

Safety element



11.1 Introduction

The safety of the region's transportation system involves complex factors that influence its quality and function. History shows that safety improvements have benefited the greater Kansas City region; however, a coordinated, collaborative, comprehensive and continuing process should be developed to analyze the multiple factors involved in transportation safety.

Evaluating safety issues is one means of gauging the quality of a region's transportation system. Local decision makers have raised the priority of transportation safety for the greater Kansas City region by establishing its importance as part of four regional transportation goals. Each of these goals, including safety, influences the regional quality of life goal established in Metro Outlook.

Goal: Support a healthy, strong, regional economy.

Crashes and transportation incidents cost society. All area residents pay when safety is compromised on the transportation system. These costs are often absorbed by the consumer in higher car insurance premiums, increased medical care costs and congestion-related time delays. Improving the region's transportation safety, thereby improves the region's economy.

Although congestion may be perceived as a costly result of living in a major urban area, studies indicate that compromised transportation safety may have a greater economic impact upon Kansas City area residents. A Texas Transportation Institute Study estimated that congestion cost the region approximately \$215 million in 2002. Although this is a significant number, calculated figures based upon a Federal Highway Administration (FHWA) study indicate that motor vehicle crashes cost the region nearly \$1.3 billion in 2002. Improving transportation system safety can significantly improve the regional economy.

Goal: Maximize access to opportunity for all area residents.

If the region's transportation system is unsafe for drivers, pedestrians, bicyclists and other users, it becomes a barrier to good public health and access to opportunity. With over 13,000 injuries each year in the region, the system negatively affects the area's public health and, with over 60,000 annually reported motor vehicle crashes, the system can

impede reliable access. This breakdown in quality is seen in crash- and incident-related traffic congestion and when users are forced to seek other transportation means because of security fears or financial constraints caused by unsafe driving acts. Users of the transportation system have a reasonable expectation to choose a safe transportation mode and to arrive at their destination by that mode efficiently and safely.

Goal: Support a quality built and natural environment.

Although transportation safety and security do not necessarily promote a healthy natural environment, they contribute to a quality built environment, which includes infrastructure that minimizes or mitigates unsafe transporting acts and promotes safe travel. The public health community recognizes that motor vehicle crashes are a significant public health issue, with over 43,000 deaths on American roadways in 2003. The Centers for Disease Control and Prevention and World Health Organization raised awareness of this issue by targeting road safety for World Health Day 2004.

Goal: Promote the safety and well being of the traveling public.

The safety of the system is one of the four regional transportation goals. Although this safety focuses on the region’s largest problem, traffic safety or motor vehicle crashes, the safety and security of other modes, such as bicycle safety, public transit safety, and pedestrian safety, are included in this goal. This safety is also not restricted to the residents of the Kansas City metropolitan area, but includes those transportation users traveling through or visiting the region.

SAFETY ACTION TABLE

Transportation Outlook 2030 included an action plan at the closing of each chapter. This 2002; Update evaluates the progress made in each action item since the 2002 publication of *Transportation Outlook 2030*. The following table details the status of the safety actions specified within other elements of *Transportation Outlook 2030*.

Transportation Outlook 2030 Actions	Status		Comments
	Planning	Implementing	
Integrate safety management system into project selection for LRTP and TIP	●	○	MARC began partnering with local, state and federal agencies that address transportation safety. Additionally, the collection of regional transportation safety data is being maintained for the first time in the Kansas City region. Surface Transportation Program and Bridge review criteria for safety has expanded to include crash type. MARC is also promoting safety education projects as an eligible funding category.
<p style="text-align: center;">● = Achieved and Ongoing ● = In Progress ○ = Not Yet Planned/Implemented</p>			

Actions	P	I	Comments
Regional bicycle/pedestrian coordinator's safety education programs	●	●	Events and products include the bike safety brochure for college students; Safe Routes to Schools (Raytown pilot program); and Safe Routes to Schools training for engineers, planners, law enforcement and health professionals.
Use of consistent bicycle facility signage	●	●	MARC worked with the Kansas City Chapter of APWA to develop and adopt consistent bicycle facility guidelines. MetroGreen is also using a consistent wayfinding sign system that improves bicycle safety and security.
Provide bicycle/pedestrian linkages and address bicycle/pedestrian barriers	●	◐	The Transportation Enhancement and Congestion Mitigation Air Quality review process considers the regional bikeway plan. Review criteria supports projects providing linkages where modal conflicts exist and improving bicycle/pedestrian safety.
Local traffic ordinances concerning bicycle/pedestrian safety issues	◐	○	The collection of other city ordinances, including state and national information, has been compiled.
Strategies to reduce traffic speeds to improve safety	●	○	MARC will be updating Creating Walkable Communities in 2005, which addresses forms of traffic calming strategies that improve pedestrian safety.
● = Achieved and Ongoing ◐ = In Progress ○ = Not Yet Planned/Implemented			

11.2 Background

In 1966 the United States Congress passed the Highway Safety Acts, which required states to develop highway safety plans. The plans were intended to be a systematic approach to the resolution of highway safety problems. The Highway Safety Acts of 1966 set the framework for safety initiatives that reduced the highway death toll from more than five deaths per 100 million vehicle miles traveled to 1.5 deaths per 100 million vehicle miles traveled in 2003.

In the mid-1990s both the Kansas Department of Transportation (KDOT) and the Missouri Department of Transportation (MoDOT) began developing Safety Management Systems (SMS), which were required as part of federal Intermodal Surface Transportation Efficiency Act (ISTEA) legislation in 1991. ISTEA contained 15 planning factors that required establishing management systems addressing issues such as traffic congestion, pavement conditions, bridges and safety. The SMS was designed to ensure better coordination of state and local highway safety efforts and to provide information to decision makers to make informed choices about limited resources. This ISTEA requirement was later made optional in January of 1997, so many states, including Kansas and Missouri, no longer pursued this initiative.

The Transportation Equity Act for the 21st Century (TEA-21) of 1998 contained seven planning factors to consider in the metropolitan transportation planning process. TEA-21 contains one explicit factor that emphasizes the consideration of safety for motorized and non-motorized users. Though at the time of this writing reauthorization of important transportation legislation still has not passed, most versions of the reauthorization include significant enhancements to transportation safety and its related programs. The importance of transportation system safety will likely be increased in future funding programs.



Despite the transportation legislation, there are several initiatives on a state and national level that are improving transportation safety and can cooperatively work with the metropolitan transportation planning process. Currently, states are coordinating with the American Association of State Highway Transportation Officials (AASHTO) by developing Strategic Highway Safety Plans (SHSP). These plans are designed to be coordinated, comprehensive, collaborative and data-driven efforts that contribute to AASHTO's national highway safety goal.

Another national effort lead by FHWA and the Transportation Research Board is Safety Conscious Planning (SCP). SCP is a comprehensive, systemwide, multimodal, proactive process that better integrates safety into surface transportation decision making. It is a new and complex method of transportation planning that holds great promise for preventing crashes, injuries and deaths. As part of these efforts, MARC hosted a "Planning It Safe" forum in 2003 that raised the issue of transportation safety among regional transportation officials and decision makers. Since that forum and since the initial adoption of *Transportation Outlook 2030*, the staff has worked to integrate and enhance safety as part of the metropolitan transportation planning process. MARC's work is coordinated with the work of the "Destination: Safe" Coalition to bring the two national efforts of Safety-Conscious Planning and Strategic Highway Safety Plans together on a regional level. Further discussion of the "Destination: Safe" Coalition is contained in 11.3.1.

Although much of this background has focused on safety from a planning perspective, historically, the U.S. Department of Transportation has included transportation safety from a driver behavior and vehicle perspective. The National Highway Traffic Safety Administration (NHTSA) and its regional offices have worked with local governments and law enforcement agencies to implement safety belt and impaired driving education and enforcement campaigns. Many of these efforts are carried out by state departments of transportation, typically through their highway safety divisions with Section 402 highway funds authorized in TEA-21. NHTSA and its funding have significant impacts upon driver behavior and the safety of the transportation system.

Since September 11, 2001, the security of the transportation system has received needed attention and improvements, particularly in airline transportation. Other modes of transportation have been included in these discussions due to terrorist attacks overseas and other threats concerning specific transportation modes in cities throughout the United States. Many of these discussions focus on high-level terrorist attacks of public transit and typically do not consider everyday transit security. Although these other transportation modes are comparatively safe, the perception of unsafe behaviors and dangerous areas can prohibit some transportation users from using their chosen transportation mode.

11.3 State of the Regional System

11.3.1 Current Transportation Safety Efforts

A number of organizations employ a variety of strategies to improve transportation safety in the greater Kansas City region. Federal, state, regional and local organizations are implementing different solutions that affect the region's safety and security levels. Many of these organizations typically work within the four E's: Education, Engineering,



Enforcement and Emergency Services. Transportation safety includes each of these four professional sectors to truly engage in a comprehensive regional discussion.

Education

One solution to address transportation safety in the greater Kansas City region is education. This typically involves informing the user about unsafe behaviors and ways to improve safety while using the transportation system. There are many organizations and agencies that use education as one transportation safety tool in the region. A few examples underway in the metropolitan area include:

- NHTSA’s work to encourage motorists to use safety belts through its “Buckle Up America” campaign.
- KDOT’s educational campaigns at local Wal-Mart stores to promote “Put the Brakes on Fatalities” Day on October 10.
- MARC and the Brain Injury Association of Kansas & Greater Kansas City’s bike rodeo at Union Station for children.
- MoDOT’s DRIVE SMART campaign that places signs reading, “The Difference is YOU. DRIVE SMART,” at the beginning of all work zones on state highways in Missouri and focuses on safe driving behaviors through these zones.
- Injury Free KC’s work with area organizations to coordinate child passenger safety checkup events throughout the metropolitan area for Child Passenger Safety Week in February.

Engineering

Engineering strategies are often implemented by a local public works department or a state department of transportation. These infrastructure solutions are often low-cost, reactionary improvements; however, engineers and planners use these solutions to be proactive and prevent crashes. A few examples of engineering strategies at work in the Kansas City regional community include:

- KDOT and MoDOT’s placement of 2/10 mile interstate reference markers along major highways in the metro for motorists to easily report incidents and to assist emergency services personnel in finding the exact location of an incident.
- The Kansas City Chapter of the America Public Works Association’s (APWA) collaborative work with MARC to develop bicycle facility guidelines and standards. APWA has adopted these standards and are available for replication in local communities.
- KC Scout’s technology, such as in-pavement sensors, cameras and message boards, to notify motorists of incidents and prevent secondary crashes.
- The city of Olathe’s Neighborhood Traffic Safety Program, a joint effort between the city’s public works department and police department to implement low-cost traffic safety improvements.
- KDOT’s Road Safety Audits that assess the safety of state highways on a county level in cooperation with local jurisdictions.

Enforcement

Law enforcement officers play a valuable role in the region's transportation safety and security. Their simple presence can encourage appropriate driving behaviors, prevent motor vehicle collisions and deter criminal acts. Enforcement officers are also the source of most transportation safety data, typically crash data. In addition, these individuals must coordinate traffic flow around incidents that contribute to traffic congestion and motorist delays along the region's roadways. Examples in which enforcement solutions promote regional transportation safety include:

- Tickets issued by local law enforcement officers to motorists stopped and violating Kansas or Missouri law, which requires the use of safety belts while driving.
- The monthly meeting of Operation Impact, a coalition of local and state traffic enforcement officers from agencies in Kansas and Missouri, to coordinate and support enforcement efforts throughout the Kansas City region.
- The cities of Overland Park and Olathe's pilot red light cameras at several high-crash intersections. Although it is unlawful to issue tickets for these offenses in the State of Kansas, it is showing the increasing need to address this urban crime.
- Local and state law enforcement's participation in corridor enforcement efforts, such as the nationwide corridor enforcement along I-35 each fall.
- Visible saturation patrols conducted around major holidays and events to deter, detect and detain impaired drivers.

Emergency Services

Emergency services and their personnel are important in ensuring that additional lives and further debilitating injuries do not occur to users of the transportation system after an incident. This professional sector includes Emergency Medical Services (EMS) and paramedics that respond to an incident, and trauma room nurses and doctors that treat patients. Services like Motorist Assist that help drivers with car problems and are important to transportation safety and preventing further incidents or crashes. A few examples of the role that emergency services play in regional transportation safety include:

- Transporting an injured motorist to a hospital safely and efficiently for medical attention.
- KDOT, MoDOT or a local public works department's notification to first responders of construction changes that may impact their arrival times.
- The I-70 Incident Management Plan developed by MoDOT for the statewide corridor.
- Helping stranded motorists along busy interstate highways through the Kansas Highway Patrol's Motorist Assist and MoDOT's Motorist Assist.
- The monthly meeting of trauma room coordinators to discuss regional injury prevention, including incidents involving transportation safety through the Midwest Trauma Society.

Collaboration and Coordination

In examining the current state of transportation safety initiatives in the Kansas City region, it is important that collaboration exist between these professional sectors and others.

Due to a lack in time, money and personnel, it is vital that these individuals work together so valuable resources are not duplicated, and are coordinated to have the greatest impact on the region’s transportation safety problems. The region’s “Destination: Safe” Coalition was developed to form a collaborative, coordinated, comprehensive and continuing transportation safety effort for the greater Kansas City region.

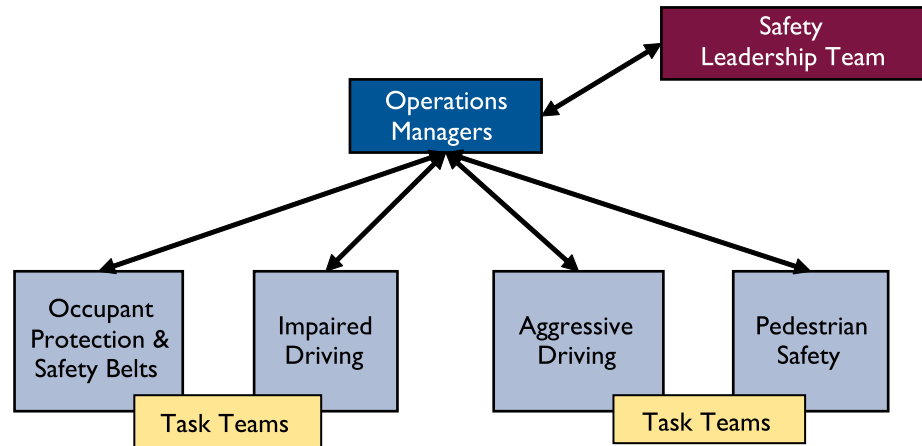
“Destination: Safe” Coalition

In 2004, both Missouri and Kansas began developing a statewide strategic highway safety plan. These plans are produced to meet the national highway safety goal of one fatality per 100 million vehicle miles traveled. Bistate safety partners came together late in 2004 to discuss developing a similar regional transportation safety plan. In 2005, the “Destination: Safe” Coalition was formed to develop and implement a comprehensive transportation safety plan, the Kansas City Regional Transportation Safety Blueprint. The coalition is responsible for maintaining a coordinated, collaborative, comprehensive and continuing process to improve transportation safety in urban and rural areas of the region. The coalition’s composition is depicted in Figure 11-1.

**FIGURE 11-1
“DESTINATION: SAFE” COALITION**



FIGURE 11-1
“DESTINATION: SAFE” COALITION (cont.)



“Destination: Safe” is working in conjunction with the Kansas “Safe Not Sorry” and the Missouri “Arrive Alive” campaigns. The composition of the coalition is flexible. The task teams developed may vary from those depicted.

A Safety Leadership Team consisting of safety champions from local, regional, state and federal organizations located in both rural and urban areas who are interested in improving the safety of the greater Kansas City region’s transportation system are directing this initiative. Many of these organizations are involved in some aspect of the four E’s of transportation safety: Education, Engineering, Enforcement and Emergency Services. The leadership team is directing the blueprint and includes the following organizations:

- American Public Works Association – Kansas City Chapter (APWA)
- Childrens Mercy Hospital
- Kansas City, Mo.
- Sugar Creek, Mo.
- Warrensburg, Mo.
- Clay County Sheriff’s Department
- Federal Highway Administration – Kansas (FHWA-KS)
- Federal Highway Administration – Missouri (FHWA-MO)
- Federal Transit Administration – Region 7 (FTA)
- Grandview, Mo., Police Department
- Henry County, Mo., Sheriff’s Department
- Independence, Mo., Police Department
- Institute for Transportation Engineers – Kansas City Chapter (KCITE)
- Kansas City Area Transportation Authority (KCATA)
- Kansas City, Kan., Fire Department
- Kansas City, Mo., Health Department
- Kansas City, Mo., Police Department
- Kansas Department of Transportation (KDOT)
- Kansas Highway Patrol (KHP)
- Kaysinger Basin Regional Planning Commission
- Kids And Cars

- Law Enforcement Traffic Safety Advisory Council (LETSAC)
- Lee’s Summit, Mo., Police Department
- Metropolitan Ambulance Services Trust (MAST)
- Mid-America Regional Council (MARC)
- Midwest Research Institute
- Missouri Department of Transportation District 4 (MoDOT)
- Missouri State Highway Patrol
- National Highway Traffic Safety Administration – Region 7 (NHTSA)
- Olathe, Kan., Police Department
- Operation Impact
- Operation Lifesaver – Missouri
- Owner-Operator Independent Drivers Association (OOIDA)
- Overland Park, Kan., Police Department
- Pioneer Trails Regional Planning Commission
- Safe Kids Johnson County, Kan.
- Safe Kids Metro KC
- Safety and Health Council of Western Missouri & Kansas
- State Farm Insurance
- Union Pacific
- Various local cities and police departments

The District 4 Office of the Missouri Department of Transportation, the Kansas Department of Transportation and MARC are assisting with day-to-day operations of the coalition. These operations managers are facilitating meetings and information between the various committees of the bistate coalition.

Task teams are being developed around the high-priority transportation safety issues identified in the Kansas City Regional Transportation Safety Blueprint. Teams will be composed of safety experts in Kansas and Missouri and will develop action plans that address these safety concerns. The graphic only shows examples of issues that task teams may address. The actual task teams developed may vary from those depicted.

Through the work of this coalition, a collaborative, comprehensive, coordinated and continuing process will monitor changing transportation safety trends in the greater Kansas City region. This work will be contained in the Safety Element of *Transportation Outlook 2030* and in the Kansas City Regional Transportation Safety Blueprint.

11.3.2 Transportation Safety Data

The nature of transportation safety data is important to the collection and analysis of safety issues for the greater Kansas City region. The following are a few key challenges:

- The bistate nature of the greater Kansas City region makes combining datasets challenging.
- Most transportation safety data only capture incidents that are reported and never collect minor, unreported incidents and near misses. There is also a significant data gap in non-motor vehicle incident data involving only bicyclists or pedestrians on regional trails, sidewalks or bike facilities.



- There are scarce financial resources to implement new data collection technologies causing some repeated manual entry of data.
- There is less knowledge about safety along the local transportation system than the state system.
- Although there are some challenges to transportation safety data, the use and collection of data have contributed to successes:
- Planners advocate the collection and maintenance of data on a regional and county level to help examine transportation safety trends in a cohesive community, such as the greater Kansas City region.
- Federal and state agencies have accurately accounted for motor vehicle fatalities by state through the Fatality Analysis Reporting System.
- Law enforcement officers are actively involved in reporting and providing expertise in motor vehicle crashes.
- The need to acquire more safety-related data regarding additional travel modes, crashes on local streets and deaths involving non-traffic, non-crash motor-vehicle related events are highlighted, and solutions sought.

Crash data and crash reports are maintained by the appropriate state agency in Missouri and Kansas. By law, it is required that all crashes causing property damage greater than \$500, those involving injuries, and fatal crashes be reported to these state agencies. All fatal crashes are reported to the Fatality Analysis Reporting System (FARS) maintained by NHTSA.

Although most transportation safety data is used in a reactive manner, there are data available that can be used as part of proactive measures in planning. Much of these data are not developed for transportation safety purposes, but are developed to understand travel behavior, driver psychology, incident management or other indirect purposes.

Data Sources

The primary source for transportation safety data is the crash report. These reports are filled out at the crash scene by a law enforcement officer and are valuable in summarizing the details of a crash including contributing factors or driver behaviors that caused the crash, location of the incident, driver characteristics, vehicle characteristics and other information needed to analyze transportation safety in the region. The data are important on a regional and local level in identifying high crash locations, which types of transportation modes are involved, areas where public education and outreach may be necessary and identifying specific demographics prone to collisions.

There are other sources of transportation safety data including hospital admission information, Intelligent Transportation Systems data, and travel surveys. As MARC's efforts evolve, more of these data sources will be utilized to further understand transportation safety trends in the region.

11.3.3 Regional Transportation Safety Trends

This analysis examines the eight counties composing the MARC region, Cass, Clay, Jackson, Platte and Ray counties in Missouri and Johnson, Leavenworth and Wyandotte counties

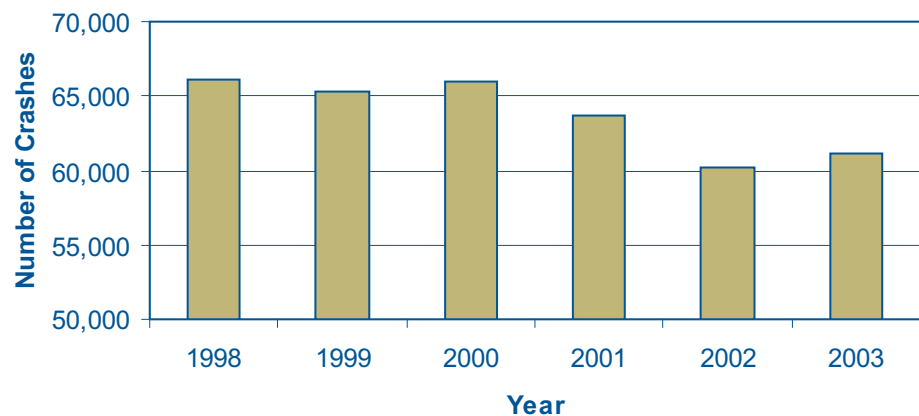
in Kansas from 1998 to 2003 (including 2004 information when available). Generally, the following data only summarize crashes and not individuals involved in the incidents (e.g., fatalities). MARC continues to analyze the transportation safety data and will develop reporting mechanisms that update this data between updates of the region’s long-range transportation plan and examine the data in greater detail.

11.3.3.1 Traffic Safety

All Motor Vehicles Crashes

There were more than 380,000 motor vehicle crashes in the Kansas City region from 1998 to 2003. The total number of motor vehicle crashes rose in 2003 compared to 2002; however, this total number is still below the average number of crashes from 1998 to 2001.

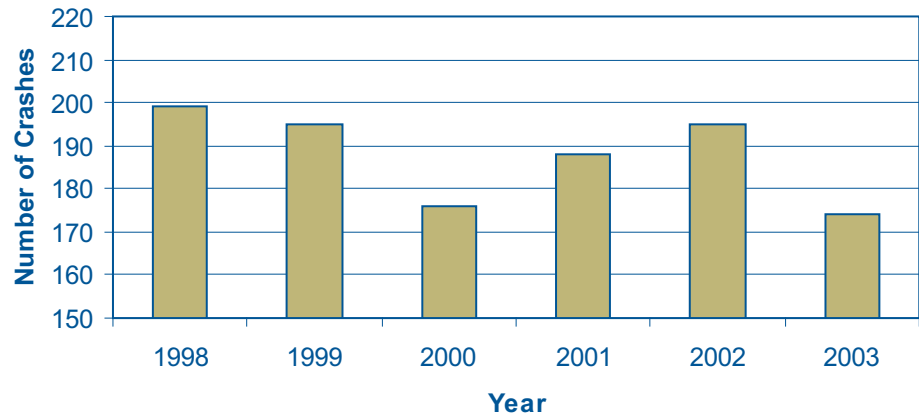
**FIGURE 11-2
ALL MOTOR VEHICLE CRASHES, 1998-2003**



Fatal Motor Vehicle Crashes

The number of fatal motor vehicle crashes has remained below 200 since 1998 with some concern that fatal incidents were rising in 2001 and 2002. Fortunately, the lowest recorded number of fatal collisions since 1998 occurred in 2003, possibly showing another decline. The region still generally experiences more than 200 fatalities per year in these fatal vehicle collisions.

**FIGURE 11-3
FATAL MOTOR VEHICLE CRASHES, 1998-2003**

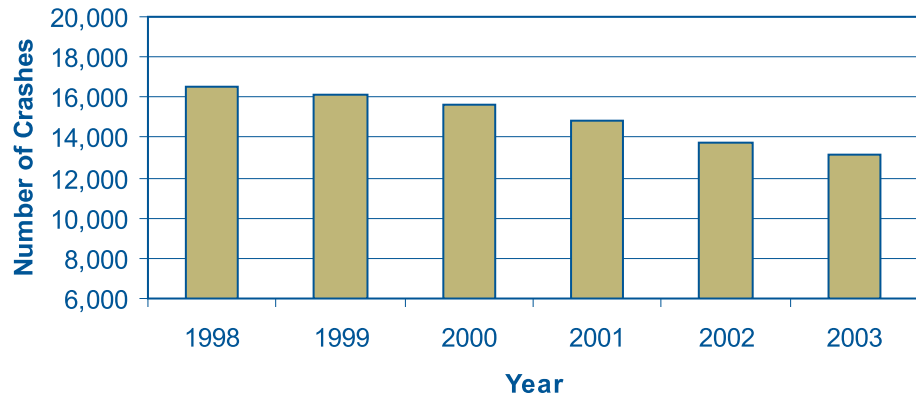


Sources: KDOT and MoDOT

Injury Motor Vehicle Crashes

The most noticeable measure showing advancements in traffic safety in the region relates to injury-related collisions. Figure 11-4 shows the number of injury motor vehicle crashes has steadily declined since 1998.

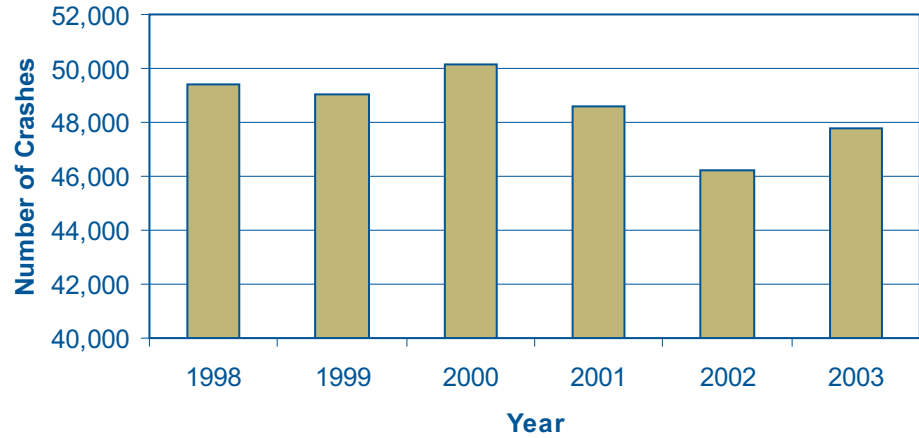
**FIGURE 11-4
INJURY MOTOR VEHICLE CRASHES, 1998-2003**



Property Damage Only Motor Vehicle Crashes

The number of property damage only (PDO) collisions has not shown a steady trend in the Kansas City metropolitan area since 1998.

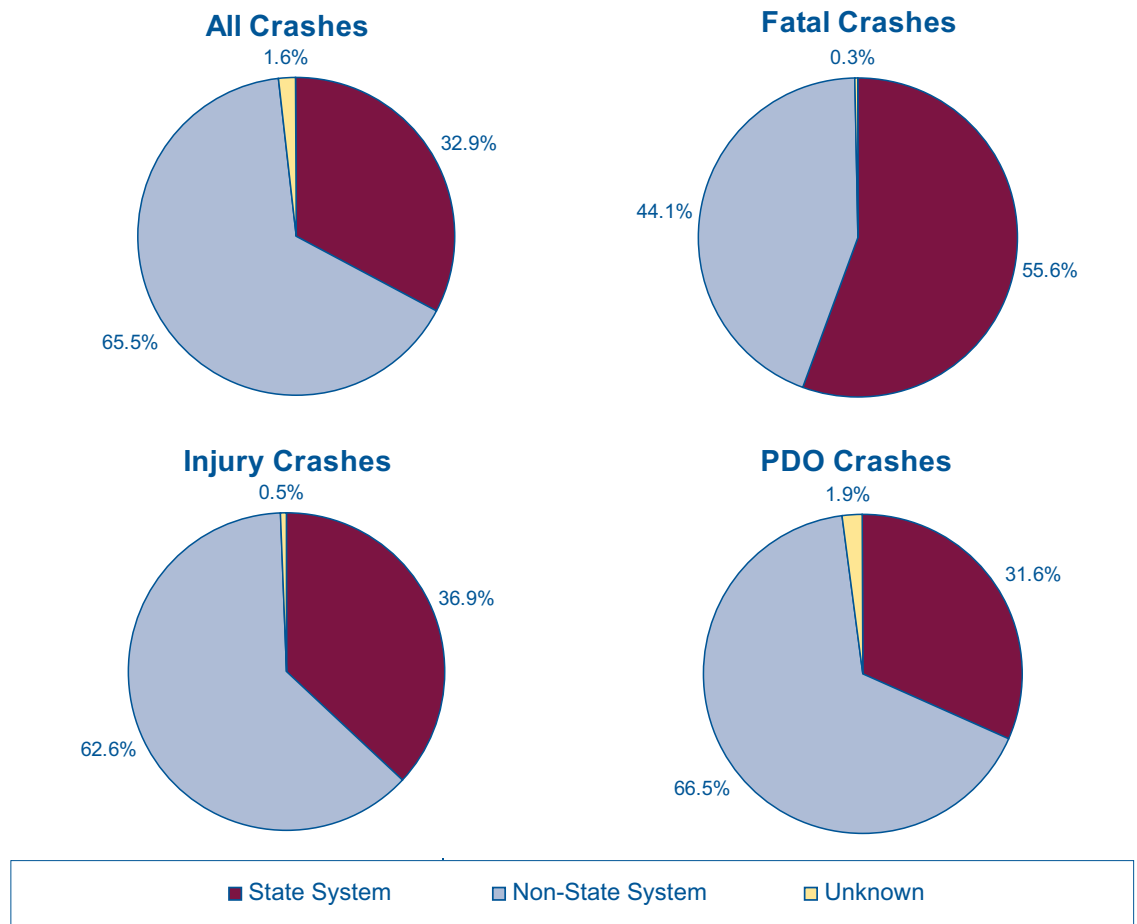
**FIGURE 11-5
PDO MOTOR VEHICLE CRASHES, 1998-2003**



State and Non-State System Crashes

The majority of all crashes in the region from 1998 to 2003 occurred on the local roadway system. Most of these crashes involved no injuries or fatalities. Fatal crashes were slightly higher on state highways. Figure 11-6 supports that transportation safety is not just a state department of transportation or a local roadway system problem. It is a regional problem in need of a comprehensive approach.

**FIGURE 11-6
MOTOR VEHICLE CRASHES BY SEVERITY ON STATE
AND NON-STATE ROADWAY SYSTEMS, 1998-2003**



Sources: KDOT and MoDOT

Safety Belt Usage

Besides crash data, safety belt use begins to examine driver behavior. Observational safety belt surveys continue to show an increase in safety belt usage among motorists in most counties throughout the Kansas City region. This rise in belt usage may be one factor in the decline of injury-related motor vehicle collisions in the area. Figure 11-7 indicates that most counties in the region are still below the national safety belt use rate of 80 percent in 2004.

Both Kansas and Missouri do not have a primary safety belt law, which allows a law enforcement officer to stop vehicles in which drivers are not properly restrained. In states that have adopted and actively enforced a primary law, usage rates have risen to over 90 percent, and the law is credited for saving hundreds of lives.

**FIGURE 11-7
SAFETY BELT USAGE RATES BY COUNTY, 1998-2004**

	1998	1999	2000	2001	2002	2003	2004
Kansas	59%	63%	61%	60%	61%	64%	68%
Johnson	65%	76%	73%	69%	78%	80%	73%
Leavenworth	65%	59%	68%	65%	48%	72%	71%
Wyandotte	57%	65%	61%	61%	57%	57%	65%
Missouri	60%	61%	68%	68%	69%	73%	76%
Cass	NA	NA	NA	NA	NA	NA	NA
Clay	66%	67%	67%	71%	75%	75%	79%
Jackson	61%	66%	72%	64%	65%	65%	70%
Platte	66%	66%	73%	71%	75%	79%	82%
Ray	NA	NA	NA	NA	NA	NA	NA
United States	69%	67%	71%	73%	75%	79%	80%

Sources: KDOT, Central Missouri State University's Missouri Safety Center, and NHTSA

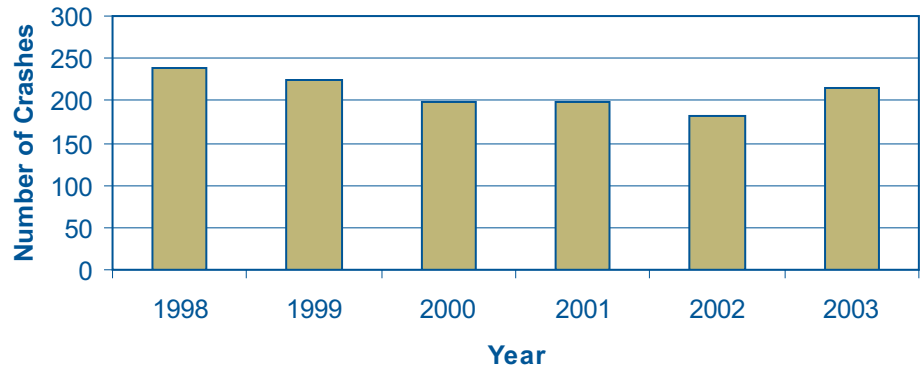
11.3.3.2 Bicycle and Pedestrian Safety

Bicycle Crashes

Although bicyclists were involved in 0.3 percent of all motor vehicle crashes from 1998 to 2003, bicycle safety is a regional concern. Nationally, bicyclists account for 1.6 percent of injuries and 1.5 percent of fatalities in collisions involving motor vehicles (Source: NHTSA). The Kansas City region recognizes that regional bicycle crash rates are much lower because the rate of bicycling in the Kansas City region is suspected to be much lower, and the safety of a bicyclist is an important factor in choosing this form of transportation. Unfortunately, motor vehicle crash data do not capture bicycle safety issues not involving a motor vehicle and important security-related issues.

As the demand for this transportation mode increases, the greater Kansas City region will continue to collect additional data and monitor changing bicycle safety trends. Exposure rates and risks of bicyclists and their conflicts with other transportation modes are other possible indicators of bicycle safety in the region.

FIGURE 11-8
MOTOR VEHICLE CRASHES INVOLVING BICYCLISTS, 1998-2003



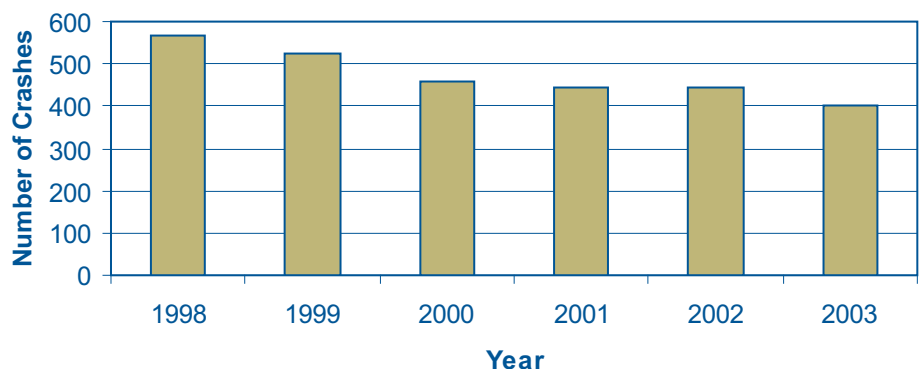
Sources: KDOT and MoDOT

Pedestrian Crashes

Pedestrians were involved in 0.7 percent of all crashes reported in the region from 1998 to 2003. Figure 11-9 suggests a decline in these incidents. Motor vehicle crashes involving a pedestrian are still a regional concern because those hit by a vehicle have a strong chance of being seriously injured or killed. Nationally, pedestrians account for 11 percent of fatalities and 2.4 percent of injuries in collisions involving motor vehicles (Source: NHTSA). Similar to bicycle safety, the regional pedestrian crash rates are much lower than the national rates because the rate of walking in the region is suspected to be lower. Also, pedestrian data do not capture minor incidents and near misses that are unreported and those incidents in a neighborhood driveway or a parking lot that are considered “private streets.”

Walking is typically the most economical and healthiest form of transportation. It is an attractive option for some, and the only transportation option for others. Because of its importance, the greater Kansas City region will continue to monitor changes in pedestrian safety trends.

FIGURE 11-9
MOTOR VEHICLE CRASHES INVOLVING PEDESTRIANS, 1998-2003



Sources: KDOT and MoDOT

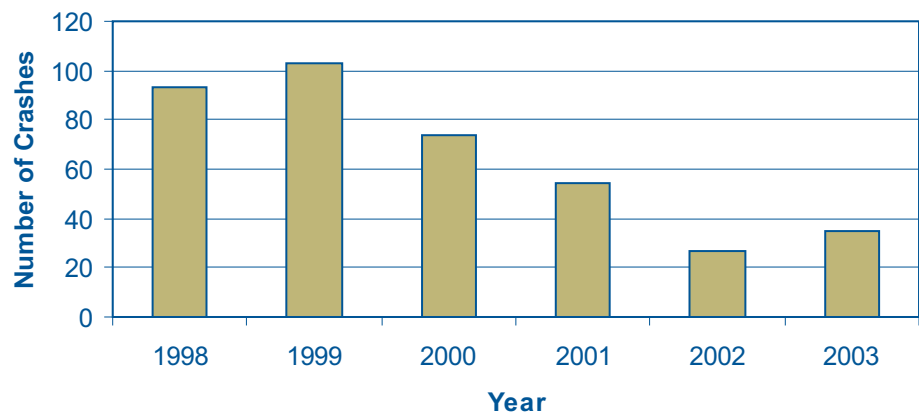


11.3.3.3 Transit Safety

Motor Bus Crashes

According to the National Safety Council, bus riding is the safest form of surface transportation. Crashes involving buses in the greater Kansas City region are relatively rare compared to motor vehicle crashes and collisions involving a pedestrian or bicyclist.

**FIGURE 11-10
MOTOR BUS CRASHES***



Sources: Johnson County Transit, Kansas City Area Transportation Authority, and National Transit Database
 *The Federal Transit Administration’s new Safety and Security Module implemented in 2002 changed the way transit operators report their crash information. The 2002 and 2003 numbers do not include all transit operators in the region.

11.4 Transportation Safety Priorities

The “Destination: Safe” Coalition has identified a number of transportation safety issues to monitor in the region. The coalition has analyzed data and inventoried current transportation safety efforts. Four issues have been identified as high priority for the coalition through 2005: occupant protection and safety belts, impaired driving, aggressive driving, and pedestrian safety. Although these four transportation safety issues have been elevated in importance, the coalition encourages efforts and strategies in the Kansas City region that address other transportation safety issues being monitored. These issues will be evaluated and monitored along with a number of additional concerns throughout the year. The region will need to continue a collaborative, comprehensive and coordinated effort (“Destination: Safe”) to engage transportation safety stakeholders to improve safety in the greater Kansas City region.

The region will examine, evaluate and implement the possible regional strategies contained in the Kansas City Regional Transportation Safety Blueprint that addresses highway safety priorities and issues being monitored by the “Destination: Safe” Coalition.

11.5 Action Plan

11.5.1 Planning

1. MARC will maintain regional safety information and analysis.
2. MARC will establish and maintain a regular reporting mechanism that examines safety information and crash data in more detail.
3. MARC will continue to raise awareness of regional transportation safety issues among the four E's.
4. MARC should work to identify and prioritize infrastructure improvements in the LRTP and TIP regarding safety.
5. The region should encourage projects that address regional transportation safety issues through measures other than engineering solutions for transportation improvement funds.
6. The region will coordinate the Transportation Safety Element of *Transportation Outlook 2030 Update* with the Kansas City Regional Transportation Safety Blueprint.
7. MARC should review its committee composition and structure to determine the most effective mechanism to engage safety stakeholders in the metropolitan transportation planning process.
8. MARC will help facilitate collaboration among safety partners regarding transportation safety issues in the four E's on a regional level.
9. MARC will continue its staff support for the "Destination: Safe" Coalition.
10. MARC will continue to maintain a regional bicycle/pedestrian coordinator to assist advisory committees and local governments in the development of bicycle and pedestrian plans and safety education programs.
11. MARC will begin collection and maintenance of security information concerning surface transportation modes.

11.5.2 Education

1. MARC should promote state and national campaigns such as "Put the Brakes on Fatalities" Day, "You Drink & Drive. You Lose.," Child Passenger Safety Week and Safe Routes to School on a regional level.

2. MARC will encourage collaboration between KDOT, MoDOT, NHTSA and FHWA to present consistent safety messages to the greater Kansas City region and its transportation users.
3. MARC will maintain a repository of safety events, workshops and conferences reported to the organization available for safety partners (www.marc.org/transportation/safety/calendar.htm).

11.5.3 Engineering

1. The region should encourage low-cost, proactive engineering safety improvements.
2. MARC will disseminate best practices in engineering that improve transportation safety through special workshops, training courses and MARC's Government Training Institute (GTI).
3. MARC will update its Creating Walkable Communities initiative that addresses traffic-calming strategies that improve pedestrian safety.
4. Local communities should explore opportunities to enhance pedestrian and bicycling amenities in areas that would yield high returns on investment by assessing current conditions, which includes an evaluation of pedestrian and bicycle fatality locations. Based on assessments, local communities should consider traffic calming for appropriate streets and neighborhoods.
5. MARC will collaborate with professional engineering and transportation organizations such as the Institute of Transportation Engineers and the American Public Works Association to develop regional guidelines and standards that improve the safety of transportation infrastructure.
6. The region is encouraged to consider roadway improvements for older drivers when reconstructing and maintaining roadways. These improvements include improved lighting, large sign fonts, more highly retro-reflective signs and other engineering improvements. Strategies that improve older driver safety also improve the safety of all transportation users.

11.5.4 Enforcement

1. MARC will continue to develop and offer training courses through GTI for local law enforcement responders regarding issues affecting transportation safety and traffic control.
2. MARC will support law enforcement campaigns targeted to specific driver behaviors and travel seasons.

3. Local communities should adopt local traffic ordinances in accordance with the Uniform Vehicle Code to clarify regulations and lead to greater compliance and enforcement of traffic laws.

11.5.5 Emergency Services

1. MARC will continue to offer training courses through GTI for local first responders regarding issues affecting transportation safety and traffic control.
2. MARC will support the region's work to improve incident management through proper enforcement, emergency response, roadside assistance and Intelligent Transportation Systems (ITS) techniques.
3. MARC will seek ways in which emergency services planning, homeland security planning and transportation safety planning are complementary, so regional efforts are not duplicated.

11.5.6 Other Actions

1. The region should monitor improvements in crash data and technology.
2. MARC should examine additional linkages between safety partners (e.g., the metropolitan transportation planning process and partner agencies).
3. MARC will monitor and support legislative changes at a state and federal level that improve transportation safety in the greater Kansas City region.