What Do Demographic Trends Say About the Future of Transit in Kansas?

By Matt Baker

*Rates can be misleading. Numbers tell the real story.*

Every ten years Americans eagerly anticipate the release of the decennial census. They are curious about both how it will describe us and our country and how population trends will affect us in the future. There are very public ramifications of the census, most notable among them the Congressional redistricting process. For transit managers and planners, ramifications include how demographic changes will determine funding for much of the next decade. Changes in transit services could be necessitated by these funding changes. Transportation planners will use these data to forecast travel demand which will help justify transit providers’ funding and inform where future services need to be implemented.

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**Feature**

Which Service Regulations Apply? A Look at Interstate and Intrastate Transit Requirements for Kansas

By Erik Berg

Operating a transit vehicle implies that you understand and follow applicable state and federal regulations. But are you sure you do? Applicable state and federal vehicle regulations vary based on vehicle type and some service-related factors. The stakes are high for transit providers to comply with the correct regulations—the consequences for non-compliance can range from traffic tickets to revocation of operating authority.

This article is an introduction to intrastate (within Kansas) and interstate (across state lines) passenger service regulations from the Kansas Corporation Commission (KCC) and the Federal Motor... 

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In general, rural counties in Kansas continue to lose population while urban counties continue to grow. However, when examining the Census, transit managers should pay special attention to trends for the specific demographic groups they serve.

**The elderly**

Chief among these groups is the elderly (65+) population. Kansas is not growing any younger—only seven counties’ median ages fell in the past decade. But, this belies the fact that even though elderly persons are making up a greater proportion of many county populations, the reality is that their numbers, especially in rural counties continue to fall because the overall population in those areas is falling too. In fact, the elderly population in 80 of Kansas’ 105 counties declined over the past ten years.

The 25 counties where the elderly population increased are, generally, also places where the overall population has increased. Yet, while elderly persons may make up a greater portion of many counties’ populations, they are not necessarily in need of more transit services. The majority of the counties where the elderly population has grown contain significant population centers with good transit options. Of course, if your county is currently underserving its elderly, more services are likely needed but, if sufficient service is already being provided, there would seem to be little reason to look at adding services.

**Low-income citizens**

Low-income citizens comprise another transit-dependent population. Often, these persons are unable to afford personal transportation and rely on transit or friends and family to get to work, the grocery store, child care, one-stop workforce centers, and many other destinations. Across Kansas, poverty is on the rise. Only 13 counties are all, with the exception of Geary County, very rural counties in western Kansas. Another issue with planning for service for low-income needs is the rapidly changing nature of poverty. As we have seen in the past few years, the economy can change on a dime and poverty numbers along with it. Between 2006 and 2007, the number of Kansans in poverty actually fell by over 25,000. But, between 2007 and 2009, that number has risen by over 60,000.

While the economy appears to be slowly on the mend, its rapid fluctuations make it difficult to plan for the future. It might seem wise to plan for maximum ridership and minimum funding—the worst case scenario—but, this may not be the best management strategy. More prudently, use Census and Economic Census data and estimates (http://www.census.gov/econ) to prepare a range of projections and then plan several contingencies based on this range of future scenarios. That way, when you see how your area’s economy is actually behaving, you will already have a contingency plan that closely aligns with reality. It’s more work upfront for less work and fewer headaches later.

**Rates versus numbers**

As shown in the first example, forecasting cannot rely only on rates. For purposes of travel demand forecasting, only real numbers accurately tell the story. This is especially true in rural Kansas where total populations continue to fall. In these sparsely populated counties, while the proportion of elderly persons may have increased, the actual number of these persons almost always fell. This difference between proportion, or rate, and actual concrete numbers is crucial to accurately planning service into the future.

As transit service is dependent on actual persons riding, planning for services should only take into account population numbers, not rates. Just as forecasting for service is dependent on actual riders,

**Sources**

- Baby boomers and rural transit. Kansas TransReporter, January 2011
forecasting funding is dependent on actual persons paying taxes. It is becoming more and more difficult to adequately fund services as populations and, consequently, tax bases continue to shrink in rural Kansas. While it isn’t a rosy picture, the reality of shrinking tax revenues must also be taken into account when planning for the future.

Another reason to work with numbers rather than rates is that elected officials and the public can relate to numbers more easily. Numbers represent real people—real voters—in their communities.

By the time you read this article, the Census Bureau will have released county-level data for the 2010 Census. Generally speaking, the trends noted above are expected to continue. Kansas’s aging trend will continue. While the expected population numbers themselves may not increase demand for transit significantly, it’s important to be familiar with these numbers along with other demographic factors that generally impact demand for services—such as ability to drive and the ability to afford automobile transportation as gasoline prices continue to rise and our communities experience higher than usual unemployment, etc.

Of course, the data found in the census is always dated. As you plan future services to more efficiently serve your community, keep in mind that there are periodic updates of which you can take advantage. Each year, the Census Bureau releases estimates through its American Community Survey (ACS). While not as precise as the decennial census, the ACS provides yearly updates of key demographic indicators. The ACS is a great way to find additional up-to-date data to help you more accurately forecast services. This way, you don’t have to wait another ten years for accurate forecasting data.

To find out more and to explore the data yourself, go to http://factfinder.census.gov.

Which service regulations apply? Continued from page 1

Carrier Safety Administration (FMCSA). When reading this article, keep in mind that we are providing information for several types of transit agencies and you will only need to pay attention to the sections that apply to your operations.

Factors that determine applicable regulations
The main factors that determine service regulations that pertain to your agency are outlined below:

Type of service: interstate or intrastate. Regulations vary depending on whether your service crosses state lines or stays in Kansas.

Type of vehicle: commercial or not. It is important to know if any of your vehicles fit KCC’s definition for a commercial vehicle. These vehicles have specific regulations that apply to them.

KCC defines a transit vehicle as a commercial motor vehicle if it has a gross vehicle weight (GVW) or gross combined vehicle weight (GCWV) of 10,001 lbs. and is designed to carry more than eight passengers. This definition applies to transit vehicles that operate for direct compensation, for either interstate or intrastate travel. (Any agency receiving federal grant funding is considered to be receiving direct compensation.) For the full definition of “commercial vehicle” and the regulations that pertain to these vehicles, refer to KCC’s 2010 Motor Carrier Regulations, Section 82-4-3(f).

Operating authority and funding source. According to the FMCSA, operating authority dictates the type of operation a company may run, the cargo it may carry, and the geographical area in which it may legally operate. These, in turn, affect which regulations apply to your agency.

Operating authority for transit agencies may come from FMCSA or state agencies such as KCC, or may not be required if the passenger transit service is funded by Section 5307, 5310, or 5311 grant programs from the Federal Transit Administration (FTA).

Kansas transit providers that receive Section 5307, 5310, or 5311 funds from FTA are exempt from the KCC for-hire operating authority (K.S.A. 66-1, 109(i)). Interstate motor carriers funded by these FTA grant programs must obtain a motor carrier (MC) number by FMCSA. Interstate carriers do not have to obtain authority when operating wholly within the Kansas City, KS or Kansas City, MO commercial zone, or within a 25 mile radius of any airport; to find out more about commercial zone requirements look at Title 49 Part 372 or consult with FMCSA, to see whether or not this applies to you.

Safety regulations
Important note: exemptions to operating authority do NOT apply to safety regulations. All applicable safety regulations remain the same regardless of the source of funding and operating authority.

Insurance requirements
Service regulations include requirements to carry certain levels and types of insurance.

If your service is funded by one of the previously specified FTA grant programs, all state and federal safety and insurance requirements still apply to your system.

Interstate carriers are required to meet the highest minimum state insurance requirements among the states in which the transit system operates. For example, if your (interstate) system operates in Kansas and several other states, and one of those states happens to have higher minimum state insurance requirements than Kansas, you must comply with that state’s requirements.

Intrastate carriers do not cross state lines, so they must meet minimum insurance requirements for Kansas.

Continued on next page
Which regs apply?

Continued from page 3

Intrastate & interstate passenger service regulations—by type of operation

Because service regulations that apply to your agency are based on a number of factors, determining which ones to follow can be daunting. We have provided the tables on these two pages to help you. They show intrastate and interstate safety regulations that apply to the four most common types of transit operations in Kansas: that is, public or private agencies that operate either interstate or intrastate service. Transit operators can review these guides to obtain a basic understanding of which safety, insurance, and state-reporting requirements apply to them.

These tables are only a guide. Please consult the parts of 49 CFR listed and talk with your KCC, KDOT, and FMCSA representatives for more information on regulations that apply to your specific system.

The importance of compliance with intrastate and interstate regulations

Although the regulations are complicated, it is vital for transit operators to understand and comply with them.

Connie Spencer, Program Consultant with the Kansas Department of Transportation knows of instances when Kansas transit operators failed to comply. She recounted one story of a Kansas operator who traveled into Missouri for a sporting event and was stopped by the Highway Patrol because they did not have their federal Motor Carrier number properly marked on the vehicle.

Gary Davenport of KCC said, “Some carriers, especially intrastate carriers, have authority to operate from [KCC]. If they don’t meet our requirements, we can do

<table>
<thead>
<tr>
<th>KDOT Vehicle Size</th>
<th>FMCSA Vehicle Size</th>
<th>Subject to Kansas &amp; FMCSA Safety Regulations (FMCSR)?</th>
<th>Minimum State Insurance Requirements</th>
<th>Requirement to file MCS-150 Application every 2 years?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minivans &amp; Ramp Accessible Minivans</td>
<td>1 to 6 passengers</td>
<td>Only if the vehicle’s GVW or GWWR is 10,001 or more</td>
<td>$100,000 liability, $300,000 for 2 or more injury, $500,000 property damage</td>
<td>Only if the vehicle’s GVW or GWWR is 10,001 or more</td>
</tr>
<tr>
<td>Minivans &amp; Ramp Accessible Minivans</td>
<td>7 to 8 passengers including driver</td>
<td>Only if the vehicle’s GVW or GWWR is 10,001 or more</td>
<td>$100,000 liability, $300,000 for 2 or more injury, $500,000 property damage</td>
<td>Only if the vehicle’s GVW or GWWR is 10,001 or more</td>
</tr>
<tr>
<td>13 Passenger Composite &amp; Metal Wide-Body Minibuses</td>
<td>9 to 15 passengers not for Direct Compensation</td>
<td>49 C.F.R. 390.15 (accident record-keeping)</td>
<td>$100,000 liability, $300,000 for 2 or more injury, $500,000 property damage</td>
<td>YES</td>
</tr>
<tr>
<td>13 Passenger Composite &amp; Metal Wide-Body Minibuses</td>
<td>9 to 15 passengers for Direct Compensation</td>
<td>49 C.F.R. 385 (Safety Fitness Procedures), 390 (General Applicability &amp; Definitions), 391 (Driver Qualifications), 392 (Driving a CMV, 393 (Parts &amp; Accessories), 395 (Inspection, Maintenance &amp; Repair) of the FMCSR</td>
<td>$100,000 liability, $300,000 for 2 or more injury, $500,000 property damage</td>
<td>YES</td>
</tr>
<tr>
<td>20 Passenger Composite &amp; Metal Wide-Body Small Transit Buses</td>
<td>16 or more passengers</td>
<td>49 C.F.R. Part 382 (Substances and Alcohol Use and Testing), 383 (CDL), 390 (General Applicability &amp; Definitions), 391 (Driver Qualifications), 392 (Driving a CMV, 393 (Parts &amp; Accessories), 395 (Hours of Service), 396 (Inspection, Maintenance &amp; Repair) of the FMCSR</td>
<td>$100,000 liability, $300,000 for 2 or more injury, $500,000 property damage</td>
<td>YES</td>
</tr>
</tbody>
</table>

If you are a public agency (county or city-owned), receive FTA Section 5307, 5310, 5311 grants, and operate only within the State of Kansas (intrastate):

<table>
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<tr>
<th>KDOT Vehicle Size</th>
<th>FMCSA Vehicle Size</th>
<th>Subject to Kansas &amp; FMCSA Safety Regulations (FMCSR)?</th>
<th>Minimum State Insurance Requirements</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Minivans &amp; Ramp Accessible Minivans</td>
<td>1 to 8 passengers</td>
<td>Only if the vehicle’s GVW or GWWR is 10,001 or more</td>
<td>Highest level required by any state in which they operate motor vehicles</td>
<td>Only if the vehicle’s GVW or GWWR is 10,001 or more</td>
</tr>
<tr>
<td>13 Passenger Composite &amp; Metal Wide-Body Minibuses</td>
<td>9 to 15 passengers not for Direct Compensation</td>
<td>49 CFR 390.15 (accident record-keeping)</td>
<td>Highest level required by any state in which they operate motor vehicles</td>
<td>YES</td>
</tr>
<tr>
<td>15 Passenger Composite &amp; Metal Wide-Body Minibuses</td>
<td>9 to 15 passengers for Direct Compensation</td>
<td>49 C.F.R. 385 (Safety Fitness Procedures), 390 (General Applicability &amp; Definitions), 391 (Driver Qualifications), 392 (Driving a CMV, 393 (Parts &amp; Accessories), 395 (Hours of Service), 396 (Inspection, Maintenance &amp; Repair) of the FMCSR</td>
<td>Highest level required by any state in which they operate motor vehicles</td>
<td>YES</td>
</tr>
<tr>
<td>20 Passenger Composite &amp; Metal Wide-Body Small Transit Buses</td>
<td>16 or more passengers</td>
<td>49 C.F.R. Part 382 (Substances and Alcohol Use and Testing), 383 (CDL), 390 (General Applicability &amp; Definitions), 391 (Driver Qualifications), 392 (Driving a CMV, 393 (Parts &amp; Accessories), 395 (Hours of Service), 396 (Inspection, Maintenance &amp; Repair) of the FMCSR</td>
<td>Highest level required by any state in which they operate motor vehicles</td>
<td>YES</td>
</tr>
</tbody>
</table>

Sources

If you are a private non-profit agency, receive FTA Section 5307, 5310, 5311 grants, and operate only within the State of Kansas (intrastate):

<table>
<thead>
<tr>
<th>KDOT Vehicle Size</th>
<th>FMCSA Vehicle Size</th>
<th>Subject to Kansas &amp; FMCSA Safety Regulations (FMCSR)?</th>
<th>Minimum State Insurance Requirements</th>
<th>Requirement to file MCS-150 Application every two years?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minivans &amp; Ramp Accessible Minivans</td>
<td>1 to 8 passengers</td>
<td>49 C.F.R. Part 390.19 (motor carrier identification &amp; 390.21 (vehicle marking))</td>
<td>$100,000 liability, $100,000 for 2 or more injuries, $50,000 property damage</td>
<td>Only if the vehicle’s GW or GWR is 10,001 or more</td>
</tr>
<tr>
<td>Minivans &amp; Ramp Accessible Minivans</td>
<td>7 to 8 passengers including driver</td>
<td>49 C.F.R. Part 390.19 (motor carrier identification) &amp; 390.21 (vehicle marking)</td>
<td>$100,000 liability, $100,000 for 2 or more injuries, $50,000 property damage</td>
<td>Only if the vehicle’s GW or GWR is 10,001 or more</td>
</tr>
<tr>
<td>13 Passenger Composite &amp; Metal Wide-Body Minibuses</td>
<td>9 to 15 passengers not for Direct Compensation</td>
<td>49 C.F.R. Part 390.19 (motor carrier identification) &amp; 390.21 (vehicle marking)</td>
<td>$100,000 liability, $100,000 for 2 or more injuries, $50,000 property damage</td>
<td>YES</td>
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<td>13 Passenger Composite &amp; Metal Wide-Body Minibuses</td>
<td>9 to 15 passengers for Direct Compensation</td>
<td>49 C.F.R. Part 390.19 (motor carrier identification) &amp; 390.21 (vehicle marking)</td>
<td>$100,000 liability, $100,000 for 2 or more injuries, $50,000 property damage</td>
<td>YES</td>
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<td>20 Passenger Composite &amp; Metal Wide-Body Small Transit Buses</td>
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<td>49 C.F.R. Part 382 (Substances and Use and Testing), 383 (CDL), 390 (General Applicability &amp; Definitions), 391 (Driver Qualifications), 392 (Driving a CMV), 393 (Parts &amp; Accessories), 395 (Hrs of Service), 396 (Inspection, Maintenance &amp; Repair)</td>
<td>$100,000 liability, $100,000 for 2 or more injuries, $50,000 property damage</td>
<td>YES</td>
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</table>

The KCC provides an information guide for private motor carriers of passengers (PMCPs) under the heading of Safety Information at http://www.kcc.state.ks.us/trans/index.htm.

KCC reported conducting 579 compliance reviews for all types of motor carriers operating in Kansas in Fiscal Year 2010, resulting in 190 penalties imposed, a ratio of 1 in 3 of the reviewed carriers. In Fiscal Year 2009, the previous year, approximately $173,225 in fines were imposed by KCC on carriers in violation. Even not having all proper paperwork recorded and on file can bring penalties, including fines, suspension or revocation of operating authority, and a misdemeanor in District Court with a fine.

In sum

The key factors in determining which intrastate and interstate regulations apply to a transit system are source of funding, operating authority, type of service (intrastate or interstate), and vehicle type (commercial or not).

Public and private non-profit transit operators that operate intrastate or interstate and receive funding from FTA Section 5307, 5310, and 5311 grants aren't subject to Kansas intrastate operating authority, but they still must register and obtain their MC# from FMCSA, and comply with the insurance and safety regulations that apply to their type of system.

Public agencies receiving funding from these grant programs and operating intrastate must comply with 49 C.F.R. 390.15, 390.19, and 390.21 of the FMCS regulations; meet CDL and Substance & Alcohol Abuse programs in place when using vehicles designed to carry 16 or more passengers, and comply with Kansas minimum insurance requirements.

Public agencies receiving funding from these grants and operating interstate must comply with FMCS regulations, especially 49 CFR 390.15, 390.19, and 390.21 (a) & (b)(2); must meet the highest minimum insurance required by any state in which they operate; and meet CDL and Drug & Alcohol testing requirements when operating 16+ passenger vehicles.

Private motor carriers of passengers (PCCPs) receiving funds from these grant programs and operating intrastate must comply with 49 C.F.R. Part 390.15 & 390.21; have drivers that meet physical requirements and comply with hours of service requirements; meet minimum

Continued on page 14
Persons with disabilities are often dependent on transit services to lead their daily lives. Whereas the rest of us are able to hop in our car and go to work or the grocery store, persons with mental and physical disabilities may be dependent on others, including transit, to reach these destinations. While much of the public may not be aware of this, transit managers are fully aware that persons with disabilities are a key constituency of transit services. Therefore, maintaining current services and providing additional services for these transit clients must be a priority when planning for the future.

In 2005, the Community Transportation Association of America (CTAA) issued *Expanding Mobility Options for Persons with Disabilities: A Practitioner’s Guide to Community-Based Transportation Planning* which you can find online at http://web1.ctaa.org/webmodules/webarticles/articlefiles/expandingmobility2.pdf. Using the CTAA’s report as a guide, this article will begin to explain how transit providers can involve community members in the planning process to better serve the transit needs of persons with disabilities.

**Involve the community**

There is no one-size-fits-all plan for providing sufficient transit services for persons with disabilities. Each community, unique in size, clientele, and service area, should address its own citizens’ needs in a way that best suits its circumstances.

In recent years, community-based transit planning that encourages providers to actively involve their communities has come to the forefront. In fact, many federal programs now require and provide incentives for public participation. After all, who knows your city or town better than you and your neighbors?

**Using a committee to get to answers**

Which begs the question: What is the best way to assess the transit needs of people with disabilities in your community? The CTAA report points to a committee-conducted needs assessment as being the best method.

Your first priority should be identifying the stakeholders in your area, especially as they relate to paratransit needs. These stakeholders will likely include members of government such as city managers, council members, and state department of transportation officials; transportation providers; human service organizations; churches; schools; employers of those with disabilities; and community members such as merchants frequented by those with disabilities.

Foremost though, any committee committed to improving services for those with disabilities needs to include persons with disabilities.

According to Tom Worker-Braddock of Olsson Associates, many transit provider advisory boards reserve at least one or two seats for representatives of the disabled community. Worker-Braddock also recommends including senior citizens, who often have similar functional impairments, such as limited mobility or vision, or the head of your local Committee on Aging or senior center on such a committee.

**Sources**

- Interviews with Tom Worker-Braddock, Olsson Associates, and Stewart Nelson, Mid-America Regional Council.

Persons who need mobility assistance need their community’s help in creating mobility solutions.
Stewart Nelson of the Mid-America Regional Council (MARC) suggests having separate representation for persons with disabilities and seniors because there is a long history of animosity between these two advocacy groups. Seniors first received specific recognition through the 1965 Older Americans Act. It would be 26 more years until persons with disabilities received the same recognition.

Martha Gabehart of the Kansas Commission on Disability Concerns noted that “some people are less likely to actively participate in a large group meeting of folks they do not know. This is sometimes true of people with mental illness or developmental disabilities.” She also mentioned that some people are not confident enough to speak up, whether they have a disability or not. As a solution, she suggested meeting with groups individually or holding public forums before a full committee meeting to identify the issues and some possible solutions. The committee meeting could serve as one for planning solutions and finding funding.

The CTAA has provided a list of potential groups that you might wish to include in a needs assessment committee (see sidebar). Or does a group already exist, such as a transit provider’s advisory board, that might, in fact, be the optimal committee or be the basis for one to undertake a needs assessment? Why duplicate when the expertise is already available?

After forming the committee, the next step is determining who will actually conduct the needs assessment. Does your committee have the expertise to actually conduct the assessment or would it be worth the expenditure to hire a consultant instead?

Of course, a committee without purpose or a mission is useless. Multiple regional committees cited in the CTAA’s report pointed to identifying a clear purpose—in this case, a focus “on the lack of transportation service options” for persons with disabilities and the “means to address them”—as the key to a productive committee.

**Involve the entire community**

In addition to using a committee to formulate policies for maintenance and expansion of services, it is crucial to involve the public in other ways. Remember, this is a whole community effort, not just an effort of those community members who sit on your committee. Holding workshops, hearings, and community forums to elicit ideas and criticism are great ways to engage your community. The media can and should be a partner in your efforts as well.

All these tools really boil down to communication. According to the CTAA, getting committee information and findings out to as many parties as possible can “yield willing collaborators at best and reduce obstructive behavior at least.”

### Identify the needs

So, how best can these needs be determined? The CTAA recommends four tools: 1) targeted surveys, 2) focus groups, 3) interviews, and 4) incognito service evaluation.

Surveys allow committees to directly inquire as to the adequacy of current service provisions, the holes in these provisions, and the future needs that persons with disabilities are likely to have. Focus groups and interviews can elicit much of the same information but with the added benefit of being able to further investigate participants and interviewees’ responses.

One technique that was found to be useful by the CTAA was having persons with disabilities interview each other. It was found that persons with disabilities often found this setup to be more comfortable and the committees in charge found the respondents much more forthcoming in such an atmosphere.

Some committees found it useful to get out of the board room and onto the transit vehicles. By putting themselves in someone else’s shoes, committee members became more sensitive to the actual experience of riding transit. This

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### Who Should Be Involved?

- Persons with disabilities
- Riders and potential riders
- Elected officials at the city, county and state levels
- Public transit providers
- Private transportation businesses
- City, county or local transportation departments
- Metropolitan Planning Organizations (MPOs)
- State transportation departments
- Head Start agencies
- Medicaid programs
- State and county social service departments
- Area Agencies on Aging
- Senior centers
- Councils for the blind
- Councils for the deaf
- Faith-based organizations
- Charity and community service organizations
- Community action agencies
- Neighborhood councils
- School districts
- Public housing directors and departments
- Private housing developers and organizations
- Homeowners associations
- Child care centers
- Chambers of Commerce
- Business associations
- Specific industry coalitions
- Human services offices
- Workforce development/investment boards
- One-Stop Career Centers
- Vocational Rehabilitation agencies and centers
- Local Temporary Assistance for Needy Families (TANF) office

Source: CTAA, 2005.

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**Evaluate the current situation**

Every needs assessment should begin with an inventory of any transportation services already available to increase mobility. The goal of an assessment and implementation normally is an augmentation of services, not a wholesale replacement or duplication of services. And, with a pre-existing system, many of the costs are already present: overhead, vehicles, labor, etc. Maybe these resources need to be more efficiently allocated or added to sparingly to better meet the needs of persons with disabilities.
Mobility  Continued from page 7

included everything from how accessible bus stops were to how drivers treat persons with disabilities.

A further part of a needs assessment should be the determination of where persons with disabilities are actually traveling and, moreover, where will they be traveling in the future. Getting representatives of rider origins (i.e., group living facilities) and destinations (employers, health care providers, churches, shopping centers, etc.) involved can help to better illustrate to the committee why persons with disabilities travel where they do. Combining this knowledge with the data collected from actual transit users is the key to determining which direction your agency should look for future service.

Finally, disseminate your findings to the public for a further round of commentary and critique. More information always yields a better final plan. The needs that ought to be met will lay somewhere in the gap between the current reality of transit provisions and the desired provisions identified by your needs assessment.

Take action

Once your community has determined what needs are not being met, you will need to determine the feasibility of providing new services tailored to these needs. Testing feasibility is most easily done by implementing pilot services. If numerous needs have been identified, set priorities among these needs and take an incremental approach to implementation, testing out one or two services at a time, as your budget allows.

Granted, these actions all hinge on locating permanent funding to operate expanded transit services. Worker-Braddock suggests looking for ways to combine fixed-route services with paratransit services to more efficiently employ limited funding resources. Permanent funding is likely to come from a mix of sources including federal, state, and local governments, fares, advertising income, and contract revenue, as well as non-governmental organizations.

Stewart, of MARC, recommends never turning money down. Once an unmet need is identified, there needs to be an emphatic effort to enlist the support of elected officials who can secure funding. Too many times, Stewart has seen “just more and more coordinating” rather than committees and providers actually fundamentally “solving or addressing the problem” by securing funding. The CTAA has provided a list of potential federal sources of funding (see sidebar, top right).

In the bigger picture, transit managers and committees should look for ways to be involved in site plan review and long-range community planning efforts to make sure future development is better suited to transit services, especially those for persons with disabilities. Worker-Braddock cited an example of a big-box store with a sizable parking lot in front of it. This arrangement may require transit users to traverse from the transit stop across the parking lot to get to their destination, because, in some communities, transit providers are wary of entering private property for liability reasons. In the long-range planning process, transit providers need to support and emphasize responsible land use decisions, locating destinations frequented by persons with disabilities along current or planned transit routes.

In the end, involving the community in your planning process will not only result in transit service that is more responsive to the transportation needs of those in your community with disabilities but also provide stronger coordination within your community. Whether you choose to form a committee or take another approach, the partnerships created through the process between transit providers, planning organizations, the business community, and human service organizations will pay dividends in the years ahead. Just think how much easier it will be when you repeat this process in the future. Instead of starting from scratch, a structure will already be in place. You can just pick up where you left off the last time. The key really is collaboration.

Potential Federal Funding Sources

U.S. Department of Transportation

• Federal Transit Administration (FTA)
  Urban Transit Formula Grants (§5307)
  Major Transit Capital Grants (§5309)
  Transportation for Elderly and People with Disabilities (§5310)
  Rural Transit Formula Grants (§5311)
  Job Access and Reverse Commute Program (JARC) (§5337)

• Federal Highway Administration (FHWA)
  Congestion Mitigation and Air Quality Improvement Plan (CMAQ)
  Surface Transportation Program (STP)

U.S. Department of Health & Human Services

• Administration on Developmental Disabilities (ADD)
• Community Services Block Grants (CSBG)
• Head Start
• Medicaid (Title XIX)
• Older Americans Act (Title III)
• Social Services Block Grants (Title XX)
• Substance Abuse & Mental Health Services Administration (SAMSHA)
• Temporary Assistance for Needy Families (TANF)

U.S. Department of Housing & Urban Development

• Community Development Block Grants (CDBG)
• HOPE VI

U.S. Department of Labor

• Workforce Investment Act (WIA)

Source: CTAA, 2005.
The next step is to define the objectives of your marking and tethering program. Involve as many stakeholders as possible. Stakeholders include wheelchair users among your riders, staff (especially drivers) and disability advisory groups. Common primary objectives are:

• To make the securement of mobility devices faster, easier, and safer to perform,
• To provide as stable and safe a tie-down as possible, and
• To make the process more consistent and convenient for transit customers who use mobility devices.

You’ll need to decide whether to charge for your program.

**Program components and responsibilities**

The first step to designing a marking and tether program is to review the legal ramifications of the program with those who provide legal and risk management services to your agency. They will be able to advise you on your agency’s level of liability exposure with and without the program. It is important to have their blessing for the program before implementation.

Such a program is designed to reduce the number of incidents and accidents that may occur with unsecured or under-secured mobility devices. Tip-overs and other hazardous movement by wheelchairs (especially 3 or 4 wheeled scooters) are common types of incidents during transit. Tether straps can also reduce injuries to drivers by minimizing the physical difficulty of attaching tie-downs.

Tips for Creating a Marking and Tethering Program

By Anne Lowder

A common challenge for transit drivers is identifying where to attach tie-down straps on wheelchairs and scooters. Many wheelchair and scooter designs do not have the type of frame joints for which tie-down systems were originally designed. Although there is a voluntary industry standard for specially designed attachment points, ANSI/RESNA “WC-19” wheelchairs complying with it are not yet widely used.

For wheelchairs and scooters that need special treatment, proper securement begins by marking appropriate attachment points on these devices with color-coded tape, stickers, wire ties, or some other identifier. If there is no good place for attaching tie-down belts or hooks, a nylon or polyester webbing “tether strap” can be installed on the mobility device.

Consider adopting a marking and tether program. This is a “best effort” approach for providing as much safety and comfort as possible—for both the customer and the driver who secures the chair. Having a marking and tether strap program takes the guesswork out of the securement process.

Web Sites With Tethering Straps For Sale

http://www.qstraintwheelchairtiedowns.com/servlet/the-Accessories/Categories

Webbing loops range in size from 14 inches to 20 inches. Colors are blue and black. Price range is $4.95 to $6.00 each.

http://www.safehaven-usa.com/secure%20loops.html

Secure Loops are sold in sets of 4-each. Standard lengths are 11", 13", 15", and 21". Colors are: Yellow, Black, or Gray. Price range is $41.00 to $51.00 per set.


Quick Strap range in size from 12 inches to 16 inches. Color: Purple. Price range is $9.00 to $10.00 each.
Marking and tethering  

Systems that offer their program for free often generate more participation in it. The cost is minimal compared to the benefits such as customer comfort, speedier boarding and driver safety and convenience.

Marking and tether strap choices

Markings can be created with color-coded tape, stickers, plastic wire ties, or paint. Consideration should be given to ease of use, ease of removal, acceptance by the customer and durability. Vinyl tape is available in various colors, is easy to apply, and does not damage the surface of the wheelchair. The disadvantages of the program are documentation with the customer on his/her chair and that the marked and tethered points are checked regularly.

Tether straps are marketed by most of the major vehicle securement equipment manufacturers. Multiple lengths of tether straps are often needed, due to wide variations in wheelchair frame sizes and configurations.

The size of the strap is important if it is to remain on the wheelchair permanently. It should be as short as needed to allow for attaching tie-downs. Tether straps that are too long:
• Contribute to less secure tie-downs.
• Get caught on other parts of the wheelchair or other objects.
• Drag on the ground and become damaged.

The straps sold by tie-down manufactures are tested to appropriate standards, specifically SAE J2249, which will be written on the label. Using straps that are not certified could create additional liability.

Where to install straps? By whom?

The key decisions of a marking and tether program are where and by whom the markings and straps will be installed. The recommended best choice by the National Transit Institute is to offer a one-time installation by trained staff in an unhurried environment. This process is called the “centralized” method. It allows trained transit staff to work with the customer to determine marking points, if tether straps are needed, or both, on individual mobility devices. The process “tries-on” the actual tie-down equipment used during transit. In some cases, markings may be needed on one end of the wheelchair, and straps on the other end.

A second method is to offer convenient locations and times for customers to visit for an installation consult. Some customers won’t or can’t make these types of appointments so transit agencies may offer the program via appointments.

Finally, other alternatives are installation by customers themselves or by vehicle operators. Some transit agencies distribute marking media and/or tether straps to customers for self-installation. Others provide straps as equipment for vehicle operators to carry. While these approaches may require less staff and facility commitment, they do not allow for as much control and

How does the securement equipment work?

Securement is a four-point system for mobility devices on buses. This means that a mobility device is secured with two hooks in the front and two hooks in the back. The hooks are connected to straps that are attached to the floor of the bus. The securement system is self-tightening to prevent any slack in the straps.

What if the mobility device cannot be secured?

The Americans with Disability Act (ADA) states that if devices cannot be secured, passengers must still be allowed to travel to their final destinations.
documentation, and consumers are often not familiar enough with proper securement mechanics.

**Useful supplies to have on hand**
A digital camera can be used to take photos of the final installation for filing. Standardized forms should be developed for recording all pertinent information. Other useful items during the installation consultation are scissors, cleaning supplies for preparing marking locations, a kneeling pad or cushion, a tape measure for checking securement dimensions, flashlight, and small hand tools for working tethers into tight spaces.

**Train your staff**
Training is important for any staff member who will perform installation of marking or tether straps. Staff should be assigned this task on an ongoing basis to build their experience working with a variety of mobility devices. It is also best to have a team or small number of people to confer with each other, for consistency and identifying issues. Even better is to visit a local wheelchair dealer. This approach lets the dealer explain wheelchair and scooter construction features, and also provides an opportunity for the dealers to learn about your agency’s program and overall accessibility.

**Educate your riders and the public**
Education can be done via brochures, flyers, vehicle posters, social media and press releases. Promotional materials should include information on what tether strap or marking installation is all about, and why it is needed. The basic reasons are that all mobility aids are not alike and a marking and tether program is designed to pre-identify securement locations for the convenience and safety of the operator and the passenger.

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**Challenges in Adopting a Securement Program**

**For Passengers**
• Some prefer wheelchair not be secured
• Securement equals lack of independence
• Stigma of special attention (“holding up the bus”)
• Fear of damage to the mobility device
• Discomfort with the invasive physical contact
• Annoyed with dirty, twisted or missing tie-down straps and occupant restraint belts

**For Mobility Devices**
• Increasingly difficult to secure
• Lack of identifiable tie-down attachment points
• Incompatibility of some newer securement systems with wheelchair frame structures
• Limited space in vehicles

**For Drivers**
• Difficulty with the ergonomics of attachment points on wheelchairs
• Conflicts and challenges related to physical contact/exposure with the wheelchair user
• Injury resulted while performing securement
• Customers indicate that time taken for securement on busy routes is reason for pass-ups by drivers

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**Transit Agencies That Have Marking and Tethering Programs**

• Alameda-Contra Costa Transit District. [http://www.actransit.org/riderinfo/userguides](http://www.actransit.org/riderinfo/userguides)
• Santa Clara Valley Transportation Authority. [http://www.vta.org/services/mobility_device.html](http://www.vta.org/services/mobility_device.html)
• Gold Coast Transit. [http://www.goldcoasttransit.org/wheelchairs/tie-downs.html](http://www.goldcoasttransit.org/wheelchairs/tie-downs.html)

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**Sources**

• National Transit Institute. Advanced Mobility Device Securement Skills Workshop. Lawrence, Kansas (September 21 and 22, 2010).
• Cross, Douglas J. Developing a Wheelchair Marking and Tether Strap Program. 2008.
• www.vta.org/services/mobility_device.html Santa Clara Valley Transportation Authority.
• www.goldcoasttransit.org/wheelchairs/tie-downs.html Gold Coast Transit.
Routing and scheduling coordinators for regional transportation systems are experts in their field. Nevertheless, there are always new lessons to be learned and old lessons to be reinforced. Many of these lessons are simple maxims that often get lost over years of entrenched practices. Others are more complicated, often weighing the pros and cons of certain routing options against others. At their most basic, routing and scheduling decisions should balance equitable services and efficient operating costs. Of course, this is anything but basic.

While transit systems are multi-faceted, at the heart of every system is the reality that the single most important function is getting people from Point A to Point B safely and in the least amount of time possible. Of course, to accomplish this, it is incumbent on transit agencies and planners to implement the most logical and efficient transit routes. Implementing routes “correctly” results in both better and less expensive service to the riding public as well as more efficient uses of limited agency resources. Also, lowering costs on one route through better routing and scheduling increases the potential to expand current service.

While there is a point at which a transit system cannot operate any more efficiently, the drive toward efficiency is generally self-perpetuating: Cutting costs in one operation means more service for other operations, potentially leading to higher ridership.

One of the chief reasons for coordination is increasing efficiency through economies of scale. Routing and scheduling are key components of increasing efficiency. With larger, more comprehensive systems, especially those that incorporate several transit providers, efficient routes and schedules are important to a thriving future.

This article will share regional routing lessons that were “learned by doing,” gleaned from national reports on the topic.

What to do

Chain your destinations. When it comes to routing, connecting two primary destinations is a good start. But, even better would be to connect those two locations with a chain of frequented destinations. Transit riders need to get to work, the grocery store, the doctor’s office, school, the local community college, and countless other destinations.

Many have few options for getting to these places without transit. In some cities, chaining destinations is relatively easy if destinations are along the “main drag.” In more rural areas, where service tends to veer toward demand-response services, buses might complete a loop through the destination city, stopping for as many services as possible before leaving to return riders to their rural homes. In rural centers that are large enough, a combination of demand-response services to bring rural residents to the center and a fixed-route loop to circulate them among destinations might be appropriate.

Also, to run a more efficient system, especially where there might be a shortage of transit vehicles, errand-based services might be operated when other services, such as job-access services, are not being run. Vehicles can switch between these operations when it is appropriate.

Partner with employers. Communities often identify access to employment as a priority for their transit systems. Not only will transit agencies provide a much-needed service to the community, they will also target a population that will be frequent users of the service. It’s a win-win situation.

Job-access services could be provided during the morning and afternoon rush periods when errand-based demand-response services might be temporarily suspended or curtailed to create space for commuters.

Employers may be willing to partner with transit providers to help subsidize the
service through fare reimbursement or transit passes. Good route design considers location of workers’ residences, location of major employers, shift times, and regularity of hours at these major employers.

**Schedule effectively.** As for scheduling, studies have shown that expanding service hours and increasing service frequency can often end up being an either/or proposition. That is, you can only increase frequency up to a point where it begins to affect the amount of service hours for which you can budget and vice versa. If you think that your transit system could benefit from one or both of these improvements, choosing the appropriate one appears to be a matter of trial and error. Of course, increasing frequency only works up to a point; at some point, service saturation sets in. Additionally, increasing frequency may not increase ridership in transit-dependent neighborhoods where persons have little choice in transportation, but frequency does influence satisfaction with the service.

**What NOT to do**

**Don’t resist change.** One of the biggest hurdles that transit providers face is resistance to change. Transit providers need to be on the lookout, at all times, for opportunities to improve the services they provide. Transit service should evolve with the region it serves. New employers and new shopping centers are excellent opportunities to expand or alter existing services or implement new services. On the other hand, when certain areas of a region begin to wane and jobs leave those areas, transit providers may need to consider reconfiguring service that might be better used elsewhere.

**Don’t change fares or frequency indiscriminately.** Also, studies on transit elasticities, that is, the effect that price has on ridership, have shown mixed results as to whether transit ridership is more responsive to fare changes or to changes in routing or scheduling. What has been shown is that riders in urban neighborhoods with already-frequent service are more sensitive to fare changes and, conversely, that riders in suburban neighborhoods with infrequent services are more sensitive to frequency changes.

What does this mean? It means that when making changes to or implementing new service, tailor those changes specifically to the neighborhoods you serve. What works in one neighborhood will not automatically work in another. Always take the time to tailor services to area being served. This way, costly routing and scheduling changes can be avoided when it becomes clear that the initial decisions are not working.

With regard to rural transit, studies have shown that transit elasticities generally are higher than those in urban areas. This largely reflects the fact that urban areas have a greater concentration of transit services. For example, some urban residents choose not to own a vehicle and instead rely wholly on transit. In rural areas though, transit systems have traditionally not been an integral part of transportation. Therefore, rural residents are not as beholden to transit services. This means that increasing fares or altering service frequency will likely affect ridership more dramatically in rural areas than it would if these same changes were applied to urban transit services. Inasmuch, rural transit providers must be even more careful than their urban counterparts when weighing changes to fare structures or service frequency.

So, what do these suggestions boil down to? Efficiency. Efficiency does not mean less for less’s sake. Efficiency means providing targeted services that get the maximum ridership (and monetary) return for the smallest investment of resources. Operating in this manner will go a long way toward ensuring your transit agency’s future. Nonetheless, you can never rest; your services should always be under review—evolving—because today’s efficient transit system may be tomorrow’s ineffective, unpopular, and cash-strapped transit system.
How To Reach Us

For a free subscription to the Kansas TransReporter or to contact one of our faculty or staff, call toll-free (800) 248-0350 (in Kansas) or (785) 864-2595 (outside Kansas). Send correspondence to:

Kansas TransReporter
Kansas University Transportation Center
1530 W. 15th Street, Room 2160
Lawrence, KS 66045

Send e-mail messages to Patricia Weaver at weaver@ku.edu or Lisa Harris at LHarris@ku.edu. Visit our Web site at http://www.ksrtap.org.

Kansas RTAP Staff

Assistance can be obtained by contacting a Kansas TransReporter staff person at the numbers or address above.

Project Director .......... Pat Weaver
Editor ......................... Lisa Harris
Contributors ............ Anne Lowder, Matt Baker, Erik Berg, John Elias

Other Services

In addition to publishing the Kansas TransReporter, the Kansas RTAP Program offers a variety of other educational services. Following is a partial list of these services:

• Publication dissemination
• Program planning assistance
• Technical assistance
• Video lending library
• Telephone consultation
• Computer database searches
• Training development
• Referral services
• Web site
• E-mail discussion group

Regulations: Which apply? Continued from page 5

Kansas insurance requirements; and have a CDL & Substance Abuse program in place when operating 16+ passenger vehicles. PCMPs receiving funds from these grant programs and operating interstate must comply with 49 C.F.R. Part 390.19 & 390.21; have drivers that meet physical requirements and comply with hours of service requirements; meet highest minimum insurance requirements required by any state in which they operate motor vehicles; and have a CDL & Substance Abuse program in place when operating 16+ passenger vehicles.

For more information

To assist Kansas transit providers in understanding intrastate and interstate regulations, the KCC offers information on their Web site about motor carrier regulations, interstate and intrastate passenger guidelines, and a guide for PMCPs. These resources are on the Transportation Division page at http://www.kcc.state.ks.us/trans/index.htm and are also linked to their Safety Information page. KCC’s Safety page also has links to the FMCSA.

The KCC is undertaking a year-long education campaign with presentations transit managers can attend. These safety presentations will be held at locations statewide. The schedule can be found at http://www.kcc.state.ks.us/trans/safety_meetings.htm. The presentations will include information on intrastate and interstate regulations by both the KCC and FMCSA.

For more information on Federal Motor Carrier Safety Regulations, visit http://www.fmcsa.dot.gov.

If you have questions about your specific transportation system, call Gary Davenport, Public Service Administrator at KCC at (785) 271-3151, or visit the links shown in the sources for this article on page 4.

MANAGEMENT

An A to Z Guide to New Transit Construction

By John Elias

Considering adding a new bus maintenance facility or other supporting transit facility? In 2009 the Federal Transit Administration (FTA) updated its 2007 Construction Project Management Handbook with new information pertaining to the American Recovery and Reinvestment Act (ARRA). The document is designed to guide transit agencies through all phases of a construction project from “project initiation through planning, environmental clearance, real estate acquisition, design, construction, commissioning, and closeout.”

While the FTA is no longer taking applications for projects under ARRA, the guidelines in the 2009 document hold true for new transit construction projects that receive federal funding, said Bill Colt of FTA’s Region VII office.

No Shows in ADA Paratransit — Project Action Easter Seals Webinar
The webinar will discuss the Department of Transportation and Americans With Disability Acts regulation that allows transit agencies to suspend, for a reasonable period of time, the provision of paratransit service to riders who establish a pattern or practice of missing scheduled trips, also known as no-shows. April 12, 2011 from 2PM to 3:30 PM ET. To register for the webinar go to Project Action Easter Seals Website: http://www.easterseals.com/site/Calendar/579058551?view=Detail&id=33509

Transit Bus Safety and Security Program — Federal Transit Administration Webinar
The National Transit Institute (NTI), in cooperation with the Federal Transit Administration (FTA), is offering a webinar to discuss the National Transit Database (NTD) Basic Setup and Minor Incident Reporting (S&S-50 form) for the Safety and Security Module. The webinar will be held on April 12, 2011 from 2PM to 4PM ET. To register for the webinar go to: www.ntionline.com/CourseInfo.ASP?CourseNumber=TRI18-12

Major Incident Reporting — NTD Safety & Security Webinar
The National Transit Institute (NTI), in cooperation with the Federal Transit Administration (FTA), is offering a webinar to discuss the National Transit Database (NTD) Major Incident reporting (S&S-40 form). The webinar will be held on April 15, 2011 from 2PM to 4PM ET. To register for the webinar go to: http://www.ntionline.com/CourseInfo.ASP?CourseNumber=TRI18-13

Employee Handbook for Finney County Transit
Looking to complete an employee handbook? Just in from Finney County Transit is an 133 page example of an employee handbook. Topics include general personnel practices, the role of the driver, vehicle inspection procedures, maintaining the schedule, fixed route bus stop procedures, driving practices, safe driving skills, hazardous driving conditions, passenger assistance procedures, passengers with disabilities, crisis management procedures, safety, security and emergency preparedness protocols. To receive an electronic version of this document, send an email message to alowder@ku.edu.

ORDER FORM
A few of the above resources are available in hard copy for readers without internet access. Check the items you would like to receive and fill out the form below. Fax to (785) 864-3199.

Name _____________________________________________________________  Title _________________________________________________
Agency ___________________________________________________________ Phone _______________________________________________
Street Address _____________________________________________________  E-mail address ________________________________________
City __________________________    State ___________________________ Zip + 4 __________________
The Kansas TransReporter is an educational and technology transfer newsletter published quarterly by the Kansas University Transportation Center (KUTC), under the umbrella of KU’s Transportation Research Institute. The newsletter is free to rural and specialized transit providers and others with an interest in rural and specialized service. The Kansas TransReporter is co-sponsored by the Federal Transit Administration under its Rural Transportation Assistance Program (RTAP) and the Kansas Department of Transportation.

The purposes of the RTAP program are to: 1) educate transit operators about the latest technologies in rural and specialized transit; 2) encourage their translation into practical application; and 3) to share information among operators.

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Calendar

Rural Transit Training and Conferences

2011 Kansas RTAP Driver Training:

Defensive Driving and Passenger Assistance Skills
April 5 in Atchison
July 20 in Hays
October 6 in McPherson
October 26 in Ottawa

Advanced Mobility Securement
April 19 in Emporia
May 5 in Salina
May 10 in Girard
May 24 in Leavenworth
June 2 in Paola
June 14 in Hutchinson
June 22 in Wichita
July 19 in Norton
September 20 in Independence
September 28 in Newton

Defensive Driving and Emergency Response
April 14 in Ottawa – closed
April 26 in Topeka
May 3 in Wichita
May 4 in Winfield
May 11 in Chanute
May 25 in Greenleaf
June 13 in Hiawatha
June 15 in Abilene
July 21 in Salina
Aug 9 in Emporia
September 21 in Chanute
September 27 in Pratt
October 4 in Garden City
October 5 in Great Bend
October 12 in Atchison
October 13 in Manhattan
October 20 in Olathe

Other events:

Community Transportation Association Expo
June 5-10 in Indianapolis, IN
http://web1.ctaa.org/webmodules/webaticles/anmviewer.asp?a=2217&z=100

**To register for a Kansas RTAP workshop, go to http://www.ksrtap.org. Click on “Register to attend.” Questions? Contact Kristin Kelly at (785) 864-2594 or kkkelly@ku.edu.**