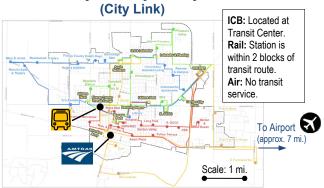
Salina – OCCK Transportation (CityGo)



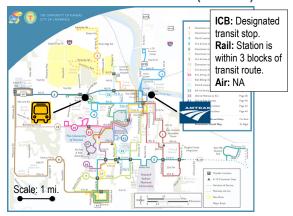
Wichita - Wichita Transit (WT)



Garden City – Finney County Transit



Lawrence - Lawrence Transit (The "T")



Topeka – Topeka Metropolitan Transit Authority (Metro)





**Figure 2-3** shows the location of long-distance travel modes and their proximity to each other, for cities that do not have fixed-route transit.

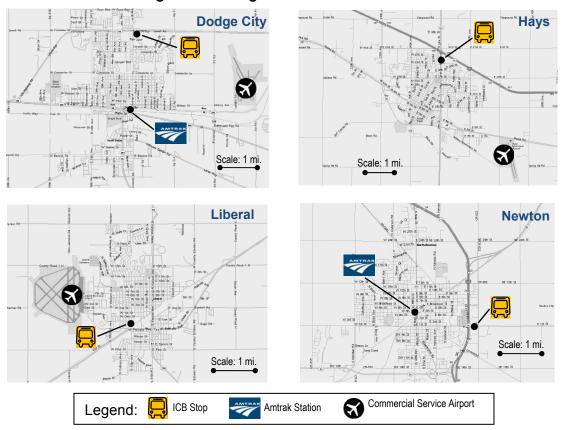
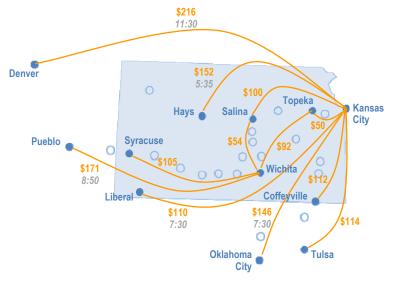


Figure 2-3: Long-Distance Travel Modes

## **Fares**

Figure illustrates several examples of round-trip fares for various city pairs within, or adjoining to Kansas (as of June 2012). Example fares are shown for the four each of providers highlighted on Figure 2-1. As can be seen for the cities selected, prices are generally lower for shorter trips (around \$50) and higher for longer trips (over \$200). Fares among the providers are generally comparable, although Prestige and Los Paisanos tend to charge a slightly lower amount per mile.

Figure 2-4: Example Fares (2-way) and Travel Times (1-way) (as of June, 2012)



#### **Schedules**

Intercity buses operate almost 24 hours a day within Kansas. Depending on the time of day, there are as many as six buses travelling in the state. There is only one hour of the day (10 p.m.) when there are no buses running in Kansas. **Figure 2-5** shows the number of active buses running at each hour of the day. As the graph indicates, the busiest period of the day falls between 3 p.m. and 6 p.m., while the least busy time of the day falls between 9 p.m. and 12 a.m. **Figure 2-6** (on the following page) illustrates the position and direction of every scheduled intercity bus in Kansas by hour of day.

**Table 2-2** (on the page following Figure 2-6) details the schedule for each weekday route in Kansas.

6р

9p

3p

• The I-70 corridor is covered by two Greyhound routes, which are fairly favorably spread throughout the day. Generally speaking, one can begin or end a trip at a reasonable time of day at any stop along I-70 within Kansas.

12a

3a

6a

9a

12p

- The two Kansas City-Wichita-Perry, OK Greyhound routes are also fairly favorably timed, with the exception of one of the northbound routes which runs very early in the morning (between 1:35 and 6:40 a.m.) and also has limited stops in Kansas (no stops between Wichita and Kansas City).
- The Kansas City-Tulsa route via US-169 on Jefferson Lines operates conveniently in the mid-tolate afternoon for the northbound direction. However, in the southbound direction it travels fairly early in the morning, leaving Kansas City at 4:00 a.m.
- The Wichita-Salina route is covered by two Prestige schedules daily. The a.m. route runs between midnight and 3:00 a.m. in the northbound direction and between 4:00 and 7:00 a.m. in the southbound direction, which are both fairly inconvenient for most people. The p.m. routes, however, are favorably timed between 2:00 and 5:00 p.m. (northbound) and 6:00 and 9:00 p.m. (southbound).
- The Pueblo-Wichita route is covered by one Prestige schedule daily. The route runs in both directions during the morning, which may be inconvenient for people wishing to travel during the afternoon or evening. The eastbound route leaves Pueblo very early in the morning, but by the time it arrives in Kansas (Syracuse) it is a fairly reasonably scheduled time (6:20, mountain time).

Figure 2-6: Time/Bus Location Map (Central Standard Time)

Colored Boxes represent the buses of each provider:

Greyhound Jefferson Lines Prestige

- Arrow indicates the direction of travel
- Dot indicates that the bus is stopped (stop location is directly labeled)



**KDOT Intercity Bus Study** 

Table 2-2: ICB Schedules in Kansas (as of September, 2012)

Denver, CO – Kansas City, MO

|               | EB          |           | WE          | 3         |
|---------------|-------------|-----------|-------------|-----------|
|               | G1682       | G1684     | G1675       | G1683     |
|               |             |           | A           | <u> </u>  |
| Denver        | 8:40*       | 19:05*    | 23:30*      | 11:00*    |
| Colby         | 13:25/13:55 |           | 19:50/20:20 | 7:05/7:35 |
| Hays          | 15:40       |           | 18:30       | 6:00      |
| Salina        | 17:15/17:45 | 3:30/4:00 | 16:35/16:55 | 4:05/4:25 |
| Junction City | 18:40       | 4:55      | 15:40       | 3:10      |
| Topeka        | 19:55       | 6:10      | 14:25       | 1:55      |
| Lawrence      |             |           | 13:50       | 1:20      |
| KC            | 21:00       | 7:15      | 12:55       | 0:25      |

Perry, OK – Kansas City, MO

|          | EB/NB       |           | WB/SB       |             |
|----------|-------------|-----------|-------------|-------------|
|          | G470        | G484      | G471        | G485        |
|          |             | I         |             |             |
| Perry    | 12:40       | 1:35      | 14:10       | 19:30       |
| Wichita  | 14:25/14:40 | 3:20/3:35 | 12:10/12:25 | 17:30/17:45 |
| Emporia  | 16:10/16:15 |           | 10:40       | 16:00       |
| Topeka   | 17:20/17:25 |           | 9:30/9:35   | 14:50/14:55 |
| Lawrence | 18:00       |           | 8:55        | 14:15       |
| KC       | 18:55       | 6:40      | 8:00        | 13:20       |

Tulsa, OK – Kansas City, MO

|              | EB/NB       | WB/SB     |
|--------------|-------------|-----------|
|              | J802        | J801      |
|              | 1           |           |
| Tulsa        | 13:35       | 8:45      |
| Bartlesville | 14:25       | 8:00      |
| Coffeyville  | 15:05       | 7:20      |
| Chanute      | 16:00       | 6:05/6:20 |
| Iola         | 16:20/16:35 | 5:40      |
| KC           | ₩ 18:15     | 4:00      |

Pueblo, CO – Wichita, KS

|                      | EB        | WB     |   |
|----------------------|-----------|--------|---|
|                      | P4        | P3     |   |
|                      |           |        |   |
| Granada              | 5:40*     | 11:30* | 1 |
| Syracuse             | 6:20*     | 11:00* |   |
| Garden City          | 8:20/8:35 | 11:05  |   |
| Dodge City           | 9:40      | 9:55   |   |
| Greensburg           | 10:15     | 8:55   |   |
| Pratt                | 10:50     | 8:25   |   |
| Kingman              | 11:35     | 7:40   |   |
| Wichita <sup>1</sup> | ▼ 12:15   | 6:50   |   |

Salina, KS – Wichita, KS

|            | NB    |      | SB   |       |
|------------|-------|------|------|-------|
|            | P2    | P6   | P1   | P5    |
|            |       |      |      |       |
| Wichita    | 14:30 | 0:10 | 6:45 | 21:09 |
| Newton     | 14:55 | 0:45 | 6:15 | 20:35 |
| Hutchinson | 15:35 | 1:30 | 5:40 | 19:45 |
| McPherson  | 16:05 | 2:08 | 5:00 | 19:00 |
| Lindsborg  | 16:30 | 2:30 | 4:40 | 18:40 |
| Salina     | 16:50 | 2:50 | 4:20 | 18:20 |

\*Mountain Time Zone

Source: Russell's Official National Motor Coach Guide, September 2012.

#### **Providers**

This section describes the basic operations of each carrier, both in Kansas and throughout the carrier's system, as appropriate. Each of the major ICB providers is described below.

Greyhound Lines, Inc.

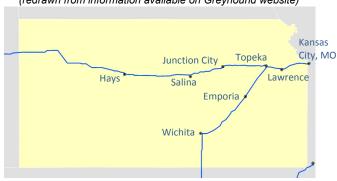
Greyhound, headquartered in Dallas, Texas, is the largest provider of intercity bus services in North America. The system map to the right serves to illustrate the general coverage that Greyhound provides throughout North America. However, some of the service shown on the map is provided by other companies through bus pooling and interlining. In addition, Greyhound does not update this map, so it does not reflect some recent system changes. Within Kansas (see inset map), there are two Greyhound routes; one on I-70 and the other on I-335/I-35. Along these routes, there are seven stops in Kansas where passengers can board or disembark the bus. Along I-335/I-35, there are stops in Topeka, Emporia, and Wichita. Along I-70 there are stops in Lawrence, Topeka, Junction City, Salina, and Hays.

Traditionally, Greyhound has operated on a network model, providing service along major corridors, as well as running small tributary lines feeding into the major corridors. Greyhound has now implemented a new business model that serves major city pairs such as New York City and Boston. These routes increase efficiency by limiting the stops in between cities.

Figure 2-7: Greyhound Route System



Kansas Inset (redrawn from information available on Greyhound website)



As described in Chapter 1, Greyhound developed and uses the Gateway software system for selling tickets. In some larger terminals, Greyhound has starting using E-Tickets, which allow riders to print their internet-purchased tickets at home, and then directly board a bus rather than having to wait in line at the station. However, in most locations, tickets purchased online must still be picked up at the bus stop/station.

# Jefferson Lines

Jefferson Lines provides primarily northsouth service throughout the center of the United States. Jefferson Lines headquartered in Minneapolis, Minnesota. addition to Minnesota. Jefferson provides service to 12 other states (as shown in the figure to the right). Within Kansas, Jefferson Lines is not a major ICB provider, with one route running through the southeastern portion of the state. Jefferson Lines has three bus stops in the state; Iola, Chanute, and Coffeyville.

Jefferson Lines also operates a route that runs south from Kansas City, just east of the Kansas-Missouri border. Due to their close proximity, Kansans may be using these stops to access intercity bus service. Stop locations along this Missouri route include: St. Joseph, Kansas City, Peculiar, Harrisonville, Butler, Rich Hill, Nevada, Joplin, and Anderson.

Figure 2-8: Jefferson Lines Route System (redrawn from information available on Jefferson Lines website)



Like Greyhound, Jefferson Lines generally uses the interstate and highway networks throughout its system – but unlike Greyhound, Jefferson Lines has many more stops per route-mile, often serving smaller and more rural communities. Their long-term vision includes maintaining this model, but also incorporating some point-to-point service such as connections to airports. Jefferson Lines utilizes the same Gateway ticketing system that Greyhound uses.

#### Prestige Bus Services

The Prestige Bus Services Company runs the Beeline Express Bus Line, and is the smallest of the intercity bus companies serving Kansas. Prestige operates two ICB routes, covering portions of Kansas and Colorado (as seen in the route system map to the right). One route operates from Wichita, Kansas to Salina, Kansas and has six stops; Wichita, Newton, Hutchinson, McPherson, Lindsborg, and Salina.

Figure 2-9: Prestige Route System (redrawn from information available on Prestige website)



The other route goes from Wichita, Kansas

to Pueblo, Colorado, and has seven stops within the state of Kansas; Wichita, Kingman, Pratt, Greensburg, Dodge City, Garden City, and Syracuse. This route also has seven stops within the state of Colorado.

Prestige uses the same Gateway ticketing system that is used by the other two carriers described above. In fact, when purchasing a Prestige ticket online, the site automatically redirects the user to the Greyhound website.

The Prestige Bus Services Company began as a charter bus service, and still operates primarily as one today. Founded in 1985, the Wichita-based business now operates 17 coaches, providing transportation to any destination in the United States or Canada. Typical clients include school groups, church groups, senior citizen groups, etc. The Beeline Express bus routes are fairly new to the company. Prestige was selected by KDOT and CDOT to operate these routes late in 2010.

#### Los Paisanos

Los Paisanos primarily serves the Hispanic community by providing connections between Kansas and the southwestern U.S. and Mexico. There is little public information available about Los Paisanos and other

such carriers, although some limited information has been assembled.

Based in El Paso, Texas, Los Paisanos runs four daily routes, each of which originate in the State of Chihuahua in Northern Mexico, with U.S. destinations in Las Vegas, Dallas, Denver, and Kansas City.

The route to Kansas City travels through Texas, Oklahoma, and Kansas. As can be seen on the map to the right, within Kansas there are stops in Liberal, Garden City, Dodge City, Pratt, Wichita, Emporia, and Topeka.

Figure 2-10: Los Paisanos Route System within Kansas

(redrawn from information available on Los Paisanos website)

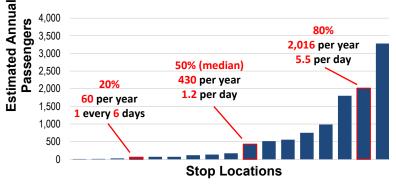


## **Operational Data**

This section provides some basic operational statistics on the majority of the Kansas ICB system. Data was provided to HDR by the providers on condition of privacy. Therefore, the data is presented in ways that do not disclose provider-specific information.

Monthly ridership counts were provided by three of the bus companies (excluding Los Paisanos) for portions of 2010, 2011, and 2012. The data was annualized for comparison purposes. The graph at right illustrates, from the least-busy station to the busiest, the estimated number of annual passengers boarding at each stop. Note that some of the largest cities are omitted from the graph to preserve provider





privacy and to exclude outliers. It should also be noted that the omitted cities make up 71 percent of the total boarding passengers in Kansas each year. This means that 85 percent of the stops serve only 29 percent of boarding passengers in the state.

Boarding passengers are only half of the equation in terms of ridership per stop location. However, only two of the three primary ICB providers were able to provide data for alighting passengers.

# **Public Funding**

KDOT has the responsibility of distributing certain FTA funds to transit and transportation providers throughout the state. Historical KDOT expenditures for the 5310 and 5311 programs from 2005 to 2011 can be found in **Table 2-3**. Each funding program is described in more detail below.

• Section 5310 of the Federal Transit Act provides capital assistance for non-profit organizations that provide service to the elderly and persons with disabilities. This funding source is not directly available to intercity bus providers that operate on a for-profit basis. However, if a non-profit organization in Kansas were to provide regional transit service, they could apply for Section 5310 funds to assist with the purchase of vehicles that would better accommodate the elderly or persons with disabilities. The non-profit organization

**Table 2-3: KDOT Historical Expenditures** 

|      | Section 5310<br>(elderly/persons with<br>disabilities) | Section 5311<br>(non-urban) | Section 5311(f)<br>(intercity bus) |
|------|--|-----------------------------|------------------------------------|
| 2005 | \$917,676  | \$4,123,403                 | \$52,000                           |
| 2006 | \$1,070,588  | \$7,887,632                 | \$79,000                           |
| 2007 | \$1,117,777  | \$8,235,807                 | \$54,000                           |
| 2008 | \$1,208,766  | \$8,883,440                 | \$54,000                           |
| 2009 | \$1,291,039  | \$9,384,834                 | \$27,000                           |
| 2010 | \$559,893  | \$9,377,333                 | \$67,000                           |
| 2011 | \$572,042  | \$3,977,000                 | \$400,000                          |

Note: Section 5311(f) amounts make up a portion of the Section 5311 totals.

might then contract with a private intercity operator to provide the regional transit service.

- Section 5311 of the Federal Transit Act provides capital and operating assistance to public transportation systems in non-urbanized areas. A non-urbanized area is an area outside a city of 50,000 or more inhabitants and its densely settled fringe areas. Section 5311 projects include planning and technical studies, system design, capital acquisition, and assistance in defraying operating losses.
  - Eligible applicants The eligible recipients for 5311 funding are state governments and Indian nations. Eligible subrecipients include local government agencies, private nonprofit corporations, as well as private for-profit companies. These subrecipients would receive the funds through the State of Kansas.
  - o *Eligible Capital expenses* The eligible expenses include transit vehicles and associated equipment including wheelchair lifts, ramps, restraints, etc.
  - o *Eligible Operating Expenses* The eligible operating expenses include driver and dispatcher wages, fuel, oil, tires, repairs, vehicle license tags, insurance, marketing, etc.
  - o The capital purchase matching requirement is 80 percent FTA, 20 percent state/local/private match.
  - o The operating expense matching requirement is 50 percent FTA, 50 percent state/local/private match.
- Section 5311(f) of the Federal Transit Act requires each state to spend a minimum of 15 percent of its annual Section 5311 apportionment to develop and support a program of projects for intercity bus transportation, unless the governor certifies that intercity travel needs are being met. The goal of the program is to connect isolated rural areas throughout the country to larger communities

# 3. Statewide Transportation Context

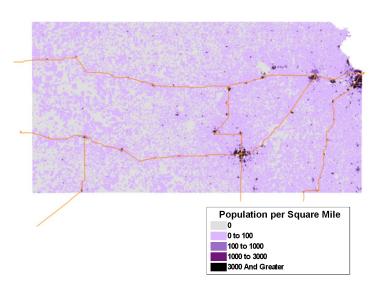
ICB is, in many senses, one small part of a larger statewide transportation system in Kansas. This Chapter provides some context for ICB's role in relation to the other transportation modes in the state, a brief recap of ICB's geographic relation to the state's population distribution, and some information regarding existing relevant policy frameworks.

# **General Kansas Demographics**

Fairly detailed information is included in Chapter 5 regarding specific user populations in Kansas, but some basic overarching facts are worth summarizing here to set context.

**Figure 3-1** illustrates population density throughout the state of Kansas. In 2010, the state of Kansas had a population of approximately 2.85 million residents. However, well over one-third of these residents live in two counties, and over half the total population lives in four counties representing less than three percent of the land area of the state. Only six cities in Kansas have a population over 50,000, and only 31 other cities have a population over 10,000.

Figure 3-1: Kansas Population Density



The state is largely rural, and the western portion especially is very sparsely populated. This presents challenges of providing services to the state's residents – medical facilities, basic utilities, communications, emergency services, social services, and transportation, to name just a few. Many of the state's residents are faced with a lack of long-distance travel options that don't involve personal automobiles. And the population's sparseness makes it difficult to efficiently connect rural residents to non-auto transportation options.

#### **Public Roads**

Public roads are the infrastructure on which ICB travels. Kansas has over 140,000 miles of public roads, nearly eight percent of which are state highways, including the Kansas Turnpike. These roads carry nearly 82 million vehicle-miles per day. The vast majority of the public roads on which ICB operates in Kansas are built and maintained by the state. ICB provides a valuable transportation service, while the state and local governments provide the transportation infrastructure.

#### **Aviation**

There are approximately 138 public-use airports in KS, well over one per county. Eight of these are commercial service airports; of these, six are in cities served by ICB (Wichita, Salina, Hays, Garden City, Dodge City, and Liberal). The two exceptions are Manhattan and Great Bend.

While intermodal connectivity between rural commercial service airports and intercity bus is unlikely to attract many passengers at present, it is still worth keeping the public informed about all of their various travel options. Furthermore, in the age of instant communication and vehicle (and possibly passenger) tracking it may become feasible to better coordinate these modes in a way that benefits and attracts travelers. This could for example, include high-tech "flag" stops at convenient airport locations, allowing buses to pick-up or drop-off passengers only when needed. This would put the ICB service in the roll of feeder or trip extender.

One item to note related to intermodal coordination: KDOT's aviation website provides ground transportation guides for each KDOT district (along with a statewide map); the guides include contact phone numbers for each ground transportation provider listed (see **Figure 3-2**). Currently, these guides do NOT include ICB as an option. This is an example of an opportunity for KDOT to more thoroughly infuse ICB into its transportation culture, and thereby to continue to increase the visibility of this transportation mode throughout the state.

# Figure 3-2: Modes Listed in Aviation's Ground Transportation Guides

- Courtesy Car
- Public Bus
- Limo Service
- Rental Car
- Taxi
- . Hotel Shuttle for Guests
- Airport Staff will provide a ride

Passenger Rail

Amtrak's Southwest Chief – which runs between Chicago, IL and Los Angeles, CA – traverses Kansas on a roughly east-west route, with stops in Kansas City (MO), Lawrence, Topeka, Newton, Hutchinson, Dodge City, and Garden City. **Figure 3-3** illustrates Amtrak's route in Kansas

One opportunity for improving travel options would be to attempt to align these modes as cooperating transportation systems with the goal of competing against the private automobile and its dominant market share. One step in

Topeka

Lawrence

Garden City

Hutchinson

Newton

Dodge City

Figure 3-3: Amtrak In Kansas

that direction would be to facilitate transfers between to the two modes (spatially and temporally) and emphasize the feeder role that ICB can play. ICB serves many destinations not served by Amtrak and can therefore help customers get to/from their trip destination/origin. Bus-to-rail feeder services are common across the country and are often used as a low cost means of increasing the service area of the multimodal transportation system.

Spatial coordination likely means moving one or more ICB bus stops to be adjacent to (or co-located with) one or more Amtrak stations. This concept is discussed further in Chapter 8. Temporal coordination involves coordinating schedules, which is a potential major obstacle to improving connectivity, but one that is not impossible to overcome.

# **Local Fixed-Route Transit Systems**

Within the state there are 10 transit providers with fixed-route systems, as shown in **Figure 3-4**. System sizes vary from just a few routes in some of the smaller cities, to expansive city-wide coverage in the larger cities. Seven of the cities with fixed-route transit are also served by ICB (the exceptions being Manhattan, Kansas City (KS), and Johnson County). Connections between transit and ICB for the remaining cities were previously discussed in Chapter 2.

Figure 3-4: Location of Fixed-Route Transit Systems in Kansas



Coordination between ICB and local transit has several important benefits:

- Transit connections allow ICB travelers the option of reaching their final destination without having to be picked up or having to pay expensive taxi fees.
- Transit can provide important connections between long-distance modes, for example if a passenger needed to transfer from the ICB stop to the local rail station to continue their trip.
- In addition to transit connections, consolidated terminals further enhance traveler convenience. Specifically for travelers who are unfamiliar with the area, arriving at the transit center would allow for easy access to information about the entire transit system. As was mentioned throughout Chapter 3, current and potential users of ICB feel that transit connections are very important, and improved connections may even encourage some people to ride ICB more often.

There are, however, challenges to coordination between these two modes. One such barrier is the 24-hour-a-day nature of the ICB system. Many transit systems do not operate through the night, and therefore their transit centers are not open and connections cannot be made. In addition, transit buses do not have the luggage capacity that intercity buses have. In fact, most transit providers have restrictions on the amount of personal belongings that can be brought aboard their buses, which would pose a problem for ICB travelers with appreciable amounts of luggage.

To gather more information about transit in Kansas, meetings were held in four locations across the state with various transit agencies. One of the meetings was specifically for the urban fixed-route transit providers on the eastern side of the state: the Unified Government, Johnson County, Lawrence, and Topeka. Issues of connectivity between transit and ICB were discussed at this meeting:

- In Topeka, Greyhound had planned to move to the Quincy Street Transit Center when the center first opened. However, due to financial constraints, Greyhound decided not to make the move. The current ICB stop is now 3 blocks away at a gas station. The representative from Topeka Transit claimed customers frequently complain about the facilities not being co-located, despite the fact that there is local transit service between the two sites.
- In Lawrence, there have been talks of converting an old train depot into a multi-modal center that would include transit, Amtrak, and ICB. Funding discussions among the agencies and providers are ongoing. As noted in Chapter 2, there is a transit stop at the gas station where the current ICB stop is located. The representative from Lawrence Transit mentioned that the agency provides a

substantial number of transit route maps to that gas station, which may indicate that a large number of people are using that connection.

• As mentioned in Chapter 2, the ICB station in Wichita is in the process of shutting down and relocating to the city's transit center, in part to help smooth connections and improve convenience for users of both modes.

# **Rural/Regional Transit**

### Current System

KDOT receives funding from the FTA to administer transit programs in rural areas of Kansas. Currently, there are nearly 100 rural 5311 transit providers (the most of any state) that operate systems with KDOT funds. These systems are each unique in service area, fleet size and scope of service. Even with so many transit providers, there are at last count 22 counties in Kansas that have no 5311 funded general public transit service, and many counties in Kansas that are underserved. Some counties lack service because of a lack of local funding support while other counties lack service because no provider has been identified for their area. Regardless, there are needs for transit service in every county in Kansas.

Currently, transit providers funded by KDOT participate in Coordinated Transit Districts (CTDs) – see **Figure 3-5**. These districts were designed to serve as the fiscal agent for all KDOT grantee transit providers in a region and are generally directed by one of the transit providers in the region. While these districts are helpful in coordinating the transit providers from an administrative standpoint, there is no requirement that the providers in the CTD coordinate operationally.

Figure 3-5: Current CTD Structure

8

7

4

3

7

11

10

One of the system's existing limitations is that many transit providers do not provide service outside of their governmental jurisdiction. In many of the jurisdictions in rural Kansas, transit-dependent individuals cannot get all of their medical, social and human service needs met from within their home jurisdiction. In order for these individuals to continue to live in their community, transit must be provided to connect them with services regionally.

## Regionalization

To address these issues, as directed by the Governor-appointed T-LINK task force, KDOT is currently transitioning to a more regional transit approach with the goal of making rural transit service in Kansas more efficient and responsive to the state's diverse transit needs.

The T-LINK Task Force set forth the following recommendations in January of 2009 (focusing on rural areas):

- Create a regional transit model to expand and improve delivery of rural transit service.
- Start with one or more pilot projects in rural areas.

- Eventually, the development of transit jurisdictions would cover the entire state.
- Jurisdictions would be defined by travel patterns.
- One-call dispatching would be required and would assist with scheduling efficiencies.
- Each jurisdiction would have a lead agency that would serve as the dispatcher for the region.
- Lead agencies may subcontract with other providers so that transit service is available to the entire state.

This regionalization concept can lay the groundwork for an effective collaboration of local and rural transit with ICB. Inter-county/regional rural transit has great potential to fill the gap between ICB and local transportation. This concept is further explored in Chapter 8.

# 4. Economic Impacts of Intercity Bus in Kansas

#### **National Statistics**

Intercity bus provides various types of services to many people in the United States. It offers a reasonable cost travel option for medium to long-distance trips. The relatively lower cost is critical to lower income travelers who do not own a car, cannot afford to rent one, or cannot afford to fly. It also serves travelers who are either too young or too old to drive. Furthermore, it enables an intermodal connection for air travelers and also facilitates commuting between homes and offices. In many rural areas, like much of Kansas, modern bus service (i.e., motorcoach) is the only mode of commercial intercity passenger transportation service available, and it is the only affordable transportation mode for many low-income travelers.

Intercity bus service is estimated to have grown by 6.0-8.5 percent nationally between December 2009 and December 2010, based on the number of motorcoach departures from 16 cities, including Kansas City, MO, supplemental data for curbside operators, and operations data. In 2007, the motorcoach industry provided 751 million passenger trips nationally. This is nearly nine percent more passenger trips than commercial airlines (excluding foreign-flag air carriers) and 67 percent more than Amtrak and commuter rail combined. Additionally, in 2010 intercity bus service was the fastest growing mode of intercity transportation for the third year in a row.

Motorcoach service covers 89 percent of rural residents nationally. For comparison purposes, air service covers 70 percent of rural residents and intercity rail covers only 42 percent in the United States. Nearly 73 million people living in rural areas have access to regularly scheduled intercity bus service, and for 14.4 million rural residents in the U.S., motorcoaches are the only available mode of intercity transportation.<sup>2</sup>

According to a recently completed report, the U.S. intercity passenger transportation network consisted of 3,179 bus terminals, 638 airports, and 540 rail stations, as of April 2005. In addition, regularly scheduled intercity buses often drop off and pick up passengers at locations without a bus station, further enhancing intercity bus access.<sup>3</sup>

The remainder of this section provides information about Kansas intercity bus service requirements and costs, as well as detail on how intercity bus in the state is funded. Data related to intercity bus subsidies, as compared to other modes, is also provided. The last sections of the report describe the benefits that intercity bus generates in the state, as well as a picture of intercity bus users in Kansas and nationally.

## **Costs and Funding**

The first section of this discussion focuses on the infrastructure and vehicle requirements of providing intercity bus service as well as other transportation modes. Cost estimates for elements of intercity transportation are also provided. State funding and federal subsidies are discussed later in this section.

<sup>&</sup>lt;sup>1</sup> The Intercity Bus: America's Fastest Growing Transportation Mode, 2010 Update on Scheduled Bus Service, Chaddick Institute for Metropolitan Development, DePaul University, December 12, 2010.

<sup>&</sup>lt;sup>2</sup> Federal Subsidies for Passenger Transportation, 1960-2005, Focus on 1996-2005, prepared by Nathan Associates.

<sup>&</sup>lt;sup>3</sup> Federal Subsidies for Passenger Transportation, 1960-2005, Focus on 1996-2005, prepared by Nathan Associates.

## Kansas Intercity Bus Service Requirements and Costs

Intercity bus service requires a dependable highway infrastructure, but the infrastructure requirements associated with initiating and operating intercity bus service are less expensive than for some other modes. Initiating or expanding passenger rail service, for example, can require new track and supporting facilities, as well as scheduling coordination with any existing rail service. Air transportation requires significantly more infrastructure and support as well. Unlike these modes, initiating or expanding intercity bus service requires no special infrastructure because it uses existing roadways. Intercity bus service also does not require a stand-alone station. In Kansas, for example, Jefferson Bus Lines picks up passengers at gas stations and convenience stores. As a result, the costs associated with bus stops are often lower than the station costs for other modes (e.g., airport terminal or passenger rail station).

The vehicles required for intercity bus service are also significantly less expensive than those needed to provide other types of service. An intercity bus, accommodating 47-55 passengers, may cost \$450,000,<sup>4</sup> but a new passenger locomotive can cost \$5 million, plus another \$2.5-\$3 million for a coach car.<sup>5</sup> Each coach car can hold 72 passengers, on average. New commercial airplanes can cost \$59.4-\$101.7 million, yet only accommodate 110-180 passengers.<sup>6</sup>

In addition to vehicle costs and any station- or bus-stop-related expenditures, intercity bus providers incur costs for their employees. As mentioned previously, two of the three intercity bus providers receive no Kansas funding, and operating and financial information is very limited. Some employee-related cost estimates were developed based on Prestige Bus Lines costs for providing its Bee-Line service on behalf of KDOT. Using this data, employee-related costs for the Bee-Line service are estimated to be approximately \$172,000 annually. This covers 12 bus drivers and 14 other employees. It should be noted that these costs do not include maintenance of the buses or other non-labor expenditures, as these data were not available.

In terms of the relative costs of providing intercity transportation, national data suggest that operating costs per unlinked passenger trip are lower for bus than commuter rail – \$2.60 per unlinked passenger trip on bus and \$7.20 per unlinked commuter rail passenger trip.<sup>7</sup>

# Public Funding of Intercity Bus Service

To provide intercity bus service in Kansas, some public funding is available. For example, the Formula Grants For Other than Urbanized Areas (5311) is a Federal Transit Administration (FTA) program that provides funds for transit planning, capital, operating and administrative assistance in non-urbanized areas with a population less than 50,000. Funds are available for planning, capital, operating and administrative assistance to state agencies and other entities to support transit in non-urbanized areas. Specifically, the program is intended to:

- Enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services and recreation;
- Assist in maintenance, development, improvement, and use of public transportation systems in rural and small urban areas;
- Coordinate programs and services to encourage and facilitate the most efficient use of all federal funds used to provide passenger transportation in non-urbanized areas;

28

<sup>&</sup>lt;sup>4</sup> The Economic Impacts and Social Benefits of the U.S. Motorcoach Industry, Binding the Nation Together by Providing Diverse and Affordable Services to Everyone, Prepared by: Robert Damuth, Vice President, Nathan Associates, <a href="www.nathaninc.com">www.nathaninc.com</a>, December 2008.

<sup>&</sup>lt;sup>5</sup> HDR Rail Group estimates.

<sup>&</sup>lt;sup>6</sup> This price range is for aircraft within the Boeing 737 Family – http://www.boeing.com/commercial/prices/

<sup>&</sup>lt;sup>7</sup> http://www.ntdprogram.gov/ntdprogram/pubs/NTST/2008/HTML/Operating Costs and Performance Measures.htm

- Assist the development and support of intercity bus transportation; and
- Provide for the participation of private transportation providers in non-urbanized transportation to the maximum extent feasible.8

Section 5311(f) requires each state to spend 15 percent of its annual Section 5311 apportionment "to carry out a program to develop and support intercity bus transportation." According to KDOT, several intercity bus providers have received 5311(f) funds during the past few years.

Prestige Bus Lines is contracted with KDOT and the Colorado Department of Transportation (CDOT) to expend up to \$400,000 per year on service between Wichita and Salina in Kansas and Wichita and Pueblo, Colorado. Jefferson Bus Lines and Greyhound do not receive public funding to provide intercity bus service.

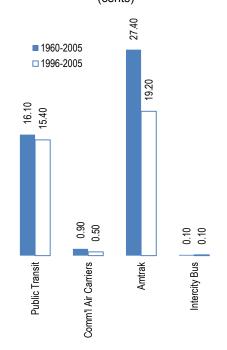
Two other intercity bus providers have received 5311(f) funds from the state in recent years. The Developmental Services of Northwest Kansas previously operated intercity service between Hays, KS, and St. Francis, KS, and received approximately \$50,000 of 5311(f) funds during its one year of service. OCCK, Inc., a not-for-profit Kansas corporation dedicated to helping people with physical or mental disabilities, operated an intercity service between Salina, KS, and Belleville, KS, for four years between July 2005 and June 2009. During this period, approximately \$216,000 (with an average of \$54,000 per year) in 5311(f) funds was expended for this service.

# Subsidies by Transportation Mode

A recently completed national report on federal subsidies<sup>9</sup> and transportation found that regardless of how a federal subsidy is expressed (i.e., total amount, amount per passenger trip, or amount per passenger mile), the federal subsidy received by intercity bus operators is relatively smaller than the subsidy received by each of the other passenger transportation modes. Between 1996 and 2005, the most recent ten-year period for which data was available, mass transit has captured 55 percent of the total federal subsidy while air passenger transportation has captured 37 percent. Meanwhile, the bus subsidy share has remained unchanged at 0.3 percent. 10

The study also found that the bus subsidy has remained at 0.1¢ per passenger mile during the past 10 years (see Figure 4-1). Perpassenger-mile subsidies received by other commercial modes of transportation have decreased over the past decade, but are still greater than the subsidy received by the intercity bus industry, as shown in Figure 4-1. In the case of public transit and intercity rail service (i.e., Amtrak), the subsidy per passenger mile is significantly larger than for intercity bus. During the period 1996 through 2005, Amtrak received \$19.20 per passenger mile in federal subsidies. Public transit received \$15.40 per passenger mile and commercial air carriers \$0.50. Amtrak and public transit are, by definition, publicly funded, which explains some of the

Figure 4-1: Federal Subsidy per Passenger Mile (cents)



Note: Public transit includes all modes; Amtrak data span 1971-2005. Source: "Federal Subsidies for Passenger Transportation, 1960-2005, Focus on 1996-2005," prepared by Nathan Associates, Inc., September 20, 2007.

<sup>&</sup>lt;sup>8</sup> Federal Transit Administration website.

<sup>&</sup>lt;sup>9</sup> Federal subsidy in the report is defined as the difference between outlays made by the federal government in support of passenger transportation systems and the federal funds collected directly from passengers via taxes and fees. <sup>10</sup> Federal *Subsidies for Passenger Transportation, 1960-2005, Focus on 1996-2005*, prepared by Nathan Associates.

disparity – but relatively speaking, intercity bus receives relatively less in federal subsidy per passenger mile than the other modes.

#### **Benefits**

Intercity bus companies are in business to make a profit and thus provide intercity transportation services in Kansas based on anticipated profitability. There are, however, a number of benefits that intercity bus riders and overall society receive as well. These include transportation cost savings, environmental benefits, and others. This section describes the benefits that accrue to bus riders and society as a whole, because intercity bus service is available in the State of Kansas.

### Out-of-Pocket Cost Savings

A primary benefit of intercity bus service is providing a relatively low-cost, affordable means for longer distance travel. When a traveler uses intercity bus service, he or she pays a bus fare and other out-of-pocket costs. For example, there are costs associated with getting to the intercity bus stop or station that may include a parking fee, fuel expense for a personal vehicle, taxi or public transit expense, and other expenditures. A traveler's decision to take the bus, versus another mode, involves a number of factors including the relative out-of-pocket costs associated with the different transportation modes. For example, if the out-of-pocket costs associated with the bus are lower than flying, this cost savings is considered a benefit to the intercity bus traveler.

From 1995 to 2006, the national average intercity bus fare was approximately \$40 less than the average intercity passenger rail fare. The national average air fare was more than three times the average intercity bus fare of \$30.11 in 2002. Although this fare data is somewhat dated, the overall conclusion that intercity bus provides a relatively affordable travel option is still valid. In fact, data from 2007 and 2008 suggest that travelers have been shifting away from passenger cars, light trucks, and air travel and toward other transportation options, including intercity bus. Passenger-miles for transit, Amtrak, and bus increased by 4 percent, 7 percent, and 2 percent, respectively, during that time period. 12

As an example of cost comparison by mode, consider the trip from Wichita, KS to Pueblo, CO:

- Prestige Bus Lines' round-trip fare is \$171.<sup>13</sup>
- There are no direct flights between Wichita and Pueblo, so if a passenger chose to fly rather than take the bus, he or she would need to make a connection in Denver and the fare would be \$350 to \$1,000, depending on the times and dates of travel, 14 with an average fare of approximately \$420.
- If a traveler drove himself or herself, the fuel cost alone is estimated at \$140 for the 426-mile trip. Additionally, if an individual chose to drive, he or she would incur vehicle operating costs related to oil, tire wear, depreciation of the vehicle, and maintenance and repair costs. For the 426-mile trip, these additional auto costs would average \$136. The total operating cost for the one-way trip would be \$276. While all of these costs may not be directly out-of-pocket on the specific trip, the wear and tear on the car are costs that the vehicle owner would incur.

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 $<sup>^{11}\</sup> http://www.bts.gov/publications/transportation\_statistics\_annual\_report/2008/html/chapter\_04/table\_04\_16.html$ 

<sup>12</sup> http://www.bts.gov/publications/transportation\_statistics\_annual\_report/2008/html/chapter\_04/table\_04\_16.html

<sup>13</sup> http://www.beeline-express.com/beeline/files/fares.pdf

<sup>&</sup>lt;sup>14</sup> This range of fares is based on online information available May 1, 2012.

<sup>&</sup>lt;sup>15</sup> Based on googlemaps.com distances, assuming the vehicle gets 22 mpg, and fuel costs of \$3.62 per gallon.

<sup>&</sup>lt;sup>16</sup> Based on US DOT guidance for TIGER Grant benefit-cost analysis with consumption data from the FHWA HERS model and prices from the BLS. Assuming oil consumption of 1.23 quarts per 1,000 miles at a cost of \$9.59 per quart, tire replacement every 62,200 miles at a cost of \$377.64, maintenance and repair costs of \$162.50 per 1,000 miles and a depreciable value of \$21,461.5 every 153,860 miles.

Other out-of-pocket costs associated with taking the intercity bus in Kansas could include the expense of parking at the bus station (although many intercity bus riders are dropped off or picked up). In Wichita, for example, parking near the intercity bus station (i.e., Greyhound) is \$4 per day while parking at the airport is between \$9 and \$15 per day, depending on whether it is short-term or long-term parking. In Pueblo, Colorado, the transit center makes daily parking available for \$12. The cost of parking is another element of out-of-pocket costs that is factored into a traveler's decision to take the bus. These parking costs would also potentially apply to other modes of travel. A summary of out-of-pocket costs by mode for a typical trip is shown in **Table 4-3** in the following section.

#### Value-of-Time Benefit

Another potential benefit of intercity bus travel over other transportation modes is the value of time. This is comprised of several different components, including wait time at a station or stop and use of time while traveling. Whether intercity bus provides a benefit, in terms of value of time, depends on a number of factors including the other transportation options available and the wait times and conditions associated with each mode.

For example, it is recommended that an air traveler arrive one to two hours before scheduled departure to check bags and navigate security. In contrast, an intercity bus traveler may arrive only a few minutes prior to departure. This difference in wait time may generate a benefit from taking the bus. Another example where there may be a value-of-time benefit associated with taking the bus relates to the ability to be productive on the bus. Travelers opting to take intercity bus rather than driving have the ability to work, read, sleep, or do other activities while en-route that they would not be able to do if they were driving. As an example of travel-time comparison by mode, consider the trip from Wichita, KS to Pueblo, CO:

- Prestige Bus Lines' travel time for the 426-mile route is approximately nine hours. 17
- If a passenger chose to fly rather than take the bus, the average flight time would be 4 hours and 45 minutes, including the layover in Denver. In addition, the passenger would typically arrive at the airport a recommended 1-2 hours prior to takeoff, and an additional half-hour is typically required to disembark the plane, pick up any checked baggage, and leave the airport.
- If a traveler drove in a personal auto, the 426-mile long trip is estimated to take 7 hours 45 minutes, without stops. 18 The average traveler would need to stop for gas at least once, and on a trip of this length would likely stop for at least one meal. To account for this, an extra 45 minutes have been added to the travel time for a total of 8 hours and 30 minutes by auto.

As shown in **Table 4-1**, based on USDOT guidance for personal travel, the travel time cost of a one-way trip on Prestige would be \$159.94, including 10 minutes of wait time prior to boarding. Assuming the average Greyhound trip takes 12 hours, the travel time cost would be \$211.93 also including a 10-minute wait. Including 1.5 hours of wait time, a flight would cost \$87.65, and the

**Table 4-1: Travel Time Valuation for Alternate** Modes, 2012\$

(Wichita, KS to Pueblo, CO)

|                          | Travel<br>Time<br>(hrs) | Value of<br>Travel Time<br>(\$17.33/hr) | Approximate<br>Wait Time<br>(hrs) | Value of<br>Wait Time<br>(\$23.77/hr) | Total     |
|--------------------------|-------------------------|---|-----------------------------------|---------------------------------------|-----------|
| Auto                     | 8.5                     | \$147.31                                | 0                                 | \$0                                   | \$147.31  |
| Intercity Bus (Prestige) | 9                       | \$155.97                                | 0.167                             | \$3.97                                | \$159.94  |
| Air                      | 4.75                    | \$82.32                                 | 2                                 | \$47.54                               | \$129.86* |

\*Note that the actual value of time is slightly higher since the layover should be valued as wait time but for simplicity is included in the travel time.

<sup>&</sup>lt;sup>17</sup> http://www.beeline-express.com/beeline/files/fares.pdf

<sup>&</sup>lt;sup>18</sup> Based on googlemaps.com.

auto trip would cost \$134.31 on average.

While the travel time cost of air and auto are less than that of bus, this does not account for the differences in out-of-pocket costs, including vehicle operations and fares, which ultimately lead to air and auto travel ultimately costing more than bus travel.

#### Benefit of Amenities

The value of amenities associated with an intercity bus traveler is greater than it is for some other intercity transportation options. Rest rooms, internet service, movies and television, food and drinks, among other amenities, are often available on intercity buses. These types of amenities are not always available on other modes, but are a significant benefit to all motorcoach travelers, including families with small children. Many of these amenities have not yet been introduced to intercity bus service in Kansas, but could increase the value of this mode if done.

#### Safety Benefits

An important benefit associated with intercity bus transportation relates to safety. According to a recent study, the fatality rate for motorcoaches is 0.5 fatalities per 100 million vehicle-miles. When compared to all passenger transportation modes, the motorcoach fatality rate is lowest. For passenger cars the fatality rate is more than twice as high as for motorcoaches, and for U.S. air carriers, the fatality rate is nearly three times higher. Passenger trains also have a higher fatality and injury rate than motorcoaches - 2.9 fatalities per 100-million train-miles and 1,226.5 injuries per 100-million train-miles. 19 – nearly 16 times higher than the rate for motorcoaches.<sup>20</sup>

The injury rate per 100-million vehicle-miles of bus travel (including school, transit, and intercity buses) was 211 in 2008. 21 The injury rate per 100 million vehicle-miles of auto is approximately 75. It is important to note that these rates account for vehicle-miles rather than passenger-miles. The average number of passengers (occupancy) of a bus, train, or airplane will be higher than that of an automobile. For example, if we assume average bus occupancy is 25 passengers and average auto occupancy is 1.6 passengers, the injury rates would be 8.44 and 46.9 injuries per million passenger-miles respectively, indicating that buses are a statistically safer means of travel.<sup>22</sup>

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<sup>&</sup>lt;sup>19</sup> U.S. Bureau of Transportation Statistics, National Transportation Statistics, Chapter 2, Table 2-4.2

<sup>&</sup>lt;sup>20</sup> Federal Subsidies for Passenger Transportation, 1960-2005, Focus on 1996-2005, prepared by Nathan Associates.

<sup>&</sup>lt;sup>21</sup> U.S. Bureau of Transportation Statistics, National Transportation Statistics, Chapter 2, Table 2-24. Note that these are vehicle

miles, and do not account for the occupancy of the bus, which is greater than that of a personal vehicle.

22 The average bus occupancy assumes that the average bus capacity is 50 persons and to be conservative, that on average they are half full. The auto occupancy rate can be found in the Final Regulatory Impact Analysis Corporate Average Fuel Economy for MY 2012-MY 2016 Passenger Cars and Light Trucks, March 2010, page 385. Note that the higher the occupancy assumption, the lower the accident rate per passenger.

#### Environmental Benefits

When compared to other transportation modes, motorcoaches are relatively more fuel efficient. Specifically, as shown in **Table 4-2**, passenger miles per gallon of fuel are more than twice as efficient as commuter and intercity rail and more than four times as efficient as domestic air carriers and transit buses. In addition, motorcoach emissions of carbon dioxide are lower than any other mode. Other transportation modes produce three to four times more emissions.<sup>23</sup>

Table 4-2: Energy Efficiency and Emissions by Transportation Mode

|                           | Energy E                         | fficiency                    | Carbon Dioxide                             |
|---------------------------|----------------------------------|------------------------------|--|
| Mode                      | Passenger<br>Miles Per<br>Gallon | BTU Per<br>Passenger<br>Mile | Emissions (grams<br>per passenger<br>mile) |
| Motorcoach                | 206.6                            | 668                          | 50   |
| Commuter rail             | 92.4                             | 1,493                        | 164  |
| Intercity rail (Amtrak)   | 67.0                             | 2,061                        | 186  |
| Light rail                | 120.6                            | 1,144                        | 201  |
| Automobile (average trip) | 42.9                             | 3,215                        | 239  |
| Domestic air travel       | 44.0                             | 3,138                        | 234  |
| Transit bus               | 31.4                             | 4,391                        | 308  |

Source: Federal Subsidies for Passenger Transportation, 1960-2005, Focus on 1996-2005, prepared by Nathan Associates.

# Benefits Summary

When comparing all of the cost and benefit factors of a sample three-day round-trip from Wichita, KS to Pueblo, CO the intercity bus is the most inexpensive of the trips, as shown in **Table 4-3.** Excluding safety and environmental benefits, as well as the amenity of using intercity bus:

- The out-of-pocket cost would be \$171 for fare on Prestige, plus \$4 per day for parking and \$160 for time in each direction for a total of \$503.
- The same trip by air would cost between an average of \$420 for airfare plus \$82 for flight time each way and \$47.54 for two hours of waiting at the airport each way plus \$9 per day for parking for a total of \$707.
- An auto trip would cost \$276 for operations each way plus \$147 for time each way totaling \$847.

Table 4-3: User Travel Costs, Energy Consumption and Emissions by Mode for a Typical Round Trip

|   | Auto      | Intercity Bus | Air       |
|---|-----------|---------------|-----------|
| Out-of-Pocket Costs                             | \$552     | \$183         | \$447     |
| Fare  | \$0       | \$171         | \$420     |
| Parking (3 days)                                | \$0       | \$12          | \$27      |
| Vehicle Operations                              | \$552     | \$0           | \$0       |
| Travel Time Costs (2 trips)                     | \$295     | \$320         | \$260     |
| Total   | \$847     | \$503         | \$707     |
| Fuel Consumption per Round Trip (gallons)       | 19.86     | 4.12          | 24.23     |
| BTUs Per Round Trip                             | 2,739,180 | 586,504       | 3,345,108 |
| Carbon Dioxide Emissions Per Round Trip (grams) | 203,628   | 43,900        | 249,444   |

<sup>\*</sup>Note that the assumed trip length for auto is 426 miles (based on Google maps data), 439 miles for bus (based on Prestige route), and the air trip is 533 miles (based on flight information).

Simply based on cost, an intercity bus trip saves a user \$344 over an auto trip and an average of \$204 over flying. This does not include the additional benefit of the bus being safer than auto or airplane, consideration of amenities, or the environmental benefits of the bus as compared to other modes.

As a point of comparison, **Table 4-3** also shows the fuel consumption, energy efficiency, and carbon dioxide emissions for a typical person's round-trip from Wichita, KS to Pueblo, CO. This clearly shows that motorcoach is the most fuel efficient, most energy efficient in terms of biothermal units, and produces the least amount of carbon dioxide emissions per passenger trip.

<sup>&</sup>lt;sup>23</sup> Federal Subsidies for Passenger Transportation, 1960-2005, Focus on 1996-2005, prepared by Nathan Associates.

# **Economic Contribution of Intercity Bus to Kansas**

Several studies have estimated the economic impact of the intercity bus industry on the national economy and on state economies across the country. The findings of several relatively recent studies are presented below. Although a formal economic impact analysis of the Kansas intercity bus industry is not part of this study, some estimates based on national findings are provided to help estimate the approximate impact of intercity bus on the economy of Kansas.

#### Economic Lifeline

Intercity bus studies conducted across the U.S. indicate that the population served by this transportation option may often not have access to other modes. Based on the Kansas survey results and other studies, the intercity bus rider population tends to be comprised of individuals with the following characteristics:

- Youth (18-24 years old): Often these are enlisted military personnel or college students with limited budgets, no access to an automobile, and living or stationed far from home. Nearly one-third of the surveyed Kansas intercity bus riders fall within this age group.
- Elderly (60 and above): Sometimes the elderly do not wish to drive or have a diminished ability to do so. National studies indicate that the elderly population often chooses to utilize intercity bus service. The Kansas survey found a small percentage of riders were 65 or older, but many were 41 and older. The data were not collected in a manner that would facilitate an estimate of the 60 and older population using the bus;
- **Persons living below the poverty level:** Some people in this category may not own a car or may not have a car that is suitable for a long trip. The Kansas survey reported 32 percent of intercity bus riders have an annual income of less than \$15,000.
- **Persons over 16 with a disability:** This group may be reliant on accessible local transit services and, therefore, may also consider public transit options to make a long trip. Eleven percent of the riders surveyed as part of this study indicate that they have a condition or disability that prevents them from driving.
- Autoless households: Among Kansas intercity bus riders, six percent indicated that they took the bus because they do not have a car or they are unable to drive. Fifty-six percent indicated that they do not own or have access to a car for long trips. This latter group may own a vehicle, but it may not be reliable for a longer trip.<sup>24</sup>

Among elderly Kansas riders, 19 percent indicated in the survey that intercity bus is essential. Forty-three percent of disabled riders consider the bus essential. For the ten percent of riders who use the bus to get to their jobs, it is likely that many need the bus to access their place of employment.

The Economic Impacts and Social Benefits of the U.S. Motorcoach Industry

A national study on the intercity bus industry found that in 2007, tourists purchasing motorcoach services and industry spending on new motorcoaches generated \$55.0 billion in sales nationally, supporting 792,700 jobs in the U.S. economy. Of these jobs, 774,000 are related to visitor spending associated with intercity bus service. Roughly 18,700 jobs are related directly to motorcoach industry purchase of new equipment.

 $<sup>^{24}</sup>$  Indiana Intercity Bus Study, Indiana Department of Transportation, prepared by RLS & Associates, Inc., January 16, 2009; 1995 BTS American Travel Survey, and others.

Tourists purchased \$5.6 billion of motorcoach industry services, but these visitors also purchased goods and services provided by other tourism-related industries, such as traveler accommodations, food and drink, recreation and entertainment, travel arrangement and reservation services, urban transit, and so forth. In 2007, motorcoach travelers spent \$26.9 billion on tourism-related goods and services, other than intercity transportation. These direct sales supported 568,000 jobs.

In addition to direct impacts, indirect impacts are also generated by this spending. Direct spending by visitors on services provided by the motorcoach industry generated an indirect spending impact of \$3.2 billion due to the purchase of materials and services required to provide motorcoach services. This indirect spending supported 27,000 jobs. Direct spending by visitors on goods and services provided by other tourism-related industries (excluding intercity transportation) generated an indirect spending effect totaling \$16.7 billion, as well as 118,000 jobs.

American Bus Association (ABA) Economic Impact Study

The ABA Economic Impact Study, prepared for the ABA Foundation by John Dunham and Associates, Inc., used IMPLAN to estimate the economic impact of intercity bus. According to the study, the motorcoach travel and tourism industry accounts for about \$112.7 billion in output or nearly 0.8 percent of GDP. The industry directly or indirectly employed approximately 1,057,000 Americans in 2009 and these workers earned \$40.6 billion in wages and benefits, according to the study.

Implications for Kansas Intercity Bus Service

As pointed out in the national and state studies described previously, the intercity bus industry stimulates economic activity in several ways. First, tourists purchase motorcoach industry services, as well as goods and services provided by other tourism-related industries, such as traveler accommodations, food and drink, recreation and entertainment, travel arrangement and reservation services, urban transit, etc. Second, the industry itself must make purchases to support its service. For example, vehicle purchases generate economic impacts in the economy. In 2011, KDOT purchased four buses for Prestige Bus Lines. At an approximate purchase price of \$475,000, the purchase of four buses translated to \$1.9 million in generated spending. Using the results of national economic impact studies, it is estimated that this vehicle investment generated 36.3 jobs nationally.

## **Conclusions**

- Nearly 73 million people living in rural areas in the U.S. have access to regularly scheduled intercity bus service. For 14.4 million rural residents, motorcoaches are the only available mode of intercity transportation.
- It is estimated that intercity bus service grew 6.0-8.5 percent nationally in 2010 compared to 2009.
- Based on the Kansas intercity bus survey, most riders are:
  - o Lower income − 54 percent of the travelers surveyed reported making less than \$25,000 annually and 32 percent of these riders reported making less than \$15,000 per year.
  - o Predominantly white (52 percent) but this is relatively lower than the overall share of the state's population that is white (88 percent). This suggests that the racial composition of bus riders is different than the overall population.
  - o Aged 41 to 65 (34 percent), with another 30 percent 18-25, 29 percent 26-40, 5 percent over 65, and 3 percent under 18.
- Among elderly Kansas riders, 19 percent consider the intercity bus essential and 43 percent of disabled Kansas riders consider the bus essential.

- The largest share of Kansas intercity bus travelers surveyed chose the bus over other modes because of the cost (27 percent). When considering both out-of-pocket and time costs, intercity bus is less expensive than alternative modes of auto and air.
- Intercity bus travelers can use their transportation time productively read, work, etc.
- Motorcoaches are more than twice as fuel efficient as commuter and intercity rail and more than four times greater in fuel efficiency than domestic air carriers and transit buses. In addition, motorcoach emissions of carbon dioxide are lower than any other mode of passenger transportation.
- KDOT's expenditure on four buses generated nearly \$2 million in spending and 36 jobs.
- Based on data from 1996 to 2005, the federal bus subsidy per passenger mile is lower than any other mode.

# 5. Ridership Markets & Stakeholders

Two fundamental questions need to be addressed in Kansas' ICB evaluation:

- (1) Who is currently riding ICB, and why?
- (2) Who might ride ICB, why aren't they now, and what would induce them to do so?

This chapter presents findings related to these questions. A multi-pronged approach was used to answer the questions:

- Paper and online surveys were developed and distributed to various population groups (2,676 responses were received). To view the survey instruments see **Appendix B**. Where relevant, email blasts or web postings were used to inform groups and the general public about these surveys. A summary of survey results can be found in **Table 5-7** at the end of this chapter.
- Focus groups were held with certain stakeholder populations that proved difficult to reach with surveys.
- One-on-one interviews were conducted with key representatives of certain stakeholder populations, or individuals that had access to information regarding these populations (such as coordinators at the state level).
- Demographic, geographic and document research was conducted to supplement the personal outreach described above.

The remainder of this chapter folds the results of these findings into facts and themes related to these observed and potential ridership markets. These populations are divided into three broad categories: Current Users, Institutions, and Population Groups.

# **Current Users**

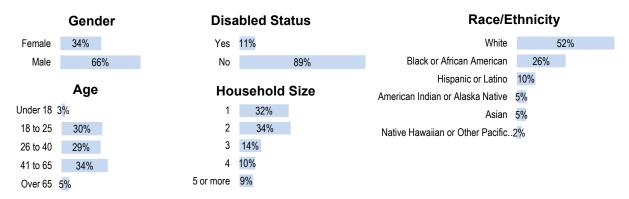
# **ICB Riders**

The best first indicators of who *might* ride ICB are those who *already* ride ICB. For this reason, on-board surveys were conducted during the fall and early winter of 2011 on each of the routes served by the three major intercity bus providers: Greyhound, Jefferson Lines, and Prestige Lines. Passengers on each of the routes were provided incentives to fill out a paper survey while they were riding the bus. This survey form differed somewhat from the other survey formats, in that certain questions from this form were not asked elsewhere. For those questions, results are not included with the rest of the responses in **Table 3-6** at the end of this chapter, but are rather shown within the text below.

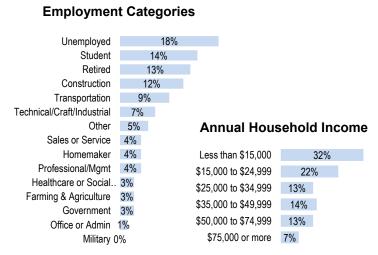
There were a combined total of 334 passengers observed on these routes, and 48 percent completed surveys, for a total of 159 responses. However, due to the long-distance nature of the intercity bus system, many of the surveys filled out were from passengers making through trips; trips that neither began nor ended in Kansas. For the purposes of this analysis, these through-trip surveys were excluded, leaving a total of 80 responses.

• Demographics: Among on-board respondents, male riders outnumbered female riders by almost exactly 2 to 1. As the age graph below shows, respondent age was fairly evenly split, except for the

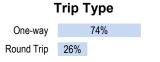
youngest and oldest groups, which were quite underrepresented. The average household size for respondents was 2.3 people, slightly lower than the 2010 Census statewide average of 2.49. Over half of respondents were White, a quarter were Black/African American, and 10 percent were Hispanic or Latino. A number of respondents (11 percent) reported that they had a disability that prevented them from driving.



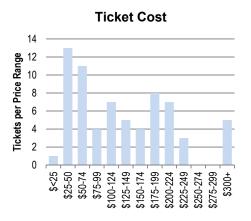
• Employment/Income: About percent of on-board respondents were currently regularly not employed (including students and retirees. in addition to traditional "unemployed" category). Most respondents also fell into fairly low household income categories of \$25,000 or less; only 7 percent had an annual household income of \$75,000 or These reported income levels appear reasonable compared to the types of employment reported.



• *Trip Characteristics*: 87 percent of passengers were traveling alone and about three-quarters of those passengers were making a one-way trip.



• *Ticketing*: The average ticket cost was \$140.75.



- *Trip Origin Destination:* Respondents provided information on the locations where their trip began and ended. The most common in-state O-D pairs are from Junction City to Kansas City, MO and from Wichita to Kansas City, MO, each with three trips apiece. If Kansas City, MO is excluded, the most common in-state O-D pair is from Lawrence to Wichita, with two trips.
- *Trip Purpose:* The most often-reported trip purpose was "To visit family /friends" (41 percent), with the second most popular response being "Job commute" (17 percent). "Moving/ Relocation", "Personal or Family Business", and "Vacation/Recreation" each made up 9 percent of responses.
- *Mode Choice:* Passengers were asked to provide a reason why they chose to ride ICB, rather than another mode, for their current trip. Over a quarter of the respondents indicated "Cost". All of the other possible reasons listed had fewer than 10 percent of responses apiece. However, more can be learned by grouping similar responses, such as: "no other option", "I did not have any one to drive me", and "no car/cannot drive" which made up 21 percent of respondents.
  - Passengers were asked to provide information about how they travelled to and from the location where they got on and off of the intercity bus. The most common responses were "dropped off" (55 percent) and "picked up" (70 percent). The next most common response was "taxi" (13 percent at the start of the trip and 10 percent at the end of the trip). "City bus" was not a common response, with only 5 percent at the start and 4 percent at the end, which seems low given that 71 percent of the surveyed Kansas origins and 74 percent of the surveyed Kansas destinations were in cities with transit. Passengers were also asked about the distance they had to travel to get to and from the ICB stop. The average distance at each end of the trip was approximately 16 miles.
- Trip Frequency: The survey asked respondents about the frequency with which they typically travel via ICB (excluding their current trip). As can be seen in the graph at the right, 54 percent of respondents had ridden ICB at least one other time during the previous 12 months. This may correspond to the fact that 56 percent of respondents did not have access to a personal vehicle that they could use for a long trip.

# On-board Bus Ridership Frequency (n=80) (in last 12 months, excluding current trip) Never 1x 2x 3-4x 5+ Long Dist Bus 46% 17% 8% 13% 17%

- Service Improvements: Passengers were also asked to rate potential improvements to ICB service. Ideas that scored high in terms of importance to riders mainly had to do with the condition of the buses. Eighty-three percent of respondents felt that "more comfortable seats" was an important improvement. Other ideas deemed to be important had to do with cleanliness; "cleaner bathrooms" (78 percent) and "cleaner bus stops and stations" (75 percent). "Adding electrical outlets to buses" was also a popular response (75 percent). The only suggested improvements that fewer than half of respondents felt were important were "buses better accommodated the disabled" (48 percent) and "buses accommodated bicycles" (25 percent).
- Propensity to Ride: Riders were asked if certain changes would affect how often they choose to ride ICB. The most popular improvements that would reportedly result in passengers choosing to ride more often were "if bus ticket prices were cut in half" (64 percent) and "if bus trips took less time" (61 percent). Another service change that received a fairly positive response was "if buses departed

and arrived at a more convenient time" (55 percent). Just over half of respondents (51 percent) reported that they would ride more often if "gas prices rose to \$5 per gallon." For each of the remaining service changes listed, the majority of respondents felt that the change would have no effect on how often they choose to ride ICB.

• Service Expansion: Respondents were asked to identify potential new stop locations within (or near) Kansas. Only 27 respondents chose to provide an answer to this question, but the most common responses were Kansas City, Kansas and Manhattan, Kansas, each with 3 responses.

# **Transit Riders**

Based on the assumption that residents who choose to use public transit when travelling locally might also choose to use a bus for long-distance travel, existing transit riders were selected as another target population group for this study.

The study team conducted surveys of six different transit providers, listed in **Table 5-1**. These six were selected for their geographic diversity as well as their varying service types and system sizes.

For this population group, both paper and online surveys were used. The paper surveys were predominantly distributed directly on the transit buses, with the exception of Wichita Transit. where surveys distributed at the transit center. A link to the online survey was posted on the Kansas University Transportation Center (KUTC) website, and the DSNWK Transportation website. A total of 253 surveys were returned (24 online, 229 paper). Table 5-7, at the end of this chapter, summarizes the results.

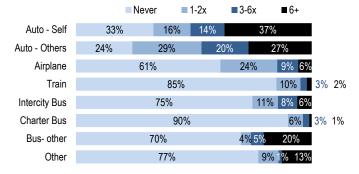
**Table 5-1: Transit Providers Targeted for Survey Distribution** 

| Provider   | Service Name                    | Service Type        | Coverage                                       |
|--|---------------------------------|---------------------|--|
| Developmental<br>Services of Northwest<br>Kansas (DSNWK) | ACCESS                          | Demand-<br>Response | Hays, Ellis County                             |
| Finney County Transit                                    | City Link                       | Fixed-Route         | Garden City                                    |
| (FIT)  | Mini-Bus<br>Paratransit Service | Demand-<br>Response | Finney County                                  |
| Flint Hills Area   | aTa Bus                         | Fixed-Route         | Manhattan                                      |
| Transportation Authority                                 | FLATA Paratransit               | Demand-<br>Response | Riley County, Fort<br>Riley, Junction City     |
| Johnson County Transit                                   | The JO                          | Fixed-Route         | Kansas City<br>Metropolitan Area               |
| OCCK, Inc.   | City Go                         | Fixed-Route         | Salina   |
|  | Regional<br>Paratransit         | Demand-<br>Response | North Central Kansas                           |
|  | Intercity Route                 | Fixed-Route         | Belleville-Concordia-<br>Minneapolis to Salina |
| Wichita Transit  |                                 | Fixed-Route         | Wichita Metropolitan<br>Area                   |

At the request of Finney County Transit, a portion of the surveys distributed on their buses were in Spanish, to cater to their large Hispanic/Latino clientele. Throughout the state, the Hispanic community and other minority groups appear to make up a fairly large proportion of the transit riders. According to the survey data, 34 percent of responses came from minorities. This is a fairly high percentage, when compared to statewide data, which indicates that only 22 percent of Kansas residents are minorities.

• Mode Choice: As with each of the other population groups, the most commonly used mode of transportation for transit riders is the automobile. However, the graph at right reveals additional information about the longdistance travel habits of transit riders: (1) One-third of respondents had not taken a trip over 50 miles in their personal vehicle in the past 12 months (a fairly high percentage compared with other population groups). (2) More respondents had taken a long trip in someone else's vehicle than they had in their own vehicle, meaning that there is fairly significant amount of

# Transit Rider Long-Distance Travel by Mode, Most Recent 12 Months (n=253)



long-distance ridesharing taking place. The graph also points out that 25 percent of respondents had travelled via intercity bus at least once in the past 12 months, which is quite high in comparison to other population groups.

When asked why they chose to ride ICB, the most common response was "Cost" (20 percent). A close second response, however, was "No car or cannot drive" (16 percent), which may indicate one reason why these respondents also use transit. Reiterating this point, 43 percent of respondents indicated that they do not have access to a car for a long trip, and 17 percent stated that they have a condition or disability that prevents them from driving. For respondents who had not travelled via intercity bus in the past 12 months, the reasons given include: "I prefer the convenience of a personal automobile" (23 percent) and "The bus does not go where I need to travel" (17 percent).

- *Propensity to Ride:* Transit riders report that they would ride ICB more often if "Buses departed and arrived at a more convenient time" (66 percent), and if "Gas prices rose to \$5 per gallon" (61 percent).
- Service Improvements: Improvements that are deemed important by transit riders are "Better lighting and more security at stops/stations" (75 percent), and "Cleaner bus stops/stations" (71 percent). It is interesting to note that transit riders feel that improvements to stops and stations are more important than improvements to the buses themselves. This acceptance of intercity buses by transit riders may be due in part to their familiarity with buses in general.

# Institutions

Certain types of institutions (both public and private) represent large concentrations of potential ICB users. Three such categories are described below: universities, the Justice System, and the military.

# **Universities (Students)**

College students were targeted in this study for several reasons. Typically, students fall into a lower income category, and often do not have a personal vehicle with them at school. In addition, most students must travel some distance to get home at summer and winter break, as well as other periodic visits and excursions throughout the year.

There are six state universities in Kansas, with a total student population of nearly 87,000. In addition, there are 22 independent colleges/universities with a student population total over 125,000. Finally, there are 19 community with colleges. a total enrollment of nearly 67,000 - and student housing for

Figure 5-1: Colleges & Universities in Kansas

over 2,800. **Figure 5-1** illustrates these institutions.

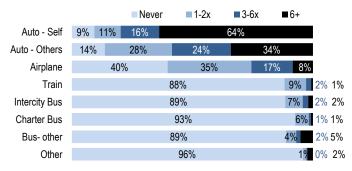
- Outreach Approach: To get a sense of student propensity to use ICB in Kansas, each of the state universities were contacted and asked to help with the distribution of an online survey via e-mail blast to their students. As indicated in **Table 5-2**, five of the six agreed to participate. **Table 5-7**, at the end of this chapter, summarizes the results.
- *Demographics:* As would be expected, the majority of survey responses from this group came from people
- between the ages of 18 and 25 (65 percent). And, as anticipated, the highest number of respondents (32 percent) fell into the lowest household income category (less than \$15,000 per year).
- *Mode Choice:* The survey asked about the long-distance travel habits of the respondents over the past 12 months. The responses are shown in the graph at right. The most commonly used mode

Table 5-2: Kansas Public Universities

|                      | Enrollment    | Survey    |
|----------------------|---------------|-----------|
| University           | (Spring 2010) | Responses |
| University of Kansas | 28,414        | 612       |
| Kansas State         | 21,570*       | 135       |
| Wichita State        | 14,603        | 468       |
| Fort Hays State      | 9,342         |           |
| Pittsburg State      | 6,752         | 118       |
| Emporia State        | 6,134         | 34        |
| Total                | 86,815        | 1,367     |

\*Note that for K-State only the School of Engineering participated. Distribution was approximately 3,000 students.

# Student Long-Distance Travel by Mode, Most Recent 12 Months (n=1367)



of travel for trips of 50 miles or more is the personal automobile, with 91 percent of respondents having used that mode for at least one trip. Eleven percent of students reported that they had taken one or more trips via intercity bus during that same time period.

For those who did not choose ICB for long-distance trips, the most common stated reason was "I prefer the convenience of a personal automobile" at 25 percent. A close second response was "The bus didn't cross my mind as an option" at 18 percent. This response may indicate a lack of awareness of the ICB system. Supporting that possibility is the fact that 54 percent of respondents selected "I don't know" when asked where the closest ICB stop is to their home. Targeted marketing may be a good strategy because students do appear to be willing to ride ICB. When asked how often they would ride ICB if a new route that they suggested were made available, almost half (47 percent) indicated that they would ride once a month or more. For students that did choose to ride an intercity bus, the main reason for that choice was "Cost", making up 25 percent of responses.

- *Propensity to Ride:* Respondents were asked whether certain changes would cause them to ride ICB more often. The most common response was if "Buses took less time" at 62 percent. Additionally, 61 percent of respondents indicated that they would ride ICB more often if "Bus stops and stations were closer to where I started or ended my trip". This response points out that local transit connections may be lacking.
- Service Changes: Respondents were also asked whether certain service improvements are important to them. The potential improvement seen as most important to students was "Bus stops and stations had better lighting and more security" (67 percent), indicating that there may be a perceived safety issue associated with ICB. Cleanliness is also of concern to students with 66 percent selecting "Cleaner bus stops and stations" as important and 65 percent citing "Cleaner bus bathrooms" as important.

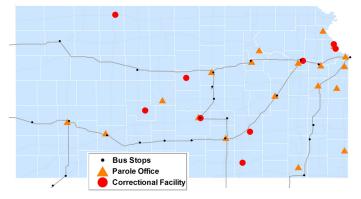
# **Justice System**

Within Kansas, the Department of (DOC) operates Corrections eight correctional facilities (prisons) and 19 parole offices, as shown in Figure 5-2. Among these types of facilities there are multiple population groups that are targets for intercity bus use, including parolees, released prisoners, and visitors correctional facilities.

**Parolees** 

Parolees are required to report to their assigned parole officer on a regular basis.

Figure 5-2: State Correctional Facilities

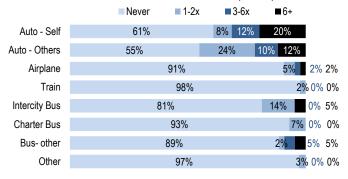


For parolees who do not live in one of the 19 cities that have a parole office, they must travel a longer distance for these regular check-ins, and are therefore good candidates for intercity bus travel.

• Outreach Approach: To get an indication of parolee usage and potential usage of ICB, surveys were sent to the three largest parole offices (Topeka, Olathe, and Kansas City, KS). Paper surveys were distributed to parolees and their family members at the offices. A total of 65 responses were collected. **Table 5-7**, at the end of this chapter, summarizes the results.

• Mode Choice: Outside of trips to their parole office, parolees generally do not travel long distances, due to the conditions of their paroles. If it becomes necessary (for reasons approved by the DOC) for a parolee to travel outside of their assigned parole district, they must obtain advance permission to do so. The responses in the graph to the right reflect this lack of travel. Well over half of parolees surveyed had not traveled more than 50 miles in the past month in a personal automobile.

# Parolee Long-Distance Travel by Mode, Most Recent 12 Months (n=65)



Considering the lack of travel in general, this group does have a relatively high percentage of ICB users (19 percent). When asked why they choose to ride ICB, the top responses were "No car or cannot drive" (17 percent) or "Cost" (16 percent). For those parolees who did not ride ICB the most common reason was the same as for most other population groups: "I prefer the convenience of a personal automobile." Parolees, however, did have the highest number of "I had no need for long-distance travel" responses than any other population group (15 percent).

- *Propensity to Ride:* Interest in riding ICB is somewhat split, with respondents indicating that they would either never ride (40 percent) or would ride once a month or more (38 percent) if new routes were implemented where they wanted to go.
- Service Improvements: Compared to other groups surveyed for this study, parolees indicated less propensity to begin riding ICB under changed conditions. The change that would most likely get respondents to ride ICB more often was if "Gas prices rose to \$5 per gallon," and only 49 percent of respondents selected that. Very few potential improvements were rated as important by this group either. The improvement with the highest response was "Safer buses (more security)", which 43 percent of parolees felt was important.

#### Released Prisoners

In most cases, released prisoners are picked up by a family member or friend. However, when that is not possible, the Department of Corrections is responsible for ensuring that released prisoners have the resources necessary to travel back to their county of residence, or to the county of their prosecution, upon their release. Therefore, when a released prisoner cannot be picked up, the DOC will often purchase an ICB ticket for him or her.

 Outreach Approach: In order to gather information on this population group, an Excel-based questionnaire (different from the online and paper surveys distributed to other groups) was sent to each of the wardens at the eight correctional facilities. Responses were received from seven of the facilities.

Table 5-3: Release Data - Kansas Prisons

|            | Annual<br>Prisoners<br>Released* | Prisoners<br>Transported<br>to ICB | Location of<br>Nearest<br>ICB Stop | Distance<br>(miles) |
|------------|----------------------------------|------------------------------------|------------------------------------|---------------------|
| El Dorado  | 465                              | 94                                 | Wichita                            | 33                  |
| Ellsworth  | 303                              | 140                                | Salina                             | 35                  |
| Hutchinson | 864                              | 71                                 | Wichita**                          | 54                  |
| Lansing    | 870                              | 206                                | Kansas City, MO                    | 30                  |
| Larned     | 240                              | occasionally                       | Hays or Dodge City                 | 58 or 64            |
| Norton     |                                  |                                    | -                                  |                     |
| Topeka     | 546                              | 120                                | Topeka                             | 2.5                 |
| Winfield   | 416                              | 65                                 | Wichita                            | 53                  |

<sup>\*</sup>Information reported was from 2010 for some facilities, and 2011 for the others.

<sup>\*\*</sup>There is an ICB stop in Hutchinson, but it is reportedly not used by the correctional center.

• Current Usage: As **Table 5-3** indicates, each of the responding facilities reportedly transported some number of former inmates to an ICB stop upon their release. For the six facilities that had an exact count, 696 such transports (20 percent of total releases) were reported. Only two of the prisons are located within cities that have an ICB stop, so for many of these prisons, the transported distance is fairly far.

#### **Visitors**

Each of the correctional facilities surveyed have visiting hours every weekend and most holidays. Information was not readily available for each of the facilities, but among those that did respond, the weekly visitor totals varied from 130 to over 1,000 visitors. For the most part, information regarding where visitors were travelling from and by what means they travelled was not available from the wardens.

- Outreach Approach: To supplement the data provided by the wardens for this population group, a link to the online survey was posted on the Department of Corrections website. It cannot be said for certain that all of the responses were from potential visitors, because the website is open to the general public. A total of 23 responses were received. **Table 5-7**, at the end of this chapter, summarizes the results.
- Mode Choice: This group of respondents traveled via personal automobile more often than any of the other population groups surveyed. As can be seen in the graph to the right, 100 percent of respondents had traveled over 50 miles in the past 12 months in their personal automobile at least one time. And, 83 percent of respondents had traveled that distance six or more times. Only four percent of respondents used intercity bus for long-distance travel during that time period.





When asked why they did not travel via intercity bus, respondents from this group were the only ones that did NOT select "I prefer the convenience of a personal automobile" as their most common response. Instead, "The bus does not go where I need to travel" was the most popular response (25 percent vs. only 20 percent on the convenience response). Considering that only two of the eight cities with prisons have intercity bus service, this response is not surprising. The interest level in ICB is potentially high considering that 82 percent of respondents indicated that they would ride ICB more than once per year if the bus had service to where they wanted to go. Of those, 53 percent said they would ride ICB once a month or more.

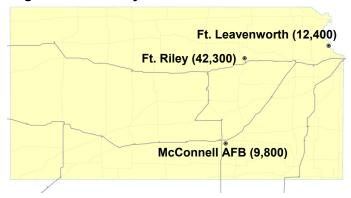
- *Propensity to Ride:* Changes that would affect how often respondents from this group would ride ICB include if "Bus trips took less time" (86 percent), and if "Convenient transportation was available to/from stops" (80 percent).
- Service Changes: According to this group, the most important improvement that should be made to the current ICB service is to make "Bus stops and stations cleaner" (95 percent), followed by making "Bus bathrooms cleaner" (86 percent).

# **Military**

Military personnel were chosen as a target population group for this study, for many of the same reasons that university students were chosen. Many soldiers are young and have low incomes. In addition, they are relocated far from home and have a need for travel at certain times of year (for breaks, holidays, etc.)

In the state of Kansas, there are three major military installations; Fort Riley, Fort Leavenworth, and McConnell Air Force Base. The locations and approximate

Figure 5-3: Military Installations in Kansas



populations of these installations are shown in **Figure 5-3**. The population numbers shown include enlisted soldiers, as well as families living on base and civilian employees working on base.

Currently none of the bases have direct ICB service. At Fort Leavenworth, the closest stop is in Kansas City, MO – a distance of almost 40 miles. At Fort Riley, the nearest stop is closer (Junction City – under 10 miles), but with no local public transit, access is difficult for those without a personal automobile (more likely to ride ICB).

- Outreach Approach: For this group, the outreach effort was challenging. Due to reported logistical reasons, an e-mail blast to the soldiers on each base was not deemed to be feasible. Additional restrictions made other outreach efforts difficult to impossible, although Fort Leavenworth did agree to post a link to the online survey on their garrison website, and also posted an announcement of the survey on their Facebook page. Unfortunately, only 13 responses were received. To supplement this limited data, brief telephone interviews were held with representatives from the two largest bases; Fort Riley (Assistant Garrison Commander) and Fort Leavenworth (Director of Support handling post transportation).
- Awareness: Although interviewees did not express a high awareness of ICB (or at least whether ICB routes served their respective locations), in the small sample of 13 respondents from Fort Leavenworth, one had traveled via ICB in the past 12 months.
- *Demographics*: Many families living on post have only one personal vehicle, and interviewees speculated that intercity bus travel may be used by other members of the family while the one vehicle was being used for work-related purposes on base. This especially seemed to be the case at Fort Riley, where many of the spouses would need to travel into Manhattan for employment or medical reasons

# **Population Groups**

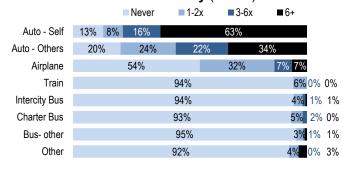
# **General Population/Low Income**

- Outreach Approach: Two approaches were used to reach out to a sampling of the general population across the state:
  - (1) A mass-mailing of surveys was conducted in early December 2011. The mailing list was deliberately skewed toward lower incomes. (For more information on this process, see **Appendix B**.) A total of 6,000 surveys were distributed, and 442 responses were returned a fairly typical response rate of slightly over 7 percent.
  - (2) A link to an online survey was posted on the front page of KDOT's website from the beginning of November 2011 through the end of February 2012. A total of 228 responses were received. The website is open and available to anybody, although it is reasonable to speculate that the site is used by many with more interest in transportation issues than the typical member of the general public. Therefore, the responding population might differ from the general population in two ways: they might not necessarily all be Kansans, and they might be more transportation-oriented.

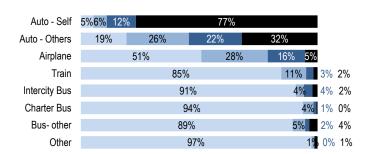
**Table 5-7**, at the end of this chapter, summarizes the results of these surveys.

• *Demographics*: The two surveys were remarkably consistent regarding 88-89 race. with percent respondents being white (about 10 percent above the state average). Gender was also similar: 53-57 percent female (slightly above the state average of 50 percent). The income and age profiles, however, differed markedly. In the income category, the mailed survey had a much more even distribution of income ranges, with only 38 percent of respondents making over \$50,000 (fairly in line with statewide averages); the website responses were skewed toward the higher end of the range, with 61 percent making over \$50,000 (more similar to statewide statistics). In the age category, although both surveys "skewed older" with 67 - 71 percent of respondents over 40, the website had a much higher response rate in the lower end of that range (41-65). These differences are worth remembering in the analysis of the remaining responses.

# Travel by Long-Distance Mode, Most Recent 12 Months Mailed Survey (n=442)



Travel by Long-Distance Mode, Most Recent 12 Months KDOT Website (n=228)



• *Mode Choice:* The most common mode of transportation used for long trips in both surveys was the personal automobile, with 87-95 percent of respondents having reportedly used this mode one or more times in the past 12 months. Alternatively, 6 to 9 percent of respondents had travelled via ICB during that same time period.

When asked why they had not chosen to ride ICB, both mail and online survey respondents ranked the convenience of a personal automobile highest, but the mail respondents ranked it much higher than any other reason, while online respondents ranked other reasons similarly (such as origin-destination, time-of-day, and lack of awareness).

- *Propensity to Ride*: When asked what service changes might make them choose ICB over other long-distance modes, the two surveys were fairly consistent in their rankings, but the mail respondents were less assuring in their stated willingness to switch to ICB. As shown in **Table 5-7** at the end of this chapter, 57 to 67 percent of online respondents indicated that changes would increase their willingness to use ICB, compared to a range of 38 to 42 percent for mail respondents.
- Service Improvements: When asked about the importance of certain improvements to the ICB system, again, the responses of both surveys indicated similar rankings, but online respondents were much less willing to try ICB than the mail respondents (33-55 percent positive responses from the mail vs. 63-74 percent positive responses from online, excluding the bicycle accommodation response, which was low for every survey in this study).
- Awareness: The most desired origin and destination pairs stated by online respondents were from Garden City to Wichita and from Topeka to Kansas City, MO. Since both of these city pairs already have ICB service, these responses may indicate that in general, people are not aware of where routes and stops are located. This response may be correlated to the fact the 29 percent of online respondents also indicated they didn't know where the nearest ICB stop was.

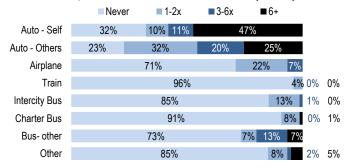
# **Persons with Disabilities**

Due to the fact that many people with disabilities are unable to operate a personal vehicle (especially over long distances), this group was included as a target population for this study.

- Outreach Approach: To capture the opinions of this group, surveys were distributed via several Independent Living Resource Centers around the state. These centers cater to people with disabilities by providing resources such as computer labs, classes, group meetings, and other support/advocacy services. Both online and paper surveys were made available to the patrons of these centers in Wichita, Hays, and several cities throughout southeast Kansas. A total of 94 responses were received.
- Demographics: According to the survey results, 30 percent of respondents report that they have a condition or disability that prevents them from driving. Although this is a higher percentage than was observed in any other population group, it is still lower than what might be expected given the population sample. The household incomes, however, do reflect what might be expected from a population group with a limited range of job opportunities: 41 percent of respondents reported an annual household income of less than \$15,000.

• Mode Choice: Similarly to transit riders, persons with disabilities tend to travel in other people's vehicles for long-distance travel more often than in their own. However, even with the number of disabled who are unable to drive, 78 percent still reportedly used a personal automobile for a trip at least one time in the past 12 months. Fifteen (15) percent of respondents reportedly took a trip on an intercity bus during that same time period. This is quite a bit higher than reported by the general population.

# Persons with Disabilities Long-Distance Travel by Mode, Most Recent 12 Months (n=94)



- Propensity to Ride: Interest in riding ICB seems to be high among this population group; 65 percent of respondents indicated that they would take an ICB trip more than once a year if a new route of their choosing were to be implemented. Of those, 43 percent indicated that they would ride once a month or more. The most commonly desired destinations for this group (based on paper survey responses only) were Wichita (62 percent), Chanute (44 percent), and Parsons (44 percent). Note that many of the responses came from people living in the southeast quadrant of the state. Correspondingly, when asked what changes would cause them to ride ICB more often, people from this group selected "Bus stops and stations were closer to where I live" as the most common response (63 percent). Another often-stated reason was "If bus ticket prices were cut in half" (62 percent), which is likely a reflection of the fact that many of these respondents fall into lower income categories.
- Service Improvements: Not surprisingly, the improvement deemed most important by respondents from this group was "Buses better accommodated the disabled" (76 percent). Many ICB providers are fully ADA-compliant, while others are moving swiftly in that direction.

# **Senior Citizens**

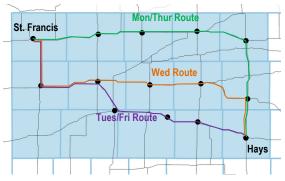
In Kansas, there are over 350,000 people over age 65 – more than 12 percent of the total population. Senior citizens were chosen as a target population group in this study for several reasons: (1) They may be unable to drive due to physical limitations, (2) They tend to live on lower, fixed incomes, and (3) They may be more likely to travel long distances because they have more time, due to retirement.

• Outreach Approach: This segment of the population proved challenging to reach in large numbers. Contacts were sought through the Kansas Department on Aging (KDOA) and the 11 statewide Area Agencies on Aging (AAA). Links to the online survey were posted on the KDOA website, as well as four of the AAAs (Central Plains, Northwest Kansas, East Central Kansas, and Johnson County). Surprisingly, only 18 survey responses were received. Furthermore, it was challenging to identify a centralized location for distribution of paper surveys. **Table 5-7**, at the end of this chapter, summarizes the results.

To supplement the surveys, a series of interviews and focus groups were held. The Silver-Haired Legislature (a group that develops bills and resolutions regarding issues of concern to senior citizens and presents to the Kansas Legislature) assisted with the recruitment of participants for the interviews and focus groups:

- Northwest Phone Interview: A member of the Silver-Haired Legislature from northwest Kansas and a Norton County Commissioner participated in a phone interview on April 30, 2012. There has been no ICB service in the northwest part of the state for more than 20 years. In the past, there was a medical service van (CAREVan) that provided trips from St. Francis to the Hays Medical Center with service to 12 other cities (varying by day) in the northwest part of the state. The service was funded by KDOT in conjunction with Developmental Services of Northwest Kansas (DSNWK) and the Hays Medical Center The

Figure 5-4: Former CAREVan Routes in Northwest Kansas



(DSNWK) and the Hays Medical Center. The routes are depicted in Figure 5-4, or for the complete schedule, see Appendix C.

- *Salina Focus Group:* A focus group meeting was held at the Salina Senior Center on May 9, 2012. There were 8 participants, representing cities throughout central Kansas including Salina, Beloit, Inman, Clyde, and Wichita. Salina and Wichita are currently served by ICB.
- Lawrence Focus Group: A second focus group meeting was held at the Lawrence Senior Center on May 11, 2012. There were 9 participants, representing cities from the eastern portion of the state, including Topeka, Lawrence, and the Johnson County area. Lawrence and Topeka are currently served by ICB.
- *Economic Effects:* The northwest respondents believe that the lack of transportation has been the cause for some people to move out of the area, and that the local economy would see a lift if ICB was brought back into the area.
- *Trip Purpose:* Rural area representatives indicated that the greatest transportation need for rural seniors relates to medical treatment. In some areas, volunteer transportation services provide such transportation, but volunteers are not an inexhaustible resource, and some people are left without transportation. A significant constraining issue is that such services typically don't travel across state lines, due to the fact that procuring a USDOT number would be cost-prohibitive. In some cases, the nearest medical treatment centers are in neighboring states, but because of the constraint mentioned above, transportation services often must travel a longer distance to stay within Kansas, taking more time per trip that could be spent providing trips to additional seniors. The inability to access medical services was cited as a reason for seniors moving away from rural areas (to be closer to such services).

Urban area representatives were not as focused on medical trips; instead, their indications of transportation need revolved more around pleasure trips: vacation, shopping, or visiting relatives.

• Propensity to Ride: In rural areas, a few demand-response programs currently provide transportation services that seniors use. One example is the Solomon Valley Transportation program, operated out of Beloit. This program is predominantly for medical trips but also takes care of general needs trips, such as shopping. The service has been in operation for about a year and reportedly averages over 500 trips per month. It is reported that, at times, the service has had to turn away riders because there is not enough capacity. The representatives from this service also indicate that they are getting requests for longer trips that would link riders up with larger cities. They suggested that if greater funding were available, their service could act as a feeder service taking people to Salina to access ICB. A similar suggestion was made in the northwest: that a system such as the former CAREVan would be

very beneficial to their region, and that a service such as this could also serve as a feeder route to the nearest ICB stop (currently in Hays).

Urban representatives indicated that, although ICB may be available in a given area, seniors often do not choose to ride ICB because they prefer the convenience of a personal vehicle. However, it was agreed upon that many seniors (including one of the interviewees with limited vision) are unable to drive and must rely on public transportation to get around.

- Service Improvements: Improvements desired by seniors fall into some specific categories:
  - Accessibility. Accessibility was felt by some to be of primary importance, because many seniors need buses that can accommodate users of wheelchairs, walkers, or canes. Narrow aisles and limited space around seats do not allow for easy mobility with these aids. Other specific accessibility improvements suggested included low-pitched on-board audio announcements for seniors with hearing loss, and large-print schedules for those with vision impairments.
    - Having better connections to local transit was also mentioned as a needed improvement to the existing intercity bus system.
  - *Comfort*. Increased legroom was one specific comfort consideration mentioned relative to seniors.
  - Cost. Always a consideration, cost is especially important to seniors living on fixed incomes.
- Service Expansions: In rural areas especially, the limited number of stops and the location of those stops were mentioned as problems for some seniors. Specific routes for future ICB service were suggested by the focus groups and interviewees. All groups suggested the Highway 36 corridor. The Salina group also suggested Highway 81 (north of I-70) and Highway 77 (also north of I-70). The Lawrence Group also suggested Highway 75, US-59 between Lawrence and Atchison, and US-69 between Kansas City and Pittsburg. The northwest group suggested north-south connections to Dodge City.

As an example of the stop location issue, in Lawrence the ICB stop used to be located in downtown, but is now further from the city center at a gas station, which is more difficult to access.

# **Native American Population**

According to the 2010 census, there are over 23,000 Native Americans living in Kansas, which is approximately 1 percent of the total population. There are four tribal reservations in Kansas, all located in the northeast corner of the state. Almost 6,000 people live on these reservations. Native Americans were chosen as a target population for this study due to their concentrated numbers at these reservations. If there is a need for long-distance travel among Native Americans,

Table 5-4: Reservations in Kansas

|                                      | Location                                   | Area<br>(Sq. Mi.) | Population<br>(2000) |
|--------------------------------------|--|-------------------|----------------------|
| Kickapoo Tribe<br>in Kansas          | Horton, KS (Brown, Jackson & Atchison Co.) | 236.3             | 4,419                |
| Prairie Band<br>Potawatomi Nation    | Mayetta, KS<br>(Jackson Co.)               | 121.5             | 1,238                |
| Sac and Fox Nation                   | Reserve, KS<br>(Brown Co.)                 | 23.6              | 217                  |
| lowa Tribe of Kansas<br>and Nebraska | White Cloud, KS<br>(Brown & Doniphan Co.)  | 4.2               | 99                   |

these reservations would be the most likely locations for a new intercity bus stop. Another large concentration of Native Americans is at the Haskell Indian Nations University in Lawrence, with an average enrollment of over 1,000 students per semester.

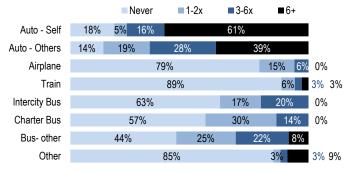
- Outreach Approach: The tribal leaders of all four reservations were contacted and asked to help distribute a paper survey to their populations. Responses
- Sac and Fox
  Kickapoo
  Potawatomi
  Haskell Indian
  Nations University

Figure 5-5: Concentrations of Native

**American Population** 

- were only received from one of the reservations the Prairie Band Potawatomi Nation, which is located approximately 18 miles north of Topeka. A total of 40 responses were received. A follow-up phone interview was also held with the Chief Administrative Officer of the Sac and Fox tribe to gain further insight.
- Mode Choice: Based on the survey, long-distance travel appears to be fairly common among respondents in this group. A total of 82 percent stated that they had travelled 50 miles or more in the past 12 months via personal automobile at least one time, and 61 percent had used that mode six or more times. Buses of all types also appear to be a commonly used mode for long-distance travel. According to the graph at right, over half of respondents had used some sort of bus, and 37 percent had ridden ICB during the time period in question.





Survey respondents from the Prairie Band Potawatomi Nation reported that they mainly ride ICB due to "Cost" (24 percent) and "Convenience" (18 percent). The ICB stop in Topeka is less than 20 miles away from the reservation, which is apparently close enough for many of the respondents to consider ICB to be a convenient mode.

The Sac and Fox representative indicated that the Indian Health Services Department has a transportation program to take tribe members to medical appointments off the reservation. The service generally takes patients into the Kansas City area, but can go to other locations as well – up to 100 miles. The service is well-used, and often encounters scheduling conflicts because there is only one vehicle that provides this service. For any non-medical trips, there is not any public transportation available on or near the reservation. The closest ICB stop is located in St. Joseph, MO, approximately 50 miles away.

For survey respondents who did not choose to use ICB, the main reasons reported were the convenience of a personal automobile (29 percent) and ICB not traveling to the needed destination (18 percent). The Sac and Fox representative echoed the idea of the personal automobile's convenience. Although the bus may be convenient to get to on their home end, it would appear that their desired destinations are often not served by ICB. This may be a perceived, rather than an actual

problem, however, because many of the top selected destinations actually are served by ICB: Topeka (48 percent), Kansas City, MO (18 percent), and Lawrence (10 percent). The only other preferred destination with a significant response that is not currently served by ICB is Kansas City, KS (23 percent). Another suggestion made by the Sac and Fox representative is that the majority of residents of that particular reservation are older and may have safety and comfort concerns about riding a bus.

- *Trip Purpose:* The Sac and Fox representative indicated some reasons for long-distance trips: to supplement the existing medical transportation service, and to provide non-medical trips, mainly for vacation or visiting family and friends. Many of the tribal residents have relatives in Oklahoma, as well as the Great Lakes area of Wisconsin. There is also a sister tribe in Iowa.
- Propensity to Ride: Survey respondents seemed open to the idea of riding ICB, as 65 percent reportedly would ride once a month or more if new routes were added. The Sac and Fox representative similarly speculated that residents might use ICB more often if there were service directly to the reservation. Another service change favored by survey respondents was the provision of convenient transportation to/from ICB stops.
- Service Improvements: Improvements to service that were deemed most important by respondents were "Cleaner bus bathrooms" (75 percent) and "Better accommodations for the disabled" (72 percent). This concern for handicapped accessibility may be due in part to the demographics of the respondents. Almost half (48 percent) are over age 65, and 11 percent stated that they have a condition or disability that prevents them from driving.

# **Hispanic Population**

As of 2010, there were over 300,000 Kansas residents of Hispanic or Latino descent. This is approximately 11 percent of the state's population. The majority of these residents tend to be centered either around large municipalities, such as Kansas City, KS and Wichita, or in southwest Kansas – cities such as Garden City, Dodge City, and Liberal. Despite their large numbers, it is relatively difficult to gather much transportation-related information from this private and reserved group.

Figure 5-6: Hispanic Population in Kansas

10 to 50 to 100
100 to 250
250 to 500
500 And Greater

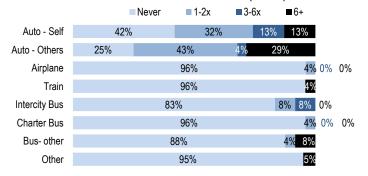
• Outreach Approach: Attempts at public outreach began with the Kansas Hispanic & Latino American Affairs Commission, which publishes a monthly online newsletter distributed to various Hispanic organizations, including student groups at community colleges around the state. A Spanish version of the ICB survey was included in this newsletter.

The Commission was also very helpful in providing additional organizations and contacts related to the Hispanic/Latino population. One such organization was the United Methodist Mexican-American Ministries (UMMAM). This group is a non-profit that offers social, spiritual, educational, and medical programs through centers located throughout southwest Kansas. UMMAM distributed paper ICB surveys in their various clinics. Between these surveys and those accessed as a result of the Commission's newsletter, 36 survey responses were received.

To supplement the survey responses, a telephone interview was held with a representative of Cargill in Garden City. The majority of Cargill's employees in this location are of Hispanic/Latino descent.

• *Mode Choice:* Compared to many of the other population groups studied, these respondents did not travel long-distances as often. As seen in the graph to the right, 42 percent had not travelled over 50 miles in the past 12

# Hispanic/Latino Long-Distance Travel by Mode, Most Recent 12 months (n=36)



months in their personal automobile. More people reportedly travelled in another person's vehicle (ridesharing is said to be common among people in this community), but there were still 25 percent of respondents who had not travelled that way either. Despite this lack of travel in general, there was a fairly high number of respondents who had ridden ICB (16 percent).

For those who did ride ICB, the most commonly stated reasons for choosing this mode were "Cost", "Convenience", and "Safety", each with 16 percent. These responses may not actually be representative of the entire group however, due to the fact that only 10 of the 33 respondents provided an answer to this question.

For those who did not ride ICB, the primary reason cited was a preference for the convenience of a personal automobile (41 percent). The Cargill representative elaborated on this, indicating that auto ownership is highly valued in this community, especially among the young – a fact evidenced by thriving auto sales and service businesses in the area. Other stated reasons for not choosing ICB were "The bus didn't cross my mind as an option" and "I had no need for long-distance travel" (22 percent apiece). The UMMAM representative also mentioned that the language barrier, both on the bus itself and then trying to navigate the transit system at the destination, also prevents some in this community from riding ICB. The Cargill representative mentioned that, often, when making trips to Mexico, people tend to carry much luggage with them, which correlates with the survey responses received regarding a need for more space for carry-on luggage (see below). Also, it is said that these trips tend to be made in large groups, which could make taking the bus more cost-prohibitive. This again can be supported by the survey data, which reports that 44 percent of respondents have a household size of 5 or more people (a much higher percentage than can be found among the other target population groups). Finally, it is said that trips to Mexico are often in emergency situations, such as an illness or death in the family. In those situations, most people would rather drive than wait for the bus to arrive or endure longer travel times.

- *Trip Purpose:* UMMAM indicates that the majority of the transportation needs they serve are medical trips. However, it was speculated that comfort issues might discourage people who are sick from riding ICB.
- Propensity to Ride: Based on the survey, changes that would reportedly stimulate ICB use included "Bus trips took less time" (68 percent) and "Bus ticket prices were cut in half" (67 percent). The majority of respondents (52 percent) reported a household income of less than \$15,000 per year, so it is not surprising that cost is an issue for many in this community. Interestingly, the service improvement deemed to be most important to this group was "Buses had more room for carry-on luggage" (74 percent).

# **General Themes**

Several general themes arise out of the analysis of ridership markets:

• *Usage:* Comparing usage rates across different population segments is illuminating. While 6 percent of the general population that responded to the mail-out survey had traveled via ICB in the past 6 months, most of the population groups surveyed were using ICB at a much higher rate, validating their inclusion in this study for consideration as user groups. **Table 5-5** illustrates these usage statistics. At the other end of the spectrum, it is revealing that senior citizens, often considered good candidates for ICB, did not report using ICB in the small survey samples and interviews conducted – for reasons described earlier in this chapter. But in general, the reported usage percentages are encouraging, because they show that demand exists and they can help focus targeted service. Of the 2,676 individuals responding to the surveys, 372 (14 percent) said they had ridden ICB in the past 12 months.

Table 5-5: Percent of Survey Respondents Who Have Ridden ICB in Past 12 Months

| Native Americans           | 37% |
|----------------------------|-----|
| Transit Riders             | 25% |
| Parolees                   | 19% |
| Hispanic/Latino Population | 17% |
| Persons with Disabilities  | 15% |
| Universities (Students)    | 11% |
| General Population (Web)   | 9%  |
| General Population (Mail)  | 6%  |
| Justice System (DOC Web)   | 4%  |
| Senior Citizens            | 0%  |

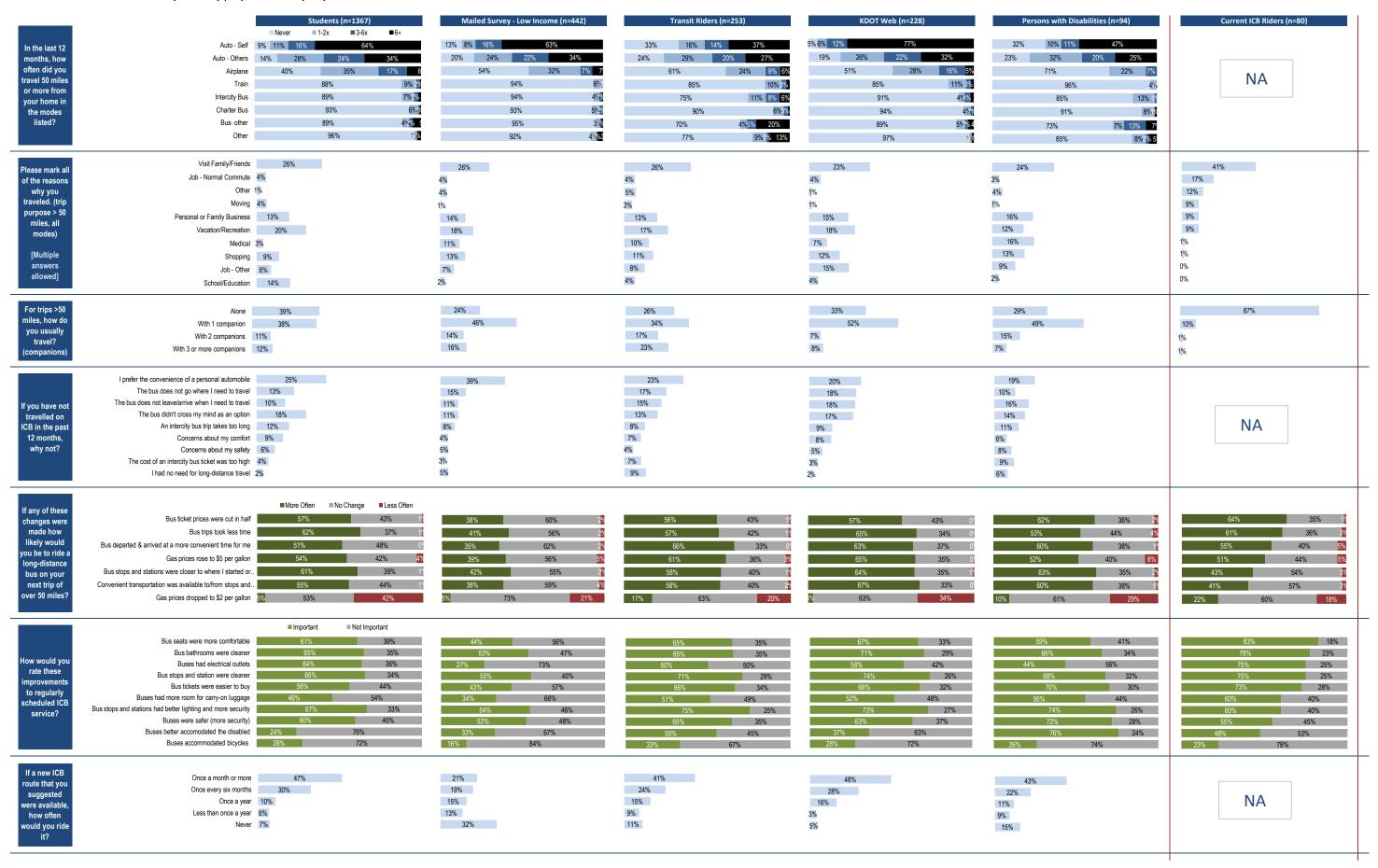
- Awareness: Even though an appreciable amount of those surveyed were at least occasional ICB users, many respondents indicated (both explicitly and implicitly) a lack of awareness of key aspects of the ICB where their nearest stop was, what locations in the state are served by ICB, and other basics. One interesting example of this was that, while many ICB riders indicated cost was the primary reason they chose the mode, many non-ICB riders cited cost as the reason they did not choose the mode. In some cases, this result may be related to the perceived "free" cost of automobile travel, but in others it may simply be a lack of awareness of the ICB fare structure.
- Marketing: To increase awareness, marketing ICB throughout the state will be the strongest tool. A side benefit of the efforts to establish communication channels to reach the various populations analyzed in this study is that those same channels can be used to implement marketing strategies going forward, and to maintain communications with these groups.
- Economic Importance: During the outreach process, no stronger statement was made regarding the economic importance of ICB than the assertion that the lack of transportation (connection to services) was causing senior citizens to abandon rural areas. This statement linking transportation and economic health resonates with the statements made in developing KDOT's rural transit regionalization initiative (see Chapter 3) and points to a major benefit of ICB for rural areas. The historical decline of rural ICB stops is mirrored by the population decline in rural areas, and although this might not be a statement of direct causation, these facts are indisputably related.
- Feeder Services: Several stakeholders suggested feeder services as a solution to connect local transportation with the long-haul ICB network, and even offered specific past or potential examples. This concept is further explored in Chapter 8.
- Local Transit Connections: The need to strengthen local transit connections was a theme heard throughout many of the personal conversations held, but also was echoed in the survey results when users indicated that ICB would be much more attractive if "last mile" transportation connections were available. The fact that a quarter of transit riders are also ICB riders further emphasizes the need to maximize connections between ICB and transit. Coordination between the two modes is challenging, as discussed in Chapter 3, but coordination is key in the overall effort to provide an effective transportation system.

| <b>Table 5-6</b> summarizes some of the key survey findings, and <b>Table 5-7</b> contains more detailed tabulations of the results. |
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**Table 5-6: Key Survey Results Comparison Matrix** 

|                                 | Outreach Approach   | Demographics   | Mode Choice  | Propensity to Ride   | Desired Service<br>Improvements  | Awareness   |
|---------------------------------|---|--|--|--|--|---|
| Current<br>Users                | On-board<br>paper surveys<br>on current ICB routes<br>in KS.  | Mostly male, higher percentage of minorities than statewide averages. 18% unemployed.                                  | Most chose ICB due<br>to cost.<br>Most were dropped off<br>and picked up at the<br>ICB stop.             | 64% would choose<br>ICB more often<br>if bus prices<br>were cut in half.   | 83% thought<br>more comfortable<br>seats would be<br>important.  | Current users are presumably aware of the ICB services available.                                       |
| Transit<br>Riders               | On-board paper surveys on current transit buses     Online surveys, transit-oriented websites.  | Higher percentage of minorities than statewide averages.   | 25% travelled via ICB in the past 12 months. 57% had access to a personal automobile.                    | 66% would choose ICB more often if buses travelled at a more convenient time.  | 75% thought  better lighting and security at bus stations was important.                                   | 86% said that ICB was essential or very important to their community.                                   |
| Students                        | Online survey links sent to 5 of the 6 state universities in KS.  | 65% between<br>the ages of<br>18 and 25.   | 11% had ridden ICB<br>in past year.<br>47% would be<br>interested in riding<br>ICB in future.            | 62% would choose<br>ICB more often<br>if buses took less time.   | 67% thought better lighting and security at bus stations was important.                                    | 18% of students not choosing to use ICB stated that the bus didn't cross their mind as an option.       |
| Justice<br>System               | <ul><li>(1) Paper surveys<br/>distributed at the 3 largest<br/>parole offices.</li><li>(2) Online survey link posted<br/>on KDOC website.</li></ul>   | Respondents to the paper survey mainly had low incomes (62% below \$15,000 per year).                                  | 19% had ridden ICB in<br>the past year.<br>40% would never ride<br>ICB even if new routes<br>were added. | Many parolees cannot<br>(and did not)<br>travel long distances<br>as a condition<br>of their parole.                           | The majority of respondents did not think any of the listed improvements were important.                   | 43% did not know<br>where the closest<br>ICB stop was<br>located.                                       |
| Military                        | (1) Online survey link posted on one military website.  (2) Interviews with representatives from the two largest military bases in KS.  | Many military families<br>living on base<br>tend to have only<br>one personal vehicle.                                 | Only 1 of the 13 respondents had travelled via ICB in the past 12 months.                                | 92% would choose<br>ICB more often<br>if there was<br>a stop located<br>closer to them.  | All respondents<br>thought <b>better lighting</b><br><b>and security</b> at bus<br>stations was important. | Some were not<br>aware whether the<br>base they<br>lived/worked on was<br>served by ICB.                |
| General<br>Pop/Low<br>Income    | (1) Online survey link posted<br>on the KDOT website.<br>(2) Mass-mailing: 6,000<br>paper surveys across KS.  | Most respondents in upper age categories. Gender split fairly even.  | 6-9% had<br>ridden ICB<br>in past 12 months.   | Respondents to both surveys said they might ride more often if bus trips took less time.                                       | Respondents to both surveys thought cleaner bus stations were important.                                   | About 1/3 of<br>respondents <b>did not</b><br><b>know</b> where the<br>closest ICB stop was<br>located. |
| Persons<br>with<br>Disabilities | Online and paper surveys<br>available at several<br>Independent Living<br>Resource Centers around<br>KS.  | 30% unable to drive due to disability. 41% with income of less than \$15,000 annually.                                 | 15% had<br>ridden ICB<br>in past year.   | 65% would ride<br>more often<br>(more than 1x per year)<br>if new routes<br>were added.  | 76% thought accommodations for people with disabilities was important.                                     | 39% did not know<br>where the closest<br>ICB stop was<br>located.                                       |
| Senior<br>Citizens              | (1) Online survey links posted on KDOA website and several AAA websites.  (2) Focus group meetings were held at Senior Centers.   | Mostly female,<br>between the ages<br>of 41 and 65.  | No online survey<br>respondent had<br>ridden ICB<br>in past year.  | Seniors who are unable to<br>drive would ride ICB<br>frequently, especially for<br>medical trips, if service<br>was available. | Accessibility and comfort were important.  | Half of online survey<br>respondents <b>did not</b><br><b>know</b> where the<br>closest stop was.       |
| Native<br>Americans             | (1) Paper surveys distributed at 1 of the 4 KS reservations.      (2) Interview with the CAO of another reservation.  | 48% over age 65.  11% have a disability that prevents them from driving.   | 37% had<br>ridden ICB<br>in past year.   | 65% would ride<br>more often<br>(1x per month)<br>if new routes<br>were added.   | 75% thought having cleaner bus bathrooms was important.  | 90% said ICB was<br>essential or very<br>important to their<br>community.                               |
| Hispanic                        | (1) Web link posted in online Hispanic newsletter.      (2) Paper surveys distributed at UMMAM clinics - SW KS.      (3) Interview of a representative from a food-processing plant in SW KS. | Predominantly female. 52% with annual income less than \$15,000. Large household size (44% live with 5 or more people) | 16% had<br>ridden ICB<br>in past year.   | 68% would ride<br>more often<br>if bus trips<br>took less time.  | 74% thought providing more room for carry-on luggage was important.  | 42% did not know<br>where the closest<br>ICB stop was<br>located.                                       |

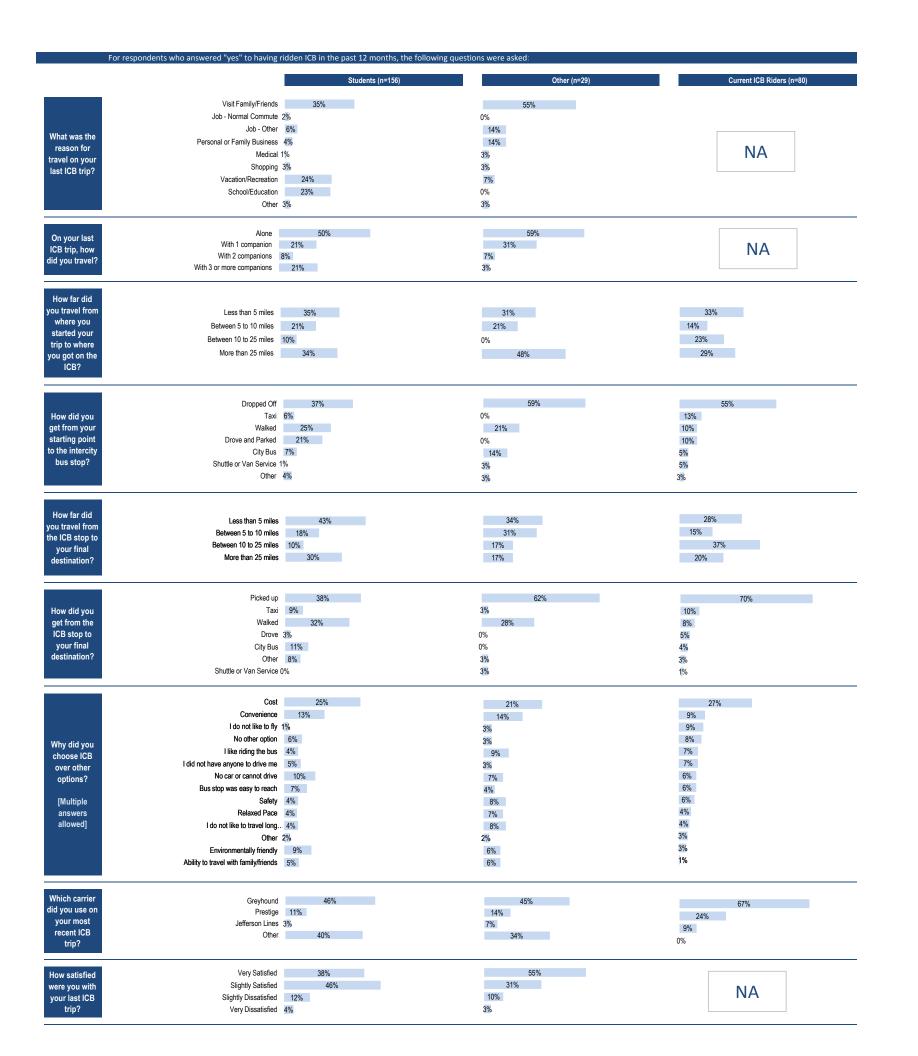
Table 5-7: KDOT Intercity Bus Study | Population Survey Responses



|                              | Students (n=1367)   | Mailed Survey - Low Income (n=442) | Transit Riders (n=253) | KDOT Web (n=228) | Persons with Disabilities (n=94) | Current ICB Riders (n=80) |
|------------------------------|---|------------------------------------|------------------------|------------------|----------------------------------|---------------------------|
| How important                | Essential 14%   | 15%                                | 35%                    | 26%              | 42%                              |                           |
| is ICB service               | Very Important 24%  | 26%                                | 42%                    | 34%              | 26%                              | NA                        |
| to your                      | Slightly Important 36%                                    | 18%                                | 18%                    | 30%              | 12%                              |                           |
| community?                   | Not Important 26%   | 40%                                | 5%                     | 10%              | 20%                              |                           |
| Harris de La Carlo           | I don't know 54%  | 35%                                | 29%                    | 29%              | 39%                              |                           |
| How close is the nearest ICB | less than 10 miles 28%                                    | 34%                                | 57%                    | 28%              | 27%                              |                           |
| stop to your                 | 10 to 25 miles 8%   | 10%                                | 7%                     | 18%              | 13%                              | NA NA                     |
| home?                        | 25 to 50 miles 6%<br>more than 50 miles 4%                | 9%<br>12%                          | 4%                     | 14%<br>11%       | 15%<br>5%                        |                           |
|                              | more than 30 times 476                                    | 1276                               | 3%                     | 1176             | 5/b                              |                           |
| Do you own or                |   |                                    |                        |                  |                                  |                           |
| have access to               | Yes 92%   | 94%                                | 57%                    | 95%              | 75%                              | 44%                       |
| a car for a long<br>trip?    | No 8%   | 6%                                 | 43%                    | 5%               | 25%                              | 56%                       |
|                              |   |                                    |                        |                  |                                  |                           |
| Do you have a condition or   |   | _                                  |                        |                  |                                  |                           |
| disability that              | Yes 2%  | 5%                                 | 17%                    | 5%               | 30%                              | 11%                       |
| prevents you                 | No 98%  | 95%                                | 83%                    | 95%              | 70%                              | 89%                       |
| from driving?                |   |                                    |                        |                  |                                  |                           |
| What is your                 | Female 61%  | 57%                                | 72%                    | 53%              | 63%                              | 34%                       |
| gender?                      | Male 39%  | 43%                                | 28%                    | 47%              | 37%                              | 66%                       |
|                              | 1   15%   | 24%                                | 31%                    | 21%              | 29%                              | 32%                       |
| How many                     | 2 34%   | 45%                                | 30%                    | 43%              | 37%                              | 34%                       |
| people live in your          | 3 24%   | 12%                                | 13%                    | 16%              | 19%                              | 14%                       |
| household?                   | 4 19%   | 8%                                 | 13%                    | 11%              | 7%                               | 10%                       |
|                              | 5 or more 9%  | 11%                                | 13%                    | 10%              | 9%                               | 9%                        |
|                              | Less than \$15,000 32%                                    | 15%                                | 30%                    | 5%               | 41%                              | 32%                       |
| What is your                 | \$15,000 to \$24,999 17%                                  | 14%                                | 20%                    | 9%               | 13%                              | 22%                       |
| household                    | \$25,000 to \$34,999 11%                                  | 18%                                | 15%                    | 12%<br>14%       | 7%                               | 13%                       |
| income?                      | \$35,000 to \$49,999                                      | 16%<br>21%                         | 8%<br>9%               | 27%              | 16%<br>13%                       | 14%                       |
|                              | \$75,000 or more 20%                                      | 17%                                | 18%                    | 34%              | 10%                              | 13%<br>7%                 |
|                              |   |                                    | <del></del>            |                  |                                  |                           |
|                              | White 81%   | 89%                                | 66%                    | 88%              | 80%                              | 52%                       |
| What is your                 | Black or African American 4%                              | 5%<br>3%                           | 10%                    | 5%               | 6%                               | 26%                       |
| race/ethnicity?              | Hispanic or Latino 5% American Indian or Alaska Native 2% | 3%<br>2%                           | 13%<br>4%              | 3%<br>2%         | 3%<br>9%                         | 10%<br>5%                 |
|                              | Asian 7%  | 1%                                 | 7%                     | 1%               | 1%                               | 5%                        |
|                              | Native Hawaiian or Other Pacific Islander 1%              | 0%                                 | 1%                     | 1%               | 1%                               | 2%                        |
|                              | Under 18 0%   | 0%                                 | 1%                     | 0%               | 0%                               | 3%                        |
| How old are                  | 18 to 25 65%  | 4%                                 | 10%                    | 6%               | 2%                               | 30%                       |
| you?                         | 26 to 40 25%  | 20%                                | 23%                    | 23%              | 19%                              | 29%                       |
|                              | 41 to 65 9%   | 42%<br>34%                         | 51%                    | 61%              | 65%<br>14%                       | 34%<br>5%                 |
|                              | Over 65 0%  | J4 /0                              | 16%                    | 1076             | 1470                             | 370                       |



| How important is ICB service to your community?                       | Essential 25% Very Important 35% Slightly Important 16% Not Important 24%  | Native American - Potawatomi Tribe (n=40)  49% 41% 0% 10% | Hispanic population (n=36) 31% 31% 19% 19% | Dept of Corrections Web (n=23)  17%  39%  17%  26% | Elderly (n=18)  18%  47%  29%  6%     | Military - Ft. Leavenworth (n=13)  8%  42%  33%  17% |
|---|--|---|--|--|---------------------------------------|--|
| How close is<br>the nearest ICB<br>stop to your<br>home?              | I don't know 43% less than 10 miles 44% 10 to 25 miles 8% 25 to 50 miles 5% more than 50 miles 0%  | 23%<br>13%<br>23%<br>36%<br>5%                            | 42%<br>45%<br>3%<br>9%<br>0%               | 9%<br>22%<br>17%<br>39%<br>13%                     | 50%<br>22%<br>22%<br>6%<br>0%         | 58%<br>8%<br>8%<br>17%<br>8%                         |
| Do you own or have access to a car for a long trip?                   | Yes 51%<br>No 49%  | 74%<br>26%  | 69%<br>31%                                 | 100%   | 83%<br>17%                            | 100%<br>0%   |
| Do you have a condition or disability that prevents you from driving? | Yes 11%<br>No 89%  | 11%<br>89%  | 19%<br>81%                                 | 9% 91%   | 17%<br>83%                            | 0%   |
| What is your gender?  | Female 21% Male 79%  | 89%   | 92%  | 61%<br>39%   | 67%<br>33%                            | 64%<br>36%   |
| How many people live in your household?                               | 1 20%<br>2 31%<br>3 15%<br>4 17%<br>5 or more 17%  | 35%<br>28%<br>13%<br>10%                                  | 9%<br>16%<br>16%<br>16%                    | 29%<br>53%<br>6%<br>12%<br>0%                      | 23%<br>62%<br>8%<br>0%<br>8%          | 50%<br>17%<br>17%<br>8%                              |
| What is your<br>household<br>income?                                  | Less than \$15,000 62% \$15,000 to \$24,999 13% \$25,000 to \$34,999 6% \$50,000 to \$74,999 6% \$75,000 or more 6%                                  | 29%<br>45%<br>5%<br>16%<br>3%<br>3%                       | 52%<br>24%<br>14%<br>7%<br>3%<br>0%        | 5%<br>5%<br>27%<br>18%<br>32%                      | 13%<br>13%<br>0%<br>25%<br>31%<br>19% | 0%<br>0%<br>10%<br>10%<br>10%                        |
| What is your race/ethnicity?  | White 52%  Black or African American 32%  Hispanic or Latino 10%  American Indian or Alaska Native 6%  Asian 0%  Native Hawaiian or Other Pacific.0% | 5%<br>0%<br>0%<br>95%<br>0%                               | 9%<br>0%<br>88%<br>3%<br>0%<br>0%          | 91%<br>5%<br>0%<br>5%<br>0%<br>0%                  | 84%<br>0%<br>5%<br>5%<br>5%<br>0%     | 92%<br>0%<br>8%<br>0%<br>0%                          |
| How old are you?  | Under 18 0%  18 to 25  26 to 40  41 to 65  Over 65 2%  | 0%<br>8%<br>13%<br>33%<br>48%                             | 29%<br>26%<br>23%<br>10%                   | 0%<br>  13%<br>  9%<br>  78%<br>  0%               | 0%<br>0%<br>6%<br>67%                 | 0%<br>0%<br>33%<br>67%                               |



# 6. Intercity Bus Demand Analysis

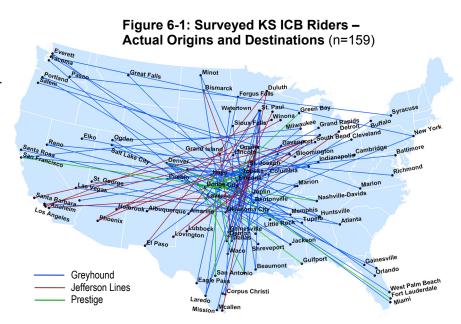
Predicting the demand for new intercity bus routes and stops is challenging. There are few quantitative forecasting methods, even for current year conditions. Therefore, to provide a thorough and realistic analysis, several different quantitative and qualitative approaches have been employed to assess the ICB demand in Kansas. These approaches include: survey data analysis, interview summaries, demographic analyses, and mathematical models. The objective of using several approaches is to identify unserved locations (or routes) that are predicted by multiple methods to have promising ICB demand. This triangulation to identify such locations increases confidence in the predictions.

#### **ICB Rider Feedback**

The strongest indicators of demand are the travel patterns of existing ICB riders. The ICB on-board surveys conducted as part of this study asked passengers where they were traveling to and from, as well as other places they might want to travel. The answers to these questions give critical insights into the overall nature of ICB travel as well as into the travel patterns of passengers in Kansas. It is important to note that the data are based on the response of 159 riders, and each route in the state was only surveyed once, so these responses are not statistically rigorous but provide a general idea of Kansas ICB.

Actual Origins and Destinations

Figure 6-1 illustrates the reported U.S. origins and destinations all of the on-board survey respondents, regardless of whether they had a trip end in Kansas or not. The map immediately reveals the national, long-haul nature of ICB travel. Over 100 U.S. cities outside Kansas were reported by the 159 riders. It clear that ICB customers traveling in/through Kansas are using the bus for trips of widely varying lengths, though longerdistance (multi-state) trips predominate.



**Figure 6-2** breaks these travel patterns into "through" vs. "non-through" trips. Significantly, half of the respondents were making "through" trips that neither started nor ended in Kansas. As the first map in **Figure 6-2** shows, many passengers travel long distances. Many "through" passengers were using the Greyhound "trunk" lines on I-70 and I-35, but an appreciable number were also surveyed on Jefferson Lines service on US-169 in Southeastern Kansas.

As the second map in **Figure 6-2** illustrates, about one-third of the respondents reported that their trip had one end in Kansas and the other in another state — many of these at extreme ends of the U.S. Several of these respondents were Prestige Bus Lines riders, indicating that their trip was necessarily interlined with at least one other carrier.

As the third map in **Figure 6-2** illustrates, in-state trips make up a modest share (17 percent) of the overall number of trips. Note that, in this small sample, no Jefferson Lines riders were making instate trips.

These results indicate that the long-distance nature of the ICB mode cannot be ignored, even when analyzing ways to best serve Kansans with this travel mode. This idea carries beyond service planning to marketing and branding as well. For example, ensuring proper connections between the providers predominantly serving Kansas and the other long-distance companies in the state is important for servicing these common long-distance trips. With these connections in place, marketing can be designed to target multi-state trips, not just in-state stops specifically served by the Prestige Line.

Thus, these patterns support the concept of a feeder role for local providers. They also may highlight an underserved market for short- to medium-distance intercity travel. It appears that ICB has a fairly small market share with respect to this type of travel and — given the assumed large number of people making these trips using other modes (predominantly private automobiles) on a daily basis — it may be possible for ICB to garner a somewhat higher share.

Figure 6-2:
Surveyed ICB Riders – Actual Origins and Destinations by Type

Greyhound
Jefferson Lines

"Through" trips (neither end in Kansas) [50%]

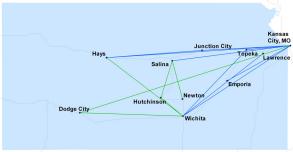
Prestige



Trips with only one end in Kansas [33%]



Trips with both ends in Kansas [17%]



\*Kansas City, Missouri is included in this figure.

#### Stated Desires

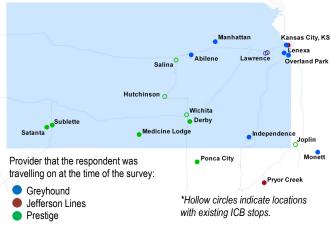
On-board survey respondents were also asked "In what cities in (or near) Kansas would you like to see new long-distance bus stops or stations?" Only a small fraction of respondents suggested locations; the first map in **Figure 6-3** illustrates their responses. Some cities were suggested by multiple respondents, but no City was suggested by more than 3 respondents. Several of the stops listed already exist; indicating either that riders were unaware of the stops, didn't understand the question, couldn't easily reach these stops via the existing system (e.g., Joplin, MO), or perhaps were looking for a more convenient time of day.

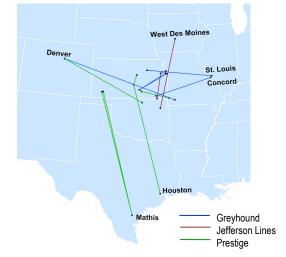
The second map in **Figure 6-3** combines these stations with the respondents' stated home zip codes to create a desired origin-destination (O-D) map. As can be seen from the map, ten of the 21 trip ends cited were located outside Kansas.

It must be emphasized that these maps are based on a very small sample size, but are included as a piece of information helping build evidence for demand.

Figure 6-3: Surveyed ICB Riders – Desired New Stops

(21 respondents; multiple responses allowed)

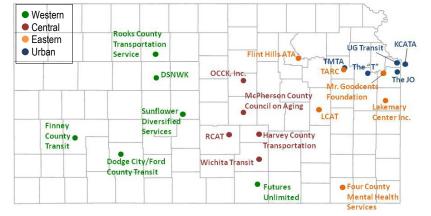




# Transit Provider/Stakeholder Organization Feedback

The study team convened focus groups with 22 agencies, most of them directly responsible for public transportation, some of them less directly so. The meetings were generally organized regionally: western (held in Dodge City), central (held in Hutchinson) and eastern (held in Topeka), and a fourth for urban providers concentrated generally in the northeastern part of the state (held in Kansas City). **Figure 6-4** maps the agencies that participated in each of the four focus groups.

Figure 6-4: Transit Provider/Stakeholder Organization Focus Groups

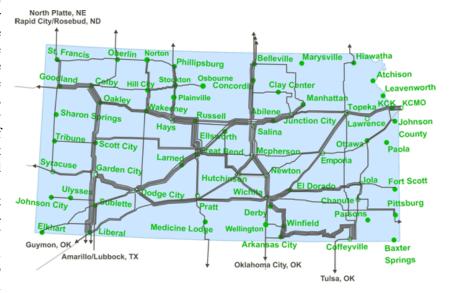


The focus groups raised many issues, not all related to potential demand, but below is a summary of demand-related issues discussed:

- Some potential users of ICB mentioned included veterans and VA hospitals, casino customers, community colleges, Somali and Burmese immigrants, food industry employees in southwest Kansas (often recruited from large cities across the United States), elderly individuals needing to access Social Security administration facilities, and transient populations living in HUD housing.
- Medical trips originating in rural areas of Kansas, bound for larger, distant cities, were cited as an ongoing need.
- Potential routes specifically mentioned as needs were an east-west route to Joplin, Missouri (in general, a southeast route); and a route to North Dakota due to the oil boom.
- Potential stops/connections mentioned included I-35 south of Wichita (before leaving the state); Village West in Kansas City, Kansas; Dodge City and Garden City airports; the 18 counties in northwest Kansas previously served by ICB; and Cimarron instead of Syracuse.
- Junction City (an existing ICB stop) was mentioned as a location where demand is expanding as more troops return to Fort Riley from abroad and more families move in.

In addition to their verbal comments, the focus groups were asked to handdraw ICB route and stop suggestions on the paper survey map (see discussion of the paper survey later in this chapter accompanying Figure Figure 6-5 compiles these 6-7). suggestions; multiple lines indicate multiple suggestions for the same segment. As with other surveys, this thin sample is not statistically rigorous, but as the product of regional expertise and knowledge it is an illuminating guide toward potential ICB service expansion. Notable multi-respondent suggestions include Route 83 (Colby-Liberal), Route 81 / I-135/ Route 77 (Nebraska to Oklahoma via Wichita), 166 (Arkansas City to Route Coffeyville), US-54 (east from El Dorado), and Great Bend as the hub of several spokes.

Figure 6-5: Provider/Stakeholder Focus Groups – Route/Stop Suggestions (multiple responses allowed)



### **Survey Feedback**

### Online Survey

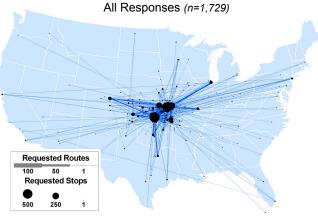
The online survey asked "If you could create a new intercity bus route in or near Kansas, where would you want the route to start and end?" Respondents were allowed to list two such city pairs. **Figure 6-6** illustrates their responses. As the first (U.S.) map shows, a portion of the respondents (30 percent) selected one or both trip ends outside of Kansas. As the third map shows, students made up 72 percent of the instate O-D responses, so the online survey tends to skew toward this population group.

### Notable findings include:

- Some of the larger dots on the second map, as might be expected, are at the university locations: Wichita, Lawrence, Manhattan, Pittsburg, and Emporia. Of these, Manhattan and Pittsburg are not currently served by ICB.
- Several of the other significant dots are cities with existing ICB service: Topeka; Kansas City, Missouri; Hutchinson; Garden City; Hays; Salina; and others. This most likely indicates a lack of awareness of existing ICB service on the part of many respondents.
- Finally, several of the larger non-university dots are currently unserved by ICB: Kansas City, Kansas; cities in Johnson County; Leavenworth; and others (to a lesser extent). Some of the most notable pairs that are currently unserved by ICB include Wichita-Manhattan, Pittsburg-Wichita, and Pittsburg-KC metro.

Figure 6-6: Online Survey Responses –
Desired O-D Pairs

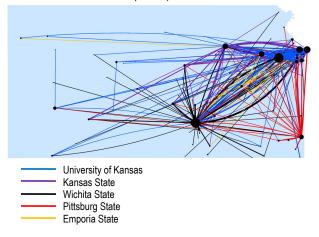
(1,727 surveys received; up to 2 pairs per survey allowed)



Responses with both ends in Kansas (n=1,204)



Responses with both ends in Kansas – Students only (n=866)



### Paper Survey

The paper survey asked, "If you could design your own new intercity bus route, where would it go?", and provided bubble maps (see the top of Figure 6-7) to allow respondents to indicate their home city (or nearest mapped city) and as many destination cities as they wanted. Note that these results are constrained by the cities and regions provided in the bubble maps, but can be used to identify general regional patterns. It should also be noted that over half these survey respondents resulted from the mailing that blanketed the state, so this survey has a much more evenly distributed geographical spread than the online survey. Also, unlike the online survey, the paper survey explicitly allowed destinations outside Kansas (grouped in multi-state regions).

As the two middle maps in Figure 6-7 show, many cities in Kansas were suggested by respondents. As with other surveys, cities with already existing service were suggested (some of these may have been the home end of the trip), but several cities/areas without service were also represented heavily: City, KS; Johnson County: Manhattan; Leavenworth; Abilene; Russell; Great Bend; Winfield-Arkansas City, and several cities in southeastern Kansas. Just about every city on the map got at least one "vote".

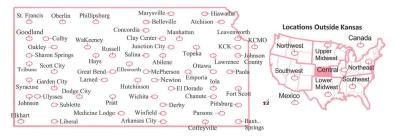
The bottom map in **Figure 6-7** connects these dots by matching respondents' home zip codes with their destination choice(s) in Kansas. The map is complex, and while it cannot be considered statistically significant, it generally conveys desires in line with existing service. Some currently unserved corridors that stand out include US-83 (Liberal-Scott City); Garden City/Great Bend/Eastern Kansas; and southeastern Kansas to a variety of destinations.

Many of the more heavily recommended cities and corridors are discussed later in this chapter for consideration as potential ICB candidates

# Figure 6-7: Paper Survey Responses – Desired New Stops

(871 surveys received, multiple responses encouraged)

### Allowed Responses



All Responses (667 respondents; 3,715 responses)

Dots outside Kansas represent the entire region they are contained in, not a specific city.

Northwest

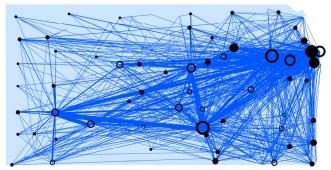
Upper Midwest

Southeast

Requested Stops
250 150 1

St. Francis Oberlin Phillipsburg Belleville Marysville Hiawatha Atchison
Concordis Clay Center Hiawatha Atchison
Concordis Clay C

Desired Station Location Paired with Home Zip Code
- Kansas Only (600 respondents; 2,801 pairs)

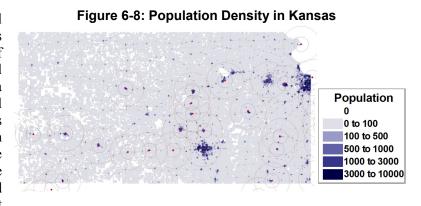


### **Demographic Analysis**

Demographics provide a more dispassionate, analytical approach to evaluating potential demand than do surveys and focus groups. It is important to balance these two approaches against each other, and to seek mutually reinforcing correlations.

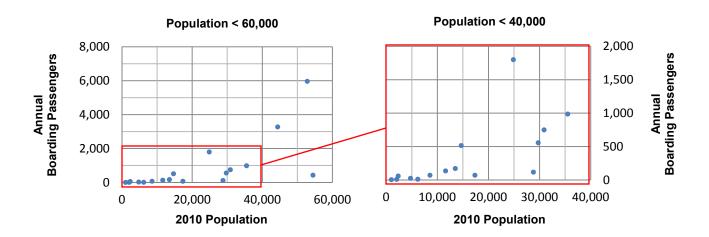
### Population

Arguably, the fundamental demographic in most analyses of this type is population. In the absence of any other information about special characteristics, raw population is a reasonable first indicator of potential ridership. **Figure 6-8** indicates areas of population concentration in Kansas using darker colors. The graphs in **Figure 6-9** illustrate the relationship between population and ridership for all Kansas stops except



the few largest (to protect data privacy), and shows that ridership generally increases with population.

Figure 6-9: Annual Boarding Passengers vs. Surrounding Population at Kansas ICB stops (10-mile radius)



**Table 6-1**, on the following page, lists the 37 cities in Kansas with a population over 10,000. For comparison purposes, the table also lists the populations of all Kansas cities with ICB, as well as the most popular online and paper survey responses regarding which cities should be served by ICB. As the table indicates, many cities near the top of the population list were also suggested in the surveys (especially when factoring out cities that already have ICB service, and cities outside Kansas): Kansas City, KS; Johnson County cities; Manhattan; Leavenworth; Pittsburg; and others.

Table 6-1: Cities in Kansas, Sorted by Population and Survey Preferences

| Cities in       |                      | Largest Cities in           |                      | Top Cities Suggested by Survey Respondents |               |                    |                |  |
|-----------------|----------------------|-----------------------------|----------------------|--|---------------|--------------------|----------------|--|
| Kansas with ICB | Population<br>(2010) | Kansas (over<br>10,000 pop) | Population<br>(2010) | Web Survey                                 | Responses     | Paper Survey       | Responses      |  |
| Wichita         | 382,368              | Wichita                     | 382,368              | Wichita                                    | 540           | Wichita            | 263            |  |
| Topeka          | 127,473              | Overland Park               | 173,372              | Lawrence                                   | 516           | Topeka             | 251            |  |
| Lawrence        | 87,643               | Kansas City                 | 145,786              | Kansas City (MO)                           | 270           | Kansas City (KS)   | 230            |  |
| Salina          | 47,707               | Topeka                      | 127,473              | Kansas City (KS)                           | 259           | Kansas City (MO)   | 189            |  |
| Hutchinson      | 42,080               | Olathe                      | 125,872              | Manhattan                                  | 188           | Lawrence           | 173            |  |
| Dodge City      | 27,340               | Lawrence                    | 87,643               | Topeka                                     | 187           | Overland Park      | 153            |  |
| Garden City     | 26,658               | Shawnee                     | 62,209               | Pittsburg                                  | 126           | Central U.S.       | <del>153</del> |  |
| Emporia         | 24,916               | Manhattan                   | 52,281               | Overland Park                              | 101           | Lower Midwest U.S. | <del>131</del> |  |
| Junction City   | 23,353               | Lenexa                      | 48,190               | Denver (CO)                                | <del>70</del> | Salina             | 120            |  |
| Hays            | 20,510               | Salina                      | 47,707               | Garden City                                | 63            | Southwest U.S.     | <del>119</del> |  |
| Newton          | 19,132               | Hutchinson                  | 42,080               | Olathe                                     | 58            | Manhattan          | 113            |  |
| McPherson       | 13,155               | Leavenworth                 | 35,251               | Chicago (IL)                               | <del>56</del> | Dodge City         | 88             |  |
| Coffeyville     | 10,295               | Leawood                     | 31,867               | Leavenworth                                | 40            | Hutchinson         | 87             |  |
| Chanute         | 9,119                | Dodge City                  | 27,340               | St. Louis (MO)                             | <del>38</del> | Northeast U.S.     | <del>86</del>  |  |
| Pratt           | 6,835                | Garden City                 | 26,658               | Emporia                                    | 37            | Garden City        | 84             |  |
| Iola            | 5,704                | Emporia                     | 24,916               | Oklahoma City (OK)                         | <del>35</del> | Southeast U.S.     | <del>76</del>  |  |
| Lindsborg       | 3,458                | Junction City               | 23,353               | Hutchinson                                 | 33            | Hays               | 72             |  |
| Kingman         | 3,177                | Derby                       | 22,158               | Salina                                     | 30            | Emporia            | 61             |  |
| Syracuse        | 1,812                | Prairie Village             | 21,447               | Joplin (MO)                                | <del>28</del> | Leavenworth        | 59             |  |
| Greensburg      | 777                  | Liberal                     | 20,525               | Hays                                       | 26            | Upper Midwest U.S. | <del>56</del>  |  |
| o. concount     |                      | Hays                        | 20,510               | <del>Dallas (TX)</del>                     | <del>26</del> | Junction City      | 55             |  |
|                 |                      | Pittsburg                   | 20,233               | Lenexa                                     | 24            | Pittsburg          | 54             |  |
|                 |                      | Newton                      | 19,132               | Derby                                      | 24            | Arkansas City      | 50             |  |
|                 |                      | Gardner                     | 19,123               | Newton                                     | 19            | Coffeyville        | 49             |  |
|                 |                      | Great Bend                  | 15,995               | Now York (NY)                              | <del>18</del> | Abilene            | 47             |  |
|                 |                      | McPherson                   | 13,155               | Parsons                                    | 18            | Northwest U.S.     | 41             |  |
|                 |                      | El Dorado                   | 13,021               | Dodge City                                 | 18            | McPherson          | 40             |  |
|                 |                      | Ottawa                      | 12,649               | Shawnee                                    | 16            | Chanute            | 40             |  |
|                 |                      | Arkansas City               | 12,415               | <del>Tulsa (OK)</del>                      | <del>16</del> | El Dorado          | 36             |  |
|                 |                      | Winfield                    | 12,301               | Liberal                                    | 15            | Parsons            | 36             |  |
|                 |                      | Andover                     | 11,791               | Omaha (NE)                                 | <del>13</del> | Liberal            | 36             |  |
|                 |                      | Lansing                     | 11,265               | Goodland                                   | 11            | Newton             | 35             |  |
|                 |                      | Atchison                    | 11,021               | Chanute                                    | 11            | Fort Scott         | 35             |  |
|                 |                      | Merriam                     | 11,003               | Lincoln (NE)                               | <del>11</del> | Great Bend         | 34             |  |
|                 |                      | Haysville                   | 10,826               | El Dorado                                  | 11            | Baxter Springs     | 32             |  |
|                 |                      | Parsons                     | 10,500               | Great Bend                                 | 10            | Ottawa             | 31             |  |
|                 |                      | Coffeyville                 | 10,295               | lola                                       | 10            | Derby              | 27             |  |
|                 |                      | Colloyvillo                 | 10,200               | Other (235 Cities)                         | <10 each      | Russell            | 26             |  |
|                 |                      |                             |                      | 34.01 (200 Oldos)                          | 10 00011      | Winfield           | 25             |  |
|                 |                      |                             |                      |  |               | Other (27 Cities)  | <25 each       |  |

XXXX = City in Kansas without ICB XXXX = City in Kansas with ICB XXXX = City/Region outside Kansas

Other demographic variables also contribute to potential ICB demand. Figure 6-10 illustrates areas with heavier low-income populations, which tend to cluster around the more populated areas. Other demographic variables that have been explored include the population groups (elderly, Native Americans, persons with disabilities, the Hispanic population) and "point" (schools, prisons, military bases). Many of these variables have been combined into Figure 6-11, which indicates areas of potential ICB demand. The figure also indicates 10- and 25-mile radii around existing ICB stops; many high-demand areas not served by these stops are further discussed in the next section.

Figure 6-10: Low-Income Density in Kansas

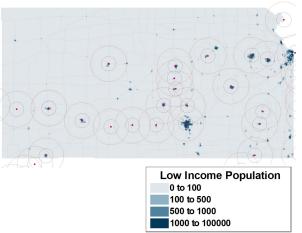
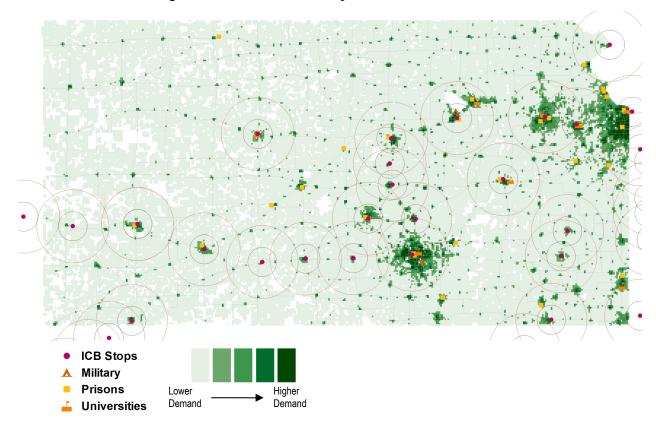


Figure 6-11: Potential Intercity Bus Demand in Kansas



Using mathematical prediction models developed in previous ICB work, the study team developed a stop-based geographic estimate of demand. This estimate does not include route-level considerations, just demographic data around any given point in the state of Kansas. The analysis was conducted two ways, as illustrated in **Figure 6-12**:

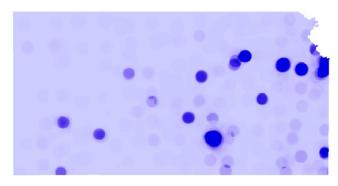
• The upper map illustrates raw demand, with the assumption that no stations currently exist. In other words: If Kansas had no ICB service, where would demand dictate service should go? Darker areas indicate higher demand.

This analysis generally accurately portrays the heavier-volume existing stations in Kansas, and also predicts several areas that would be expected to have noteworthy demand, in three tiers:

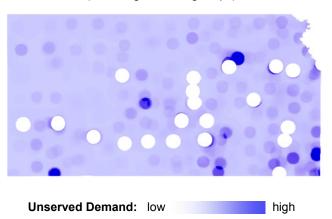
- *Highest:* Manhattan; Kansas City, KS; Johnson County; Pittsburg; Great Bend
- Middle: Liberal; Leavenworth
- Lowest: El Dorado; Winfield/Arkansas City
- The lower map illustrates demand assuming existing stations are in place. Areas close to other stations have reduced demand due to proximity factors included in the analysis. This better depicts areas of potentially unserved demand. The most significant changes between the two maps are in the Kansas City metropolitan area where because of the proximity to the downtown station KCK, Johnson County, and Leavenworth show lower demand although, for reasons mentioned on the following pages, they are still worth considering for service or connections. Otherwise, the lower map shows similar demand patterns:

Figure 6-12: Mathematically Predicted Stop Demand

Raw Demand (Ignoring Existing Stops)



Areas of Potentially Unserved Demand (Factoring in Existing Stops)



Note: white circles are at existing stop locations, generally indicating that demand is served.

- Most Notable: Manhattan; Great Bend; Liberal; Pittsburg
- Other Strong Demand: Winfield/Arkansas City; Parsons; Independence; El Dorado

### **Conclusions**

New Stops/Connections

Based on the foregoing demand analysis, several cities are worth discussing related to new or restored ICB service:

• Kansas City (KCK). The third most populous city in the state, and the most-requested unserved city in both the paper and online surveys, KCK should have an ICB stop. One might argue that the KCMO stop is less than 15 miles away, but for travel to and from the west, heading into the urban core to catch ICB would feel out-of-direction and would be much less attractive than an ICB stop in KCK. In fact, in a metropolitan area the size of Kansas City, a sound principle is to have a stop in the urban core, with routes radiating out in all directions (as they do from the KCMO stop), but with stops on each route toward the edge of ("leaving") the metropolitan area to prevent the need for burdensome out-of-direction travel for those traveling between the suburbs and more distant areas. Such stops should be co-located with (or adjacent to) local transit to facilitate access to other destinations within the metropolitan area.

Therefore, the KCK stop should be part of the existing Greyhound routes along I-70. A very logical location for this stop would be the Village West area (near the interchanges of I-70/I-435 and I-435/US-24). This large complex contains a popular retail mall, a NASCAR racetrack, a professional soccer stadium, a minor league baseball stadium, hotels, and other major attractions. In addition, a Bus Rapid Transit (BRT) line opening in 2013, to be known as State Avenue Connex, will serve State Avenue connecting to the Village West area and would provide excellent transit connectivity (in addition to existing bus service already serving the Village West area). It is recommended that a station in this area be developed for intermodal purposes to serve ICB as well as local transit.

- *Johnson County*. This county has nearly one-fifth of Kansas' total population, four of Kansas' ten largest cities, and no ICB stop. Since Jefferson Lines serves the I-35 corridor heading southwest from the Kansas City metropolitan core, a stop somewhere toward the edge of the metropolitan area makes sense for the same reasons an I-70/KCK stop makes sense. An excellent candidate is the Great Mall of the Great Plains in Olathe, which is a southeastern hub for many Johnson County transit routes, includes a park-and-ride lot, and is adjacent to a major medical center served by several hotels.
- Manhattan. Manhattan formerly had a Greyhound stop that went out of service around 2005. As home to the second largest university in the state (21,500 students), and as the eighth most populous city in the state, Manhattan is a very logical choice for an ICB stop and surveys confirmed its popularity as a potential stop. The city also includes a commercial airport and a parole office. Its geographical location does present some challenges namely, its distance from I-70 and its proximity to Junction City (approximately 18 miles), which already has an ICB stop. There are at least two ways to connect Manhattan to Kansas' existing ICB network:
  - It could be served by the Greyhound's I-70 routes. However, this would require a 7-mile deviation north of I-70 and would certainly affect scheduling.
  - It could be served by an extension of Prestige's existing Wichita-Salina route (most likely via Junction City and Highway 18; the I-70 portion of this route could also include an Abilene stop).

A potential logical location for this stop would be the Kansas State Union, where the two existing local transit routes currently converge.

- Leavenworth. With over 35,000 residents, Leavenworth is the 12<sup>th</sup> largest city in Kansas and is larger than nearly two-thirds of the cities in the state with ICB service. Fort Leavenworth has a population of over 12,000. Leavenworth contains several well-known federal and state correctional facilities, as well as the University of St. Mary. Its geographic location makes ICB considerations a challenge it is over 10 miles distant from what could be considered the edge of the Kansas City metropolitan area, and it is not necessarily on a long-distance north-south route that might attract typical ICB carriers but it is expected that unserved demand exists. Different approaches could be used to serve Leavenworth:
  - One strategy would be to consider creation of a feeder bus on the K-7 corridor, connecting with the recommended stops in Kansas City (Kansas) and Olathe to connect Leavenworth to the larger regional and national network. Such a route could also serve Lansing, Bonner Springs, western Shawnee, and western Lenexa. The route would be approximately 33 miles long, allowing for several trips a day if needed.
  - A second strategy would be to create a bus route connecting Leavenworth across the Missouri River to the Kansas City International Airport, and then into downtown Kansas City where ICB connections could be made.

Neither of these strategies technically meet the definition of ICB, but both would connect Leavenworth to the regional and national ICB network. Leavenworth has larger issues of transit connectivity to the Kansas City metropolitan area, and so while this study recommends an ICB connection from Leavenworth, the general idea of transit connections to/from Leavenworth should be studied by KCATA, Leavenworth County, and others (including potentially KDOT, MoDOT, and MARC). Considerations for connections to Atchison might also be a part of this discussion.

- *Pittsburg*. With a population just over 20,000, a university with nearly 6,700 students, and a parole office, Pittsburg is uniquely geographically situated between two north-south Jefferson Lines routes (20+ miles west of US-71 in Missouri and 50+ miles east of US-169 in Kansas, but much further than that to an actual stop location in each case). Surveys show that travel to both Wichita and Kansas City is desirable, so consideration for an east-west route connecting from Wichita to a stop along US-71 (where passengers could transfer to a bus bound for Kansas City) is one option. Within Pittsburg, a stop near the campus of Pittsburg State might make the most sense.
- Great Bend. The population of Great Bend is nearly 16,000, making it the largest city within a radius of nearly 50 miles. It is also isolated from each of the three nearest ICB routes in Kansas by roughly 40 to 50 miles, and adding an 80- to 100-mile (round-trip) "diversion" to any of these line-haul routes would severely impact their schedules. Thus, serving Great Bend by modifying existing routes is not considered feasible. Further, new routes connecting Great Bend to existing routes would be so short that they would be unlikely to generate the ridership needed to support scheduled service. It should be noted that Great Bend has several characteristics of a worthy ICB destination: in addition to its population, it houses Barton County Community College, with 4,500 students and nearly 300 student housing units; it has a commercial airport; and it has a parole office. It is the confluence of several low-volume state highways from six directions. In focus group meetings for this study, Great Bend's transit providers have even suggested their city as a potential hub for regional ICB service and a demand-response or non-daily feeder approach may be the best solution in this instance. Feeder service is further explored in Chapter 8 as part of a larger overall rural strategy.
- *Liberal*. Liberal is in a unique position (along with Garden City and Dodge City) as by far one of the three largest Kansas cities south of I-70 and west of Great Bend (an area over 24,000 square miles), albeit with a population just over 20,000. Liberal is also home to Seward County Community

College, which does include student housing for well over 200. Liberal is served by Los Paisanos, but as mentioned in Chapter 2, this carrier does not operate like typical ICB carriers. Initial demand estimates show that a route from Colby to Garden City to Liberal to Amarillo, TX would not carry very many passengers, although demand in Liberal for ICB travel appears to be high. At least two ICB options could be considered:

- Long-term, a route from Wichita to Amarillo, or KC to Amarillo (perhaps via Great Bend) might be worth evaluating. Such a route is not considered a significant short-term priority, and is not recommended at this time.
- Another option is to attempt a partnership with an ICB provider to create a more bilingual route (for example, from Garden City to Liberal).

A third option would be to explore rural-ICB feeder service, described later in this chapter and further explored in later chapters.

- Arkansas City-Winfield. With a combined population of nearly 25,000, this city pair (separated by 10 miles) sits 17 miles east of I-35 and 30 miles (at its closest point) southeast of Wichita. In terms of traditional ICB, these cities are "off the beaten path". Serving these cities via traditional ICB might be challenging; some sort of connector service to Wichita might be considered (also including Derby, with a population over 19,000).
- Lawrence Although Lawrence is served by five Greyhound schedules, and all five stop there in the westbound direction, only one stops in the eastbound direction (at 6:00 in the evening). It is recommended that eastbound service be restored to Lawrence on all schedules.

### New/Modified Routes

The routes listed below would each require partnering with at least one other state, for the mutual benefit of residents on both sides of each border. Many of these routes are built on the idea of connecting major city pairs in order to provide the ridership justification to feed some of the more rural areas in Kansas.

- Re-route Kansas City-Joplin route through Fort Scott and Pittsburg: Jefferson Lines Schedules 117 (southbound) and 114 (northbound) travel from Kansas City, MO to Joplin, MO (and on to Little Rock, AR) along US-71 about 15 miles east of the Kansas/Missouri border. Service in southeast Kansas could be strengthened if the schedule were rerouted into Kansas between Nevada and Joplin, following US-54, US-69, US-400, and MO-171 with two additional stops in Fort Scott and Pittsburg. This change would add about 25 minutes of travel time to the schedules, not including stop time.
- Extend Wichita-Salina route to Manhattan, and possibly Lincoln, NE: Interest has been shown, both by potential riders and by Prestige Bus Lines, in extending the existing Wichita-to-Salina schedules to Manhattan. This should likely also include stops in Abilene and Junction City/Fort Riley. A potential extension of this route, which could help to serve northeastern Kansas, could continue further north along US-77 to Lincoln, NE (with potential stops in Marysville, KS and Beatrice, NE), which is served by an existing east-west ICB route along I-80. Anchoring the north end of this route with a fairly sizeable city (Lincoln's population is nearly 260,000) and connecting two college towns (Kansas State University in Manhattan with the University of Nebraska in Lincoln) could provide significant ridership benefits.

- Wichita to Springfield via Pittsburg and Joplin: Several options would be possible for an eastern route out of Wichita through southeast Kansas. The route with the highest ridership possibility appears to be along I-35 to El Dorado; then along US-54 connecting with Iola and Fort Scott; turning south on US-69 to connect to Pittsburg; along US-71 to Joplin, MO; and then to Springfield, MO on US-44. Connecting all the way to Springfield (population just under 160,000) enhances the potential intercity ridership on the route while allowing smaller local cities to be served along the way.
- Omaha to Tulsa via Topeka: The northern portion of this route would follow the US-75 corridor north out of Topeka, crossing the Missouri river at Nebraska City, NE (with a potential stop there) to connect with I-29 and on northward to Omaha. One benefit of the northern portion is that it could serve the Native American reservations along US-75, perhaps with a stop in Holton. To travel south, it is envisioned that the route could first pass through Lawrence and then head south along the US-59 corridor. From that point, this route and Jefferson Lines' Kansas City-to-Tulsa line would effectively coincide, and this might be an opportunity to serve some cities that aren't currently served, most notably Ottawa and Independence. Since there is already an "express" route from Kansas City to Tulsa, there is perhaps an opportunity to add these two stops to the existing Jefferson Lines schedule. Regardless, between these two routes, it is recommended that the following cities receive service: Ottawa, Iola, Chanute, Independence, and Coffeyville.

Some of these routes would further emphasize Wichita as a major ICB transfer hub, and so investments in successful connections there are certainly warranted. Some of the routes would transform Iola into a hub of sorts, as the crossroads of east-west and north-south routes.

West of Wichita-Hutchinson-Salina, the development of viable new routes is much less clear. There are only two unserved cities with populations exceeding 10,000 in this 46,000-square-mile area. The two existing "trunk" lines (I-70 and US-400) provide strong east-west connections, although stops are scarce along I-70. From a pure passenger volume standpoint, there are no north-south corridors that would generate appreciable demand. Transportation needs in this large part of Kansas are more about basic mobility than passenger capacity. "Feeding" travelers into the east-west trunk lines should be a key strategy, whether by traditional ICB or some other public transportation method. With these ideas in mind, the following thoughts are offered regarding the need for additional service in central and western Kansas:

- Re-establish a stop in Colby. On I-70, the distance between the Hays and Limon, CO stops (approximately 250 miles) is too great to effectively serve western Kansas. It is recommended that a stop location be secured in Colby in order to allow meaningful connection of northwest Kansas to the national ICB network.
- Develop feeder services in unserved western regions. The former CAREVan service, run by DSNWK, served the 18-county northwest region and provided access to the Greyhound stop in Hays. According to work done for KDOT's most recent Long-Range Transportation Plan (LRTP), CAREVan served over 49,000 riders in 2005 for its 5310-funded activities. A model similar to this should be re-established in northwest Kansas, but also emulated in the southwest and central portions of the state. See, for example, the previous discussion related to Great Bend. These services may be either demand-response or scheduled, as local needs and resources dictate. If demand-response, such service could integrate with the state's ongoing public transportation regionalization efforts, with multi-county partnerships and strategic dispatch hubbing. These services should be very intentional about connecting to ICB trunk hubs as a fundamental (and marketed) service. These ideas are developed a bit more fully in subsequent chapters.

### 7. Summary of ICB Needs in Kansas

The preceding chapters have examined ICB in Kansas from several angles in detail. This chapter distills these investigations into a summary of ICB needs in Kansas. In short, the system needs to (1) offer a long-distance mass transit option to those who currently do not have one, (2) attract more riders (including "choice" riders), and (3) increase comfort/convenience for existing riders. Adding riders will make the system more profitable, which in turn can help "subsidize" service to rural areas.

### **In-State Service Expansion**

As revealed by actual trip patterns as well as stated desires, ICB riders in Kansas are divided into two distinct groups:

- At one end of the spectrum, many ICB riders are traveling hundreds, even thousands, of miles from state to state. Many of them are only passing through Kansas to another destination. Greyhound's east-west route through Kansas on I-70 provides connectivity from the East Coast to the West Coast, and Jefferson Lines' north-south route through southeastern Kansas provides connections from Minnesota to Texas. Long-haul travel is a vital function of ICB, and is essential to the mode's financial viability as a private, for-profit transportation business.
- At the other end of the spectrum, a portion of Kansas' ICB ridership is traveling exclusively within the state. Furthermore, feedback from the various stakeholder groups indicates a desire for increased ICB use for travel within the state (or just across its borders). This is especially true in rural areas, where long-distance travel is perhaps more necessary (compared to more urban areas where services and destinations tend to be available within shorter distances), and transportation options are more limited. In many cases, these rural long-distance travel needs revolve around basic services such as medical or shopping trips.

This duality creates scheduling challenges. Since ICB carriers necessarily must focus on national timetables for long-haul routes, shorter trips along certain parts of any given route can often occur at inconvenient times of day. In Kansas, this is perhaps less the case than in other states, as discussed in Chapter 2. Many of these Kansas routes are at reasonable times for Kansas citizens, or at least one time along the route is.

• Need: Scheduling of any new routes needs to be developed in an attempt both to serve the travel schedule needs of Kansans and to integrate with the long-haul schedules of the national carriers. This may mean considering "local" vs. "express/national" routes.

The demand analysis presented in Chapter 6 examined several ways of gauging potential demand, from existing travel patterns to stated preference surveys to demographic analysis. **Figure 7-1** combines these approaches into a single map of suggested geographic coverage needs. These establish a framework for developing a desired ICB network in Kansas, although more specifics were addressed in Chapter 6, and a more concrete map is developed in Chapter 8.

• Need: ICB service (or a connecting service) needs to be expanded to serve the nodes, corridors, and regions indicated in Figure 7-1. In some cases, this will involve adding stops to, or extending, existing routes. Priorities need to be established to build out the desired network.

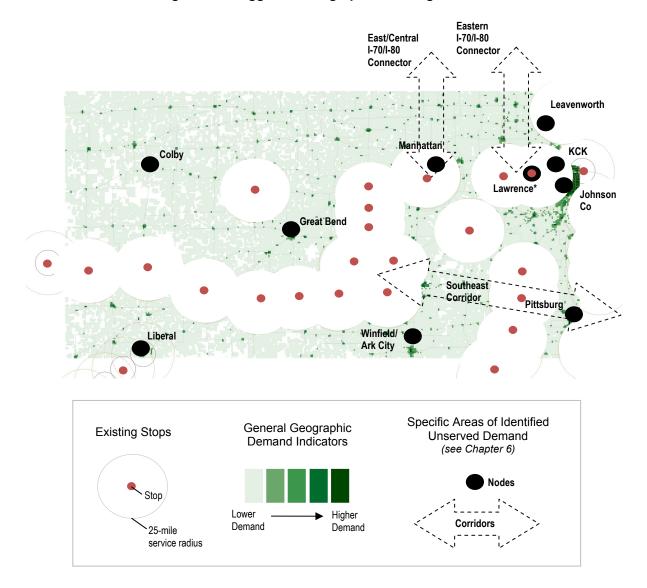


Figure 7-1: Suggested Geographic Coverage Needs

### **Awareness**

The surveys and focus groups revealed that awareness of ICB in Kansas is not as high has it could be. Forty-four (44) percent of those surveyed said they did not know where the nearest ICB stop was. In addition, when asked about potential new stop locations, many survey respondents suggested stops that already existed, further indicating a lack of awareness of the actual extent of the system. The problem of ICB as an "unknown mode" is not unique to Kansas; this mode needs to be better "advertised" in many parts of the U.S. This means better integrating ICB into the public consciousness as a transportation option on par with the rest of the transportation options in the state, including making trip planning on ICB easier. It also means promoting awareness to some of the groups that might use ICB more if they knew about it, and how to access it. Some population groups, such as students and the elderly, appear to

be more easily reachable than others, and could potentially become riders if their awareness was increased.

• Need: ICB in Kansas needs a two-pronged marketing program: (1) information broadly available/accessible to all Kansans as part of their trip planning, and (2) campaigns targeting the highest-potential riders (both immediate and long-term).

Meeting this need will most likely require a partnership between the public and private sectors, as both have interests in increasing awareness while both have limited resources.

### Connectivity

The problem of rural service is a recurring theme in this study. The most pressing challenge along these lines is connecting rural communities to the national long-haul ICB network. National (and even regional) ICB carriers are generally not motivated to deviate from straight-line routes that maximize efficiency. Further, rural transit's typical demand-response operations preclude formal interlining with ICB, because ICB ticketing systems require scheduled service to make such connections. This is not to say that rural-ICB connections are impossible, and in fact they do occur in the state, but to be successful they generally must put the onus on the rural passengers and transit operators to ensure timely connections. Some sort of hybrid between typical demand-response and scheduled service could improve coordination between the modes and increase ICB ridership.

• Need: Rural communities in Kansas need a method to connect with the ICB long-haul lines.

With scheduled fixed-route transit, intermodal scheduling is not as often an issue, because transit systems typically have comparatively frequent headways. Co-located facilities are the most dominant issue. If ICB is to be made truly available to the transportation-dependent in these communities, convenient intermodal connections are a must.

• Need: In cities with scheduled fixed-route transit, ICB needs to connect with local systems at intermodal transit centers to the extent feasible. (This currently occurs in all systems except Salina and Emporia, but would also need to be extended to any new recommended ICB stops in cities with scheduled fixed-route transit).

To best realize these connectivity improvements, a change in mindset needs to occur. Even though a mostly private system, ICB needs to be viewed as the long-haul component of an integrated Kansas public transportation system. If agencies, operators and passengers begin to see transit as a single system, strengthening intermodal connectivity will become an inevitable byproduct. This mindset also would begin to address the awareness/marketing needs discussed above, as it would allow ICB to become more prominent with the public.

• Need: The state, transit agencies, and ICB operators need to partner to create and portray a more "seamless" public transportation system, with ICB as the long-haul component.

### **Service Enhancement**

As discussed in Chapter 2 and illustrated in **Appendix A**, ICB stops in Kansas range from "no infrastructure" to dedicated transit terminals. As previously mentioned, it is often difficult for ICB companies to secure a local ticket agent, or even agreement to establish a stop at a given location. Even so, it is desirable for ICB stops in Kansas to provide certain basic levels of comfort/amenities (for

example, shelter from the elements). Development of a transit center provides the most control over these items, but it is not practical to establish such centers at each stop in Kansas. However, at stops deemed important to the overall system, higher levels of comfort and amenities could be provided. Survey respondents consistently deemed station security and cleanliness as important improvements.

• Need: Kansas' ICB stops must be viewed from a system perspective, and priorities need to be assigned regarding the levels of comfort/amenities/security provided at each.

Vehicles are the other major capital component in the ICB system, and making them as attractive as possible is key to capturing and maintaining ridership. While more populous states and higher-volume routes often have buses equipped with the most modern amenities, a key element of marketing ICB to Kansans is the provision of basic modern amenities to buses that stop within the state. Most notable among these are on-board electrical outlets and wireless internet connectivity.

• Need: ICB Vehicles purchased for use in Kansas, to the extent feasible, should provide electrical outlets and wireless internet connectivity.

### 8. Recommendations

### Goals

With the needs summarized in Chapter 7 in mind, the following goals are recommended for ICB in Kansas:

- Promote affordable, accessible and convenient intercity bus transportation for Kansas residents.
- Facilitate an interconnected network of local and long-distance bus service providers (including an information network).
- Raise public awareness of the existence and benefits of intercity bus transportation.
- Support improved service quality (including safety/security).
- Encourage a positive view of intercity bus in Kansas (including safety/security).

### **Potential Solutions**

As this study was being conducted, a suite of potential solutions was developed from which to select state priorities going forward. These solutions, shown in **Table 8-1**, attempt to reflect the goals listed above. They comprise a wide range of possible approaches, some of them mutually exclusive. These solutions were initially brainstormed by the study team and subsequently discussed with the study Advisory Committee to assist with narrowing to a manageable list of solutions for prioritization.

It is important to recognize that these solutions are not merely restricted to actions that KDOT can take; some may be better implemented by providers or other agencies. Regardless, many of these solutions will require partnerships between multiple public and private interests to secure resources, develop agreements, and ensure implementation.

### Table 8-1: Potential Kansas ICB Solutions

### Marketing/Branding/Awareness

- Publicize intercity bus service and provide links to carriers (and Russell's Guide trip planner) on state websites (KDOT, KDOA, etc.)
- Promote the three ICB brands within Kansas. For example, enhance current Beeline branding.
- Develop and distribute marketing materials and service information at public agencies (service centers, resource centers, etc.).
- Fund a marketing campaign (print, airwaves, online) Example: Advertise ICB service on local transit buses.
- Market ICB specifically to college students (higher probability of initial success).
- Create marketing agreements with 5311 providers for ICB service.
- Create online trip planning/scheduling tool with phone support.
- Include ICB in Kansas' 511 and 211 systems.
- Install information kiosks at stops (potential touch-screen, potential ticket vending).

### **Service Enhancement**

- Construct shelters at stops, specifically for those located in establishments that are not open 24 hours.
- Provide information kiosks with real-time service information at stops and stations.
- Work with bus operators to provide real-time information.
- Develop a smart-phone application that can provide real-time information.
- Partner with statewide or nationwide commercial franchises (McDonald's, Wal-Mart, TA Travel Centers of America) for stops, agents, and marketing.
- Improve stops and stations to increase comfort and safety.
- Implement Kansas ICB customer satisfaction tracking system.
- Subsidize service to maintain certain routes or stops (quaranteed minimum revenue).
- Increase service speeds with express service (e.g., Wichita KCK KCMO).
- Promote Google Transit, the Russell's Guide trip planner, and the provider websites as trip planning tools.
- Incorporate KS ICB and 5311/feeder systems into Google Transit.
- Develop Advisory Committee on better serving KS seniors with ICB.
- Develop KS Advisory Committee for ICB.

### **Service Expansion**

- Start new feeder bus services (Manhattan, Leavenworth, Johnson County, Great Bend, Arkansas City).
- Develop system of regional demand-response feeder bus services.
- Increase service frequency; add new pick-up/drop-off times (Beeline routes, and Wichita-Topeka-Kansas City routes).
- Add new stops or stations along existing routes (KCK, Colby).
- Add new routes serving areas of untapped demand (Wichita to Nevada/Joplin via US-54/Fort Scott, and Tulsa to Omaha largely along the US-75 corridor).

### **Intermodal Connectivity**

- Move ICB stops to new shared terminals with local transit/Amtrak (Wichita, Topeka, Lawrence, Hutchinson)
- Offer timed transfers for feeder services from remote counties (using real-time tracking technology).
- Work with 5311 services and other bus services to provide new feeder connections.
- Offer intermodal trip discounts to transfer passengers.
- Identify funding for timed transfer service.

### **Prioritized Strategies/Solutions**

After reviewing the needs and potential solutions, the study team developed the following list of five prioritized solutions. Other items listed in **Table 8-1** are also important, but the five items below are considered top initial priorities.

KDOT should adopt an ICB system concept and work with partners and stakeholders to implement and preserve it.

**Figure 8-1** illustrates the recommended ICB system map for the state of Kansas. Given the complexity of this recommendation, prioritization of its components are listed in order below:

- As has been recommended in previous chapters, the system builds off two east-west "trunk" lines: I-70 and US-400/US-54 (Syracuse Wichita Fort Scott). Establishing the segments and stops that do not currently exist on these trunk lines, and ensuring that they remain in place providing the desired level of service, is recommended as top priority. (This includes re-establishing the recommended level of eastbound service to Lawrence.) KDOT would most likely need to issue an RFP (most likely jointly with MoDOT) to implement the extension from Wichita to Pittsburg (and on to Springfield).
- The recommended re-routing of Jefferson Lines' US-71 route to serve Fort Scott and Pittsburg is considered second priority and will require coordination and partnership between MoDOT, KDOT, Jefferson Lines, the local agencies, and potential station agents.
- Not illustrated in **Figure 8-1** except for a general marker, multi-county ICB feeder service in western and central Kansas is considered a high priority. More details are provided in Recommendation #2, but the concept is listed here to indicate that it is considered high on the priority list. Providing this service is complex and enormous in geographic scope.
- **Figure 8-1** shows recommended stops in Kansas City (Kansas) and Olathe. Establishing these stops will involve a partnership between KDOT, the providers, local property owners, local transit agencies, and others.
  - As described previously, the KCK location with strong potential is in the Village West area near the I-435/I-70 interchange. Alternatively, the Indian Springs transit center located near the I-635/State Avenue interchange could be used.
  - In Olathe, the Great Mall of the Great Plains is recommended as a stop location. Other possibilities include Johnson County Community College and Oak Park Mall.
- **Figure 8-1** also shows the two north-south route extensions/enhancements (US-75 corridor, US-77 corridor) described in Chapter 6.
  - The extension of the I-135 corridor (Wichita-Salina) to Manhattan (via Abilene and Junction City) should be the first piece pursued. The southern extension along US-77 through Derby, Winfield, Arkansas City, Ponca City (OK), Stillwater (OK), and Oklahoma City (OK) should be pursued next. The connection to Lincoln (NE) would be a longer-term strategy.
  - Service from Omaha to Tulsa could potentially be implemented in two parts: Omaha to Topeka/Lawrence, and Topeka/Lawrence to Tulsa.

A key feature of the recommended system is a hierarchy of stations/stops. This hierarchy is described in **Figure 8-1**. See Recommendation #7 for more details on the level of service recommended for each stop type.

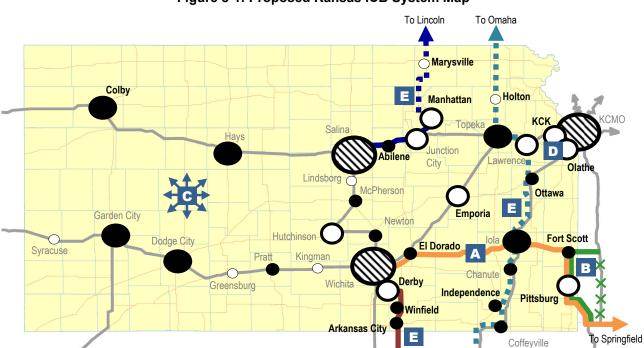


Figure 8-1: Proposed Kansas ICB System Map



**Major Transfer Center:** Stops on the trunk lines at which multiple routes converge.

To Oklahoma City

To Tulsa

- **Trunk-Line Hub:** Stops along the trunk lines at roughly 100-mile increments, representing key access points to the national system. In rural areas, these trunkline hubs are targeted as connection points for regional feeder bus systems.
- Micropolitan/Suburban Stop: Stops in cities generally in the 20,000 50,000 population range, or suburbs of large metropolitan areas. A few larger "island" cities (Lawrence, Manhattan) also fall into this category.
- **Community Stop:** Stops in cities generally in the 5,000 − 20,000 population range.
- Rural Stop: Stops in rural communities with populations generally under 5,000. In very low population areas, these could be designated as flag stops.

Existing ICB route

Recommended ICB routes – nearer-term priority

Recommended ICB routes – longer-term priority

XXXX Recommended ICB re-route

Gray Labels: Cities with existing ICB service

**Bold Black Labels: Cities with recommended ICB service** 

A - E : Recommendations described on previous page

At this point, recommended new fixed ICB routes are viewed as single daily schedules. It is recommended that KDOT work with both stakeholders and providers to optimize the schedules for these routes in order to best serve Kansans while also making timely connections to meet inter-state goals.

It is important to reiterate the delicate balance that exists with this particular travel mode. Currently, in Kansas, all ICB operations are run as for-profit businesses. They exist to make money, and they make operating decisions from this very reasonable standpoint. However, they also provide a public good, which is why public agencies such as KDOT need to maintain an interest in the system and partner with providers and others to optimize the benefits of the system for the citizens of Kansas. In bringing the recommendations of this study to reality, KDOT will often play a role, but not always a direct one. In some cases, KDOT may issue RFPs to create a service, and may provided subsidies to fund aspects of a particular route; in other cases, KDOT may act in a non-funding partnership role to work collaboratively to ensure that the system evolves and is maintained in the desired way.

# Multi-county feeder bus service should be implemented in western and central Kansas.

As discussed throughout this document, central and western Kansas population demographics are not sufficient to justify a recommendation of full implementation of ICB coverage. However, it is critical to connect this large portion of Kansas with the rest of the state through the ICB trunk lines. This includes not only remote cities and counties, but also cities (such as Great Bend, discussed in Chapter 6) that are fairly close (25-50 miles) to an existing ICB route but don't justify modification to the existing route. Therefore, it is recommended that multi-county feeder systems be developed, primarily to serve the Trunk-Line Stops identified in **Figure 8-1**. There are numerous potential ways to geographically organize such systems, but further collaboration with numerous agencies would be needed to correctly plan these systems with respect to reasonable logistics and available resources.

There are at least two operational models under which these feeder buses could operate:

- Non-daily fixed-route/schedule: The former CAREVan in northwest Kansas (discontinued in 2008 after losing its local match) ran from St. Francis to Hays and back every day, but ran different fixed routes on different days, to allow complete coverage of its 18-county region during a single week. A model along these lines could be re-established in the northwest (and potentially other regions). Alternatively, if resources and/or demand required, a region could be served by fixed-route service a few days a week. As a starting point, a bus could even be shared by two large regions for example, running in the northwest two days a week and in the southwest two days a week (which could help spread the funding base for a local match). Multiple variations on this theme are possible.
- *Demand-response*: Although traditional feeder buses tend to be fixed-route and fixed-schedule, in this case a different model could be pursued. Along the lines of typical county-based demand-response transit or the regionalization model emerging from KDOT, these feeder buses could be regionally dispatched with an explicit objective of serving the Trunk-Line ICB stops. Such services may not be elilgible for 5311(f) funding, but other funding options could be explored.

Different models may work for different multi-county areas. Regardless of the model used, KDOT's CTDs, and emerging regionalization model, should be tightly interwoven with this feeder concept. It is strongly encouraged that the dispatch functions for these feeder buses and the more traditional rural transit coincide. Serving ICB should be a major, "advertised" function of these regional dispatch centers, and the centers should be equipped with current information regarding ICB schedules so they can help travelers plan their trips. Since formal interlining between ICB and these feeder buses will not be achievable, it is recommended that the feeder-bus operating agencies be empowered to work closely with customers to ensure timely connnections are made.

Over time, as public awareness grows and demand increases, any of these services could "graduate" to more standard scheduled ICB service, which would allow interlining with the major carriers and access to more sophisticated trip-planning tools.

An ICB branding, marketing, and information campaign should be established for Kansas, with initial and ongoing components.

As this study has demonstrated, awareness of ICB in Kansas is low. A marketing campaign to promote ICB is a logical step, but a more powerful approach is recommended, involving the "new mindset" that explicitly places ICB within the state's mass transportation hierarchy. This campaign would educate users regarding how to access mass transportation at all levels statewide. One approach to such a campaign would be to show users how they could travel from any Kansas location to any other Kansas location within one day at a reasonable cost. The campaign would have several major components:

- A *branding strategy* that not only gives ICB an identity in the public mind (perhaps similar or tied to the "Kansas Rides" efforts at the regional level), but also links it perceptually to the other components of the mass transportation system in Kansas.
- A *comprehensive brochure* describing long-distance, rural, and urban mass transportation options in Kansas, the ways they connect to each other, and how to plan and schedule travel throughout the state. This brochure could be distributed at public sites such as libraries, state facilities, transit
  - centers, transit vehicles, and city halls. Additionally, it could be placed at sites targeting high-potential user groups sites such as university/college common areas, parole offices, social services facilities, senior centers, and Native American reservations.
- An *interactive website* containing the same basic information as the brochure, but at a more detailed level appropriate for the internet. The site should contain links to the provider websites, and should also provide assistance with trip planning. Ultimately, the site could blossom into a robust multimodal travel planning tool. One option is to develop the site in phases as described below:
  - Phase 1: Basic ICB Route and Schedule. Initially, an interactive map linking to ICB schedule information would be of great help. The website for Russell's Guides (<a href="http://www.russellsguides.com/">http://www.russellsguides.com/</a>) has an ICB trip planner that is still in its infancy but could be linked to from KDOT's website (and those of other agencies).

A more powerful tool would be one along the lines of Trinity Transit's website from California (<a href="http://www.trinitytransit.org/">http://www.trinitytransit.org/</a>) – see **Figure 8-2**. This tool has a web-based interactive map with direct links to schedules, but also a trip O-D selection function that links directly to Google Transit (an established stable open-source

Figure 8-2: Website Example (Trinity Transit)

Interactive Map



Direct Google Transit Link



platform) to show users trip options and schedules. This model should be fairly easily adaptable to a statewide ICB system for Kansas.

- *Phase 2: Multimodal Connections.* A more complex next step, but one that would significantly benefit Kansans, would be to enhance the system to include local transit, Amtrak, and rural transit (especially the feeder bus network). Rural transit will be the most challenging in that it most often represents demand-response services, and so is not as easily mapped. However, the University of Kansas Transportation Center (KUTC) has a comprehensive online database (<a href="http://www2.ku.edu/~kutc/cgi-bin/RTAP\_transit.php">http://www2.ku.edu/~kutc/cgi-bin/RTAP\_transit.php</a>) that could be linked to such a system, at a minimum showing service boundaries and contact information, and more helpfully, showing service types and hours of operation.
- *Phase 3: Real-Time Information.* Existing technology allows for real-time web tracking of ICB vehicles. For example, Google Live Transit Updates provides real-time transit tracking information in various U.S. Cities. Smartphone apps such as goCatch<sup>TM</sup>, Cabulous and others provide real-time taxi locations. These technologies could be brought to bear on ICB *if* providers were willing to publicly share their real-time GPS coordinates. This is an area in which partnership between KDOT and ICB providers could bring much-needed change and modernization to the ICB-customer interface. Ultimately, the system could be expanded to give real-time information regarding other modes in Kansas, such as Amtrak, local transit, commercial aviation, and even demand-response transit.
- *Phase 4: Seamless Coordination.* Well beyond the horizon of this study, but absolutely worth considering, would be the long-term ability for the website to plan a trip in Kansas from start to finish, using multiple modes (including timed transfers) and even book the trip through some sort of centralized brokering system. This kind of operation should be the ultimate goal of such a website providing a one-stop multi-modal travel planning/scheduling site for Kansans.

It should be noted that Kansas' Tourism Division's official website, <a href="www.travelKS.com">www.travelKS.com</a>, already has an interactive trip planner that identifies key tourist destinations across the state and provides both driving directions and motorcoach charter information. There is potential to form a partnership between the Tourism Division and KDOT to create a more robust multi-modal trip planner that both agencies could link to.

• *Telephone support* for those without Web access, allowing both information sharing and assistance with trip planning. This could perhaps occur via enhancements to the Kansas 211 system, which already provides a level of transportation information.

This marketing campaign should also highlight package express service.

The complex nature of ICB will require partnerships to be formed between KDOT and relevant stakeholders. These partnerships will enable future implementation of ICB in Kansas:

- *Public:* Kansas Department of Wildlife, Parks and Tourism; Kansas Department on Aging; Department of Commerce; Kansas Commission on Disability Concerns; Kansas Department of Health and Environment, local/rural transit agencies.
- *Private and Institutional:* ICB operators, Travel Industry Association of Kansas, Kansas Public Transportation Association, University of Kansas Transportation Center.

# 4

# KDOT and partners should develop and monitor level of service targets for the ICB system in Kansas.

In the spirit of "What gets measured gets done", it is recommended that KDOT begin explicitly tracking statistics related to ICB in Kansas on an annual basis.

As a starting point, it is recommended that ICB be added to KDOT's Performance Measures program and website, specifically under the "Modes" tab. If a performance target is to be added, the following are potential suggestions:

- Percent of Kansans within 25 miles of an ICB stop with service at a reasonable time of day (suggested target: 90 percent)
- Number of cities with a population over 15,000 served by ICB (suggested target: all of them, perhaps excluding metropolitan suburbs)
- ICB stops per capita (more research needed to develop target)
- Number of counties with access to ICB either with a stop or a transit connection (suggested target: all of them)

But a single measure alone is not enough to assure KDOT and Kansans that the ICB system is performing as desired. Moving forward, a next step in the monitoring of ICB in Kansas would be the use of multiple performance measures. Some potential performance monitoring tools are listed below:

- Customer Satisfaction: A brief annual survey could yield useful information on system success from the user perspective.
- *Stops:* As mentioned above, KDOT should set standards for each stop type (security, degree of shelter, amenities provided), and then could make periodic assessments of these standards and the general condition of the stops.
- *System:* Progress toward full build-out of the desired system should be measured, including route/stop coverage, bus frequency, and preferred times-of-day.
- Awareness: Of all transportation modes in the state, ICB is perhaps the one with which residents are least familiar, and usage suffers because of this. KDOT could conduct periodic awareness surveys of the general population.
- *Usage*: Although at least some of the carriers are interested in privacy regarding ridership data, KDOT could sign privacy agreements where necessary and, at a minimum, track the total ridership in the state.
- *Vehicles:* The Federal Motor Carrier Safety Administration has purview over many of the relevant aspects of vehicles that would be of concern, but KDOT could consider monitoring accessibility of buses used in Kansas to ensure that targets are met.

It is important to give thought to exactly who will be doing this monitoring. As stated elsewhere in this report, a new mindset is recommended wherein ICB is considered as the long-haul component of the mass transportation system in Kansas. To make this happen, existing systems and agencies that deal with transit at the regional and statewide level need to explicitly include ICB as part of their missions and purviews. Because ICB providers necessarily have their own (multi-state) interests, it is incumbent on Kansas agencies and stakeholders to safeguard the state's interest. This would include, at a minimum: KDOT and the Transit Providers throughout the state. One variation on this recommendation would be to create a standing advisory committee for ICB, but it is thought that integrating with existing efforts is a stronger approach.

Station/Stop locations/amenities should correspond to the station hierarchy in a context-sensitive manner.

The primary purpose of establishing the station/stop hierarchy recommended in **Figure 8-1** is to allow KDOT to specify the desired level of service at the various stop types. The descriptions below give some additional guidelines, but are not always specific because desired context-appropriate, local targets will need to be established going forward.

- For the *Major Transfer Centers*, comfortable stops with a range of amenities are important, because at these locations passengers may be waiting for longer periods of time to transfer from one ICB route to another. Ideally, a dedicated multi-modal terminal would be provided in these locations (as exists in Kansas City, Missouri, and will soon exist in Wichita). At a minimum, it is recommended that these stops include indoor waiting areas with 24-hour security (possibly as a storefront with connections to an adjacent business), and that food services be available (vending machines at a minimum) along with restroom access. Ticket agents should be required at these locations. Co-locating with existing transit stops, preferably at major transfer locations, is a priority. The level of branding should be high.
- For the *Trunk-Line Hubs*, efforts should be made to ensure stops in these cities remain in perpetuity (although site locations may change over time), to maintain basic minimum spacing across the two east-west trunk lines. The need for lengthy passenger waiting is generally expected to be less at these locations than at the Major Transfer Centers, and in some cases, hours in which ticket agents, security, food, and restrooms need to be available could be limited to the hours leading up to a bus arrival/departure. But, at those times, these amenities should generally be at levels similar to the Major Transfer Centers. Proximity to local and regional transit should be optimized. Ticket agents should be required at these locations. Branding should be high. The size and nature of these facilities can vary with context and demand, for example:
  - At the upper end of the spectrum, ICB in Topeka should be consolidated to the Quincy Street Transit Center.
  - At the lower end, service in Colby could occur at the Colby Visitors Center, or any of the freeway-oriented 24-hour commercial establishments located near the I-70/South Range Avenue interchange. The Colby stop's primary function is to tie into feeder service.
- The *Micropolitan/Suburban Stops* should look attractive and feel safe, and preferably be in locations of activity (not remote). It is recommended that these locations have a ticket agent available at least in hours leading up to bus arrival/departure, and should provide secure 24-hour shelter. Restrooms and minimal food service (vending machines) are recommended at a minimum, although higher levels of amenities are encouraged. Branding should be fairly high (e.g. signing and ticket-area design). Where local transit exists, it should connect to the ICB stops. Multi-modal terminals such as Amtrak stops, transit centers, or even commercial airports, could be considered if they provide the securities and amenities described here.
- At *Community Stops*, indoor shelter should be available. Food and bathrooms are not necessary, but are certainly not discouraged. Locations at or near 24-hour businesses are encouraged. Minimal branding (signage) is recommended, but additional branding (such as ticket-area design) is not discouraged. A ticket agent may not be needed at lower-demand locations.

• At *Rural Stops*, a ticket agent is not necessary. These low-volume stops can operate as flag stops, and explicit shelter does not need to be provided. However, attempts should be made to locate them at or near a 24-hour business. Branding is not necessary beyond stop identification, but is not discouraged.

These are initial recommendations. The precise level of amenities for each stop type (and each stop location) should be further specified as implementation moves forward.

Bringing these recommendations about will involve partnerships. There may not always be a financial commitment on KDOT's part, but the agency will be willing to participate in other ways to support success.

### Conclusion

In summary, the following five strategies, in priority order, are recommended for Kansas:

- KDOT should adopt an ICB system concept and work with partners and stakeholders to implement and preserve it.
- Multi-county feeder bus service should be implemented in western and central Kansas.
- An ICB branding, marketing, and information campaign should be established for Kansas, with initial and ongoing components.
- KDOT and partners should develop and monitor level of service targets for the ICB system in Kansas.
- Station/stop locations/amenities should correspond to the station hierarchy in a context-sensitive manner

These recommendations can form the foundation of a successful expanded ICB system in Kansas.

# Appendix A Station Inventory

# **Appendix A: Station Inventory**

|                                | Chanute  | Coffeyville   | Dodge City  | Emporia                         | Garden City  | Greensburg  | Hays   | Hutchinson  | lola   | Junction City   |
|--------------------------------|--|---|---|---------------------------------|--|---|--|---|--|---|
| Photo                          |  |   |   |                                 |  |   |  |   | Skort Stop   |   |
| Provider                       | Jefferson Lines  | Jefferson Lines   | Prestige  | Greyhound                       | Prestige   | Prestige  | Greyhound  | Prestige  | Jefferson Lines  | Greyhound   |
| Establishment<br>Type          | Convenience Store  | Muffler Shop  | Mall  | Truck Stop/Fast Food Restaurant | Transit Center   | Intersection  | Truck Stop   | Convenience Store   | Convenience Store  | U-Haul Dealer   |
| Ticketing                      | No   | No  | Yes   | No                              | Yes  | No  | Yes  | Yes   | No   | Yes   |
| Package<br>Express             | No   | No  | No  | No                              | No   | No  | Yes  | No  | No   | No  |
| Parking                        | 5-10 short-term spaces   | None  | Plentiful short-term spaces   | Plentiful short-term spaces     | ?  | None  | 3-4 short-term spaces  | 3-4 short-term spaces   | Plentiful short-term spaces  | 5-10 short-term spaces  |
| Seating                        | 2 indoor booths  | 2 outdoor seats   | Yes, inside mall  | Yes, in restaurant              | ?  | None  | None   | None  | 3 tables (4 seats each)  | Yes in restaurant   |
| Amenities                      | Convenience food and public restrooms  | No public restrooms or other amenities  | Food court open 10am-9pm and public restrooms   | Fast food and public restrooms  | ?  | None  | Convenience food and McDonalds next door   | Convenience food and unisex restroom  | Convenience food and public restrooms  | Restaurant nearby with restrooms  |
| Location                       | 701 N. Santa Fe Ave  | 1201 W 8th St   | 2601 Central Ave  | 2000 Industrial Rd              | 1008 N 11th St*  | Main St & US-54/400   | 3610 Vine St   | 200 E Ave A   | 906 W 1st St   | 126 W Flint Hills Blvd  |
| City Population<br>(2010)      | 9,119  | 10,295  | 27,340  | 24,916                          | 26,658   | 777   | 20,510   | 42,080  | 5,704  | 23,353  |
| County<br>Population<br>(2010) | Neosho – 16,512  | Montgomery – 35,471   | Ford – 33,848   | Lyon – 33,690                   | Finney – 36,776  | Kiowa – 2,553   | Ellis – 28,452   | Reno – 64,511   | Allen – 13,371   | Geary – 34,362  |
| Transit<br>Connections         | Type: Demand-responsive bus<br>service<br>Provider: Tri-Valley<br>Developmental Services and<br>Southeast KS Mental Health<br>Center | Type: Demand-responsive bus service  Provider: Senior Services of Southeast Kansas, Inc.: | Type: Demand-responsive bus service  Provider: City of Dodge City   |                                 | Type: Fixed-route transit  Connection: ICB stop is located at the Finney County Transit Center.  | Type: Demand-responsive bus<br>service<br>Provider: Kiowa County Mini-<br>Bus and Kiowa County Senior<br>Center | Type: Demand-responsive bus services  Provider: Developmental Services of NW Kansas. | Type: Fixed-route transit  Connection: ICB stop is located along one transit route. There is a designated transit stop at that location | Type: Demand-responsive bus service  Provider: Southeast KS Mental Health Center | Type: Demand-responsive bus service  Provider: Geary County Senior Center |
| Other Modal<br>Connections     | None   | None  | Air: Dodge City Regional Airport<br>5.1 miles from ICB stop; no<br>connection<br>Rail: Amtrak station 1.8 miles<br>from ICB stop; no connection | None                            | Air: Garden City Municipal Airport 10.9 miles from ICB stop; no connection  Rail: Amtrak station 1.0 miles from ICB stop; no connection via transit, although there is a transit route within 2 blocks of the station.  *Recently relocated from the |   | Air: Hays Municipal Airport 4.7 miles from ICB stop; no connection                   | Rail: Amtrak station 0.6 miles from ICB stop; no direct connection, but transit route goes within 1 block of the terminal.              | None   | None  |
|                                |  |   |   |                                 | Garden Čity Travel Plaza truck stop located at 1265 Solar Ave.   |   |  |   |  |   |

|                                | Kingman   | Lawrence  | Lindsborg  | McPherson  | Newton  | Pratt   | Salina  | Syracuse  | Topeka   | Wichita   |
|--------------------------------|---|---|--|--|---|---|---|---|--|---|
| Photo                          |   |   |  | EDECOTI  |   |   |   |   |  |   |
| Provider                       | Prestige  | Greyhound   | Prestige   | Prestige   | Prestige  | Prestige  | Greyhound, Prestige   | Prestige  | Greyhound  | Greyhound, Prestige   |
| Establishment<br>Type          | Grocery Store   | Convenience Store   | Grocery Store  | Discount Store   | Gas Station   | Senior Center   | Truck Stop  | Gas Station   | Gas Station  | Greyhound Terminal  |
| Ticketing                      | Yes   | Yes   | No   | No   | Yes   | Yes   | Yes   | Yes   | Yes  | Yes   |
| Package<br>Express             | No  | Yes   | No   | No   | No  | No  | Yes   | Yes   | Yes  | Yes   |
| Parking                        | 10-15 short-term spaces   | 3-4 short-term spaces   | Plentiful short-term spaces  | Plentiful short-term spaces  | ?   | Limited short-term spaces   | Plentiful short-term spaces   | 3-4 short-term spaces   | 3-4 short-term spaces  | 10 spaces   |
| Seating                        | None  | None  | Bench in store   | None   | ?   | Some indoor seating   | 15 indoor seats   | Booths and tables   | Some indoor seating  | Plentiful indoor seating  |
| Amenities                      | Food and public restrooms   | Convenience food and unisex restroom  | Food and public restrooms  | None   | ?   | Restrooms   | WiFi, Food, Restrooms/ Showers  | Convenience food and public restrooms                                     | Restrooms and food across the street   | Restrooms are available, but cleanliness is an issue  |
| Location                       | 658 East D Ave  | 2447 W 6th St   | 215 Harrison St  | 601 N Main St  | 1608 E 1st St*  | 619 N Main  | 671 Westport Blvd   | 204 W Hwy 50  | 600 SE Quincy  | 312 S Broadway*   |
| City Population (2010)         | 3,177   | 87,643  | 3,458  | 13,155   | 19,134  | 6,835   | 47,707  | 1,812   | 127,473  | 382,368   |
| County<br>Population<br>(2010) | Kingman – 7,858   | Douglas – 110,826   | McPherson – 29,180   | McPherson – 29,180   | Harvey – 34,684   | Pratt – 9,656   | Saline – 55,606   | Hamilton – 2,690  | Shawnee – 177,934  | Sedgwick – 498,365  |
| Transit<br>Connections         | Type: Demand-responsive bus service, Low-cost taxi service  Provider: Kingman County Council on Aging and City of Kingman Transportation Department | Type: Fixed-route transit  Connection: ICB stop is located along 2 transit routes. There is a designated transit stop at this location. | Type: Demand-responsive bus service  Provider: McPherson County Council on Aging | Type: Demand-responsive bus service  Provider: McPherson County Council on Aging | Type: Demand-responsive bus service Provider: The Harvey Interurban             | Type: Demand-responsive bus<br>service  Provider: Pratt County Council on<br>Aging and Harper County<br>Department on Aging | Type: Fixed-route transit  Connection: One route comes within ¼-mile of the ICB stop.   | Type: Demand-responsive bus service  Provider: Hamilton County VIP's Inc. | Type: Fixed-route transit  Connection: ICB stop is 3 blocks from Quincy Station – the major transit hub. Many routes pass the ICB stop; there is a designated transit stop at this location. | Type: Fixed-route transit  Connection: There is a designated transit stop at this location. In the future, the ICB stop may be moved to the Wichita Transit Center. |
| Other Modal<br>Connections     | None  | <b>Rail:</b> Amtrak station 2.1 miles from ICB stop; no connection, although train station is within 3 blocks of a transit route.       | None   | None   | Rail: Amtrak station 2.2 miles from ICB stop; no connection.                    | None  | Air: Salina Municipal Airport 2.2 miles from ICB stop; no direct connection via fixed route transit, although airport is located along a transit route. | None  | Rail: Amtrak station 0.5 miles from ICB stop; no connection although train station is within 2 blocks of a transit route.  | Air: Wichita Mid Continent<br>Airport 6.5 miles from ICB stop;<br>connection via fixed route transit  |
| Notes                          |   |   |  |  | *Recently relocated from the<br>Newton Amtrak Station located at<br>414 N Main. |   |   |   |  | *Planned to be relocated to the<br>Wichita Transit Center located at<br>214 S Topeka Street.  |

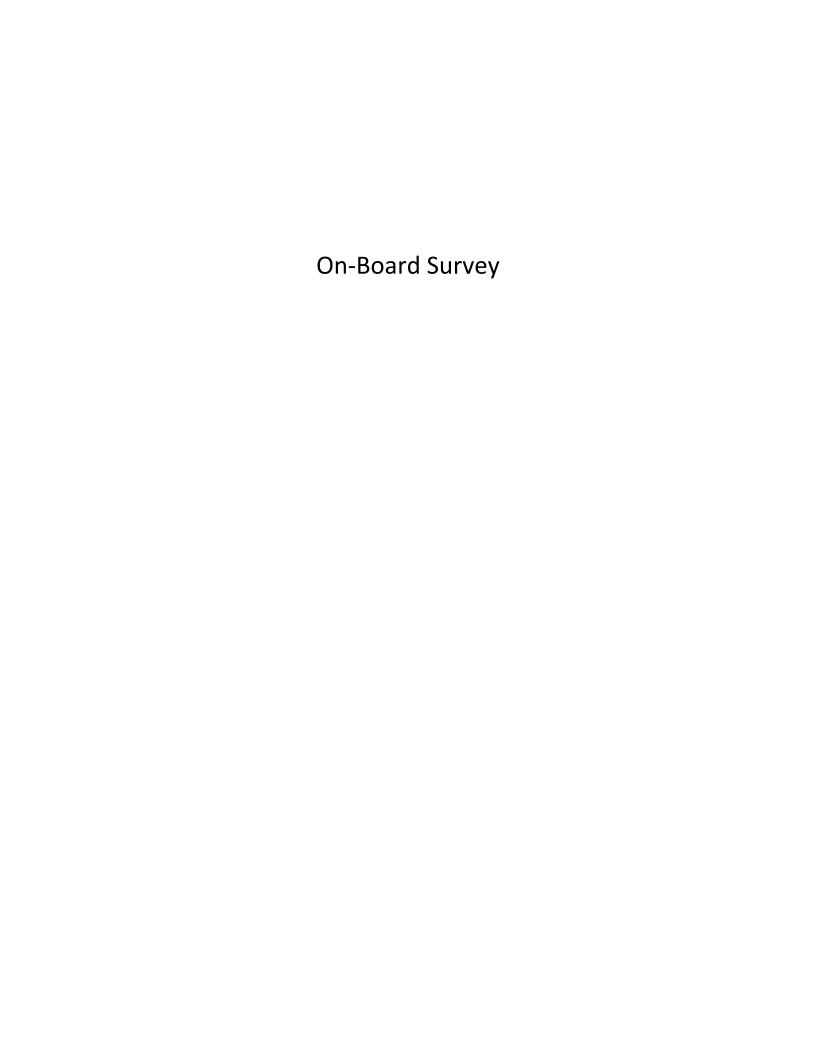
# Appendix B Survey Methodology and Instruments

# Paper Survey Distribution Methodology

### Survey Methodology - Mailed Survey

Due to an expected response rate of 7%, it was determined that to obtain a sufficient number of responses, a total of 6,000 paper surveys should be mailed to low-income residents in the state. A good geographic distribution of responses was desired; therefore, due to the nature of the population distribution in the state (a few highly-populated areas, with the rest being very low-density rural), surveys could not be simply rationed out based on county population. Doing so would result in nearly 20% of surveys being sent to Johnson County alone. Instead, a 50-50 split of urban vs. rural was used. This was designed to provide a statistically sufficient number of responses from both the urban and rural parts of the state. There are five counties that were determined to be urban (with a population of greater than 100,000 residents): Douglas, Johnson, Sedgwick, Shawnee, and Wyandotte. Each of the five urban counties was capped at 600 surveys. The remaining 3000 surveys were proportionally distributed to the remaining 100 counties in the state, based on their population. This distribution resulted in all but one county receiving at least 2 surveys.

As mentioned previously, this survey was targeting low-income residents; therefore, the mailing list was further stratified by income. For each of the 5 urban counties, half of the surveys were sent to residents with a reported household income of less than \$25,000 and the other half were sent to residents with a reported household income between \$25,000 and \$50,000. The same income splits were used for the remaining surveys that went to rural counties as well (1500 surveys to each income group).



# Kansas Long-Distance Bus Survey

Fall 2011

Dear Bus Rider:

Please help us. We have been hired by the Kansas Department of Transportation (KDOT) to survey bus riders about your opinions regarding long-distance bus travel. We are specifically interested in where and why people travel and ways to improve "Long-Distance Bus" travel options in Kansas. This includes bus services such as Greyhound, Jefferson Lines, and Prestige Bus Lines (Beeline Express).

We would appreciate it if you could spend a few minutes completing this survey to help KDOT better understand ways to serve Kansas' citizens and visitors. Our main interest in the project is to provide accurate information about your bus travel and what you think, so please respond as accurately and completely as possible. The survey is completely anonymous; we do not ask your name or address. The survey should take only 5 to 10 minutes to complete, and you can hand it back to the person that gave it to you or return it in a postage paid envelope that we can provide to you.

Christopher Kinzel, P.E. Project Director

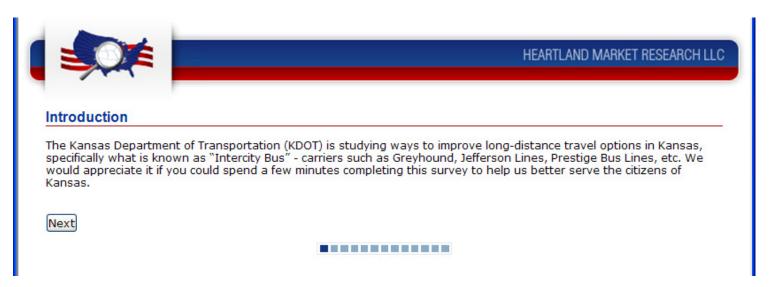


| 1.  | Please tell us about your current long-distance bus trip. Where did you get on the bus at the beginning of your trip? (bus stop or station location) City: State:   |  |  |  |  |  |  |  |
|-----|---|--|--|--|--|--|--|--|
| 2.  | How far did you have to travel to get to the bus stop or station where you first started your trip? miles   |  |  |  |  |  |  |  |
| 3.  | How did you reach the bus stop/station where you first started your trip?  Walked Taxi Drove and parked Shuttle or van service  Dropped off City bus Other:   |  |  |  |  |  |  |  |
| 4.  | Where will you get off the bus at the end of your trip? (bus stop or station location)  City: State:  |  |  |  |  |  |  |  |
| 5.  | When you get off the bus at the end of your trip, how far will you have to travel to get from the bus stop or station to your final destination? miles  |  |  |  |  |  |  |  |
| 6.  | How will you get from the bus stop or station to your final destination?  Walk Drive Shuttle or van service  Be picked up City bus Other:   |  |  |  |  |  |  |  |
| 7.  | What is the purpose of your current trip?  Visit family/friends  Job - Commute  Personal or family business  Medical  Shopping  School/education  Other:  |  |  |  |  |  |  |  |
| 8.  | If you are traveling with other people, please note how many adults and how many children (do not include yourself). If you are traveling alone, please check that option.    1 2 3 4 5 6+  adults  |  |  |  |  |  |  |  |
| 9.  | Who purchased your bus ticket?  O I did O A family member O Someone else  |  |  |  |  |  |  |  |
| 10. | If known, what was the total cost of your <u>individual</u> bus ticket? \$  |  |  |  |  |  |  |  |
| 11. | Is this trip part of a round trip or is it a one-way trip? One-way Round Trip   |  |  |  |  |  |  |  |
| 12. | Why did you choose long-distance bus over other travel options? (select <u>all</u> that apply)  Cost  I like riding the bus  Ability to travel with family/friends  Safety  I do not like to fly  Bus stop/station was easy to reach  Relaxed pace  No car or cannot drive  I do not like to drive long distances  Convenience  Environmentally friendly  I did not have anyone to drive me |  |  |  |  |  |  |  |

No other option Other:

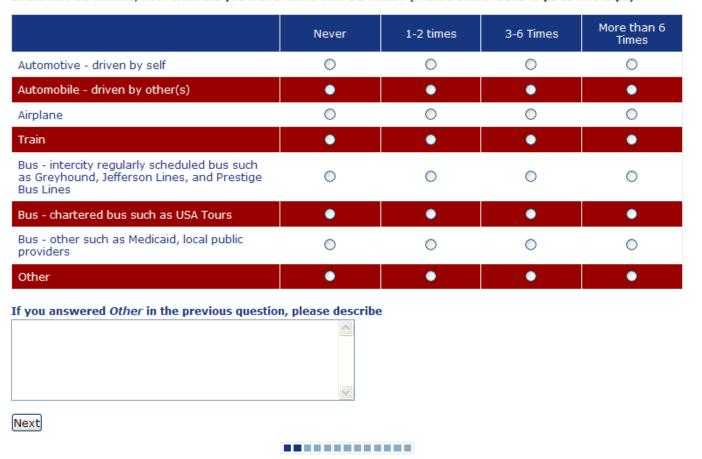
| 13. How often did you travel by long-distance bus in the last 12 mg  | onths? ( <u>treat rou</u> | nd trips as two l                     | ous trips)             |  |  |  |  |  |
|--|---------------------------|---------------------------------------|------------------------|--|--|--|--|--|
| No trips 1 one-way trip 2 one-way trips  | 3-4 one-way               | trins 5 or                            | more                   |  |  |  |  |  |
| (typically one round trip)   | O 3-4 Offe-way            | -way trips                            |                        |  |  |  |  |  |
| 14. In what cities in (or near) Kansas would you like to see new lon   | g distance bus st         | ops or stations?                      | ı                      |  |  |  |  |  |
|  | 8 4.004.100 240 00        | ops or stations.                      |                        |  |  |  |  |  |
|  |                           |                                       |                        |  |  |  |  |  |
|  |                           |                                       |                        |  |  |  |  |  |
|  |                           |                                       |                        |  |  |  |  |  |
| 15. Please respond to how the following would affect <b>how often</b> ye   | ou would ride th          | e bus.                                |                        |  |  |  |  |  |
|  |                           | Nould not affec                       | t Would make me        |  |  |  |  |  |
|  | ide <u>more</u> often     | whether I ride                        | ride <u>less</u> often |  |  |  |  |  |
| Bus departed and arrived at a more convenient time for me  | 0                         |                                       |                        |  |  |  |  |  |
| Bus stops and stations were closer to where I started or   |                           | $\bigcirc$                            |                        |  |  |  |  |  |
| stopped my trip  | _                         |                                       |                        |  |  |  |  |  |
| Convenient transportation was available to/from stops and stations   |                           | $\circ$                               |                        |  |  |  |  |  |
| Gas rose to \$5 per gallon   |                           |                                       | +                      |  |  |  |  |  |
| Gas dropped to \$2 per gallon  | 0                         | $\overline{}$                         |                        |  |  |  |  |  |
| Bus trips took less time   | $\overline{}$             | $\frac{\circ}{\circ}$                 |                        |  |  |  |  |  |
| Bus ticket prices were cut in half   |                           | $\overline{}$                         |                        |  |  |  |  |  |
| Other:   |                           |                                       |                        |  |  |  |  |  |
|  |                           |                                       |                        |  |  |  |  |  |
|  |                           |                                       |                        |  |  |  |  |  |
| 46 the second the falls for a test the falls of the falls |                           |                                       |                        |  |  |  |  |  |
| 16. How would you rate the following potential improvements:   |                           |                                       |                        |  |  |  |  |  |
|  | Important t               | o me Not Im                           | portant to me          |  |  |  |  |  |
| Bus tickets were easier to buy   | 0                         |                                       | $\circ$                |  |  |  |  |  |
| Bus seats were more comfortable  | 0                         |                                       | $\bigcirc$             |  |  |  |  |  |
| Bus bathrooms were cleaner   | 0                         |                                       | 0                      |  |  |  |  |  |
| Buses were safer (more security on bus)  | 0                         |                                       | 0                      |  |  |  |  |  |
| Buses better accommodated disabled   | 0                         |                                       | $\bigcirc$             |  |  |  |  |  |
| Buses had more room for carry-on luggage   | $\frac{0}{0}$             |                                       | $\bigcirc$             |  |  |  |  |  |
| Buses had electrical outlets   | $\frac{}{}$               |                                       | $\bigcirc$             |  |  |  |  |  |
| Buses accommodated bicycles  |                           |                                       |                        |  |  |  |  |  |
| Bus stops and stations had better lighting and more securit Bus stops and stations were cleaner  | у                         |                                       |                        |  |  |  |  |  |
| bus stops and stations were cleaner  |                           |                                       |                        |  |  |  |  |  |
|  |                           |                                       |                        |  |  |  |  |  |
| The following questions are very important to our study. Please rer  | member the surv           | ev is anonymou                        | s We do not want       |  |  |  |  |  |
| your name, address, or other detailed identifying information.   | member the surv           | cy is anonymou                        | s. We do not want      |  |  |  |  |  |
|  |                           |                                       |                        |  |  |  |  |  |
| 17. What is your age group? Onder 18 18 to 25  | 26 to 40                  | 41 to 65 🔘 (                          | Over 65                |  |  |  |  |  |
| 40 144 15 1 2 05   | 7: 0 1                    |                                       |                        |  |  |  |  |  |
| 18. What is your home city or zip code? City:  | or Zip Code               | 2:                                    |                        |  |  |  |  |  |
| 19. What is your current employment category?  |                           |                                       |                        |  |  |  |  |  |
| Construction or Maintenance Student  | Office or                 | Administrative                        |                        |  |  |  |  |  |
| Sales or Service Business Retired  | Healthca                  | Healthcare or Social Services         |                        |  |  |  |  |  |
| <ul> <li>Transportation and Material Moving</li> <li>Homemaker</li> </ul>  |                           | & Agriculture                         |                        |  |  |  |  |  |
| <ul> <li>Professional or Management</li> <li>Unemployed</li> </ul>   |                           | Technical, Craft, or Industrial       |                        |  |  |  |  |  |
| Government & Related Services Active Militar   | _                         | , , , , , , , , , , , , , , , , , , , |                        |  |  |  |  |  |
| Covernment a newcoa services Covernment  | 7 - 50                    |                                       |                        |  |  |  |  |  |
| 20. How many people live in your household?  | 3 04                      | <b>O</b> 5 <b>O</b>                   | 6 or more              |  |  |  |  |  |
| <u> </u>   |                           |                                       |                        |  |  |  |  |  |
| 21. What is your gender?   |                           |                                       |                        |  |  |  |  |  |
| 22. What is your annual household income?  |                           |                                       |                        |  |  |  |  |  |
| 0 to \$14,999 \$15,000 to \$24,999   |                           | \$25,000 to \$34                      | 999                    |  |  |  |  |  |
| \$35,000 to \$49,999 \$50,000 to \$74,999 \$75,000 or more   |                           |                                       |                        |  |  |  |  |  |
| <u> </u>   |                           | <del></del>                           |                        |  |  |  |  |  |
| 23. Do you own or have access to a reliable car you could use for a  | long trip?                | Yes 🔘                                 | No                     |  |  |  |  |  |
|  | _                         | <b>'</b>                              |                        |  |  |  |  |  |
| 24. Do you have a condition or disability that prevents you from dr  | riving?                   | res O No                              |                        |  |  |  |  |  |
| 25. What is your othersity/race?   |                           |                                       |                        |  |  |  |  |  |
| 25. What is your ethnicity/race?  (Please select all that apply)  American Indian or Alaska  (Please select all that apply)  | Native                    | O Asiar                               |                        |  |  |  |  |  |
| O Black of Affical Afficial  |                           |                                       | anic or Latino         |  |  |  |  |  |
| Native Hawaiian or Other   | Pacific Islander          | O Whit                                | e                      |  |  |  |  |  |





## General Long-Distance Travel

In the last 12 months, how often did you travel more than 50 miles? (Please count round-trips as two trips):



# Long-Distance Travel Details You stated that you took one or more trips more than 50 miles. Please mark all of the reasons why you traveled this far. Visit family/friends Dob - normal commute Dob - other Personal or family business Medical Moving Shopping Vacation/Recreation School Other School/Education If you answered Other in the previous question, please describe For trips of over 50 miles, please select the option that describes how you usually travel: Alone With 1 companion With 2 companions With 3 or more companions What city and state (or country) did you visit on your last trip of over 50 miles? City (Click here to choose) State (or country) Next

-----

| Most Recent Intercity Bus Trip  |    |
|---|----|
| Some of these questions are almost the same as the questions you just answered, but the focus is on your most recent bus trip. This is needed for our study.  |    |
| You stated that you traveled at least 50 miles on an intercity regularly scheduled bus such as Greyhound, Jefferson Lines, or Prestige Bus Lines. The following questions are about <b>your most recent bus trip</b> on an intercity bus. |    |
| Please mark the main reason why you traveled on your last intercity bus trip.   |    |
| ○ Visit family/friends<br>○ Job - normal commute  |    |
| Job - other     Personal or family business     Medical   |    |
| Shopping Vacation/Recreation  |    |
| O School/Education Other  |    |
| If you answered <i>Other</i> in the previous question, please describe  |    |
|   |    |
| Did you travel alone or with others?  |    |
| O Alone O With 1 companion  |    |
| With 2 companions     With 3 or more companions   |    |
| What city and state (or country) did you visit on your last intercity bus trip?   |    |
| City  |    |
| State (or country) (Click here to choose)   |    |
| Nove  | ı  |
| Next  |    |
|   | 21 |
| Most Recent Intercity Bus Trip, Part II   |    |
| How far did you travel from where you started your trip (usually your home) to where you got on the intercity bus?  O Less than 5 miles   |    |
| O Between 5 to 10 miles O Between 10 to 25 miles  |    |
| O More than 25 miles  How did you get from your starting point to the intercity bus stop/station?   |    |
| Walked     Dropped off by someone   |    |
| O Drove and parked O City bus   |    |
| O Shuttle or van service (not city bus) Taxi  |    |
| O Other   |    |
| How far did you travel from your final intercity bus stop to your final destination?  O Less than 5 miles   |    |
| O Between 5 to 10 miles O Between 10 to 25 miles O More than 25 miles   |    |
| How did you get from your final intercity bus stop to your final destination?   |    |
| O Walked O Picked up by someone   |    |
| O Drove O City Bus  |    |
| Shuttle or van service (not city bus) Taxi Other  |    |
|   |    |
| Next  |    |
|   |    |
| Most Recent Intercity Bus Trip, Part III  |    |
| What are the major reasons why you chose the intercity bus over other options? (please select all that apply) $\Box$ Cost   |    |
| Safety Relaxed pace   |    |
| Convenience I like riding the bus   |    |
| ☐ I do not like to fly<br>☐ No car or cannot drive  |    |
| Environmentally friendly Ability to travel with family/friends  |    |
| <ul> <li>☐ Bus stop/station was easy to reach</li> <li>☐ I do not like to drive long distances</li> <li>☐ I did not have anyone to drive me</li> </ul>  |    |
| No other option   |    |
| If you answered <i>Other</i> in the previous question, please describe  |    |
| ^ ~   |    |
| On your most recent intercity bus trip, which carrier did you use? (If you rode more than one, please select the one  |    |
| you rode the longest).  O Greyhound   |    |
| O Jefferson Lines O Prestige Bus Lines  |    |
| O Other   |    |
| If you answered <i>Other</i> in the previous question, please name the carrier  |    |
|   |    |
| How satisfied were you with your experience on your last intercity bus trip?  Overy Satisfied   |    |
| ○ Slightly Satisfied<br>○ Slightly Dissatisfied   |    |
| O Very Dissatisfied  Next   |    |
| Next  |    |

### Intercity Bus - Potential Changes Please respond to how the following would affect <u>how often</u> you would ride the bus? Would not affect whether I ride Would make me Would make me ride <u>more</u> often ride <u>less</u> often Bus departed and arrived at a more convenient time for $\bigcirc$ $\bigcirc$ $\circ$ Bus stops and stations were closer to where I started or stopped my trip • • • Convenient transportation was available to/from stops $\bigcirc$ $\circ$ $\bigcirc$ and stations Gas prices rose to \$5 per gallon • • • $\circ$ $\bigcirc$ $\circ$ Gas dropped to \$2 per gallon • • Bus trips took less time $\bullet$ $\bigcirc$ $\bigcirc$ $\bigcirc$ Bus ticket prices were cut in half Next ------Intercity - Potential Improvements How would you rate the following potential improvements to regularly scheduled intercity bus service? Not important to me Important to me $\circ$ 0 Bus tickets were easier to buy • • Bus seats were more comfortable

Bus bathrooms were cleaner  $\bigcirc$  $\bigcirc$ Buses were safer (more security on bus)  $\circ$ Buses better accommodated the disabled  $\circ$ Buses had more room for carry-on luggage  $\circ$  $\bigcirc$ Buses had electrical outlets Buses accommodated bicycles Bus stops and stations had better lighting and more  $\circ$ security • Bus stops and stations were cleaner Next

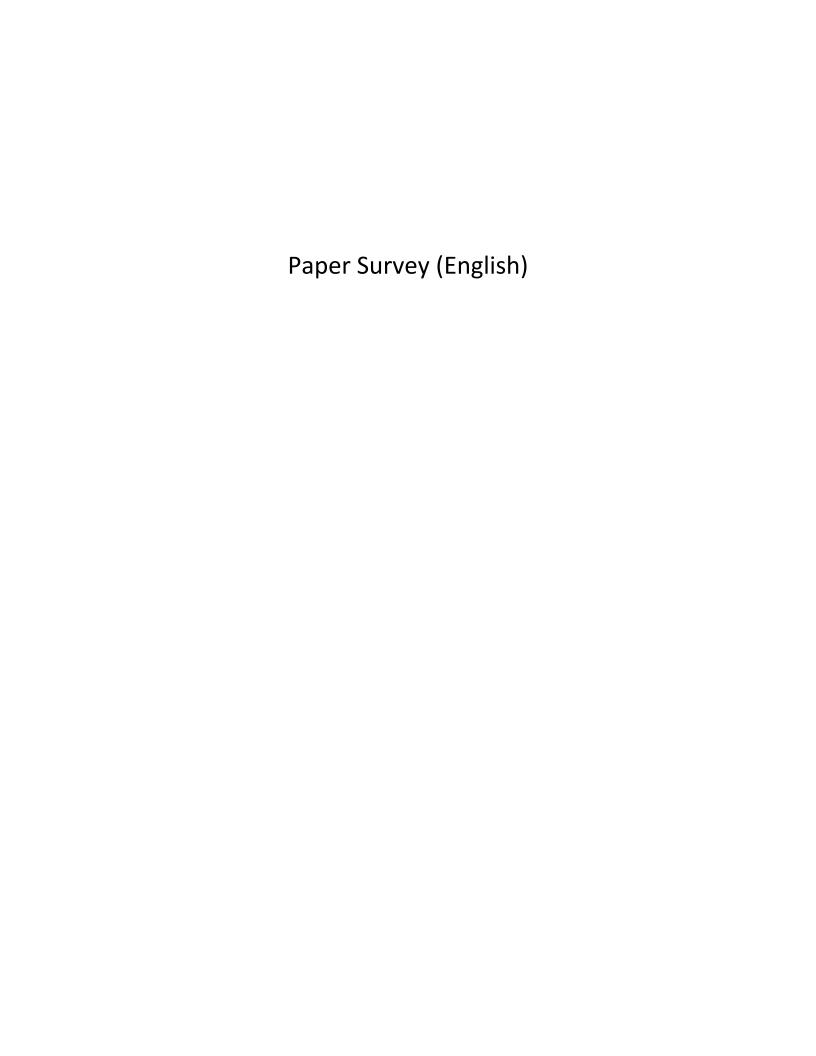
-----

Next

| In addition to anything you previously answered, wha  | t could be done so you would be more likely to ride a intercit |
|---|--|
|   |  |
| If you could create a new intercity bus route in or nea   | r Kansas, where would you want the route to start and end?     |
| Starting Point Bus Stop City:   |  |
| Starting Point Bus Stop State (or country):   | (Click here to choose) 💌                                       |
| Ending Point Bus Stop City:   |  |
| Ending Point Bus Stop State (or country):   | (Click here to choose) 💌                                       |
| If you could create a second new intercity bus route in and end?  | n or near Kansas, where would you want the route to start      |
| Starting Point Bus Stop City:   |  |
| Starting Point Bus Stop State (or country):   | (Click here to choose) 💌                                       |
| Ending Point Bus Stop City:   |  |
| Ending Point Bus Stop State (or country):   | (Click here to choose) 💌                                       |
| If new routes to the locations you just recommended use them?  Once a month or more  Once every six months  Once a year  Less than once a year  Never | were available, at a reasonable price, how often would you     |

.....

| Bus Service in Your Community   |                                       |
|---|---------------------------------------|
| How important is intercity bus service to your community?   |                                       |
| O Essential   |                                       |
| O Very Important O Slightly Important   |                                       |
| Not Important   |                                       |
| How close is the nearest intercity bus stop to your home?   |                                       |
| O I don't know<br>O less than 10 miles  |                                       |
| ○ 10 to 25 miles  |                                       |
| 25 to 50 miles more than 50 miles   |                                       |
| Next  |                                       |
| THE REPORT OF THE PARTY OF THE |                                       |
|   |                                       |
| Demographics  |                                       |
| These questions are asked because we want to make sure that we include  | all groups of people from our survey. |
| Feel free to skip any questions that make you uncomfortable.  |                                       |
| Do you own or have access to a car for a long trip?  O Yes  |                                       |
| No No   |                                       |
| Oo you have a condition or disability that prevents you from driving?   |                                       |
| O Yes<br>O No   |                                       |
| What is your gender?  |                                       |
| Female  |                                       |
| ) Male  |                                       |
| lease answer the following  |                                       |
| Home zip code   |                                       |
| Number of people who live in your home  |                                       |
|   |                                       |
| Next  |                                       |
|   |                                       |
|   |                                       |
| Demographics, Last Page   |                                       |
| These questions are asked because we want to make sure that we include  | all groups of people from our survey. |
| Feel free to skip any questions that make you uncomfortable.  |                                       |
| What is your household income?  Less than \$15,000  |                                       |
| \$15,000 to \$24,999  |                                       |
| \$25,000 to \$34,999<br>\$35,000 to \$49,999  |                                       |
| \$50,000 to \$74,999<br>\$75,000 or more  |                                       |
|   |                                       |
| What is your ethnicity/race? Please select all that apply  American Indian or Alaska Native   |                                       |
| Asian   |                                       |
| Black or African American Hispanic or Latino  |                                       |
| Native Hawaiian or Other Pacific Islander White   |                                       |
|   |                                       |
| How old are you?  Under 18  |                                       |
| 2 18 to 25  |                                       |
| 26 to 40<br>41 to 65  |                                       |
| Over 65   |                                       |
|   |                                       |
| Submit Survey   |                                       |
|   |                                       |



Dear Resident,

Please help us. Heartland Market Research LLC has been hired by the Kansas Department of Transportation (KDOT) to learn about your opinions regarding long-distance or regional travel. We are specifically interested in ways to improve "Intercity Bus" travel in Kansas. Intercity Bus carriers include firms such as Greyhound, Jefferson Lines, Prestige Bus Lines, and even smaller, more local companies. We would appreciate it if you could spend a few minutes completing this survey to help us better serve your transportation needs.

HEADTIAND

HEARTLAND MARKET RESEARCH LLC

4300 Muirfield Road Pueblo, CO 81001

Our only interest in the project is to provide accurate information about what you think, so please respond as accurately and completely as possible. The survey should take about 5 minutes to complete and you can return the survey to us in the enclosed postage paid envelope. If you have any questions about the survey, please call me directly at (800) 709-1721.

○ The bus does not leave/arrive when I need to travel

The bus never crossed my mind as an option

I had no need for long distance travel

Female

Are you male or female?

Male

MARKING INSTRUCTIONS Sincerely, • Use pencil or a blue or black ink pen. Janel Hartres • Make no stray marks on this form. Lance Gentry Completely fill in the appropriate ovals. Principal Investigator, Heartland Market Research LLC CORRECT: ● INCORRECT: ✓ 🌣 👄 🝮 Intercity Bus Survey In the last 12 months, how often did you travel more than 50 miles? 1-2 3-6 More than (Please count round-trips as two trips): Times Never Times 6 Times A. Automotive - driven by self B. Automobile - driven by other(s) 0 0 0 C. Airplane 0 0 0 D. Train 0 0 E. Bus - intercity regularly scheduled bus such as Greyhound, Jefferson Lines, and Prestige Bus Lines Bus - chartered bus such as USA Tours 0 G. Bus - others such as Medicaid and local public providers H. Other Please mark all the reasons why you make trips over 50 miles. (Mark all that apply). ○ N/A - I don't make trips Job - normal commute Medical Vacation/Recreation over 50 miles O Job - other Moving School/Education Visit Family/Friends Personal or family business Shopping Other 3. For trips of over 50 miles, please select the option that describes how you usually travel: Alone O With 1 I do not travel over With 2 With 3 or more companion companions companions 50 miles 4. If you have ridden an intercity bus, what are the major reasons why you chose the intercity bus over other options? (Please mark all that apply.) N/A - Haven't ridden intercity bus Convenience Environmentally friendly Other Cost I like riding the bus Ability to travel with family/friends I do not like to drive long distances Safety I do not like to fly Relaxed pace No car or cannot drive No other option 5. How important is intercity bus travel to your community? Essential Very important Slightly important Not important 6. How close is the nearest intercity bus stop to your home? I don't know Less than 10 miles 10 to 25 miles 25 to 50 miles More than 50 miles 7. If you have not ridden an intercity bus in the last 12 months, please select the reasons why. (Mark all that apply.) O Not Applicable - I have ridden an intercity bus recently The cost of an intercity bus ticket was too high The bus does not go where I need to travel An intercity bus trip takes too long

Do you own a car or have access

O No

to a car for a long trip?

Yes

Concerns about my safety

I prefer the convenience of a personal vehicle

Yes

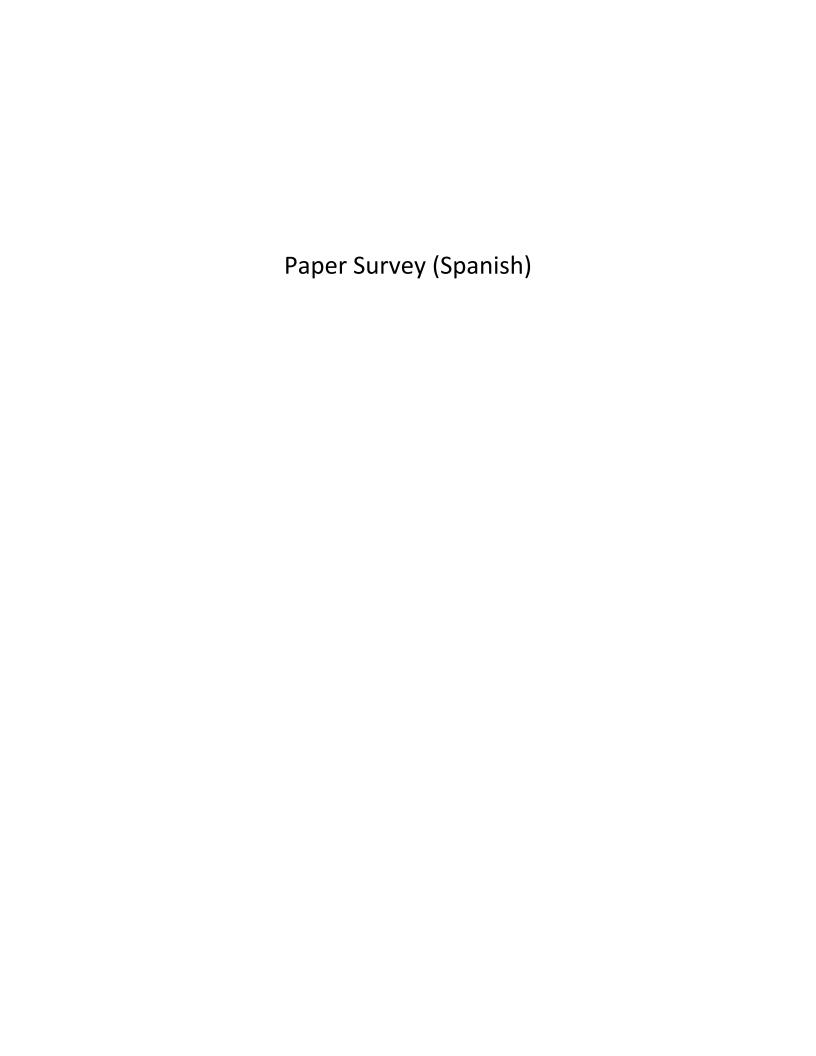
10. Do you have a condition or disability

that prevents you from driving?

O No

Concerns about comfort

| 11. Please respond to how the following would affect how often you would ride the bus.  | Would make me<br>ride <u>more</u> often  | Would not affect<br>whether I ride                      | Would make me ride <u>less</u> often   |
|---|--|---|--|
| A. Bus departed and arrived at a more convenient time for me<br>B. Bus stops and stations were closer to where I started or stopped   |  | 0   | 0  |
| C. Convenient transportation was available to/from stops and st   |  |   |  |
| D. Gas prices rose to \$5 per gallon  E. Gas dropped to \$2 per gallon  |  | 0   | 0  |
| F. Bus trips took less time   |  |   |  |
| G. Bus ticket prices were cut in half   |  |   |  |
| 12. How would you rate the following potential improvements   |  | Important   | Not important  |
| to regularly scheduled intercity bus service?   |  | to me   | to me  |
| A. Bus tickets were easier to buy   |  | 0   | 0  |
| B. Bus seats were more comfortable  |  | 0   | 0  |
| C. Bus bathrooms were cleaner   |  |   | 0  |
| D. Buses were safer (more security on bus)  |  | 0   | 0  |
| E. Buses better accommodated the disabled   |  |   | 0  |
| F. Buses had more room for carry-on luggage G. Buses had electrical outlets   |  | 0   | 0  |
| H. Buses accommodated bicycles  |  |   | 0  |
| I. Bus stops and stations had better lighting and more security   |  |   |  |
| J. Bus stops and stations were cleaner  |  | 0   |  |
| 13. If you could design your own new intercity bus route, where bubble for the city nearest to where your route would start the Kansas and U.S. maps for the locations nearest to the variousing the intercity bus. The red line in each bubble points to the text. | (most likely your<br>ous places you we   | home). Then fill in ould most like to transmes.         | the bubbles on<br>vel to and from  |
|   | _  | Locations Outsi   | de Kansas  |
| St. Francis Oberlin Phillipsburg Marysville Hiaw Belleville Atchison  Concordia Manhattan  Clay Center  | eavenworth   | Northwest Upper Midwe                                   |  |
| Oakley Russell Junction City K Sharon Springs Salina Topeka Hays Abilene Ottawa Lav   | CK-O Johnson wrence County   | Southwest Cent<br>Lower<br>Midwe                        | Southeast  |
| Great Bend Ellsworth McPherson Emporia Iola Syracuse Dodge City  Great Bend Ellsworth McPherson Emporia Iola Hutchinson Ell Dorado  | Paola Fort Scott   | Mexico  | Jan J  |
| Johnson Sublette Pratt Chanute Pritts   |  | f   |  |
| Subjecte  |  | f new routes to the l                                   |  |
| Elkhart Medicine Lodge ← Winfield ← Parsons ←  Chiberal Arkansas City ← ←   |  | dentified on the ma                                     |  |
| Coffeyville   |  | at a reasonable price                                   | . The second sec |
| Concyvine   |  | would you use them  Once a month                        |  |
| 1   |  |   | nths   |
| 15. What is your 16. How many people 17. How old a  |  | <ul><li>Once every six mo</li><li>Once a year</li></ul> | MILLIS   |
| home zip code? live in your home? Under   | -  | <ul><li>Less than once a y</li></ul>                    | (Aar   |
| 1 0 18 to 2   |  | Never   | real   |
| 2 26 to 4   |  | O NEVEL   |  |
| 0 0 0 0 0 0 3 0 41 to 6   | -/-  | What is your ethnicit                                   | :v/race?   |
| ①①①①①   | and the second s | Please select all that                                  |  |
| ②②②②②   |  | American Indian of                                      |  |
| ψ ③ ③ ③ ③ ③ ③   | our annual   | <ul><li>Asian</li></ul>                                 | Alaska Wative  |
|   |  | Black or African A                                      | merican  |
| a 5 5 5 5 5 C Less than   |  | <ul><li>Hispanic or Latino</li></ul>                    |  |
| N 6 6 6 6 6 C \$15,000 t  |  | Native Hawaiian c                                       |  |
| 7777  |  | Pacific Islander  |  |
| 8 8 8 8 C \$35,000 f  |  | ○ White   |  |
| 9999  |  |   |  |
|   | or more  |   |  |



Querido residente,

8. ¿Es usted hombre o mujer?

HombreMujer

Por favor ayúdenos. Heartland Market Research ha sido contratada por el Departamento de Transporte de Kansas para conocer sus opiniones sobre los viajes a larga distancia y regionales. Estamos específicamente interesados en maneras de mejorar los viajes en bus interurbano en Kansas. Las compañías de buses interurbanos incluyen Greyhound, Jefferson Lines, Prestige Bus Lines, e incluso otras compañías más pequeñas y locales. Nos gustaría que usted nos brinde unos minutos de su tiempo llenando este formulario para poder así servirle mejor en sus necesidades de transporte.



HEARTLAND MARKET RESEARCH LLC

Nuestro único interés en el proyecto es de proveer la correcta información sobre sus opiniones, por eso por favor responda lo más preciso y completo que pueda. Esta encuesta no le tomará más de cinco minutos para completarla y la puede enviar de yuelta en el sobre adjunto ya pagado.

4300 Muirfield Road Pueblo, CO 81001

10. ¿Tiene alguna condición o discapacidad

O No

que lo impida manejar?

O Si

| completarla y la puede enviar de vuelta  | en el sobre adjunto ya pagado.  |  |   |  |               |
|--|---|--|---|--|---------------|
| Atentamente,   |   |  | INSTRUCCIO  | <u>ONES PARA LI</u>                                  | <u>LENAR</u>  |
| Lance Gentry  Marke Harby  |   | • No h   | naga ninguna d  | pluma de tinta<br>otra marca en e<br>nente en el óva | este formulaı |
| Investigador Principal Heartland Mark  | et Research   |  | -   | INCORRECT  |               |
| 1  | ENCUESTA DE BUS IN  | TERURBANO  | )   |  |               |
| 1. En los últimos 12 meses, ¿qué tar   | a menudo ha viajado más de 50 m   |  | 1-2   | 3-6  | más de        |
| (Por favor cuente los viajes de ida  | y vuelta como dos viajes)   | Nunca  | veces   | veces  | 6 veces       |
| A. Automóvil – manejado por ust  | ed  | 0  | 0   | $\circ$  |               |
| B. Automóvil – manejado por otr  | a persona   | 0  | 0   | 0  | 0             |
| C. Avión   |   | 0  | $\circ$   | 0  | $\circ$       |
| D. Tren  |   | 0  | 0   | 0  |               |
| <ul> <li>E. Bus – regular de horario progra<br/>Jefferson Lines y Prestige Bus L</li> </ul>  |   | 0  | 0   |  | 0             |
| F. Bus – fletado como USA Tours  |   | 0  | 0   | 0  | 0             |
| G. Bus – otros como bus de Medi  | caid o buses públicos de proveedores  | s locales 🔘  | 0   | 0  | 0             |
| H. Otro  |   | 0  | 0   | 0  | 0             |
| Visita familiares/amigos  Para viajes de más de 50 millas, p  Solo Con 1 acompañant  |   | ·  |   | e <b>viaja.</b><br>o más                             |               |
| 4. Si usted ha viajado en bus interurb<br>(Por favor escriba todas las que se<br>N/A No he viajado en bus<br>Costo<br>Seguridad                                | <ul><li>apliquen.)</li><li>Conveniente</li><li>Me gusta viajar en bus</li><li>No me gusta volar</li></ul> | <ul><li>Favorabl</li><li>Poder vi</li><li>No me g</li></ul>  | e al medio aml<br>ajar con amigo<br>usta manejar la       | biente   | Otras         |
| <ul> <li>Va a un ritmo relajado</li> <li>¿Qué tan importante es viajar en</li> <li>Importante</li> <li>Muy importante</li> </ul>                               | ■ No tengo auto / no se manejar  bus interurbano para su comunidado  ortante ■ Algo importante            |  | o otra opción<br>ortante                                  |  |               |
|  | bus interurbano más cercana a su c<br>s de 10 millas                     De 10 a 25 mi                    |  | s a 50 millas   | O Más de   | 50 millas     |
| 7. Si usted no ha viajado en bus en  N/A Yo he viajado recienteme  El bus no va a donde yo tengo  El bus no sale/llega cuando yo  Nunca he pensado en el bus c | que ir  | eccione las razones<br>del bus interurban<br>n bus interurbano t<br>paciones sobre mi s<br>paciones sobre mi c | o fue muy alto<br>coma mucho tic<br>eguridad<br>comodidad | empo   | apliquen.)    |

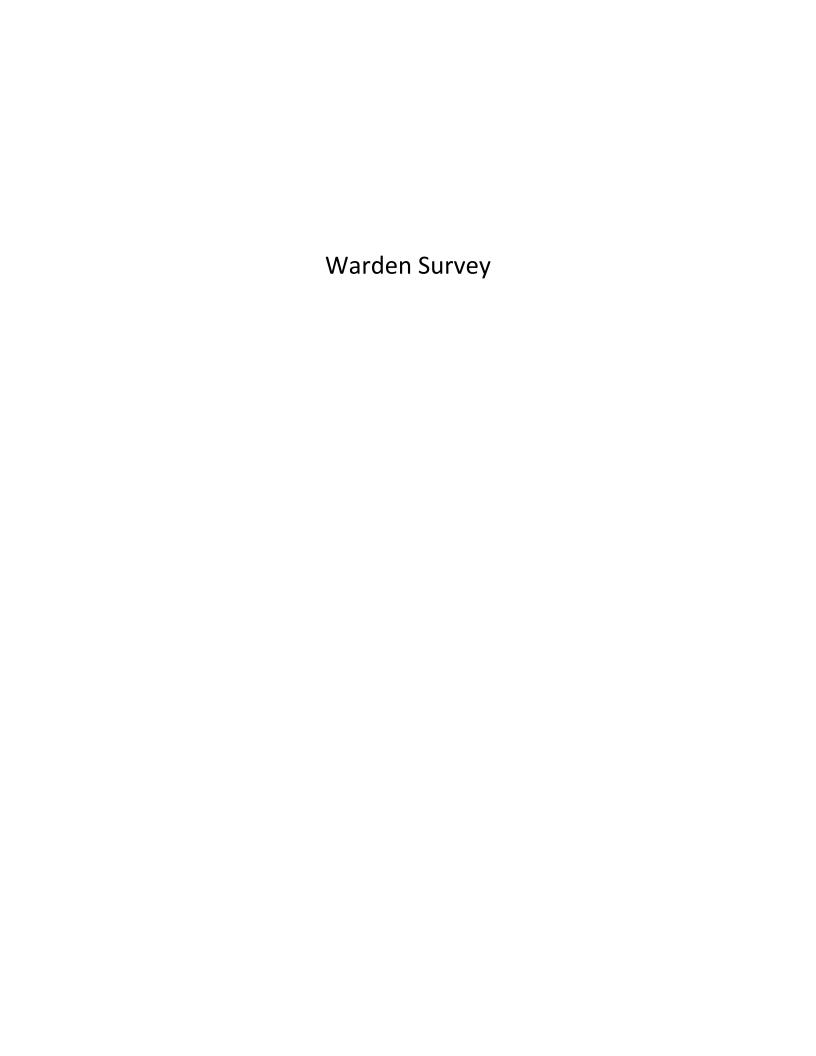
¿Posee o tiene acceso a un auto para

O No

un viaje largo?

O Si

| 11. favor responda como lo siguiente afectaría la frecuencia para que usted viaje en bus:   | Me haría viajar con<br>más frecuencia                            | No afectaría<br>mi viaje  | Me haría viajar con<br>menos frecuencia |
|---|--|---|---|
| A. Si el bus saldría y llegara a un tiempo más conveniente para mí  | 0  | 0   | 0                                       |
| B. Si las estaciones y paradas fueran más cerca al origen y destino de  | mi viaje 🔘   | 0   | 0                                       |
| C. Si hubiera transporte disponible de y hacia las paradas y estaciones   | S O  | 0   |   |
| D. Si los precios de la gasolina subieran a \$5 dólares el galón  | 0  | 0   | 0                                       |
| E. Si los precios de la gasolina bajaran a \$2 dólares el galón   | 0  | 0   | 0                                       |
| F. Si los viajes en bus tomarían menos tiempo   | 0  | 0   | 0                                       |
| G. Si los precios de los boletos de bus costarían la mitad  | 0  | 0   | 0                                       |
| 12. ¿Cómo calificaría las siguientes posibles mejoras al servicio regular de bus interurbano?   |  | Es importante<br>para mí  | No es importante<br>para mí             |
| A. Los boletos de bus son más fáciles de comprar  |  | 0   | 0                                       |
| B. Los asientos son más cómodos   |  | 0   | 0                                       |
| C. Los baños son más limpios  |  | 0   |   |
| D. Los buses son más seguros (más seguridad en el bus)  |  | 0   | 0                                       |
| E. Buses con capacidad de acomodar a los discapacitados   |  | 0   |   |
| F. Buses con mayor espacio para las maletas de mano   |  | 0   | 0                                       |
| G. Buses con conexiones eléctricas  |  | 0   | 0                                       |
| H. Buses que acomoden bicicletas  |  | 0   | 0                                       |
| I. Las estaciones y paradas de bus tienen mejor iluminación y son má  | s seguras  | 0   |   |
| J. Las estaciones y paradas de bus son más limpias  | J  | 0   | 0                                       |
| interurbano. La línea roja en las burbujas señala la ciudad o el nomb   | watha  | Lugares fuera d   | e Kansas<br>Canada                      |
| Oakley Russell Junction City K Sharon Springs Scott City Tribune Garden City Larned Dodge City  Oakley Russell Junction City K Salina Topeka Abilene Ottawa Cottawa  Find Great Bend Ellsworth McPherson Cottawa  Hutchinson Ell Dorado | eavenworth  KCMO  CCK—  Johnson wrence County  Paola  Fort Scott | Northwest Upper Midwest Southwest Cent Lower Midwest Mexico                               | ral Northeast Southeast                 |
| Johnson Sublette Pratt Derby Pittsl  Elkhart Medicine Lodge Winfield Parsons Coffeyville  Chanute Derby Pittsl  Pratt Parsons Coffeyville   | burg— 14. Si so us  —Baxter free                                 | se crearan nuevas rut<br>ted señaló a precios ra<br>cuencia las usaría?<br>Una vez al mes |   |
|   |  | Una vez cada seis m   | eses                                    |
|   |  | Una vez al año  |   |
| 15. ¿Cual es su código 16. ¿Cuántas personas 17. ¿Cuántos a   | ños tiene?   | Menos de una vez al   | año                                     |
| postal? viven en su casa? — Menos   |  | Nunca   |   |
| ○ 1 ○ De 18 a   |  |   |   |
| ○ 2 ○ De 26 a   | 40   |   |   |
| □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □   | /-   | Cuál es su origen / ra  | aza?                                    |
|   |  | larque todas las que  |   |
|   |  | Indio Americano o n   |   |
| 0.33333   |  | Asiático  | atto de riidaka                         |
|   |  | Negro o Afroamerica   | ano                                     |
| © 4 4 4 4 4   |  | Hispano o Latino  | and                                     |
| Manage de 15 000  |  |   | o las Islas                             |
| O 6 6 6 6 O Menos de 15,000 O De \$35,00  |  | Nativo de Hawái o d<br>del Pacífico   | e ids isids                             |
| 7 7 7 7 De \$15,000 a \$24,999 De \$50,00 8 8 8 8 ODe \$25,000 a \$34,999 \$75,000 o  | U 4 5 / 4 999  |   |   |
|   |  | ) Blanco  |   |



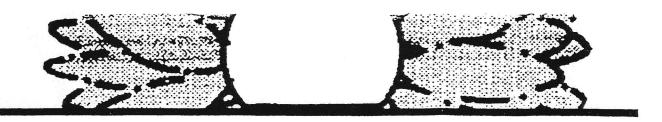
### KDOT Intercity Bus Study Correctional Facility Survey

This data will be kept confidential and will only be used for purposes of the Intercity Bus Study.

Please e-mail the response and any attachments to mollv.nick@hdrinc.com

|  | to monvinon cardino.com |
|--|-------------------------|
| What is the name and address of your facility?   |                         |
| What is your name and title?   |                         |
| What is the capacity of your facility?   |                         |
| What is the current number of inmates at your facility?  |                         |
| Is your facility directly served by local transit? If not, do you know the   |                         |
| location of the local transit stop that is closest to your facility?   |                         |
| Released Prisoners   |                         |
| How many prisoners did your facility release last year? If you are able  |                         |
| to give an average per month, week or day, that would be helpful. If   |                         |
| you have detailed release data in electronic form, you could attach it.  |                         |
| It is our understanding that state policy is to send released prisoners  |                         |
| back to the County of residence (with some exceptions). Are you able   |                         |
| to provide ZIP code or City/County data for release locations over the   |                         |
| past year (broken down by month and/or day, if available)? If so, can  |                         |
| you e-mail that data?  |                         |
| In the past year, how many released prisoners did you transport to a bus   |                         |
| stop?  |                         |
| Was it always the same bus stop? If so, where was it located?  |                         |
| If not, can you list all the stops (and how many prisoners to each)?   |                         |
| Have you had any issues with using intercity bus for prisoner release  |                         |
| transportation? (e.g., bus stop far away, schedule inconvenient,   |                         |
| In the past year, how many released prisoners did you transport to a   |                         |
| train station?   |                         |
| Was it always the same station? If so, where was it located?   |                         |
| If not, can you list all the stations?   |                         |
| In the past year, how many released prisoners did you transport to a   |                         |
| place other than a bus stop or train station? Can you list these sites?  |                         |
| In the past year, how many released prisoners were picked up outside   |                         |
| vour facility by a private citizen upon their release?   |                         |
| Visitors   |                         |
| What are the visiting hours at the facility?   |                         |
| Do you have logs of visitors to your facility over the past year?  |                         |
| If so, how many visitors did you receive last year   |                         |
| (broken down by month, and even day, if possible)?   |                         |
| Do you know <b>how</b> visitors arrived at, and departed from, the   |                         |
| facility?  |                         |
| (e.g., Greyhound, Amtrak, chartered bus, drove themselves, etc.)   |                         |
| If so, can you provide or estimate percentage breakdowns of  |                         |
| each of these transportation modes (or whichever of them you have  |                         |
| If visitors arrived by a chartered bus, vanpool, or some other   |                         |
| organized means (but not a train or scheduled bus such as  |                         |
| Greyhound), can you provide the names of the organization(s) that  |                         |
| provided the transportation?   |                         |
| Do you know <b>where</b> visitors traveled from (County, City, ZIP   |                         |
| code)?   |                         |
|  |                         |
| Potential Needs  |                         |
| Do you think the people arriving at, and departing from, your facility   |                         |
| would be interested in new (or improved) bus service with a stop at/near   |                         |
| your location?  If you what would be the entimed new route or routes from your   |                         |
| If yes, what would be the optimal new route or routes, from your   |                         |
| perspective? Please be as specific as possible and include destination(s), pick-up and arrival times, and days of service. How   |                         |
| many people do you think would use each suggested route per week?  |                         |
|  |                         |
| Do you think that your employees would be interested in new (or improved) bus service for commuting to the facility?   |                         |
| THE PROPERTY OF THE PROPERTY O |                         |

# Appendix C CAREVan Schedule



# CAREVAN

**CommunityAccessRuralExpress** 

# 1-888-227-3695

Provided by the Kansas Department of Transportation in conjunction with Developmental Services of Northwest Kansas and HaysMedicalCenter.

depart St. Francis

### Monday/Thursday

#### 6 am. depart St. Francis 6:38 am arrive Atwood 6:43 am depart Atwood 7:08 am arrive Oberlin 7:13 am depart Oberlin 7:45 am arrive Norton 7:50 am. depart Norton arrive Phillipsburg 8:19 am 8:24 am depart Phillipsburg 8:58 am arrive Plainville 9:03 am depart Plainville 9:25 am arrive Hays 3 pm depart Hays arrive Plainville 3:22 pm depart Plainville 3:27 pm 4:02 pm arrive Phillipsburg 4:07 pm depart Phillipsburg 4:36 pm arrive Norton 4:41 pm depart Norton 5:13 pm arrive Oberlin 5:18 pm depart Oberlin 5:43 pm arrive Atwood 5:48 pm depart Atwood 6:26 pm arrive St. Francis

# Tuesday/Friday

6 am

| 0 alli  | depart St. Francis |
|---------|--------------------|
| 5:33 am | arrive Goodland    |
| 5:38 am | depart Goodland    |
| 7:13 am | arrive Colby       |
| 7:18 am | depart Colby       |
| 7:38 am | arrive Oakley      |
| 7:43 am | depart Oakley      |
| 8:12 am | arrive Quinter     |
| 8:17 am | depart Quinter     |
| 8:37 am | arrive WaKeeney    |
| 8:42 am | depart WaKeeney    |
| 9:11 am | arrive Hays        |
| 3 pm    | depart Hays        |
| 3:29 pm | arrive WaKeeney    |
| 3:34 pm | depart WaKeeney    |
| 3:54 pm | arrive Quinter     |
| 3:59 pm | depart Quinter     |
| 4:28 pm | arrive Oakley      |
| 4:33 pm | depart Oakley      |
| 4:53 pm | arrive Colby       |
| 4:58 pm | depart Colby       |
| 4:33 pm | arrive Goodland    |
| 4:38 pm | depart Goodland    |
| 6:11 pm | arrive St. Francis |
|         |                    |

## Wednesday

6 am

| o am    | depart of transfer |
|---------|--------------------|
| 5:33 am | arrive Goodland    |
| 5:38 am | depart Goodland    |
| 7:13 am | arrive Colby       |
| 7:18 am | depart Colby       |
| 7:49 am | arrive Hoxie       |
| 7:54 am | depart Hoxie       |
| 8:24 am | arrive Hill City   |
| 8:29 am | depart Hill City   |
| 9:04 am | arrive Plainville  |
| 9:09 am | depart Plainville  |
| 9:30 am | arrive Hays        |
| 3 pm    | depart Hays        |
| 3:21 pm | arrive Plainville  |
| 3:26 pm | depart Plainville  |
| 4:01 pm | arrive Hill City   |
| 4:06 pm | depart Hill City   |
| 4:36 pm | arrive Hoxie       |
| 4:41 pm | depart Hoxie       |
| 5:12 pm | arrive Colby       |
| 5:17 pm | depart Colby       |
| 4:47 pm | arrive Goodland    |
| 4:52 pm | depart Goodland    |
| 6:25 pm | arrive St. Francis |
|         |                    |

depart St. Francis