



# Regional Transportation Plan



<b>Executive Summary .....</b>	<b>1</b>
<b>Chapter 1: Introduction .....</b>	<b>3</b>
<b>Study Organization .....</b>	<b>4</b>
Transportation Advisory Committee (TAC).....	4
<b>Study Area .....</b>	<b>5</b>
<b>MoDOT Planning Framework.....</b>	<b>7</b>
<b>RTP Planning Process and Schedule.....</b>	<b>9</b>
<b>Goals and Objectives.....</b>	<b>11</b>
<b>MoDOT’s Long Range Transportation Plan (LRTP) .....</b>	<b>13</b>
Missouri “On the Move” .....	14
<b>MoDOT Tracker – Measures of Performance .....</b>	<b>15</b>
<b>Metropolitan Planning Organizations (MPO) in Mid-Missouri.....</b>	<b>16</b>
Capital Area Metropolitan Planning Area (CAMPO).....	17
Columbia Area Transportation Study Organization (CATSO).....	18
<b>Mid-MO RPC Regional Planning Resources .....</b>	<b>19</b>
Coordinated Public Transit-Human Services Transportation Plan .....	19
Mid-MO RPC Comprehensive Economic Development Strategy (CEDS).....	19
County Hazard Mitigation Plans.....	20
<b>Chapter 2: Regional Overview .....</b>	<b>21</b>
<b>Overview .....</b>	<b>22</b>
<b>Transportation Network.....</b>	<b>23</b>
Urban and Rural Land Use.....	26
Agricultural Land Use.....	29
Public Land .....	31
<b>Demographics .....</b>	<b>33</b>
Missouri’s Population Forecast.....	37
<b>Special Populations .....</b>	<b>39</b>
Environmental Justice .....	39
Low-Income (Poverty).....	40
Elderly.....	44
Disabled .....	48
Minorities.....	52

<b>Economic Development.....</b>	<b>55</b>
Major Employers .....	56
Mid-Missouri’s Labor Force.....	59
Commuting to Work .....	62
<b>Chapter 3: Roads and Bridges.....</b>	<b>63</b>
<b>Overview .....</b>	<b>64</b>
<b>Roads .....</b>	<b>66</b>
Traffic Volume.....	68
Functional Classification.....	70
<b>Bridges.....</b>	<b>74</b>
Safe & Sound Bridge Improvement Program .....	74
Condition Ratings .....	76
Weight Limited Bridges.....	78
Critical Condition Bridges in the Mid-MO RPC Region.....	79
One Lane Bridges .....	82
<b>Transportation Management Systems (TMS) .....</b>	<b>84</b>
<b>Chapter 4: Pedestrian &amp; Non-Motorized .....</b>	<b>85</b>
<b>Overview .....</b>	<b>86</b>
<b>Sidewalks.....</b>	<b>86</b>
Sidewalk Inventories.....	86
<b>Recreational Trails.....</b>	<b>88</b>
Katy Trail.....	89
City Trails .....	89
Rock Island Trail.....	90
<b>MoDOT Bicycle and Pedestrian Program .....</b>	<b>90</b>
<b>Chapter 5: Transit .....</b>	<b>91</b>
<b>Overview .....</b>	<b>92</b>
<b>Transit Providers.....</b>	<b>93</b>
COMO Connect .....	94
JeffTran.....	95
OATS, Inc.....	96
Katy Flyer (Operated by OATS, Inc.).....	96

Serve, Inc. ....	97
Amtrak – Missouri River Runner.....	97
<b>Human Service Providers that provide transportation .....</b>	<b>99</b>
<b>Coordinated Public Transit-Human Services Transportation Plan.....</b>	<b>105</b>
Mobility Management.....	106
<b>MoDOT and Transit .....</b>	<b>107</b>
<b>Chapter 6: Airports .....</b>	<b>109</b>
<b>Overview .....</b>	<b>110</b>
Columbia Regional Airport (COU).....	111
Fulton-Elton Hensley Memorial Airport (FTT).....	112
Jefferson City Memorial Airport (JEF).....	113
Jesse Viertel Memorial Airport (VER) .....	114
<b>MoDOT and Missouri’s Airports .....</b>	<b>115</b>
<b>Missouri Statewide Airports Economic Impact Study .....</b>	<b>115</b>
<b>Chapter 7: Rail .....</b>	<b>117</b>
<b>Overview .....</b>	<b>118</b>
Railroad Crossings .....	121
<b>Freight Rail .....</b>	<b>122</b>
<b>Passenger Rail.....</b>	<b>122</b>
<b>Missouri State Rail Plan 2012 .....</b>	<b>124</b>
<b>MoDOT and Missouri’s Railroads .....</b>	<b>124</b>
MoDOT’s Railroad Section .....	125
<b>Chapter 8: Ports .....</b>	<b>127</b>
<b>Overview .....</b>	<b>128</b>
<b>MoDOT and Missouri’s Ports.....</b>	<b>130</b>
<b>Missouri River Freight Corridor Assessment and Development Plan.....</b>	<b>131</b>
<b>Chapter 9: Freight .....</b>	<b>133</b>
<b>Overview .....</b>	<b>134</b>
<b>Missouri Freight Plan .....</b>	<b>138</b>
Central District Freight Profile .....	139
<b>Chapter 10: Regional Needs .....</b>	<b>145</b>

<b>Overview .....</b>	<b>146</b>
2015 Prioritization Process .....	147
<b>Regional Transportation Needs List - 2021 .....</b>	<b>148</b>
County Regional Needs Maps.....	153
<b>Completed Projects .....</b>	<b>Error! Bookmark not defined.</b>
<b>State Transportation Improvement Program (STIP).....</b>	<b>155</b>
<b>MPO Needs and Transportation Improvement Programs (TIP) .....</b>	<b>155</b>
<b>Funding Trends .....</b>	<b>157</b>
Transportation Improvements Costs .....	157
<b>Chapter 11: Safety .....</b>	<b>160</b>
<b>Overview .....</b>	<b>161</b>
Missouri’s Highway Safety Plan (HSP) / Blueprint for Safer Roadways.....	162
Missouri Coalition for Roadway Safety.....	163
Fatalities and Serious Injury Statistics .....	164
<b>Chapter 12: Funding .....</b>	<b>172</b>
<b>Overview .....</b>	<b>173</b>
<b>MoDOT and State Funding Sources.....</b>	<b>174</b>
MoDOT Multi- Modal .....	174
Missouri’s State and Federal Fuel Tax Rates and Fuel Tax History.....	174
Revenue for Roads and Bridges, Multimodal, Highway Safety .....	177
Revenue for Roads and Bridges, Multimodal, Highway Safety .....	178
Highway Bridge Program (BRO & BRM) .....	178
Summary of State and Federal Funds .....	180
Highway User Fees and Distribution .....	181
<b>Federal Funding - FAST Act.....</b>	<b>183</b>
<b>Missouri and the FAST Act.....</b>	<b>186</b>
Transportation Alternatives Program (TAP) Funding .....	190
Traffic Engineering Assistance Program (TEAP).....	190
Federal Lands Highway Program .....	191
Federal Aviation Administration Airport and Airway Trust Fund (AATF) .....	191
<b>Funding for Alternative Modes of Transportation .....</b>	<b>192</b>
<b>Funding Tools for the Local or Regional Level.....</b>	<b>195</b>

Economic Development Administration - Public Works and Economic Development Program.....	195
USDA Rural Development .....	195
Smart Growth & FHWA.....	197
FHWA Environmental Programs.....	197
Statewide Transportation Assistance Revolving (STAR) Fund.....	198
Taxes and Special Districts .....	199
Sales Tax.....	201
Use Tax.....	201
Local Finance Initiatives.....	202
<b>Chapter 13: Plan Implementation .....</b>	<b>204</b>
<b>Update of Regional Transportation Plan (RTP) .....</b>	<b>205</b>
<b>Implementation.....</b>	<b>205</b>

# Executive Summary

The Mid-MO RPC region encompasses a diverse transportation network as well as a diverse landscape of opportunities and challenges. The current funding challenges at the local level are a reflection of the state and federal funding shortages that are being felt across the country. Deteriorating roads, bridges, and other infrastructure have put a strain on already tight county and city budgets. Communities are seeking or creating new ways to fund their needed improvements, whether they are related to general maintenance or improvements to deal with high population growth. The Regional Transportation Plan (RTP) is a tool and resource in helping communities meet their needs and plan for the future.

The RTP is maintained by the Mid-Missouri Regional Planning Commission (Mid-MO RPC) as part of a planning partnership with the Missouri Department of Transportation (MoDOT) and the member cities and counties within the Mid-MO RPC region. Through this partnership, MoDOT provides funding support to maintain and update the RTP and other planning documents, projects, and activities. Mid-MO RPC maintains the RTP in an effort to plan for and support improvements to the region's transportation system. The RTP contains:

- An overview of the transportation planning framework at the regional and state level
- an analysis of regional demographics and trends
- a multi-modal overview and inventory of regional transportation systems
- a prioritized list of regional transportation needs
- an overview of funding sources

Mid-MO RPC is a council of local governments that provides professional services, including transportation planning to its members. Mid-MO RPC serves a six-county region in Mid-Missouri that includes the counties of Boone, Callaway, Cole, Cooper, Howard and Moniteau and 38 municipalities.

The Mid-MO RPC transportation network consists of:

- More than 13,449 miles of publicly maintained roads. 26% of those roads are maintained by MoDOT. The remaining 9,894 miles of roads are maintained by local governments.
- Interstate 70 along with US Highways 63, 54, 50, and 40, constituting 524 miles (11%) of the road network.
- 543 state-system bridges, including 15 that are one lane and 34 that are in critical condition (receiving a poor to serious condition rating)
- Over 900 miles of sidewalks and trails, including the Katy Trail and 552 miles in Columbia and 80 miles of in Jefferson City)
- More than 30 transportation providers, including five public transit providers in Boonville, Columbia, Jefferson City, OATS, Inc. and SERVE Inc.
- Four public airports in Boonville, Columbia, Fulton, and Jefferson City.
- 373 miles of railroad. This includes one city owned service in Columbia and three major freight lines: Kansas City Southern, Norfolk Southern, and Union Pacific. Amtrak passenger service is also available with a station located in Jefferson City.
- One public port authority, Howard County/Cooper County River Port. And five privately owned ports that specialize in raw materials and goods

Chapter 10 of the RTP provides a prioritized list of multi-modal transportation needs within the region. This list highlights the region’s most important needs. This list includes the need for:

- Increased capacity and efficiency of major route such as Interstate 70, US 50, and US 63.
- Safety improvements, such as increased shoulder widths, striping, and rumble strips
- Maintenance of failing infrastructure such as bridges and crumbling minor routes
- Better connectivity within and between communities via transit

The purpose of the RTP is to act as a guide to the diverse transportation needs of the area and as a resource in progressing the goals and strategies of the Mid-MO RPC region. The eight goals listed below are used as a guide for transportation planning in the region. The goals are also in line with MoDOT’s goals of Safety, Maintenance, Economic Development, and Connections and Choices.

### **Mid-MO RPC Transportation Goals**

- I. Safety**
- II. Public Involvement/Concern**
- III. Economic Vitality**
- IV. Quality of Communities**
- V. Preservation**
- VI. Diversity of Transportation Options**
- VII. Environmental Protection**
- VIII. Funding Options & Opportunities**

Mid-MO RPC is part of MoDOT’s larger state-wide planning framework. This framework provides the resources and tools needed to assist local communities with their transportation planning needs. Mid-MO RPC staff collaborates with several planning partners such as city and county staff, elected officials, and two metropolitan transportation-planning organizations (MPOs), the Capitol Area Metropolitan Planning Organization (CAMPO) and the Columbia Area Transportation Study Organization (CATSO).

Through a collaborative, inclusive, and transparent process this plan will serve to guide and educate transportation planning within the region.



# Chapter 1: Introduction

- Study Organization
- Study Area
- MoDOT's Planning Framework
- MoDOT's Long Range Transportation Plan (LRTP)
- MoDOT Tracker – Measures of Performance
- Metropolitan Planning Organizations (MPOs) in Mid-Missouri
- Mid-MO RPC Regional Planning Resources
- RTP Planning Process and Schedule
- Goals and Objectives

A photograph of a brick wall. One brick in the lower right quadrant is inscribed with the text "MID MO REGIONAL PLANNING COMMISSION" in three lines. The bricks are light-colored and arranged in a standard pattern. The text is dark and clearly legible.

## Study Organization

The Mid-Missouri Regional Planning Commission (Mid-MO RPC) is a council of local governments that provides technical assistance and professional services, including transportation planning to its members. Mid-MO RPC staff includes an Executive Director, an Office Manager, an Administrative Assistant and three Regional Planners. Of the three planners, one is a full time Transportation Planner/GIS Specialist. Mid-MO RPC Staff provides the services:

- Transportation Planning
- Community and Economic Development Planning
- Hazard Mitigation Planning
- Grant Writing and Administration
- GIS Mapping Assistance
- Environmental Reviews
- Regional Homeland Security Oversight Committee (RHSOC) Administrative Support

Mid-MO RPC serves a six-county region in Mid-Missouri that includes the counties of Boone, Callaway, Cole, Cooper, Howard and Moniteau as well as 44 municipalities. A 20 member Board of Directors representing all counties in the region is responsible for organizational oversight.

### Mid-MO RPC goals are to:

- **serve as an advocate for the region**
- **provide a professional staff to serve as a resource for member governments**
- **provide a forum for local officials to discuss regional issues and concerns**
- **promote community and economic development**

As part of the Mid-MO RPC Transportation Work Program, Mid-MO RPC provides services to its members regarding transportation planning and development, including the update and maintenance of the Regional Transportation Plan (RTP). Mid-MO RPC is a planning partner with the Missouri Department of Transportation (MoDOT). Additionally, elected officials and appointed citizens from the region make up the Mid-MO RPC's Transportation Advisory Council (TAC), which meets quarterly to hear from and give input to MoDOT staff about various transportation projects. See Appendix A for the current Mid-MO RPC Transportation Work Program.

In planning for the region's transportation needs and opportunities, Mid-MO RPC staff also collaborates with staff of the region's two metropolitan transportation-planning organizations (MPOs), the Capitol Area Metropolitan Planning Organization (CAMPO) and the Columbia Area Transportation Study Organization (CATSO). By attending regular meetings of these organizations, regional planning commission staff remains aware of the planning issues faced by the Columbia and Jefferson City areas. Mid-Missouri remains the only regional planning commission area in the state with two MPOs within its boundaries.

## Transportation Advisory Committee (TAC)

The TAC is an advisory committee responsible for representing the transportation needs of its member counties and cities and communicating these needs to the Mid-MO RPC Board and MoDOT. The TAC is composed of local city and county officials, Metropolitan Planning Organization (MPO) representatives, MoDOT District Engineers, and engaged citizens. This group is representative not only of the six member counties of the region but of a broad cross-section of community sizes, disciplines, and interests. Each member county and city is asked to provide representation on the TAC committee.

A key role of the TAC is the process of needs identification and project prioritization. The TAC identifies needs and prioritizes projects in order to inform MoDOT's Long Range Transportation Planning process and the development of the State Transportation Improvement Program (STIP). Because the STIP already outlines programmed projects for the following five fiscal years, the needs identified by the RPC's TAC are likely to be those considered for construction within 5-20 years. The prioritization process results in each project receiving a rating of high, medium, or low priority. High priority projects are those that are expected to be considered for programming within 5-10 years or even to be added to the STIP sooner. More information about regional needs and project prioritization can be found in Chapter 11 of this plan

The TAC meets every other month, with the exception of November.

## Study Area

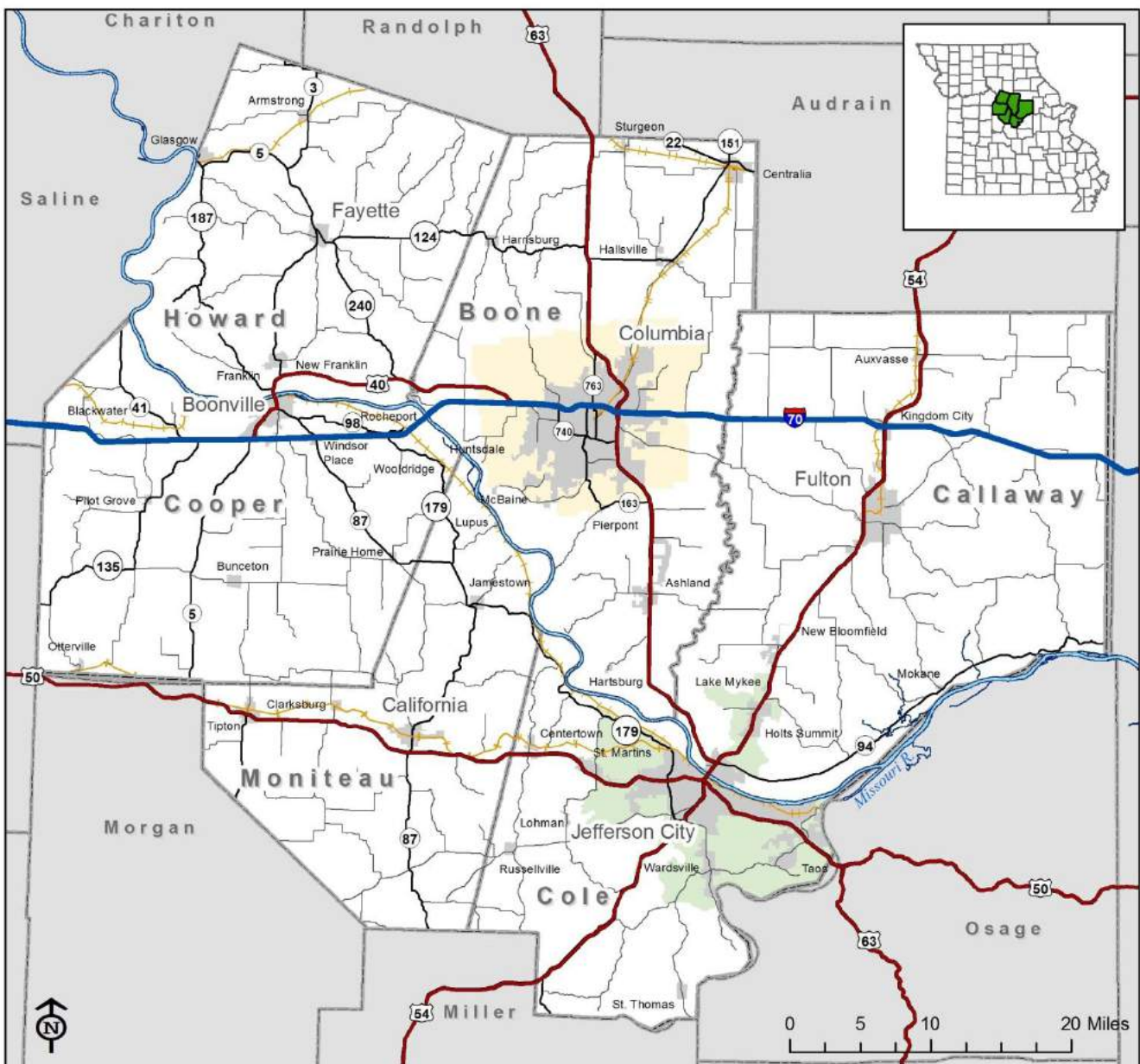
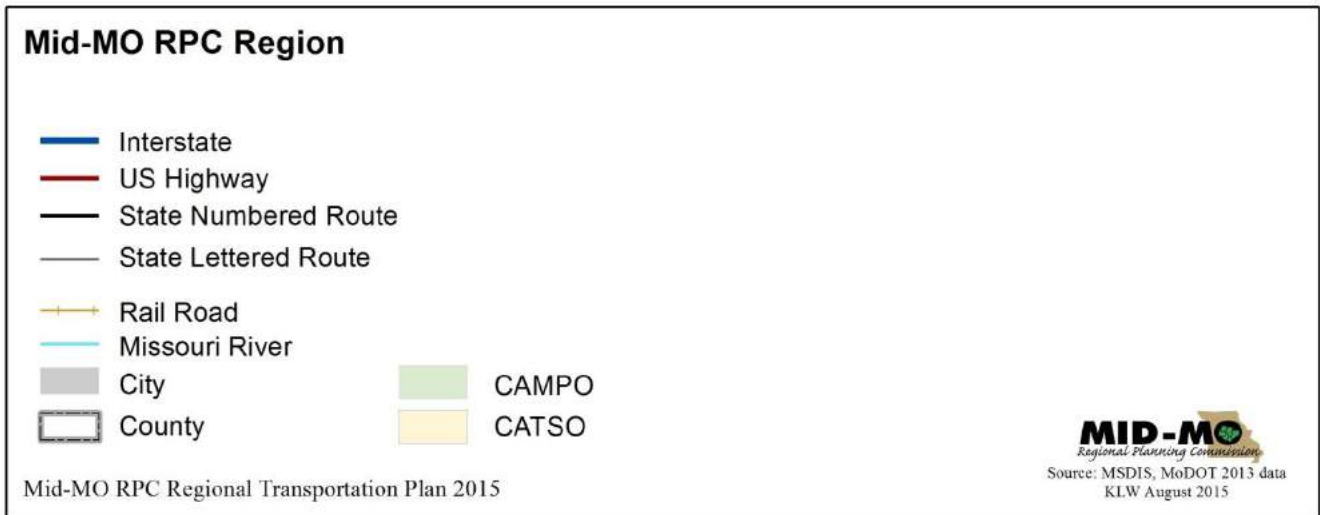
Mid-MO RPC serves the counties of Boone, Callaway, Cole, Cooper, Howard, and Moniteau as well as 38 incorporated communities within that region. The region covers approximately 3,363 square miles and had a 2010 population of 326,543 according to the US Census.

The Mid-MO RPC region has a diverse transportation network. This network consists of:

- More than 13,449 miles of publicly maintained roads. 26% of those roads are maintained by MoDOT. The remaining 9,894 miles of roads are maintained by local governments.
- Interstate 70 along with US Highways 63, 54, 50, and 40, constituting 524 miles (11%) of the road network.
- 543 state-system bridges, including 15 that are one lane and 34 that are in critical condition (receiving a poor to serious condition rating)
- Over 900 miles of sidewalks and trails, including the Katy Trail and 552 miles in Columbia and 80 miles of in Jefferson City)
- More than 30 transportation providers, including five public transit providers in Boonville, Columbia, Jefferson City, OATS, Inc. and SERVE Inc.
- Four public airports in Boonville, Columbia, Fulton, and Jefferson City.
- 373 miles of railroad. This includes one city owned service in Columbia and three major freight lines: Kansas City Southern, Norfolk Southern, and Union Pacific. Amtrak passenger service is also available with a station located in Jefferson City.
- One public port authority, Howard County/Cooper County River Port. And five privately owned ports that specialize in raw materials and goods

A more detailed overview of the Mid-MO RPC region can be found in Chapter 2. Figure 1.1 depicts the Mid-MO RPC region and study area.

Figure 1.1

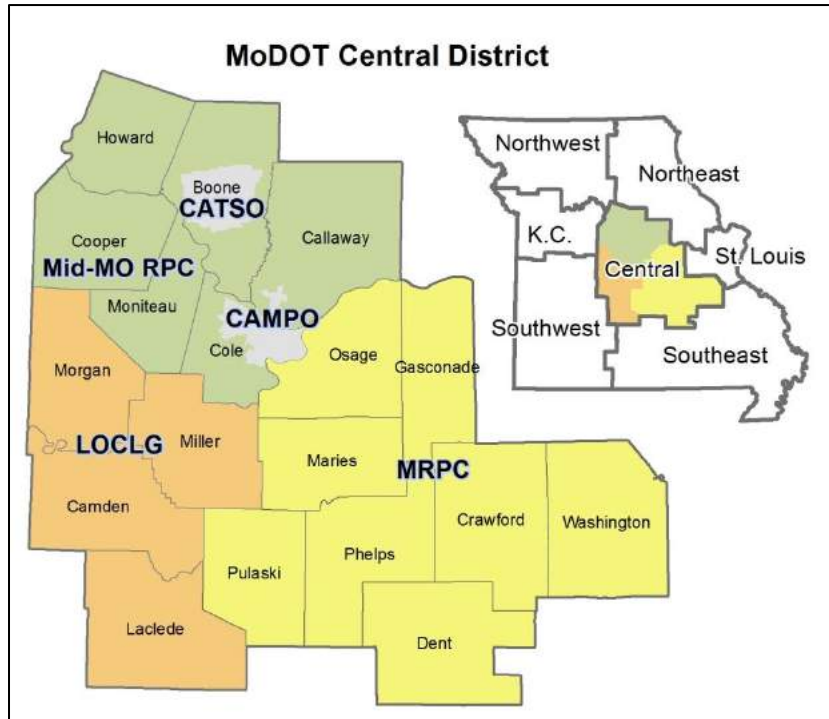


## MoDOT Planning Framework

Mid-MO RPC is part of MoDOT’s Central District. As part of the 18 district, Mid-MO RPC staff works in coordination with two other RPCs (Meramec and Lake of the Ozarks), two MPOs (CAMPO and CATSO), and Central District MoDOT staff. Figure 1.2 depicts these planning entities.

MoDOT recognizes the need for coordinated planning efforts. To meet this need, MoDOT works closely with the regional planning organizations (RPOs) throughout the state.

Figure 1.2



Source: MoDOT, CAMPO, CATSO

Because RPOs (MPOs and RPCs) coordinate local issues related to regional planning and development, they maintain an active working relationship with MoDOT. Federal law requires that states consult local officials in the transportation planning process. Regional planning organizations are consortiums of local governments. As such, they develop regional consensus and address transportation issues and are the most logical entities to help MoDOT fulfill federal requirements and capture local perspectives. MoDOT relies on RPOs to provide uniform planning services that reflect local needs and priorities.

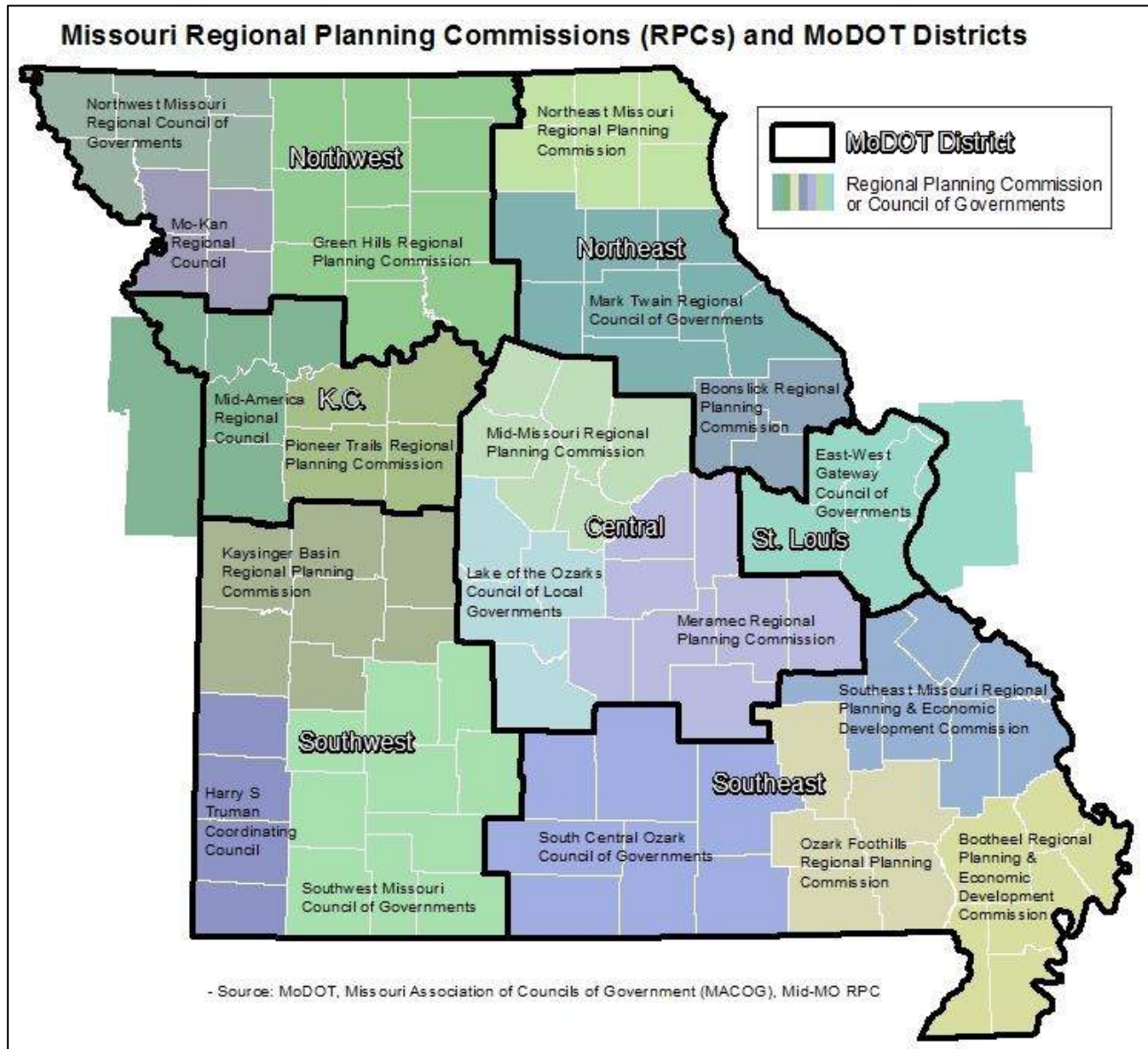
In the past, several important planning frameworks and relationships were developed. In 2003 and 2004, MoDOT developed and introduced the current Planning Framework to its statewide planning partners. This framework is part of the ongoing evolution of planning partnerships that MoDOT initiated statewide around 1999. The framework provides clearer instruction to planning partners on how regional priorities inform the MoDOT’s long range transportation plan (LRTP) and the Surface Transportation Improvement Plan (STIP).

As a Planning Partner with MoDOT, the Mid-Missouri Regional Planning Commission is responsible for representing and advocating for the transportation needs of member counties and municipalities. Mid-MO RPC’s Transportation Advisory Committee (TAC) acts as a bridge between MoDOT and the region’s citizens. The TAC is composed of local city and county officials, Metropolitan Planning Organization (MPO) representatives, MoDOT District Engineers, and engaged citizens.

The process of needs identification and project prioritization, conducted by the state’s regional planning commissions, allows MoDOT to engage city and county officials at an appropriate scale. Assessment and prioritization of projects at the regional scale allows MoDOT to take local insight and perspectives into consideration when planning at both the statewide and district levels.

The processes to collect, categorize, and prioritize local and regional transportation needs may vary throughout the state. The Mid-MO RPC process is detailed in Chapter 11 of this plan. Figure 1.3 depicts the MoDOT districts and RPC boundaries in the state.

Figure 1.3



## RTP Planning Process and Schedule

The goal of this plan is to reflect the diverse transportation needs of cities and counties in the Mid-MO RPC region. The planning process entailed outreach to local communities and surveying available research and data pertaining to the region. Mid-MO RPC sought input on the Regional Transportation Plan (RTP) using the following:

- Meetings with county commissions and staff
- Review of RTP goals, strategies, general contents, and regional needs at several Transportation Advisory Committee (TAC) meetings
- RTP sub-committee meetings
- Public input requested on Mid-MO RPC website

Mid-MO RPC consulted several local, regional, and state agencies, including staff at both MPOs, CAMPO and CATSO, other regional planning commissions/councils of government and MoDOT staff. Many statewide, regional, and local studies and plans were used as resources in the development of the RTP.

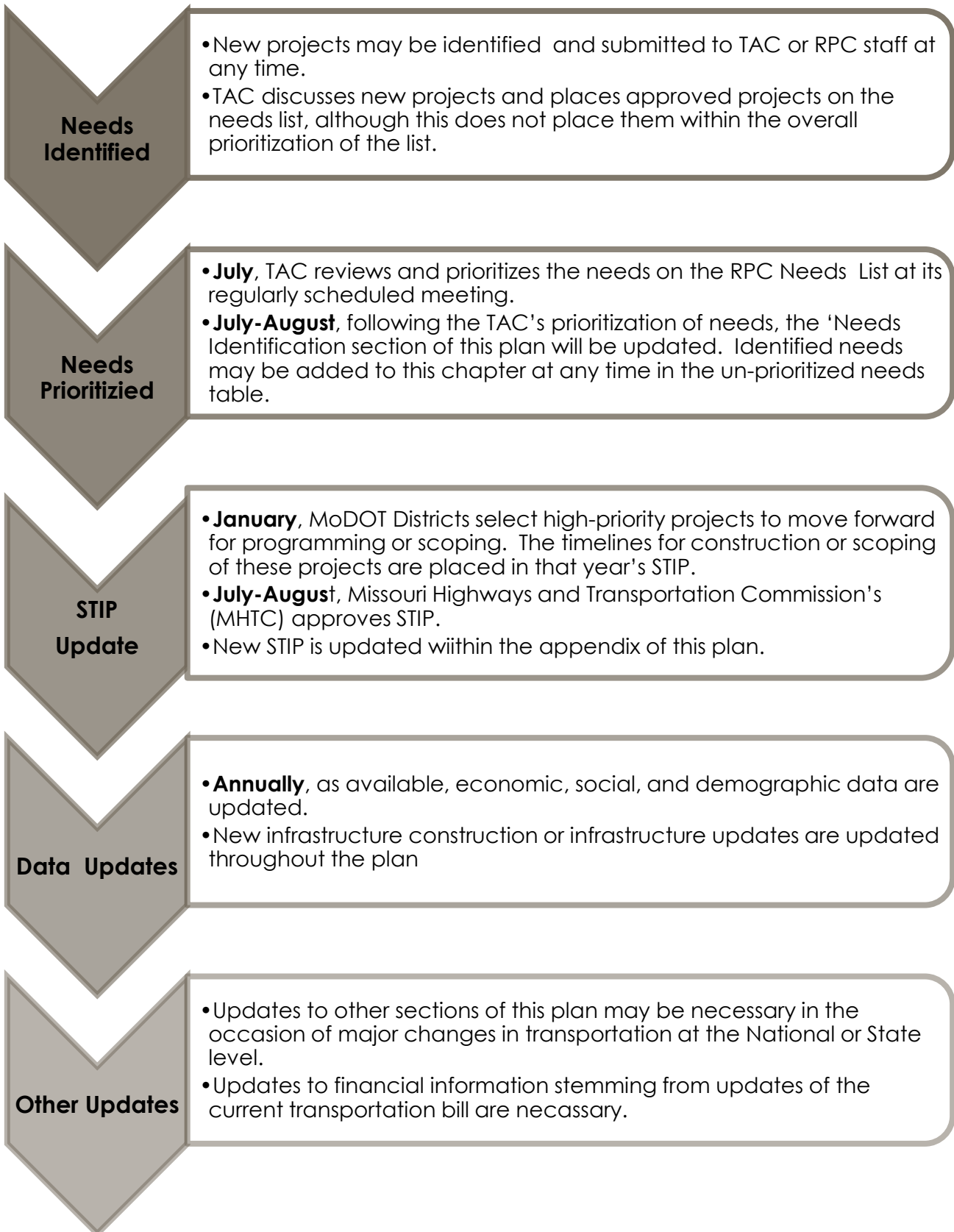
Plans and studies used in the development of this plan include:

- Missouri Long Range Transportation Plan - 2014
- Missouri River Freight Corridor Assessment & Development Plan –2011
- Missouri Statewide Transportation Improvement Program – 2016-2020
- Missouri State Rail Plan –2012
- Missouri State Freight Plan - 2014
- Missouri Statewide Airports Economic Impact Study - 2012
- Missouri Bicycle And Pedestrian Federation - “Our Vision For Missouri RPCs & MPOs” – 2013
- MoDOT Tracker – 2015
- MoDOT Financial Snapshot - 2014
- CAMPO 2015-2035 Metropolitan Transportation Plan - 2015
- CATSO 2040 Long Range Transportation Plan- 2014
- County Hazard Mitigation Plans (Boone, Callaway, Cole, Cooper, Howard, Moniteau)
- Mid-MO RPC CEDS (Comprehensive Economic Development Strategy) – 2009

The Mid-MO RPC Regional Transportation Plan is completely updated every five years. However, there are a number of activities that are performed annually or on a more frequent basis. Figure 1.4 gives an overview of the RTP update schedule.

Figure 1.4

## Mid-MO RPC Regional Transportation Plan Update Schedule





## Goals and Objectives

The following goals and objectives were reviewed and approved by the Mid-MO RPC Transportation Advisory Committee (TAC).

- I. Ensure that all users are guaranteed a high level of safety on all of the region's transportation systems**
  - a. Identify existing high-risk areas within the region's transportation system and advocate safety updates within those areas
  - b. Promote the highest safety standards for city, county, and state-system transportation improvements
  - c. Encourage maintenance and preservation of existing transportation systems to ensure continued safe movement of people and goods
- II. Support community involvement in the transportation planning process**
  - a. Inform and engage Mid-Missourians in the regional transportation planning process
  - b. Conduct the plan in an inclusive manner to ensure the process is fair and open to all concerned individuals
  - c. Ensure the plan responds to the diversity of regional needs
- III. Enhance the Mid-Missouri region's economic growth and competitiveness by providing a safe, reliable, and efficient transportation system**
  - a. Develop a transportation plan that gives priority consideration to transportation system improvements that prevent accidents and minimize losses
  - b. Ensure compatibility with the transportation facilities and networks of adjacent cities and counties
  - c. Promote the efficient movement of people and goods by linking the various modes of transportation.
- IV. Improve and preserve the quality of communities by encouraging connectivity, balance, and compatibility of transportation facilities with surrounding areas**
  - a. Strengthen the connection between land use and transportation planning
  - b. Promote high connectivity within cities and counties while maintaining appropriate access levels for major facilities
  - c. Ensure that proposed transportation facilities fit the natural, built, and social environments in which they are to be constructed
- V. Advocate the preservation of existing transportation systems within the region**
  - a. Identify and address existing, rising, and potential safety concerns stemming from deterioration of facilities
  - b. Encourage proactive maintenance plans for cities and counties in order to avoid greater replacement costs in the future
- VI. Encourage diversity of transportation options within and across the region**
  - a. Support current and future initiatives to provide or promote non-automobile modes of transportation in the region
  - b. Promote transportation alternatives for those who cannot or choose not to drive
  - c. Encourage connectivity between different transportation modes
  - d. Give consideration to innovative transportation options and engage in open source planning

**VII. Protect Missouri’s natural environments and promote energy conservation**

- a. Minimize impacts to the environment of transportation improvements.
- b. Avoid disproportionate adverse impacts on low income and minority communities
- c. Preserve and enhance scenic views of and access to historic, cultural and other attractive features
- d. Encourage the use of alternative fuels and technologies in motor vehicle, fleet, and transit applications

**VIII. Stay abreast of existing funding options and sources and work to develop innovative options for transportation improvements.**

- a. Realize that funding certain projects may affect the availability of funds for other projects drawing from the same funding pool
- b. Consider the funding implications of federal and state actions on the regional transportation system and services
- c. Act as an information source for member governments about funding sources and strategies
- d. Promote public/public and public/private partnerships in addressing transportation needs

## MoDOT's Long Range Transportation Plan (LRTP)

*"Missouri transportation begins with Missouri citizens - the very people who use our roads and bridges, railways, greenways, waterways and airways to travel to and from work, to the doctor, to soccer practice and everywhere in between. Engaging Missourians to provide input is a critical step to ensure that MoDOT outlines a sustainable and economically viable transportation vision that serves the growing needs of Missourians well into the future." - MoDOT Chief Engineer Dave Nichols.*

Missouri's Long-Range Transportation Plan (LRTP) was updated in 2014 as part of MoDOT's "On the Move" initiative. Through a series of listening sessions, a mobile tour and virtual forums Missourians provided valuable feedback on the transportation needs across the state.

MoDOT Chief Engineer Dave Nichols has stated that the purpose of this initiative is for MoDOT to ascertain what Missourians expect from the state's transportation system over the next 20 years. MoDOT's LRTP is a federally required long range plan that addresses how MoDOT can meet Missourians' expectations for Missouri's transportation system over the next 20 years. The LRTP includes:

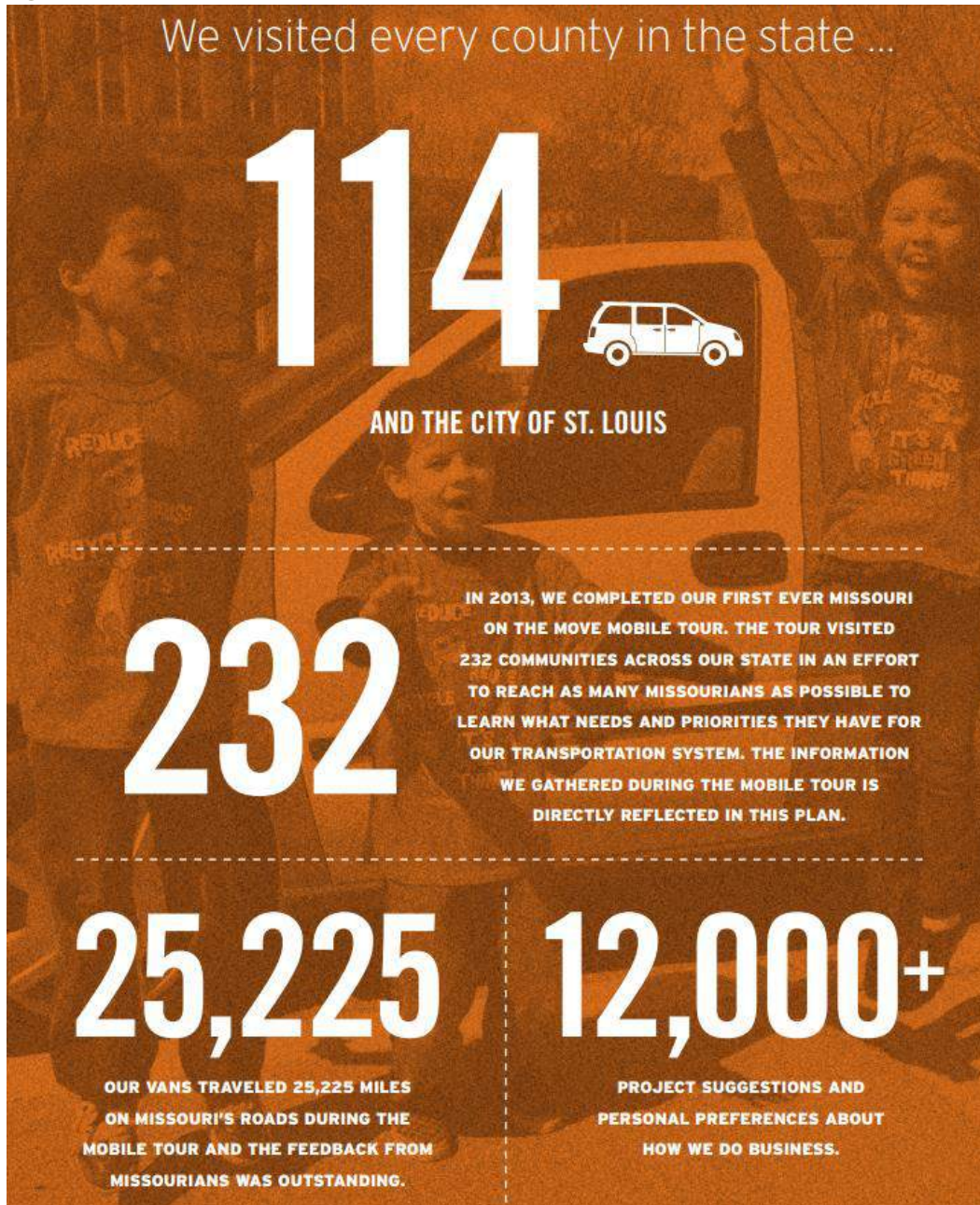
- **Long term planning goals**
  - **Maintenance - Take care of the transportation system and services we enjoy today**
  - **Safety - Keep all travelers safe, no matter the mode of transportation**
  - **Economic Development - Invest in projects that spur economic growth and create jobs**
  - **Transportation Choices - Give Missourians better transportation choices**
- Demographic, economic, and travel trends
- An inventory of the state's transportation system, including:
  - highways, bridges, transit systems, railroads, airports, waterways and bicycle and pedestrian facilities
- The current state or condition of Missouri's transportation system
- The "Financial Situation" including current status and outlook
- Citizen feedback from statewide "On the Move" initiative
- Transportation solutions
- Strategies to achieve the transportation priorities

## Missouri “On the Move”

The 2014 MoDOT’s “On the Move” initiative included collaboration with the MPOs, RPCs, local officials, the general public and other stakeholders. The information collected during the statewide process formed the basis for much of the data and analysis in the Mid-MO RPC Regional Transportation Plan (RTP).

The initiative included several public meetings and events over a six month period in early January 2013. The public meetings collected public comment on expectations of MoDOT and developing needs and demands across the state. MoDOT received over 12,000 suggestions ranging from big picture ideas to requests for localized projects. The “On the Move” comments and suggestions assisted with forming the main goals of Maintenance, Safety, Economic Development, and Transportation Choices as listed above. Figure 1.5 depicts a graphic from MoDOT’s Long Range Plan showing the amount of outreach used in the initiative.

Figure 1.5



Source: MoDOT Long Range Plan – Executive Summary

## MoDOT Tracker – Measures of Performance

MoDOT’s Tracker is a tool to assess how well MoDOT delivers services and products to their customers. According to FHWA, MoDOT began to consider performance management and data driven decision making in the late 1990s and by 2004 the department started collecting data and publishing measurements. MoDOT published the first Tracker in January 2005. Using public feedback gathered through customer surveys and focus groups, MoDOT is able to continuously update and enhance the Tracker to achieve its goals and better serve the public. As of 2015 the Tracker is now published quarterly.

MoDOT built the Tracker around seven Tangible Results. To increase accountability, each of the seven Tangible Results is assigned to a specific senior staff person who is in charge of obtaining the various associated metrics. Listed below are the seven Tangible Results:

- Keep Customers and Ourselves Safe
- Keep Roads and Bridges in Good Condition
- Provide Outstanding Customer Service
- Deliver Transportation Solutions of Great Value
- Operate a Reliable and Convenient Transportation System
- Use Resources Wisely
- Advance Economic Development

MoDOT uses a range of performance measures in achieving the Tangible Results; with each of the Tangible Results in the Tracker corresponding to several performance measures. Just as each Tangible Result is assigned to one senior leader, every underlying performance measure is assigned to a single staff member. The “Measurement Driver” is the lead staff person responsible for collecting data and meeting the specific measurement’s objective.

This model ensures accountability both internally and with the public. Each staff member must report on his/her performance measure to the MoDOT director, senior leadership and various statewide staff at quarterly Tracker meetings. The quarterly Tracker allows MoDOT to continually monitor progress and provides transparent information to the public.

There are multiple performance metrics associated with each Tangible Result, in order to address it comprehensively. For example, the “Keep Customers and Ourselves Safe” Tangible Result, metrics include fatality and injury reports as well as lost work days and general liability claims and costs. All metrics are collected either quarterly, semi-annually, or annually through various data systems and other reporting means (law enforcement, surveys, etc.) The Tracker details how measurements are calculated and analyzed. The Tracker report is highly graphical, using charts to present each metric in a simple format. The charts frequently include benchmarks to show how MoDOT compares to other states or private corporations measuring similar elements.

The Tracker tool’s flexible nature has allowed it to establish a performance-based culture and evolve with changes in leadership and policy. Over the years the list of tangible results has evolved; the initial list of 17 has been refined to now focus on seven key results. Through flexibility and accountability, the Tracker ensures efficient and effective decision-making. More information about the Tracker can be found on MoDOT’s website at <http://www.modot.org/about/Tracker.htm>

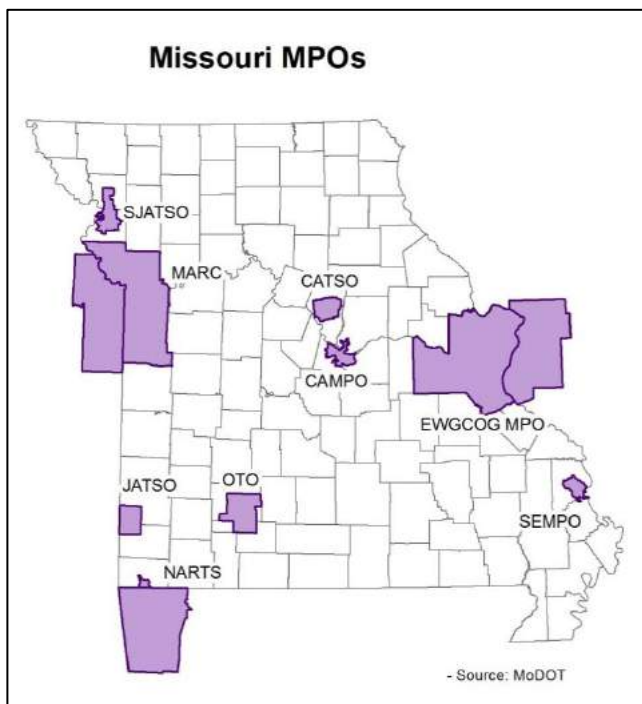
## Metropolitan Planning Organizations (MPO) in Mid-Missouri

Mid-Missouri is home to two Metropolitan Planning Organizations (MPO). According to the Federal Highway Administration (FHWA):

*“An MPO is a federally mandated and federally funded transportation policy-making organization in the United States that is made up of representatives from local government and governmental transportation authorities.”*

The Federal-Aid Highway Act of 1962 required the formation of an MPO for any urbanized area (UA) with a population greater than 50,000. Federal funding for transportation projects and programs are channeled through this planning process. According to FHWA, congress created MPOs in order to ensure that existing and future expenditures of governmental funds for transportation projects and programs are based on a continuing, cooperative, and comprehensive planning process. Statewide and metropolitan transportation planning processes are governed by federal law.

Figure 1.6



The US Census Bureau designates a new list of Urbanized Areas (UAs) every 10 years, following the conclusion of each decennial census. Federal transportation legislation requires that a MPO be designated for each urbanized area with a population of more than 50,000 people in order to carry out the metropolitan transportation planning process, as a condition of Federal aid.

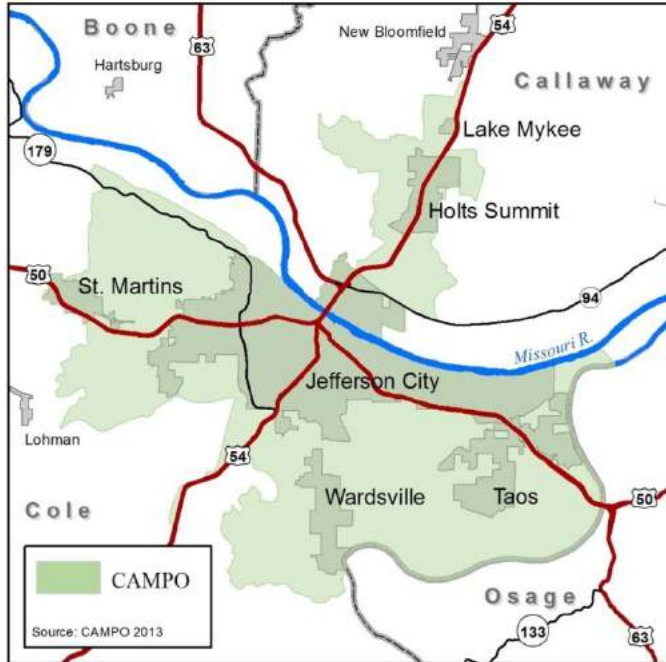
As of September 2015, there are 408 designated MPOs in the United States and nine in the State of Missouri. The two MPOs in the Mid-MO RPC region consist of areas in and the cities of Columbia in Boone County and Jefferson City in Cole and Callaway Counties. Figure 1.6 depicts the MPOs in the state of Missouri. The following is a listing of the MPOs located in Missouri:

- Columbia Area Transportation Study Organization, Columbia, MO (CATSO)
- East-West Gateway Coordinating Council, St Louis, MO (EWGWCOG)
- Joplin Area Transportation Study Organization, Joplin, MO (JATSO)
- Mid-America Regional Council, Kansas City, MO (MARC)
- Ozark Transportation Organization, Springfield, MO (OTO)
- St Joseph Area Transportation Study Organization, St Joseph, MO (SJATSO)
- Capital Area Metropolitan Planning Organization, Jefferson City, MO (CAMPO)
- Southeast Metropolitan Planning Organization, Cape Girardeau, MO (SEMPO)
- Northwest Arkansas Regional Transportation Study, Springdale, AR (NARTS)

## Capital Area Metropolitan Planning Area (CAMPO)

According to CAMPO, in May of 2002 the US Census Bureau, in the Federal Register issued designations of urbanized areas (UZA) and urban clusters (UC) based on the 2000 Census. According to CAMPO's 2015-2035 Metropolitan Transportation Plan, the region includes urbanized and portions of unincorporated, non-urbanized areas within Cole and Callaway Counties, with a population of 71,997. The CAMPO region encompasses 152.7 square miles, with 23.2 square miles in Callaway County, and 129.5 square miles within Cole County. Figure 1.7 depicts the CAMPO region.

Figure 1.7



The area including Jefferson City, Holts Summit, Lake Mykee, and St. Martins, along with portions of Cole and Callaway Counties are designated as the Jefferson City Urbanized Area. In 2013 the planning area was expanded to include communities of Taos and Wardsville.

CAMPO is governed by a Board of Directors composed of elected and appointed officials from Holts Summit, St. Martins, Jefferson City, Callaway County, Cole County, selected state agencies, and Federal transportation representatives serving as ex-officio members; and a Technical Committee that consists of representatives from member agencies' professional staffs and acts in an advisory capacity.

A memorandum of understanding between members identifies the City of Jefferson as the administrator of CAMPO, and as such, provides staffing for CAMPO.

CAMPO develops and maintains several planning documents and studies, including, but not limited to:

- 2015-2035 Metropolitan Transportation Plan
- Coordinated Public Transit-Human Services Transportation Plan
- Unified Planning Work Program (annually updated)
- Transportation Improvement Program (TIP)(annually updated)
- Public Participation Plan
- Limited English Proficiency Plan
- 2015 Regional Wayfinding Plan

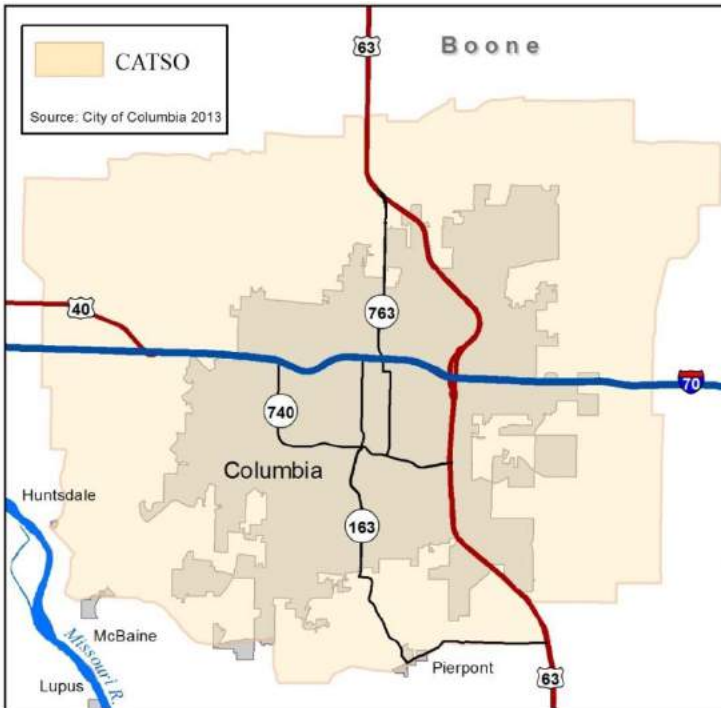
CAMPO's plans includes data on bicycle and pedestrian trails, routes, and greenways; public transit, and paratransit services; automobile and truck transportation, passenger and freight; trains, passenger and freight; and access and mobility.

Mid-MO RPC regularly attends CAMPO board and/or technical committee meetings. Because the CAMPO region falls within the boundaries of the Mid-MO RPC region, they are essential planning partners in the development of regional plans, initiatives, and processes.

## Columbia Area Transportation Study Organization (CATSO)

The Columbia Area Transportation Study Organization (CATSO) was designated as a MPO in 1964. According to CATSO's 2040 Long Range Transportation Plan, the region includes the City of Columbia as well as surrounding portions of unincorporated Boone County. As of 2010, the CATSO area includes a population of 134,592, which is 82.7% of Boone County's population, and encompasses 182 square miles. Figure 1.8 depicts the CATSO region.

**Figure 1.8**



CATSO relies on two committees to perform its planning functions, the Technical Committee and the Coordinating Committee. These two committees review local requests for grant funding from FHWA and the Federal Transit Administration (FTA) and act on transportation plans which will receive federal funding.

The Technical Committee is comprised of staff level planners, engineers, and other transportation professionals from Boone County, MoDOT, and the City of Columbia. This committee is responsible for the review of the technical aspects of various plans, studies, and reports.

The Coordinating Committee is the policy making group which directs the activities of the technical committee and approves plans

and documents prepared on behalf of the MPO. The committee includes upper level city and county staff, MoDOT staff, FHWA staff, FTA staff, a representative from the Boone County Commission, and the Mayor of the City of Columbia. The Coordinating Committee is responsible for the approval of all MPO plans, studies, and reports and holds public hearings to solicit citizen comments.

CAMPO develops and maintains several planning documents and studies, including, but not limited to:

- 2040 Long-Range Transportation Plan
- Coordinated Public Transit-Human Services Transportation Plan
- Unified Planning Work Program (annually updated)
- Transportation Improvement Program (TIP)(annually updated)
- Public Participation Plan
- Limited English Proficiency Plan

Mid-MO RPC attends CATSO committee meetings. Because the CAMPO region falls within the boundaries of the Mid-MO RPC region, they are essential planning partners in the development of regional plans, initiatives, and processes.



## Mid-MO RPC Regional Planning Resources

Mid-MO RPC maintains several local and regional planning documents. These plans provide an opportunity to coordinate planning activities across several subjects ranging from public transit to economic development to hazard mitigation. Data from these plans has been incorporated into the Regional Transportation Plan. Some of these plans are highlighted in the following sections.

### Coordinated Public Transit-Human Services Transportation Plan

In 2018, Mid-MO RPC updated the Coordinated Public Transit Human Services Transportation Plan (Coordinated Plan) in accordance with The Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The Mid-Missouri Regional Planning Commission adopted the first Coordinated Plan in August 2008 and adopted the updated plan in January 2019.

In addition the Mid-MO RPC Coordinated Plan, both MPOs in Columbia and Jefferson City were also required to update their plans. The plans were all developed through similar processes which included a series of publicized meetings held with transportation and human service providers and users. The plans identify existing services, needs, and gaps in service. Goals and strategies to improve or enhance service were created as a result of the public meetings and analysis of transportation provider and user surveys.

The Coordinated Plan was critical to the development of the Transit chapter in the RTP. Information about transit availability, demand, efficiency, and access has been collected through this planning process. This data can now be used by transit providers in the region as a tool in seeking state and federal funds for improvements.

### Mid-MO RPC Comprehensive Economic Development Strategy (CEDS)

Economic growth and development is directly dependent upon the transportation network. The efficient movement of goods, services, and especially people provides the basis for a healthy local or regional economy. As a designated economic development district, Mid-MO RPC maintains a Comprehensive Economic Development Strategy (CEDS) for the region. The CEDS is an economic development plan that the RPC updates every five years as part of a continued relationship with the federal Economic Development Administration (EDA). Having an EDA approved CEDS in place is one of the requirements that must be met in order for Mid-MO RPC cities and counties to be eligible for Economic Development Administration (EDA) public works grant funding.

Projects that have taken advantage of EDA funding include the MU Life Science Incubator at Monsanto Place, the redevelopment of Science Hall at the former Kemper Military Academy in Boonville, and Discover Ridge Research Park. The EDA planning partnership also allows Mid-MO RPC to receive EDA funding to provide technical assistance for community and economic development projects throughout the region.

An update of the CEDS was completed in 2016. The first phase of the CEDS planning process involves gathering demographic and economic data on the region and key factors that affect the region's economy. This phase also includes a data driven analysis of the strengths and weaknesses of various economic sectors within the region. This economic data was also used in the update of the Regional Transportation Plan.

## County Hazard Mitigation Plans

Hazard mitigation is “any action taken to reduce or eliminate long term risk to people and property from natural hazards.” - FEMA

A 2006 study by the Institute for Building Science found that \$4 was saved in post-disaster response and recovery for every \$1 spent on pre-disaster mitigation; this figure increases to \$9 to \$1 for flooding mitigation.

Transportation planning relies on stakeholder and public input. Similarly, the collaborative process used in Hazard Mitigation planning brings together local leaders, public works staff, emergency management staff, and other public agency staff. This process provides a forum for several stakeholders to collaboratively evaluate risk.

Transportation facilities and infrastructure are important in Hazard Mitigation planning. Funding can be used to elevate critical structures, mitigate soil erosion, and retrofit structures. Municipal structures or roadways that are critical to the operation of a community should be evaluated for natural and human made disasters. Human-made and technological hazards, as well as natural hazards such as flooding, severe winter weather, tornados, earthquakes, drought and extreme heat can all cause significant issues for transportation services.

The Mid-MO RPC leads the planning process for the federally mandated 5-year updates of the county hazard mitigation plans in the region. The work is done under contract from the Missouri State Emergency Management Agency (SEMA) and funded through a FEMA planning grant.

The hazard mitigation plans are multi-jurisdictional in that all local governments within each county, including school districts and special districts, are eligible to be “participating jurisdictions”. The federal requirement is that the plans assess risk and plan mitigation for natural hazards. “Participating Jurisdictions” actively participate in the planning process, adopt the plan as their hazard mitigation plan and are eligible to apply for FEMA mitigation grant funds to lessen the impact of natural hazards in their communities. All six Mid-MO RPC counties have updated Hazard Mitigation Plans. Most but not all incorporated communities and school districts are participating jurisdictions with in the county plans. Additionally, some other special districts and institutions are also deemed participating jurisdictions. Details about the participating jurisdictions in each county can be found on the Mid-MO RPC website [www.mmrpc.org](http://www.mmrpc.org).

Jurisdictions which have adopted a local FEMA approved Hazard Mitigation Plan are eligible for hazard mitigation funding. The following three FEMA grant programs currently provide hazard mitigation funding:

- Hazard Mitigation Grant Program (HMGP) – mitigation funding after a Presidential Disaster Declaration
- Pre-Disaster Mitigation (PDM) – annual funding cycle
- Flood Mitigation Assistance (FMA) – annual funding cycle

Basic requirements for an eligible mitigation project include:

- The proposed activity must independently solve a problem.
- The proposed activity must not be under the jurisdiction of another federal agency
- The jurisdiction must have a mitigation action in the hazard mitigation plan related to the project

SEMA has designated flood mitigation planning and projects, tornado safe rooms, smaller infrastructure projects priorities for mitigation funding in Missouri.

## Chapter 2: Regional Overview

- Overview
- Transportation Network
- Land use
- Demographics
- Economic Development



## Overview

The Mid-MO RPC region is diverse area including both rural and urban populations that are dependent on and supportive of a large multi-modal transportation network. The six county Mid-MO RPC region covers 3,363 square miles and has a steadily growing population of 326,543 according to the 2010 US Census. This population works on farms, in factories, in state government offices, university and college campuses, hospitals, and in a wide variety of commercial and service industry jobs. People in the region rely on a diverse transportation network including Roads, Bridges, Bike and Ped facilities, Transit, Rail, Airports and Ports. This transportation network and infrastructure are critical to the economic success of the region.

This section will provide an overview of the general dynamics of the Mid-MO RPC region, including; the transportation network, land use, demographics, and economic development.

## Transportation Network

The Mid-MO RPC region has a diverse transportation network including Roads, Bridges, Bike and Ped facilities, Transit, Rail, Airports and Ports. It is important to look at the all modes in the transportation network. Figure 2.1 lists the extent of the region.

Figure 2.1

Mid-MO RPC Transportation Network	
<b>Roads &amp; Bridges</b>	More than 13,449 miles of publicly maintained roads (26% MoDOT). 9,894 miles of roads are maintained by local governments. Interstate 70 along with US Highways 63, 54, 50, and 40, constituting 524 miles (11%) of the road network. 543 state-system bridges, including 15 that are one lane and 34 that are in critical condition (receiving a poor to serious condition rating)
<b>Bike &amp; Ped</b>	Over 900 miles of sidewalks and trails, including the Katy Trail and 552 miles in Columbia and 80 miles of in Jefferson City)
<b>Transit</b>	More than 30 transportation providers, including five public transit providers in Boonville, Columbia, Jefferson City. OATS, Inc. and SERVE Inc. serve multiple cities and counties
<b>Rail</b>	373 miles of railroad. This includes one city owned service in Columbia and three major freight lines: Kansas City Southern, Norfolk Southern, and Union Pacific. Amtrak passenger service is also available with a station located in Jefferson City.
<b>Airports</b>	Four public airports in Boonville, Columbia, Fulton, and Jefferson City.
<b>Ports</b>	One public port authority, Howard County/Cooper County River Port. And five privately owned ports that specialize in raw materials and goods

Source: Mid-MO RPC November 2015

Chapters 3 through 9 provide a detailed summary of each the of the transportation modes in the region. Additionally, Chapter 10 contains the Regional Transportation Needs List which details the needs and goals for maintaining the transportation infrastructure and meeting growing demands of an expanding population in the Mid-MO RPC region.

## Land Use

*“At a minimum, the coordination of land use and transportation requires that those concerned with the well-being of a community (or region, state or nation) assess and evaluate how land use decisions effect the transportation system and can increase viable options for people to access opportunities, goods, services, and other resources to improve the quality of their lives. In turn, the transportation sector should be aware of the effects the existing and future transportation systems may have on land use development demand, choices, and patterns.” - Federal Highway Administration*

Land Use planning is an important tool in understanding existing uses, changes, and developing a plan for the growth. Understanding where certain uses exist and where they are changing supports plans for construction of transportation infrastructure and other services as well as taking steps to secure financing.

When considering the impact of future development to the transportation road network, the traffic generation of the development activities should be considered for planning purposes. For example, the rapidly developing areas in and around Ashland, Columbia, Hallsville, Harrisburg, and Wardsville will require additional vehicle capacity of several state routes and city and county roadways. US 63 connects all of these communities to the larger urban areas in the region. Additionally, improved access to US 63 and other state routes will be necessary to accommodate increased traffic volumes. Also, increased use of transit, airports, and bike/ped facilities will occur with population growth.

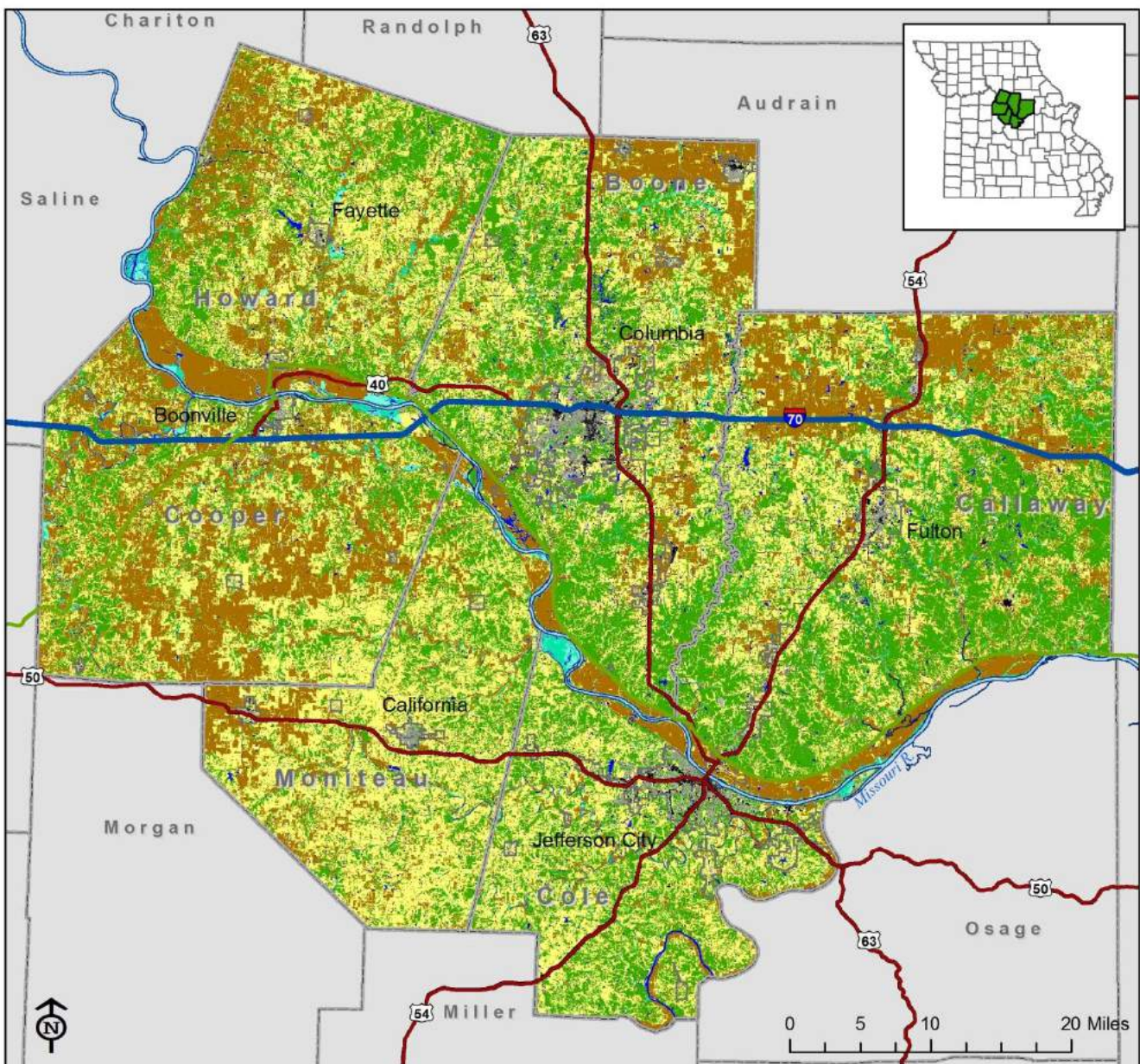
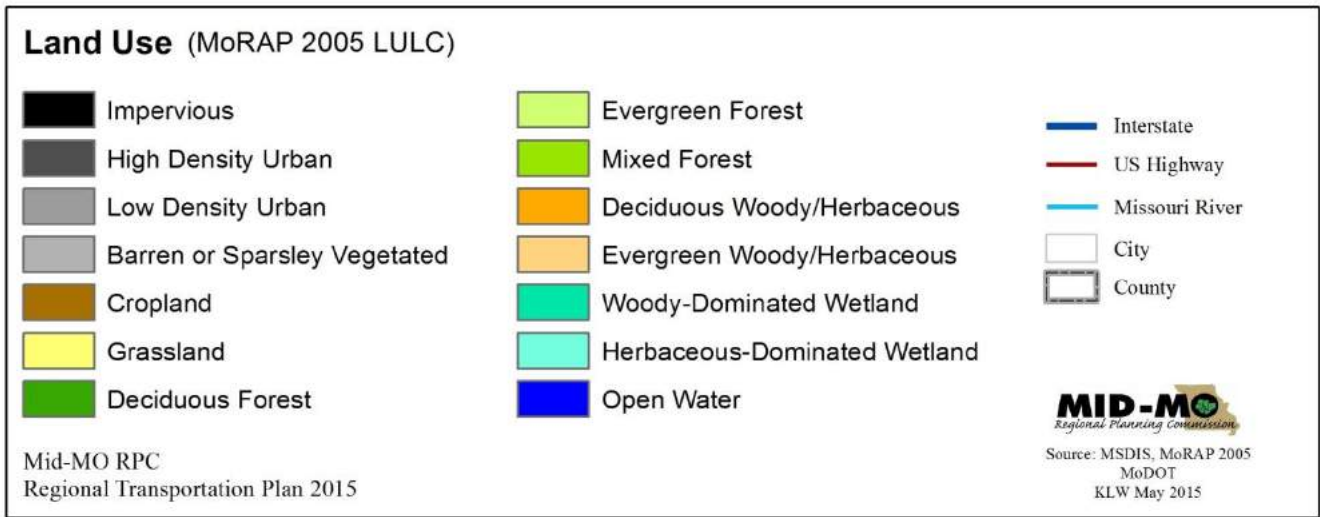
The Mid-MO RPC region includes 3,363 square miles or 5 percent of the state. The state of Missouri’s land area is approximately 68,886 square miles. According to the 2010 US Census, population density in the region is approximately 96 persons per square mile. The region experienced a population increase of 7.6% between 2000 and 2010 which is higher than the state increase of 7% but lower than the national rate of 9%.

Population has a direct impact on land use and development. This section will profile three major land use categories in Mid-Missouri:

- Urban Land Use
- Agricultural Land Use
- And Public Land use

Figure 2.2 depicts current land use/land cover in the Mid-Missouri region. This information is refined from state wide 2005 remotely sensed data and is not intended for detailed analysis, but gives a general representation of current land use/land cover.

Figure 2.2



## Urban and Rural Land Use

The Census Bureau's urban areas represent densely developed territory, and encompass residential, commercial, and other non-residential urban land uses. Both the Missouri Census Data Center and US Census Bureau provided the information in this section.

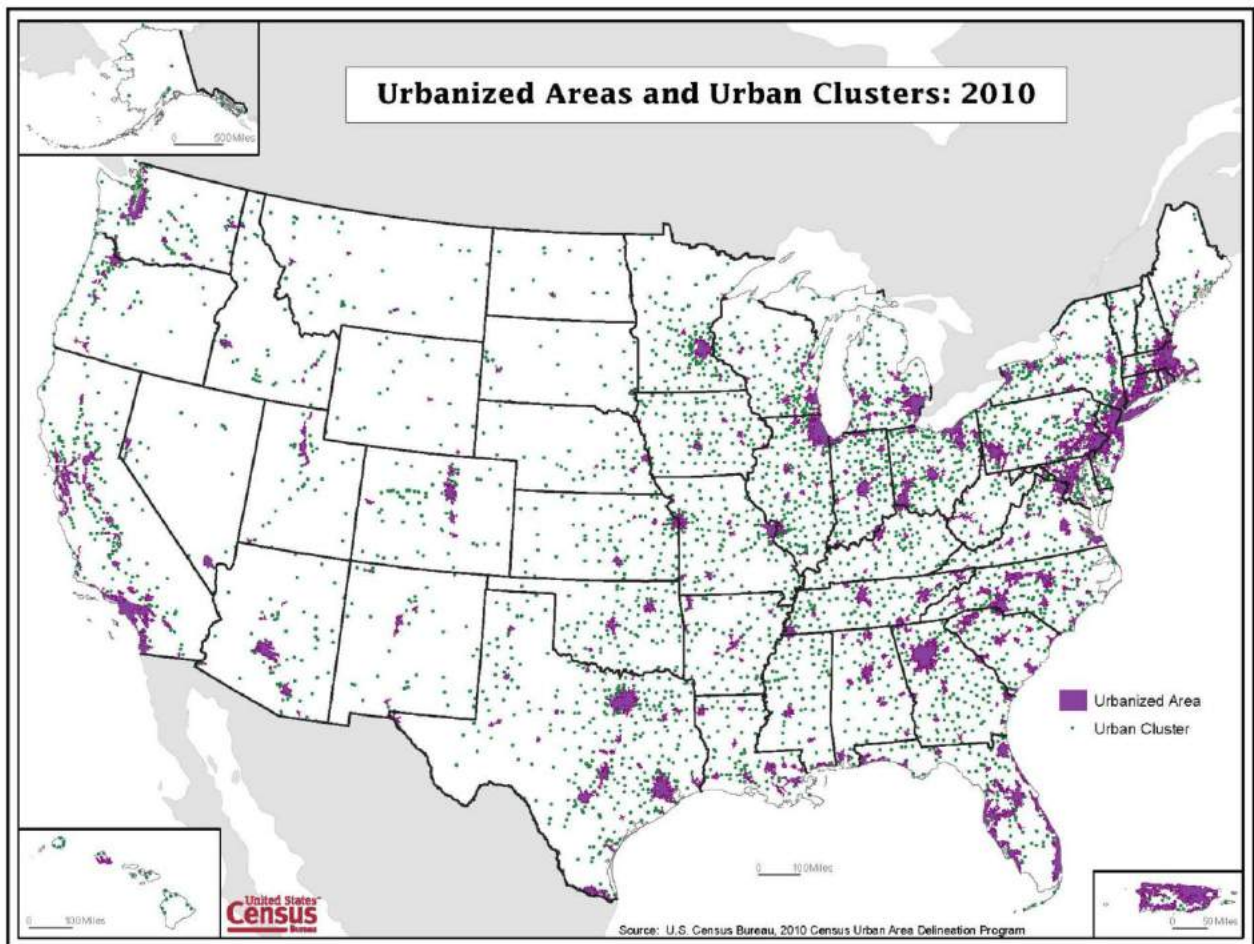
### Urban

According to the US Census Bureau, in the 2010 Census, an urban area comprises a densely settled core of census tracts and/or census blocks that meet minimum population density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled territory with the densely settled core. To qualify as an urban area, the territory identified according to criteria must encompass at least 2,500 people, at least 1,500 of which reside outside institutional group quarters. The Census Bureau identifies two types of urban areas:

- Urbanized Areas (UAs) of 50,000 or more people;
- Urban Clusters (UCs) of at least 2,500 and less than 50,000 people.

Figure 2.3 depicts the UAs and UCs at the national level as of 2010.

**Figure 2.3**



Source: US Census Bureau



### Mid-MO RPC Urban Areas (UAs)

- Columbia (includes parts of City of Columbia)
- Jefferson City (includes parts of Holts Summit, Jefferson City, Lake Mykee, and St. Martins)

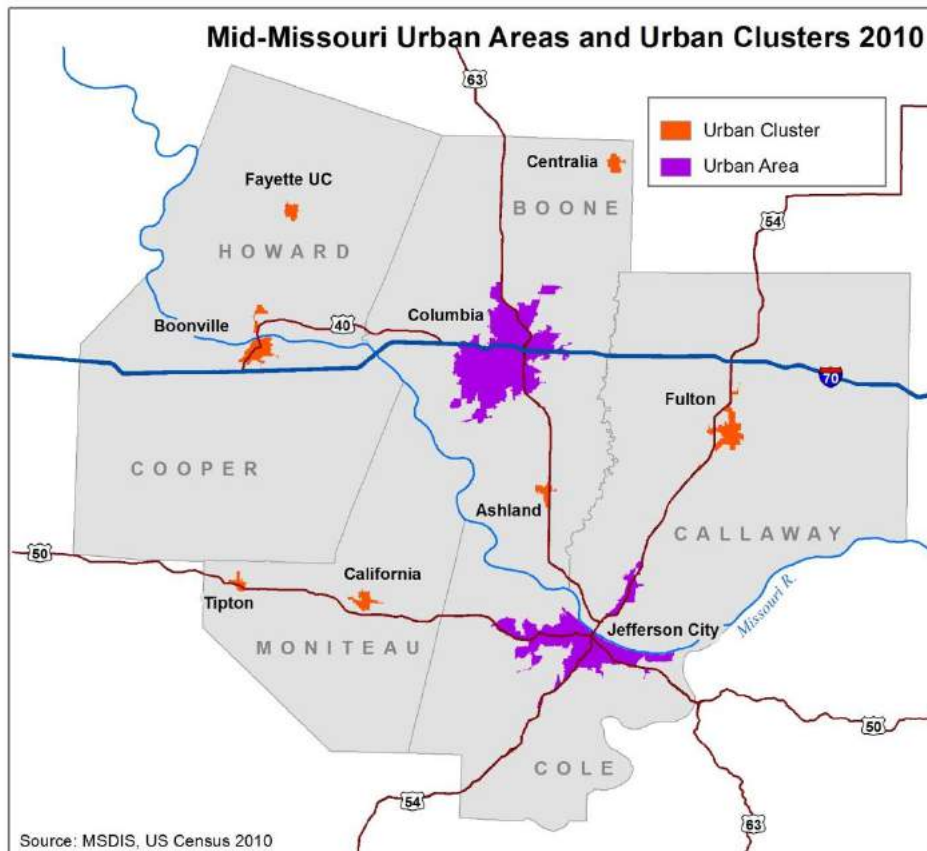
Mid-MO RPC Urban Clusters (UCs) – Note: the UCs may only contain part of the city and part of the unincorporated area.

- Ashland
- Boonville
- California
- Centralia
- Fayette
- Fulton
- Tipton

It should be noted that Ashland was not listed as an Urban Cluster in the 2000 US Census. It is the largest growing community in the Mid-MO RPC region with a 98% growth between 2000 and 2010.

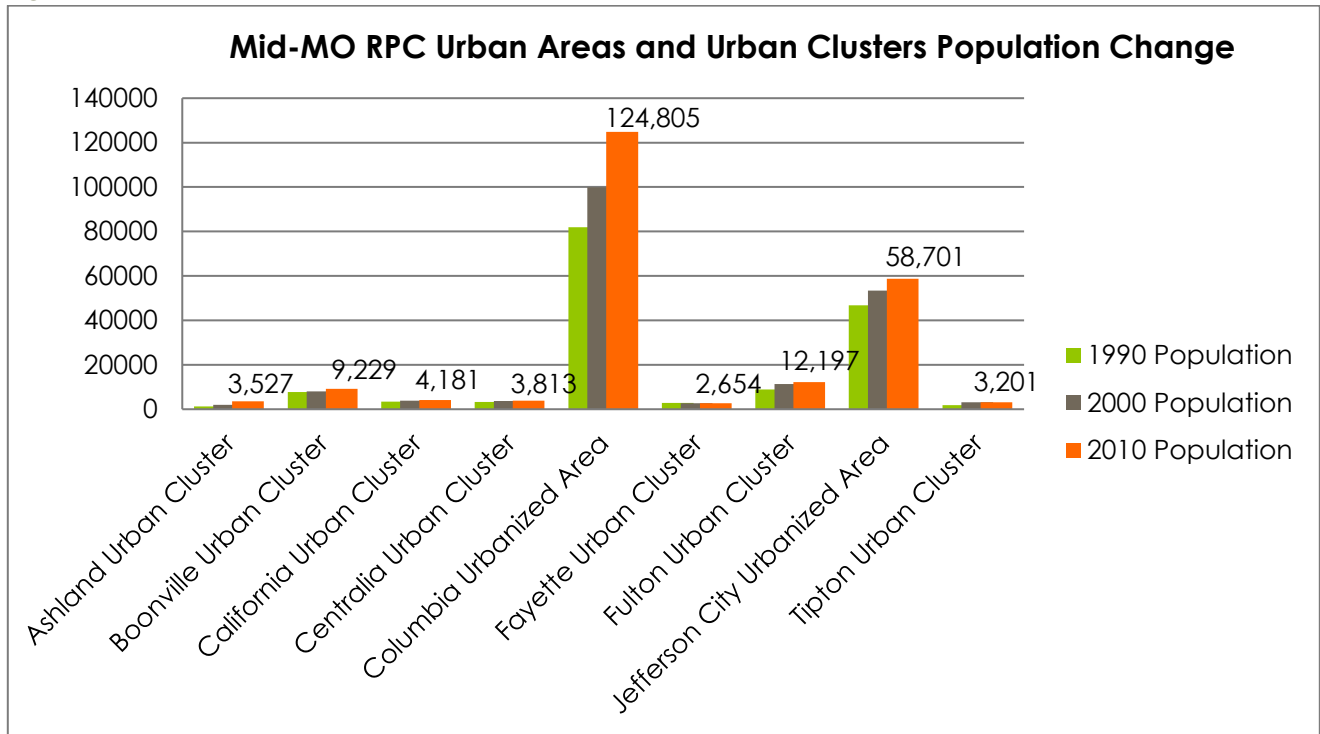
Figure 2.4 depicts the UAs and UCs in the Mid-MO RPC region.

**Figure 2.4**



All UAs and UCs experienced growth between 1990 and 2010. Columbia experienced the most growth with a 52% increase of population between 1990 and 2010. Figure 2.5 shows the 2010 population and growth of the UAs and UCs in the Mid-MO RPC region.

**Figure 2.5**



Source: MSDIS, US Census Bureau 2010

**Rural**

“Rural” encompasses all population, housing, and territory not included within an urban area. There are no counties in Missouri that are 100% urban, except the independent city of St. Louis. Of the 114 other counties in the state, only 33 are classified as being entirely rural.

97.4% of the land area in the state of Missouri is classified as rural (per the 2000 Census). But only 30.6% of the population is classified as living in rural areas. Thus, almost 70% of the population of the state lives in about 2.6% of the land. Nationwide, the same 97.4% of the land area is classified as rural, but only about 21% of the population lives in these rural areas.

In Mid-Missouri, 32% of the population lives in rural areas. In 1990 it was 35% and in 2000 it was 34%. Similar to the state and national statistics, 97% of the Mid-MO RPC region is considered rural.

## Agricultural Land Use

According to the 2012 USDA Census of Agriculture, the number of Missouri farms decreased from 107,825 in 2007 to 99,171 in 2012, an 8% percent decrease. That is in contrast to the 9% percent increase from 1998 to 2007. The land area dedicated to farms decreased by 3% statewide, and the average size of farms increase by 6% to 285 acres.

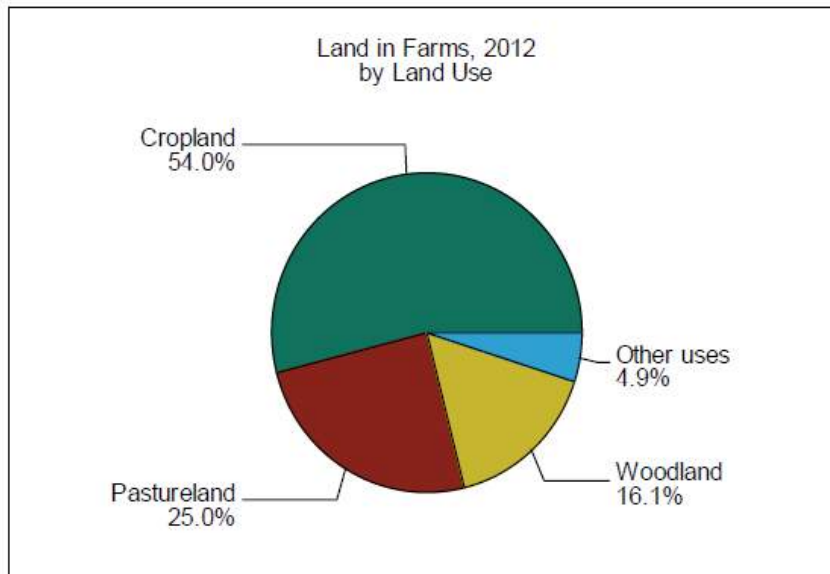
Of the 2,174,354 acres in the Mid-MO RPC region, 70% of that land is dedicated to agricultural uses. This is slightly higher than the state's 64.6% percent and indicates a strong agricultural influence in the area. Figure 2.6 gives an overview of farming in the Mid-MO RPC region. Figures 2.7 and 2.8 show the variation in farms by land use for the state of Missouri and the Mid-MO RPC region.

Figure 2.6

		Mid-MO RPC Farms					
Category		Moniteau	Howard	Cooper	Cole	Callaway	Boone
Number of Farms	2012	1,089	765	928	1,055	1,417	1,171
	2007	1,138	867	942	1,103	1,503	1,322
	Change	-4%	-12%	-1%	-4%	-6%	-11%
Land in Farms	2012	235,204	243,420	307,128	176,306	316,066	240,710
	2007	242,946	276,590	302,429	180,840	322,929	258,734
	Change	-3%	-12%	2%	-3%	-2%	-7%
Average Size of Farm	2012	216	318	331	167	223	206
	2007	213	319	321	164	215	196
	Change	1%	0%	3%	2%	4%	5%
Market Value of Products	2012	\$173,480,000	\$47,778,000	\$78,289,000	\$38,372,000	\$84,919,000	\$52,185,000
	2007	\$123,047,000	\$45,061,000	\$82,946,000	\$34,711,000	\$69,263,000	\$45,523,000
	Change	41%	6%	-6%	11%	23%	15%

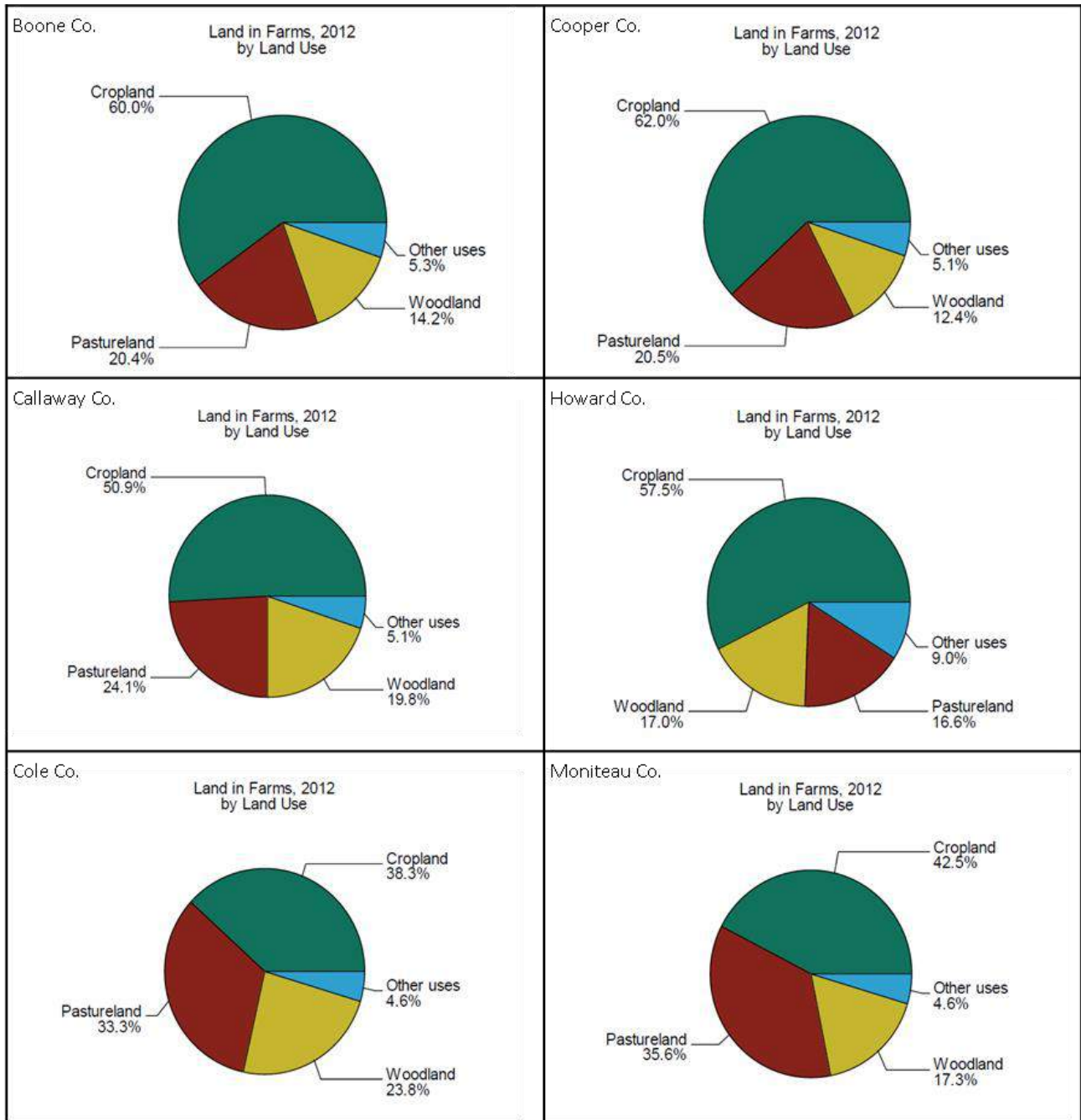
Source: 2012 Census of Agriculture

Figure 2.7 Missouri Land in Farms



Source: 2012 Census of Agriculture

Figure 2.8 Mid-MO RPC Farms by Land Use



Source: 2012 Census of Agriculture

## Public Land

Within the Mid-MO RPC region there are 75,626 acres or 118 square miles of state or federal public land, representing less than 2% of the region. Figure 2.9 lists the agencies that own public land in the region.

Figure 2.9

Mid-MO RPC Public Land		
Agency	Acres	% of Mid-MO region
<b>Missouri Department of Conservation</b>	47,258	2%
<b>Missouri Department of Natural Resources</b>	3,257	.1%
<b>US Fish and Wildlife Service</b>	4,213	.2%
<b>US Army Corps of Engineers</b>	5,549	.2%
<b>US Department of Agriculture – US Forest Service</b>	15,349	.7%

Source: MSDIS, USFS, USFWS, MDC, MoDNR, USACE

State and federal public land in the region represent areas that should be considered in transportation planning. These areas are usually difficult to perform construction in or around and special considerations on environmental impacts may present a challenge to development. Figure 2.10 depicts the location of publically held land in the Mid-MO RPC region.

### Federal Lands Access Program

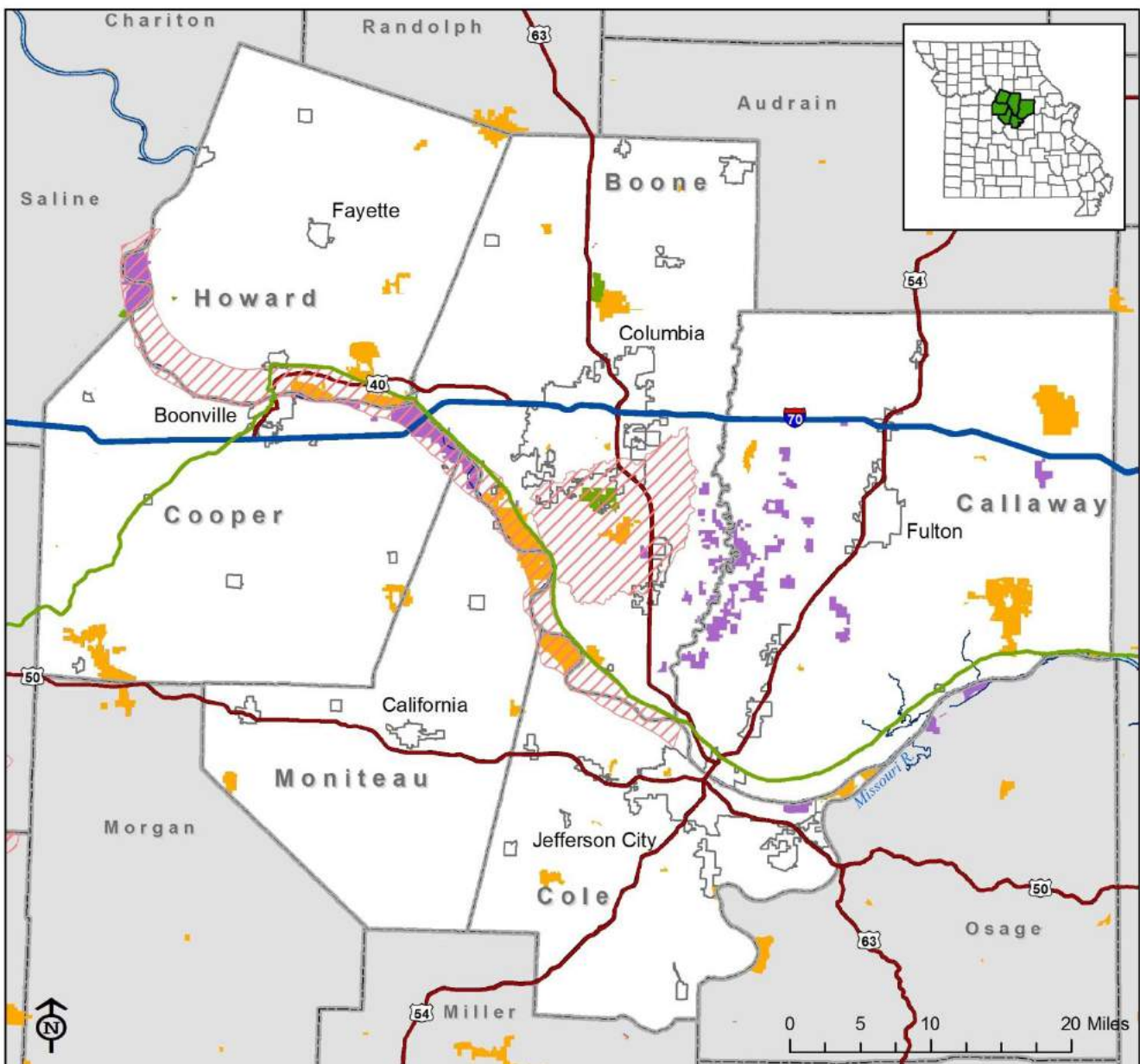
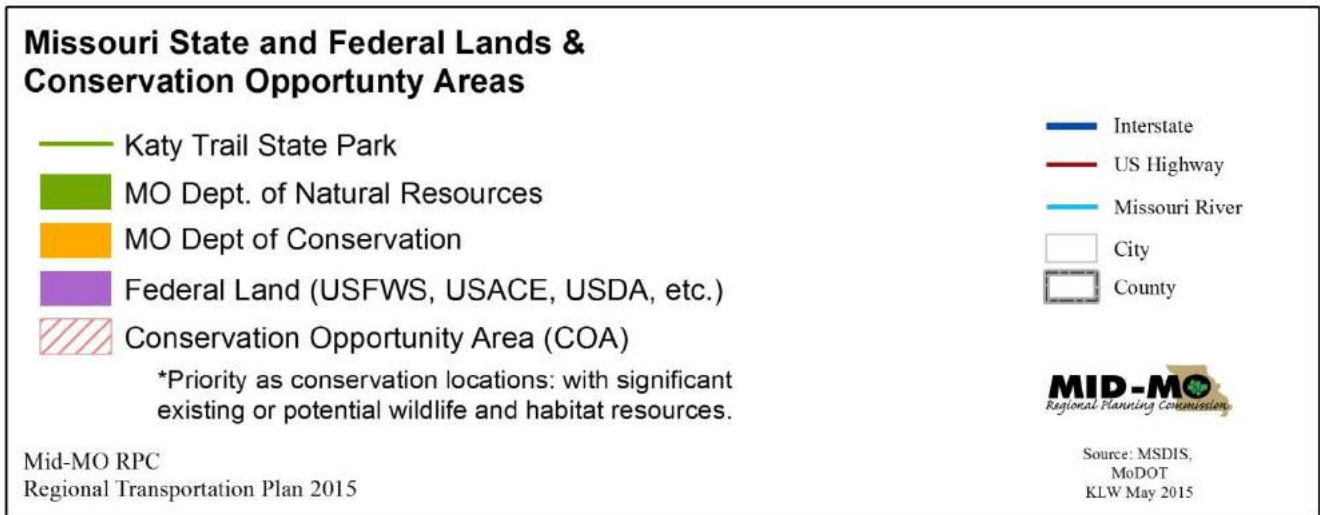
The Federal Lands Access Program (Access Program) was established to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements State and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.

The program is designed to provide flexibility for a wide range of transportation projects in the 50 States, the District of Columbia, and Puerto Rico.

The Access Program is funded by contract authority from the Highway Trust Fund. Funds are subject to the overall Federal-aid obligation limitation. Funds will be allocated among the States using a new statutory formula based on road mileage, number of bridges, land area, and visitation.

Changes to this program are underway due to the passage of the 2015 FAST Act federal transportation bill. This section may be updated to reflect new guidance as it is developed.

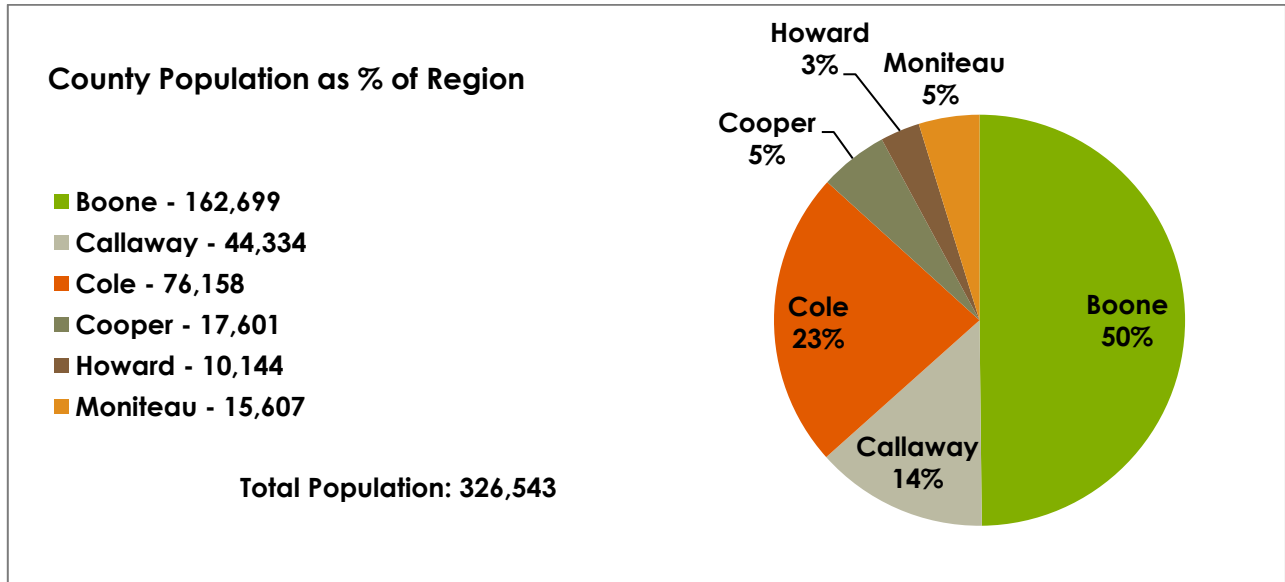
Figure 2.10



## Demographics

The Mid-MO RPC region has an overall population of 326,543. The chart below depicts the county populations according to the 2010 US Census. This section provides an overview of general regional demographics and an analysis of special needs populations. Figure 2.11 provides an overview of county population as a percent of the region. While Boone County holds 50% of the region's population, 33% of the region's population is found within the City of Columbia alone. The Mid-MO RPC region has two heavily populated urban centers in the region, Columbia and Jefferson City. The City of Columbia has more than 108,500 residents, more than twice the number of second most populous city in the region Jefferson City, which has 43,079. Other areas in the region such as Boonville, California, Centralia, Fulton, and Tipton have moderate concentrations of population ranging from 3,000 to 13,000.

Figure 2.11



Source: 2010 US Census

Figure 2.12

**Missouri Population by County**  
Top-Ten Largest Projected Populations  
2030

Most Populous in 2030	County	Projected Population 2030
1	St. Louis	956,817
2	Jackson	714,467
3	St. Charles	499,126
4	St. Louis City*	349,004
5	Greene	329,825
6	Clay	300,021
7	Jefferson	260,276
8	Boone	204,264
9	Jasper	152,490
10	Cass	136,933

Note: \*St. Louis City is an independent city not within a county and thus is designated a "county equivalent."

Source: Missouri Office of Administration

Boone County grew twice as much as all other Mid-MO RPC counties between 2000 and 2010. Boone County is also ranked number five in population growth in the State of Missouri, according to the Missouri State Office of Administration. It is estimated that Boone County will be the 8<sup>th</sup> most populous county in the state by 2030. Figure 2.12 depicts the ten largest 2030 projected populations for counties in the state.

The Mid-MO RPC region increased in population by approximately 12% between 2000 and 2010 while the State of Missouri experienced a 7% growth. Howard County was the only county in the region to lose population. Figure 2.13 depicts the change in population for all the Mid-MO RPC counties and cities.

Figure 2.13

Mid-MO RPC 2000-2010 Change in Population

County/City	2000	2010	% Change	County/City	2000	2010	% Change
<b>Boone</b>	<b>135,454</b>	<b>162,699</b>	<b>20%</b>	<b>Cooper</b>	<b>16,670</b>	<b>17,601</b>	<b>6%</b>
Ashland	1,869	3,707	98%	Blackwater	199	162	-19%
Centralia	3,774	4,027	7%	Boonville	8,202	8,319	1%
Columbia	84,531	108,500	28%	Bunceton	348	354	2%
Hallsville	978	1,491	52%	Otterville	476	454	-5%
Harrisburg	184	266	45%	Pilot Grove	723	768	6%
Hartsburg	108	103	-5%	Prairie Home	220	280	27%
Huntsdale		31		Windsor Place		309	
McBaine	17	10	-41%	Wooldridge	47	61	30%
Pierpont		76		<b>Howard</b>	<b>10,212</b>	<b>10,144</b>	<b>-1%</b>
Rocheport	208	239	15%	Armstrong	287	284	-1%
Sturgeon	944	872	-8%	Fayette	2,793	2,688	-4%
<b>Callaway</b>	<b>40,766</b>	<b>44,334</b>	<b>9%</b>	Franklin	112	95	-15%
Auxvasse	901	983	9%	Glasgow	1,263	1,067	-16%
Fulton	12,128	12,790	5%	New Franklin	1,145	1,089	-5%
Holts Summit	2,935	3,247	11%	<b>Moniteau</b>	<b>14,827</b>	<b>15,607</b>	<b>5%</b>
Jefferson City*		22		California	4,005	4,278	7%
Kingdom City	121	128	6%	Clarksburg	375	334	-11%
Lake Mykee	326	350	7%	Jamestown	382	386	1%
Mokane	188	185	-2%	Lupus	29	33	14%
New Bloomfield	599	669	12%	Tipton	3,261	3,262	0%
<b>Cole</b>	<b>71,397</b>	<b>76,158</b>	<b>7%</b>				
Centertown	257	278	8%				
Jefferson City	39,636	43,057	9%				
Lohman	168	163	-3%				
Russellville	758	807	6%				
St. Martins	1,023	1,140	11%				
St. Thomas	287	263	-8%				
Taos	870	878	1%				
Wardsville	976	1,506	54%				

> 50% increase  
20%-50% increase  
< 20% increase  
0% or negative change

\* Portion of Jefferson City in Callaway County

Source: 2000 and 2010 US Census

Figures 2.14 and 2.15 illustrate the change in and density of population for the Mid-MO RPC region. The decrease of rural population and increase of urban populations is consistent with state and national trends. High amounts of growth the areas around Ashland, Columbia, Jefferson City, and Holts Summit has resulted in an increase in residential and commercial growth. According to city staff in these communities, traffic congestion has also increased in these areas. Much of the growth is occurring in the unincorporated areas around these communities and in large areas of Columbia there has been a loss of population in the urban core.



Figure 2.14

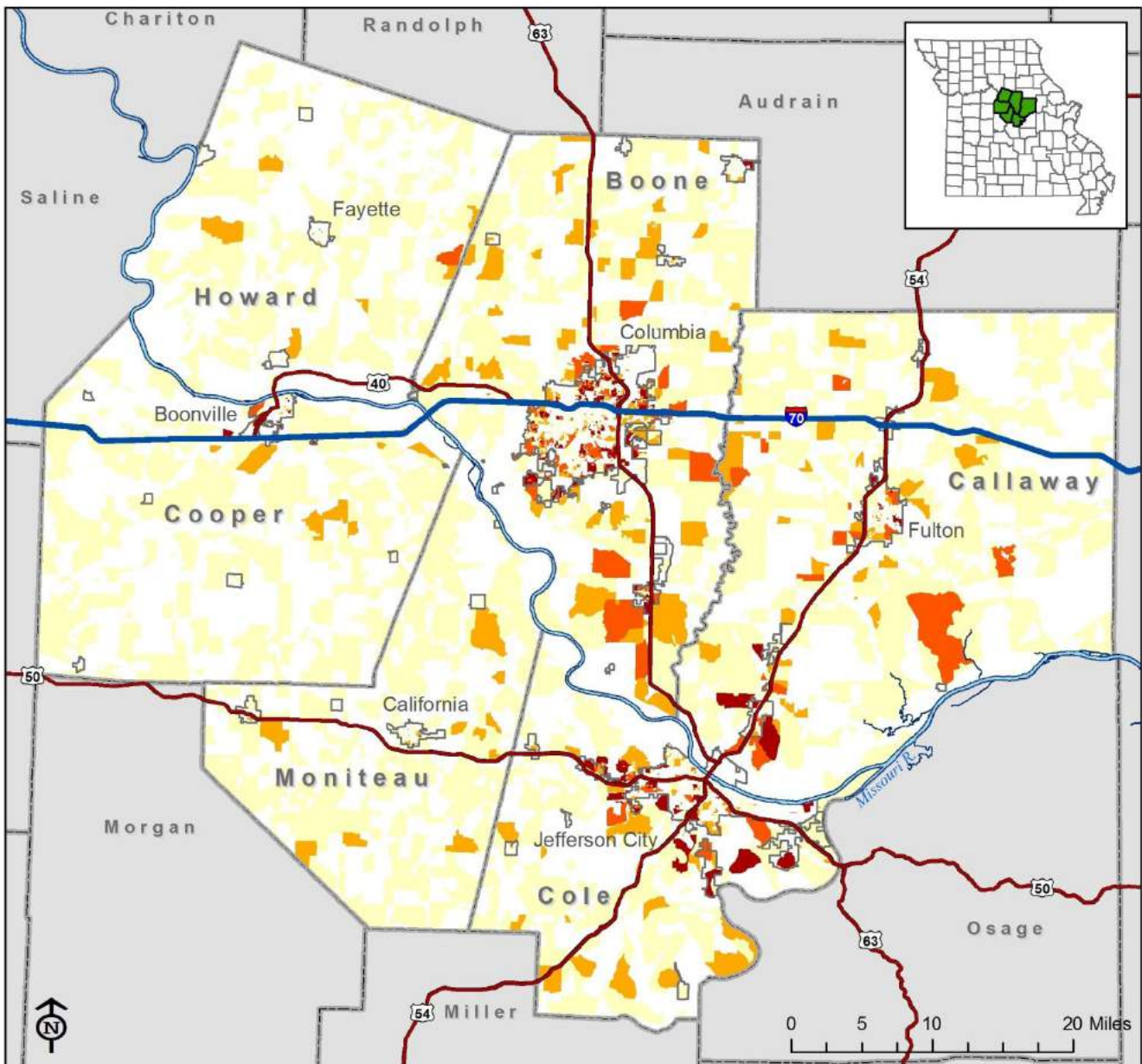
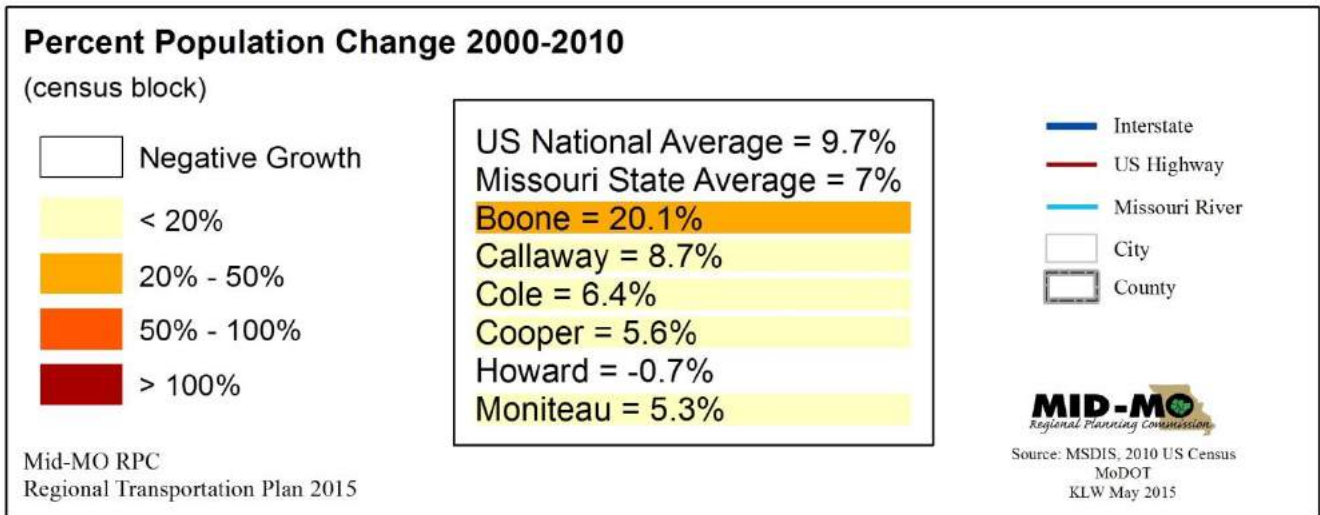
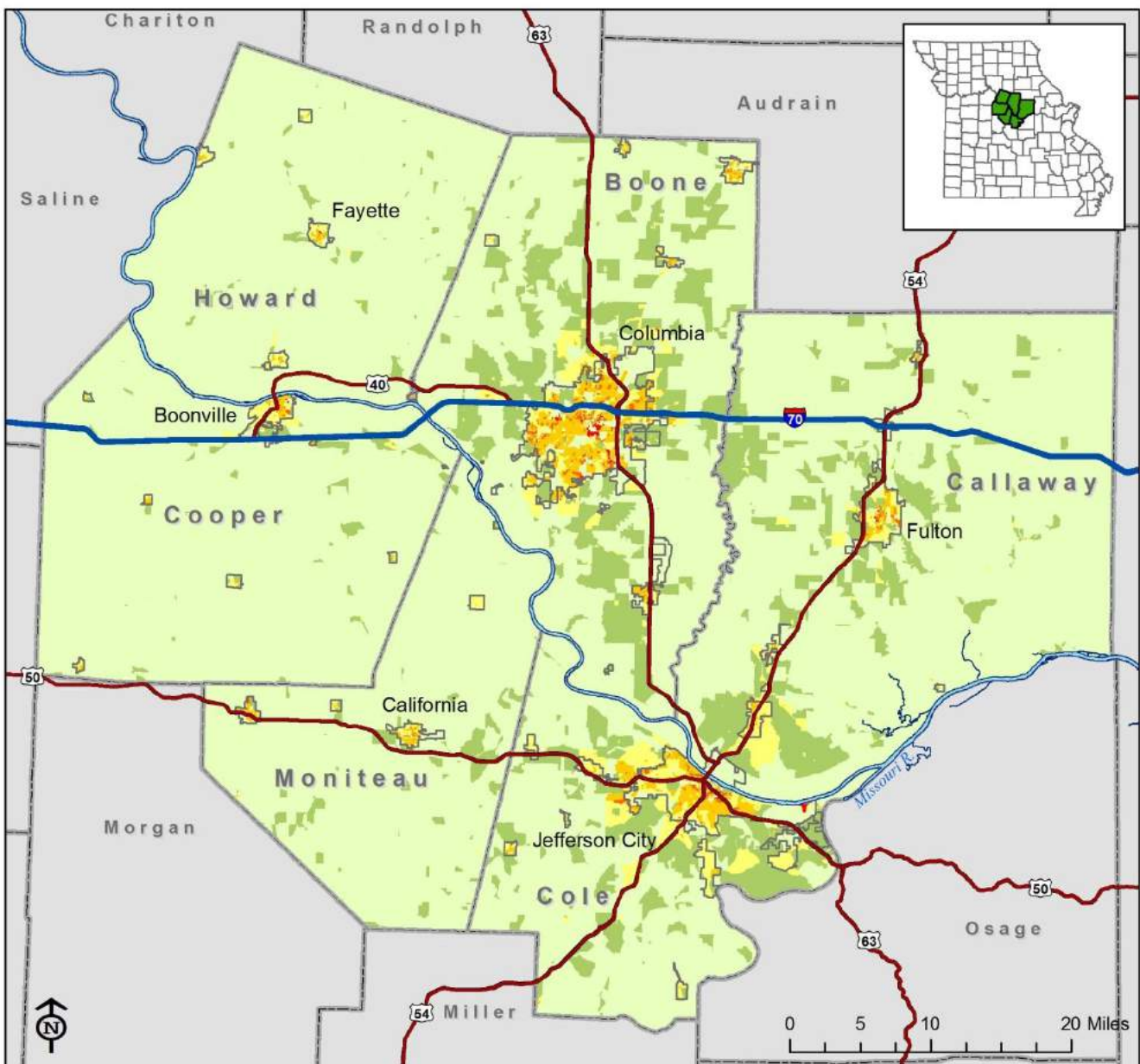
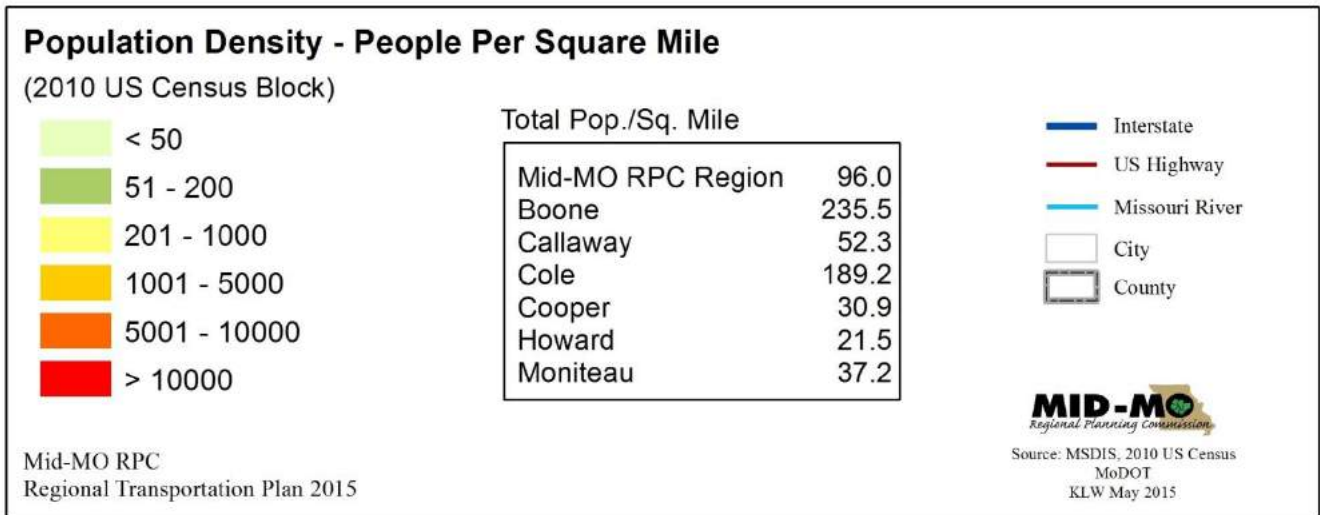
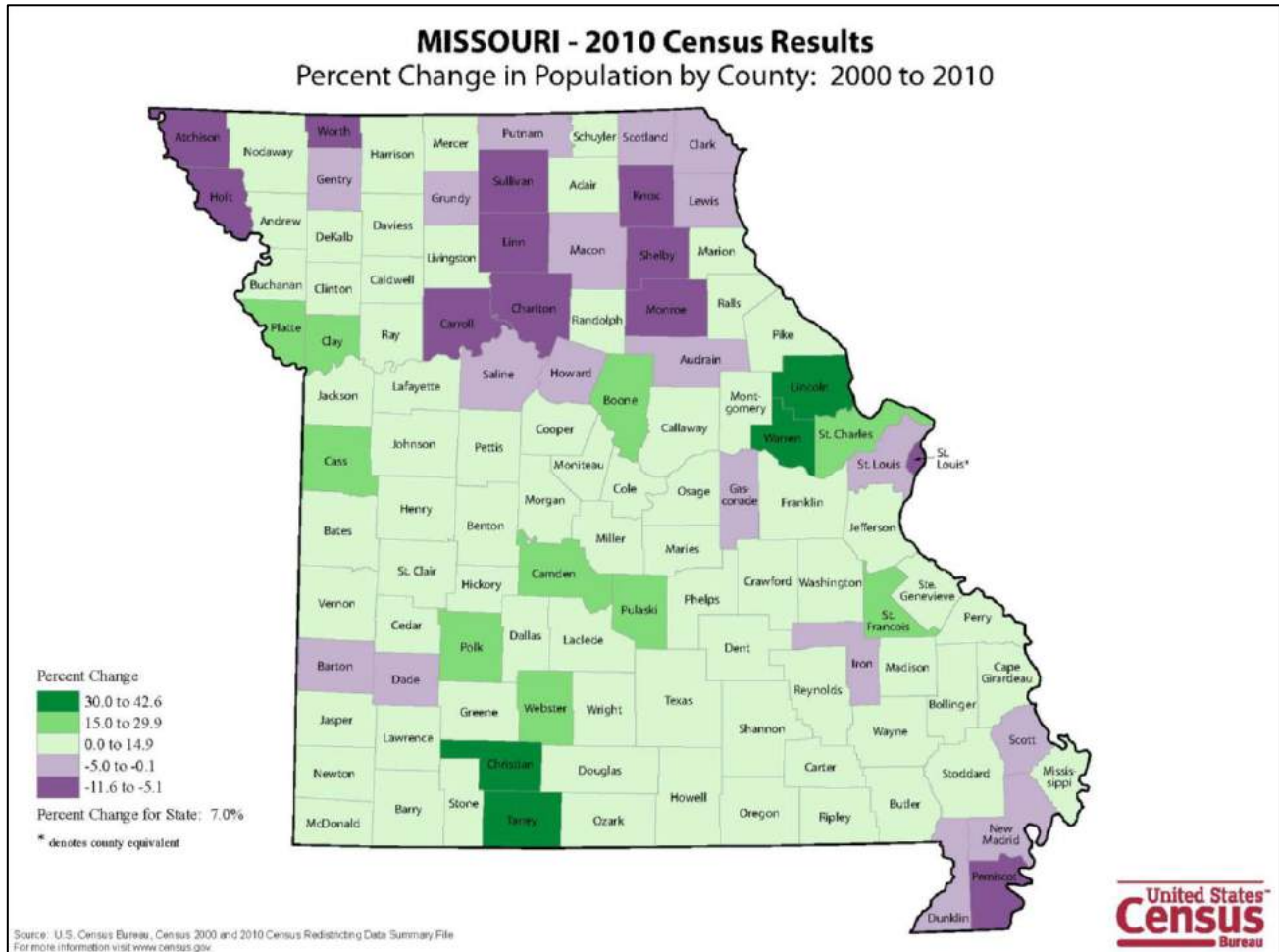


Figure 2.15



As seen in Figure 2.16, when compared to other counties in the state, Boone County continues to be a high population and high growth county in the state. Boone County is only slightly behind the counties of Christian, Lincoln, St. Charles, and Taney, which are the highest growth areas in the state.

Figure 2.16



Source: US Census Bureau

### Missouri's Population Forecast

According to the Missouri Economic Research and Information Center (MERIC), Missouri's population is expected to approach 6.8 million people in 2030, a growth of roughly 1.2 million people from the year 2000, which will represent a 21% increase in the state's population. Missouri's projected growth rate of approximately 6% per decade is slower than the nation's projected rate of 10% per decade.

By 2030, persons over age 65 will represent more than one-fifth of all Missourians. Senior citizens are expected to increase 87% between 2000 and 2030 when there are projected to be 1.4 million seniors.

The number of children under the age of 18 in Missouri is expected to increase but not as rapidly as persons 18 and over. By 2030, Missouri children are expected to increase by roughly 7% while the 18 and over population will increase by nearly 25%.

Natural change (births minus deaths) will continue to add the largest number of people to Missouri's population. Natural change is expected to add an average of 244,000 Missourians per decade. Moreover, net migration (those migrating in compared to those migrating out) is expected to further increase Missouri's



## Special Populations

The Regional Transportation Plan (RTP) addresses all modes of transportation used in the region – from personal vehicles to freight to bicycles to various forms of public transportation. Key populations, such as low-income, elderly, disabled, and minority, use or are impacted by all modes of transportation. This section includes analysis of special populations in the Mid-MO RPC region.

## Environmental Justice

The Environmental Protection Agency (EPA) defines “environmental justice” as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies (which is) achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.” Similarly, environmental justice holds that participants should be meaningfully involved, such that,

- Potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health;
- The public's contribution can influence the regulatory agency's decision;
- The concerns of all participants involved will be considered in the decision-making process; and
- The decision-makers seek out and facilitate the involvement of those potentially affected.

The data used in the following maps and graphics was derived from the 2000 and 2010 U.S. Censuses and 2013 5 Year American Community Survey (ACS) data. ACS 1-, 3-, and 5-year estimates are period estimates, meaning they represent the characteristics of the population and housing over a specific data collection period. Data sets are combined to produce 12 months, 36 months or 60 months of data (referred to as 1-year, 3-year and 5-year data.) The population of a city or county determines whether the ACS will collect data for a 1-, 3-, or 5-year estimate. Most of the Mid-MO RPC region falls into the 5-year estimate category. For consistency, the 2007-2011 ACS was used to illustrate and analyze the demographics in this section.

## Low-Income (Poverty)

Low-income (Poverty) is determined by the federal poverty guidelines, which are generated annually based on family size and composition. The numbers and percentages displayed in this section represent individuals living below 185% of the poverty line. Low-income individuals and families may be more likely to seek public transportation or other transportation alternatives to automobiles. Portions of Columbia, Jefferson City, and Fulton have block groups with significantly higher numbers of persons living below the poverty line. Callaway County, Cooper County, and Howard County have large areas of moderate poverty in the mostly rural areas of their counties.

According to the 2013 5-yr ACS, the Mid-MO RPC region has over 52,244 low-income residents (15.8% of the area population.) When looking at each county individually, it is immediately apparent that the poverty rates in the counties of Boone (18.8%), Cooper (16.1%), and Howard (17%) increase the region's average. Boone County has an estimated poverty rate of 18.8%. All other counties are at or below 12.5%, with Moniteau being the lowest at 10.3%. When compared to the state poverty rate of 15.5% and national rate of 15.4% the region as a whole is only slightly higher with 15.8%.

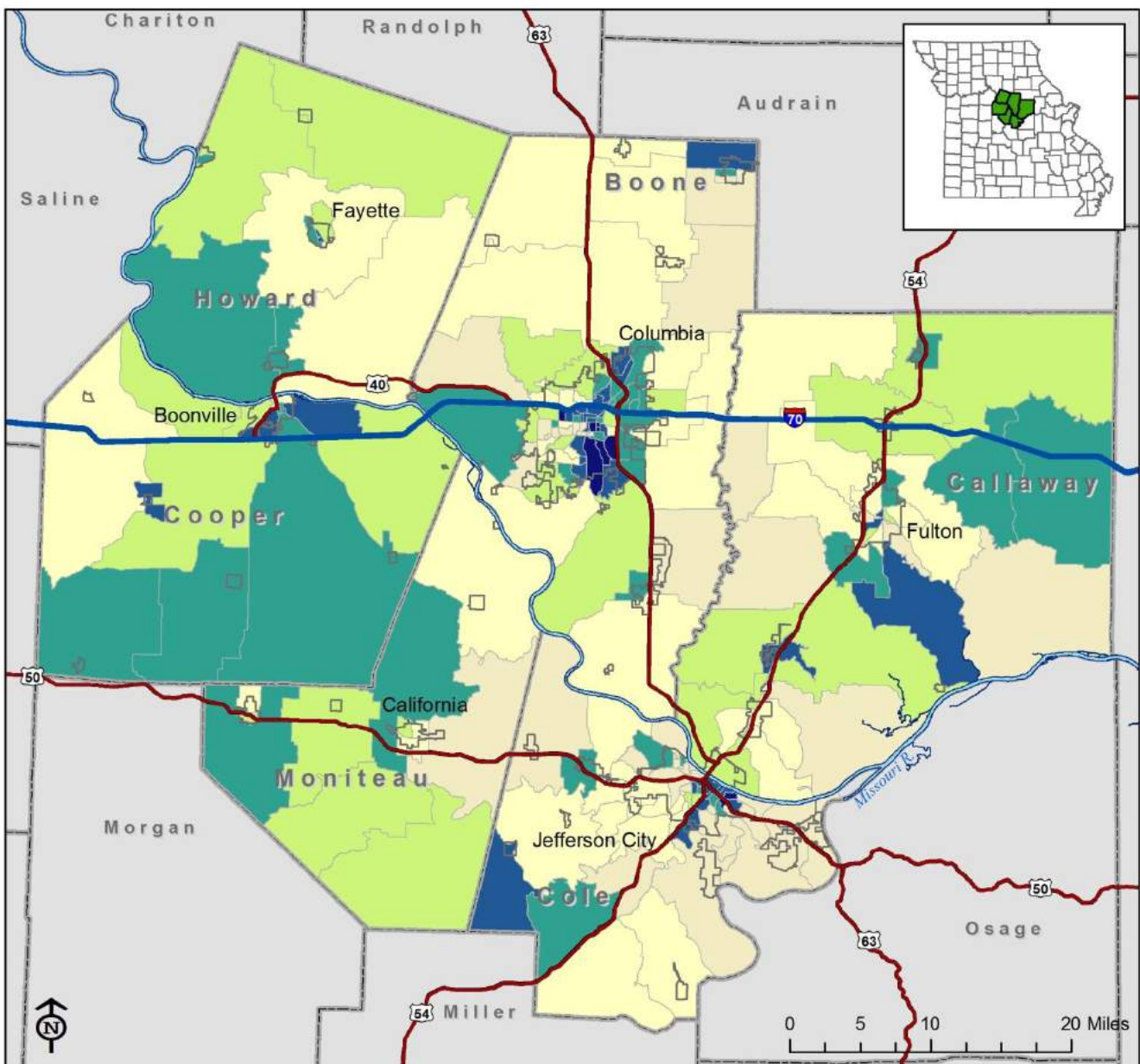
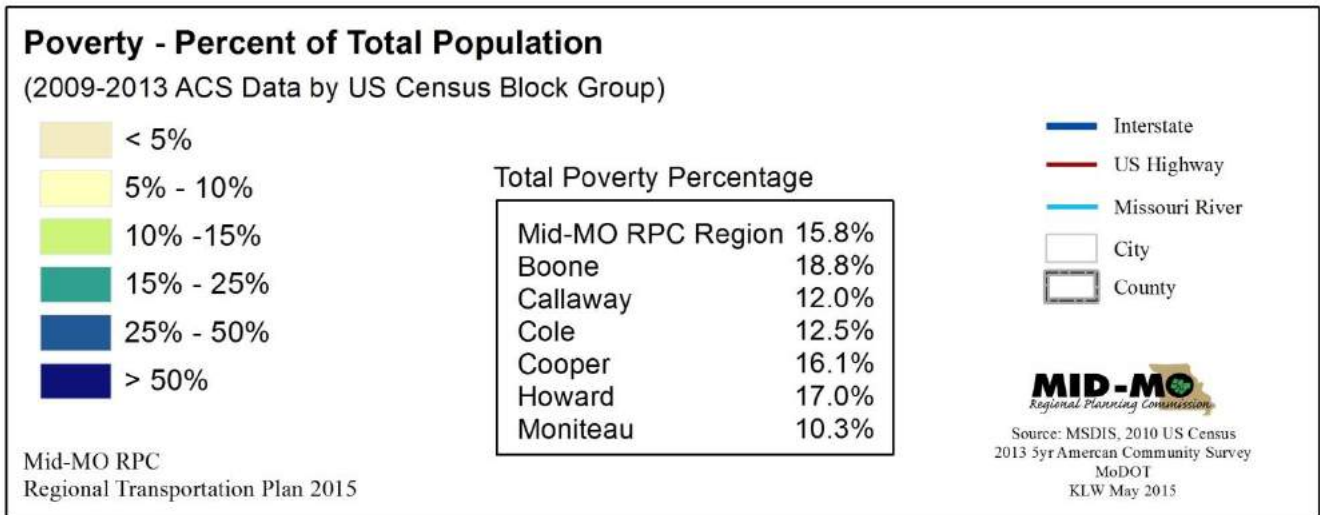
Because the 2010 US Census did not collect income data, the 2013 5-yr ACS will be compared to the 2000 US Census. Upon comparison of 2000 poverty rates every county experienced an increase of 4 to 6 percentage points with the exception of Moniteau county which changed by only .4 percentage points. At the state and national levels and increase is also visible with the state rate increasing by 8 percentage points from 11.7% in 2000 and the national rate increasing by 3 percentage points from 12.4%.

There are many factors contributing to these rates and changes. Current national economic trends are showing a decrease in the middle class and an increase in the separation between lower and higher income families and individuals. Since the recession of 2008 and 2009, employment, wages, and poverty have been national topics for concern.

Figure 2.19 depicts population density of individuals living below the poverty line. Figure 2.20 depicts the percentage of the population living below the poverty line.



Figure 2.20



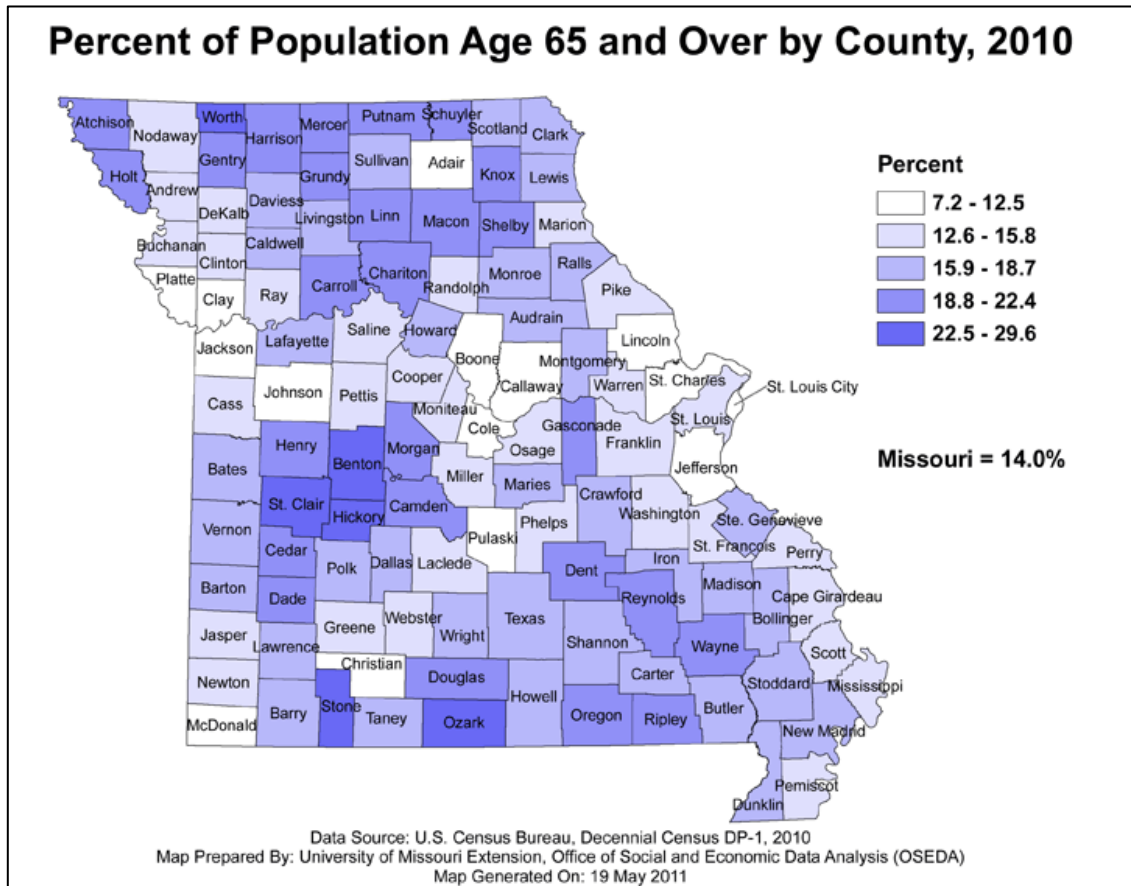


**(This page intentionally left blank)**

## Elderly

In 2010, according to the US Census Bureau, the Mid-MO RPC region was home to 36,321 seniors over 65 years of age. This constituted a 16% increase in that demographic compared to the 2000 US Census. This group now represents 11% of the total population in the six county region, which is below the Missouri total of 14%. Both the regional and state percentages of this demographic increased by .5% since 2000. Howard County (15.9%) and Cooper County (15.3%) are above the state average while Boone County (9.2%), Moniteau County (13.8%), Callaway County (12.3%), and Cole County (12.2%) are below it. Figure 2.21 shows the 2010 state percentage of elderly per county. The OSEDA Senior Report 2013 provides extensive data on seniors by county. This data for the counties of the Mid-MO RPC region is found in Appendix B.

Figure 2.21



The elderly population is expected to rise as the baby boomer generation retires. The Missouri Adult Day Care Association projects that the number of seniors will increase by almost 50 percent by 2020. Therefore, meeting transportation needs for the elderly will become even more important. According to data from the US census, approximately 76.7 percent of Missouri seniors held a Missouri driver's license in the year 2000. According to the University of Missouri Office of Social and Economic Data Analysis (OSEDA), 88.6% of seniors held a driver's license in 2011. Half of the counties in the region were above this figure: Boone 93.6%, Callaway 90.8%, Cole 93.4%, Cooper 86.4%, Howard 85.7%, and Moniteau 88.3%. The total number of seniors on the road is expected to grow significantly as the senior population itself grows.

Figure 2.22 and 2.23 depict population density and percent of population of elderly individuals in the Mid-MO RPC region.

Figure 2.22

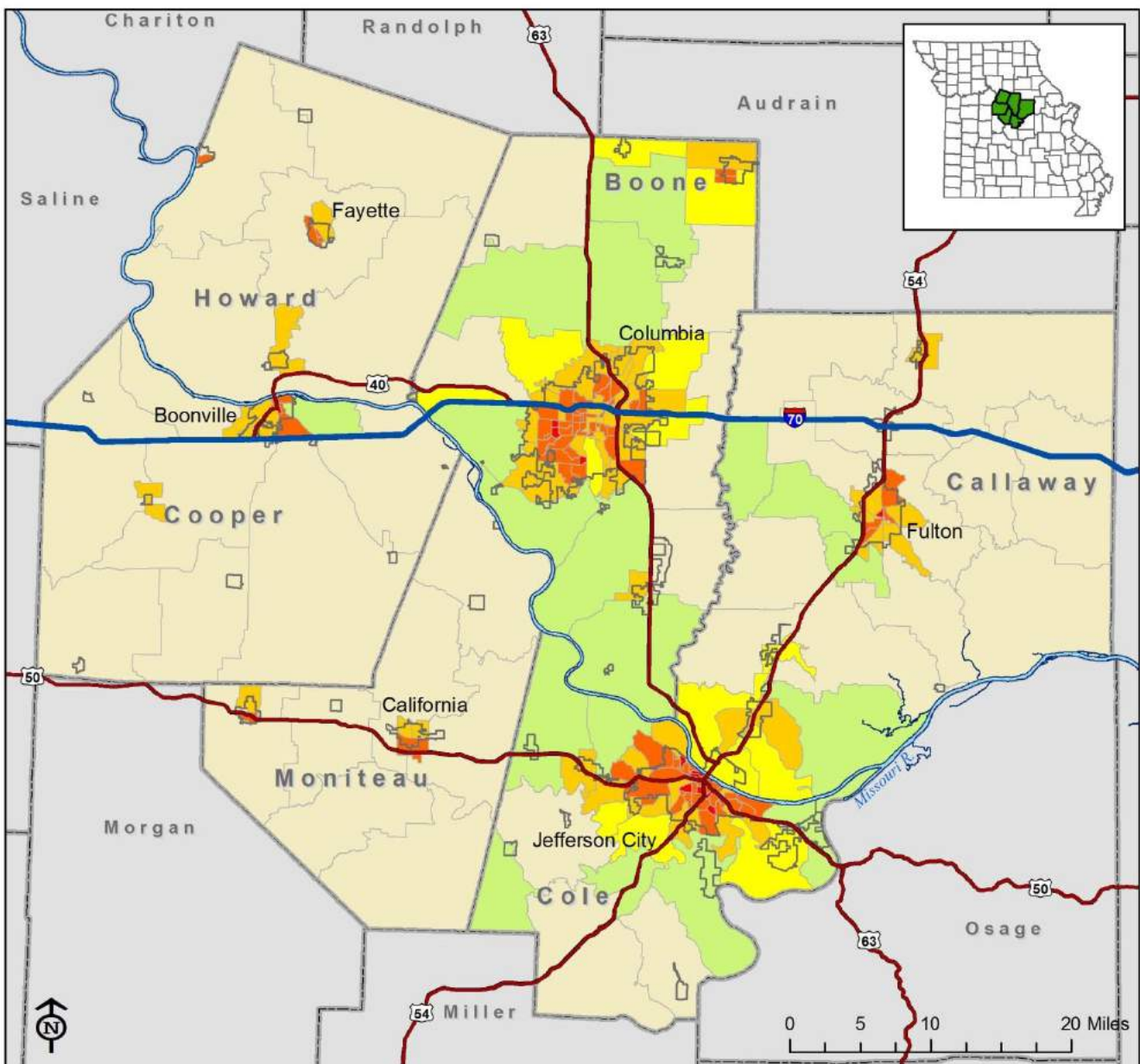
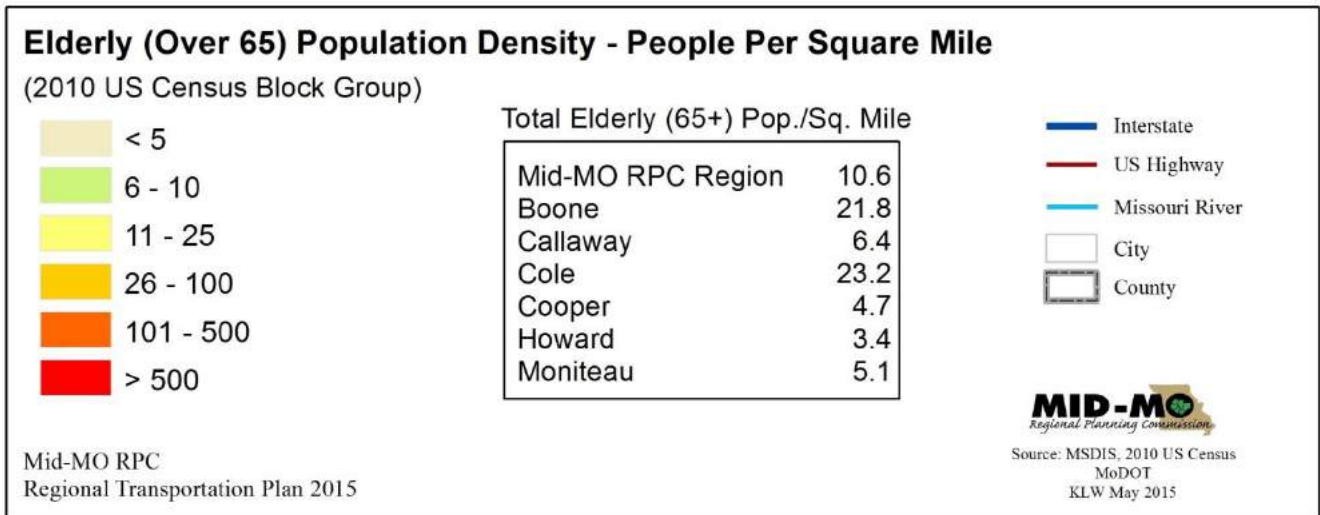
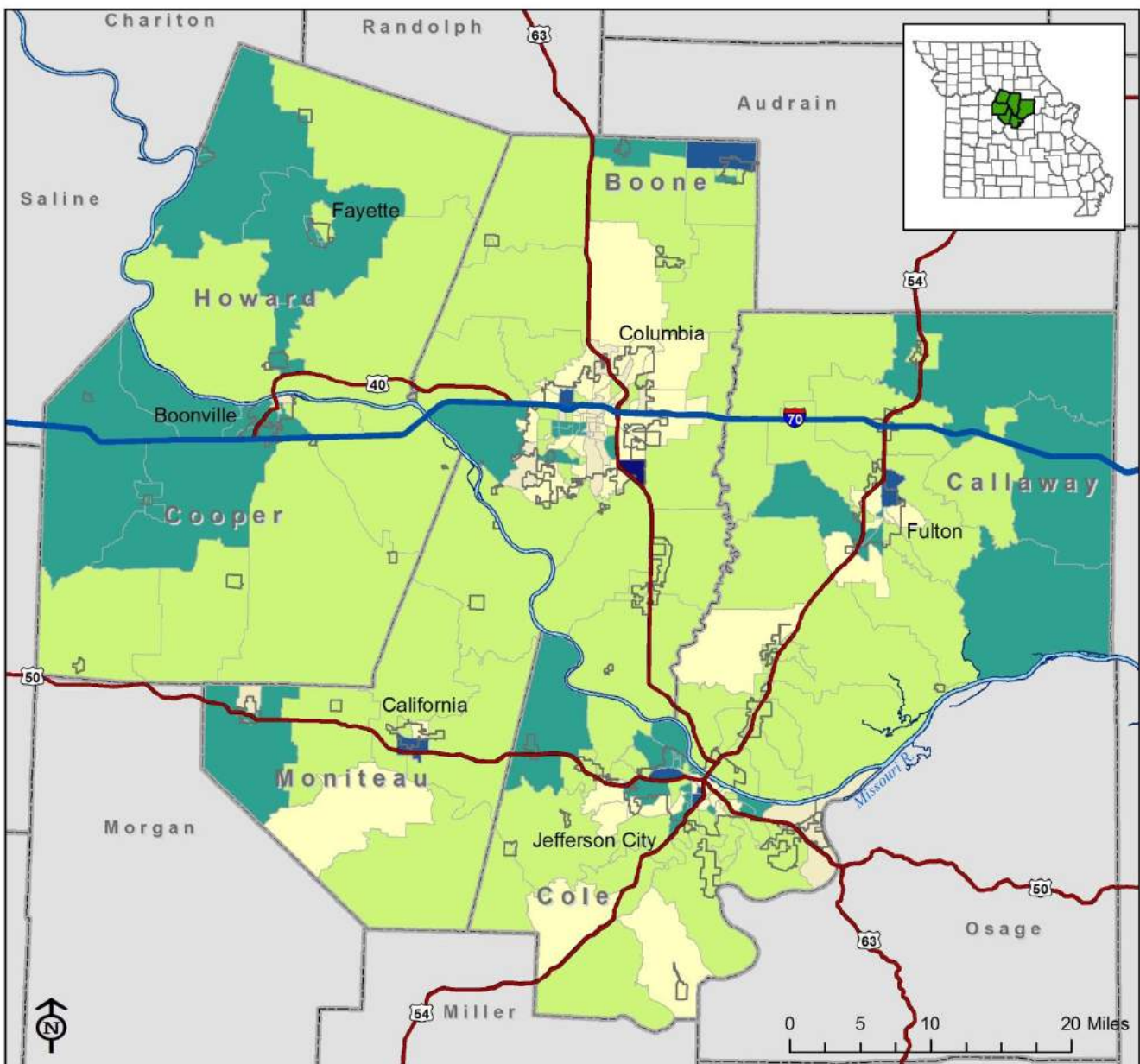
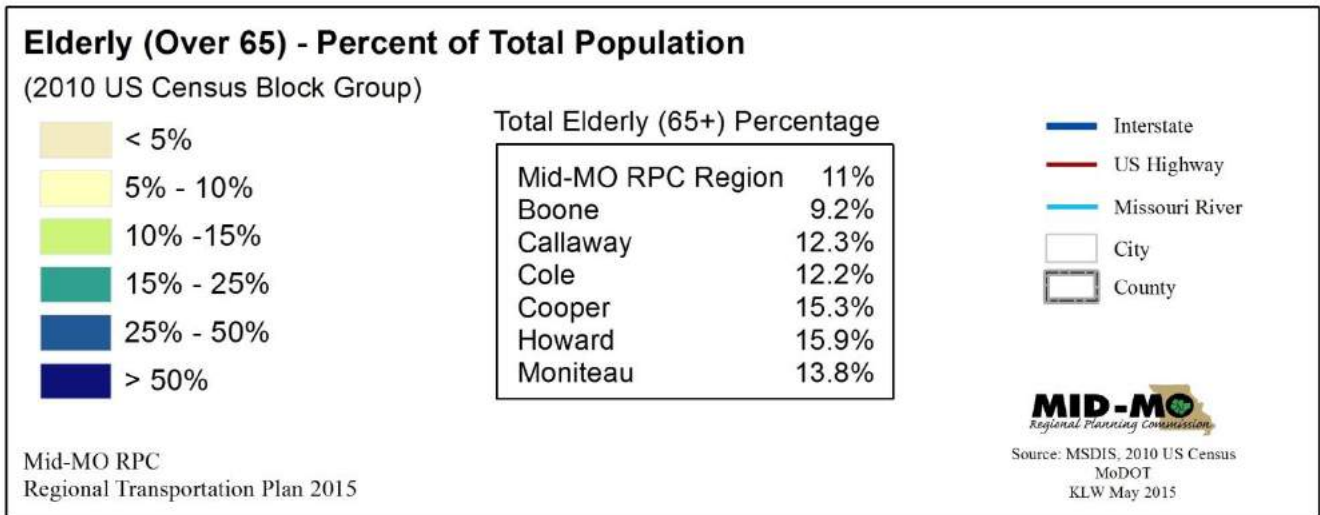


Figure 2.23



**(This page intentionally left blank)**

## Disabled

First, a note on disability data and how it is was collected as part of the 2013 5-yr ACS and the 2000 and 2010 US Censuses.

Shortly after the 2000 Census, there was a growing consensus that the ACS questions on disability did not coincide with recent models of disability. The questions focused on the presence of specific conditions, rather than the impact those conditions might have on basic functioning. An interagency group was formed to develop a new set of questions.

New questions were introduced in 2008. Because of the changes to the questions, the new ACS disability questions should not be compared to the previous ACS disability questions or the Census 2000 disability data. The questions found in the current ACS questionnaires cover six disability types:

- **Hearing difficulty** - deaf or having serious difficulty hearing.
- **Vision difficulty** - blind or having serious difficulty seeing, even when wearing glasses.
- **Cognitive difficulty** - Because of a physical, mental, or emotional problem, having difficulty remembering, concentrating, or making decisions.
- **Ambulatory difficulty** - Having serious difficulty walking or climbing stairs.
- **Self-care difficulty** - Having difficulty bathing or dressing.
- **Independent living difficulty** - Because of a physical, mental, or emotional problem, having difficulty doing errands alone such as visiting a doctor's office or shopping.

Respondents who report anyone of the six disability types are considered to have a disability.

As stated above, ACS disability data cannot be compared with 2000 US Census disability data. Questions asked in the 2000 US Census are not the same as those asked as part of the ACS and disability data was not gathered as part of the 2010 US Census.

According to the 2013 5yr ACS, the Mid-MO RPC region was home to 26,387 individuals with disabilities. This group represents 8% of the total population in the six county region, which is below the Missouri rate of 12.2%. All Mid-MO RPC counties are also below this state rate. Boone (6.2%), Callaway (10.2%), Cole (10%), Cooper (8.5%), Howard (8.6%) and Moniteau (9.6%), are also below the state rate.

Higher densities of disabled individuals are found in the more urban areas of the region. Figure 2.24 depicts the 2013 5-yr ACS population density of disabled individuals in the Mid-MO RPC region.

Figure 2.25 depicts the percentage of disabled individuals per county. High percentages seen in the areas east of Fulton and east of Jefferson City are representative of state institutions. Fulton is home to State Mental Hospital and the Algoa Correctional Center is a state penitentiary located eastern of Jefferson City.

Figure 2.24

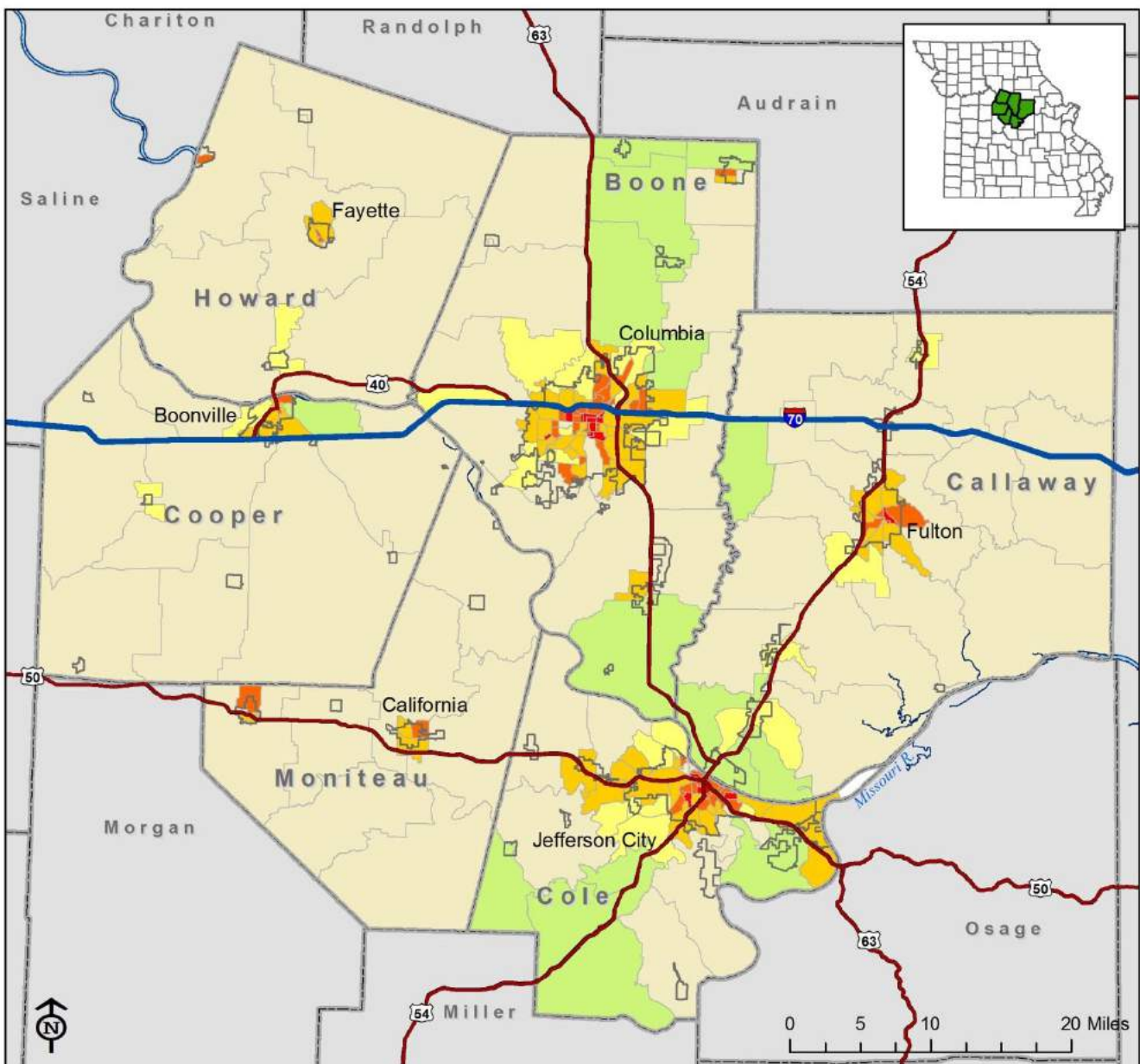
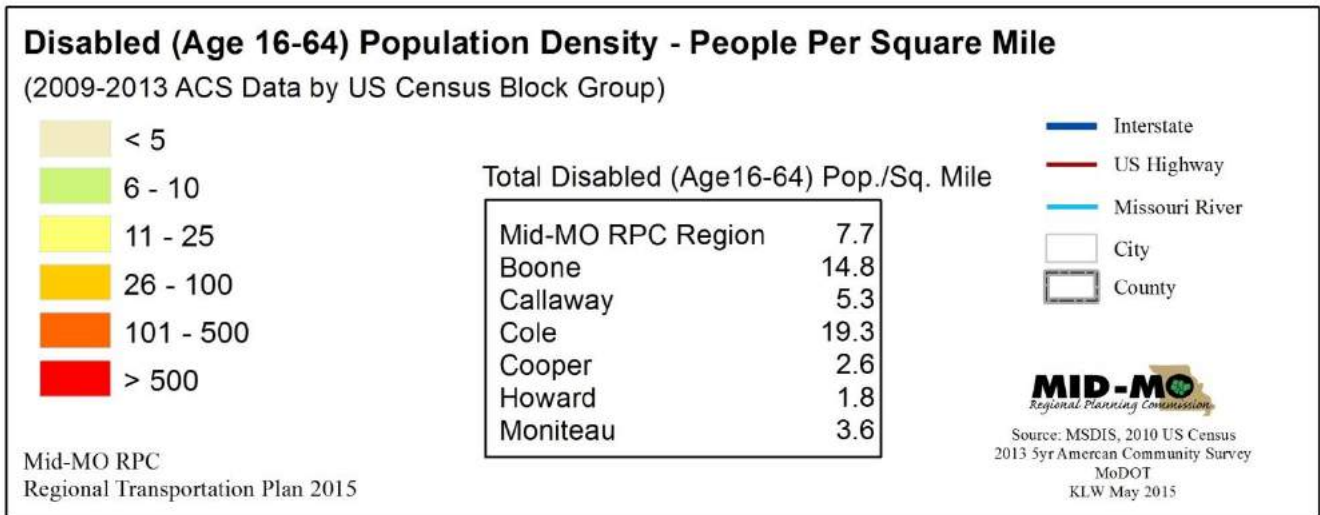
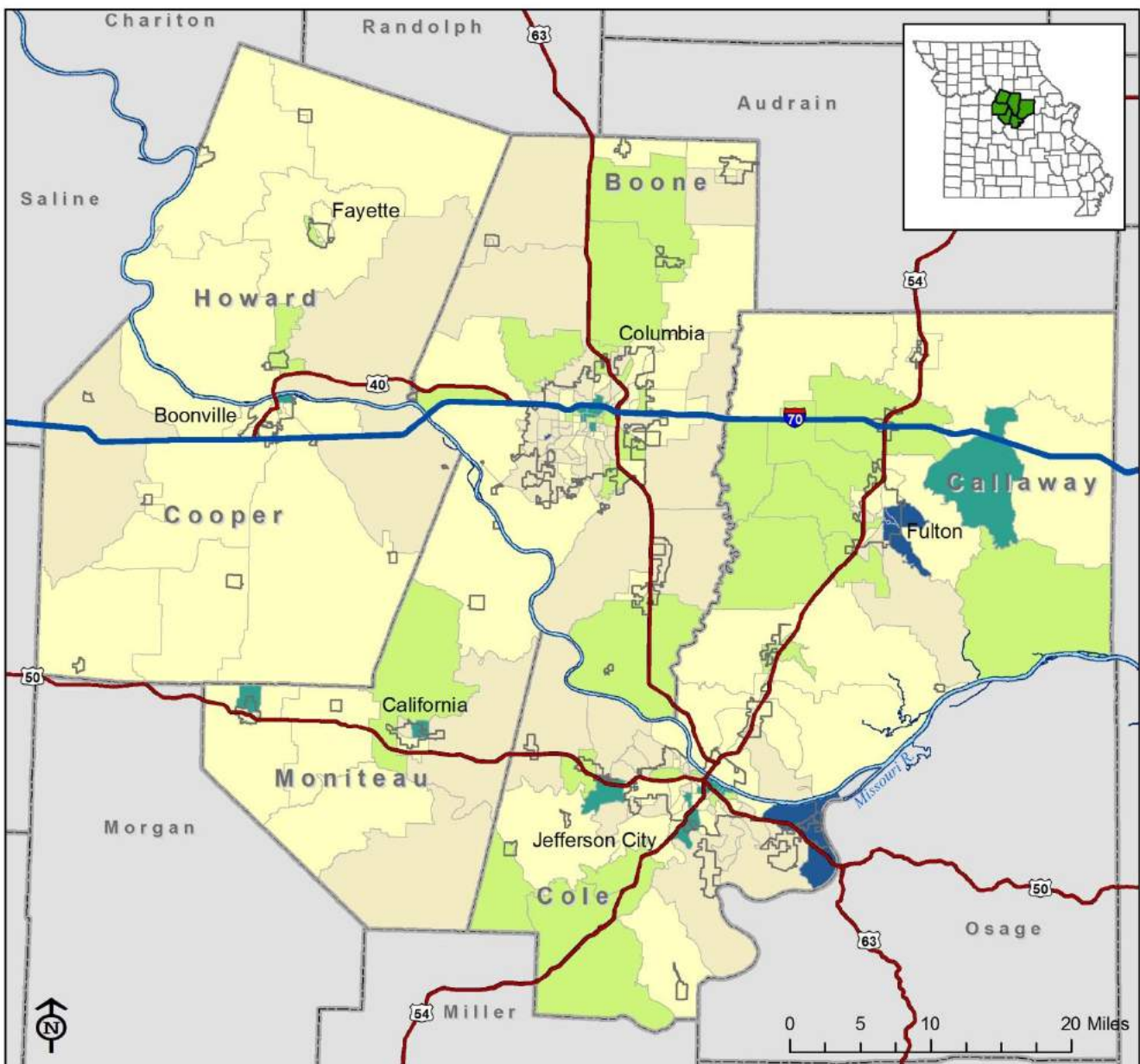
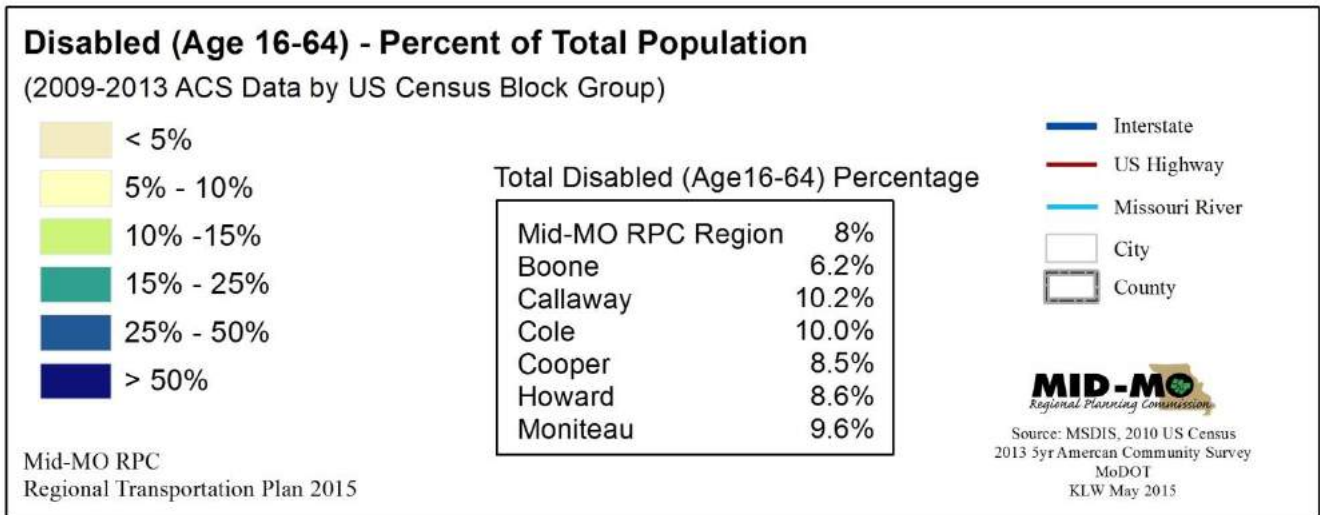


Figure 2.25





**(This page intentionally left blank)**

## Minorities

The word “minority” is defined, in this instance, as anyone identifying themselves as any race other than “white”. In 2010, according to the US Census Bureau, there were 55,489 individuals, 17% of the population, who identified themselves as a minority in the Mid-MO RPC region. This represents a small growth in the minority population from the 2000 US Census where 14% of the population, 40,516 individuals, identified as a minority.

The greatest concentrations of minority populations are mostly found in the urban areas of the region, with the largest densities in Columbia, Jefferson City and Fulton. Of the 55,489 minority individuals in the region, those who identified themselves as black represent more than 50%. Hispanic (15%), Asian (13.5%), and multi-racial (13%) represent the second largest minority groups in the region. .

Between 2000 and 2010 the Asian population grew by 52% and the multi-racial population grew by 68%. The Hispanic population has seen the greatest increase with a 90% growth between 2000 and 2010.

Figures 2.26 and 2.27 depict the 2010 US Census population density and percentage of minority individuals in the Mid-MO RPC region.

Figure 2.26

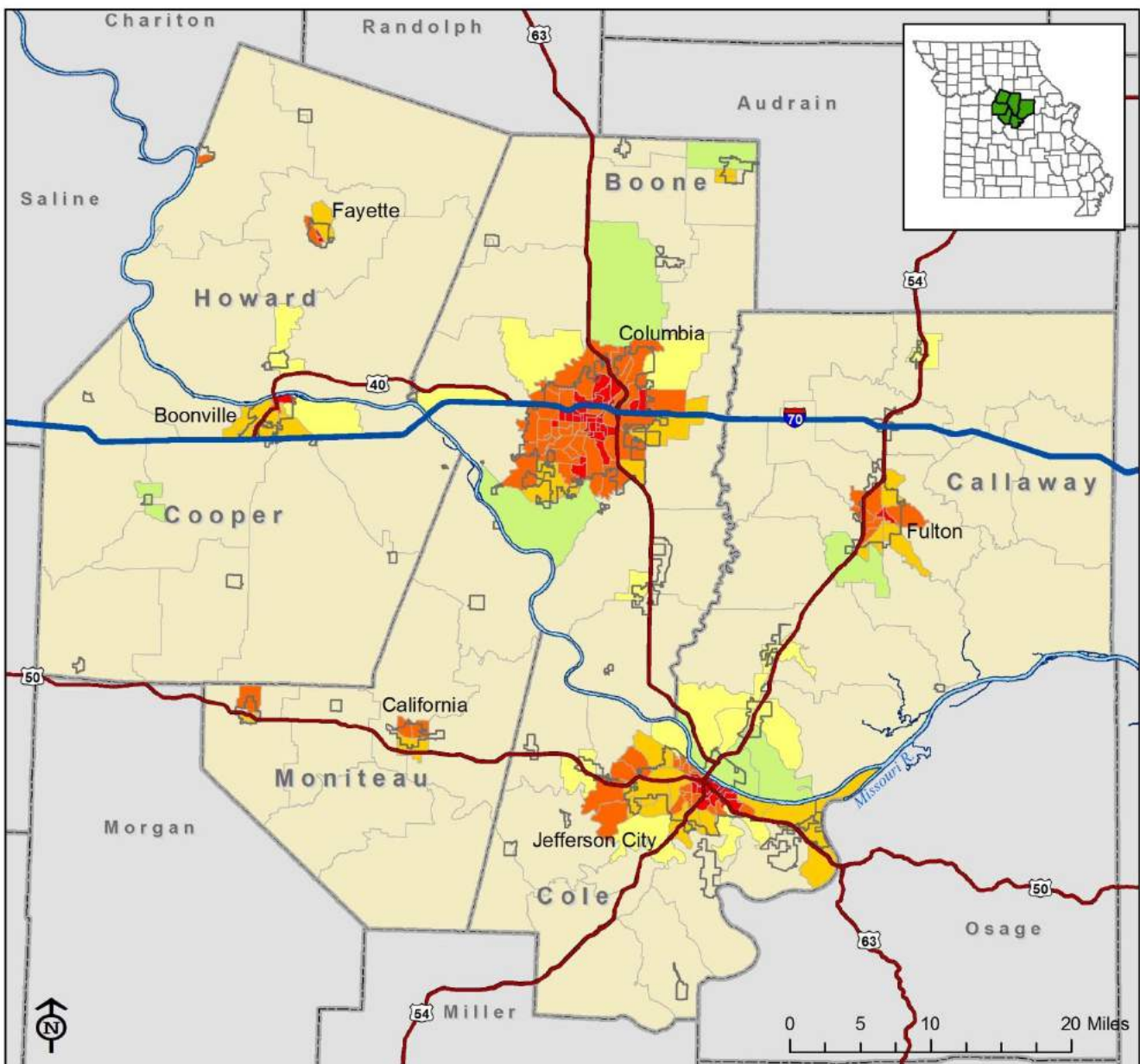
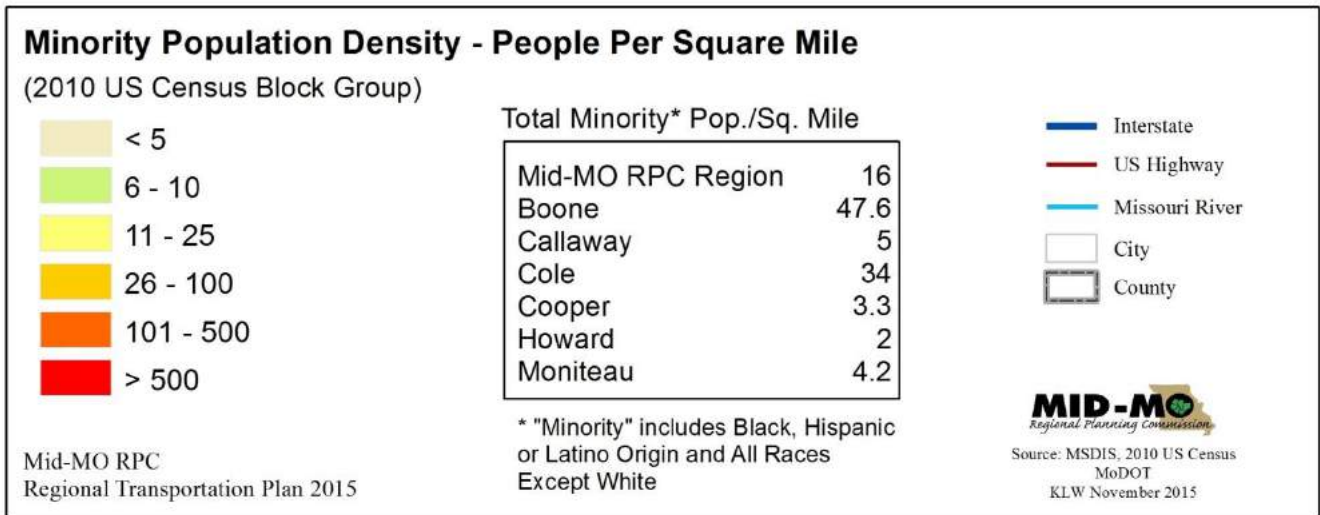
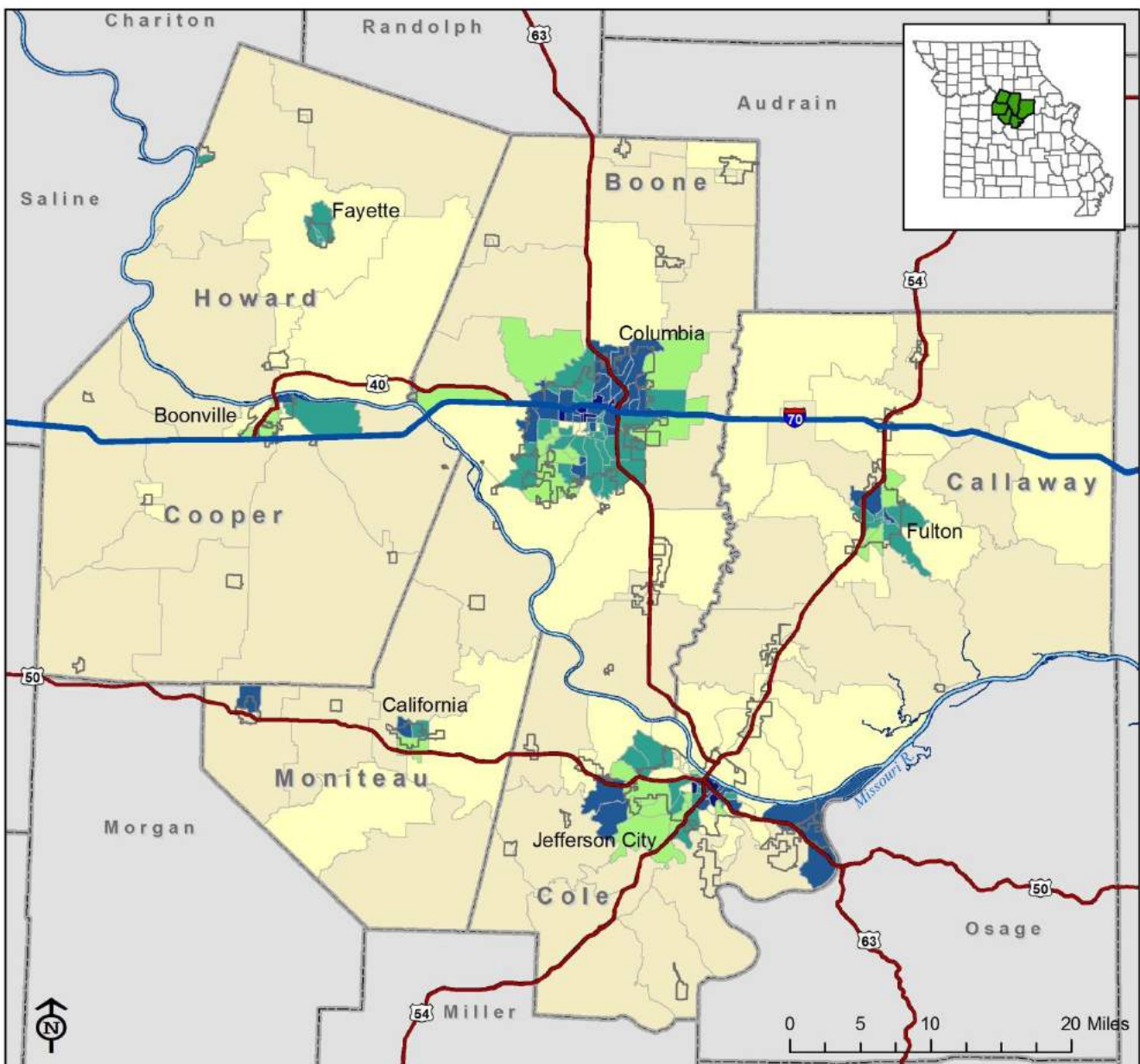
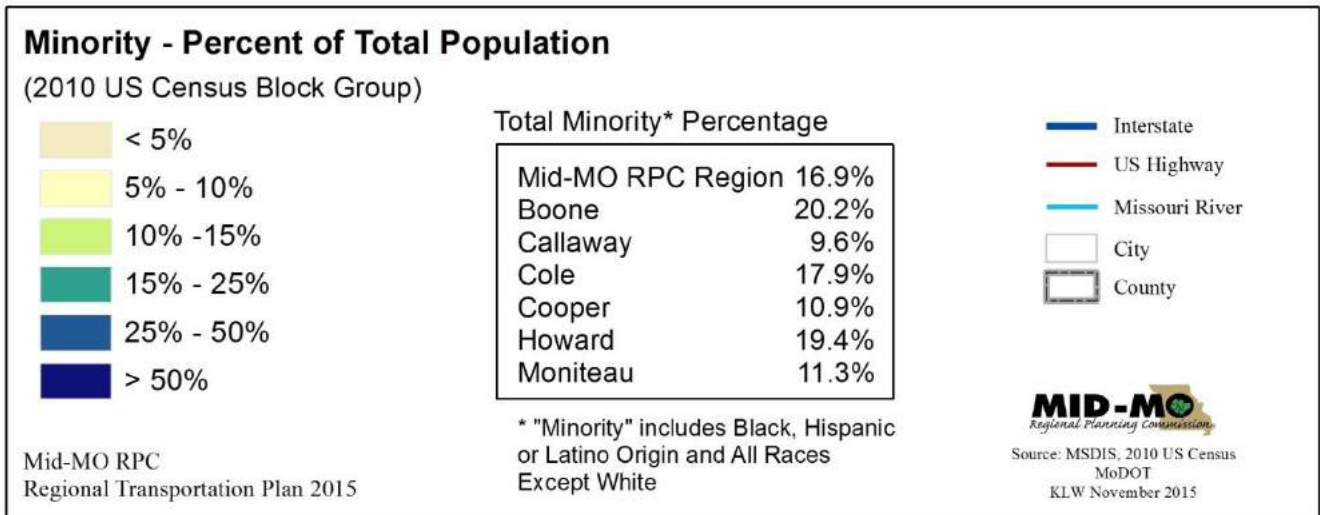


Figure 2.27



## Economic Development

Economic growth and development is directly dependent upon the transportation network. The efficient movement of goods, services, and especially people provides the basis for a healthy local or regional economy. The economy in the Mid-MO RPC region is especially dependent upon access to the Interstate and US Highway system and an efficient rail system. These systems provide movement of freight and services and connect workers to their jobs. Without a reliable transportation network and planning framework economic development would be hindered.

As part of the MoDOT planning framework, Mid-MO RPC works with local and regional partners to make sure economic development is always considered as part the planning process. Economic development is one of the four guiding themes used in the prioritization of projects on the Mid-MO RPC Regional Transportation Needs List. The following question is used as part of the prioritization process:

- Will this project encourage economic growth and/or increase access to employment and businesses?

This is an important question because it evaluates need and demand. Understanding the economic need and demand for a project is critical to prioritization. Working collaboratively with local and regional stakeholders ensures that this process is carried out relative to regional dynamics.

Mid-MO RPC maintains a strong relationship with local and regional stakeholders to deliver a variety of programs and services centered on economic development. RPC staff works closely with several entities of regional, statewide, and national significance within the region. The RPC's Economic Development Advisory Committee (EDAC) meets regularly to discuss development in the region. The EDAC is comprised of local elected officials, chambers of commerce, and other regional stakeholders.

Consideration of economic indicators within the region is important in evaluating transportation needs and planning for growth or development. The following subsections provide an overview of regional economic statistics, including: major employers, employment trends, revenue, commuting patterns, and modes of transportation.

## Major Employers

Employment in the region is generally concentrated in urban areas in and adjacent to Columbia and Jefferson City. Major employers in the region are both public entities (such as the University of Missouri and State of Missouri) and private enterprises (such as Jefferson City’s Scholastic, Inc. and Centralia’s Hubbell Power Systems). Figure 2.28 details the top 30 major employers (public and private) in the region.

Figure 2.28

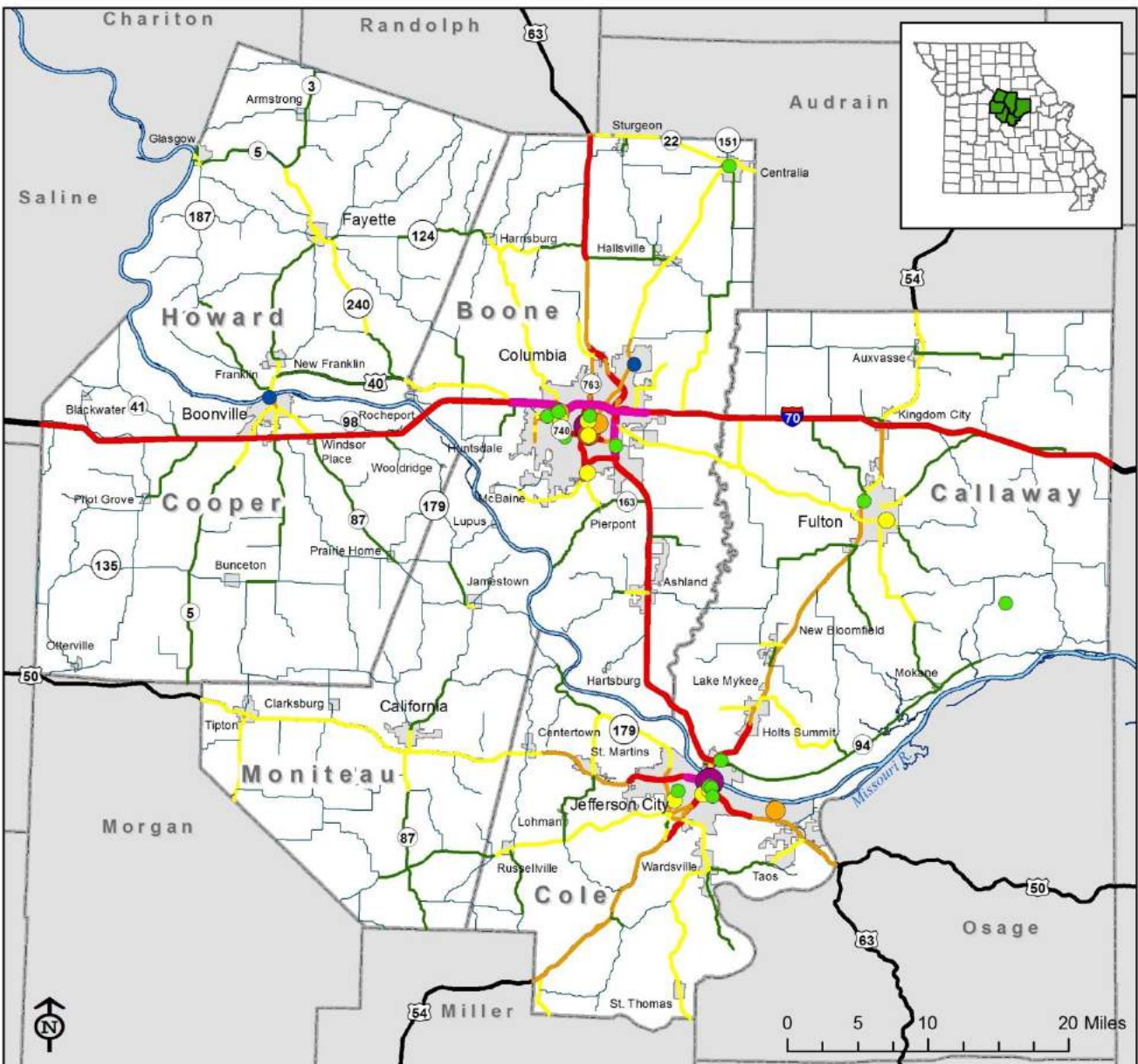
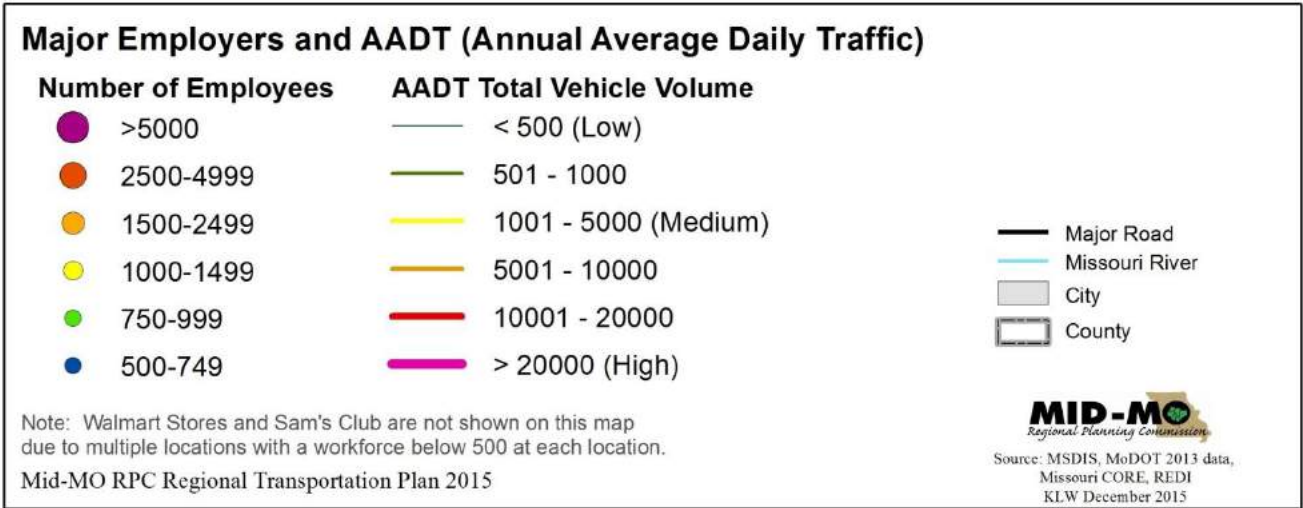
### Top 31 Major Employers in Mid-MO RPC Region

<u>Company</u>	<u>City</u>	<u>County</u>	<u>Range</u>
<b>State of Missouri</b>	Jefferson City	Cole	>5000
<b>University of Missouri</b>	Columbia	Boone	>5000
<b>University Hospitals &amp; Clinics</b>	Columbia	Boone	2500-4999
<b>Columbia Public Schools</b>	Columbia	Boone	1500-2499
<b>Boone Hospital Center</b>	Columbia	Boone	1500-2499
<b>Scholastic</b>	Jefferson City	Cole	1500-2499
<b>Walmart Stores(7) and Sam’s Club(2)</b>	Region Wide	Region Wide	>1500
<b>Capital Region Medical Center</b>	Jefferson City	Cole	1000-1499
<b>City of Columbia</b>	Columbia	Boone	1000-1499
<b>Fulton State Hospital</b>	Fulton	Callaway	1000-1499
<b>Jefferson City Public Schools</b>	Jefferson City	Cole	1000-1499
<b>Shelter Insurance Companies</b>	Columbia	Boone	1000-1499
<b>State Farm Insurance Companies</b>	Columbia	Boone	1000-1499
<b>St. Mary’s Health Center</b>	Jefferson City	Cole	1000-1499
<b>U.S. Department of Veterans Affairs</b>	Columbia	Boone	1000-1499
<b>Ameren UE Callaway Nuclear Plant</b>	Fulton	Callaway	750-999
<b>Central Bank Company</b>	Jefferson City	Cole	750-999
<b>City of Jefferson</b>	Jefferson City	Cole	750-999
<b>MBS Textbook Exchange</b>	Columbia	Boone	750-999
<b>Veterans United Home Loans</b>	Columbia	Boone	750-999
<b>Walmart Supercenters (2)</b>	Jefferson City	Cole	750-999
<b>ABB Power T &amp; D Company</b>	Holts Summit	Callaway	750-999
<b>Columbia College</b>	Columbia	Boone	750-999
<b>Dollar General Distribution Center</b>	Fulton	Callaway	750-999
<b>Hubbell Power Systems</b>	Columbia	Boone	750-999
<b>IBM</b>	Columbia	Boone	750-999
<b>Jefferson City Medical Group</b>	Jefferson City	Cole	750-999
<b>Joe Machens Dealerships</b>	Columbia	Boone	750-999
<b>Lincoln University</b>	Jefferson City	Cole	750-999
<b>Kraft Foods</b>	Columbia	Boone	~500
<b>Isle of Capri Casino &amp; Hotel</b>	Boonville	Cooper	500-749

Source: Missouri Core – 2015, REDI Inc. – 2015 (Note data for Walmart has been updated to reflect all 9 Walmart Stores Inc. facilities.)

Figure 2.29 depicts major employment centers and average annual daily traffic on state-system roadways within the region’s three largest employment centers, Columbia, Jefferson City, and Fulton.

Figure 2.29



Per Capita Income in the Mid-MO RPC region ranges from \$31k to in Callaway County to over \$41k in Boone County. The region as a whole has a 2013 Per Capita Income that is 31% higher than the State of Missouri at \$25,384 and 23% higher than the nation at \$28,184. Figure 2.30 shows Per Capita Income for the region broken out by county.

**Figure 2.30**

<b>Mid-MO RPC Income and Revenue</b>				
<b>Area</b>	<b>Population 2014</b>	<b>Income 2013</b>		<b>Taxable Sales Total Revenue 2014</b>
		<b>Total Personal Income</b>	<b>Per Capita Income</b>	
<b>Boone County</b>	172,717	\$7,006,491,000	\$41,028	\$2,616,902,461
<b>Callaway County</b>	44,750	\$1,404,061,000	\$31,652	\$308,069,244
<b>Cole County</b>	76,557	\$3,341,002,000	\$43,560	\$1,174,186,046
<b>Cooper County</b>	17,585	\$582,947,000	\$33,034	\$172,972,574
<b>Howard County</b>	10,159	\$411,040,000	\$40,074	\$53,492,458
<b>Moniteau County</b>	15,856	\$535,702,000	\$34,017	\$117,856,667
<b>Mid-MO RPC Region</b>	689,599	\$25,354,716,000	\$36,872	\$8,078,415,876

Source: Missouri Economic Research & Information Center (MERIC) in cooperation with the Bureau of Labor Statistics (BLS).

Overall, the region’s September 2015 unemployment rates were below the State of Missouri rate of 7.7%. All but Cooper County were also below the national rate of 5%. Figure 2.31 depicts unemployment rates by county for the Mid-MO RPC region as of September 2015.

**Figure 2.31**

<b>Mid-MO RPC Unemployment Statistics September 2015</b>				
<b>Area</b>	<b>Civilian Labor Force</b>	<b>Employment</b>	<b>Unemployment</b>	<b>Unemployment Rate</b>
<b>Boone County</b>	100,290	97,138	3,152	3.10%
<b>Callaway County</b>	21,455	20,561	894	4.20%
<b>Cole County</b>	39,522	38,091	1,431	3.60%
<b>Cooper County</b>	7,712	7,308	404	5.20%
<b>Howard County</b>	5,054	4,848	206	4.10%
<b>Moniteau County</b>	7,260	6,944	316	4.40%
<b>Mid-MO RPC Region</b>	181,293	174,890	6,403	4.10%

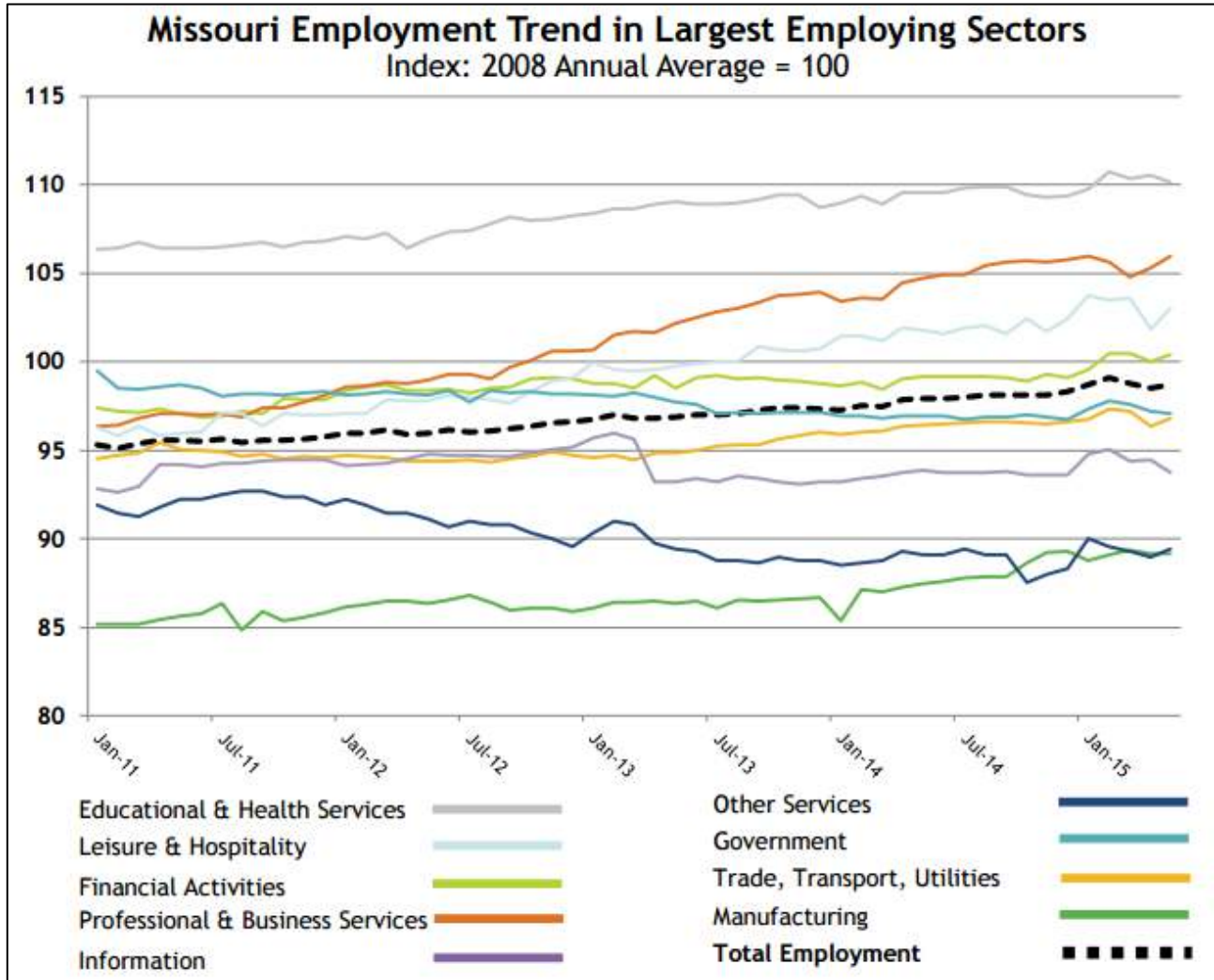
Source: Missouri Economic Research & Information Center (MERIC) in cooperation with the Bureau of Labor Statistics (BLS).



## Mid-Missouri's Labor Force

A recent report from the Missouri Department of Economic Development (DED) indicates that employment sectors experiencing the largest growth statewide are well represented in the region, as depicted in the Figure 2.32 below.

Figure 2.32

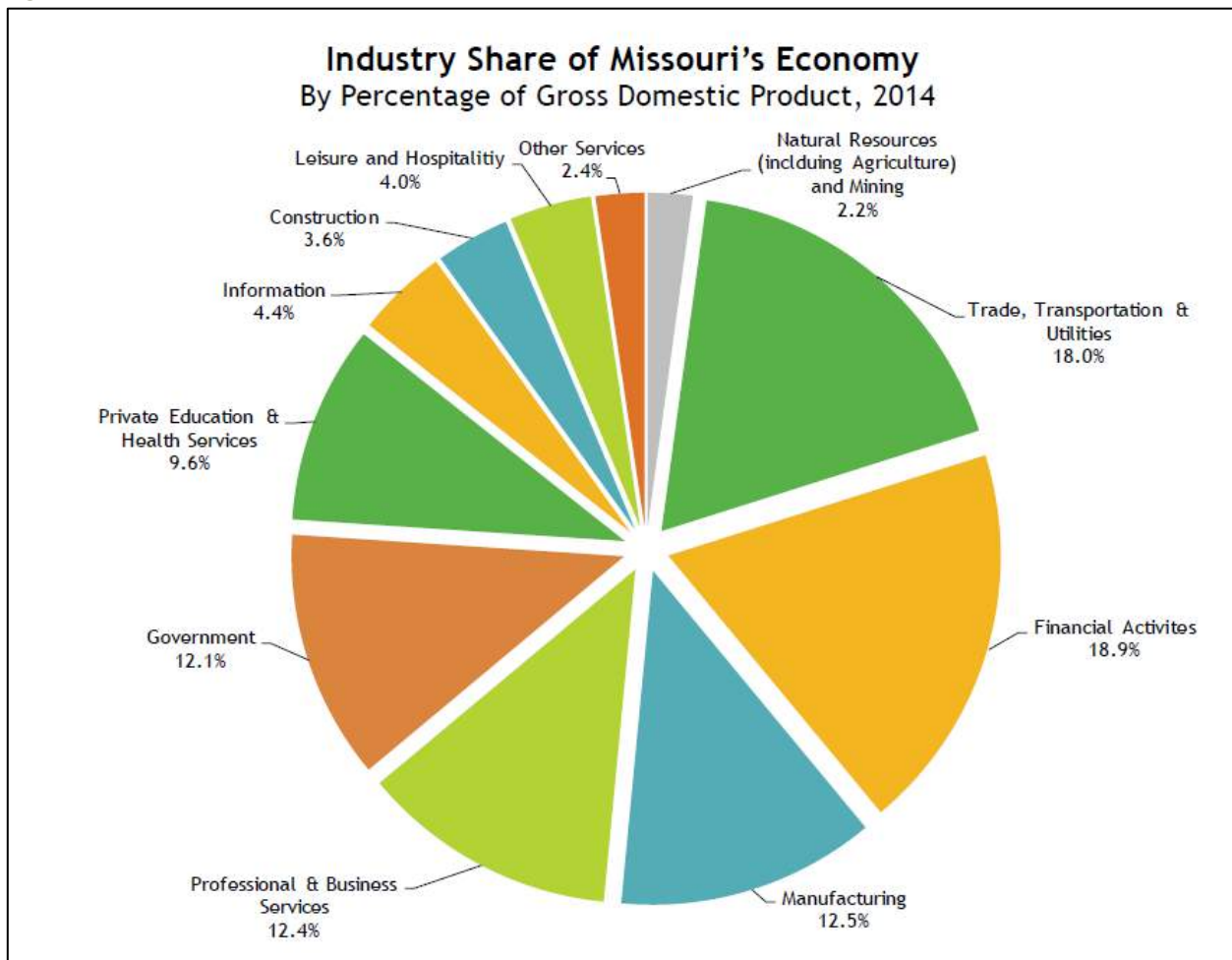


Source: 2015 Missouri Economic Report - Missouri Department of Economic Development

According to the 2015 Missouri Economic Report, Gross Domestic Product (GDP) is the broadest measure of economic activity. It is also the measure that is most indicative of whether the economy is in recession. Missouri's economy typically follows a similar trend to that of the U.S., but the availability of state GDP data lags behind national data. As a result, it is not a strong indicator of current economic conditions. However, it is still valuable in understanding what industries contribute most to Missouri's economy.

According to advance estimates Missouri's GDP totaled over \$284 billion in 2014, an increase in current dollars of 2.8 percent from 2013. The Financial Activities sector makes up the largest portion of Missouri's economic output, followed by Trade, Transportation and Utilities, Manufacturing, and Professional and Business Services. Since 2003, Professional and Business Services and Educational and Health Services have had the largest gain in share of the state's economic makeup, while Trade, Transportation, and Utilities and Financial Activities have had the largest declines in share. Figure 2.33 shows the industry share of Missouri's economy by percentage of GDP.

Figure 2.33



Source: 2015 Missouri Economic Report - Missouri Department of Economic Development

Sector types and number of those employed for the Mid-Missouri region are represented in Figure 2.34

**Figure 2.34**

Mid-Missouri Employment, By Industry						
Subject	Boone	Callaway	Cole	Cooper	Howard	Moniteau
<b>Agriculture, forestry, fishing and hunting, and mining</b>	804	454	494	238	198	426
<b>Construction</b>	3,688	1,629	2,405	564	264	549
<b>Manufacturing</b>	4,543	1,531	1,907	798	413	994
<b>Wholesale trade</b>	1,808	291	889	159	74	99
<b>Retail trade</b>	10,795	2,108	3,959	925	359	573
<b>Transportation and warehousing, and utilities</b>	2,902	1,376	1,465	555	205	254
<b>Information</b>	1,871	406	840	88	43	76
<b>Finance and insurance, and real estate and rental and leasing</b>	6,594	878	2,620	548	249	268
<b>Professional, scientific, and management, and administrative and waste management services</b>	6,928	1,211	3,188	282	210	311
<b>Educational services, and health care and social assistance</b>	32,532	5,436	7,966	1,844	1,384	1,202
<b>Arts, entertainment, and recreation, and accommodation and food services</b>	8,698	1,571	2,299	832	476	534
<b>Other services, except public administration</b>	2,953	894	1,769	373	193	242
<b>Public administration</b>	3,919	2,182	7,239	642	313	1,018
<b>Civilian employed population 16 years and over</b>	88,035	19,967	37,040	7,848	4,381	6,546

Source: 2013 5yr American Community Survey

## Commuting to Work

The regional average travel time was 20 minutes. Those living in census tracts nearest the region’s four largest cities had travel times as low as 8.5 to 15 minutes, while those living in the less populated areas of the region experienced the longest travel times to work 30.1 to 42.4 minutes on average. Figure 2.35 below shows these average travel times:

Figure 2.35

Mid-MO RPC Travel Time to Work								
Travel Time	Boone	Callaway	Cole	Cooper	Howard	Moniteau	Missouri	US
≤ 10 minutes	17.4%	18.6%	19.8%	25.3%	22.6%	21.8%	16.1%	13.5%
10 to 14 minutes	22.8%	14.8%	27.3%	12.7%	7.8%	8.4%	15.0%	14.3%
15 to 19 minutes	24.4%	18.8%	23.2%	8.5%	15.1%	10.9%	16.1%	15.5%
20 to 24 minutes	13.8%	14.0%	12.2%	11.3%	7.3%	11.6%	15.1%	14.8%
25 to 29 minutes	4.5%	7.5%	3.1%	5.2%	2.5%	8.4%	6.6%	6.1%
30 to 34 minutes	7.9%	11.3%	5.9%	15.7%	17.5%	15.1%	13.3%	13.6%
35 to 44 minutes	3.6%	6.9%	3.8%	8.6%	10.5%	8.1%	6.4%	6.4%
45 to 59 minutes	3.2%	5.1%	2.9%	8.4%	12.0%	9.9%	6.4%	7.6%
≥ 60 minutes	2.3%	2.9%	1.8%	4.2%	4.6%	5.9%	5.0%	8.1%
<b>Mean travel time to work (minutes)</b>	<b>18.2</b>	<b>21.3</b>	<b>16.9</b>	<b>22.5</b>	<b>24.5</b>	<b>25.8</b>	<b>23.1</b>	<b>25.5</b>

Source: 2013 5yr American Community Survey

Among those employees in the region working outside the home, various travel modes are used to get to their places of employment, although automobile is by far the mode of choice. Figure 2.36 shows how the region’s employees get to work according to the 2013 5-yr ACS.

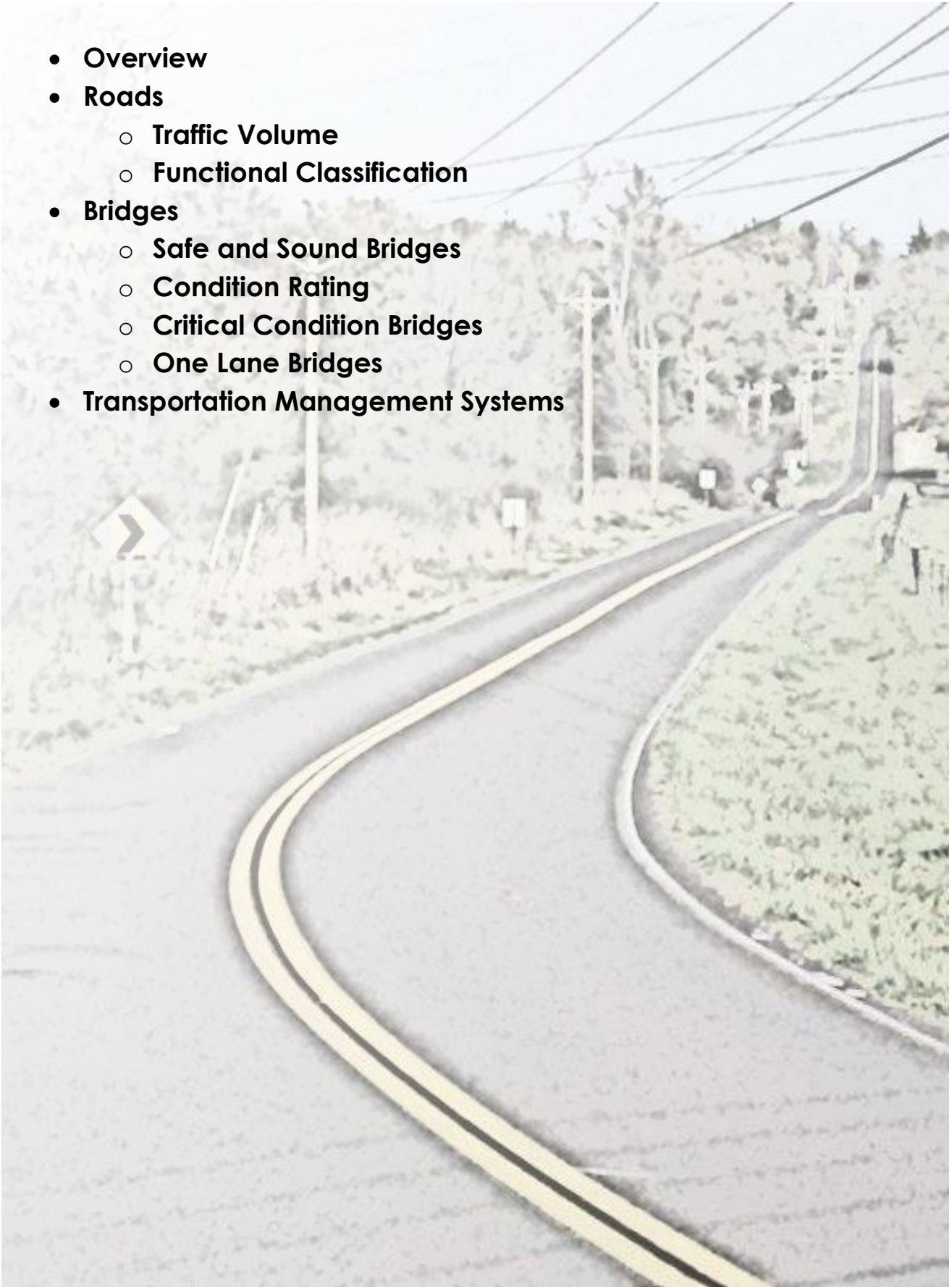
Figure 2.36

Regional Transportation Modes by County								
	Boone	Callaway	Cole	Cooper	Howard	Moniteau	Missouri	US
<b>Car, truck, or van</b>	89.4%	93.2%	93.6%	92.9%	91.6%	92.9%	91.1%	86.1%
<b>Drove alone</b>	77.9%	82.3%	82.3%	79.3%	78.5%	76.1%	81.5%	76.3%
<b>Carpooled</b>	11.6%	10.9%	11.3%	13.6%	13.1%	16.8%	9.6%	9.8%
<b>Public transportation (excluding taxicab)</b>	0.6%	0.2%	0.3%	0.1%	0.2%	0.0%	1.5%	5.0%
<b>Walked</b>	4.5%	2.0%	1.6%	2.2%	2.7%	1.1%	2.0%	2.8%
<b>Bicycle</b>	1.0%	0.2%	0.1%	0.0%	0.0%	0.6%	0.2%	0.6%
<b>Taxicab, motorcycle, or other</b>	0.9%	0.7%	1.6%	1.2%	0.7%	1.0%	1.0%	1.2%
<b>Worked at home</b>	3.5%	3.7%	2.8%	3.5%	4.8%	4.5%	4.3%	4.3%

Source: 2013 5yr American Community Survey

## Chapter 3: Roads and Bridges

- Overview
- Roads
  - Traffic Volume
  - Functional Classification
- Bridges
  - Safe and Sound Bridges
  - Condition Rating
  - Critical Condition Bridges
  - One Lane Bridges
- Transportation Management Systems



## Overview

Mid-Missouri is a crossroads for several of the state’s major highway systems. Interstate 70 along with US Highways 63, 54, 50, and 40 all converge in the Mid-MO RPC region. The cities of Columbia and Jefferson City are major transportation hubs at both the regional and state level. I-70 runs through Callaway, Boone, and Cooper Counties as well as the City of Columbia, connecting the metropolitan areas of Kansas City and St. Louis. These Interstate and US highways are part of a much larger and complex state and national system moving people, freight, and services from east to west and north to south across the nation. These roadways are critical to the economic vitality of the region. According to data provided by MoDOT, there are 13,449 miles of publicly maintained roadway in the Mid-MO RPC region. Those publicly maintained roads consist of a large network of county roads and city streets that interconnect with the larger, state maintained system. 26% of the public roads in the Mid-MO RPC region are state maintained, which is less than the state statistic of 30%.

Out of the more than 10,000 state-system bridges in Missouri, the Mid-MO RPC region has 526. More than half of the regions bridges are located in Boone or Callaway Counties. The region includes three bridges that cross the Missouri River at Boonville, Rocheport, and Jefferson City. Additionally, there are at least 780 “off-system” bridges in the region that are the responsibilities of county and/or city government. Recent inspection in 2015 have shown that there are 34 critical condition bridges in the region. These bridges are now top priorities for rehabilitation and repair as funding permits.

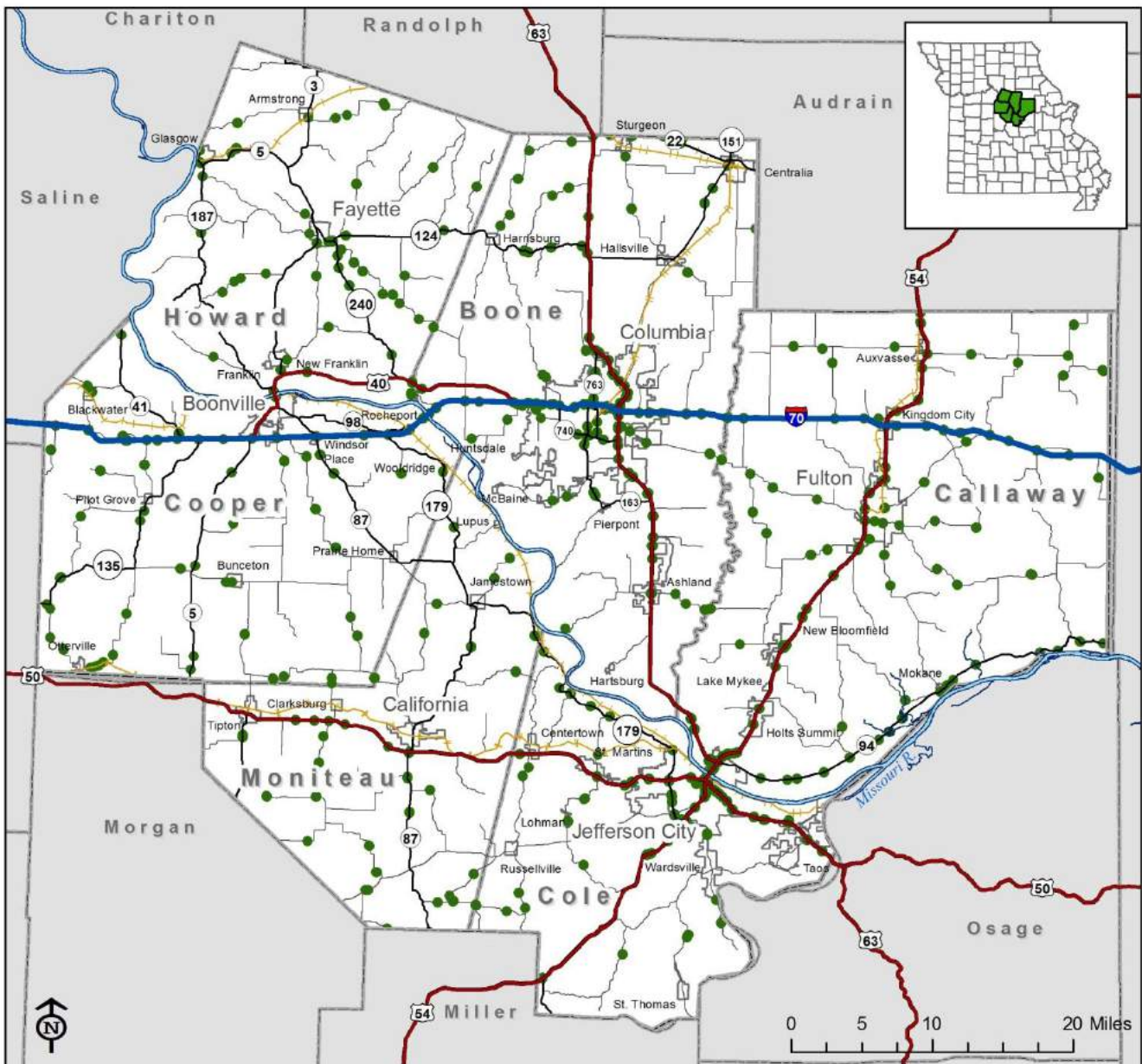
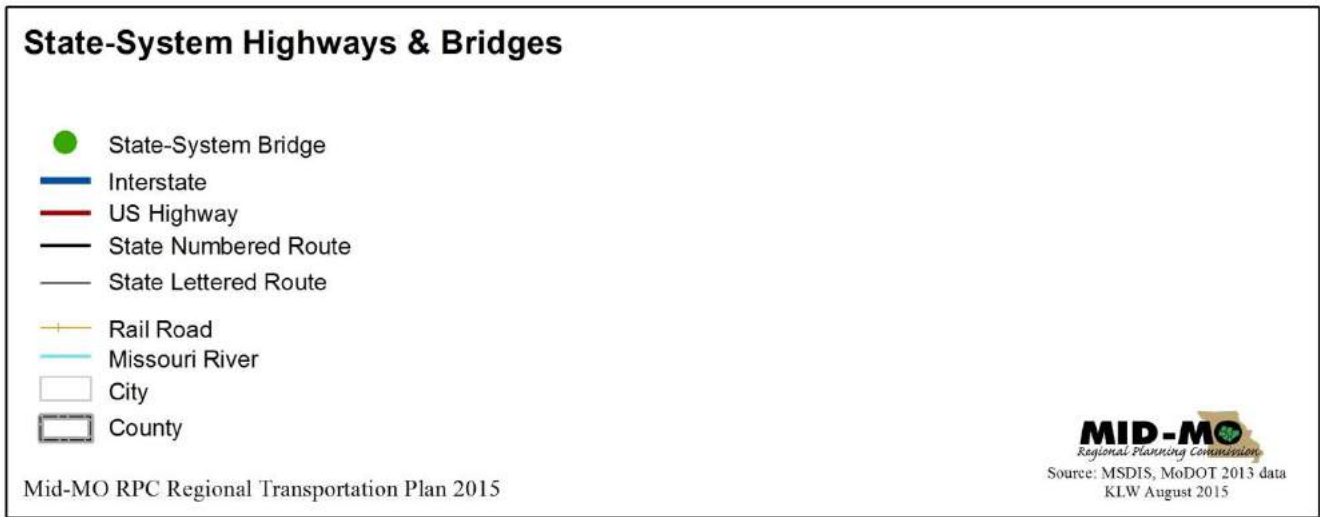
The following sections will give a more detailed description of roads and bridges in the Mid-MO RPC region. Figure 3.1 provides a breakdown of miles and numbers of both state-maintained and locally maintained roads and bridges. Figure 3.2 depicts a general overview of roads and bridges in the region.

Figure 3.1

Mid-MO RPC Road and Bridge System (miles)								
	Boone	Callaway	Cole	Cooper	Howard	Moniteau	Mid-MO	Missouri
<b>On-System State Maintained</b>								
<b>Interstate</b>	44	56		56			156	2,379
<b>US Highway</b>	137	147	119	38	22	47	510	8,415
<b>State Numbered</b>	130	65	46	178	195	115	728	17,995
<b>State Lettered</b>	430	572	253	355	297	250	2,158	38,680
<b>Other (outer roads, ramps, spurs, etc.)</b>	88	140	55	9	2	2	295	3,656
<b>Total</b>	829	981	472	636	516	414	3,847	71,125
<b>Bridges</b>	<b>155</b>	<b>128</b>	<b>104</b>	<b>68</b>	<b>52</b>	<b>36</b>	<b>543</b>	<b>10,418</b>
<b>Off-System and /or Locally Maintained</b>								
<b>County Roads</b>	1,865	1,609	979	1,146	750	1,061	7,409	155,831
<b>City Streets</b>	1,192	265	589	149	94	129	2,418	47,667
<b>Private Roads</b>	2	24	283	28		1	337	904
<b>Other</b>							58	1,614
<b>Total</b>	3,058	1,898	1,852	1,322	844	1,191	10,222	206,015
<b>Bridges</b>	<b>197</b>	<b>184</b>	<b>131</b>	<b>117</b>	<b>92</b>	<b>59</b>	<b>780</b>	<b>14,001</b>

Source: MoDOT 2013 Data

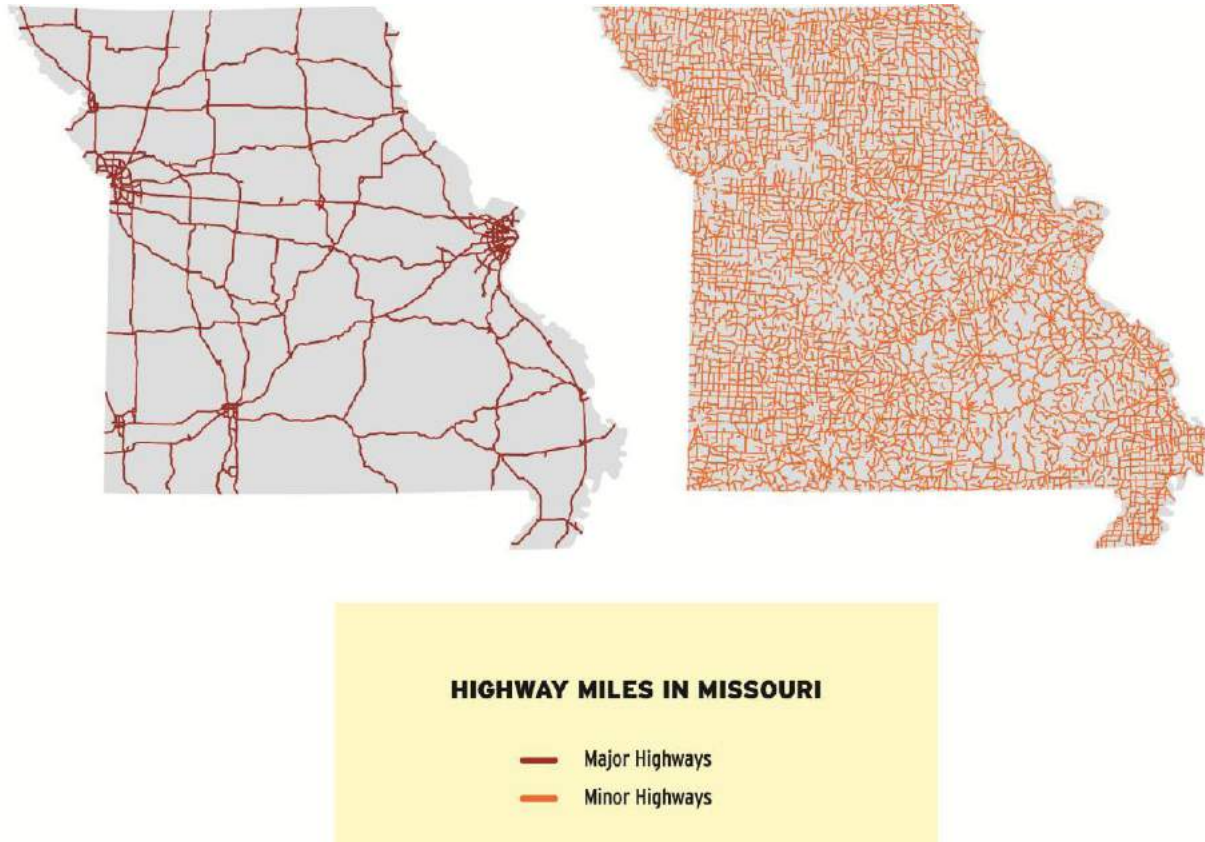
Figure 3.2



## Roads

The Mid-MO RPC region is home to more than 13,449 miles of publicly maintained roads. Nearly 3,555 miles (26%) of those roads are maintained by MoDOT. The remaining 9,894 miles (74%) of roads are maintained by local governments. According to Missouri LRTP, Missouri has 33,700 miles of state roadway. The Mid-MO RPC region has 10% of the state system. Figure 3.3 depicts the state system.

**Figure 3.3**



Source: Missouri Long Range Transportation Plan

Missouri’s minor highways primarily serve local transportation needs and consist mostly of lettered routes such as AA, B and Z. Minor highways encompass 80 percent of the state highway miles and carry 20 percent of the state’s traffic. The minor highways serve as a vital link to the agricultural industry throughout the state. In 2012, 31 percent of minor highways were in fair or poor condition. Figure 3.4 provides an overview of Missouri’s major and minor highways.

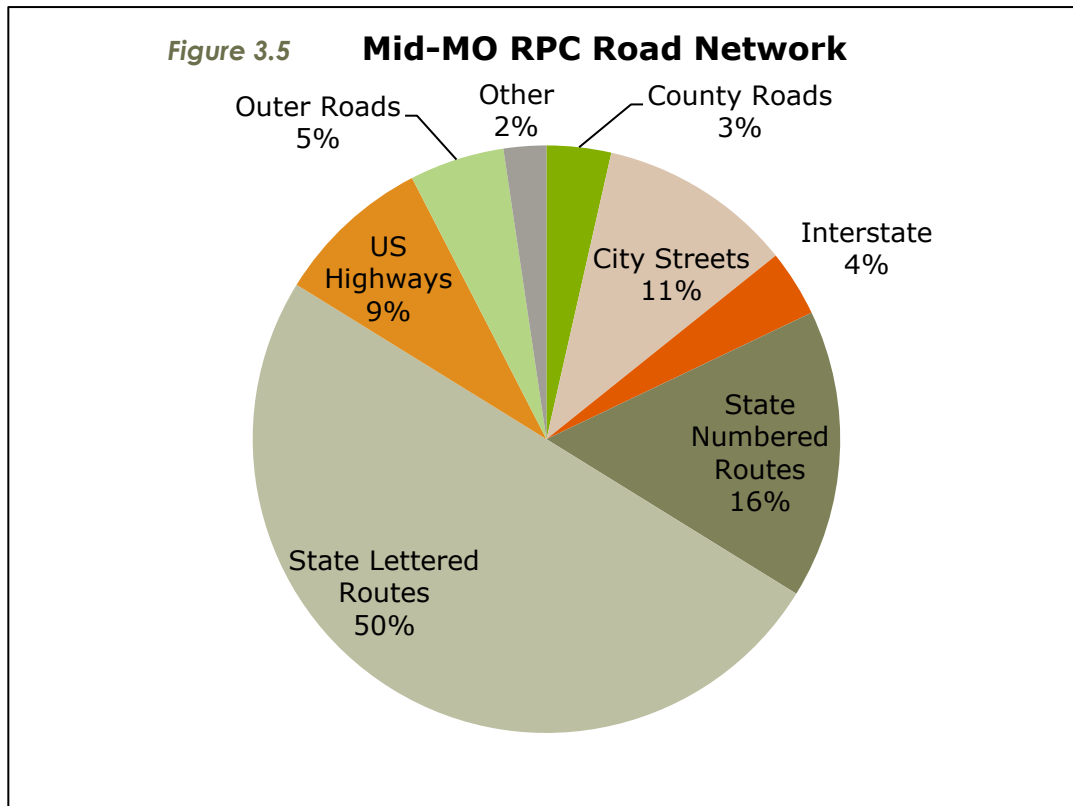
**Figure 3.4 Highway Travel/Condition Overview**

Major Highways		Minor Highways
20%	Miles of Missouri System	80%
80%	Where Travel Takes Place	20%
12%	Percent Fair/Poor Condition	31%

Source: Missouri Long Range Transportation Plan



Interstate 70 along with US Highways 63, 54, 50, and 40 all converge in the Mid-MO RPC region and constitute 524 miles (11%) of the road network. Figure 3.5 breaks down the Mid-MO RPC road network.



Source: MoDOT 2013 data

## Traffic Volume

Traffic congestion and travel delay are among the most visible signs of transportation problems. The text and data provided in this section were provided by MoDOT.

Traffic congestion in urban areas is typically confined to the morning and evening peak hours of travel. Delays from congestion occur at specific locations such as interstate ramps, signalized intersections and bridges.

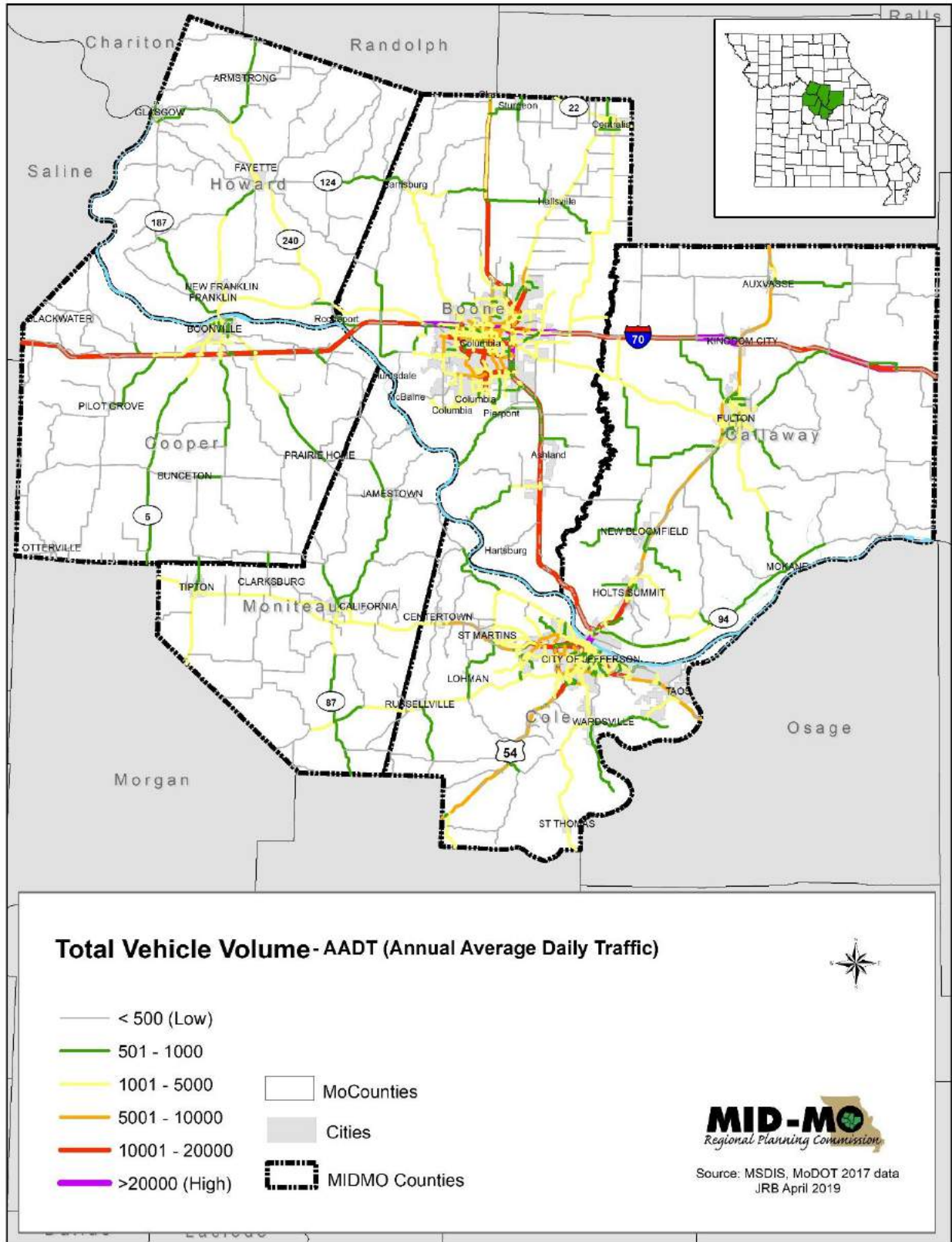
Congestion in rural areas can occur at any time when the roadway is unable to handle the traffic flow. This can be related to peak hours of travel, including work and holiday travel. It can also be because the typical two-lane roadway is restricted and traffic is unable to flow freely, often because of accidents or slow moving vehicles.

Expanding the capacity of roadways is not the sole solution to congestion. The new roadways, bridges, and highways built to relieve congestion satisfy latent and shifted demand for travel. The use of alternate modes, land use regulation, access management, and improvements to intersections and traffic signals can all contribute to an overall program to manage traffic congestion.

There are two major methods of gauging congestion: facility-based measures and travel time. The facility-based congestion method focuses on the road itself and usually is based on traffic volume and capacity comparisons. Such comparisons may include volume-to-capacity ratios and traffic volume per lane-mile. The travel time method of measuring congestion indicates the same conclusion, however. These trip-based measures are tied to the individual traveler's congestion problems and oriented to the length of the trip. Average travel time to work is an example of one such measure.

MoDOT's Traffic Data Acquisition System (TRADAS) collects and processes all traffic data uniformly. TRADAS also allows for each district to track their signal, lighting and flasher inventories in one database instead of each district keeping a separate database. The traffic data collected includes such items as traffic volumes (both automobile traffic and truck traffic), level of service (congestion condition) and vehicle classifications. This data is used to understand traffic patterns and identify locations of need. Figure 3.6 depicts Total Vehicle Volume in the Mid-MO RPC region.

Figure 3.6



## Functional Classification

The Federal Highway Administration (FHWA) defines functional classification as the process by which streets and highways are grouped into classes or systems according to the character of service they provide. Functional classification is important in transportation planning because it defines the nature of the roadway and the part that any particular road or street should play in serving the flow of trips through a highway network. Federal legislation requires the functional classification of roadways to determine the funding eligibility of transportation projects.

Urban and rural areas have fundamentally different characteristics as to density and land use, density of street and highway networks, nature of travel patterns and the way in which all of these elements are related in the definitions of the highway classifications. Management systems are designed to improve or maintain the safe and efficient flow of traffic. An important aspect in maintaining roadway capacity is the effective control of driveway and street access to arterial roadways. By understanding access and capacity development can be guided to ensure the efficiency of the transportation network.

Figure 3.7 provides definitions of each functional classification category and Figure 3.8 lists the miles of classified roadway in the Mid-MO RPC region. Figure 3.9 provides a map that depicts location and the functional classification of roadways in the Mid-MO RPC region.

Figure 3.7

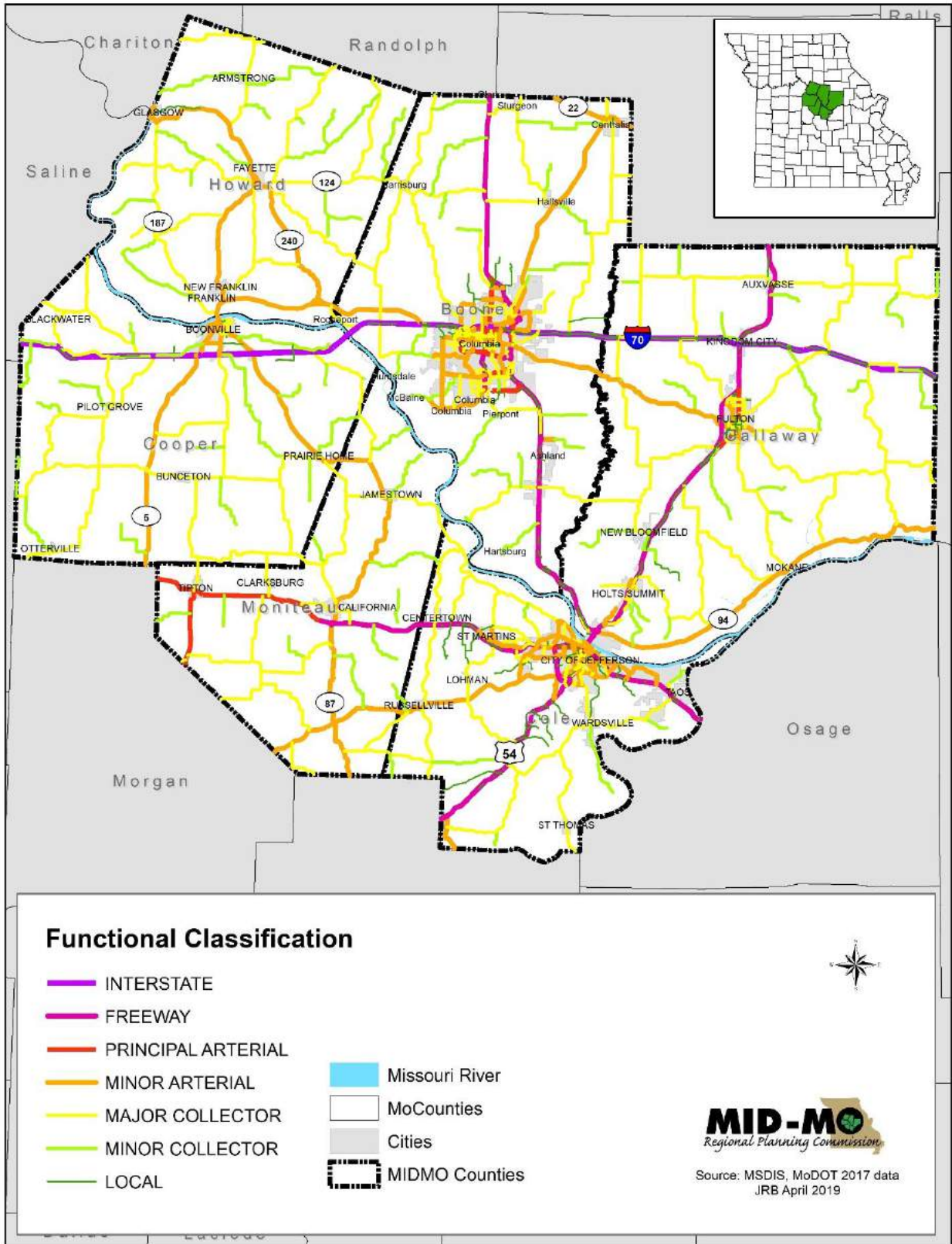
Roadway Classifications	
CLASSIFICATION	CHARACTERISTICS
<b>Arterial</b>	Provides the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control.
<b>Interstate/Freeway</b>	Four, six, or eight travel lanes with a minimum of 400 feet of right-of-way. A limited access roadway with full grade separated interchanges. Access on and off the roadway is accomplished by ramps connecting frontage roads or interchanges. Access limited to interchanges and driveways on frontage roads.
<b>Expressway</b>	Four or six travel lanes with a minimum of 250 feet of right-of-way. Arterial roadway with widely spaced signalized intersections at minor intersections or other forms of traffic control such as cross-over geometrics on divided highways
<b>Principal Arterial</b>	Four or six lanes with 90 to 150 feet of right-of-way. High volume roadway with at-grade street intersections and regulated driveway access. Signalized intersections with priority given to the arterial through movement.
<b>Minor Arterial</b>	Two or four lanes with 90 to 120 feet of right-of-way. A secondary arterial facility to provide access to major arterials or limited access roadways. Serves localized circulation and access needs. The roadway may be divided or undivided and typically supports the access requirements of concentrations of commercial or residential development.
<b>Collector</b>	Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
<b>Major Collector</b>	Two or four lanes with 90 to 120 feet of right-of-way. Lower capacity roadway to provide local access and circulation to the arterial network.
<b>Minor Collector</b>	Two lanes with up to 66 feet of right-of-way. Low volume, low speed roadway to provide access for local residential traffic to the collector and arterial network
<b>Local</b>	Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement.

Source: 2013 Highway Functional Classification Concepts, Criteria and Procedures

Figure 3.8

Functional Classification of Mid-MO RPC Roadways	
<b>FREEWAY</b>	212 miles
<b>INTERSTATE</b>	171 miles
<b>LOCAL</b>	382 miles
<b>MAJOR COLLECTOR</b>	1805 miles
<b>MINOR ARTERIAL</b>	726 miles
<b>MINOR COLLECTOR</b>	724 miles
<b>PRINCIPAL ARTERIAL</b>	228 miles
<b>Other</b>	304 miles
<b>Note: These calculations include some locally maintained county and city streets not maintained by MoDOT. – Source: MoDOT 2013 data</b>	

Figure 3.9



**(This page intentionally left blank)**

## Bridges

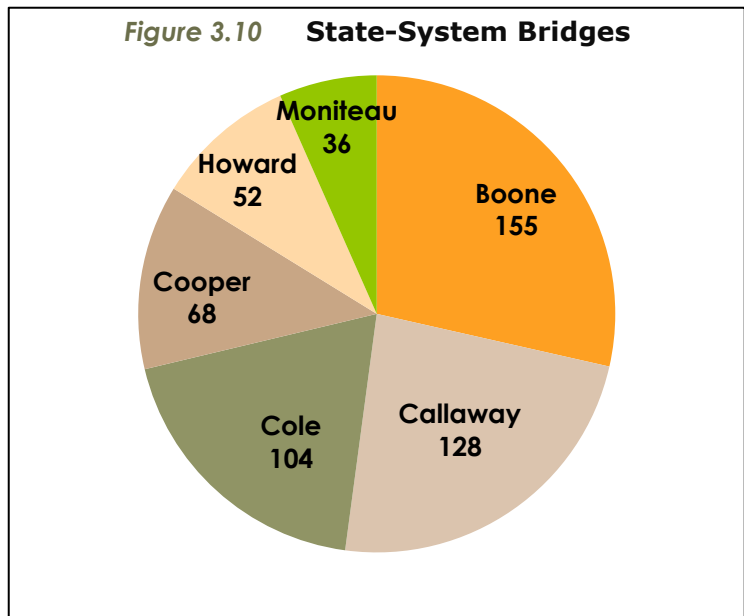
There are more than 10,000 state-system bridges in Missouri, with 328 located in the Mid-MO RPC region. This does not include the 97 state-system bridges located in the CATSO planning area and 101 bridges in the CAMPO planning area. More than half of the regions bridges are located in Boone or Callaway Counties. Figure 3.10 shows the breakdown of Mid-MO RPC state system bridges.

State-system bridges across the region range in age, construction type, and condition from small, poor condition, one lane bridges built in in the 1920s to larger, newer, truss bridges like those spanning the Missouri River near Rocheport and Jefferson City. Of the 328 bridges in the RPC region:

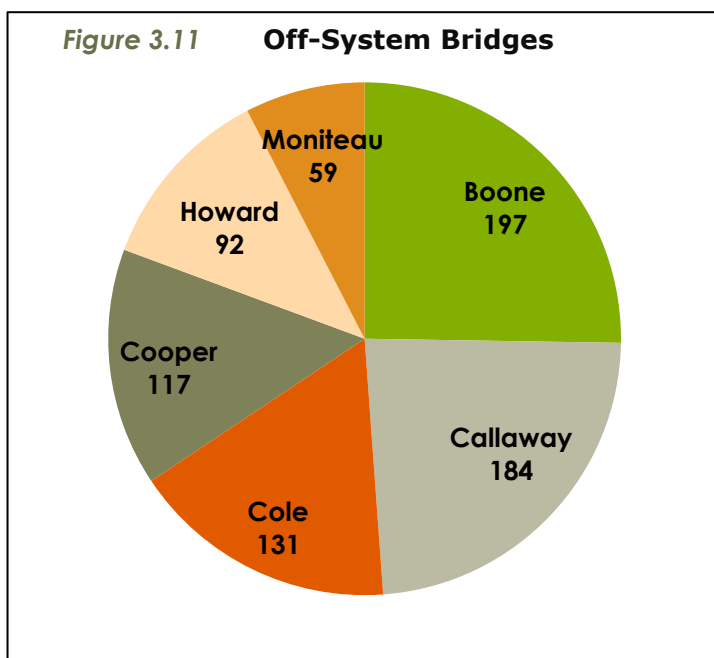
- 15 are one lane
- 34 are in critical condition (receiving a poor to serious condition rating)
- 12 of those critical bridges were built before 1960

MoDOT is responsible for the inspection, maintenance, and rehabilitation of state-system bridges.

Additionally, there are at least 780 “off-system” bridges in the region. These bridges are the responsibility of county and/or city government, but in some cases MoDOT may be involved with inspection of these structures. Figure 3.11 shows the breakdown of Mid-MO RPC state system bridges.



Source: MoDOT 2013 data



Source: MoDOT 2013 data

## Safe & Sound Bridge Improvement Program

Between 2008 and 2014 Missouri implemented the \$685 million Safe & Sound Bridge Improvement Program. This five year program resulted in the rehabilitation or replacement of 802 deficient bridges across the state. Of those 802, 40 bridges were rehabilitated or replaced in the Mid-MO RPC region. Figure 3.12 depicts the bridges that were addressed during the Safe and Sound Program.



Figure 3.12

<b>Bridges Completed - Safe and Sound Program (2008-2014) – Mid-MO RPC Region</b>			
County	#	Route	Feature Crossed
<b>BOONE</b>	R0256	RT F	Sugar Cr.
	R0023	RT NN	Perche Cr.
	A0172	US 40	IS 70
	L0200	MO 124	Perche Cr.
	G0588	OR 70	Unknown Cr
	G0589	OR 70	Unknown Cr
	G0741	US 63	Turkey Cr.
	H0197	OR 70	Grindstone Cr.
	H0198	OR 70	Lit Cedar Cr.
	H0199	OR 70	Cedar Cr.
	R0002	RT NN	Lick Fk Cr.
	A0113	RT WW	North Fk Cr.
<b>CALLAWAY</b>	H0211	OR 70	Maddox Cr.
	T0593	MO 94	Eagle Cr.
	N0908	RT PP	Middle Rvr
	L0546	MO 94	E Wing Cr.
	H0559	U S HWY 54 OLD S	Smith Br.
	A0025	RT Z	IS 70
	L0943	RT M	IS 70
	L1000	RT JJ	IS 70
	A1833	RT E	Four Mile Br.
	L0911	RT J	IS 70
	A0028	RT D	IS 70
	G0488	US 63	Cedar Creek.
A0989	MO 94	Auxvasse Cr.	
<b>COLE</b>	N0976	RT W	Spring Cr.
	S0823	RT D	Logan Cr.
	A0774	RT T	Grays Cr.
<b>COOPER</b>	L0944	MO 41	IS 70
	N0982	RT BB	Harlan Br.
	A0008	MO 179	IS 70
	A0124	MO 5	IS 70
	R0590	RT M	Chouteau Cr.
	A0090	RT B	IS 70
	G0702	RT A	Lamine Rvr Overflow
W0304	RT V	Petite Saline Cr.	
<b>HOWARD</b>	X0127	MO 124	Moniteau Cr.
	N0919	RT W	Moniteau Cr.
<b>MONITEAU</b>	N0447	RT D	Moniteau Cr.
	S0927	RT E	Dry Fk.

Source: MoDOT

## Condition Ratings

MoDOT inspects state-system bridges and culverts on a two-year inspection cycle. Bridges and culverts that are rated “serious” to “poor,” or other bridges with unique structural features such as major truss structures, are inspected more frequently on an annual basis. Bridges and culverts that are referred to as “Off-System Bridges” may be inspected by a variety of personnel. These personnel include MoDOT staff, city and county staff, and some by consultant.

According to the National Bridge Inspection Standards (NBIS), condition ratings are used to describe an existing bridge or culvert compared with its condition if it were new. The ratings are based on the materials, physical condition of the deck (riding surface), the superstructure (supports immediately beneath the driving surface) and the substructures (foundation and supporting posts and piers). General condition ratings range from 0 to 9.

Through periodic safety inspections, data is collected on the condition of the primary components of a structure. Condition ratings are collected for the following components of a bridge. A condition rating of 4 or less on one of the following item classifies a bridge as structurally deficient.

- The bridge deck, including the wearing surface
- The superstructure, including all primary load-carrying members and connections
- The substructure, considering the abutments and all piers

The deck, superstructure and substructure are each rated separately. If any of the three structures rate a 2 or lower, the bridge is typically closed. From a planning and comparison perspective, the overall condition of the bridge is the lowest rating of the three structures. The Figure 3.13 depicts the rating system used to inspect bridges. Figure 3.14 depicts the current ratings of bridges in the Mid-MO RPC region.

**Figure 3.13**

9 – Excellent	excellent Condition	Not Deficient
8 – Very Good	no problems noted	
7 – Good	some minor problems	
6 – Satisfactory	structural elements show some minor deterioration	
5 – Fair	all primary structural elements are sound but may have minor section loss, cracking, spalling or scour	
4 – Poor	advanced section loss, deterioration, spalling or scour	Structurally Deficient
3 – Serious	loss of section, deterioration, spalling or scour have seriously affected primary structural members. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present.	
2 – Critical	advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken.	
1 – Imminent Failure	major deterioration or section loss present in critical structural members or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic until corrective action is completed.	
0 – Failed	out of service – beyond corrective action	

Source: MoDOT Bridge Conditions - <http://www.modot.org/Bridges/>

Figure 3.14

### State-System Bridge Condition Ratings

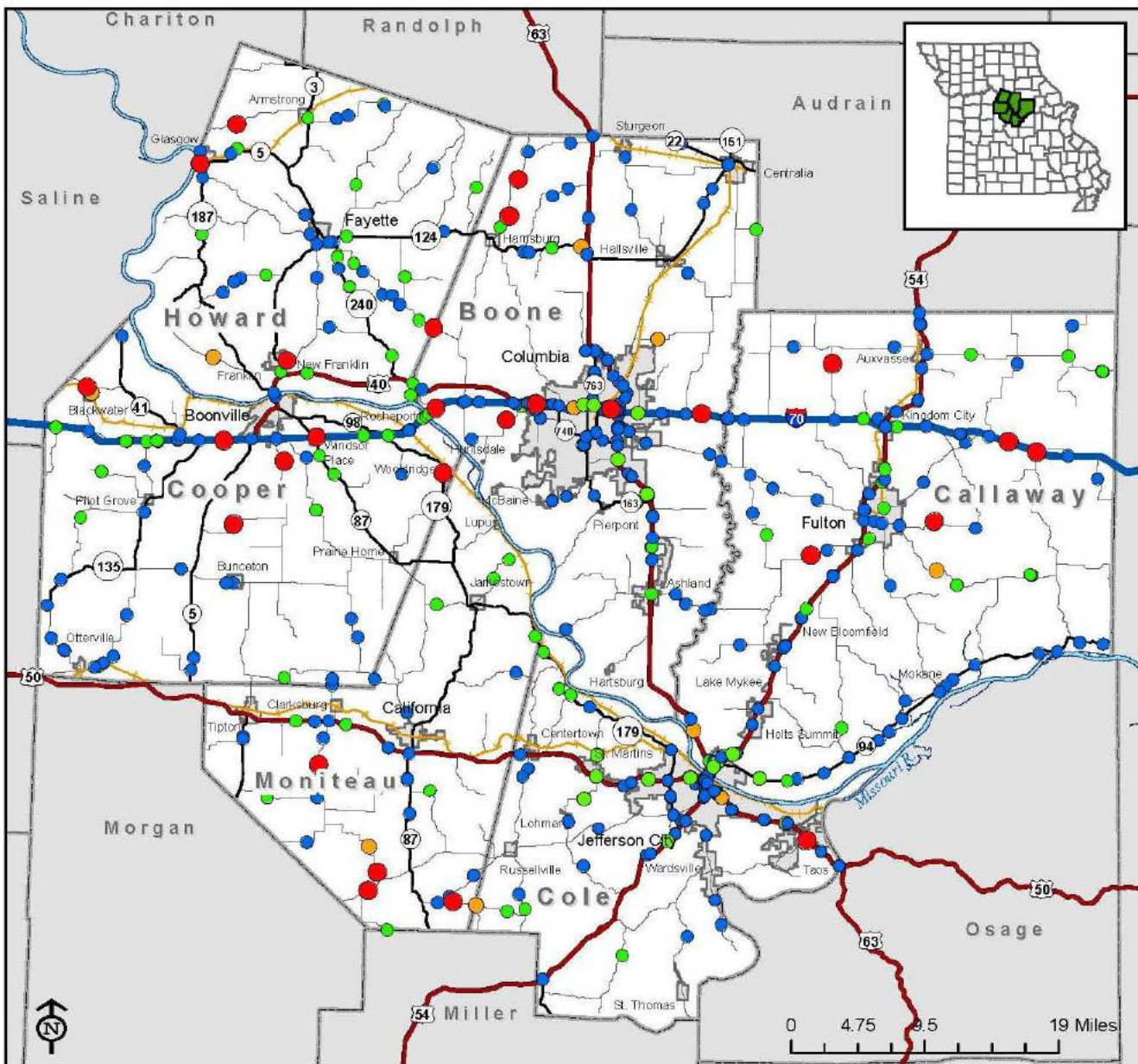
- 1 to 3 - Serious
- 4 - Poor
- 5 - Fair
- 6 to 9 - Satisfactory to Excellent

- Interstate
- US Highway
- State Numbered Route
- State Lettered Route
- Rail Road
- Missouri River
- City
- County

Ratings are based on the materials, physical condition of the deck (riding surface), the superstructure (supports immediately beneath the driving surface) and the substructures (foundation and supporting posts and piers). General condition ratings range from 0 (failed condition) to 9 (excellent).

Mid-MO RPC Regional Transportation Plan 2015

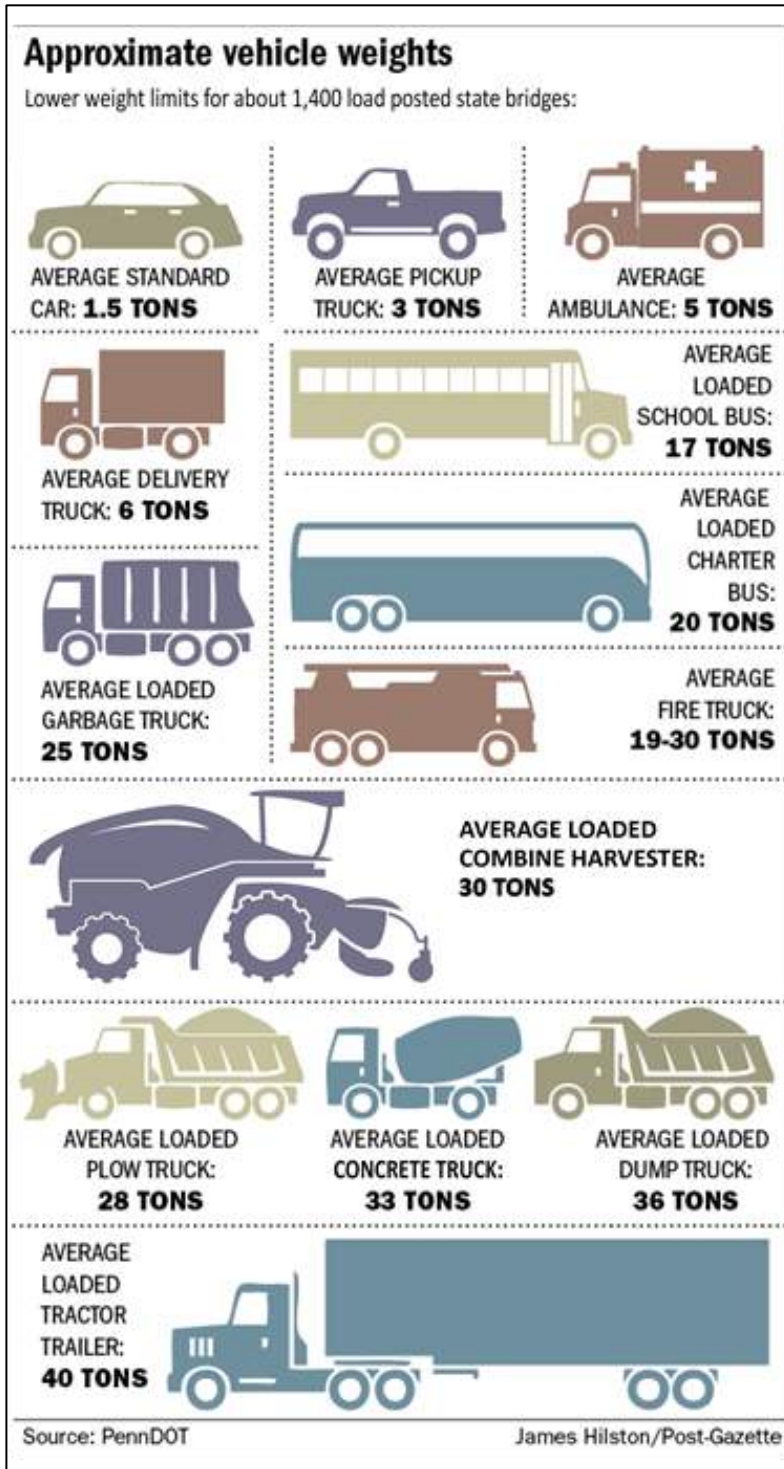
**MID-MO**  
Regional Planning Commission  
Source: MSDIS, MoDOT 2014 data  
KLW September 2015



## Weight Limited Bridges

According to the Federal Highway Administration (FHWA), bridges are considered structurally deficient if significant load-carrying elements are found to be in poor condition due to deterioration or the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing intolerable traffic interruptions.

Figure 3.15



The fact that a bridge is classified under the federal definition as “structurally deficient” does not imply that it is unsafe.

A **structurally deficient bridge**, when left open to traffic, typically requires significant maintenance and repair to remain in service and eventual rehabilitation or replacement to address deficiencies. To remain in service, structurally deficient bridges are often posted with weight limits to restrict the gross weight of vehicles using the bridges to less than the maximum weight typically allowed by statute. Figure 3.15 illustrates the approximate weight limits for vehicles. These weights are used to create load postings on bridges that are “structurally deficient” and require a reduction in weighted stress from vehicles.

A **functionally obsolete bridge** is one that was built to standards that are not used today. These bridges are not automatically rated as structurally deficient, nor are they inherently unsafe. Functionally obsolete bridges are those that do not have adequate lane widths, shoulder widths, or vertical clearances to serve current traffic demand, or those that may be occasionally flooded.

Because conditions are constantly changing, weight limits for Missouri bridges are subject to change at any time. Figure 3.16 lists weight limited bridges in Mid-Missouri.

Figure 3.16

Mid-MO RPC Weight-Limited Bridges				
Bridge #	Route	County	Crosses Over	Weight Limit (Tons)
<b>State Highways</b>				
S0352	MO 124	BOONE	GRINDSTONE CR	38
A1803	MO 163	BOONE	GANS CR	40
W0559	MO 163	BOONE	BONNE FEMME CR	30
X0035	MO 179	COLE	ROCK CR	36
R0235	RT A	COLE	MOREAU CR	35
P0383	RT F	BOONE	PERCHE CR	31
T0812	RT H	CALLAWAY	DAVIS CR	38
R0250	RT H	COLE	BOIS BRULE CR	31
N0852	RT HH	BOONE	HINKSON CR	40
N0401	RT HH	COOPER	BRUSHY CR	35
N0743	RT J	CALLAWAY	MILLERS CR	40
N0984	RT UU	BOONE	SUGAR BR	30
X0691	RT V	HOWARD	DOXIE CR	34
N0047	RT Z	COOPER	HEATHS CR	35
P0170	RT Z	HOWARD	BARTLETT CR	34
<b>Outer Roads</b>				
G0739	OR 63	BOONE	GANS CR	40
G0740	OR 63	BOONE	BONNE FEMME CR	40
H0219	OR 70	BOONE	PERCHE CR	40
N0974	OR 70	BOONE	LIT CEDAR CR	40
H0196	OR 70	BOONE	HOMINY CR	40
<b>County Roads</b>				
A0491	SORRELS OVERPASS DR	BOONE	IS 70	40

Source: MoDOT - <http://www.modot.org/bridgelimits/> - August 2015

### Critical Condition Bridges in the Mid-MO RPC Region

Bridges are rated on a nine-point scale, with 9 being a new bridge and 2 being a closed bridge. Missouri’s critical condition bridges carry either 3 or 4 ratings. Statewide, there are currently 641 bridges that are considered to be in critical condition. 34 bridges in the Mid-MO RPC region are listed as “critical condition” as of September 2015.

The average age of state-system bridges in Missouri is 44 years and most of them were designed to last 50 years. According to MoDOT, more than 1,600 state-system bridges are more than 75 years old, and about 5,000 are 50 or older. In the Mid-MO RPC region, at least 12 critical condition bridges are over 45 years old.

Due to transportation funding restraints, replacement of these bridges is not possible. MoDOT estimates that it would cost in excess of \$820 million to replace all of the “critical condition” bridges in the state. Because funding is lacking, many of these bridges will be weight restricted and some may be closed. Weight restrictions can lengthen the life of the bridge, essentially buying time until the bridge can be rehabilitated or replaced. Almost 1,400 in bridges in Missouri are “load-posted” which means they are unable to carry some normal traffic.

Figures 3.17 and 3.18 provide a list and map depicting the “critical condition” bridges for the Mid-MO RPC region.

Figure 3.17

<b>Mid-MO RPC Critical Condition Bridges</b>					
County	Map #	Bridge	Roadway	Feature Crossed	Rating
<b>BOONE</b>	1	L0928	RP IS70W TO LP70W	IS 70	3
	2	A0491	SORRELS OVERPASS	IS 70	3
	3	A0152	BB	IS 70	3
	4	P0384	F	Coon Creek	4
	5	S0352	124	Grindstone Creek	4
	6	N0852	OR 70 E	Little Cedar Creek	4
	7	B0331	HH	Hinkson Creek	4
	8	P0383	F	Perche Creek	3
<b>CALLAWAY</b>	9	N0410	UU	Crows Fork Creek	3
	10	G0701	IS 70	Whetstone Creek	3
	11	A0027	D	IS 70	3
	12	R0607	M	Auxvasse Creek	4
	13	T0812	H	Davis Creek	4
	14	A1959	O	Crows Fork Creek	4
<b>COLE</b>	15	R0235	A	Moreau Creek	4
	16	A3200	J	US 50	4
<b>COOPER</b>	17	A1382	K	Blackwater River	4
	18	A1831	MO 179	Petite Saline Creek	3
	19	P0227	DD	Flat Creek	4
	20	A1691	B	Petite Saline Creek	4
	21	G0366	M	Lamine River	3
	22	A1859	F	Stephens Branch	3
	23	A0150	MO 87	IS 70	3
	24	L0945	Dunkles Dr.	IS 70	3
<b>HOWARD</b>	25	A1864	EE	Prairie Creek	4
	26	A0724	P	Bonne Femme Cr.	4
	27	A2718	MO 5	Greggs Creek	4
	28	X0691	V	Doxie Creek	4
	29	P0170	Z	Bartlett Creek	4
<b>MONITEAU</b>	30	A1837	CC	Medlen Creek	4
	31	K0851	A	Enon Creek	4
	32	X0632	C	High Point Branch	4
	33	A1836	CC	Burris Creek	4
	34	R0435	E	Moreau Creek	4

Source: MoDOT - <http://www.modot.org/Bridges/> - September 2015

Figure 3.18

### Critical Condition Bridges and Ratings

(State System)

 Critical Bridge

(See corresponding chart for individual bridge information based on map ID#)

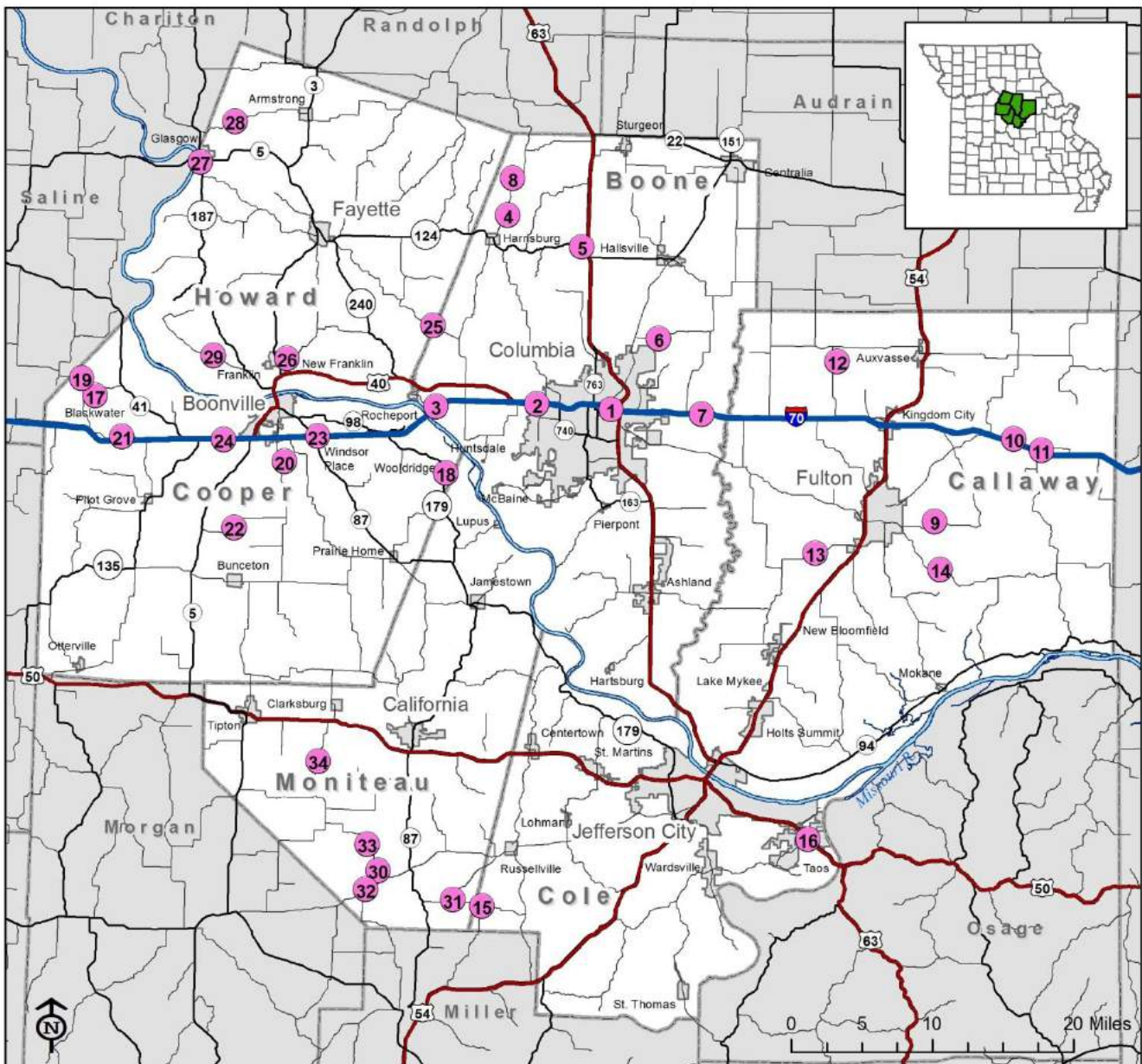
-  Interstate
-  US Highway
-  State Numbered Route
-  State Lettered Route
-  Missouri River
-  City
-  County

**NOTE: Critical bridges are those bridges that have designated by MoDOT as being "structurally deficient", having an overall rating of 4 or less.**



Mid-MO RPC  
Regional Transportation Plan 2015

Source: MSDIS, MoDOT  
KLW August 2015



## One Lane Bridges

There are 15 one lane bridges in the Mid-MO RPC region. Seven of the bridges have ratings of 4 or less, meaning they are in critical condition. Two bridges in Cooper County, bridge G0731 and bridge A2488, are scheduled for rehabilitation or replacement in 2017. Figures 3.19 and 3.20 provide a list and map of the location of the one-lane bridges in the Mid-MO RPC region.

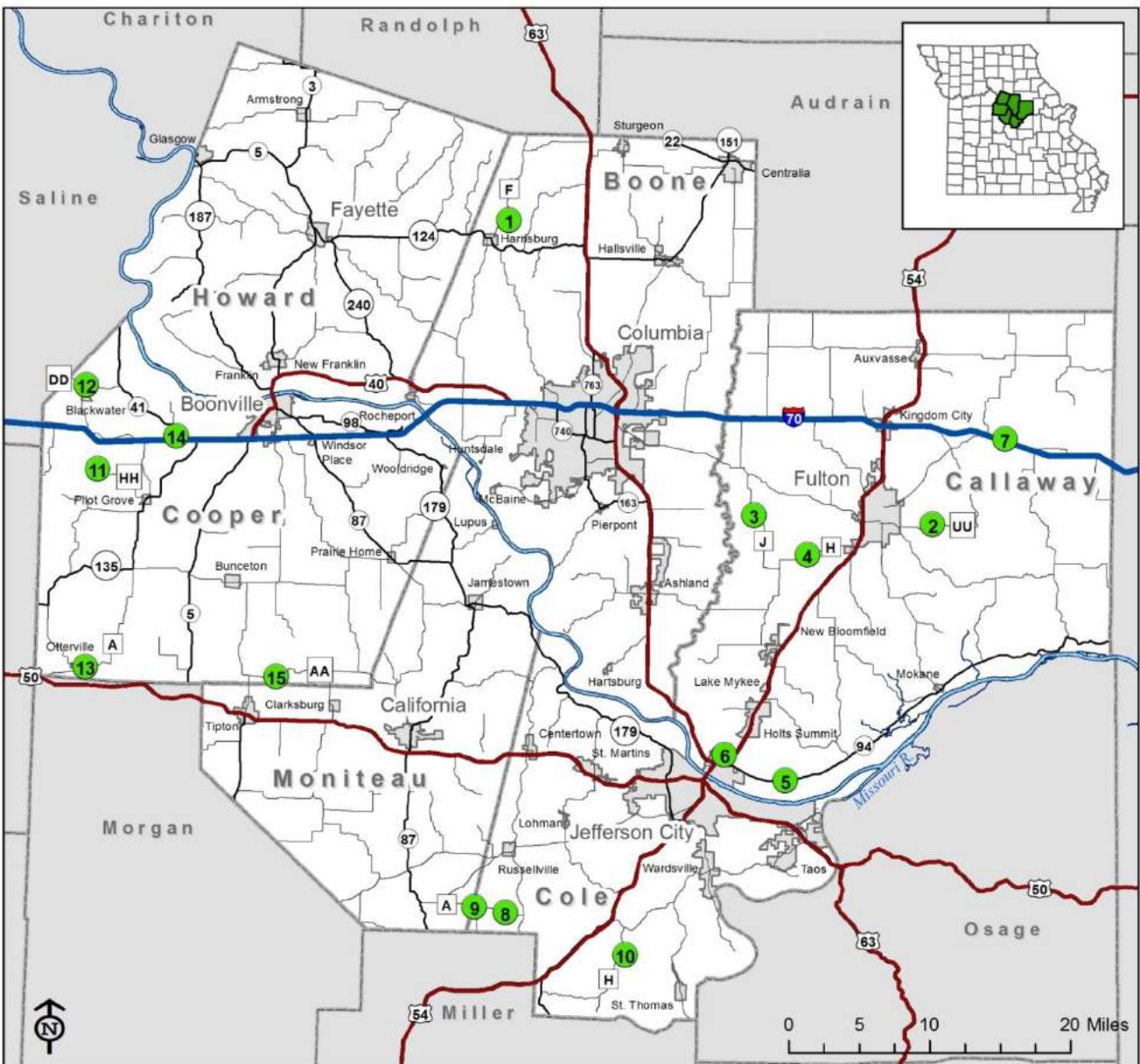
Figure 3.19

Mid-MO RPC One Lane Bridges					
County	Map #	Bridge	Roadway	Creek	Rating
<b>Boone</b>	1	P0384	F	Coon Cr.	4
<b>Callaway</b>	2	N0410	UU	Crow Fork Cr.	4
	3	N0743	J	Millers Cr.	6
	4	T0812	H	Davis Cr.	5
	5	T1011	Private	Ditch	5
	6	T1012	Private	Ditch	5
	7	G0701	Outer Road I-70	Whetstone Cr.	3
	<b>Cole</b>	8	R0248	A	Brush Cr.
9		R0235	A	Moreau Cr.	4
10		R0250	H	Bois Brule Cr.	5
<b>Cooper</b>	11	N0401	HH	Brushy Cr.	5
	12	P0227	DD	Flat Cr.	4
	13	G0731	A	Long Br.	3
	14	R0101	Chestnut Rd.	Martins Br.	6
	15	A2488	AA	Smiley Cr.	3

Source: MoDOT – September 2015



Figure 3.20



## Transportation Management Systems (TMS)

The TMS is not a project, an office, or a functional unit, but a means of obtaining and analyzing data for use in sound engineering decision making. It crosses many boundaries, including other state agencies, external planning agencies, districts, and functional units. Prior to 1991, MoDOT had begun development of several independent management systems. Major systems included pavement, bridge, safety, congestion, and traffic monitoring. During 1991, MoDOT undertook a major effort to coordinate and automate these independent systems. MoDOT had begun development of these systems before the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) mandate and, recognizing the long-term benefits of these programs, has continued to develop them after the mandate was lifted. In 1995, this coordinated effort became MoDOT's Transportation Management System.

Much of the TMS data is shared with Mid-MO RPC for the development of the Regional Transportation Plan (RTP). Statewide, Regional Planning Commissions also use this data with other local data sources to provide technical assistance to their member communities. TMS data has been used in the update of this RTP. Figure 3.21 lists the systems used to support the overall MoDOT TMS.

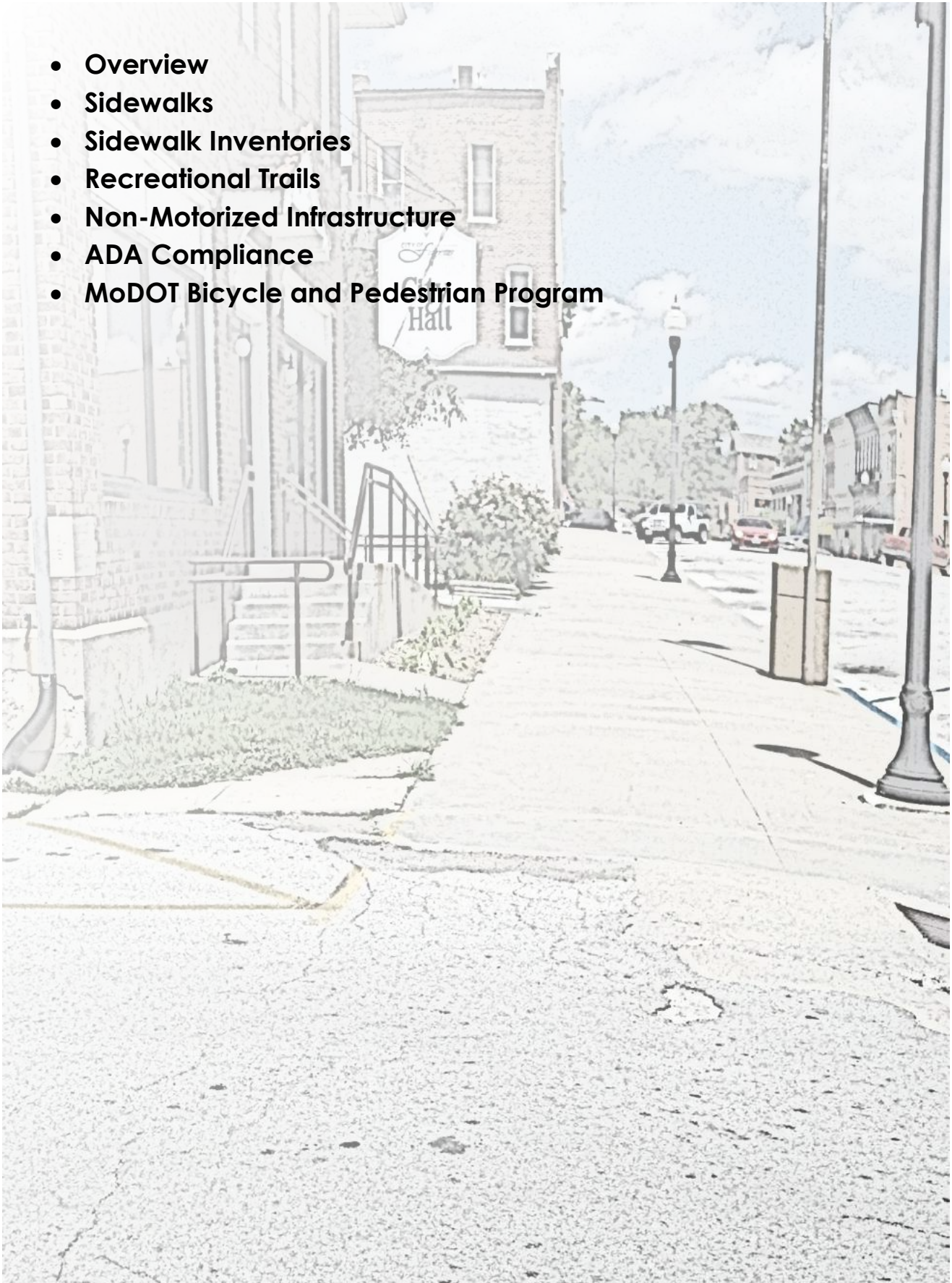
Figure 3.21

<b>MoDOT Travel Management Systems (TMS)</b>	
<b>Bridge Management System</b>	Access to state and non-state bridge data
	Automated reports on bridges beyond normal maintenance condition levels
	Data on inspections, NBI, MOBARS and CORDLIB are all located in one location
<b>Travel way Features Management System</b>	Adopt-A-Highway, Billboards, Junkyards, Rumble strips, Sound walls, Guard Cable, Curfews
<b>Travel ways Management System</b>	Information on Missouri routes and their corresponding intersections
	State system class, functional classification, and lane information
<b>Pavement Management System</b>	Automated Pavement Condition Reports
	Pavement Structural History
	Condition History (Regression)
<b>Traffic Monitoring/ Congestion Management System</b>	Level of Service information
	Access to all available traffic volume data
<b>Safety Management System</b>	Access accident data from 1987 – present
	Accident rate queries
	Accident summaries
	Statewide, district and county average accident rates
	Intersection expected accident values for specific intersection types
	High accident location and wet/dry reports

Source: MoDOT

## Chapter 4: Pedestrian & Non-Motorized

- Overview
- Sidewalks
- Sidewalk Inventories
- Recreational Trails
- Non-Motorized Infrastructure
- ADA Compliance
- MoDOT Bicycle and Pedestrian Program



## Overview

Pedestrian and Non-Motorized/Bicycle (Bike and Ped) facilities provide transportation options for those who cannot or choose not to drive. These facilities provide links and access to other transportation modes. This chapter will provide information on the most commonly used bike and ped facilities in the Mid-MO RPC region. These facilities include sidewalks and recreational trails.

Although many of these facilities are managed by cities and counties, state highways also accommodate bicyclists and pedestrians. According to the Missouri LRTP, within Missouri's 33,700 mile road system, there are many existing pedestrian facilities that need to be improved. These are identified in MoDOT's Americans with Disabilities Act Transition Plan and improvements are being added as roadway alterations are completed.

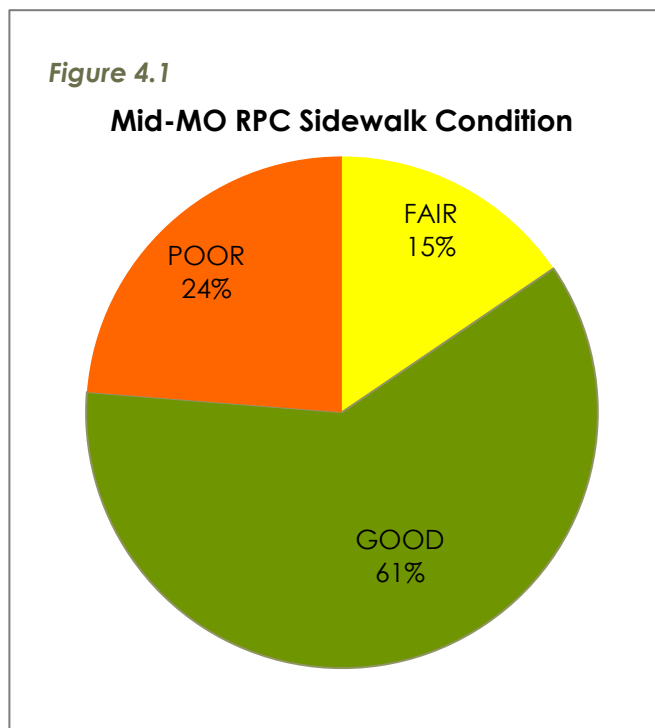
Within the Mid-MO RPC region several, if not most, communities are in needs on maintenance to existing sidewalk. Additionally, many communities are also in need of additional infrastructure to accommodate growing populations and economies. Annual and bi-annual grant applications to MoDOT reflect these needs. Mid-MO RPC assists communities with these applications and planning for future growth and development.

The Mid-MO RPC region has over 900 miles of sidewalks and trails, including the Katy Trail, MKT Trail, and Greenway Trail. Two-thirds of the sidewalks and trails in the region are in Columbia (552 miles) and Jefferson City (80 miles). In addition to the sidewalks and trails, many Mid-Missouri residents and visitors also use the road network for pedestrian and non-motorized travel.

## Sidewalks

Excluding the larger cities of Columbia and Jefferson City, there are 187 miles of sidewalks in the Mid-MO RPC region. While over half the sidewalks in the region are in good condition, at least a third or more are in need of repair and do not meet ADA compliance standards. It should be noted that in most communities

sidewalk ordinances state that private property owners and business are responsible for maintenance. Figure 4.1 depicts the general condition of sidewalks in the Mid-MO RPC region.



Source: Mid-MO RPC Sidewalk Inventory 2012

## Sidewalk Inventories

In 2012 an inventory was completed by Mid-MO RPC to collect location, length and condition of the sidewalks in the region. This project provided communities with maps and general condition information. All communities with visible sidewalk were inventoried. Additionally, RPC staff surveyed each community to collect data on the importance of sidewalks to that municipality. The county sidewalk survey data and inventory results are located in Appendix C of this plan. Figure 4.2 lists general condition for each of the inventoried communities.

Figure 4.2

Mid-MO RPC Sidewalk Conditions				
City	Total Sidewalk (ft.)	Good	Fair	Poor
Armstrong	12,332	-	4%	96%
Ashland	92,482	98%	1%	1%
Auxvasse	13,910	41%	6%	53%
Blackwater	6671	13%	19%	68%
Boonville	138,675	73%	17%	10%
Bunceton	10,003	-	6%	94%
California	66,216	58%	24%	18%
Centertown	1,908	-	60%	40%
Centralia	98,767	57%	10%	33%
Clarksburg	5,741	1%	3%	96%
Fayette	65,879	24%	24%	53%
Franklin	1,615	-	-	100%
Fulton	231,958	75%	20%	6%
Glasgow	25,755	29%	38%	33%
Hallsville	43,992	93%	4%	2%
Harrisburg	2,459	56%	9%	35%
Hartsburg	2,922	12%	65%	22%
Holts Summit	36,792	100%	-	-
Jamestown	5,879	-	17%	83%
Kingdom City	2,674	54%	-	46%
Lohman	982	-	-	100%
Mokane	8,958	4%	20%	76%
New Bloomfield	1,541	-	-	100%
New Franklin	19,243	20%	10%	70%
Otterville	5,692	10%	37%	53%
Pilot Grove	16,432	11%	32%	58%
Prairie Home	4,238	-	10%	90%
Rocheport	2,667	81%	-	19%
Russellville	11,127	36%	9%	55%
St. Thomas	1,175	34%	66%	-
Sturgeon	13,088	48%	-	52%
Taos	2,707	100%	-	-
Tipton	29,879	24%	27%	49%
Wardsville	946	-	100%	-
Wooldridge	1,976	-	13%	87%

Source: Mid-MO RPC Sidewalk Inventory 2012

The sidewalk inventory looked at very general characteristics and the following criterion was used.

- Good: Unlikely to hinder mobility of the average pedestrian. The sidewalk is free from significant cracking, buckling, gravel surfaces, or other debris which would impede pedestrian traffic.
- Fair: Uneven and distressed surface that hinders mobility of the average pedestrian. The sidewalk contains surface cracks, vegetation overgrowth, or debris.
- Poor: Impassable to mobility impaired pedestrian; hinders mobility of average pedestrian. The sidewalk has deep cracking or buckling, significant vegetative overgrowth, poor drainage, bulging surface (due to tree roots) and / or debris such that pedestrian travel would be impeded.

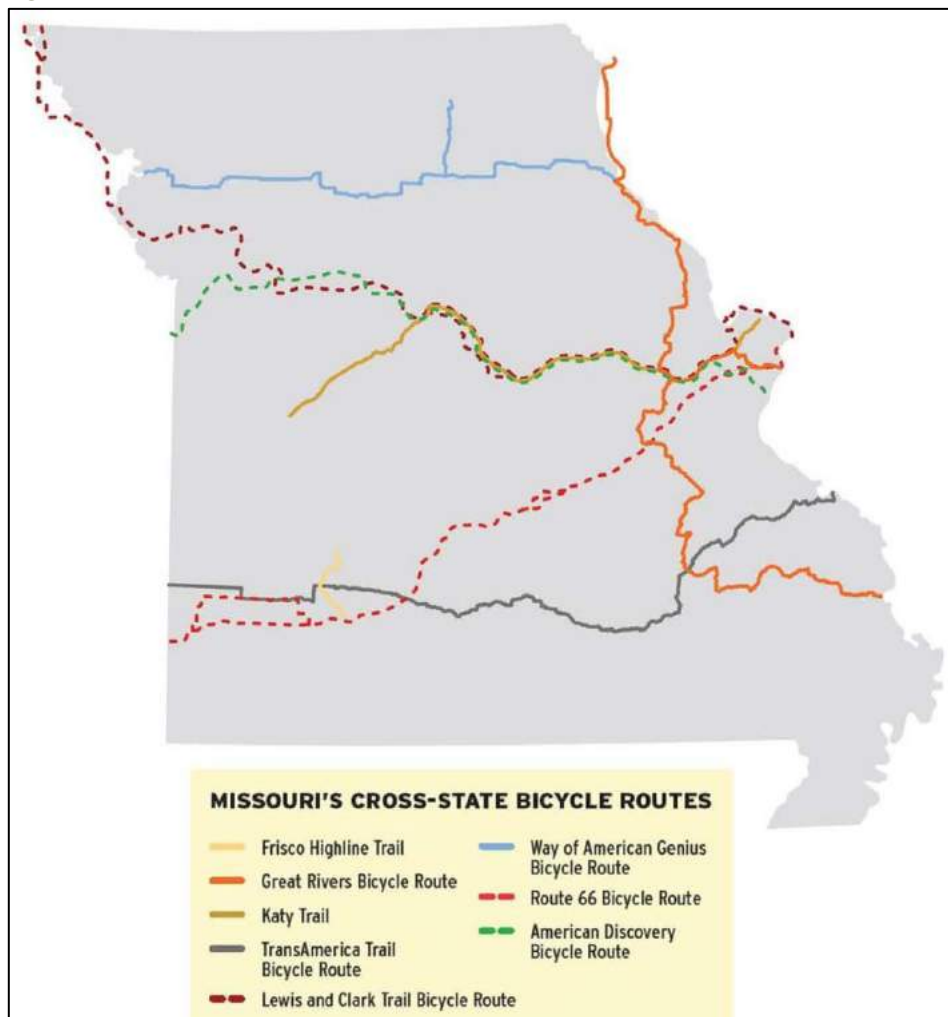
It should be noted that Jefferson City and the City of Columbia are both within MPO areas. Those MPOs have their own inventory system and condition ratings. Both CAMPO and CATSO have pedestrian plans that detail this information.

## Recreational Trails

In 2013 Missouri was named the "Best Trails State" by American Trails, a national, nonprofit organization working on behalf of the nation's hiking, biking and riding trails. The national award is presented every two years to the state that has made tremendous contributions to promote and improve their trails system. According to the Missouri Governor's Office, Missouri State Parks offers almost 1,000 miles of managed trails and the state claims more than 500 miles of National Recreation Trails designated by the U.S. Department of Interior. The state lives up to its reputation as "Gateway to the West" with significant trails including the Lewis and Clark, Trail of Tears, Santa Fe National Historic Trails passing through the state and the Pony Express, California, and Oregon National Historic Trails beginning on the western border. Missouri is also the home of the Katy Trail, the longest developed rail-trail in the nation.

Missouri also has six cross-state bicycle routes and about 600 miles of shared use paths. In Mid-Missouri, the Katy Trail provides connection to the major national bike routes. Figure 4.3 depicts the cross-state bicycle routes in Missouri.

Figure 4.3



Source: Missouri Long Range Transportation Plan

## Katy Trail

The Katy Trail, within Katy Trail State Park, is a 225-mile (365 km) bike path stretching across most of the state of Missouri. The former MKT rail line is now America's longest "rails-to-trail" project. Katy Trail State Park has been designed specifically for bicyclists and hikers. The majority of the trail is accessible to persons with disabilities. All motorized equipment is prohibited except official and emergency vehicles. Electrically assisted pedal-powered bicycles and tricycles (maximum speed of 20 mph) as well as electrically powered-mobility devices for persons with disabilities such as motorized wheelchairs and scooters are allowed. Horseback riding is also allowed on a 25-mile section of the trail. Many cross-country cyclists include the Katy Trail in their tours. This trail is part of Adventure Cycling's Lewis & Clark route, as well as the American Discovery Trail.

In Mid-Missouri, the Katy Trail crosses the counties of Callaway, Boone, Howard, and Cooper. The trail connects the communities of Mokane, Jefferson City, Holts Summit, Hartsburg, McBaine, Huntsdale, Rocheport, New Franklin, Boonville, and Pilot Grove. The trail also runs through several unincorporated communities that were once vibrant railroad and river towns. Figure 4.4 depicts the route of the Katy Trail.

Figure 4.4 Katy Trail State Park



Source: Missouri State Parks

## City Trails

In addition to the Katy Trail, both Columbia and Jefferson City maintain extensive bicycle and pedestrian facilities, and are actively updating and expand these facilities. Columbia's system has over 50 miles of trails throughout the city, offering a wide variety of community fitness and nature trails for walking, jogging, and biking. The Columbia trail system connects neighborhoods, community parks, greenbelts, and natural wetland areas across the city. Columbia's trail system is connected to the Katy Trail via the MKT trail.

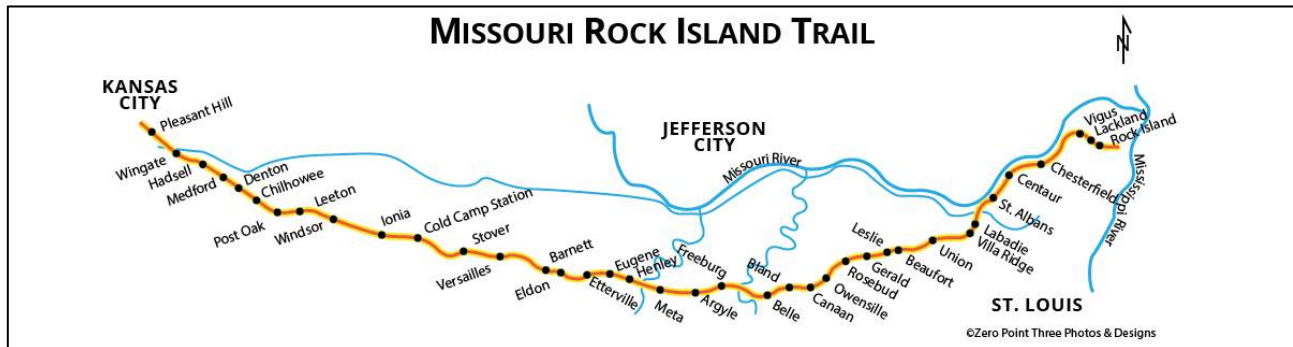
Jefferson City's greenway is a multi-use trail running 15 miles through the city. The greenway trail connects parks, neighborhoods, schools, and businesses across Jefferson City. The trail also provides access to the Katy Trail via a pedestrian bridge crossing the Missouri River. The bridge opened in 2011 with the support of \$1 Million in local funds, as well as federal and state funding sources.

The City of Fulton also has multi-use trail. The 4.9 mile paved Stinson Creek Trail follows the path of Stinson Creek through the City of Fulton. The trail encircles most of the city and provides connectivity between schools, neighborhoods, parks, and downtown businesses.

## Rock Island Trail

Also located in Mid-Missouri is the Rock Island Trail corridor. This corridor is in the process of being developed into a Rails-to-Trails project connecting St. Louis Kansas City via a route south of the Missouri River. Figure 4.5 depicts the intended route of the trail. According to the non-profit Missouri Rock Island Trails, Inc., the Rock Island Railway was built in the early 1900s and discontinued in the 1980s. In 2015 the State of Missouri designated a 47.5 mile portion or the corridor as Rock Island Trail State Park. This section is expected to be open to the public by the end of 2016 and will connect the Windsor with Pleasant Hill to the west. The eastern portions of the corridor are still being developed and negotiated due to legal issues with land owners.

Figure 4.5



Source: rockislandtrail.org

## MoDOT Bicycle and Pedestrian Program

MoDOT provides several useful tools and resources for bicyclists and pedestrians on the MoDOT website. In order to plan the safest route, on-road bicyclists must have as much information as possible about existing road conditions, especially regarding traffic volume and the location of paved shoulders. Other helpful information includes lane widths, elevations, scenic byways and amenities such as restaurants, park locations and lodging. The following tools and resources are available on the MoDOT Bicycle and Pedestrian Program Website:

- State Bicycle Maps - The state bicycle maps are drawn along MoDOT district boundaries
- County Maps
- Traffic Volume Maps
- Links to several cross-state bike routes
- Shared Use Paths - Shared Use Paths are built for pedestrian and bicycle transportation as well as recreational use. Most shared paths are 10-feet wide, paved paths separated from the roadway.



## Chapter 5: Transit

- Overview
- CoMo Connect
- JeffTran
- OATS, Inc.
- Serve, Inc.
- Other Transit Providers
- Coordination and Regional Projects



## Overview

In the Mid-MO RPC region there are six public transit providers, one of which is Amtrak rail service. Figure 5.1 lists these public transit providers. These providers provide vital access to food, shopping, medical needs, entertainment, and other services. There are more than 40 transportation and/or human service providers in the Mid-MO RPC region that assist both the general public and those with specific needs. Several of the human service providers in the Mid-MO RPC region include state agencies, not-for-profits, and for-profit providers. These providers are profiled in more detail in the following pages.

**Figure 5.1**

<b>Public Transit Providers</b>		
Name	Location	Service Area
<b>COMO Connect</b>	Columbia	Columbia
<b>JeffTran</b>	Jefferson City	Jefferson City
<b>Katy Flyer</b>	Boonville	Boonville
<b>OATS, Inc.</b>	Columbia (Office)	All Mid-MO Counties
<b>SERVE, Inc.</b>	Fulton	Boone, Callaway, Cole Co.
<b>Amtrak (Rail)</b>	Jefferson City	Kansas City to St. Louis

Source: Mid-MO RPC

## Transit Providers

There are several for-profit transportation providers and human service transportation providers in the region. Figure 5.2 lists Mid-Missouri providers. These providers are profiled later in this section.

Figure 5.2 Transportation Providers in the Mid-MO RPC Area							
Organization	Fixed Office Location	Service Area					
		Boone	Callaway	Cole	Cooper	Howard	Moniteau
<b>A-1 Express Taxi</b>	Jefferson City/ Columbia	x	x	x	x	x	x
<b>Alternative Community Training</b>	Columbia	x	x	x	x	x	x
<b>Boone County Council on Aging</b>	Columbia	x					
<b>Boone County Family Resources</b>	Columbia	x					
<b>Burell Behavioral Health</b>	Columbia	x	x	x	x	x	x
<b>CMAAA</b>	Columbia	x	x	x	x	x	x
<b>Central Missouri Community Action (CMCA)</b>	Columbia	x	x	x	x	x	x
<b>Central Missouri Subcontracting Enterprises</b>	Columbia	x	x	x	x	x	x
<b>Checker Cab</b>	Jefferson City	x	x	x	x	x	x
<b>Columbia Transit</b>	Columbia	x					
<b>Columbia Housing Authority</b>	Columbia	x					
<b>Cole County Residential Services, Inc.</b>	Jefferson City			x			
<b>Department of Community Development</b>	Jefferson City		x	x			
<b>Endless Options, Inc.</b>	Fayette					x	
<b>EZ Go Bus</b>	Columbia	x	x	x	x	x	x
<b>Independent Living Resource Center, Inc.</b>	Jefferson City		x	x			x
<b>Independent Living Center</b>	Columbia	x					
<b>JEFFTRAN</b>	Jefferson City			x			
<b>Job Point</b>	Columbia	x					
<b>Katy Flyer</b>	Boonville						
<b>Missouri River Taxi</b>	Boonville	x	x	x	x	x	x
<b>MO Vocational Rehabilitation</b>	Jefferson City	x	x	x	x	x	x
<b>Mo-X</b>	Columbia	x	x	x	x	x	x
<b>New Horizons Community Support Service</b>	Jefferson City	x		x			
<b>OATS, Inc.</b>	Columbia	x	x	x	x	x	x
<b>Phoenix Programs</b>	Columbia	x					
<b>SERVE, Inc.</b>	Fulton		x				
<b>Services for Independent Living</b>	Columbia	x	x		x	x	
<b>Special Learning Center</b>	Jefferson City			x			
<b>Taxi Terry's</b>	Columbia	x	x	x	x	x	x
<b>Tipton Manor, Inc.</b>	Tipton						x
<b>Unlimited Opportunities</b>	Boonville				x		
<b>Voluntary Action Center</b>	Columbia	x					
<b>Woodhaven Learning Center</b>	Columbia	x					

Source: Mid-MO RPC Coordinated Public Transit-Human Services Transportation Plan 2012

## COMO Connect



COMO Connect, formerly Columbia Transit, is the general public provider in the City of Columbia. According to the CATSO 2040 Long Range Transportation Plan, transit service began nearly 50 years ago in 1965. As a part of a strategic planning effort, in mid-2013 Columbia Transit began work to redesign and rebrand the bus system based upon a shift to a multi-hub connector system using advanced routing, GPS tracking, and other user-oriented

technologies. The new COMO Connect system utilizes a network of routes with shorter travel times, expanded service hours, and 35 transfer nodes throughout the city. COMO Connect offers several services: fixed-route, Paratransit, and MU shuttle services. COMO Connect provides over two million passenger-trips annually. COMO Connect is under the administration of the Columbia City Manager and Public Works Department.

The following points profile each service that is available through COMO Connect:

- **Fixed Routes** - Columbia has eleven (11) bus routes that follow a fixed course and schedule. Each fixed route is named with both a color and a number that can be used interchangeably. Anyone can board a bus on a fixed route at any marked bus stop sign by paying a cash fare when boarding, or by purchasing a bus pass in advance.
- **Para-Transit** - Since passage of the “Americans with Disabilities Act of 1990”, the City of Columbia has provided origin to destination transportation service to citizens who are certified as unable to ride COMO Connect’s fixed-route bus system. The City has lift-equipped para-transit mini-buses that provide curb to curb service to qualified individuals.
- **Tiger Line** - Tiger Line is Mizzou’s free shuttle service for Mizzou students that runs seven (7) days a week during the fall and winter semesters.
- **High Schools** - COMO Connect offers bus routes that service all four public high schools in Columbia Public School district. All customers 18 years of age and younger can ride COMO Connect for free anytime. School-aged riders will be asked to present a valid student ID upon boarding.
- **Reality House Route** - Reality House Programs, Inc. is a non-profit community-based agency in Columbia that provides residential, outpatient, and transitional housing services with a focus on substance abuse treatment, community corrections, and re-entry assistance for clients. The Reality House location on Prathersville Road now has convenient access to the #11 Aqua Route, a limited service commuter route that runs two trips in the morning and two trips in the evening, to assist residents in this area with easier access to employment opportunities.
- **Football Routes** - COMO Connect offers transportation to every Mizzou home football game! Pre-game routes start 2 hours before kick-off to take fans to the game, and post-game routes take fans safely back home or downtown after the game. Cost: \$1.50 each way, or any valid COMO Connect bus pass.

## JeffTran



JeffTran, a City of Jefferson agency and public transit provider, serves the general public inside the city limits. The system consists of a fixed route transit system and a curb to curb service for people with disabilities via their paratransit service Handiwheels. All JeffTran services run Monday through Friday from 6:45am to 5:45pm. JeffTran is a city department, and therefore accountable to the City Council. Operating funds for JeffTran come from FTA

Section 5307 and State of Missouri Transit Assistance funds.

There are seven fixed routes and two shuttle routes. These routes provide transportation for roughly 480,000 passengers per year. According to a ridership survey done in 2006, 51% of riders use JeffTran for getting to and from work. Rides for fixed route cost \$1.00 and there is no charge for transfers. Students can buy a 20 ride bus pass for \$18; children 6 and under ride for free. People over 60 are eligible for a half fare pass and Medicare cards are honored.

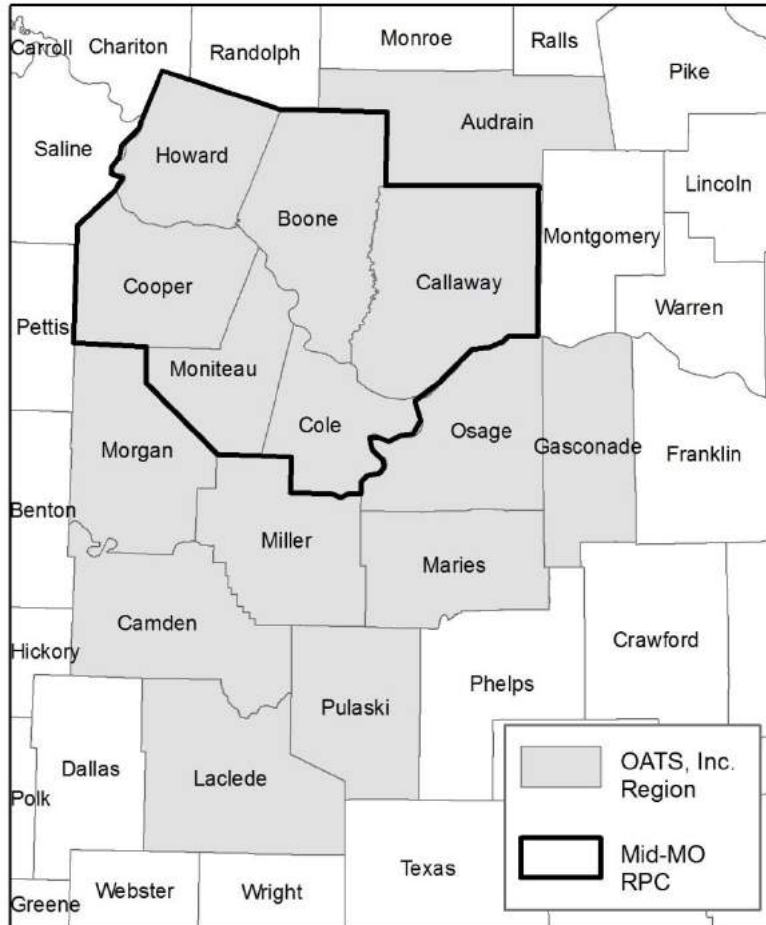
Handiwheels operates six vehicles and has two spares providing as many as 300 riders each day with curb to curb service. Individuals with disabilities that cannot travel fixed routes are eligible for Handiwheels. Applications are available at City Hall or by mail request. The cost to ride is \$2 per ride and Medicare passes are honored. Drivers provide assistance for clients with getting into and out of the vehicle as well as securing wheelchairs. Ridership fees and contracts with Missouri Department of Social Services and Cole County Residential Services provide some funds for Handiwheels operation. Fares and ridership fees make up 30% of the operations budget. Capital funds come from FTA Section 5309.

JeffTran transports clients on behalf of many different human service agencies. Among these agencies are Cole County Residential Services (CCRS), Department of Mental Health (DMH), Department of Social Services (DSS), Easter Seals, Job Point, New Horizons, and Vocational Rehabilitation (VR). Other agencies such as Central Missouri Community Action (CMCA) and Jefferson City Nursing & Rehabilitation Center serve clients who regularly use JeffTran.

## OATS, Inc.

OATS is a private, nonprofit specialized transit provider which operates in 87 Missouri counties. Its mission is to provide reliable service for transportation disadvantaged Missourians so they can live independently in their own communities. The Mid-Missouri OATS Inc. region serves 15 counties as seen in Figure 5.3. The agency has been in operation since 1971 and provides door-to-door transportation services to individuals with little or no alternative form of transportation.

Figure 5.3



Source: Mid-MO RPC

OATS generally caters to the elderly, low income, and those with disabilities, but portions of the service are open to the general public. Residents in many small towns within the Mid-MO RPC region only have access to OATS services one to three times a month. Some in-town services are provided with more frequency in a handful of communities. Services are prioritized, however, for medical, essential shopping, and business. OATS provides service on differing schedules across the Mid-Missouri region. A quarterly newsletter, “The Wheel”, informs riders of service times in each county. “The Wheel” may be viewed online at: [www.oatstransit.org](http://www.oatstransit.org).

OATS is funded by a combination of federal, state, and local funds. Government funding through contracts with various agencies covers the cost for the elderly/disabled riders, while general public riders pay the full fare for service. Fares are \$5 round trip in-town rural, \$7 round trip within a county, and \$9 round trip to adjacent counties. Funding is acquired through FTA grants (Section 5309, Section 5339, Section 5310, Section 5311, and Section 5316-JARC), Medicaid, Missouri Elderly and Handicapped Transportation Assistance Program (MEHTAP), county governments, city governments, Department of Mental Health, service contracts, and rider fares.

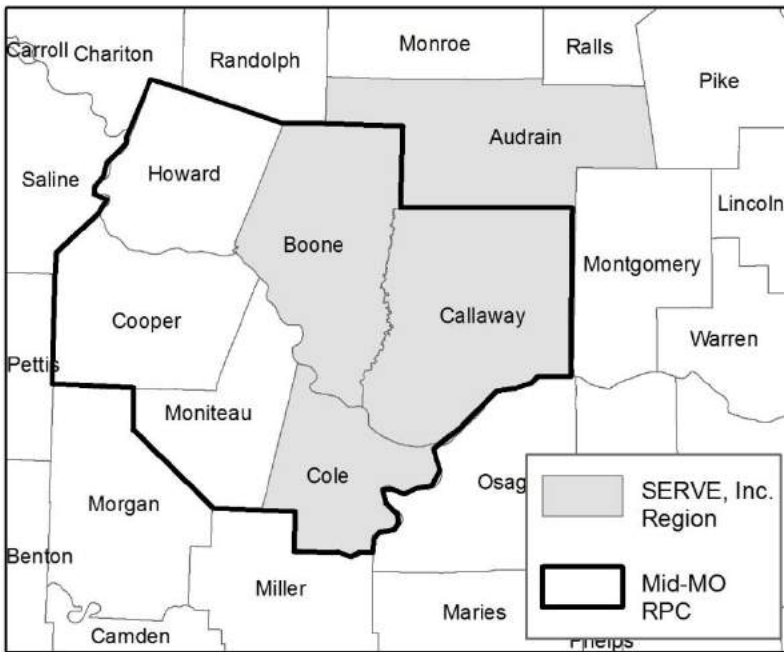
## Katy Flyer (Operated by OATS, Inc.)

The Katy Flyer is a transportation service that is operated by OATS, Inc. The City of Boonville provides an amount of additional funding and scheduling support. The Katy Flyer provides service by reservation only and operates solely within the city limits of Boonville. One-way fares are currently \$2.

## Serve, Inc.

Serve/CalTran is a private not-for-profit agency which provides transportation to qualified elderly, disabled, low-income, and youth living in Callaway County. It operates Monday through Friday. The fleet of ten vehicles includes nine minibuses with electronic wheelchair lifts and one seventeen passenger van; all are equipped with mobile radios. Serve/CalTran provides door to door transportation to dialysis, medical appointments, physical therapy, errands, beauty shops, work, and shopping. Serve/CalTran also refers clients to OATS and has a Non-Emergency Medical Transportation contract to work with taxi cab companies for out of county trips.

Figure 5.4



On average, Serve/CalTran provides over 3,000 one-way trips a month and logs 18,000 miles per month. This level of service reflects Serve’s commitment to safety, efficiency, and personal service to all riders. Figure 5.4 depicts the SERVE, Inc. service area.

Source: Mid-MO RPC

Serve has an annual operating budget of over \$400,000 and its funding sources come from state, federal and local agencies. Many of the trips Serve/CalTran provides are paid for by contracts, grants, and private pay fees, donations, etc. Their office staff will work with individuals to ascertain eligibility and/or make the proper referrals to the funding sources they already have in place (Missouri Department of Health & Senior Services - Division of Aging, NEMT/Medicaid, Callaway County Special Services/Medicaid waiver, Central Missouri Regional Center-Missouri Department of Mental Health, Probation and Parole). Serve/CalTran also receives operating assistance funding through FTA Section 5311 that is administered by MODOT.

The basic service area includes in and around Fulton and an area within a 30 mile radius in adjacent Audrain, Boone, and Cole counties. Travel further away for necessary medical appointments is possible through NEMT4. Individuals who are not eligible for or not enrolled in any of these funding programs are eligible for transportation services pending the assessment by office staff of ability to pay the nominal fee.

The fare for ambulatory persons residing in Fulton and traveling within the city limits is \$2. 50 round trip; an in-county round trip ride is \$20. For ambulatory persons residing in town and traveling to Columbia, Jefferson City, or Mexico the fee is \$40 round trip and must be scheduled ahead of time.

## Amtrak – Missouri River Runner

Amtrak operates the only passenger rail service in Mid-Missouri. Amtrak operates two national passenger train routes in Missouri, providing connections to Chicago, Los Angeles and San Antonio, and a state-

supported route, the Missouri River Runner, between St. Louis and Kansas City. The Missouri River Runner includes stops in Kirkwood, Washington, Hermann, Jefferson City, Sedalia, Warrensburg, Lee’s Summit and Independence. Jefferson City is the only stop along route in the Mid-MO RPC region.

The Missouri River Runner provides two trips each day and, according to Missouri’s LRTP, had an 89 percent on-time performance in 2012. Each year, about 500,000 passengers ride Amtrak trains in Missouri, which includes 200,000 on the state supported route. In 2011, the Missouri River Runner provided service to approximately 191,000 passengers according to the Missouri State Rail Plan. Passenger rail in Missouri is seen as a growing industry for business travelers, students and commuters alike. Given the expected population growth in some areas, passenger rail will continue to be an important option for travelers in Missouri. Figure 5.5 depicts passenger rail service in Missouri.

Figure 5.5



Source: Missouri State Rail Plan 2012



## Human Service Providers that provide transportation

Human Service Providers, as it pertains to this plan, are those organizations that provide direct services for people who may need assistance or support, such as: people with developmental disabilities; people with physical disabilities; people with mental illness; children; elders/senior citizens; veterans; people who are homeless; people who are poor; people who are incarcerated or just released; people with certain health needs; and people who are abused. These organizations may also directly provide transportation services or may contract out to other agencies to provide transportation for people who use their services.

All of the human service providers in the Mid-MO RPC region are profiled alphabetically below. Information contained in the profiles stems from returned provider surveys and information contained in the most current CAMPO and CATSO transportation plans.

### **Alternative Community Training, Inc. (ACT)**

Alternative Community Training, Inc. helps disabled people find employment and housing. The organization hires people with and without disabilities. It operates a 15,000-square-foot facility where employees recycle software and other electronic media. The agency estimates they provide approximately 11,000 annual trips for clients using a combination of nine vans and one car.

All of ACT's vehicles are leased or owned by ACT. The organization does not have actual direct revenue reimbursement for transportation costs, but it is included in rates received per program. The agency spends approximately \$130,000 annually on transportation expenses. The organization expressed some interest in coordination. Funding limitations may inhibit coordination activities as trip purposes are limited to employment. Funding sources include both federal and state sources such as the Department of Mental Health, State of Missouri, and Vocational Rehabilitation funding.

### **Boone County Council on Aging, Inc. (BCCA)**

Since 1973, BCCA has specialized in matching needs with resources like medical care, support groups, and housing assistance. They provide care management for seniors 55 and older with low incomes or limited local family. The BCCA does not provide transportation services except through some limited volunteers. The agency is in favor of increased support for public transportation, which has been identified as a growing need among clients. The BCCA indicated coordination and the provision of formal transportation services was not of interest at this time.

### **Boone County Family Resources (BCFR)**

Boone County Family Resources is a public agency of the county that serves individuals with developmental disabilities. BCFR provides purchased transportation to eligible clients of the agency in Columbia and some adjacent areas in Boone County. Thus, BCFR coordinates with other social service agencies (SIL), transportation providers (Columbia Transit, OATS), and cab companies. Additionally, BCFR will reimburse mileage if staff provides transportation for residential clients to go to work and doctor appointments. BCFR has 15 total vehicles (5 cars and 10 vans) which provide support to 46 clients. In the past, BCFR has shown interest in coordination activities if found to be applicable.

### **Burrell Behavioral Health**

Burrell is a private, not-for-profit organization serving individuals in need of mental health services. Burrell operates out of two locations in Columbia, as well as elsewhere in central Missouri. Burrell has two active vehicles, one 15-passenger van, and one 12-passenger van. These vehicles were acquired with FTA Section

5310 grant funding. The vehicles are used to transport the agency's adult clients on group outings throughout the community, as well as to and from the agency clinics for therapy and doctor visits. The vans are also used to transport child clients to and from school or home to the clinics for visits.

### Central Missouri Area Agency on Aging (CMAAA)

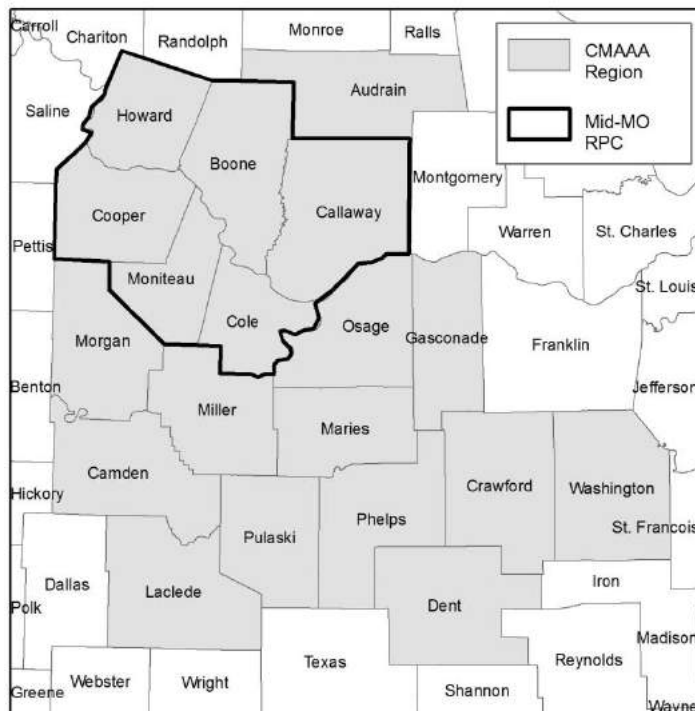
The Central Missouri Area Agency on Aging contracts with Checker Livery, J&J Taxi, SERVE, and Show-Me Medical Transportation to provide transportation services in the Mid-MO RPC area. It is funded through a combination of federal and state funding and donations. CMAAA provides transportation assistance in the following categories:

- **Shopping/Essential Business Trips:** The maximum number of trips per month is 8 one-way trips. Note: A maximum of 24 additional shopping/business trips may be approved for a rider needing to visit their spouse in the nursing home or hospital.
- **Senior Center Trips** for nutritional purposes: The maximum number of trips per month is 46 one-way trips.
- **Non-Emergency Medical Trips** (for riders who aren't eligible for Medicaid nor utilizing other subsidized medical transport services): The maximum number of trips per month is pre-authorized by CMAAA's county care coordinator.

CMAAA purchases bus tickets for riders in Columbia and Jefferson City; these tickets can be used for paratransit service only, not for general bus service.

Differences in cost can be attributed to the use of various services such as OATS, SIL, and/or other transportation providers. CMAAA also offers "consumer-directed transportation." With pre-authorization by their county care coordinator, CMAAA's clients can choose their own provider to transport them for shopping/essential business, lunch at the senior center, and medical appointments. These drivers are not contracted private, for-profit providers. Figure 5.6 depicts the CMAAA service area.

Figure 5.6

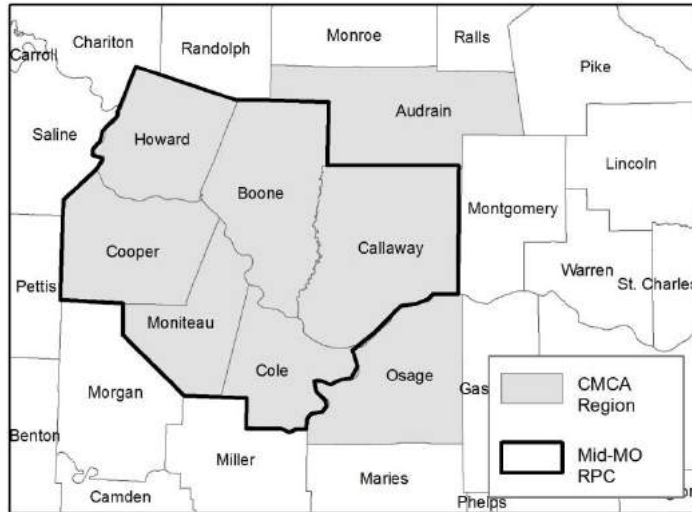


Source: Mid-MO RPC

## Central Missouri Community Action (CMCA)

Central Missouri Community Action (CMCA) is a nonprofit corporation which provides an array of services and program oversight. They provide the following services, as well as numerous others: Head Start; Section 8 Rental Assistance; Employment and Training; Housing Development Activities; and Family Support.

Figure 5.7



Trips are provided using bus passes and as cash to clients. The corporation is funded through a myriad of funding sources including federal and state funding, donations, grants, and MEHTAP. Trips are limited to seniors, children, and low-income residents of the county. They have indicated a high level of interest in coordination of transportation resources. Figure 5.7 depicts the CMCA service area.

Source: Mid-MO RPC

## Central Missouri Subcontracting Enterprises (CMSE)

Central Missouri Subcontracting Enterprises (CMSE) provides meaningful, dignified employment to persons with disabilities in Missouri through the production of goods and services for the private sector. CMSE also provides advocacy and support to persons with disabilities. CMSE currently provides transportation services to 15 of their 124 employees. The remainder of employees either utilize Columbia Transit or private or residential agency transportation. CMSE provides approximately 3,750 round trips annually utilizing two agency vans and two cars for transporting employees to and from work sites. The cost for this transportation is approximately \$48,000 annually. CMSE reported being slightly interested in some coordination opportunities.

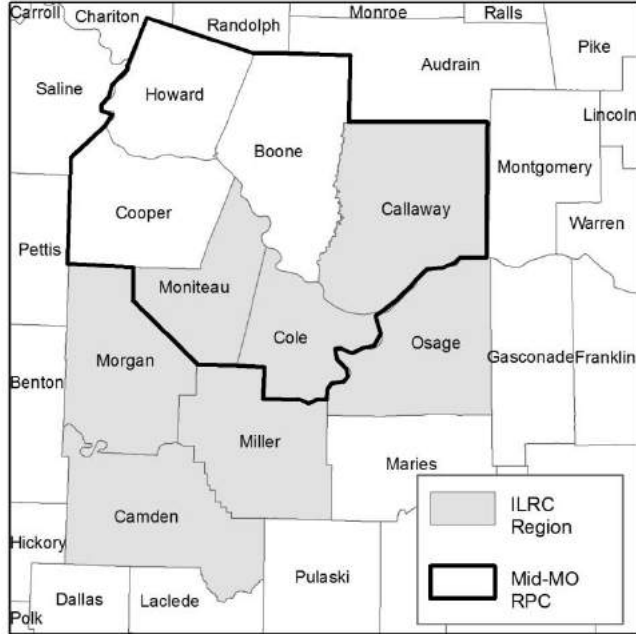
## Columbia Housing Authority (CHA)

The Housing Authority of the City of Columbia has 719 units targeted for affordable housing opportunities for low-income persons and families. CHA also administers more than 1,000 Housing Choice Vouchers for Section 8 Rental Assistance which provides rental assistance to very low-income families. These Section 8 units are owned by more than 700 private landlords and are located throughout Boone County but primarily within the City of Columbia. The Authority provides shuttle van service to clients using three vans and provides approximately 18,000 annual trips. Cost for services is estimated at approximately \$18,000. They also assist residents in contacting both OATS and Columbia Transit for additional transportation services. The Authority indicated that coordination activities were non-applicable to the organization.

## Independent Living Resources Center (ILRC)

Independent Living Resource Center, Inc. (ILRC) is a non-residential, consumer controlled, not for profit organization that provides services and support for individuals with disabilities in Southern Callaway, Camden, Cole, Miller, Morgan, Moniteau and Osage Counties in Missouri. Figure 5.8 depicts the ILRC service area.

Figure 5.8



Source: Mid-MO RPC

ILRC realizes that building skills and confidence to live an independent lifestyle requires special programs, peer support, assistance in obtaining equipment, learning to manage personal care attendants, and much more. The skilled staff at ILRC is there to help provide advocacy and services that allow persons with disabilities a way to achieve these things and to live independently.

## Job Point (formerly Advent Enterprises, Inc.)

Job Point provides youth services and vocational assessment, job training, and placement services to people with disabilities and the economically disadvantaged. Job Point is a comprehensive employment center, fully accredited by the Commission on Accreditation of Rehabilitation Facilities (CARF). Continuing education and youth mentoring support are also available.

Job Point serves northeast and central Missouri. Transportation services are provided with company-owned, grant-funded vehicles. Funding for Job Point comes through a variety of sources, including FTA 5310, the Missouri Department of Transportation, state funding, and tax credits. Trips are limited to those which are directly related to vocational needs. Job Point indicated an interest in coordination activities, particularly with Columbia Transit around provision of reduced or free transportation vouchers. Job Point identified the need for a more comprehensive municipal transit system.

## New Horizons

New Horizons is a not-for-profit mental health provider in Cole and Boone County. While the agency does have a 14-passenger van to transport clients to and from the day program, most transportation is provided by staff in personal vehicles. Staff is reimbursed for mileage. As a part of their mission, New Horizons works to help clients integrate within the community. Thus, their life skills training efforts teach clients how to use public transit. New Horizons is interested in supporting increased public transit options and may be interested in any applicable coordination efforts.

## Phoenix Programs

Phoenix Programs, a nonprofit agency located in Columbia, is an outpatient substance abuse program providing counseling for individuals, families, and groups. The agency provides transportation in the form of bus passes as well as using an agency van and two cars. They reported having an annual budget of approximately \$44,000, which is federally-funded, and provide approximately 1,000 annual trips for the homeless. They have approximately 100 clients at any one time. Some level of interest in coordination opportunities was shown by Phoenix Programs.

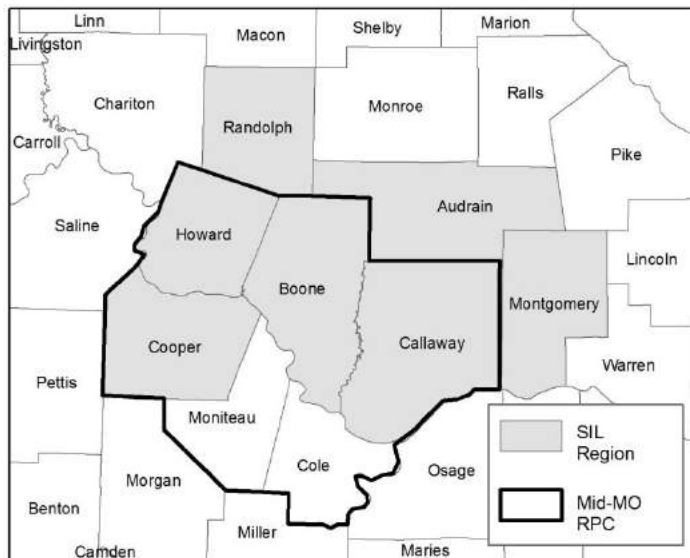
## Rainbow House

Rainbow House is a nonprofit child advocate agency that provides emergency shelter for abused and neglected children and families in dire need. They accommodate approximately 200 children in the shelter annually. They are funded through the State of Missouri and donations. The agency has two vans for transportation. Annually, the agency is estimated to provide approximately 1,600 trips. Rainbow House indicated some level of interest in coordination.

## Services for Independent Living (SIL)

SIL is a nonprofit which promotes independence for persons with disabilities. Many individuals with disabilities cannot utilize traditional transportation. SIL offers accessible transportation with door-to-door service Sunday through Friday, 8:00a.m. to 5:00 p. m. SIL has eligibility requirements for clients and charges according to the following fee schedule: \$2 per stop (City); \$3 per stop (Outside City Limits); \$5 per stop (County to County.) Within the past decade, SIL has applied for Section 5310 funding. Figure 5.9 depicts the SIL service area.

Figure 5.9



Source: Mid-MO RPC

## **Vocational Rehabilitation**

This program assists individuals with physical or mental disabilities in obtaining employment. Services include vocational counseling/exploration, vocational training, medical restorative services, and job placement services. Vocational Rehabilitation may provide those who financially qualify with transportation to and from these services in the form of bus passes, travel reimbursement, and taxi fares. The agency provides approximately 1,750 trips annually — 550 in the form of bus passes and 1,200 trips in the form of reimbursement. The agency expends approximately \$29,000 annually on transportation for 300 individuals. Vocational Rehabilitation is required by Federal Law to access all comparable benefits and to coordinate with other transportation service providers.

## **Voluntary Action Center (VAC)**

Voluntary Action Center (VAC) is a nonprofit organization that provides information on available human services in the area, provides emergency assistance when local programs are unable to meet community needs, collaborates and coordinates with various local agencies, and provides volunteer coordination and training. They also provide services such as transportation, prescriptions, food, clothing, and shelter. Their service area includes all of Boone County. Funding sources include the United Way, Boone County, the City of Columbia, Boone Electric Trust, and churches in the area.

VAC provides both bus passes and gas for clients. In 2012, 4,720 bus tickets were provided for work trips. They reported that they provide approximately 6,700 trips annually. They are funded through a city grant and donations. Total operating costs were reported as approximately \$5,700 annually. Some interest in coordination was indicated by VAC.

## Coordinated Public Transit-Human Services Transportation Plan

Mid-MO RPC recently updated the Coordinated Public Transit Human Services Transportation Plan (Coordinated Plan) in accordance with The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The Mid-Missouri Regional Planning Commission adopted the first Coordinated Plan in August 2008 and adopted the updated plan in 2012.

In addition the Mid-MO RPC Coordinated Plan, both MPOs in Columbia and Jefferson City were also required to update their plans. The plans were all developed through similar processes which included a series of publicized meetings held with transportation and human service providers and users. The plans identify existing services, needs, and gaps in service. Goals and strategies to improve or enhance service were created as a result of the public meetings and analysis of transportation provider and user surveys.

The goals and strategies created through this planning process took into account current services, future growth, and future needs. For the Mid-MO RPC region, the transportation stakeholders prioritized these strategies as follows:

### **Goal 1: Increase efficiency through coordination and education**

#### Strategies

- Develop a regional plan for coordination between social service agencies and transportation providers.
- Educate both the public and service agencies about available services. This could be done through the creation of a coordination staff position, directory, or website.

### **Goal 2: Continue maintenance and/or expansion of accessibility**

#### Strategies

- Secure funding necessary to sustain current system capabilities, including sufficient levels of qualified staff and equipment. This would include increase of staff capacity, training, equipment upgrades and expansion of hours of operation.
- Promote and secure funding for additional services and programs.

## **Mobility Management**

Building on the planning process of the update the Coordinated Plan, Mid-MO RPC started planning for a Mobility Management Project. Between 2013 and 2015, with financial support from the Missouri Developmental Disabilities Council (MODDC), Mid-MO RPC staff worked alongside several regional transportation stakeholders as part of a planning grant to increase regional transportation coordination.

After completing a Coordination Strategy for MODDC additional funding was received to implement a Mobility Management Project in the Mid-MO RPC region. With support from Central Missouri Community Action (CMCA), United Way's 211, and MODDC, these partners, along with many others, provided the drive to improve transportation coordination in the region. Funding was approved for a two year project in the spring of 2015.

The funding supports efforts to provide mobility management tools to the public via bolstering education of available services and the creation of a Mobility Manager staff position. The project includes:

- Creation and Implementation of 2 Poverty/Mobility Simulations to educate local decision makers on transit needs
- Educational and advertising materials to support the Mid-Missouri Mobility Management
- Increase of provider coordination to increase efficiency, access, and reduce costs
- Formation of new partnerships with regional agencies, employers, and other stakeholders to provide more transportation choices

The goal of the project is to increase access to transit through improvements to coordination, efficiency, and education. Target populations include disabled, elderly, and low-income individuals as well as the general public.



## MoDOT and Transit

MoDOT provides financial and technical assistance to public transit and specialized transit providers across the state. This function is carried out through the administration of state and federal programs for both general public transportation and programs serving senior citizens and persons with disabilities.

MoDOT administers funds through three main sources of funding:

- **Urbanized Area Formula Grants**
- **Formula Grants for the Enhanced Mobility of Seniors and Individuals with Disabilities -**
- **Formula Grants for Other Than Urbanized Areas (Rural Formula)**

### **Rural Transportation Assistance Program**

The Transit Section also administers the rural transportation assistance program by providing training and technical assistance functions funded by FTA. Free on-site training courses for rural transit agencies include defensive driving, CPR, first aid, passenger assistance techniques and emergency procedures.

### **State Funding**

Rural and urban public transit agencies benefit from state funded operating assistance. This general revenue fund and/or state transportation fund program helps to defray a portion of the costs those agencies incur in providing mobility services in their communities.

### **Missouri Elderly and Handicapped Transportation Assistance Program (MEHTAP)**

MEHTAP is a state- funded program that helps defray a portion of the transportation costs incurred by agencies providing mobility services to senior citizens and persons with disabilities. Half of the annual general revenue funding in this program is allocated to the 10 Area Agency on Aging districts statewide.

**Federal Transit Administration Funding sources will be affected by the December 2015 passage of the FAST Act Transportation Bill. This section will be updated with this information as it becomes available**

**(This page intentionally left blank)**

## Chapter 6: Airports

- Overview
- Columbia Regional Airport
- Fulton-Elton Hensley Memorial Airport
- Jefferson City Memorial Airport
- Jesse Viertel Memorial Airport (Boonville)
- MoDOT and Missouri's Airports
- Missouri Statewide Airports Economic Impact Study

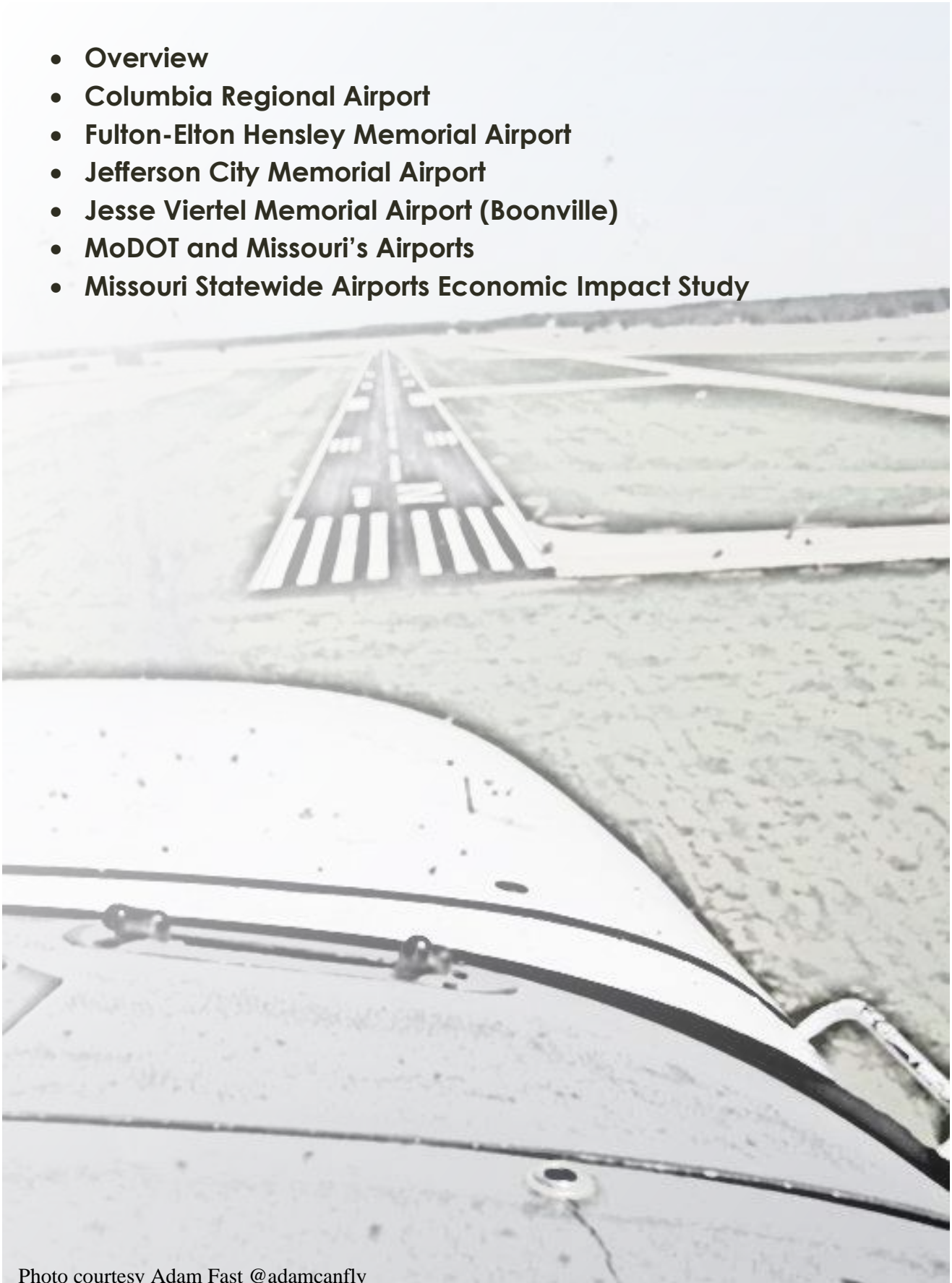


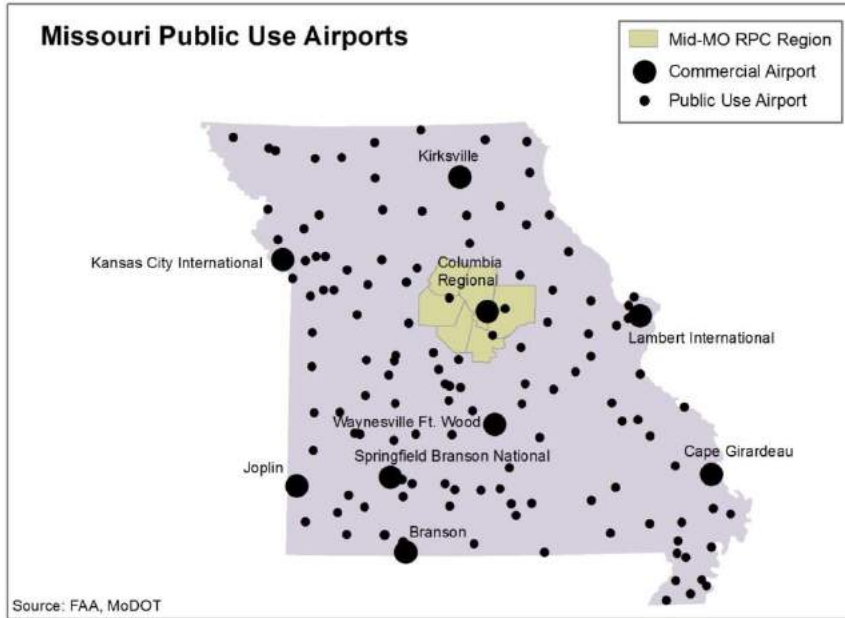
Photo courtesy Adam Fast @adamcanfly

## Overview

Missouri has approximately 500 airports and aviation facilities. These include public and privately owned airports, heliports, seaplane bases, and grass landing strips. Of the 500 facilities, approximately 125 are commercial service, business capable or general aviation airports for public use. Approximately 6,200 aircraft and 11,200 pilots are registered in Missouri. Figure 6.1 depicts Missouri's Public Airports.

The Mid-MO RPC region is home to four airports in Boonville, Columbia, Fulton, and Jefferson City.

Figure 6.1



According to MoDOT, approximately 12 million passengers travel through Missouri's airports annually. The Columbia Regional Airport, the only commercial airport in the region, provides multiple daily flights to Dallas/Fort-Worth and Chicago O'Hare.

Residents and businesses also use airports to ship and receive goods from all over the world.

According to MoDOT, in 2012, 195,000 tons of freight was shipped through Missouri's airports. Mid-Missouri airports

are currently unable to match the freight capabilities of larger regional airports, but future regional growth may create this demand in the future.

Figure 6.2



As part of a 2012 Statewide Airport Economic Impact Study, it was found that Missouri's airports produce a total annual economic output of \$11.1 billion. The study reviewed the economic benefits in terms of jobs, payroll, and output. There are currently 100,621 jobs and an annual estimated payroll of \$3.1 billion in Missouri that are in some way connected to the airport system and its activities.

### Mid-MO airports economic impact:

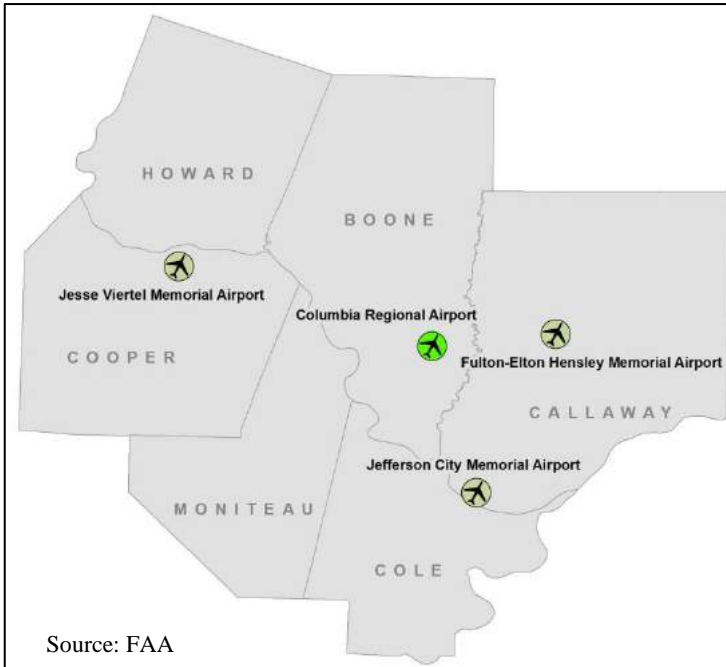
- **Jobs: 1,038**
- **Total Payroll: \$112,179,000**
- **Total Output: \$36,539,000**

-Source: Missouri Statewide Economic Impact Study

## Columbia Regional Airport (COU)

Columbia Regional Airport is a commercial service airport owned and operated by the City of Columbia. The airport has two runways, Runway 02/20 (6,501 ft.) and Runway 13/31 (4,401 ft.). American Airlines provides daily nonstop service to Chicago and Dallas, connecting passenger to the second and fourth busiest international airport hubs in the US. Figure 6.3 depicts the location of Columbia Regional Airport.

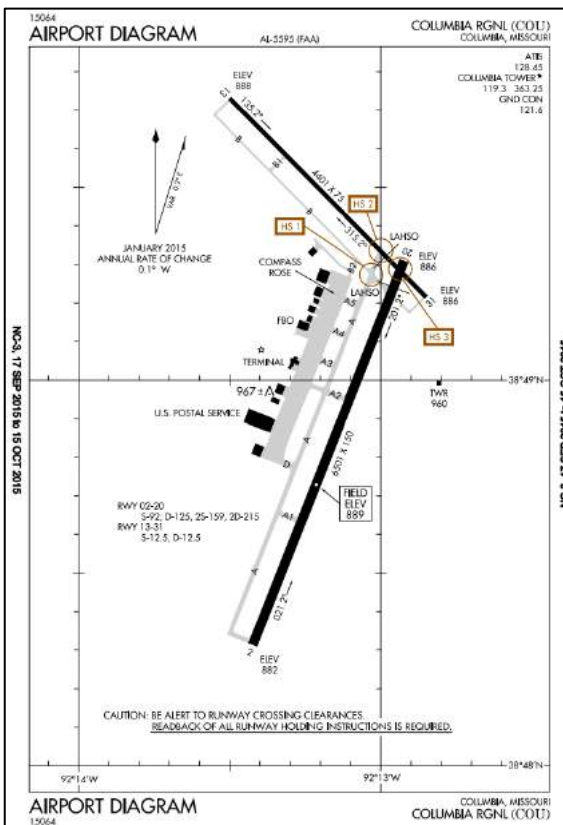
Figure 6.3



In addition to commercial passenger service, the airport also accommodates corporate flying, air cargo, flight training, and recreational flying. Corporate users of the airport include the University of Missouri, Cloud Surfers, Highland Dairy, and Menards. Students, faculty, staff, and visitors of the University of Missouri frequently utilize the airport for both commercial and general aviation purposes. Also, the university often charters aircraft for their collegiate sports teams.

The airport is home to the annual Salute to Veterans airshow, attracting nearly 50,000 annual visitors. The airport also supports activities such as aerial inspections, search and rescue training, aerial photography, real estate tours and advertising.

Figure 6.4



The airport provides support to law enforcement operations, environmental patrols, emergency medical transports, and medical doctor transports. Emergency medical evacuation and transportation flights utilize the airport daily working with the three local hospitals in Columbia. Figure 6.4 depicts the runway layout of the airport.

Supported aviation businesses include:

- FAA Airways Facilities Service Support Center
- TSA
- U.S. Post Office
- Central Missouri Aviation and Ozark Management

Management

- Midwest Air Traffic Control
- Worldwide Flight Services
- Enterprise Rental Cars
- Hertz Rental Cars
- Columbia Avionics

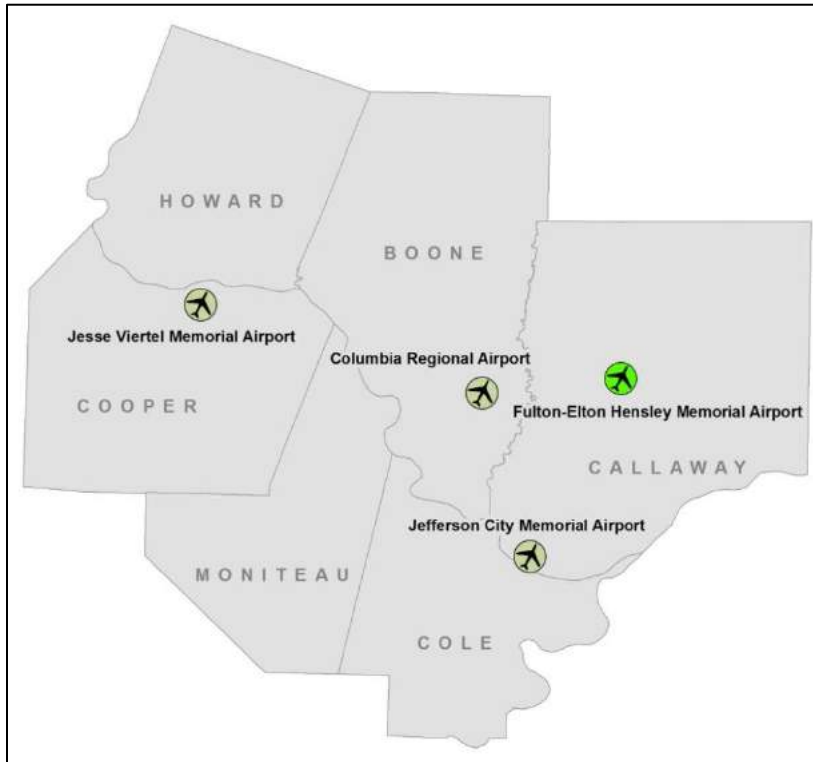
Source: FAA

## Fulton-Elton Hensley Memorial Airport (FTT)

Elton Hensley Memorial Airport is owned and operated by the City of Fulton. The airport has three runways; Runway 18/36 (4,001 ft.), Runway 06/24 (3,203 ft.), and turf Runway 12/30 (2,488 ft.).

Airport services include corporate flying, flight training, and recreational flying. Several companies rely on the airport to transport staff, equipment, and goods in and out of the region. Aerial pipeline inspectors and seasonal aerial agricultural sprayers rely on the airport for aviation-related services. Students, staff, and visitors to William Woods University and Westminster College located in Fulton, also frequently use the airport.

Figure 6.5



The airport serves as a staging area for community events and meetings, such as hosting an annual fly-in in conjunction with the Kingdom Pilots Association. The airport also supports a locally based Civil Air Patrol (CAP) chapter, law enforcement operations, prisoner transports, and military training and support. The Missouri National Guard uses the airport's grass strip and other amenities for training personnel. Figure 6.5 depicts the location of the airport.

Amenities provided by the airport include fuel, hangar and tie-down rentals, courtesy cars, offsite car rental, and passenger and pilot facilities. Advanced Aviation offers aircraft maintenance service, while another local business sells antique aircraft parts.

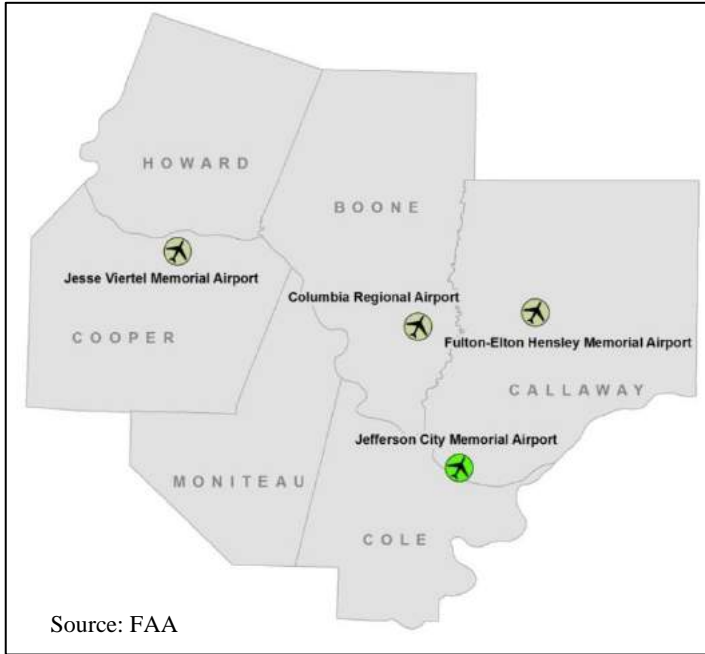
Supported aviation businesses include:

- Angel Fire Express
  - Advanced Aviation
  - Danuser Machine Company
  - Media Truth
  - MWS Project Management
- Source: summary information courtesy MoDOT

## Jefferson City Memorial Airport (JEF)

Jefferson City Memorial Airport is located in Missouri's capital, Jefferson City and is owned and operated by the city. The airport has two runways, Runway 09/27 (3,401 ft.) and Runway 12/30 (6,001 ft.) The airfield is shared with the Missouri National Guard headquarters, including the Special Troops Battalion-Joint Force Headquarters. The airport offers both Jet A and 100LL fuel to based and visiting aircraft. Figure 6.6 and Figure 6.7 depict the location and runway layout of the airport.

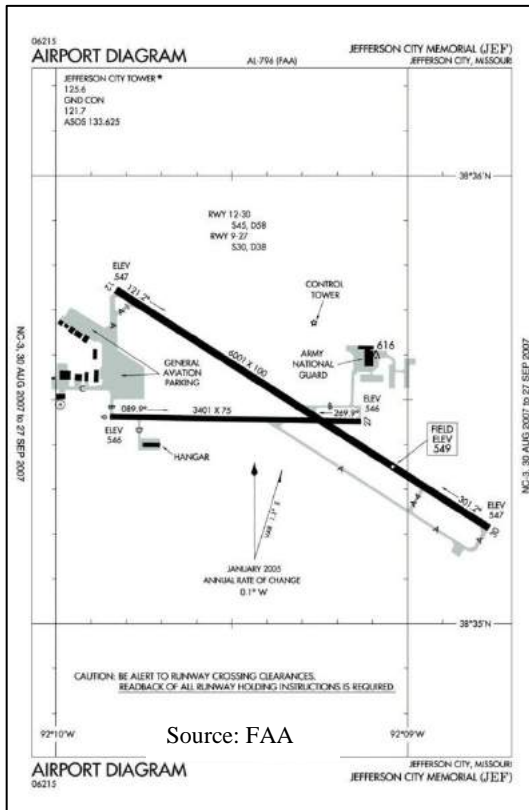
Figure 6.6



Airport activities include corporate flying, flight training, military exercises, air cargo, recreational flying, emergency medical transports, medical doctor transports, and search and rescue training performed by the Civil Air Patrol. Several of Missouri's state government flight departments are based at the airport, including:

- Missouri Highway Patrol
- Missouri Department of Conservation
- Missouri Department of Transportation

Figure 6.7



The airport serves as a staging area throughout the year for community events and meetings. Supported aviation businesses include:

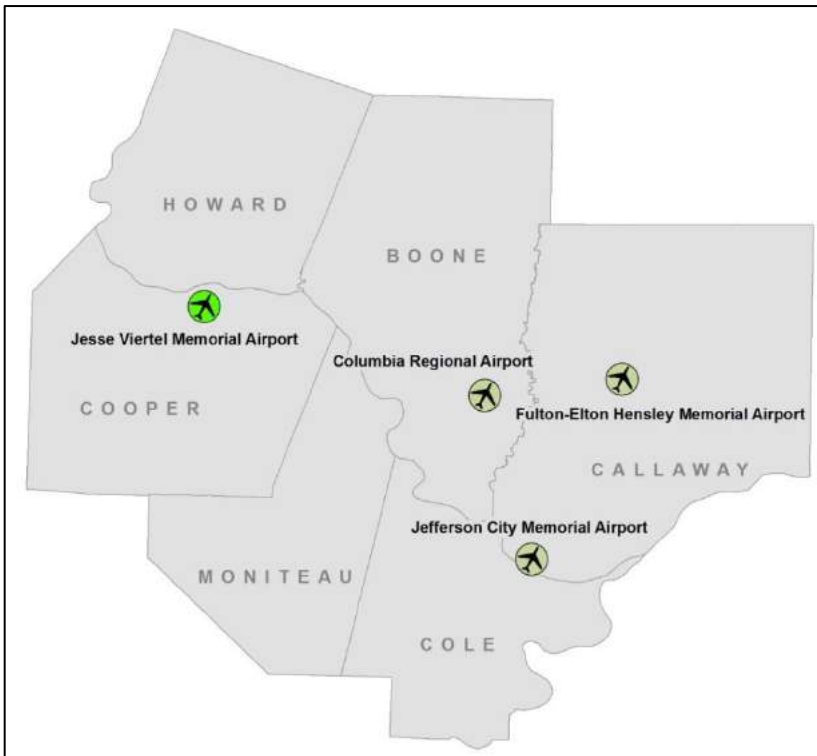
- Jefferson City Flying Service
- Abbott Aviation Technology
- Central Bank
- Warhawk Computers
- Hertz Rental Cars
- Nick's Family Restaurant
- Accord Financial Inc.
- Burcham Rentals Inc.
- Cessna Aircraft Company
- Computer Service Professional Inc.
- Angel Flight and Life Flight

Source: summary information courtesy MoDOT

## Jesse Viertel Memorial Airport (VER)

Jesse Viertel Memorial Airport is located between the Missouri River and I-70 in Boonville and is owned and operated by the City of Boonville. The airport has one asphalt paved runway, Runway 18/36 (4,000 ft.). Figure 6.8 depicts the location of the airport.

Figure 6.8



Common activities at the airport include corporate flying, flight training, aerial pipeline inspections, and recreational flying. Seasonally, aerial agricultural spraying, aerial photography, and Civil Air Patrol (CAP) search and rescue training and operations take place at the airport. The Missouri National Guard and Missouri State Highway Patrol utilize the airport to conduct training and daily operations. The airport also supports emergency medical transports, medical doctor transports to Valley Hope Association, and environmental patrols and studies conducted by the Missouri Department of Conservation and U.S. Army Corps of Engineers.

The airport also serves as a gateway to outdoor attractions in the region, attracting hikers, boaters, and fishermen. Students, parents, and visitors of the University of Missouri frequently utilize the airport as well. The airport serves as a staging area for community events hosting an annual pancake breakfast fly-in with the Missouri Pilots Association.

The airport provides Fixed-Base Operator (FBO) services that include fuel, hangar and tie-down rentals, rental and crew cars, and flight crew facilities. Supported aviation businesses include:

- Tig-Air Aviation
- G&J Aircraft
- Mid Missouri Ag



## MoDOT and Missouri's Airports

According to MoDOT, the aviation section of the Multimodal Operations Division has a staff of eight and administers approximately \$4,000,000 in state and \$7,000,000 in federal funding for airport maintenance and capital improvement projects annually. Other duties include airport safety inspections, maintaining a state airport system plan, airport traffic counts, and promoting aviation education.

Chapter 305 of the Missouri Revised Statutes establishes state law related to Aircraft and Airports. It also includes specific guidelines concerning MoDOT administration and eligibility for state and federal aviation grants.

The Missouri Highways and Transportation Commission formed an Aviation Advisory Committee in 1987 to advise them on aviation matters. The committee is made up of eleven members representing pilot groups, airport management, aviation education, business owners and aviation consulting firms. The committee meets regularly to discuss and is involved in state aviation legislation, airport funding, tall towers, safety, and aviation education issues.

## Missouri Statewide Airports Economic Impact Study

The 2012 Missouri Statewide Airports Economic Impact Study included a review of the contributions of airports to the statewide economy. The study concluded that Missouri's public use airports are an economic anchor, contributing to each community's economic base by creating jobs and supporting a wide range of business activities.

The study focused on nine commercial service and 99 public use general aviation airports. These airports were the focus of this study's analysis and calculation of benefits. Missourians rely on and receive a return from operation of the airport system. The study also measures the economic benefits attributable to this system. The study examines both the direct and spin-off contributions that an airport provides to the Missouri economy in terms of jobs, payroll, and output. Other qualitative benefits of the airport system were also identified as part of the analysis.

Major study findings include:

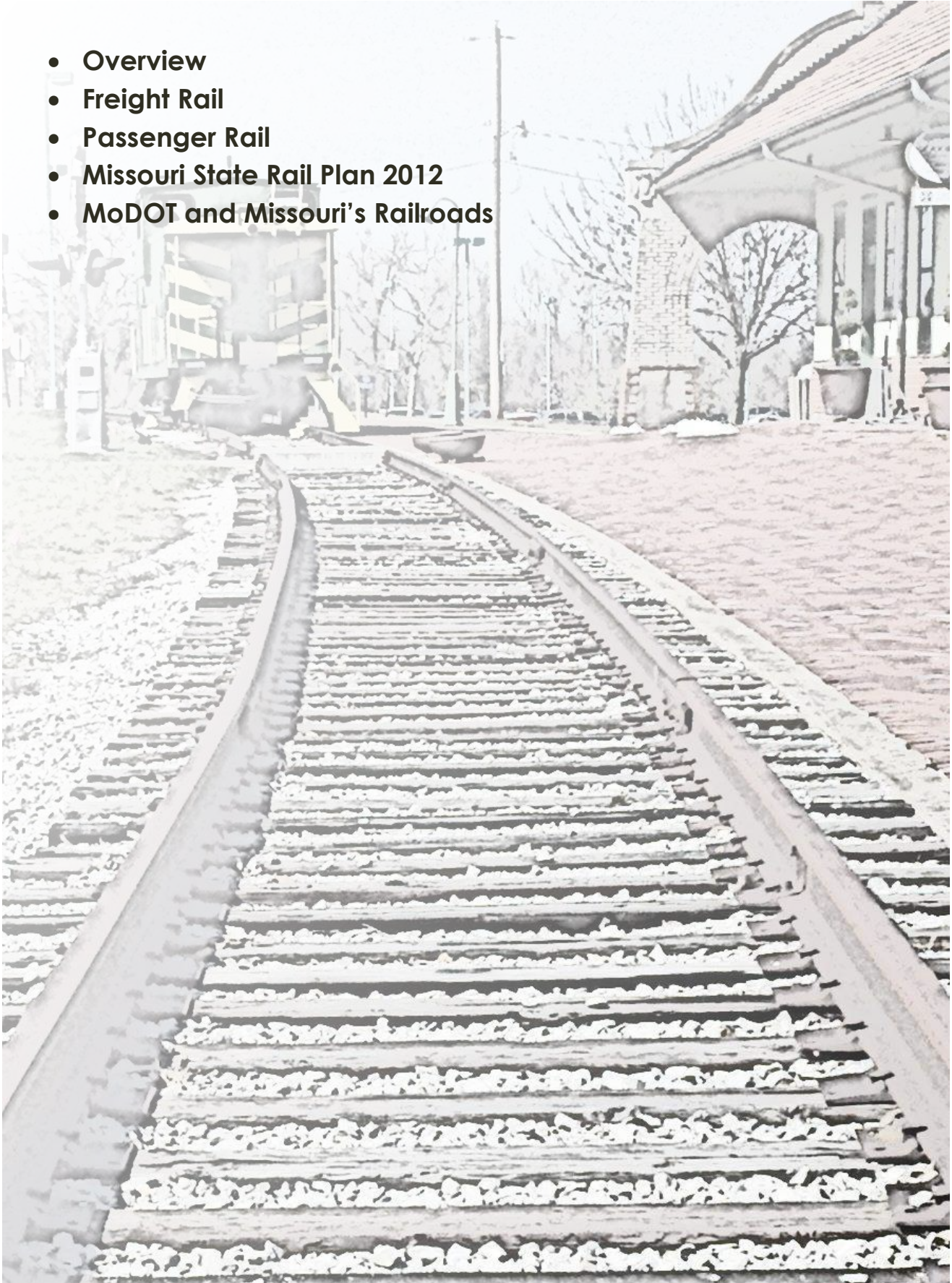
- The economic contribution of Missouri airports has grown 17.1 percent over the last decade despite the economic recession that began in 2007. The growth has been fueled by an increase in corporate/business aviation activity.
- Airports support unique and diversified businesses and users. These users rely on the airport system in a variety of ways, and many use Missouri's airport system daily.
- Airports directly and indirectly generated \$11.1 billion in output in 2012, or 4.3 percent of the State's Gross Product. Missouri's Gross State Product was \$258 billion in 2012.
- This output translates into 100,621 jobs—approximately one of every 35 jobs in Missouri—with employee compensation per annum averaging more than \$31,000.

The executive summary of this study and individual summary studies for each airport are included in Appendix D.

**(This page intentionally left blank)**

## Chapter 7: Rail

- Overview
- Freight Rail
- Passenger Rail
- Missouri State Rail Plan 2012
- MoDOT and Missouri's Railroads



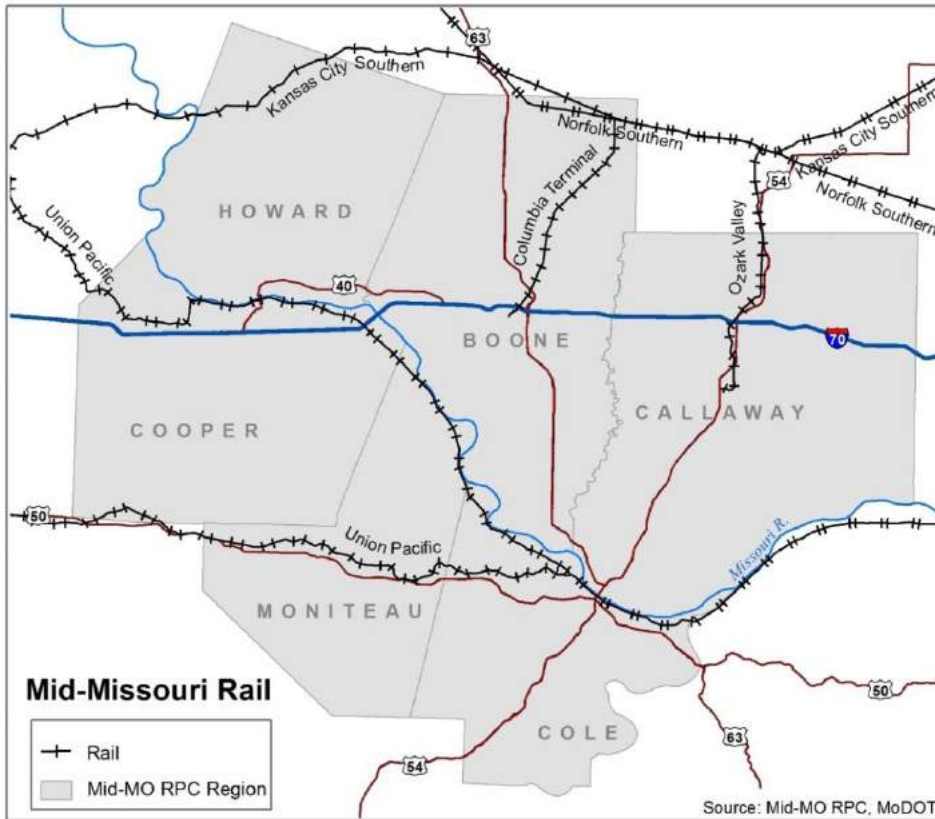
## Overview

There are five railroad companies operating on 373 miles of track in the Mid-MO RPC region. These railroad companies consist of three Class I railroads, one terminal railroad, and one out of service local railroad. Figure 7.1 depicts the railroad operators, their classification, miles of track within Mid-Missouri and the state. Figure 7.2 illustrates the locations of the rail lines within the Mid-MO RPC region.

Figure 7.1

Mid-MO RPC Railroad Operators			
Operator	Category	Miles (Mid-MO)	Miles (Missouri)
Columbia Terminal (COLT)	Terminal	43	22
Kansas City Southern (KCS)	Class I	42	396
Norfolk Southern Railway Company (NS)	Class I	116	409
Ozark Valley (OVR) - <b>not active</b>	Local	33	33
Union Pacific (UP)	Class I	144	1,497

Figure 7.2



According to the 2012 Missouri State Rail Plan there are a total of 19 railroad companies operating on tracks within the state of Missouri. Railroad companies are typically described in three general categories based on their size and type of operations:

**Class I Railroads** - are large line haul freight railroads with a 2009 operating revenue of \$378.8 million or more. There are seven Class I Railroads in the United States, and six of them own tracks or have operating rights in Missouri. These include:

- Burlington Northern Santa Fe Railway (BNSF)
- CSX Transportation (CSX) (trackage rights only in Missouri)
- Kansas City Southern Railway (KCS)
- Norfolk Southern Railway (NS)
- Soo Line Corporation (the U.S. operating arm of Canadian Pacific (CP))
- Union Pacific Railroad (UP)

The Canadian National Railroad (CN) (which operates in the U.S. as the Grand Trunk Corporation) is the only U.S. Class I railroad without operations in Missouri.

**Switching & Terminal Railroads (S&T)** - perform pickup and delivery services within a port or industrial area, or move traffic between other railroads. These railroads do not provide point-to-point transportation; rather they provide connecting services to get freight to and from its ultimate origin or destination. Missouri has eight S&T railroads:

- Central Midland Railway (CMR)
- Columbia Terminal (COLT)
- Kansas City Terminal Railway Company (KCT)
- Manufacturers Railway Company (MRS)
- Missouri & Valley Park Railroad (MVP)
- Missouri North Central Railroad (MNC)
- Semo Port Railroad (SE)
- Terminal Railroad Association of St. Louis (TRRA)

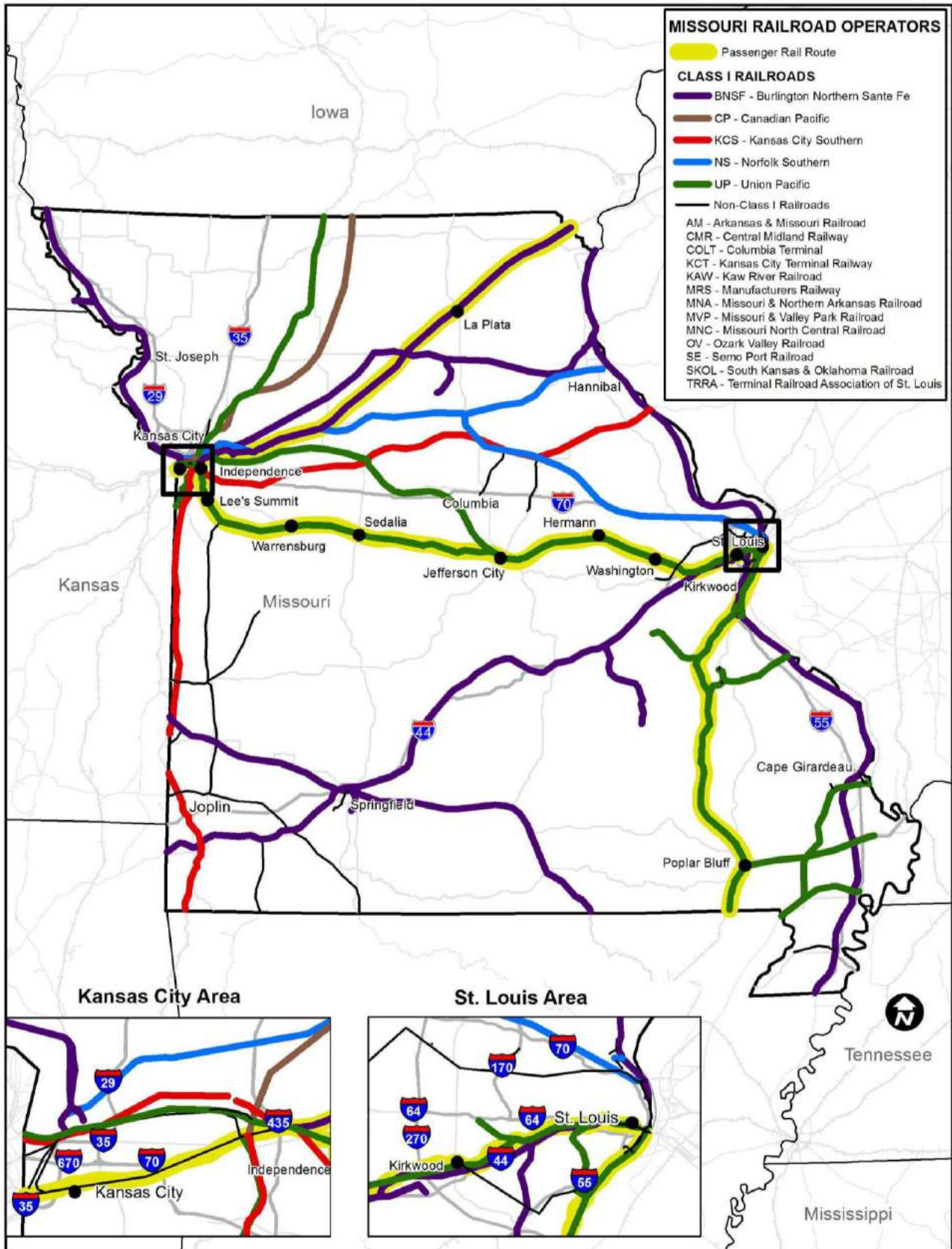
The KCT and TRRA are both multi-state operations which play a key role in moving trains from, to, and through their respective metropolitan areas.

**Local Railroads** - are short line haul railroads which generally have annual revenues of less than \$40 million per year. Seventy-five percent of the more than 300 local railroads which operate in the U.S. have fewer than 100 miles of railroad line. Missouri is served by five local railroads:

- Arkansas & Missouri Railroad (AM)
- Kaw River Railroad (KAW)
- Missouri & Northern Arkansas Railroad (MNA)
- Ozark Valley Railroad (OVR)
- South Kansas & Oklahoma Railroad (SKOL)

Figure 7.3 is a map taken from the Missouri State Rail Plan depicting rail lines and operators in the state. Figure 7.4 lists the number of miles of track operated by each railroad in Missouri.

Figure 7.3



Source: Missouri State Rail Plan 2012

Figure 7.4 Railroads Operating in Missouri

Railroad	Acronym	Miles Owned	Operating Rights	Total Miles
<b>Class I Railroads</b>				
BNSF Railway Company	BNSF	1,593	166	1,759
CP/Soo Line Corp. (Formerly Iowa, Chicago & Eastern RR)	CP/SOO	139	5	144
CSX Transportation	CSX	0	13	13
Kansas City Southern Railway	KCS	396	0	396
Norfolk Southern Corp.	NS	344	65	409
Union Pacific Railroad	UP	986	511	1,497
<b>Total Class I</b>		<b>3,458</b>	<b>760</b>	<b>4,218</b>
<b>Switching &amp; Terminal Railroads</b>				
Central Midland Railway	CMR	52	0	52
Columbia Terminal	COLT	22	0	22
Kansas City Terminal Railway Co.	KCT	32	0	32
Manufacturers Railway Co.	MRS	4	3	7
Missouri & Valley Park Railroad Corp.	MVP	27	0	27
Missouri North Central Railroad	MNC	4	0	4
Semo Port Railroad, Inc.	SE	8	0	8
Terminal Railroad Assn. of St. Louis	TRRA	26	0	26
<b>Total Switching &amp; Terminal Railroads</b>		<b>175</b>	<b>3</b>	<b>178</b>
<b>Local Railroads</b>				
Arkansas & Missouri Railroad	AM	33	0	33
Kaw River Railroad	KAW	21	0	21
Missouri & Northern Arkansas Railroad	MNA	331	0	331
Ozark Valley Railroad, Inc.	OVR	25	8	33
South Kansas & Oklahoma RR	SKOL	8	0	8
<b>Total Local Railroads</b>		<b>418</b>	<b>8</b>	<b>426</b>
<b>Total Rail Miles in Missouri</b>		<b>4,051</b>	<b>771</b>	<b>4,822</b>

Source: Missouri State Rail Plan 2012

## Railroad Crossings

According to the Federal Railroad Administration Office of Safety Analysis, there are approximately 3,800 public highway-rail crossings and 2,000 private highway-rail crossings in Missouri. In Mid-Missouri there are at least 640 public highway-rail crossings. Rail lines run through all six Mid-MO RPC counties. The following 6 communities are crossed by and have access to rail service: Boonville, California, Centralia, Columbia, Jefferson City, and Glasgow.

## Freight Rail

According to Missouri's LRTP railroads provide critical connections to the global marketplace and support a strong industry of more than 8,000 jobs statewide. In 2012, 438 million tons of freight was moved along Missouri railroads. Missouri has the 10th largest rail system with 4,822 miles of track that are owned and operated by 19 different railroad companies.

The second and third largest rail hubs in the nation are located in Kansas City and St. Louis, respectively. Three railroad operators connect Mid-Missouri with Kansas City and St. Louis via the Mid-Missouri cities of Boonville, Centralia, and Jefferson City: KCS, NS, and UP.

The COLT line provides access from Columbia to connections in Centralia. Of the seven Class 1 railroads in the United States, six of them own tracks or have operating rights in Missouri, according to the Missouri LRTP. These Class 1 railroad companies operate 87 percent of the railroad miles in Missouri.

## Passenger Rail

Amtrak operates the only passenger rail service in Mid-Missouri. Amtrak operates two national passenger train routes in Missouri, providing connections to Chicago, Los Angeles and San Antonio, and a state-supported route, the Missouri River Runner, between St. Louis and Kansas City. The Missouri River Runner includes stops in Kirkwood, Washington, Hermann, Jefferson City, Sedalia, Warrensburg, Lee's Summit and Independence. Jefferson City is the only stop along route in the Mid-MO RPC region.

The Missouri River Runner provides two trips each day and, according to Missouri's LRTP, had an 89 percent on-time performance in 2012. Each year, about 500,000 passengers ride Amtrak trains in Missouri, which includes 200,000 on the state supported route. In 2011, the Missouri River Runner provided service to approximately 191,000 passengers according to the Missouri State Rail Plan. Passenger rail in Missouri is seen as a growing industry for business travelers, students and commuters alike. Given the expected population growth in some areas, passenger rail will continue to be an important option for travelers in Missouri. Figure 7.5 depicts passenger rail service in Missouri.



Figure 7.5



Source: Missouri State Rail Plan 2012

## Missouri State Rail Plan 2012

In 2012 MoDOT prepared a state rail plan to guide the development of the rail system and rail services in Missouri over the next 20 years. The plan identifies current and future needs of the system and considers and defines public policies which will encourage and enable ongoing investments to the system to support future needs. The document meets the state rail planning requirements included in the federal Passenger Rail Investment and Improvement Act of 2008 (Public Law 110-432) (PRIIA).

The plan is based on the understanding that the maintenance and expansion of rail service is critical to the economic well-being of the citizens and businesses of Missouri. Railroads play a major role in the movement of freight within and throughout the state and provide vital connections to the global marketplace. Because rail access is essential to many companies, improved rail service provides an important tool in Missouri's business development efforts. Passenger rail service provides an alternative for traveling between major economic centers and helps promote commerce and economic development, particularly in the areas adjacent to stations.

The plan development process included extensive involvement by the private sector, public officials, key stakeholders and the general public. The state rail plan also takes into account plans for other transportation modes, including public transit, highways, ports and waterways and air services.

The state rail plan establishes the following:

- A long-term vision for Missouri's rail system, consisting of an integrated freight and passenger rail network as part of a balanced statewide transportation system to be included in MoDOT's State Long-Range Transportation Plan;
- A recommended program of priority improvements over the next 20 years, including an estimate of needs and benefits resulting from those investments;
- Recommended potential approaches to financing these improvements, including accessing federal funds, public/private partnerships and alternative financing mechanisms; and
- Other suggested changes, including refinements to existing state rail programs and institutional responsibilities for rail service and infrastructure development.

## MoDOT and Missouri's Railroads

According to MoDOT, the MoDOT Multimodal Operations Division is the administrative division responsible for supporting alternative transportation programs within the state. The division functions to continue the advancement and strategic planning for Aviation, Rail, Transit, Waterways, and Freight Development initiatives designed to expand Missouri's infrastructure and facilitate travel and commerce. Through the integration of the various modes, the traveling public enjoys greater accessibility to the resources of the state while industry capitalizes on improved transportation efficiencies.

In 2004, Missouri voters approved Constitutional Amendment 3 which requires all revenues from the existing state motor vehicle fuel tax (less collection costs and costs to administer and enforce state motor vehicle laws and traffic regulations) to be used only to construct, improve and maintain state highways, roads and bridges. The amendment also requires motor vehicle taxes and fees paid by highway users be used only for constructing, improving and maintaining the state highway system. The amendment prohibits these motor vehicle taxes dedicated for state highway purposes from funding the other, non-highway modes of transportation. However, the amendment also provided that 2 percent of the first one-half of the motor vehicle sales tax be deposited into the State Transportation Fund, which is required to be used solely to fund aviation, mass transportation, transportation of elderly and handicapped, railroads, ports, waterborne commerce and intermodal connections.

## MoDOT's Railroad Section

The Railroad Section of MoDOT's Multimodal Operations Division administers the state's railroad program. This program includes freight rail regulation, intercity passenger rail improvement and promotion, light rail safety regulation, highway-rail crossing safety, and rail/highway construction. The section conducts safety inspections of railroad infrastructure as it relates to track, grade crossing signals, and railroad operating practices. Unlike many states,

Missouri does not own or operate any freight railroad right of way and does not provide funding to support short line railroad operations in the state.

The Railroad Section's intercity passenger rail activities include planning, coordinating and providing operating funding for Amtrak services in Missouri and managing federal capital grants for passenger rail infrastructure improvements. Missouri does not have a dedicated source of funding for either Amtrak operating support or passenger rail capital improvements, including matching funds for federal grants.

MoDOT is mandated by the Missouri Revised Statutes with the responsibility of providing safety oversight of railroad operations within the state. The statutes contained in Chapters 286, 388, 389 and 622 obligate the state of Missouri to promote and safeguard the health and welfare of the general public, the railroads, and railroad employees. The Railroad Section exercises its oversight responsibility through the enforcement of state laws and rules and through a cooperative agreement with the U.S. Department of Transportation's Federal Railroad Administration (FRA), Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) to enforce federal laws and regulations. The major railroad safety areas handled by the Railroad Section include:

- Grade crossing installation and upgrades
- Track safety
- Grade crossing signal inspection
- Grade crossing safety
- Employee safety
- Railroad operating practices

Railroad safety inspections and other related regulatory activities conducted by the MoDOT Railroad Section are funded in part by annual assessments of railroad companies operating in Missouri based on their gross intrastate operating revenues.

**(This page intentionally left blank)**

## Chapter 8: Ports

- Overview
- Howard County/Cooper County
- Regional Port Authority
- MoDOT and Missouri's Ports
- Missouri River Freight Corridor Assessment and Development Plan

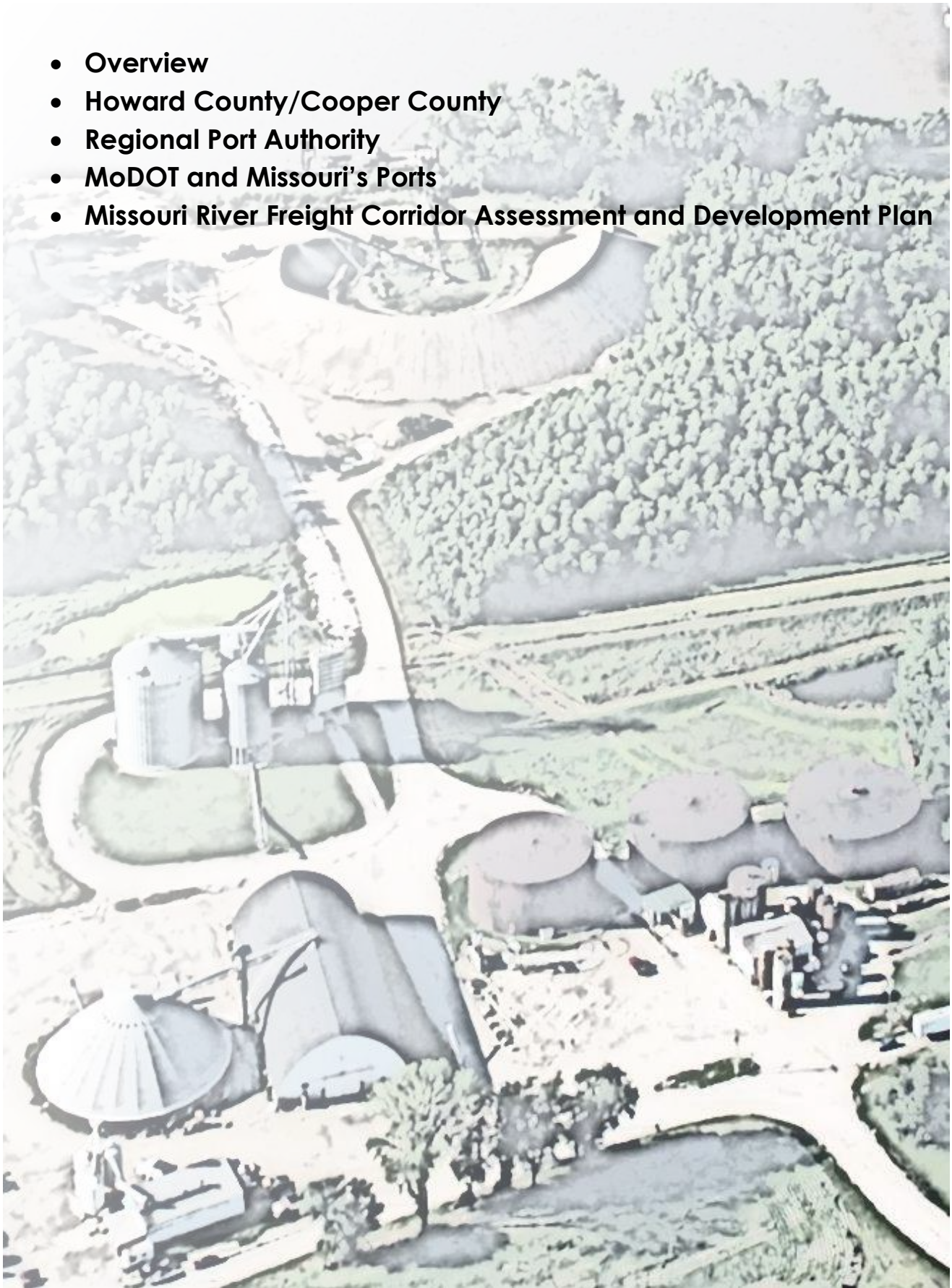


Photo Courtesy MoDOT

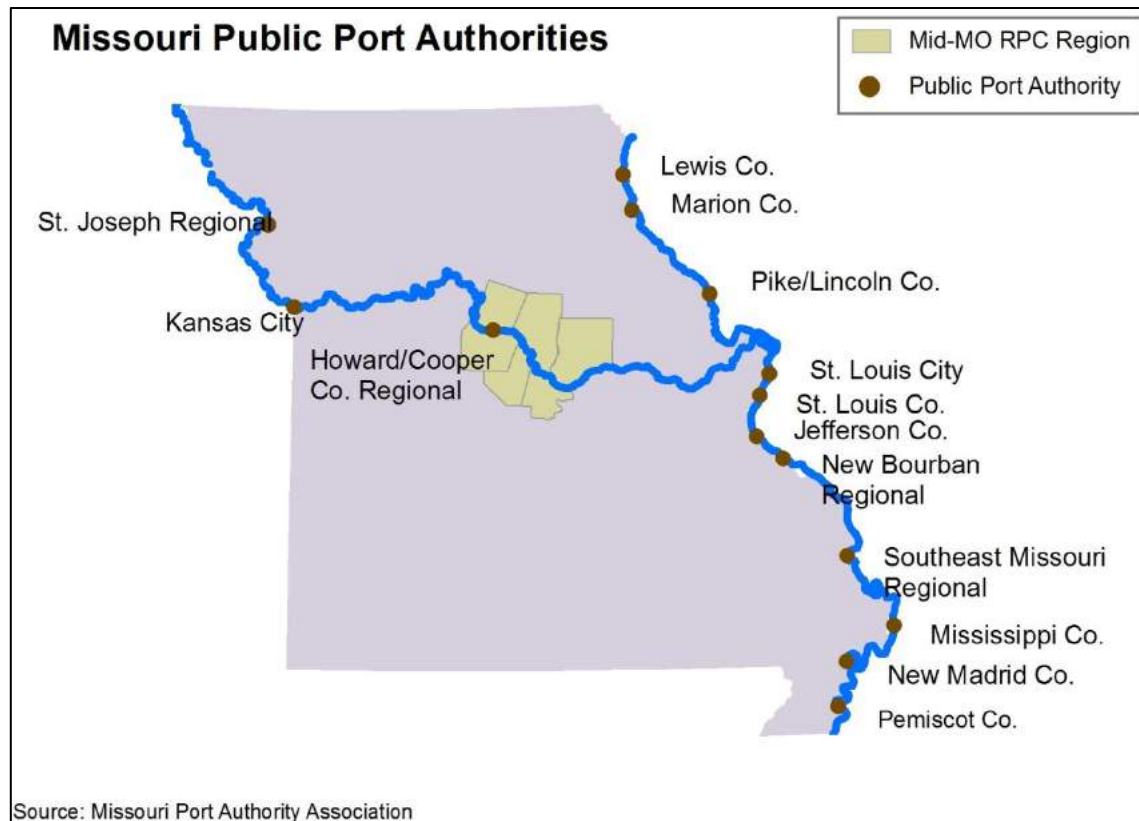
## Overview

The Missouri River runs through the heart of the Mid-MO RPC region and is the only navigable waterway in the region capable of carrying commercial goods and products. The river has always played an important role in commerce and transportation by connecting the Mississippi River and points east to the West. While the current commercial use of the river has seen a strong decline over the past 30 years, some industries still use this thoroughfare for products such as sand, rock, grain and other large items that may be difficult to transport via highway or air. According to MoDOT, approximately 30 million tons of freight claims a Missouri port as the point of origin before being moved along the Missouri and Mississippi Rivers. The Howard/Cooper County Regional Port Authority, the only river port in Mid-Missouri, is one of 14 public port authorities in the state. Several commodities are transported on the Missouri River including agricultural products, chemicals such as fertilizers and petroleum products, and manufactured goods such as building materials. These products flow along the Missouri River to the Mississippi River where they join a larger variety of products that work their way towards other major ports.

The stretch of Missouri River flowing through Mid-Missouri is designated as a “marine highway”, meaning it may be used to relieve landside congestion, reduce air emissions and generate other public benefits by increasing the efficiency of freight movement on the surface transportation system.

In addition to the 14 public port authorities, Missouri has approximately 185 other docks or wharfs that are operated by a variety of private and public entities. There are also 6 toll ferries, 5 located along the Mississippi River and one on the Current River in south central Missouri. Figure 8.1 depicts the locations of Missouri’s Public Port Authorities.

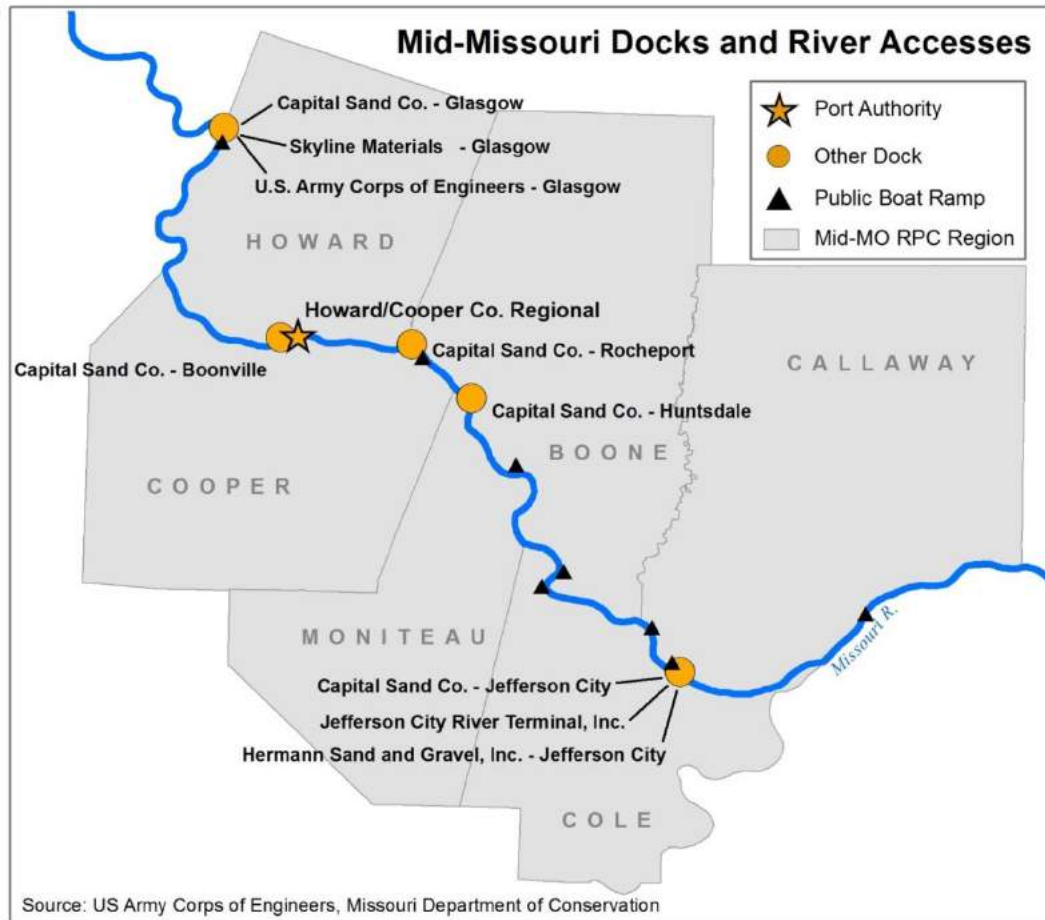
Figure 8.1



The Missouri Department of Conservation and Missouri Department of Natural Resources also manage hundreds of public river accesses across the state, including 8 in Mid-Missouri along the Missouri River. These public access points are generally used for recreational purposes such as boating and fishing.

Figure 8.2 depicts the locations of all the Mid-Missouri river ports and public access in Mid-Missouri.

Figure 8.2



Mid-Missouri’s 9 private dock facilities are mostly used for the movement of rock and sand, but can be utilized for other products such as grain, heavy equipment, and bulk goods. Figure 8.3 lists the private and public dock facilities along the Missouri River.

Figure 8.3

**Mid-MO RPC Ports and Docks**

Facility Name	Location	Facility Use
Capital Sand Co.	Jefferson City	Sand and gravel unloading
Jefferson City River Terminal, Inc.	Jefferson City	Loading and unloading dock
Hermann Sand and Gravel, Inc.	Jefferson City	Sand unloading
Capital Sand Co.	Huntsdale	Sand and gravel unloading
Capital Sand Co.	Rocheport	Sand and gravel unloading
Capital Sand Co.	Boonville	Sand and gravel unloading
Howard/Cooper Co. Regional Port Authority	Boonville	Loading and unloading
Skyline Materials	Glasgow	Rock loading
Capital Sand Co.	Glasgow	Sand and gravel unloading
U.S. Army Corps of Engineers	Glasgow	Loading platform

Source: US Army Corps of Engineers - 2014

## Howard/Cooper County Regional Port Authority

The port is located in Howard County on the north side of the Missouri River across from the city of Boonville. The port is adjacent to US 40, MO 5, MO 87, and I-70. Access to Missouri Pacific Railroad is within one mile of the facility. The port facility includes the following:



- Storage capacity of 250,000 bushels of grain and 4 million gallons of liquid chemicals
- Two dry storage buildings and a 15,000-ton outside storage pad also available
- A general cargo dock with liquid capabilities, a 50-ton crane and a 25-ton crane located on a floating dock
- A complete line of support equipment, including loaders, dump trucks, conveyors and repair equipment is also available
- 35 prime industrial acres are available for development
- Available utilities include three-phase and single-phase electric, as well as water and gas

Although it is the only Missouri River public shipping access between Kansas City and St. Louis, current use of the port is minimal. As part of the 2014 update of the Regional Needs List, the Port Authority has identified a desire to expand and/or relocate the facility to increase use. The following needs were identified in 2014 and are included in the Regional Needs List in Chapter 10:

- Dredge and fill adequate site/load and unload conveyors
- New Dock and Road
- 2 - 400,000 Bu Grain Bins
- Dry Fertilizer and NH<sub>3</sub> storage
- Crane Capable of handling containers

Additionally, Callaway County identified installation of a new Port Authority as a need in 2014. The exact location of this port has not been identified, but would most likely be located near the Missouri River Bridge across from Jefferson City.

## MoDOT and Missouri's Ports

Missouri Statute Chapter 68 RSMo allows for the formation of port authorities, and MoDOT's waterways unit assists authorized cities and counties in forming port authorities to foster local economic development. MoDOT's waterways staff promotes the use of Missouri's navigable rivers to make low-cost waterborne transportation benefits available to business. It also assists in capital and administrative funding, acts as an informational clearinghouse, provides technical assistance and represents port interests within industrial and governmental circles. MoDOT's waterways section also provides assistance and funding to two Mississippi River ferry crossings at Ste. Genevieve and Dorena.



## Missouri River Freight Corridor Assessment and Development Plan

In 2011 the Missouri Department of Transportation received an appropriation from the US Congress to complete a study look into the redevelopment of the Missouri River as a viable freight corridor. Missouri was the only state appropriated these funds. The Missouri River Freight Corridor Assessment and Redevelopment Plan was completed in 2011.

This plan identified four areas four focus areas that support increased river use and corridor development:

- Redevelop and expand traditional freight markets,
- Identify port infrastructure needs, operations support, and equipment required to initiate, support and expand freight services on the river,
- Evaluate potential new markets and strategies to promote market expansion, and
- Identify conceptual approaches to river management that optimize freight movement on the river.

A summary report concluded the following:

- Market potential exists to add significant volume to existing Missouri River freight movements over the next five years and beyond. Some of the growth opportunities are in traditional markets that have moved on the river, while others are in emerging markets.
- Much of the infrastructure and equipment necessary to support growth is already in place, some of the infrastructure and equipment need relatively minor maintenance, and some markets will require investment in new equipment and infrastructure.
- There are some obvious geographic locations that make sense for specific development of freight capability to address wide market demand. Other locations will also be advantageous due to specific strategic advantage in particular market segments.
- The challenges of navigation reliability and perceived risk can be mitigated by organized cooperation among navigation and freight stakeholders. Advocacy by Missouri River freight stakeholders is necessary and can have profound impact on the success of the system.
- Necessary investment will likely need to come primarily from the private sector, but municipal, state and federal assistance could be appropriate and beneficial. Precedent exists for both public and private investment in waterway freight movement and the associated economic development.

The planning process also concluded with several other summary reports and information that could be used by individual ports and docks to market themselves to perspective freight producers. Please see Appendix E for a copy of the Missouri River Freight Corridor Assessment and Redevelopment Plan Summary Report.

**(This page intentionally left blank)**

## Chapter 9: Freight

- Overview
- Missouri Freight Plan
- Central District Freight Profile



## Overview

There are three major contributors to freight movement in the Mid-MO RPC region. Motor carriers, rail, and Missouri River barges all contribute to the movement of several goods, materials, and services in the region. I-70, which crosses three Mid-Missouri counties, extends approximately 2,153 miles from near Baltimore, Maryland to Cove Fort, Utah. I-70 serves 10 States including Utah, Colorado, Kansas, Missouri, Illinois, Indiana, Ohio, West Virginia, Pennsylvania, and Maryland. I-70 also connects to 20 other major Interstates. Within Missouri, I-70 runs approximately 251 miles from the Illinois border in St. Louis to the Kansas border in Kansas City. Rail service includes three national Class I railroad companies: Kansas City Southern Railway (KCS), Norfolk Southern Railway (NS), and Union Pacific Railroad (UP). While the only Port Authority in the Mid-Missouri region is currently inactive, several private companies in Mid-Missouri use the Missouri River to ship raw materials and agricultural products. Figures 9.1 and 9.2 depict the river ports and railroad operators in the Mid-MO RPC region.

Figure 9.1

Mid-MO RPC Ports and Docks		
Facility Name	Location	Facility Use
Capital Sand Co.	Jefferson City	Sand and gravel unloading
Jefferson City River Terminal, Inc.	Jefferson City	Loading and unloading dock
Hermann Sand and Gravel, Inc.	Jefferson City	Sand unloading
Capital Sand Co.	Huntsdale	Sand and gravel unloading
Capital Sand Co.	Rocheport	Sand and gravel unloading
Capital Sand Co.	Boonville	Sand and gravel unloading
Howard/Cooper Co. Regional Port Authority	Boonville	Loading and unloading
Skyline Materials	Glasgow	Rock loading
Capital Sand Co.	Glasgow	Sand and gravel unloading
U.S. Army Corps of Engineers	Glasgow	Loading platform

Source: US Army Corps of Engineers - 2014

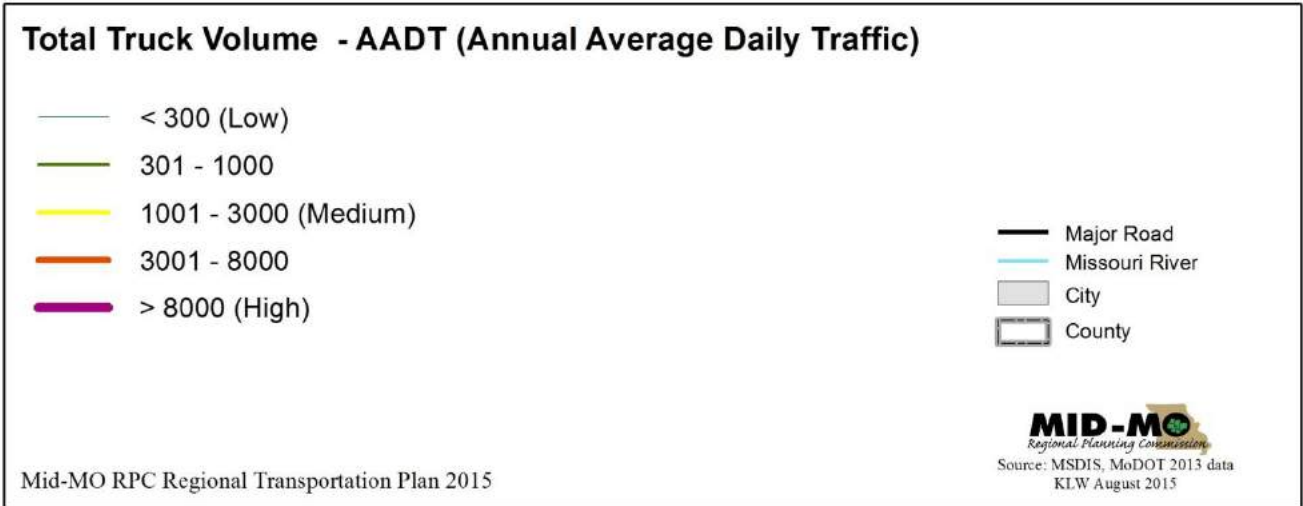
Figure 9.2

Mid-MO RPC Railroad Operators			
Operator	Category	Miles (Mid-MO)	Miles (Missouri)
Columbia Terminal (COLT)	Terminal	43	22
Kansas City Southern (KCS)	Class I	42	396
Norfolk Southern Railway Company (NS)	Class I	116	409
Union Pacific (UP)	Class I	144	1,497

Source: Missouri Freight Plan

According to Missouri's Long Range Transportation Plan, the majority of freight is carried by truck. In 2011, 64% of freight traveled on Missouri's road network. Mid-Missouri's major roadways bring a large volume of motor carriers through the region. While I-70 carries significantly more truck traffic than the supporting US and State highways in the region, those other roadways are critical to the success of the overall system. Figure 9.3 displays daily truck volumes for major roads in the Mid-MO RPC region. Major routes such as I-70 and US63, US54, and US50 carry the highest amounts of truck volume.

Figure 9.3



Major freight distributors in the Mid-MO RPC region, according to the Missouri Freight Plan include:

- Dollar General - Fulton, MO
- MBS - Columbia, MO
- Midway USA - Columbia, MO
- Scholastic - Jefferson City, MO

Figure 9.4 illustrates the major freight distributors in Missouri. Additionally, the Columbia Area Transportation Study Organization (CATSO) provides a list of Columbia based freight haulers in their Long Range Plan. This list can be found in Appendix F of this plan.

Figure 9.4



Source: Missouri Long Range Transportation Plan - Technical Report 2014

Mid-Missouri represents a small but growing portion of the overall state and national freight system. The following graphic was taken from the 2014 Missouri Freight Plan illustrating Missouri's freight capacity.



## Missouri Freight Plan

*"We're at the crossroads of the nation and freight movement is vital to our State.*

*As a critical element in the Missouri economy, it is important to have a plan to make sure we keep freight and the Missouri economy moving smoothly.*

*It's through our freight transportation system that Missouri products like soybeans and aviation parts are transported around the world. Making smart investments in that system can help provide better options for Missouri businesses to get their products to market. An improved freight transportation system can also lower transportation costs and create jobs.*

*While the good news is that Missouri has an integrated multimodal freight system that facilitates the efficient, reliable, and safe movement of freight, our challenge will be to maintain and expand the system to meet the needs of tomorrow." - Missouri Freight Plan 2014*

In 2014 MoDOT published the Missouri Freight Plan. This plan builds on Missouri's Long Range Transportation Plan and includes inputs from hundreds of key stakeholders. The Freight Plan is a vision and plan for taking care of the state's existing freight system and making the "best and most strategic investments possible when funds are available."

The Missouri Freight Plan identified four main goals:

- **Maintenance:** Maintain the freight system in good condition by keeping highways and bridges in good condition and supporting the maintenance of railways, waterways, airports, and multimodal connections.
- **Safety:** Improve safety on the freight system by decreasing the number and severity of crashes involving commercial vehicles and improving safety at railroad crossings.
- **Economy:** Support economic growth and competitiveness in Missouri through strategic improvements to the freight system.
- **Connectivity and Mobility:** Improve the connectivity and mobility of the freight system by reducing congestion and increasing reliability on the roadways; by supporting improved efficiency of rails, waterways, and airports; and by improving connections between freight modes

Every \$1 invested in transportation generates \$4 in economic activity.

"If we don't maintain access to our economic development hubs, we lose out on long-term growth."

Central District  
2013 On the Move Listening Session Participant

Source: MoDOT – Missouri State Freight Plan 2014

The Missouri Freight Plan provides a comprehensive look at freight movement in the state, including a needs assessment, economic impact statements and an action plan. Also included in the plan are freight profiles for each MoDOT district.



## Central District Freight Profile

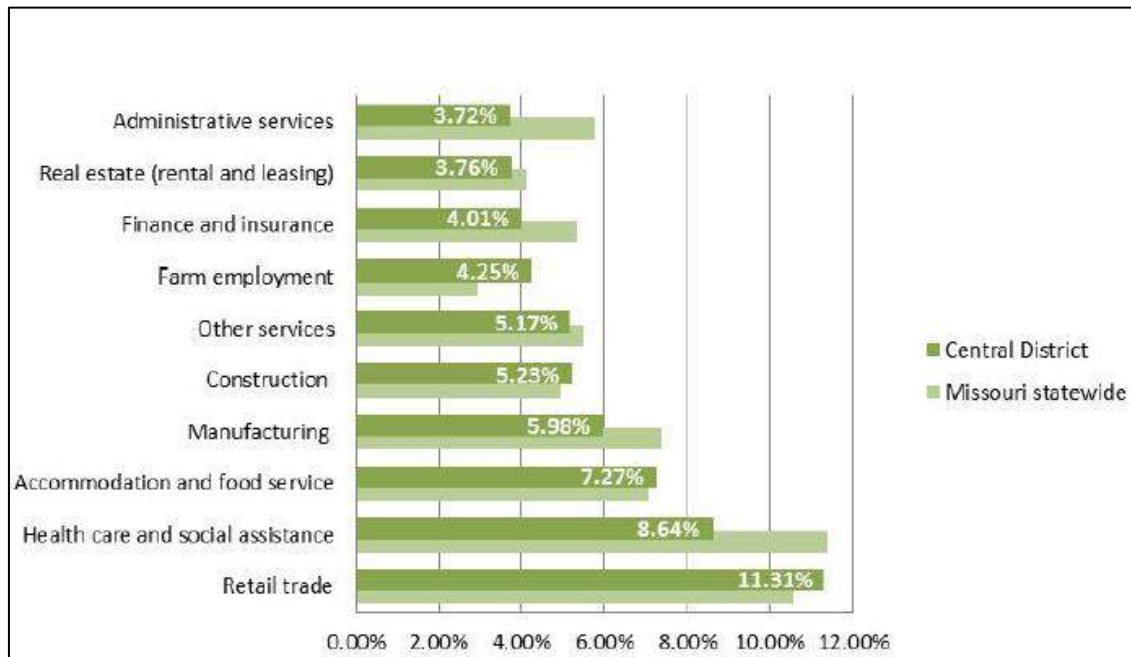
The following section includes directly copied portions of MoDOT’s “Central District Profile: Freight and the District’s Economic Future”. The full profile can be found in Appendix G of this plan.

### Transportation Dependence: Missouri and the Central Missouri Economy

Freight transportation represents a key competitiveness factor for Central District businesses. Companies today compete on more than product quality and cost. The transportation networks serving their facilities must provide reliable connections to buyers, and must link to a multitude of markets to ensure timely deliveries of goods and services and access for employees and customers. Some business sectors use transportation facilities and services more extensively than others. An industry sector’s dependence on transportation can be measured by examining the amount the sector spends on transportation as a share of its total output.<sup>2</sup> Transportation satellite accounts provide national data regarding the amount spent on transportation per dollar of output for various sectors.

To better understand the role freight and goods movement play in central Missouri and the contribution of multimodal transportation to the economic vitality of the region’s key industry sectors, the project team evaluated the importance of these key industrial sectors based on the non-government employment concentrations in the region. Almost 60 percent of the District’s non-government employment is concentrated in 10 sectors: retail and wholesale trade, health care and social services, accommodation and food service, manufacturing, construction, other services, farm employment, finance and insurance, real estate, and administrative services. Figure 9.5 shows the breakdown of these employment sectors, by percentage, for the Central District and for the State.

Figure 9.5: Top Ten Non-Government Employment Sectors for the Central District



Source: Missouri Freight Plan

As noted in Figure 9.5, the importance of transportation to these key industry sectors can be measured by the amount each sector spent on transportation as a share of its total output.

The project team evaluated several primary industry sectors and identified the corresponding industrial classification codes for each key sector in order to compare the applicable transportation costs per dollar of product output using the transportation satellite accounts research. Key business sectors for the Central District are shown in Figure 9.6

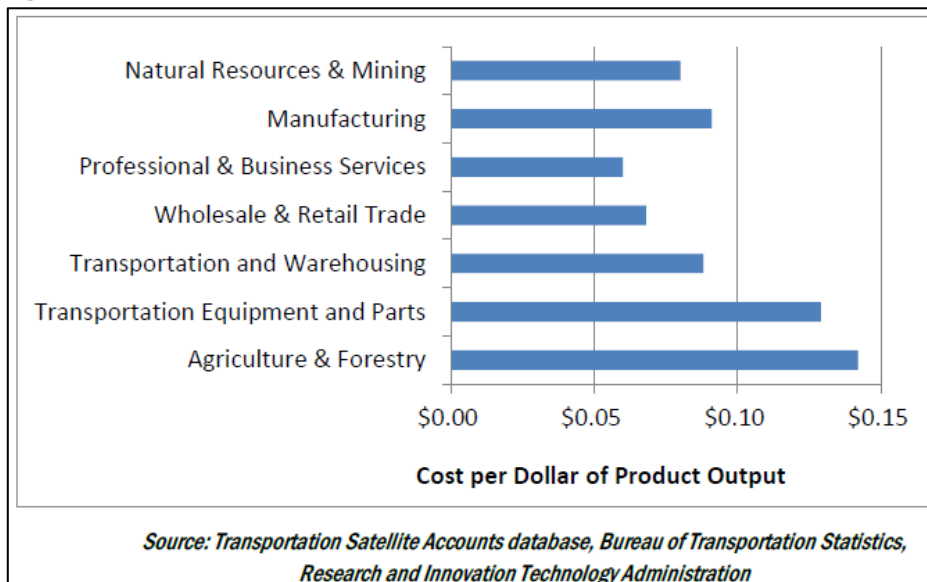
**Figure 9.6: North American Industrial Classifications for Key Industrial Sectors in the Central District**

Industrial Sectors	North American Industrial Classification Sector
Construction	Construction
Agribusiness	Agriculture
Transportation and logistics	Transportation and Warehousing
Machine manufacturing	Manufacturing
Electrical equipment manufacturing	Manufacturing

Source: Missouri Freight Plan

Figure 9.7 below shows the transportation cost per dollar of product output for several important industry sectors in the Central District based on their North American Industrial Classification System, or NAICS, code. Improvements in transportation costs and services would have a significant effect on the profitability of companies in these industries, as lower transportation costs and more reliable service help reduce the cost of materials, resulting in lower overall production costs. Reliable delivery of materials can enhance productivity, and reducing distribution costs to the consumer may also improve competitiveness.

**Figure 9.7: Transportation Cost as a Share of Sector Output (Transportation cost per \$ of product value)**



Source: Missouri Freight Plan

The Central District has been successful in retaining and attracting core cluster transportation-dependent businesses in several significant economic sectors as described in Figure 9.8:

**Figure 9.8: Economic Sectors the Central District has retained and attracted transportation-dependent businesses**

Manufacturing and Advanced Manufacturing	Food Processing	Chemical Manufacturing
Henniges Automotive	Beyond Meat	Behr Process Corporation
3M	Bimbo Bakeries	Unilever
Detroit Tool Metal Products	Quaker Oats	
	Unilever	

Source: Missouri Freight Plan

### Economic Development Trends

The Central District included about 6.5 percent of the State’s population in 2008. Healthcare, education, public administration, accommodation and food services, and retail are the largest employment sectors, but several freight-dependent sectors also contribute significantly to the District’s economy. These include construction, agribusiness, transportation and logistics, machine manufacturing, and electrical equipment manufacturing.

**Construction** - Construction ranked sixth in employment in the Central District in 2011 with 19,647 jobs, or more than five percent of all workers in the region. Carpenters are among the top 20 job openings in the Missouri Economic Research and Information Center (MERIC’s) 2022 outlook, with 1,010 openings anticipated between 2012 and 2022. Of these openings, 62 percent are due to growth and 38 percent will replace workers who retire or shift to other industries. According to MERIC, carpenters can expect above average job growth, job openings, and wages. The average wage for carpenters in 2013 was \$41,657.5 For the State as a whole, both specialty trade contractors and construction of buildings ranked among the top ten industries (sixth and seventh, respectively) for new business formations in 2013. The northern part of the Central District had a higher rate of construction startups than the State as a whole.

**Agribusiness** - Missouri ranks second in the nation for the number of farms, and agribusiness is especially important in Moniteau, Maries, Osage, Gasconade, and Washington Counties. In 2009 these counties had a location quotient for agribusiness greater than 1.5, indicating a higher share of employment in this sector compared to the nation as a whole. Morgan, Laclede, and Howard Counties have a higher than average share of agriculture and agribusiness jobs as well. Continuing improvements in technology and agricultural productivity have led to a reduction in farm labor across the State. More and more Missouri farmers are taking on other jobs to supplement their income. The average farm size in the State has shrunk in recent years while the number of farms has increased. The 2012 Census of Agriculture, conducted every five years by the U.S. Department of Agriculture (USDA), indicated that across the U.S. both farm sales and production expenses reached record highs in 2012. Three quarters of all farms in the U.S. had sales of less than \$50,000, and together these smaller farms produced less than 3 percent of farm products sold. Also, 87 percent of U.S. farms were operated by individuals or families and the average age of principal operators was 58.3 years. Although the average age is 58.3, the number of young startup operators increased more than 11 percent between 2007 and 2012.

Organic farming is seeing increased interest in Missouri and in several of the counties in the Central District (Boone, Callaway, Maries, Morgan, Miles, and Camden). Nationwide sales of organic farm

products increased from \$1.7 billion to \$3.12 billion from 2007 to 2012, but still accounted for only 0.8 percent of all U.S. agricultural production.

Food processing is also important to the economy of the Central District. National brands such as Kraft Foods, Frito-Lay/Quaker Oats, PepsiCo, Coca-Cola, and Cargill all have processing facilities in the area. Beyond Meat, which Fast Company magazine named the World's Most Innovative Company for Food in 2014, makes plant-based beef and chicken substitutes at their plant in Columbia using ideas and research developed at the University of Missouri.

Transportation and Logistics Transportation, warehousing, and logistics companies make up another significant employment sector in Central Missouri, and such companies grew by more than 19 percent between 2003 and 2007, much higher than the national average rate of 1.5 percent. Dollar General, Home Depot, Scholastic, Walmart, and Brookstone all have major distribution centers in the region, and Midway USA, a major retailer and wholesale supplier of hunting and gun-related products, is headquartered in Columbia. Employment in the industry held steady during the recent recession, and the outlook for jobs in this sector is strong. MERIC projects an increase of 1,749 jobs for laborers and freight, stock, and materials movers in the region between 2012 and 2022, and an additional 1,260 jobs for heavy and tractor-trailer truck drivers over the same period; both occupations are ranked among the top 20 for job growth, number of openings, and wages. These figures represent openings due to growth as well as retirement, turnover, and workers shifting to other industries. However, a nationwide shortage of truck drivers in August 2014 has resulted in as many as 40,000 openings across the country remaining unfilled.<sup>10</sup> Truck drivers are third on the list of Manpower Group's 2013 Talent Shortage Survey, and the situation is expected to intensify as demand for shipping via truck grows and drivers retire; in 2014 the average age for truck drivers nationwide is 50.

The District is a desirable location for logistics and distribution centers due to its proximity to I-70 and its position in the center of the State and the U.S. Missouri is within 600 miles of 50 percent of U.S. households and 52 percent of U.S. manufacturing establishments. Lower land costs and lower than average labor costs are other contributing factors. Nationally, the outlook for the industry is good as investment in transportation and logistics should correlate with growth in the U.S. economy.

**Machine Manufacturing** - This sector generates significant employment for the region as well. Nordyne, a maker of high efficiency heating and cooling systems, has facilities in Tipton and Booneville. Semco, based in Columbia, manufactures HVAC and energy recovery equipment. Several firms that manufacture parts for the transportation industry are also located in central Missouri including OTSCON, which makes parking brake systems, and Dana Corporation, which manufactures power trains. As the global economy recovers, analysts expect "quite impressive" growth in the worldwide market for industrial machinery between 2014 and 2018, driven by consumer products such as cars and food as well as oil and gas exploration, construction, and green energy. Annual growth is projected at 6.3 percent in 2014 (more than double the 2.9 percent increase seen in 2013) and growth should average between five and six percent between 2014 and 2018.

**Electrical Equipment Manufacturing** - The Central District is home to several electrical equipment manufacturing firms; they pay above-average wages and employ a relatively large workforce. Hubbell Power Systems, Inc., Schneider Electric: Square D, Meramec Electrical Products, Marine Electrical Products, and Watlow Industries are significant employers in this sector.

## **Importance of Freight to the Economic Development Future of the Central District**

Manufacturing and Exports - Manufacturing continues to be a vital part of Missouri's economy and exports of Missouri-manufactured goods continue to increase. Missouri businesses exported over \$3 billion in goods by the close of the first quarter of 2014, and nearly \$13 billion in 2013. Four primary industries in the manufacturing sector accounted for over 62 percent of Missouri exports: transportation equipment, chemicals, food and kindred products, and machinery related businesses. These industries exported over \$8 billion in products in 2013.<sup>14</sup> Agricultural products, fabricated metal products, electrical equipment, minerals and ores, primary metal manufacturing, and computer and electronic products round out the state's top ten exports for 2013. Over 6,100 businesses in Missouri exported products and services in 2012, and 89.5 percent of Missouri's exports are manufactured goods produced in communities all around the State. Manufacturing exports support nearly 107,000 jobs in Missouri, and 85 percent of the companies engaged in exporting goods and services are small businesses.

Manufacturing matters in Missouri because:

- Employees in manufacturing firms earn an average of \$77,060 annually in pay and benefits, while average workers in all industries earn \$60,168. This means manufacturing jobs pay, on average, 19.9 percent more than non-manufacturing jobs.
- Manufacturing firms account for nearly two-thirds of all research and development in the U.S. and are a leading user of new technologies and processes.
- Manufacturing has the highest multiplier effect of any economic sector. For every dollar spent in manufacturing another \$1.48 is added to the economy, helping to stimulate economic growth.
- Missouri's economy is intrinsically linked to its ability to move people, materials, components, and finished goods within the State and to national and international destinations.
- Missouri's principal trading partners are Canada, Mexico, China, Japan, and Korea. The five industries with the most significant job dependence on exports include grain farming, oilseed farming, wholesale trade, and aircraft manufacturing.
- Export products are intrinsically dependent on multimodal freight transportation

## **Conclusion**

Missouri's Central District is well-positioned for economic growth. Numerous investments in manufacturing facilities are planned or under way by firms such as 3M, Fluid Power Support, Brewer Science Inc., and Meramec Electrical Products. These expansions will add jobs in the area, both directly and indirectly. Agriculture is vital to the region's economy, and food processing giants including Kraft Foods and Cargill as well as innovative firms such as Beyond Meat should continue to support significant employment. Increasing national and worldwide demand for central Missouri agricultural and manufactured products will, in turn, drive growth in the freight and warehousing sector, resulting in more jobs for truck drivers, freight handlers, and logistics experts. Employment growth in all of the above sectors and in service industries such as retail trade, health care and social assistance, and accommodations and food services—which represent the region's top three industries for jobs—will contribute to the projected population growth. More residents will lead to higher demand for consumer products that must be delivered to local stores and homes.

All of this depends on a dependable and efficient freight network. Manufacturers of machinery, electrical components, and other products depend on the statewide freight infrastructure to deliver raw materials and components and carry finished products to assembly plants, distributors, and end users. Farms, including the growing number of organic farm establishments, and food processors rely on the region's rail, highways, and river ports to deliver their output to markets across the

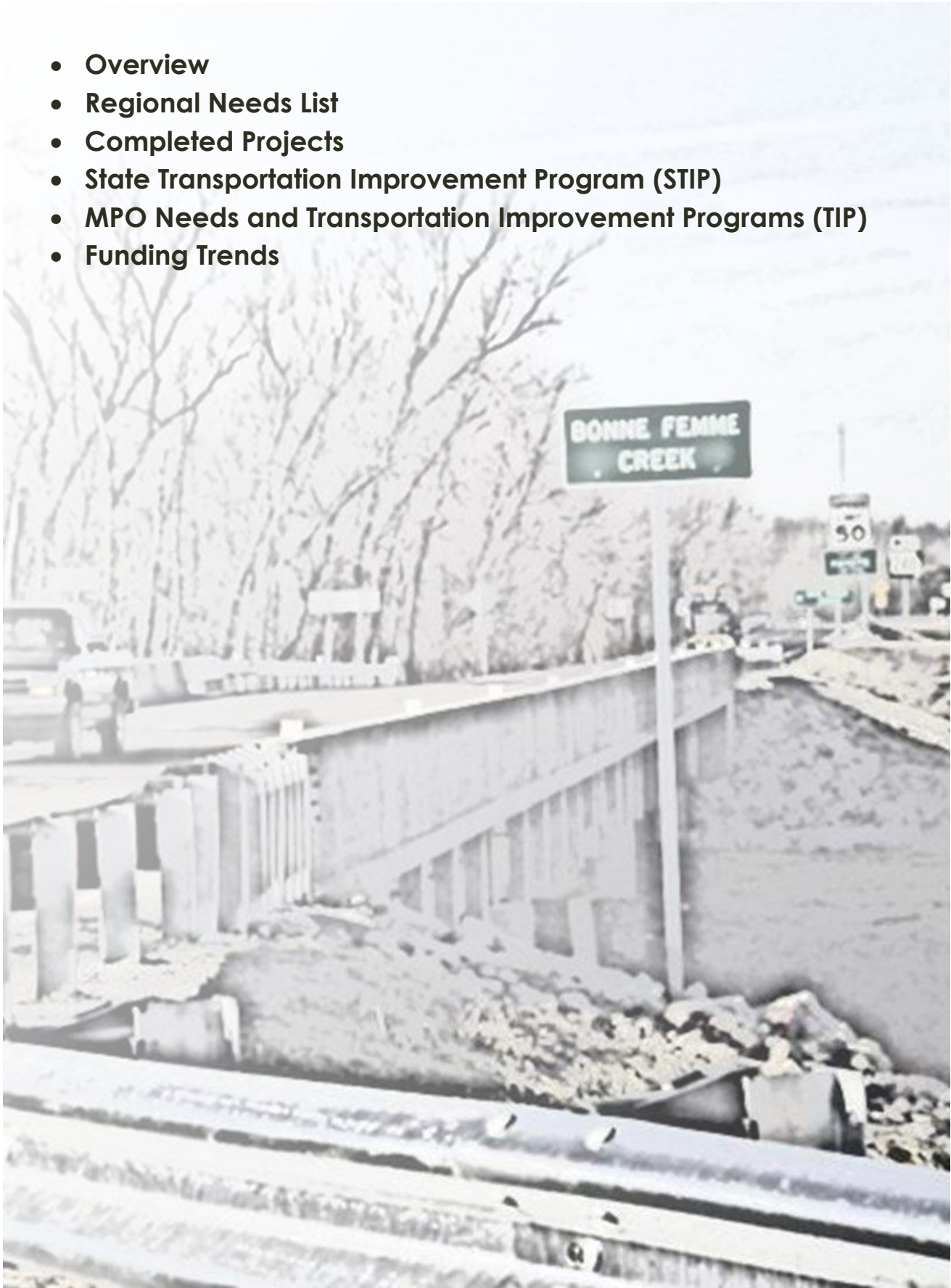
country and around the world. They also depend on secondary roadways to link them with the broader transportation network, and businesses rely on these secondary roads for time-sensitive deliveries. Trucks of all sizes travel the highways and secondary roads to supply grocery stores, offices, construction sites, and homes with the goods, materials, and products they need every day.

Research reveals that investment in physical infrastructure reduces costs and improves efficiencies in conducting business, boosts job creation, and fosters growth cycles within countries.<sup>19</sup> Based on the above research maintaining the existing freight system and expanding both its capacity and connectivity in ways that increase reliability and reduce transportation costs are critical to the economic vitality of the Central District.

- *Missouri State Freight Plan, “Central District Profile: Freight and the District’s Economic Future”*
-

## Chapter 10: Regional Needs

- Overview
- Regional Needs List
- Completed Projects
- State Transportation Improvement Program (STIP)
- MPO Needs and Transportation Improvement Programs (TIP)
- Funding Trends



## Overview

As a Planning Partner with MoDOT, the Mid-Missouri Regional Planning Commission is responsible for representing and advocating for the transportation needs of member counties and municipalities. Mid-MO RPC's Transportation Advisory Committee (TAC) acts as a bridge between MoDOT and the region's citizens. The TAC is composed of local city and county officials, Metropolitan Planning Organization (MPO) representatives, MoDOT District Engineers, and engaged citizens.

The process of needs identification and project prioritization, conducted by the state's regional planning commissions, allows MoDOT to engage city and county officials at an appropriate scale. Assessment and prioritization of projects at the regional scale allows MoDOT to take local insight and perspectives into consideration when planning at both the statewide and district levels.

**Regional needs lists are used to maintain and update two major MoDOT planning documents:**

- **Long Range Transportation Plan (LRTP)**
  - The LRTP lays out goals and strategies for state system maintenance and improvement beyond the subsequent five fiscal years, included in the STIP.
- **Statewide Transportation Improvement Program (STIP).**
  - The STIP, prepared annually, sets forth the specific construction projects MoDOT will undertake in the next five years. It covers highways and bridges, transit, aviation, rail, waterways, enhancements and other projects.

Mid-MO RPC's TAC identifies needs and prioritizes projects in order to inform MoDOT's Long Range Transportation Planning process. Because the STIP already outlines programmed projects for the following five fiscal years, the needs identified by the TAC are likely to be those considered for construction within 5-20 years. The TAC goes through an annual process to prioritize regional needs using a variety of criteria. In previous years TAC used a set of goals that included Safety, Public Involvement, Economic Vitality, Quality of Communities, Preservation, Diversity of Transportation Options, Environmental Protection, and Funding Options.

The most recent prioritization process in 2014 borrowed from MoDOT's LRTP.

<b>Safety</b>	<b>Maintenance</b>	<b>Economic Development</b>	<b>Connections and Choices</b>
Will this project reduce fatalities, injuries, and property damage?	Will this project improve the existing condition of infrastructure?	Will this project encourage economic growth and/or increase access to employment and businesses?	Will this project support or expand alternative forms of transportation?



### **The prioritization process results in all projects receiving a high, medium, or low rating:**

- **High** priority projects are those that, using the above goals, need to be addressed within 5-10 years or sooner.
- **Medium** priority projects are those that, using the above goals, need to be addressed within 10-15 years.
- **Low** priority projects are those that, using the above goals, need to be addressed within 15-20 years or may be re-evaluated in the future.

### **2021 Prioritization Process**

In 2021 the Mid-MO RPC TAC reviewed the previous 2020 Regional Needs List and determined that all projects should remain on the list with the current prioritizations. The 2020 list included multi-modal projects and regional improvements.

In 2020 the MoDOT started putting together their Unfunded Needs list. This list was made using the Regional Needs List priority process. MoDOT held several open house meetings across the state allowing the public to view and comment on the Unfunded Needs List. The goal of the open house events was to gather public input on the draft transportation project priorities being compiled in each district. The draft Unfunded Needs list was compiled through a large amount of public outreach by MoDOT, Regional Planning Agencies, and Metropolitan Planning Organizations.

The draft projects proposed by Mid-MO RPC went through several stages of public input and stakeholder review. A subcommittee of the Mid-MO RPC TAC prioritized and scored the projects using the previously mentioned goals of Safety, Maintenance, Economic Development, and Connections and Choices.

The project lists covered all modes of transportation, including: Road and Bridge, Bike and Ped, Rail, Air, Waterways, and Transit. The top 5 road and bridge and top 5 multi-modal projects were forwarded to the Central District where they were part of the Central District prioritization process. The District prioritization processes included another public comment period and ultimately lead to a statewide Unfunded Needs List.

## Regional Transportation Needs List - 2021

The transportation needs for the Mid-Missouri Region, prioritized in 2021, are listed in categories of High, Medium, and Low, though there are no low priority road and bridge projects on the list this year. As stated previously, the following MoDOT LRTP goals were used in in the prioritization process:

- **Safety**
- **Maintenance**
- **Economic Development**
- **Connections and Choices**

<b>HIGH</b>	Projects that, using the above goals, need to be addressed within 5-10 years or sooner.
<b>MEDIUM</b>	Projects that, using the above goals, need to be addressed within 10-15 years.
<b>LOW</b>	Projects that, using the above goals, need to be addressed within 15-20 years or may be re-evaluated in the future.

In addition to location specific projects, Mid-MO RPC TAC and regional stakeholders identified several broader, regional or statewide needs as seen in Figure 10.1.

Figure 10.1

<b>Regional/Statewide Needs</b>	
<b>2ft Shoulders on State Routes</b>	Addition of pavement to accommodate standard roadway widths with 2 ft. shoulders along state numbered and lettered routes
<b>Continuation of MoDOT cost-share program</b>	Continued funding of the cost-share program
<b>One-lane bridge replacement</b>	Upgrading of one-lane bridges to two lane
<b>Maintain funding for maintenance of the existing state transportation system</b>	Continue funding of maintenance needs such as re-surfacing, striping, sealing, and pavement preservation
<b>Community Improvements and Safety enhancements</b>	Improvements to sidewalks, lights, signage, speed zones, rail/road/ped crossings, etc. for communities w/population <5000 along state routes
<b>Improve safety of at-grade Crossings along US Highways 50/63/54</b>	Improve safety for at-grade crossings through the use of signage and/or intersection reconfigurations
<b>Improve signage along state routes</b>	Improve signage along state routes
<b>Improve efficiency of snow removal on state lettered routes</b>	Improve efficiency of snow removal on state lettered routes
<b>Rural Transit Funding</b>	Increase funding support to make rural transit more efficient
<b>Maintain funding for sidewalk connectivity around schools</b>	Maintain funding for the sidewalk connectivity with schools and the surrounding community
<b>Minor Arterials</b>	Improve sight distance through vegetation control and straightening
<b>Maintain funding for sidewalk connectivity around schools</b>	Maintain funding for the sidewalk connectivity with schools and the surrounding community
<b>Sidewalks on State Routes</b>	Install sidewalks along state routes where schools are located
<b>Minor Arterials</b>	Improve sight distance through vegetation control and straightening

Figures 10.2a-10.2f depict location specific regional needs.

**Figure 10.2a**

<b>Mid-MO Regional Transportation Needs 2021</b>	
<b>High Priority Projects</b>	
I-70	Rebuild and expand I-70
US 63/ I-70 Interchange	Improvement of 63/70 interchange to reduce traffic on the connector
Hwy 22, Hwy 124 and Hwy 151	Safety improvements to the intersection of Hwy 22, Hwy 124 and Hwy 151 in Centralia
I-70 Outer Road	Create continuous outer road between stadium and Midway
New Connector from Hwy 63 to 70	Discovery Ridge, Rolling Hills, Grace Ln, 740
US 63	Safety improvements on US 63 in Boone County to include the construction of a new overpass in Ashland at New Salem Ln
Waco Rd	Wako Road Extension
US 63 (Ashland)	Creation of an outer road system east of US 63 to connect Route H with Route M/Y in Ashland
US 63	Crossover Improvements at Route A and Gilmore Ln, Claysville Rd and Westbrook Dr, Westbrook and Mt. Pleasant Rd.
US 40	Improvements/Turn Lane at Midway exit
Centralia	Hwy 22/Roland Rd intersection improvements
I-70/54	Improvements to I-70/54 interchange (possible Diverging Diamond)
Hwy54/Route F	Create Roundabout at the intersection of Hwy 54 and Route F
I-70/FF	Remove overhead hazards on I-70 and Rt. FF (low clearance rail bridges)
Business 54	Three lane urban section north of Westminster to the McDonalds in Fulton
Hwy 54 and CR 176	Add acceleration ramp at CR 176
Hwy 54	Safety Improvements along Hwy 54
Gold Rd. and Jade Rd.	Add shoulders during the repaving of roadway from Kingdom City to Callaway Livestock Center
Hwy 94	Improve portion of Hwy 94 at Logan Creek in Callaway County to reduce flooding risk
US 50/63 to Clark (Rex Whitton)	Implement major capacity improvements, which could include mainline widening, grade separations, and/or outer roads
50/63/54	Reconfigure interchange to provide non-conflicting system-to-system movements
Route B/Ashbury Rd/BMW	Add capacity and safety improvements along Route B from north of Ashbury Ln to BMW intersection.
US 54	Straighten 54 hwy where west bound lanes split from east bound lanes at Old Bass Rd.
US 54/Rockport Hills Rd intersection	Median turn lane improvements/additions

50/Henwick/Kaylor Bridge	Safety improvements for Henwick and Kaylor Bridge Rd at 50 hwy. Possible acceleration lanes
US54/Christy/Jefferson st	Safety improvements at both hook ramp intersections
50/U	Add street lighting at intersection of Hwy 50 and U for safety
Rt B/Americana	Intersection improvements with consideration for future outer road.
I-70 Outer Road South	Finish creating a continuous outer road south of I-70 from 5 to 87
I-70 Outer Road North	Finish creating a continuous outer road north of I-70 5 to 87
Route B	Incorporate Shoulder widening during resurfacing process
Hwy5/40	Reconfigure intersection of 5 and 40 south of New Franklin
Low Volume Routes	Resurface low volume routes including H, E, O, BB, Z, and V
Howard Co.	Approach improvements at 5/CR 320, 5/CR 324, P/CR 421
Hwy 5/J	Add turn lane on Hwy 5 for Route J
MO 5 and Route E	Intersection Improvements for safety
240/40	Square up intersection of 240 and 40 Hwy
Hwy 240	Add turn lane on Hwy 240 at the Dollar General in Fayette
US 50 corridor from California to Sedalia	Expansion of the existing corridor to a four-lane highway from California to Sedalia.
MO 87 and Industrial Rd.	Creation of a bypass linking MO 87 north of California to US 50 via the current Industrial Rd. to reduce truck traffic through California
MO 179	Elevate highway from 1.7 miles north to 1 mile north of Cole County at Sandy Hook due to flooding
Hwy50/Ferguson	Intersection improvements at Hwy50 and Ferguson
MO 87 (Oak)/Main	Radius Improvements for large trucks at intersection of Oak and Main St.

<b>Mid-MO RPC Regional Transportation Needs 2021</b>	
<b>Medium Priority Projects</b>	
US 63 (Ashland)	Creation of outer road system west of US 63, from H to Henry Clay in Ashland
Route B	Turn Lane through Hallsville
Boone County	Approach improvements at 63/Gilmore Ln., Hwy K/Mt. Celestial, Hwy N/Pierpont
Battle High School Overpass	Overpass over I-70 between St. Charles Rd. and Route Z at Battle High School
US 63	Addition of 3rd lane between Broadway and Stadium Blvd
Hwy 22 and Route Z	Hwy 22 and Route Z (Jefferson St.) intersection improvements
Hwy 124 and Lakeview Ave.	Addition of a turn lane on Hwy 124 onto Lakeview Ave.
Gans Creek Road	Extension of Gans Creek Rd. to Providence
US 54 and Summit Dr	Creation of two new ramps on north side of overpass
Alternate Route for Nuclear Plant	Scoping for new route to Nuclear Power Plant
Alternative Route from Fulton to Columbia Regional Airport	Scoping for possible new alternative route to connect Fulton to the Columbia Regional Airport and the surrounding development.
Route N	Drainage Improvements on Route N through Centertown
Apache Flats Overpass	Add ramps at the Apache Flats Overpass
Route A	Replacement or rehab of one-lane Bridge R0248 over Brush Creek
Route U	Safety improvements at Hwy C intersection
Route C/Route AA	Safety improvements
Route41	Incorporate Intersection Improvements at Old Route 40 and Santa Fe during resurfacing process
Rt 5 at High School	Intersection improvements for school congestion
MO 87	Drainage/Storm water improvements between Bingham Rd and Walnut St.
MO 240 / MO 5 Reconfiguration	Connection of routes to decrease traffic on Church St. through Fayette
Hwy 179/U/87	Reconfigure intersection of 179/U/87
US 50 / MO 5	Safety Improvements in Tipton between Meadowlark Lane and MO 5 / US 50 split

<b>Mid-MO RPC Regional Transportation Needs 2021</b>	
<b>Multi-Modal Projects</b>	
Centralia	Development of rail spurs in Centralia
Columbia Regional Airport	Expansion of the Columbia Regional Airport to include the building of a new terminal and additional infrastructure needed to support the expansion.
Rail Spur	Rail Spur at Aurora Dairy
Colt Rail line maintenance	Improve railroad through new ties, ballast and out of face tamping
I-70 Rail Bridge	Repair RR bridge over I-70
Ashland	Sidewalk improvements/expansion
Centralia	Sidewalk and crosswalk improvements
Transit Expansion	Rideshare or transit service between Columbia and Jefferson City
MKT trail Stabilization	Bank stabilization and scour protection
Cole/Callaway Co. Port	Construction of a port facility along the Missouri River near Jefferson City
Fulton	Add sidewalks along Bus 54 Hwy in Fulton
Holts Summit	Add sidewalks along S. Summit Dr.
Jefferson City Memorial Airport	Reconstruction of the crosswind runway and south taxiway, repairs to parking area and improvements to the air traffic control tower.
Fulton-Elton Hensley Memorial Airport	Extend runway to 5,000ft to accomodate larger jets at Fulton airport
Fulton Downtown Sidewalk Upgrades	Sidewalk rehab to improve ADA compliance in Brick District
Fulton - Stinson Creek Trail	Expansion of trail in Fulton
Transit in Fulton	Creation of transit service route in Fulton
Katy Trail - Holts Summit	Katy Trail - Create a new connector trail between Holts Summit and the Katy Trail
Cole/Callaway Co. Port	Construction of a port facility along the Missouri River near Jefferson City
Jefferson City Amtrak	Renovation or Reconstruction of new Amtrak station in Jefferson City
Russellville Sidewalks	Expand Russellville sidewalk network.
Niekamp Park Connector	Add greenway connector from Niekamp Park to to US Business 50 West
Centertown Sidewalks	Add sidewalks between parks in Centertown
Taos Sidewalks	Add sidewalks along Route M in Taos
Rail Crossing	Add rail crossing gate in Centertown where Oak St. crosses railroad tracks
Howard/Cooper Co. Port Authority	New Facility Upgrades - New Dock and Road, Crane, Dry Storage, Conveyors
Rail Spur	Create Rail Spur near Boonville
MO 87	Installation of pedestrian controls to allow crossover of MO 87 at Ashley Rd, with extension of sidewalks down Ashley Rd.
Repair Katy Bridge	Repair Katy Bridge for pedestrian use

Howard Co. Recreational Trail	Creation of recreational trail to link all Howard Co. cities with the Katy Trail
Hwy B Sidewalks	Add sidewalks with curb and gutter along Route B heading into Tipton
Rail Spur	Create Rail spur at the California Industrial Park
Hwy 50 Sidewalks	Add sidewalks along Hwy 50 in Tipton
Rail Spur	Rehab Rail spur east of Tipton
Rail stop	Creation of train depot for Amtrak in Tipton or California



## State Transportation Improvement Program (STIP)

Each year, MoDOT publishes a Statewide Transportation Improvement Program (STIP). The STIP sets forth the specific construction projects MoDOT will undertake in the next five years. The current STIP, 2022-2026 STIP, covers highways and bridges, transit, aviation, rail, waterways, enhancements and other projects.

Over the last 10 years, Missourians have invested \$10.9 billion in maintenance and system improvements. Over the next 5 years \$5.5 billion is estimated to be available for projects.

The STIP is organized by MoDOT Districts. Mid-MO RPC lies completely within the Central District. Included in the Central District STIP are those projects sponsored by five different transportation planning partners:

- Mid-Missouri Regional Planning Commission
- Capital Area Metropolitan Planning Organization
- Columbia Area Transportation Study Organization
- Lake of the Ozarks Council of Local Governments
- Meramec Regional Planning Commission

## MPO Needs and Transportation Improvement Programs (TIP)

Both the Capital Area Metropolitan Planning Organization (CAMPO) and the Columbia Area Transportation Study Organization (CATSO) are federally required to maintain a Transportation Improvement Program (TIP). According to CAMPO, the TIP is a 5-year financial program of transportation projects to be implemented within the MPA, which are funded by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), or are deemed ‘regionally significant.’ Each project or project phase included in the TIP is to be derived from the Metropolitan Transportation Plan and is part of the process of applying for funds from the FHWA and FTA.

Both MPOs update their respective TIPs every year. TIP projects are reviewed by RPC staff and may be included in the Regional Needs List as seen fit.

**(This page intentionally left blank)**

## Funding Trends

*“Fuel tax revenues have become a diminishing revenue stream as cars become more fuel efficient and as people drive less, while the costs of doing business are increasing. Inflation has decreased MoDOT's purchasing power by more than 50 percent. What was 17 cents (state fuel tax per gallon) of purchasing power in 1992, the last time fuel taxes were increased, is now about eight cents and decreasing each year.*

*In 2020 MoDOT will not have enough state revenue to be able to match all available federal funds. That means those unmatched dollars will be directed to other states and lost to Missouri forever.*

*The uncertainty about future federal funding, declining fuel tax proceeds and increasing cost of doing business spurred the Missouri Highways and Transportation Commission (MHTC) to stop adding new projects to its five-year construction program. The Commission also suspended its popular Cost Share/Economic Development Program. Only a few exceptions were made for pressing safety or emergency projects, previously approved Cost Share projects and partner-funded projects that take care of the system rather than add to it.” -2014 Missouri Long Range Transportation Plan*

As stated in Section 1, funding for local county and municipal roadway maintenance and construction comes primarily from the state-distributed motor fuel tax, individual city and county capital improvement sales taxes and transportation sales taxes. As vehicles become more fuel efficient, tax revenue is decreasing while the cost to maintain a growing transportation system has increased. Recent decreases in funding means fewer projects from the Regional Transportation Needs List will move on to be included in the STIP.

According to MoDOT's Long Range Transportation Plan (LRTP), there are several reasons for the funding downturn with fuel tax revenue being the primary source of concern.

While MoDOT has taken steps towards reducing cost, it has stated that these cutbacks will not be enough to improve the aging transportation system. Mid-Missouri, as well as the rest of the state will have to seek out new sources of funding. More information about the current funding environment can be found in Chapter 11.

## Transportation Improvements Costs

In Mid-Missouri and the rest of the state, the transportation system is in constant need of repair and maintenance. Addressing these needs is made difficult by a decrease in federal and state funds. See Chapter 10 for more information on transportation needs within the Mid-MO RPC region. Figure 10.5 illustrates how much it costs to provide improvements and how much components cost. The costs can vary widely across the state due to such things as terrain, geology, availability of raw materials, labor availability and agency standards.

Figure 10.5

Typical Costs For Transportation Improvements (2013 dollars)*	
Type of Improvement/Component	Cost
Thin pavement sealing	\$20,000 / mile
Thin minor road resurfacing	\$50,000 / mile
Thin major road resurfacing	\$300,000 / mile
Thin interstate resurfacing	\$325,000 / mile
New two-lane road	\$1.8 million / mile
New four-lane road	\$5 million / mile
New shared four-lane	\$2.2 million / mile
New sidewalk	\$100 – \$200 / foot
Small bridge replacement	\$700,000
Bridge deck replacement	\$300,000
Major river bridge replacement	\$50 – \$100 million
Light rail	\$60 – \$90 million / mile
Streetcar	\$50 million / mile
Construct guard cable	\$100,000 / mile
New interchange	\$10 million
Bus rapid transit	\$35 million / route
Large transit bus	\$300,000
Rural transit bus	\$100,000
Railroad lights and gates	\$250,000
Add narrow shoulder to minor road	\$150,000 – \$200,000 / mile
Pave a county gravel road	\$300,000 / mile

\* The amounts represent upfront costs only and do not include ongoing operating and maintenance costs

Source: MoDOT Long Range Transportation Plan 2014

**(This page intentionally left blank)**

## Chapter 11: Safety

- Overview
- Missouri's Highway Safety Plan (HSP) and Performance Plan
- Missouri Coalition for Roadway Safety
  - Missouri's Blueprint for Roadway Safety
- Mid-MO RPC Crash Statistics



## Overview

Safety is a top priority in planning for maintenance of the existing transportation system and planning for future development. Safety is one of the four goals used by MoDOT as a guide in their planning process and is part of two the Mid-MO RPC transportation goals:

- I. Ensure that all users are guaranteed a high level of safety on all of the region's transportation systems**
  - a. Identify existing high-risk areas within the region's transportation system and advocate safety updates within those areas
  - b. Promote the highest safety standards for city, county, and state-system transportation improvements
  - c. Encourage maintenance and preservation of existing transportation systems to ensure continued safe movement of people and goods
- V. Advocate the preservation of existing transportation systems within the region**
  - a. Identify and address existing, rising, and potential safety concerns stemming from deterioration of facilities
  - b. Encourage proactive maintenance plans for cities and counties in order to avoid greater replacement costs in the future

Safety needs have also been identified in the Chapter 10 of this plan. Most of the regional transportation needs identified in Chapter 10 are safety related. These projects range from construction of sidewalks and shoulders to replacement of crumbling infrastructure to safety improvements at intersections and crossings.

The previous Federal Transportation Bill, MAP 21 and the current FAST Act highlight safety improvements and planning efforts. MAP 21 expanded the emphasis on safety from previous legislation by doubling funding for the Highway Safety Improvement Program (HSIP). Under the FAST Act, passed in December 2015, safety is again a highlight of the bill. In January of 2016 MoDOT released an executive summary of the FAST Act as it applies to Missouri. The summary provided the following information regarding the anticipated effect of the FAST Act on Safety in Missouri:

- The Office of Highway Safety will be required to conduct a survey every two years of all automated traffic enforcement systems to include red light running cameras and speed enforcement camera systems.
- The legislation requires a separate grant application for states to implement the 24-7 sobriety programs.
- A study will be conducted on marijuana impaired driving including the issues of methods used to detect and measure marijuana levels and identify the role and extent of marijuana impairment in motor vehicle accidents.
- States will be allowed to submit a multi-year plan detailing motor carrier safety efforts. These reports will include annual updates.
- States will undertake efforts to emphasize and improve enforcement of state and local traffic safety laws and regulations.

## **Missouri's Highway Safety Plan (HSP) / Blueprint for Safer Roadways**

In 2003, Missouri participated with the American Association of State Highway Transportation Officials (AASHTO) in a national effort to reduce the preventable tragedies associated with traffic crashes. Utilizing a partnership approach, the state's Strategic Highway Safety Plan (SHSP) also called Missouri's Blueprint for Safer Roadways, was developed that outlined opportunities to reduce fatalities and serious injuries on Missouri's roads.

The goal established in the Blueprint was set at 1,000 or fewer fatalities by 2008. That goal was reached one year early, with a year-end fatality total for 2007 of 992, as well as in 2008 with 960 fatalities. The second SHSP, Missouri's Blueprint to ARRIVE ALIVE, was unveiled at the semi-annual Blueprint Conference in October 2008. The new goal was set to reduce traffic fatalities to 850 or fewer by 2012. That goal was reached two years early with 821 fatalities in 2010. In 2011 the fatality total was 786. Not only did Missouri achieve the 2008 goal but also attained the lowest number of people lost in roadway related fatalities in Missouri since 1947.

Missouri's third Strategic Highway Safety Plan, Missouri Blueprint to SAVE MORE LIVES, was rolled out in October of 2012 at the Blueprint Conference. The new target for this document is 700 or fewer fatalities by 2016. The document challenges all of us to not only focus on this target, but also concentrate on a higher vision and move Toward Zero Roadway Deaths. In 2013, Missouri experienced another significant fatality reduction to 757.

The Blueprint outlines several strategies for continuing a reduction in roadway deaths and increasing safety. Through extensive data analysis, current research findings, and best practices, strategies were identified that must be implemented in order to make significant progress toward reaching the projected goal of 700 or fewer fatalities by 2016. Key strategies in the Blueprint to SAVE MORE LIVES were identified and called the "Necessary Nine":

- 1. Increase Safety Belt Use**
- 2. Expand the Installation of Rumble Strips/Stripes**
- 3. Increase Efforts to Reduce the Number of Substance-Impaired Vehicle Drivers and Motorcycle Operators**
- 4. Improve Intersection Safety**
- 5. Improve Curve Safety**
- 6. Change Traffic Safety Culture**
- 7. Improve Roadway Shoulders**
- 8. Increase Enforcement Efforts**
- 9. Expand and Improve Roadway Visibility**

The Blueprint includes six key emphasis areas and 25 key focus areas. The six key emphasis areas include:

- Serious Crash Types
- High-Risk Drivers and Unrestrained Occupants
- Special Vehicles
- Vulnerable Roadway Users
- Special Roadway Environments
- Data and Data System Improvements

The Blueprint also sets statewide and regional targets, performance measures, and benchmarks. All designed to address regional and local needs and challenges. More information about the Blueprint can be found on MoDOT's website under "Safety" or by going to [savemolives.com](http://savemolives.com).



## Missouri Coalition for Roadway Safety

The Missouri Coalition for Roadway Safety is a large group of safety advocates who banded together in 2004 to create Missouri's Blueprint for Safer Roadways. Partners include law enforcement, educators, emergency responders, and engineers who have launched statewide efforts to reduce fatalities and create safer roads in Missouri. In the Mid-MO RPC region, RPC staff and other local transportation planners participate in the coalition.

The Coalition promotes several safety campaigns around the state. These campaigns include:

- Motorcycle Awareness Month
- Click It Or Ticket Enforcement Campaign
- July Impaired Driving Enforcement Campaign
- Drive Sober Or Get Pulled Over Enforcement Campaign
- Distracted Driving Awareness Campaign
- Child Passenger Safety Enforcement Week
- December Impaired Driving Enforcement Campaign
- March Impaired Driving Enforcement Campaign
- Youth Seat Belt Enforcement Campaign
- Operation Safe Driver Awareness Week
- Youth Alcohol Enforcement Campaign

The Coalition is divided into 7 regions, following the MoDOT district boundaries. Figure 11.1 depicts the MoDOT district boundaries.

*Figure 11.1 MoDOT Districts*



Source: MoDOT

More information about the Missouri Coalition for Roadway Safety can be found on the [savemolives.com](http://savemolives.com) website or by going to the MoDOT website and clicking on the “Safety” tab.

## Fatalities and Serious Injury Statistics

According to the Missouri Blueprint, traffic crashes are not evenly distributed on Missouri roadways. Crashes occur in large numbers in densely populated urban areas (population >5,000). Since such a large portion of Missouri’s overall population is in rural areas, the greater number of crashes occurs in those areas.

Of the 14,923 fatal and serious injury crashes in 2011-2013, 52% occurred in urban communities while 48% occurred in rural areas. The rural areas of the state take on even greater significance when examining only fatal traffic crashes. In 2011-2013 fatal traffic crashes, 41.8% occurred in urban areas of the state while 58.2% occurred in rural areas. Figure 11.2 depicts the distribution of fatalities and serious injuries in each county for 2011-2013. Figures 11.3-11.8 depict fatalities and serious injuries in each of the Mid-MO RPC counties for 2012-2014. Maps depicting data within the same time period were not readily available at the time this plan was written, but may be updated as the data is made available. For more up to date information about Missouri crash statistics, please refer to <http://www.modot.org/safety/BlueprintCrashStatistics.htm>, for data maintained by the Missouri State Highway Patrol

Figure 11.2

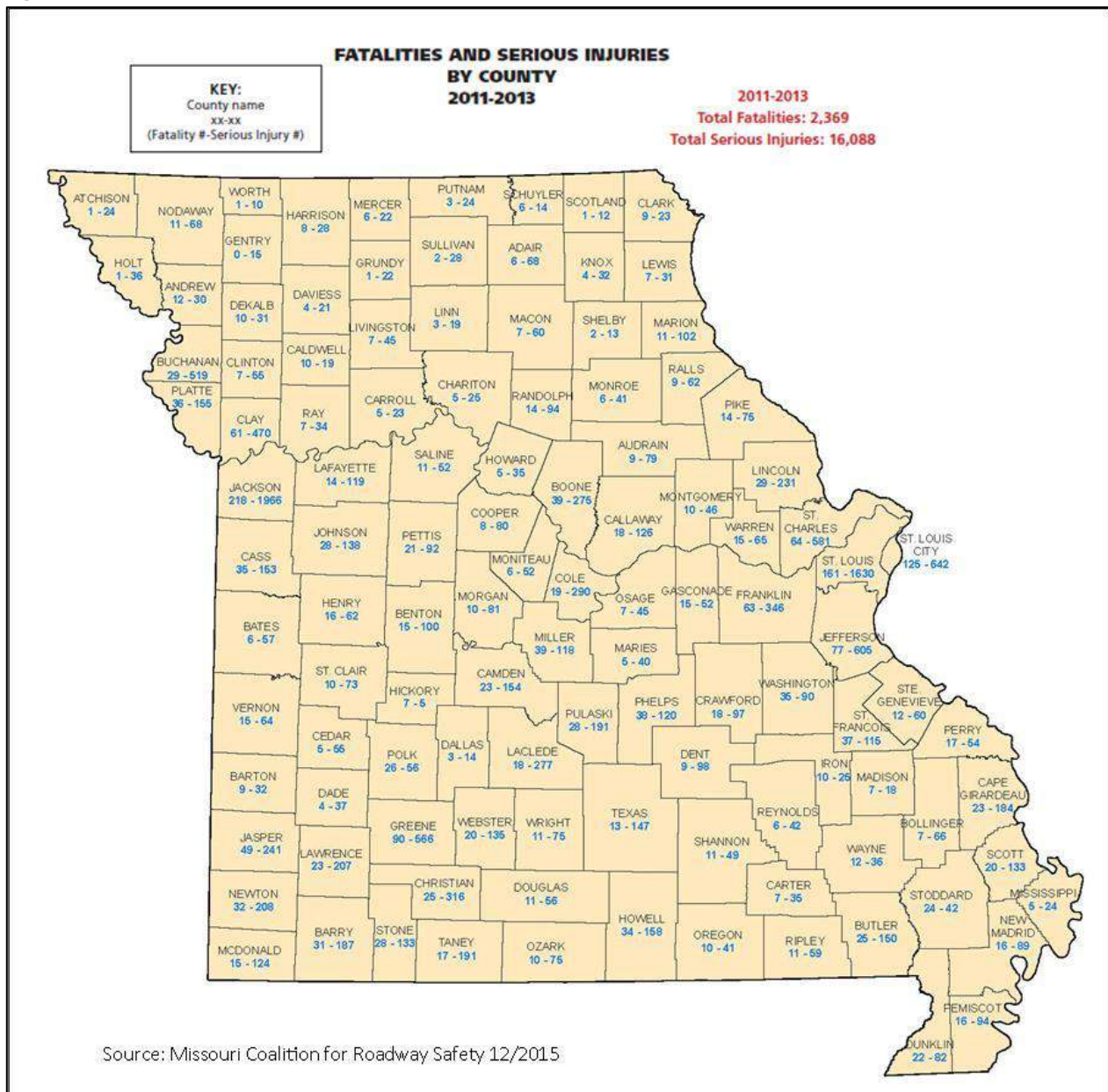


Figure 11.3 Boone County Unrestrained Fatal and Serious Injury Crashes 2012-2014

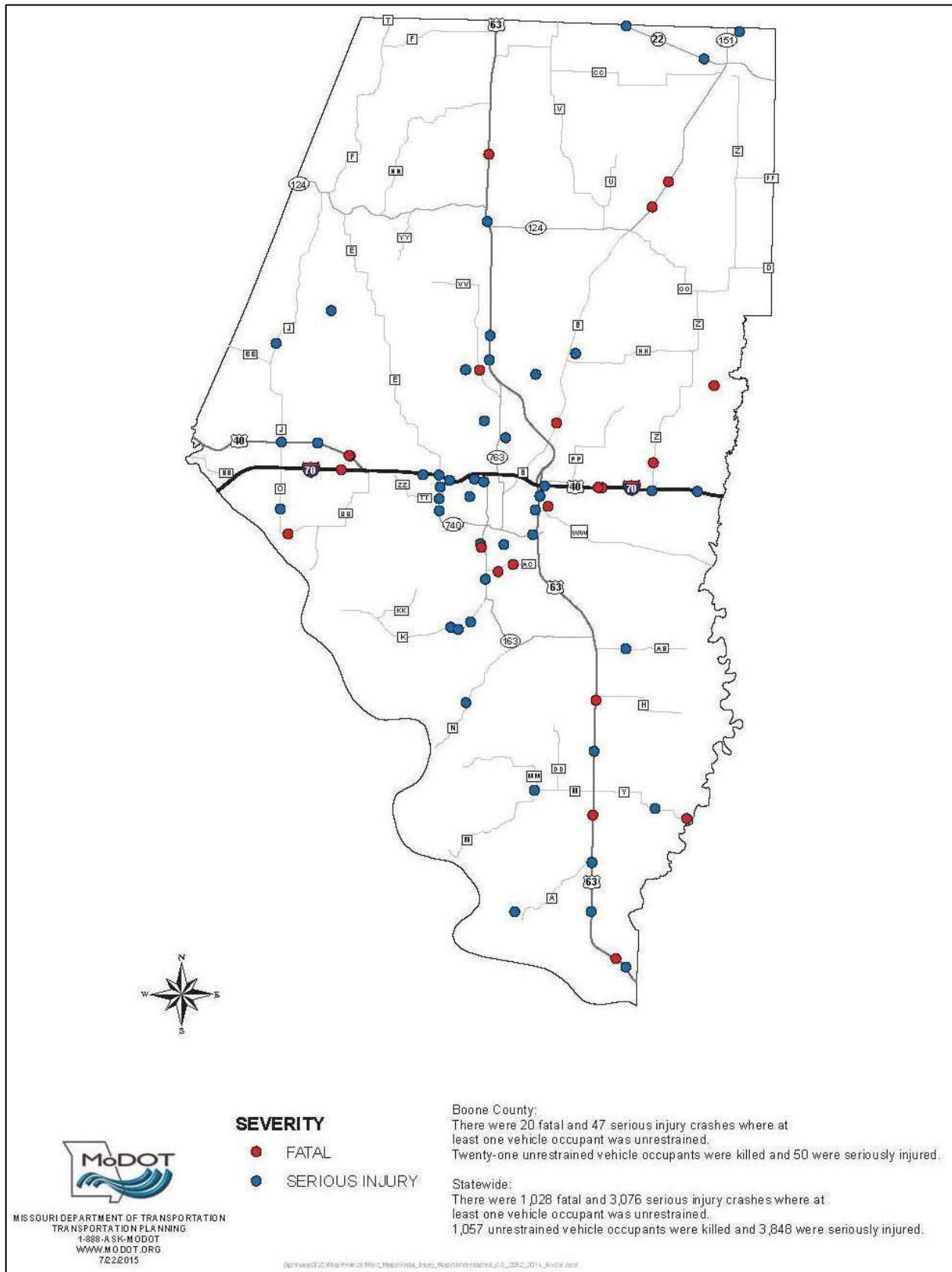


Figure 11.4 Callaway County Unrestrained Fatal and Serious Injury Crashes 2012-2014

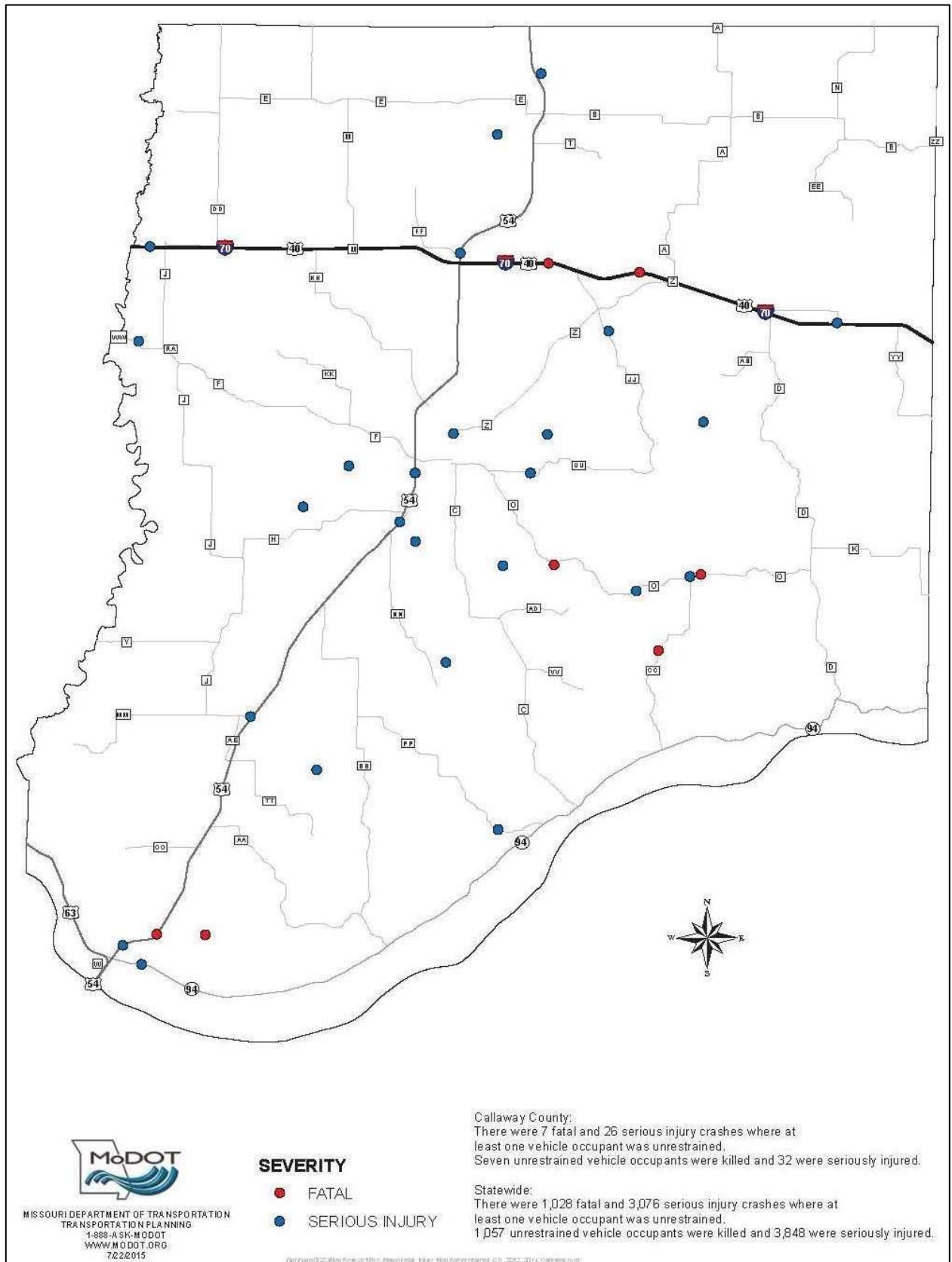


Figure 11.5 Cole County Unrestrained Fatal and Serious Injury Crashes 2012-2014

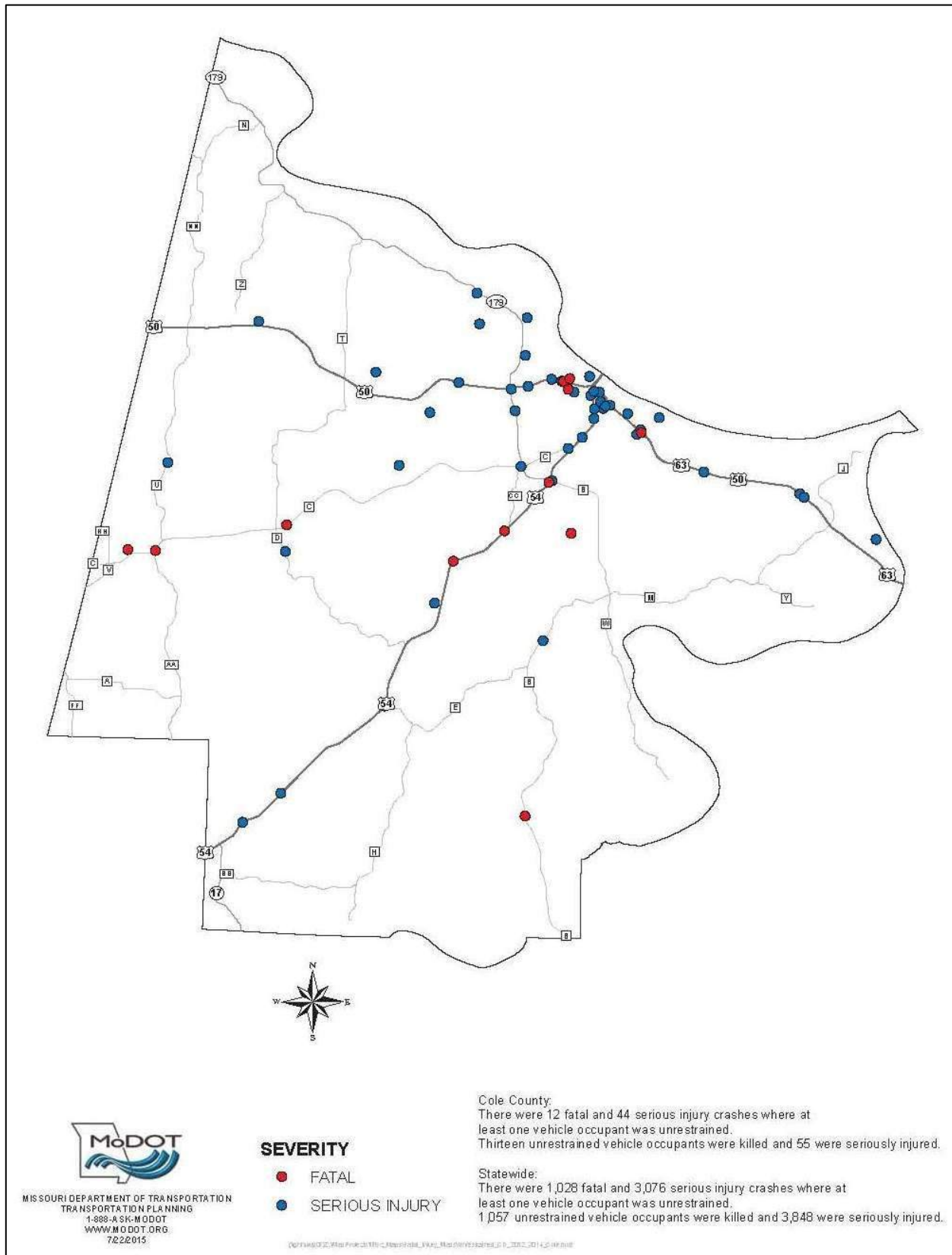


Figure 11.6 Cooper County Unrestrained Fatal and Serious Injury Crashes 2012-2014

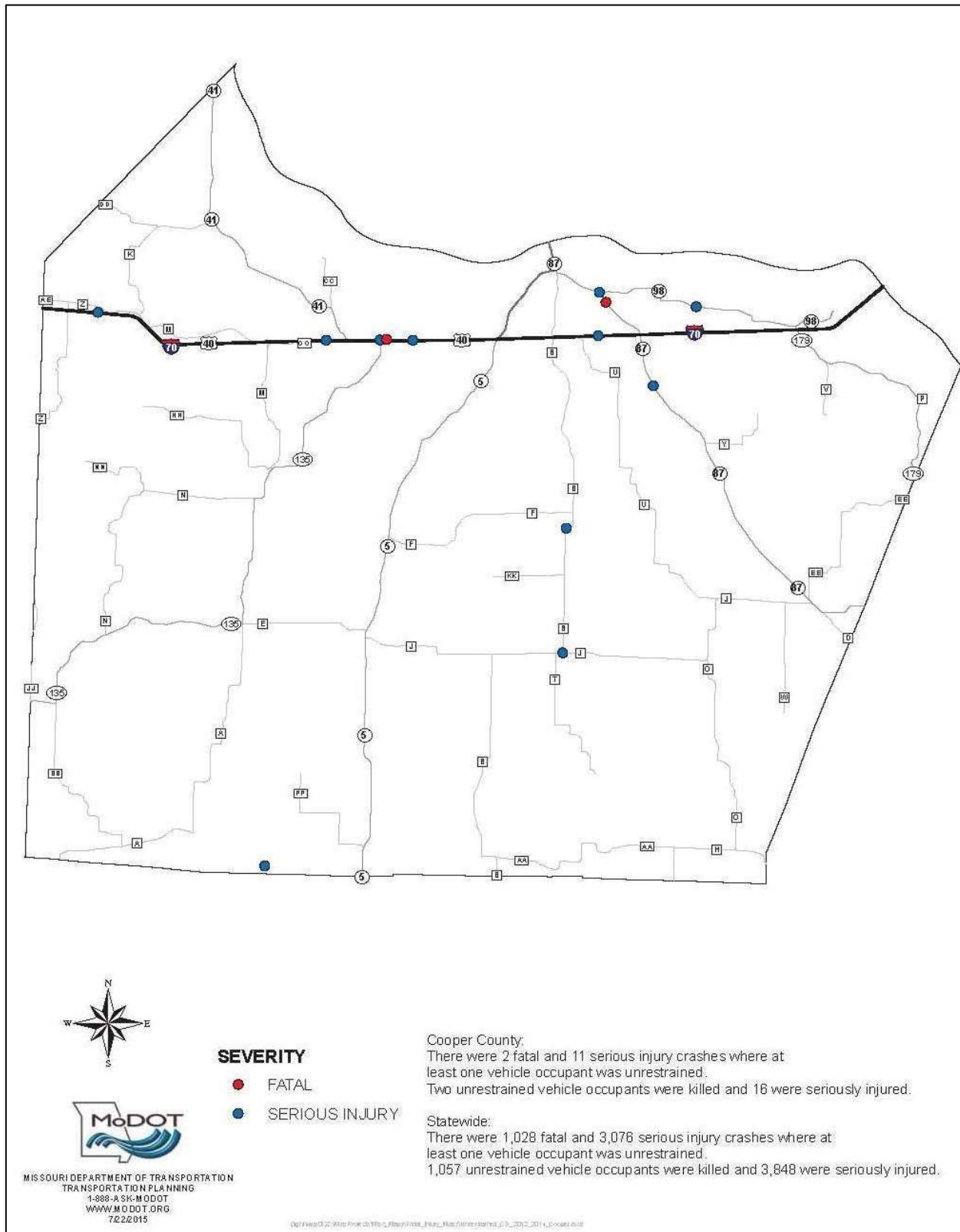
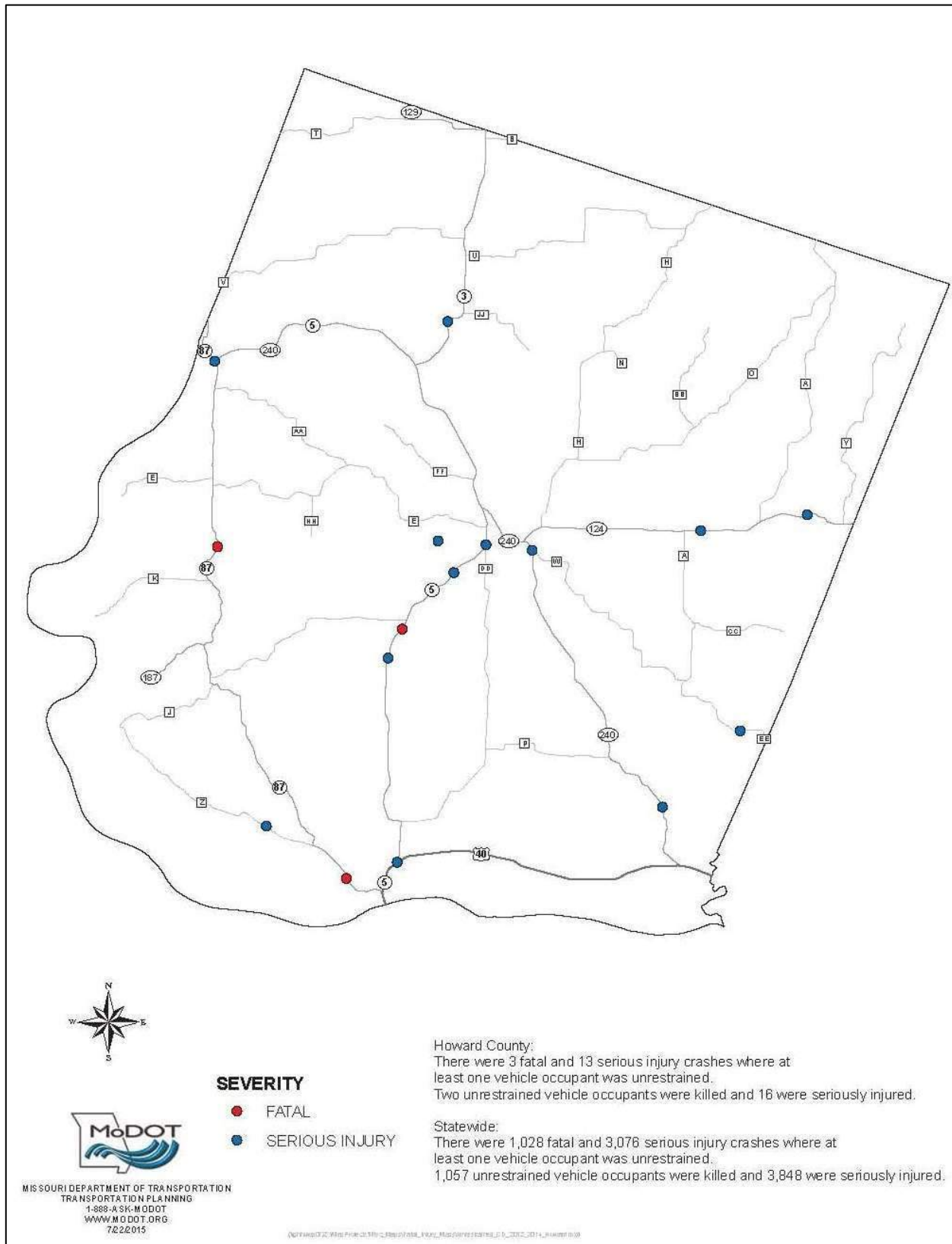
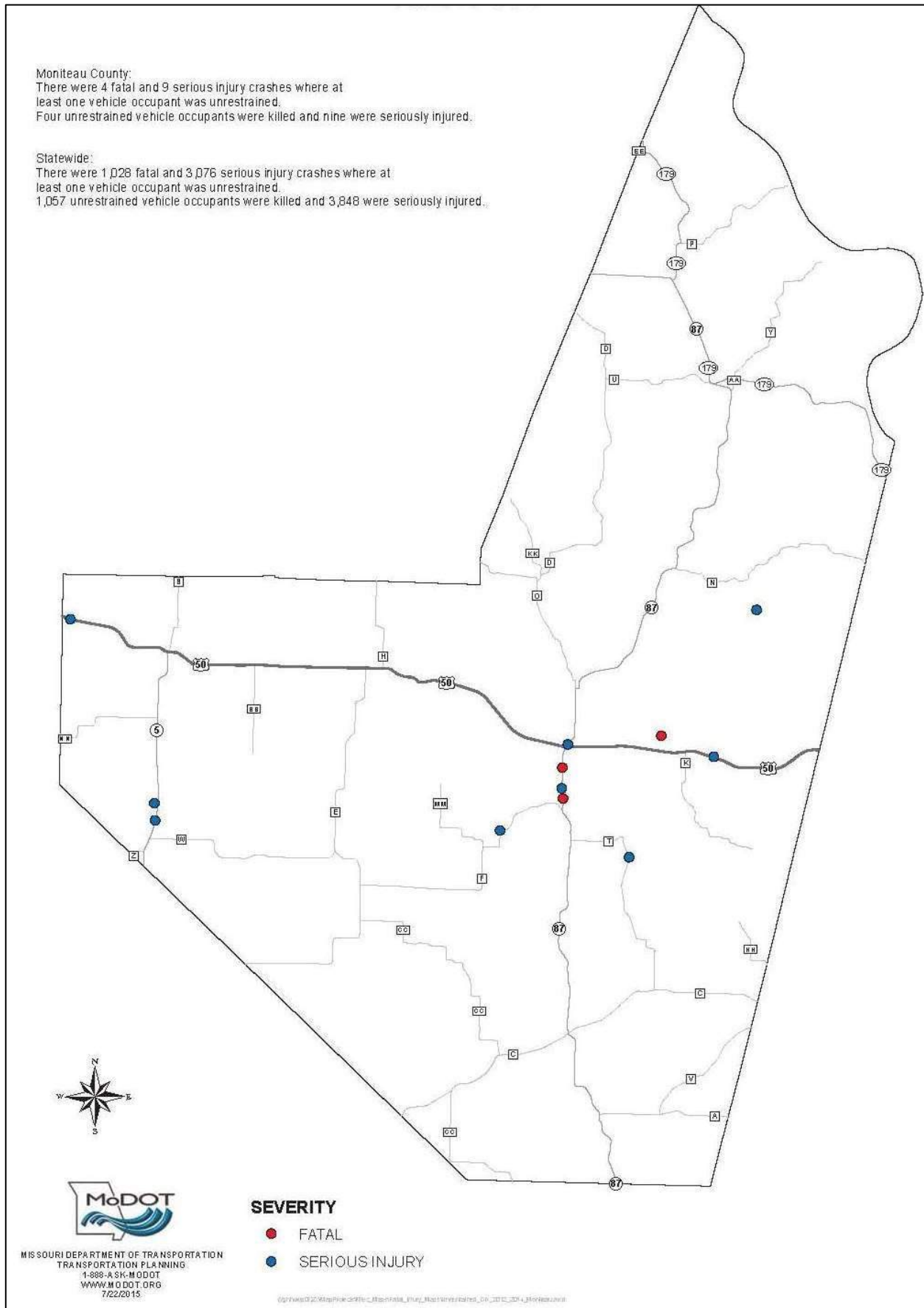


Figure 11.7 Howard County Unrestrained Fatal and Serious Injury Crashes 2012-2014



**Figure 11.8 Moniteau County Unrestrained Fatal and Serious Injury Crashes 2012-2014**

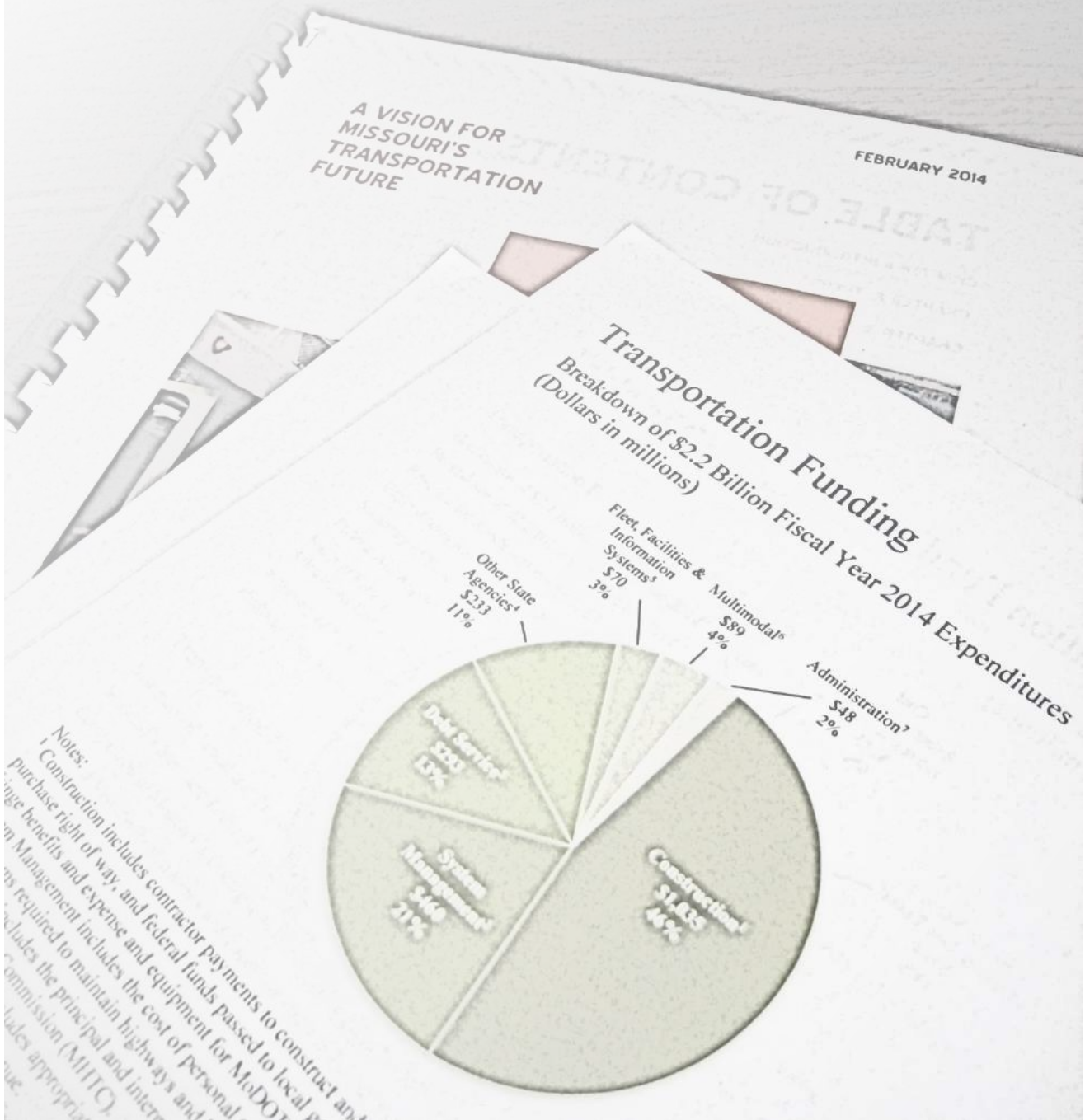




**(This page intentionally left blank)**

# Chapter 12: Funding

- Overview
- MoDOT and State Funding Sources
- Federal Funding and MAP21
- Funding for Alternative Modes of Transportation
- Funding Tools
- Partnership Debt-Finance Program



## Overview

The U.S. government uses its Federal taxing authority to levy several taxes supporting transportation funding through the Highway Trust Fund, according to AASHTO (American Association of State Highway and Transportation Officials). In addition, some funding for surface transportation is sourced from the General Fund of the U.S. Treasury.

States collect taxes and fees from motor vehicle users and use the revenues to support a variety of transportation (and non-transportation) expenditures. States generally have more flexibility in the varieties of taxes they collect, as well as in how they dispose of those taxes. Taxes imposed by states and localities are collected and administered by various agencies, departments, and offices, depending on how a particular tax or fee is structured or designated in state and local law.

Other significant sources of state revenue include tolls, general fund appropriations, and bond proceeds. Overall, state revenue provides about 43 percent of total surface transportation funding in the country, more than the Federal share (about 21 percent) or the local share (about 36 percent).

Federal transportation funds are generated by the federal fuel tax – 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel. Federal fuel taxes are deposited into the Highway Trust Fund, and apportioned back to states via federal authorization bills. The amount Missouri is apportioned is reduced by the congressionally imposed obligation limitation, which places a ceiling on the amount we can commit to projects. Historically, approximately 95 percent of apportionments are available to obligate. Federal funds are received on a reimbursement basis. MoDOT and local public agencies spend state and local funds to build projects and request reimbursement from the Federal Highway Administration.

This chapter details these funding sources based on several planning documents from state and federal agencies including MoDOT, Federal Department of Transportation (DOT) and the Federal Highway Administration (FHWA). A large portion of this chapter copies pages from the 2014 MoDOT Financial Snapshot. The updated **2015** MoDOT Financial Snapshot can be found in Appendix I.

## MoDOT and State Funding Sources

According to the Missouri Department of Transportation (MoDOT), it is responsible for administering and implementing transportation projects and programs within the state. The department operates under a decentralized organization with its principle office in Jefferson City. This central office provides staff assistance and functional control for the various departmental tasks in seven geographical districts.

MoDOT is governed by the Missouri Highways and Transportation Commission, which is a six-member, bi-partisan board appointed by the governor and confirmed by the Missouri Senate. MoDOT's director and secretary to the commission are appointed by the commission. The director is responsible for all other employee appointments and hiring.

MoDOT is responsible for maintaining Missouri's 33,845 mile highway system and 10,405 bridges, as well as improving waterways, transit, aviation, railroads, freight development and bicycle and pedestrian travel. The various non-highway modes are established as sections within the Central Office and report to the Director of Multimodal Operations, who reports to the Deputy Chief Engineer. These sections carry out the statewide planning for these modes; there are no counterparts in the districts.

### MoDOT Multi- Modal

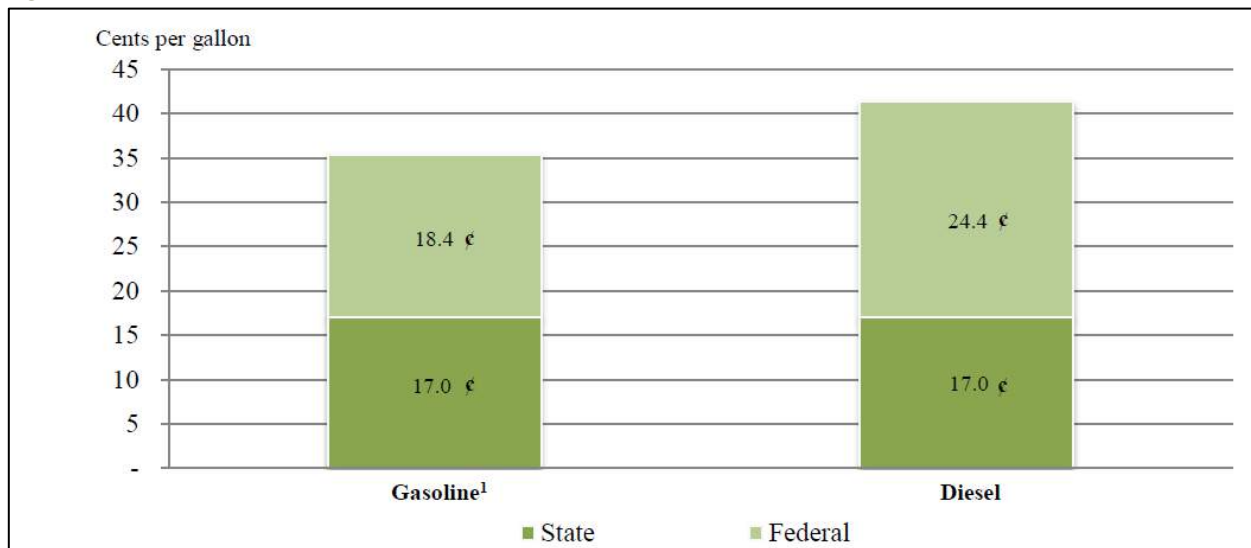
The MoDOT Multimodal Operations Division is the administrative division responsible for supporting alternative transportation programs within the state. The division functions to continue the advancement and strategic planning for Aviation, Rail, Transit, Waterways, and Freight Development initiatives designed to expand Missouri's infrastructure and facilitate travel and commerce. Through the integration of the various modes, the traveling public enjoys greater accessibility to the resources of the state while industry capitalizes on improved transportation efficiencies.

In 2004, Missouri voters approved Constitutional Amendment 3 which requires all revenues from the existing state motor vehicle fuel tax (less collection costs and costs to administer and enforce state motor vehicle laws and traffic regulations) to be used only to construct, improve and maintain state highways, roads and bridges. The amendment also requires motor vehicle taxes and fees paid by highway users be used only for constructing, improving and maintaining the state highway system. The amendment prohibits these motor vehicle taxes dedicated for state highway purposes from funding the other, non-highway modes of transportation. However, the amendment also provided that 2 percent of the first one-half of the motor vehicle sales tax be deposited into the State Transportation Fund, which is required to be used solely to fund aviation, mass transportation, transportation of elderly and handicapped, railroads, ports, waterborne commerce and intermodal connections.

### Missouri's State and Federal Fuel Tax Rates and Fuel Tax History

The largest source of transportation revenue is from the federal government through a fuel tax. The largest source of state transportation revenue is the fuel tax. The state motor fuel tax is not indexed to keep pace with inflation. No rate increases have occurred on the state or federal level since the 1990's. Figure 12.1 illustrates the state and federal tax rates.

Figure 12.1



Source: MoDOT Financial Snapshot 2014

#### State Fuel Tax History:

- The first state fuel tax rate was 2 cents per gallon, established in 1924.
- Fuel tax rate increased to 3 cents per gallon in 1952.
- Fuel tax rate increased to 5 cents per gallon in 1961.
- Fuel tax rate increased to 7 cents per gallon August 13, 1972.
- Fuel tax rate increased to 11 cents per gallon effective June 1, 1987 (Proposition A).
- Fuel tax rate increased to 13 cents per gallon effective April 1, 1992.
- Fuel tax rate increased to 15 cents per gallon effective April 1, 1994.
- Fuel tax rate increased to its current rate of 17 cents per gallon effective April 1, 1996.

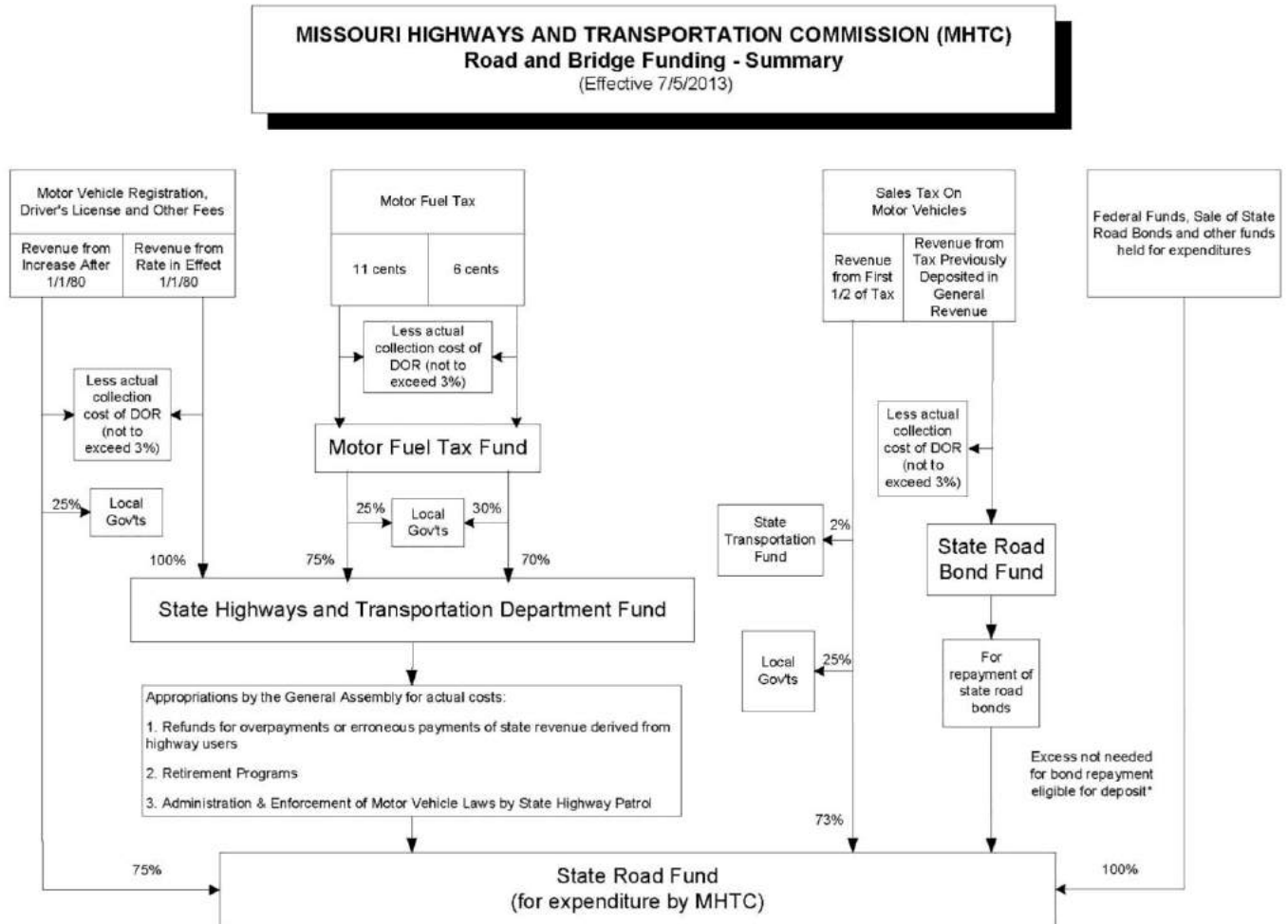
#### Federal Fuel Tax History:

- The first federal fuel tax rate was 1 cent per gallon for both gasoline and diesel, established in 1932.
- Fuel tax rate increased to 3 cents per gallon for both gasoline and diesel in 1956.
- Fuel tax rate increased to 4 cents per gallon for both gasoline and diesel in 1959.
- Fuel tax rate increased to 9 cents per gallon for both gasoline and diesel in 1983.
- Fuel tax rate increased to 15 cents per gallon for diesel in 1984.
- Fuel tax rate increased to 9.1 cents per gallon for gasoline and 15.1 cents per gallon for diesel in 1987.
- Fuel tax rate increased to 14.1 cents per gallon for gasoline and 20.1 cents per gallon for diesel in 1990.
- Fuel tax rate increased to its current rate of 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel in 1993, with fluctuations in the rate of the tax in 1995, 1996 and 1997 with the current rate effective October 1, 1997.

Source: Prepared by MoDOT based on Federal Highway Administration data.

Figure 12.2 illustrates the flow of user fees, taxes and federal funds into Missouri’s State Road Fund.

Figure 12.2



\*Requires certification be the Commissioner of Administration and the Missouri Highway and Transportation Commission.  
Source: MoDOT Financial Snapshot 2014

## Revenue for Roads and Bridges, Multimodal, Highway Safety

MoDOT's funding comes from both state and federal sources. Most of the money is dedicated by federal law or the state constitution and statutes to specific purposes. Figure 12.3 lists the funds available for roads and bridges, which stand appropriated without legislative action, and minimal amounts for other transportation modes or programs which are influenced by the Commission, but appropriated by the General Assembly.

Figure 12.3 Revenue (Dollars in thousands)

Revenue (Road and Bridge)	2010	2011	2012	2013	2014
Fuel Tax <sup>1</sup>	\$501,967	\$501,531	\$496,401	\$488,691	\$488,800
Vehicle/Driver's Licensing Fees <sup>1</sup>	265,151	265,701	269,026	266,844	271,142
Sales and Use Tax <sup>1</sup>	243,554	262,855	276,423	295,072	304,365
Interest and Miscellaneous	183,268	170,790	172,185	185,576	123,339
Federal Reimbursement <sup>1,2</sup>	1,112,780	1,584,663	954,199	913,236	831,066
Bond Proceeds	1,107,699	0	0	0	0
<b>Total Revenue</b>	<b>\$3,414,419</b>	<b>\$2,785,540</b>	<b>\$2,168,234</b>	<b>\$2,149,419</b>	<b>\$2,018,712</b>

Revenue (Multimodal)	2010	2011	2012	2013	2014
Aviation Fuel <sup>1</sup>	\$247	\$248	\$286	\$271	\$244
License, Fees and Permits <sup>1</sup>	1,521	1,951	2,094	2,091	2,067
Sales and Use Tax <sup>1</sup>	6,518	7,360	8,438	8,166	10,003
State General Revenue Fund	11,882	10,313	9,156	9,301	13,502
Interest and Miscellaneous	2,357	1,939	2,889	2,111	1,572
Federal Reimbursement <sup>1,3</sup>	84,964	44,660	44,976	61,709	65,226
<b>Total Revenue<sup>4</sup></b>	<b>\$107,489</b>	<b>\$66,471</b>	<b>\$67,839</b>	<b>\$83,649</b>	<b>\$92,614</b>

Revenue (Highway Safety)	2010	2011	2012	2013	2014
License, Fees and Permits <sup>1</sup>	\$378	\$367	\$382	\$372	\$359
Interest and Miscellaneous <sup>1</sup>	4	13	23	4	20
Federal Grants <sup>1</sup>	21,144	16,727	24,429	42,043	32,404
<b>Total Revenue<sup>5</sup></b>	<b>\$21,526</b>	<b>\$17,107</b>	<b>\$24,834</b>	<b>\$42,419</b>	<b>\$32,783</b>

Notes:

<sup>1</sup>User fees.

<sup>2</sup>Federal reimbursement includes revenue received for reimbursement of road and bridge and the American Recovery and Reinvestment Act (ARRA) projects.

<sup>3</sup>Federal reimbursement includes revenue received for reimbursement of multimodal and the American Recovery and Reinvestment Act (ARRA) projects.

<sup>4</sup>Total revenue includes the following funds: Multimodal Operations-Federal, State Transportation, Aviation Trust, State Transportation Assistance Revolving, Grade Crossing Safety Account, Railroad Expense, Light Rail Safety, and General Revenue.

<sup>5</sup>Total revenue includes the following funds: Highway Safety Federal, Motor Carrier Safety Assistance Program Federal and the Motorcycle Safety Trust Fund.

Source: MoDOT Financial Snapshot 2014

## Revenue for Roads and Bridges, Multimodal, Highway Safety

MoDOT's largest expenditure category is the construction program. The construction program expenditures include contractor payments, engineering, reimbursement to local entities for acceleration of projects, right of way payments, and federal pass-through to local public agencies. Other State Agencies represents appropriations to the Missouri State Highway Patrol and the Department of Revenue. Figure 12.4 depicts MoDOT Transportation Expenditures 2010-2014.

**Figure 12.4 Expenditures (Dollars in thousands)**

<b>Expenditures (Road and Bridge)</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Construction Program	\$1,454,748	\$1,391,396	\$1,301,813	\$1,060,724	\$907,269
Construction Operating Costs	161,471	158,749	136,555	127,281	127,002
Maintenance	471,029	470,061	430,062	419,581	443,939
Fleet, Facilities & Info. Systems	111,551	96,972	70,110	69,625	70,095
Debt Service	219,011	283,497	273,576	289,334	292,930
Administration	49,452	48,844	46,858	46,772	48,405
Other State Agencies	197,673	226,253	240,576	227,054	233,307
<b>Total Expenditures</b>	<b>\$2,664,935</b>	<b>\$2,675,772</b>	<b>\$2,499,550</b>	<b>\$2,240,371</b>	<b>\$2,122,947</b>

<b>Expenditures (Multimodal)</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Operating Costs	\$2,652	\$2,650	\$2,813	\$2,450	\$2,341
Transit	55,545	33,265	32,831	34,875	29,379
Rail	15,160	9,311	10,632	22,865	23,430
Aviation	36,075	19,031	16,376	23,337	30,153
Port-Waterway	2,135	1,415	457	615	3,279
STAR Fund Loan	0	1,000	0	0	0
Freight	0	0	0	0	850
<b>Total Expenditures</b>	<b>\$111,567</b>	<b>\$66,672</b>	<b>\$63,109</b>	<b>\$84,142</b>	<b>\$89,432</b>

<b>Expenditures (Highway Safety)</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Operating Costs	\$524	\$515	\$462	\$391	\$514
Safety Programs	21,042	16,634	24,398	41,813	15,541
<b>Total Expenditures</b>	<b>\$21,566</b>	<b>\$17,149</b>	<b>\$24,860</b>	<b>\$42,204</b>	<b>\$16,055</b>

Source: MoDOT Financial Snapshot 2014

### Highway Bridge Program (BRO & BRM)

The Off-System Bridge Replacement and Rehabilitation (BRO) program provides funding to counties for replacement or rehabilitation of deficient bridges.

The On-System Bridge Replacement and Rehabilitation (BRM) program provides funding through a competitive selection process for replacement or rehabilitation of deficient bridges.

The Highway Bridge Program (HBP) was authorized for public bridges in 1979. Funds are normally apportioned on or about October 1, each year. Funds are available for three years after the close of the fiscal year for which they were authorized. Unused funds may be withdrawn by MoDOT to make other arrangements for their expenditure. This is necessary in order to prevent loss of the funds through statutory lapse.



Federal funds are available to finance up to 80% of the eligible project cost, but may be increased with the use of credit earned from replacing an eligible bridge that is not on the federal-aid system with their own funds. Otherwise, it will be necessary for the city or county to provide the necessary matching funds.

The funds are administered according to the following policies:

- The current transportation bill requires that at least 15% of the state's total bridge appropriation in fiscal year 2009 be allocated for use on off-system bridges (BRO). The Missouri Highways and Transportation Commission approve the amount of funds allocated to this program. Off-system bridges are bridges that are on roads that are functionally classified as a local road or street and rural minor collectors.
- BRO funds allocated to the counties will be based on the ratio of the replacement cost of the square footage of deficient bridge deck in the county to the replacement cost of the square footage of deficient bridge deck in all counties of the state.
- BRO funds may be programmed by counties for future projects. If the county does not have a sufficient balance of off-system bridge funds, they may borrow up to three years of future allocations for preliminary engineering or one year of future allocation for construction costs.
- The Missouri Highways and Transportation Commission approves the amount of funds allocated to the Kansas City, Springfield and St. Louis TMAs and other cities with an urban cluster population of greater than 5,000 for use on on-system bridges (BRM). On-system bridges are bridges that are on roads that are functionally classified as urban collectors, rural major collectors, and arterials. Funds for cities with an urban cluster population between 5,000 and 200,000 are distributed on a selection process which is conducted annually. The amount of money programmed will be the maximum amount the city will receive. Any costs over the programmed amount will be funded with the city's allocated STP funds or with local funds.
- On-System Bridge Replacement and Rehabilitation Program (BRM) fund balances in excess of three years of annual allocations for Transportation Management Areas (TMAs) will lapse on September 30, 2009, and on September 30th of each year thereafter. Transportation improvements within the TMA will use the lapsed funds.

Figure 12.5 lists the county BRO and Credit Balances as of June 30, 2015.

**Figure 12.5**

<b>MoDOT BRO &amp; Credit Balances by County - June 30, 2015</b>			
<u>County</u>	<u>Allocation FY15</u>	<u>BRO Balance</u>	<u>Credit Balance</u>
<b>Boone</b>	\$88,480.10	\$528,156.42	\$238,375.19
<b>Callaway</b>	\$110,924.14	-\$30,2076.12	\$49,632.43
<b>Cole</b>	\$90,724.50	\$122,432.84	\$53,564.03
<b>Cooper</b>	\$153,314.92	\$15,573.06	\$146,882.65
<b>Howard</b>	\$106,656.61	-\$76,310.75	\$0.00
<b>Moniteau</b>	\$117,467.68	\$156,438.49	\$156,842.34

Source: MoDOT

## Summary of State and Federal Funds

Figure 12.6 lists the current state and federal funding sources available according to MoDOT's LRTP.

Figure 12.6

Summary of State and Federal Funds	
Fund	Source of Funds
<b>State Road Fund</b>	Federal Highway Administration reimbursements; licenses, permits, and fees for motor vehicles and drivers; state sales tax on motor vehicles; cost reimbursements; and other miscellaneous fees [Section 226.220 RSMo.]
<b>State Road Bond Fund</b>	State sales tax on motor vehicles [Section 226.210 RSMo.]
<b>State Highways and Transportation Department Fund</b>	Motor fuel tax and licenses, permits, and fees for motor vehicles and drivers [Section 226.200 RSMo.]
<b>Aviation Trust Fund</b>	User fees of 9 cents per gallon on aviation gasoline and a portion of the state sales tax collected on jet fuel [Section 155.090 RSMo.]
<b>State Transportation Fund</b>	Two percent of one-half of the state sales tax on motor vehicles [Section 226.225 RSMo.]
<b>Grade Crossing Safety Account</b>	Owner of a motor vehicle pays a fee of twenty-five cents each year when the person registers or renews the registration of a motor vehicle [Section 389.612 RSMo.]
<b>Railroad Expense Fund</b>	Assessments collected from the railroads [Section 622.015 RSMo.]
<b>State Transportation Assistance Revolving (STAR) Fund</b>	This fund accounts for loans to any political subdivision of the state or to any public or private not-for-profit organization for the planning, acquisition, development and construction of facilities for air, water, rail or public transportation, the purchase of vehicles for transportation of elderly and disabled persons, or the purchase of rolling stock for transit purposes. Loan repayments are deposited into this fund and are used to make additional loans under the revolving loan program. [Section 226.191 RSMo.]
<b>Motorcycle Safety Trust Fund</b>	Court fees of \$1 collected from persons who violate motorcycle safety laws or cause accidents involving motorcycles by violating the laws of the state, county, or municipality [Section 302.137 RSMo.]
<b>Multimodal Operations Federal Fund</b>	Federal grant monies associated with Multimodal programs
<b>Motor Carrier Safety Assistance Federal Fund</b>	Federal grant monies associated with the Motor Carrier Safety Assistance Program
<b>Highway Safety Federal Fund</b>	Federal grant monies associated with Highway Safety programs

Source: MoDOT Financial Snapshot 2014

## Highway User Fees and Distribution

The state does not receive all of the revenue generated by state highway user taxes and fees. The state constitution, Article IV, directs the Department of Revenue to distribute portions of the state motor fuel tax, motor vehicle sales and use taxes, and motor vehicle and driver licensing fees to cities and counties. Figure 12.7 shows a six year history of transportation revenue sharing with local entities.

Figure 12.7

<b>Cities</b>				
	<b>Motor Fuel Revenue</b>	<b>Vehicle Sales Tax</b>	<b>Motor Vehicle Fees</b>	<b>Total</b>
<b>2009</b>	101,686	19,856	15,968	137,510
<b>2010</b>	102,113	19,468	15,932	137,513
<b>2011</b>	103,065	21,853	16,177	141,095
<b>2012</b>	100,994	23,155	16,418	140,567
<b>2013</b>	99,433	25,112	16,961	141,506
<b>2014</b>	100,077	28,340	16,059	144,476

<b>Counties</b>				
	<b>Motor Fuel Revenue</b>	<b>Vehicle Sales Tax</b>	<b>Motor Vehicle Fees</b>	<b>Total</b>
<b>2009</b>	79,750	13,238	10,645	103,633
<b>2010</b>	80,085	12,979	10,621	103,685
<b>2011</b>	80,851	14,572	10,787	106,210
<b>2012</b>	79,206	15,437	10,945	105,588
<b>2013</b>	77,980	16,741	11,307	106,028
<b>2014</b>	78,484	18,893	10,706	108,083

<b>Total</b>				
	<b>Motor Fuel Revenue</b>	<b>Vehicle Sales Tax</b>	<b>Motor Vehicle Fees</b>	<b>Total</b>
<b>2009</b>	181,436	33,094	26,613	241,143
<b>2010</b>	182,198	32,447	26,553	241,198
<b>2011</b>	183,916	36,425	26,964	247,305
<b>2012</b>	180,200	38,592	27,363	246,155
<b>2013</b>	177,413	41,853	28,268	247,534
<b>2014</b>	178,561	47,233	26,765	252,559

Source: MoDOT Financial Snapshot 2014 - Prepared by MoDOT based on Missouri Department of Revenue data.

Figure 12.8 shows the proportionate share between MoDOT, cities and counties of the three main revenue sources: motor fuel tax, motor vehicle sales and use tax and the motor vehicle and driver's licensing fees. The Missouri State Highway Patrol (MSHP) and the Department of Revenue (DOR) receive appropriations from these revenues as well.

Figure 12.8

### Distribution of Highway User Fees Fiscal Year 2014

**Fuel Taxes Rates:**

State:	Gas / Gasohol	Percent	Diesel	Percent
State-Roads & Bridges, MSHP, DOR	12.45¢	73.2%	12.45¢	73.2%
Cities <sup>1</sup>	2.55¢	15.0%	2.55¢	15.0%
Counties <sup>2</sup>	2.00¢	11.8%	2.00¢	11.8%
<b>Total State</b>	<b>17.00¢</b>		<b>17.00¢</b>	
<b>Federal:</b>				
Underground Storage Tank	0.10¢	0.6%	0.10¢	0.4%
Transit Account	2.86¢	15.5%	2.86¢	11.7%
Highway Account	15.44¢	83.9%	21.44¢	87.9%
<b>Total Federal</b>	<b>18.40¢</b>		<b>24.40¢</b>	
<b>TOTAL FUEL TAX RATE</b>	<b>35.40¢</b>		<b>41.40¢</b>	

State Motor Vehicle Sales and Use Taxes:	Sales	Percent	Use <sup>3</sup>	Percent
State-Roads & Bridges, MSHP, DOR	2.960%	70.1%	3.750%	88.7%
State-Other Transportation Modes	0.040%	0.9%	-	
Cities <sup>1</sup>	0.300%	7.1%	0.150%	3.5%
Counties <sup>2</sup>	0.200%	4.7%	0.100%	2.4%
School District Trust Fund	0.500%	11.8%	-	
Department of Conservation	0.125%	3.0%	0.125%	3.0%
Department of Natural Resources	0.100%	2.4%	0.100%	2.4%
<b>TOTAL STATE TAX RATE</b>	<b>4.225%</b>		<b>4.225%</b>	

State Motor Vehicle & Drivers Licensing Fees:	Fees prior to 1/1/80	Fee Increases after 1/1/80
State-Roads & Bridges, MSHP, DOR	100%	75%
Cities <sup>1</sup>	-	15%
Counties <sup>2</sup>	-	10%

Notes:

<sup>1</sup> City share is based on population.

<sup>2</sup> County share is based on assessed rural land valuation and rural road mileage.

<sup>3</sup> Beginning July 5, 2013, the State no longer collects use tax on motor vehicle transactions. Motor vehicle transactions are subject to the sales tax.

Source: MoDOT Financial Snapshot 2014 - Prepared by MoDOT based on Missouri Department of Revenue data.

## Federal Funding - FAST Act

According to the US Department of Transportation, The Fixing America's Surface Transportation (FAST) Act is a \$305 Billion five-year bill to improve the Nation's surface transportation infrastructure, including roads, bridges, transit systems, and rail transportation network. The bill, which was signed by President Obama on December 4<sup>th</sup>, 2015, is the first long term transportation bill to be passed in 10 years. Since the 2012 expiration of the previous bill, MAP-21, 36 extensions had been filed to maintain transportation funding.

Because this plan is being finished just as this bill has been passed, guidance for the bill is not yet available. As more information becomes available it will be added to this plan as part of the update process. The following information, according to the U.S. House of Representative's Committee on Transportation and Infrastructure, provides a summary of the bill:

### Roads and Bridges

- Facilitates commerce and the movement of goods by refocusing existing funding for a National Highway Freight
- Program and a Nationally Significant Freight and Highway Projects Program
- Expands funding available for bridges off the National Highway System
- Converts the Surface Transportation Program (STP) to a block grant program, increases flexibility for states and local governments, and rolls the Transportation Alternatives Program into the STP Block Grant
- Streamlines the environmental review and permitting process to accelerate project approvals
- Eliminates or consolidates at least six separate offices within the Department of Transportation and establishes a National Surface Transportation and Innovative Finance Bureau to help states, local governments, and the private sector with project delivery
- Increases transparency by requiring the Department of Transportation to provide project-level information to Congress and the public
- Promotes private investment in our surface transportation system
- Promotes the deployment of transportation technologies and congestion management tools
- Encourages installation of vehicle-to-infrastructure equipment to improve congestion and safety
- Updates research and transportation standards development to reflect the growth of technology

### Public Transportation

- Increases dedicated bus funding by 89% over the life of the bill
- Provides both stable formula funding and a competitive grant program to address bus and bus facility needs
- Reforms public transportation procurement to make federal investment more cost effective and competitive
- Consolidates and refocuses transit research activities to increase efficiency and accountability
- Establishes a pilot program for communities to expand transit through the use of public-private partnerships
- Eliminates the set aside for allocated transit improvements
- Provides flexibility for recipients to use federal funds to meet their state of good repair needs
- Provides for the coordination of public transportation services with other federally assisted transportation services to aid in the mobility of seniors and individuals with disabilities
- Requires a review of safety standards and protocols to evaluate the need to establish federal minimum safety standards in public transportation and requires the results to be made public

## Highway and Motor Vehicle Safety

- Focuses funding for roadway safety critical needs
- Increases percentage of National Priority Safety Program states can spend on traditional safety programs
- Ensures more states are eligible for safety incentive grant funds and encourages states to adopt additional safety improvements
- Encourages states to increase safety awareness of commercial motor vehicles
- Increases funding for highway-railway grade crossings
- Requires a feasibility study for an impairment standard for drivers under the influence of marijuana
- Improves the auto safety recall process to better inform and protect consumers
- Increases accountability in the automobile industry for safety-related issues

## Truck and Bus Safety

- Overhauls the rulemaking process for truck and bus safety to improve transparency
- Consolidates truck and bus safety grant programs and provides state flexibility on safety priorities
- Incentivizes the adoption of innovative truck and bus safety technologies
- Requires changes to the Compliance, Safety, Accountability program to improve transparency in the FMCSA's oversight activity
- Improves truck and bus safety by accelerating the introduction of new transportation technologies

## Hazardous Materials

- Grants states more power to decide how to spend training and planning funds for first responders
- Requires Class I railroads to provide crude oil movement information to emergency responders
- Reforms an underutilized grant program for state and Indian tribe emergency response efforts
- Better leverages training funding for hazmat employees and those enforcing hazmat regulations
- Requires real-world testing and a data-driven approach to braking technology
- Enhances safety for both new tank cars and legacy tank cars
- Speeds up administrative processes for hazmat special permits and approvals
- Cuts red tape to allow a more nimble federal response during national emergencies

## Railroads

- Provides robust reforms for Amtrak, including reorganizing the way Amtrak operates into business lines
- Gives states greater control over their routes, by creating a State-Supported Route Committee
- Speeds up the environmental review process for rail projects
- Creates opportunities for the private sector through station and right-of-way development
- Consolidates rail grant programs for passenger, freight, and other rail activities
- Establishes a Federal-State Partnership for State of Good Repair grant program
- Strengthens Northeast Corridor planning to make Amtrak more accountable and states equal partners
- Allows competitors to operate up to three Amtrak long-distance lines, if at less cost to the taxpayer
- Strengthens passenger and commuter rail safety, and track and bridge safety
- Preserves historic sites for rail while ensuring that safety improvements can move forward
- Unlocks and reforms the Railroad Rehabilitation and Improvement Financing (RRIF) loan program
- Includes reforms to get RRIF loans approved more quickly with enhanced transparency

- Provides commuter railroads with competitive grants and loans to spur timely Positive Train Control implementation
- Provides competitive opportunities for the enhancement and restoration of rail service

#### **Additional Provisions**

- Includes strongly bipartisan measures to simplify rules and regulations, aid consumers, enhance our capital markets, assist low-income housing residents, and help build a healthier economy
- Includes bipartisan provisions to provide energy infrastructure and security upgrades
- Streamlines the review process for infrastructure, energy, and other construction projects

#### **Financing Provisions**

- Includes fiscally responsible provisions to ensure the bill is fully paid for
- Ensures the Highway Trust Fund is authorized to meet its obligations through FY 2020
- Directs offsets from the FAST Act into the Highway Trust Fund to ensure fund solvency
- Reauthorizes the dedicated revenue sources to the Highway Trust Fund, which periodically expire

## Missouri and the FAST Act

In early January 2016 MoDOT produced an executive summary that provides an overview of the anticipated impact of the FAST Act on Missouri's transportation system. The following information is taken from that executive summary:

From Fiscal Year 2016 to Fiscal Year 2020, the availability of federal funds Missouri will be able to match will be approximately \$1 billion, which is an increase of 9.8 percent over the previous federal bill – MAP 21. Federal dollars represent the largest source of funds in MoDOT's budget.

With current state revenue projections, it is anticipated that MoDOT will be able to fully match its available federal funds. The best news for Missouri is the FAST Act allows for a five-year period of funding certainty which will allow for effective project planning.

The FAST Act requires that Missouri, North Carolina and Virginia proceed with their pilot projects to toll an existing interstate highway (I-70 in Missouri) within one year or lose their provisional conditional status. The act allows the states to request a one-year extension.

### Safety

The Office of Highway Safety will be required to conduct a survey every two years of all automated traffic enforcement systems to include red light running cameras and speed enforcement camera systems.

The legislation requires a separate grant application for states to implement the 24-7 sobriety programs.

A study will be conducted on marijuana impaired driving including the issues of methods used to detect and measure marijuana levels and identify the role and extent of marijuana impairment in motor vehicle accidents.

States will be allowed to submit a multi-year plan detailing motor carrier safety efforts. These reports will include annual updates.

States will undertake efforts to emphasize and improve enforcement of state and local traffic safety laws and regulations.

### Freight

The bill establishes a new competitive grant program for very large, predominantly highway projects that benefit the national freight network. One condition of this program is a project estimated cost of \$100 million or 30 percent of a state's annual federal appropriation. The minimum grant is \$25 million. However, there are some reserves (10 percent) for smaller projects of less than \$5 million and 25 percent for rural areas (population less than 200,000).

A local match will be required for funds used to support the capital needs of public ferries. FAST revises the formula for apportionment. The biggest change is the minimum fiscal year allocation of \$100,000.

Performance metrics will be developed on the nation's top 25 ports in each category of tonnage, containers and dry bulk. The St. Louis port is the only one that qualifies as a mandate on the list.

New funding is designated to improve the freight highway network. The language includes requirements to be designated as a "freight project." MoDOT will need to add these elements to its planning processes. Missouri has more than two percent of the national freight mileage so its apportionment must be spent on the



primary freight network, critical urban and critical rural freight corridors instead of the broader freight system.

State Freight Plans are now mandated and must be in place within two years for Missouri to be able to access the freight funds. State Freight Advisory Committees remain as an encouraged activity, but not mandated.

### **Transit**

The FAST Act provides transit increases of 9 to 11 percent over five years and also increases the annual statewide allocation for buses and bus facilities.

Based on the estimated apportionments, the new surface transportation bill provides modest increases of approximately 3.5 percent in the first year and approximately 2 percent per year increase through Fiscal Year 2020.

The statewide allocation for the Bus & Bus Facilities program has increased from \$1.25 million to \$1.75 million per year. This is an increase for much needed capital projects. This program also includes a new competitive grant program.

Rural Area Funding program appears to remain the same with no significant changes. The funding in Missouri appears to increase modestly in each year based in preliminary estimates from \$17.7 million in 2016 to \$19.4 million in 2020 (8.7 percent).

Enhanced Mobility of Seniors and Individuals with Disabilities program will see modest increased funding from \$4.86 million in 2016 to \$5.37 million in 2020 (9 percent). There is a provision added for a new “pilot program for innovative coordinated access and mobility.” Grant money could be available for eligible entities.

### **Environment**

The environmental provisions of the bill are intended to streamline the project delivery process and ensure interagency cooperation.

New language under Efficient Environmental Review for Project Decision making changes definition of “project” to include multimodal projects and “lead federal agency” to “operating administration” so that projects benefit from review efficiencies; takes into account any source of federal funding. This should be helpful to multimodal projects. Similar streamlining of rail projects can be achieved once regulatory procedures are put in place.

Integration of Planning and Environmental Review: Clarifies and defines the planning products that can be adopted during National Environmental Policy Act development. Includes: financing, modal choice, purpose and need, preliminary screening of alternatives, description of the environmental setting, methodology for analysis and programmatic level mitigation.

DOT and Heads of Federal Agencies will develop coordinated and concurrent environmental review and permitting process for Environmental Impact Statements.

### **Planning**

The FAST Act expands the scope of the planning process to include addressing resiliency and reliability of the transportation system, mitigating storm water impacts of surface transportation and enhancing travel and tourism of the transportation system.

The act requires state DOTs to incorporate the performance measures for rural transit agencies into its planning documents.

In addition, the FAST Act requires states to establish a state freight plan in order to receive National Highway Freight Program funds. The state freight plan may be part of the state's long-range transportation plan, but is more granular in requirements than a long-range transportation plan.

### **Performance Management**

If a state DOT does not achieve or make significant progress toward achieving targets after one reporting cycle (instead of two reporting cycles), then the state DOT must include a description of the actions they plan to take to achieve their targets in the future in a report.

The penalty for falling below the minimum condition levels for pavements on the interstate system is imposed after the first reporting cycle (instead of after two reporting cycles); eliminates the need to collect safety data and information on unpaved or gravel roads.

USDOT will now assess if the state DOT has made significant progress toward the achievement of freight performance targets. If the state DOT has not made significant progress, then there are additional reporting requirements but not penalties associated with obligating freight funds.

Establishes a performance management data support program to enable the USDOT to better support state DOTs, Metropolitan Planning Organizations and the Federal Highway Administration in the collection and management of data for performance-based planning and programming.

### **Motor Carrier Services**

Changes language to make sure that a tow vehicle is equal to or exceeds the gross vehicle weight of the disabled vehicle it is towing.

The act will allow emergency vehicles that travel the interstate to weigh 86,000 pounds.

The act increases the length limit of some automobile transport trucks; this will require legislative action.

### **Research**

Every Day Counts Program has been continued.

The FAST Act establishes a new National Surface Transportation and Innovative Finance Bureau.

Highway Research, Technology and Education Authorization Program funding mostly stays the same or has small increases.

The Innovative Pavement Research and Deployment Program have been expanded. It now requires the Secretary to develop a program to stimulate deployment of advanced transportation technologies to improve system safety, efficiency and performance.

The goals for the Intelligent Transportation System have been expanded, but are mostly freight-related.

ITS program funds for operational tests can't be used for building physical surface infrastructure unless the construction is incidental and critically necessary to implement the ITS project.

The new Assistant Secretary for Research and Technology's responsibilities would include coordinating departmental Research & Technology activities, advancing innovative technologies, developing

comprehensive statistics and data and coordinating multimodal and multidisciplinary research. The Secretary can enter into cooperative contracts with federal, state and local and other agencies to conduct departmental research on a 50/50 cost share basis.

The Transportation Research Board will be required to do a study (\$5 million; report due in 3 years) on how to restore the interstate highway system to premier status.

University Transportation Center funding has been increased; funding levels within ranges will be flexible instead of fixed. No change in matching requirements.

## **Rail**

This is the first surface transportation bill to include a rail title; passenger rail and other rail investments total \$10.4 billion over the five-year life of the legislation. Federal funding for intercity passenger rail does not begin until Federal Fiscal Year 2017.

FAST Act's most significant language to Missouri pertains to operating assistance. For the first time, Congress has provided states a chance to compete for \$20 million per year to offset costs for state sponsored service. This primarily targets states' new cost from the Passenger Rail Investment and Improvement Act of 2009 (PRIIA).

In Missouri's case, costs were relatively the same after PRIIA. Therefore, it is uncertain how much Missouri will be able to obtain from this new funding source.

States can compete for this funding to improve infrastructure and vehicles used in the delivery of intercity passenger rail. This is similar to what Congress did through ARRA and the creation of the High Speed and Improved Passenger Rail Program – which delivered much needed projects like the Osage River Railroad Bridge.

Grade crossing safety remained a distinct safety program targeting improvements at highway rail grade crossings.

Congress also put funding towards a committee currently working on costs. This committee stems is made up of the Federal Railroad Administration, states, and Amtrak. The committee continues to work to help ensure states are paying only their fair share of costs. For example, this committee is addressing call center costs.

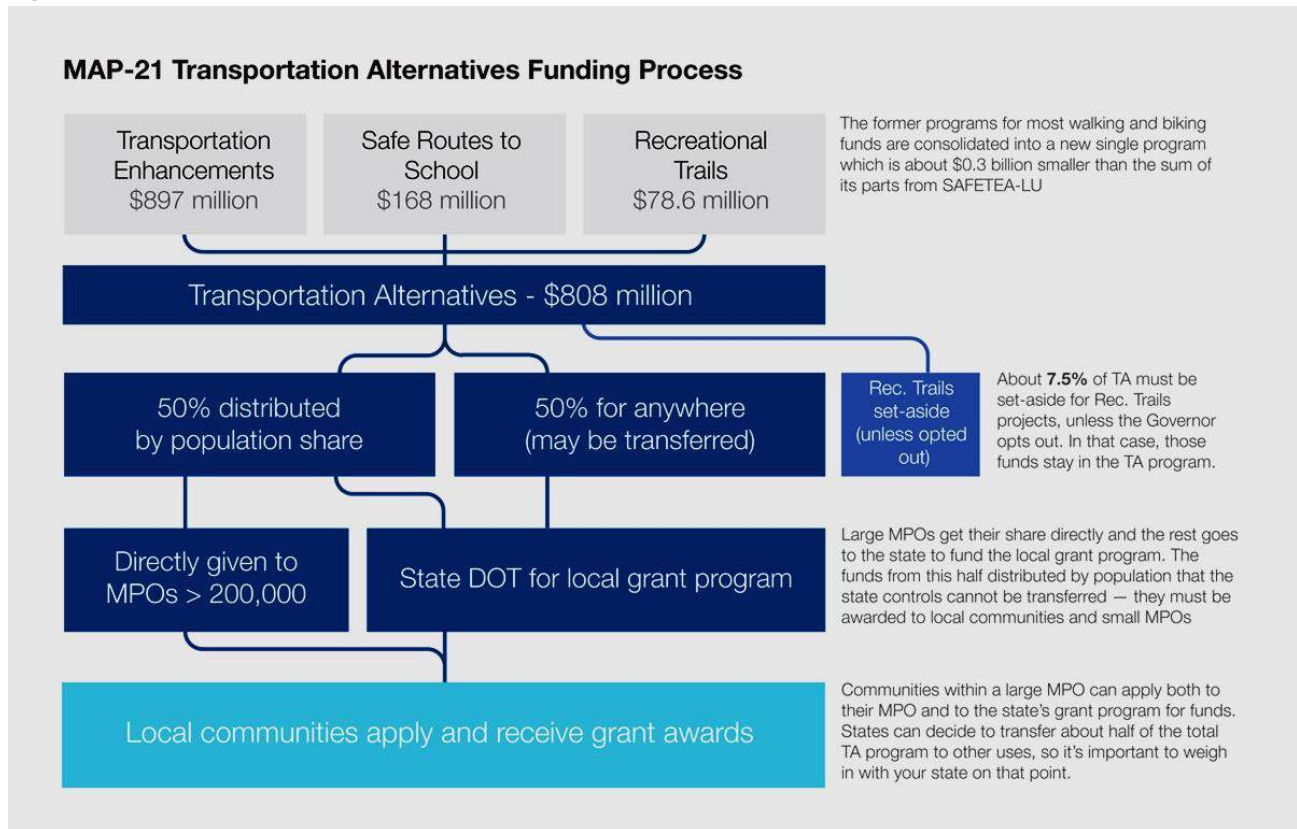
Missouri has identified to Amtrak for years their call center costs are too high and they need a better system to track where these costs are allocated. It seems they are primarily allocated to states, instead of Amtrak, where appropriate. This should continue to help lower costs to Missouri and other states.

## Transportation Alternatives Program (TAP) Funding

Transportation Alternatives Program (TAP) was authorized under the Moving Ahead for Progress in the 21st Century Act (MAP-21) to provide for a variety of alternative transportation projects, including many that were previously eligible activities under separately funded programs. The TAP replaces the funding from pre-MAP-21 programs including Transportation Enhancements, Recreational Trails, Safe Routes to School, and Scenic Byways, wrapping them into a single funding source. The TAP will remain in place with the 2015 passage of the FAST ACT. It is unknown at this time what changes in apportionment may occur.

The mission of the Transportation Alternatives Program is to improve our Nation’s communities through leadership, innovation, and program delivery. The funds are available to develop a variety of project types located in both rural and urban communities to create safe, accessible, attractive, and environmentally-sensitive communities where people want to live, work, and recreate. The Transportation Alternatives Program consists of: Transportation Enhancement (TE) activities, Recreational Trails Program (RTP), Safe Routes to School (SRTS) activities, and Boulevards from Divided Highways. Figure 12.9 illustrates the MAP-21 TAP funding process.

Figure 12.9



Source: Transportation For America, FHWA. 2008 Status of the Nation’s Highways, Bridges, and Transit. Conditions and Performance Report to Congress

## Traffic Engineering Assistance Program (TEAP)

The Traffic Engineering Assistance Program (TEAP) allows local public agencies (LPA) to receive engineering assistance for studying traffic engineering problems.

Typical traffic engineering related projects include: corridor safety and/or operational analysis, intersection(s) safety and/or operational analysis, speed limit review, sign inventory, pedestrian/bike route analysis, parking issues, and other traffic studies, etc.

Local public agencies are reimbursed for eligible project costs at a rate of 80 percent with the local agency providing a 20-percent match. Funds administered by MoDOT will provide 80 percent of the TEAP project costs, up to \$8,000 per project. If the total cost is greater than \$10,000, the local agency can pay more than 20 percent to complete the TEAP project, if desired.

### **Federal Lands Highway Program**

The Federal Lands Highway Program, as an adjunct to the Federal-Aid Highway Program, covers highway programs in cooperation with federal land managing agencies. It provides transportation engineering services for planning, design, construction and rehabilitation of the highways and bridges providing access to federally owned lands. The Federal Lands Highway organization also provides training, technology, deployment, engineering services and products to other customers. The Federal Highway Administration administers the Federal Lands Highway Program, including survey, design, and construction of forest highway system roads, parkways and park roads, Indian reservation roads, defense access roads, and other federal-land roads. The Federal Highway Administration, through cooperative agreements with federal land managing agencies such as the National Park Service, Forest Service, Military Traffic Management Command, Fish and Wildlife Service, and the Bureau of Indian Affairs, administers a coordinated federal-lands program consisting of forest highways, public-lands highways, park roads and parkways, refuge and Indian reservation roads. This program provides funding for more than 90,000 miles of federally owned and public authority-owned roads that serve federal lands. The agency's Federal Lands Highway Office provides program coordination, administration, and design and construction engineering assistance and directs the conduct of transportation planning and engineering studies.

### **Federal Aviation Administration Airport and Airway Trust Fund (AATF)**

The Airport and Airway Trust Fund (AATF), created by the Airport and Airway Revenue Act of 1970, provides funding for the federal commitment to the nation's aviation system through several aviation-related excise taxes. Funding currently comes from collections related to passenger tickets, passenger flight segments, international arrivals/departures, cargo waybills, aviation fuels and frequent flyer mile awards from non-airline sources like credit cards.

## Funding for Alternative Modes of Transportation

Transportation funding for alternative modes has historically been less than 5 percent of all MoDOT transportation revenue (approximately \$60 million annually). Funding for alternate modes of transportation comes from a variety of sources including motor vehicle sales taxes, aviation fuel and sales taxes, railroad regulation fees, state general revenue funds and federal grants.

According to the Multimodal Operations Business Plan 2014, MoDOT Multimodal Operations is responsible for supporting alternative transportation programs within the state. The division functions to continue the advancement and strategic planning for Aviation, Rail, Transit, Waterways, and Freight Development initiatives designed to expand Missouri's infrastructure and facilitate travel and commerce. Through the integration of the various modes, the traveling public enjoys greater accessibility to the resources of the state while industry capitalizes on improved transportation efficiencies.

### Multimodal Operations Functional Overview

- Assists in the development of port authorities through the distribution of capital and administrative funding while championing the efficiencies of waterborne transportation to industry and the general public.
- Administers federal and state capital improvement funding for Missouri's eligible public aviation facilities.
- Conducts airports safety inspections.
- Provides financial and technical assistance to public transit and specialized mobility providers across the state.
- Partners with industry and local communities to promote economic development and improved freight traffic efficiency by examining existing infrastructure obstructions and proactively assessing potential obstacles.
- Regulates freight and passenger rail operations, oversees rail crossing safety and construction projects, conducts railroad safety inspections, and provides outreach educational opportunities.
- Supports the continued operation of Amtrak in the state and provides direction for the development of expanded passenger rail service.

The amalgamation of the non-highway transportation modes into a single regulatory division traces its lineage back to the formation of the Missouri Highways and Transportation Department in 1980. With the subsequent merger and reorganization, Multimodal Operations assumed charge of consolidated authority over Aviation, Rail, Transit, and Waterway operations within the state as the definitive administrative body. The division has since evolved into a very specialized organization centered on engaging partnership participation that focuses on safe, accessible, efficient, and environmentally responsible alternative transportation solutions. In fiscal year 2012, Multimodal Operations functioned with an operating budget of \$2.5 million and a staff of 31, maintained over 4,000 internal and external partnership contacts, and cumulatively delivered over \$79 million in multimodal projects with partners across the state (nearly \$47 million federal funds, over \$14 million in state funds, and over \$18 million in local match funds).

### Multimodal Operations Profile – Activities by Mode

- Aviation
  - Administer grants and provide guidance for public use airports (State Block Grant Program & State Aviation Trust Fund Program)
  - Conduct airport safety inspections
  - Publish Aeronautical Chart, Airport Directory, and Show Me Flyer
  - Maintain State Airport System Plan (SASP)

- Approve Airport Master Plans (AMP) and Airport Layout Plans (ALP)
- Maintain Automated Weather Observing System (AWOS) equipment
- Promote education to the aviation community and other enthusiasts
- Rail
  - Conduct railroad infrastructure safety inspections (including track, grade crossing signals, and operating practices)
  - Support Amtrak passenger rail service through Missouri and promote ridership both through operations and project delivery
  - Maintain Statewide Rail Plan to identify the framework for freight and passenger rail development in Missouri for the next twenty years (including High Speed Intercity Passenger Rail (HSPIR))
  - Regulate safety for freight rail and passenger rail in Missouri
  - Enforce safety regulations for light rail operations (Metrolink)
  - Administer the Missouri Highway/Rail Crossing Safety Program
  - Plan and administer funding for rail/highway construction projects
  - Present outreach seminars on railroad grade crossing safety in conjunction with Missouri Operation Lifesaver
  - Catalog freight and passenger rail maps of Missouri
- Transit
  - Administer federal grant funding under Section 5310 Agencies Serving Seniors and Persons with Disabilities
  - Transportation Assistance Vehicle Program
  - Administer federal grant funding under Section 5311 Non-Urbanized Transit Assistance Formula Grant Program, Section 5311(b) Rural Transit Assistance Program (RTAP), and 5311(f) Intercity Bus Program
  - Administer federal grant funding under Section 5316 Job Access and Reverse Commute Program (JARC)
  - Administer federal grant funding under Section 5317 New Freedom Program
  - Administer federal grant funding under Section 5309 Discretionary Transit Capital Program
  - Administer federal grant funding under Section 5305 Statewide Transit Planning Grant Program
  - Administer federal grant funding under Section 5339 Bus & Bus Facilities Grant Program
  - Administer state funded Missouri Elderly and Handicapped Transportation Assistance Program (MEHTAP)(RSMo 208.250-208.265)
  - Administer state funded Missouri State Transit Assistance Program (RSMo 226.195)
  - Administer federal grant funding consistent with the new MAP-21 transportation funding provisions
  - Provide technical support and program assistance to partners and external customers
- Waterways
  - Assist in the formation and operation of port authorities in Missouri
  - Provide technical assistance and promote use of Missouri's navigable rivers
  - Represent port interests in industry and governmental bodies
  - Assist in distributing capital and administrative funding for port improvements
  - Provide financial assistance to two ferryboat operations
  - Maintain waterways map of port authorities
- Freight Development
  - Encourage freight initiatives that promote economic development and efficient movement of goods

- Conduct studies to determine opportunities for enhanced system capacity
- Evaluate performance of state infrastructure to improve efficiencies
- Host public forums and outreach opportunities for public comment and contribution



## Funding Tools for the Local or Regional Level

Funding for local county and municipal roadway maintenance and construction comes primarily from the state-distributed motor fuel tax, individual city and county capital improvement sales taxes and transportation sales taxes. Additional potential revenue options are available for local or regional transportation projects.

### Economic Development Administration - Public Works and Economic Development Program

Through the Public Works and Economic Development Act of 1965, the United States Department of Commerce, through its Economic Development Administration (EDA) branch, offers project grants to enhance regional competitiveness and promote long-term economic development in regions experiencing substantial economic distress. EDA provides Public Works investments to help distressed communities and regions revitalize, expand, and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies and generate or retain long-term private sector jobs and investment. Current priorities include proposals that help support existing industry clusters, develop emerging new clusters or attract new economic drivers.

Project grants may be used for investments in facilities such as water and sewer systems, industrial access roads, industrial and business parks, port facilities, railroad sidings, distance learning facilities, skill-training facilities, business incubator facilities, redevelopment of brownfields, eco-industrial facilities and telecommunications infrastructure improvements needed for business retention and expansion. Eligible activities include the acquisition or development of public land and improvements for use for a public works, public service or development facility, and acquisition, design and engineering, construction, rehabilitation, alteration, expansion, or improvement of publicly-owned and operated development facilities, including related machinery and equipment. A project must be located in a region that, on the date EDA receives an application for investment assistance, satisfies one or more of the economic distress criteria set forth in 13 C.F.R. 301.3(a). In addition the project must fulfill a pressing need of the region and must:

1. Improve the opportunities for the successful establishment or expansion of industrial or commercial plants or facilities in the region;
2. Assist in the creation of additional long-term employment opportunities in the region; or
3. Primarily benefit the long-term unemployed and members of low-income families.

In addition, all proposed investments must be consistent with the currently approved Comprehensive Economic Development Strategy (CEDS) for the region in which the project will be located, and the applicant must have the required local share of funds committed, available and unencumbered. Also, the project must be capable of being started and completed in a timely manner.

### USDA Rural Development

Community Programs, a division of the Housing and Community Facilities Programs, is part of the United States Department of Agriculture's Rural Development mission area. Community Programs administers programs designed to develop essential community facilities for public use in rural areas. These facilities include schools, libraries, childcare, hospitals, medical clinics, assisted living facilities, fire and rescue stations, police stations, community centers, public buildings and transportation. Through its Community Programs, the USDA is striving to ensure that such facilities are readily available to all rural communities. Community Programs utilizes three flexible financial tools to achieve this goal: the Community Facilities Guaranteed Loan Program, the Community Facilities Direct Loan Program, and the Community Facilities Grant Program.

Community Programs can make and guarantee loans to develop essential community facilities in rural areas and towns of up to 20,000 in population. Loans and guarantees are available to public entities such as municipalities, counties, and special-purpose districts, as well as to non-profit corporations and tribal governments. Applicants must have the legal authority to borrow and repay loans, to pledge security for loans, and to construct, operate and maintain the facilities. They must also be financially sound and able to organize and manage the facility effectively. Repayment of the loan must be based on tax assessments, revenues, fees, or other sources of money sufficient for operation and maintenance, reserves and debt retirement. Feasibility studies are normally required when loans are for start-up facilities or existing facilities when the project will significantly change the borrower's financial operations. The feasibility study should be prepared by an independent consultant with recognized expertise in the type of facility being financed.

Community Programs can guarantee loans made and serviced by lenders such as banks, savings and loans, mortgage companies which are part of bank holding companies, banks of the Farm Credit System or insurance companies regulated by the National Association of Insurance Commissioners. Community Programs may guarantee up to 90 percent of any loss of interest or principal on the loan. Community Programs can also make direct loans to applicants who are unable to obtain commercial credit. Loan funds may be used to construct, enlarge, or improve community facilities for health care, public safety and public services. This can include costs to acquire land needed for a facility, pay necessary professional fees and purchase equipment required for its operation. Refinancing existing debts may be considered an eligible direct or guaranteed loan purpose if the debt being refinanced is a secondary part of the loan, is associated with the project facility and if the applicant's creditors are unwilling to extend or modify terms in order for the new loan to be feasible.

Additionally, Community Programs also provides grants to assist in the development of essential community facilities in rural areas and towns of up to 20,000 in population. Grants are authorized on a graduated scale. Applicants located in small communities with low populations and low incomes will receive a higher percentage of grants. Grants are available to public entities such as municipalities, counties, and special-purpose districts, as well as non-profit corporations and tribal governments. In addition, applicants must have the legal authority necessary for construction, operation, and maintenance of the proposed facility and also be unable to obtain needed funds from commercial sources at reasonable rates and terms.

Grant funds may be used to assist in the development of essential community facilities. Grant funds can be used to construct, enlarge, or improve community facilities for health care, public safety and community and public services. This can include the purchase of equipment required for a facility's operation. A grant may be made in combination with other Community Facilities financial assistance such as a direct or guaranteed loan, applicant contributions or loans and grants from other sources. The Community Facilities Grant Program is typically used to fund projects under special initiatives, such as Native American community development efforts, child care centers linked with the Federal government's Welfare-to-Work initiative, Federally-designated Enterprise and Champion Communities and the Northwest Economic Adjustment Initiative area.

The Community Development Block Grant Program (CDBG) offers grants to small Missouri communities to improve local facilities, address critical health and safety concerns and develop a greater capacity for growth. The program offers funds for projects that can range from housing and street repairs to industrial loans and job training. State CDBG funds are only available to non-entitlement areas (incorporated municipalities under 50,000 and counties under 200,000 in population). Other communities receive funds directly through the Entitlement Communities Grants program.

The entitlement program provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low-income and moderate-income persons. The U.S. Department of Housing and Urban Development (HUD) awards grants to entitlement community grantees to carry out a wide range of community development activities directed toward revitalizing neighborhoods, economic development and providing improved community facilities and services. Entitlement communities develop their own programs and funding priorities. However, grantees must give maximum feasible priority to activities which benefit low- and moderate-income persons. A grantee may also carry out activities which aid in the prevention or elimination of slums or blight. Additionally, grantees may fund activities when the grantee certifies that the activities meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community where other financial resources are not available to meet such needs. CDBG funds may not be used for activities which do not meet these broad national objectives.

## Smart Growth & FHWA

The FHWA defines “Smart Growth” as “a concept best supported by a set of policies and programs intended to protect and preserve valuable natural and cultural resources.” Smart growth" also encourages economic development in targeted locations. While transportation is not specifically mentioned in that working definition, it is important to note that transportation affects land use just like affordable housing, good schools, and low crime rates.”

What does "smart growth mean for transportation can mean:

- Establishing state and local land use strategies to increase population and housing densities and make transit more viable,
- Managing and operating existing highway, transit, and other transportation modes to maintain or improve performance for each mode without adversely affecting neighborhoods or urban centers,
- Knitting transportation improvement projects and public/private investments so that they merge as seamlessly as possible into the community,
- Supporting the provision of mixed use development so that transit, bicycle and pedestrian facilities, and ferry boats are viable options to driving,
- Accommodating the flow of freight throughout the country so that the economy can continue to grow.

## FHWA Environmental Programs

FHWA provides support to state and local governments through several environmental programs that support smart growth policies:

- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Bicycle and Pedestrian Programs
- Brownfields
- Ecosystem and habitat conservation
- Wetland and Natural Habitat Mitigation
- Watershed-Based Planning

## **Statewide Transportation Assistance Revolving (STAR) Fund**

The STAR Fund is authorized by the Missouri General Assembly in 1997, the STAR fund provides loans to local entities for non-highway projects such as rail, waterway and air travel infrastructure. The STAR fund can also provide loans to fund rolling stock for transit and the purchase of vehicles for elderly or handicapped persons. The STAR fund can assist in the planning, acquisition, development and construction of facilities for transportation by air, water, rail or mass transit; however, STAR fund monies cannot fund operating expenses. The local district engineer must endorse projects in cooperation with MoDOT's Multimodal Team. The Cost Share Committee evaluates STAR applications and provides a recommendation to the Missouri Highways and Transportation Commission (MHTC), which is the deciding body. STAR Fund Eligibility - The following types of projects are eligible for STAR loans: air, water, rail or mass transit facility construction; mass transit vehicles; vehicles for elderly or handicapped persons.

## Taxes and Special Districts

Figure 12.10 lists the sales/use tax rates for the Mid-MO RPC region effective October-December 2015.

Figure 12.10

Missouri Department of Revenue Sales/Use Tax Rate Table – Mid-MO RPC Region						
10/2015 - 12/2015 (Updated 08/21/2015)						
CID=Community Improvement District; TDD=Transportation Development District						
City/County	SALES RATE	USE RATE	FOOD SALES	FOOD USE	DOMESTIC UTILITY RATE	MFG EXEMPT RATE
BOONE COUNTY	5.975%	4.225%	2.975%	1.225%	1.500%	1.750%
BOONE COUNTY BOONE CO. FAIRGROUND REG.RECREATION DIST.	6.475%	4.225%	3.475%	1.225%	1.500%	2.250%
CALLAWAY COUNTY	5.725%	4.225%	2.725%	1.225%	0.000%	1.500%
COLE COUNTY	5.725%	5.725%	2.725%	2.725%	0.000%	1.500%
COOPER COUNTY	6.225%	5.975%	3.225%	2.975%	1.750%	2.000%
HOWARD COUNTY	6.850%	6.850%	3.850%	3.850%	2.125%	2.625%
MONITEAU COUNTY	6.475%	5.225%	3.475%	2.225%	1.000%	2.250%
<b>BOONE COUNTY</b>						
ASHLAND EAST ASHLAND PLAZA CID	8.975%	5.225%	5.975%	2.225%	2.500%	4.750%
CENTRALIA	7.975%	4.225%	4.975%	1.225%	1.500%	3.750%
COLUMBIA	7.975%	4.225%	4.975%	1.225%	2.500%	3.750%
COLUMBIA BLUE RIDGE TOWN CENTRE TDD	8.975%	4.225%	5.975%	1.225%	2.500%	4.750%
COLUMBIA BROADWAY-FAIRVIEW TDD	8.475%	4.225%	5.475%	1.225%	2.500%	4.250%
COLUMBIA CENTERSTATE TDD	8.475%	4.225%	5.475%	1.225%	2.500%	4.250%
COLUMBIA COLUMBIA MALL TDD	8.475%	4.225%	5.475%	1.225%	2.500%	4.250%
COLUMBIA CONLEY ROAD TDD	8.975%	4.225%	5.975%	1.225%	2.500%	4.750%
COLUMBIA CROSS CREEK TDD	8.475%	4.225%	5.475%	1.225%	2.500%	4.250%
COLUMBIA DOWNTOWN CID	8.475%	4.725%	5.475%	1.725%	2.500%	4.250%
COLUMBIA GRINDSTONE PLAZA TDD	8.600%	4.225%	5.600%	1.225%	2.500%	4.375%
COLUMBIA LAKE OF THE WOODS TDD	8.600%	4.225%	5.600%	1.225%	2.500%	4.375%
COLUMBIA NORTH 763 CID	8.475%	4.225%	5.475%	1.225%	2.500%	4.250%
COLUMBIA NORTHWOODS TDD	8.475%	4.225%	5.475%	1.225%	2.500%	4.250%
COLUMBIA ROCK BRIDGE CENTER TDD	8.600%	4.225%	5.600%	1.225%	2.500%	4.375%
COLUMBIA SHOPPES AT STADIUM TDD	8.975%	4.225%	5.975%	1.225%	2.500%	4.750%
COLUMBIA STADIUM CORRIDOR A TDD	8.475%	4.225%	5.475%	1.225%	2.500%	4.250%
HALLSVILLE	6.975%	4.225%	3.975%	1.225%	1.500%	2.750%
HARRISBURG	6.975%	4.225%	3.975%	1.225%	1.500%	2.750%
HARTSBURG	6.475%	4.225%	3.475%	1.225%	1.500%	2.250%
HUNTSDALE	6.475%	4.225%	3.475%	1.225%	2.000%	2.250%
MCBAINE	5.975%	4.225%	2.975%	1.225%	1.500%	1.750%
PIERPONT VILLAGE	6.475%	4.225%	3.475%	1.225%	2.000%	2.250%
ROCHEPORT	7.475%	4.225%	4.475%	1.225%	1.500%	3.250%
STURGEON	7.975%	4.225%	4.975%	1.225%	2.500%	3.750%
<b>CALLAWAY COUNTY</b>						
AUXVASSE	7.475%	4.225%	4.475%	1.225%	1.000%	3.250%
FULTON	7.725%	4.225%	4.725%	1.225%	0.000%	3.500%
FULTON FULTON SOUTH BUSINESS 54 TDD	8.225%	4.225%	5.225%	1.225%	0.000%	4.000%
HOLTS SUMMIT	8.725%	7.225%	5.725%	4.225%	1.000%	4.500%
JEFFERSON CITY	7.725%	4.225%	4.725%	1.225%	1.000%	3.500%
KINGDOM CITY	7.725%	4.225%	4.725%	1.225%	0.000%	3.500%
MILLERSBURG	5.725%	4.225%	2.725%	1.225%	0.000%	1.500%
MOKANE	6.725%	4.225%	3.725%	1.225%	0.000%	2.500%
NEW BLOOMFIELD	7.225%	4.225%	4.225%	1.225%	0.000%	3.000%
<b>COLE COUNTY</b>						
CENTERTOWN	6.725%	5.725%	3.725%	2.725%	0.000%	2.500%

JEFFERSON CITY	7.725%	5.725%	4.725%	2.725%	1.000%	3.500%
JEFFERSON CITY CAPITAL MALL CID	8.725%	6.725%	5.725%	3.725%	1.000%	4.500%
JEFFERSON CITY COMMONS OF HAZEL HILL TDD	8.725%	5.725%	5.725%	2.725%	1.000%	4.500%
JEFFERSON CITY STONE RIDGE TDD	8.725%	5.725%	5.725%	2.725%	1.000%	4.500%
JEFFERSON CITY US HIGHWAY 50/63 CITYVIEW TDD	8.725%	5.725%	5.725%	2.725%	1.000%	4.500%
LOHMAN	5.725%	5.725%	2.725%	2.725%	0.000%	1.500%
RUSSELLVILLE	6.725%	5.725%	3.725%	2.725%	1.000%	2.500%
ST MARTINS	6.725%	5.725%	3.725%	2.725%	0.000%	2.500%
ST THOMAS	6.725%	5.725%	3.725%	2.725%	1.000%	2.500%
TAOS	6.725%	5.725%	3.725%	2.725%	0.000%	2.500%
WARDSVILLE	6.725%	5.725%	3.725%	2.725%	0.000%	2.500%
<b>COOPER COUNTY</b>						
BLACKWATER	8.225%	5.975%	5.225%	2.975%	3.750%	4.000%
BOONVILLE	8.225%	5.975%	5.225%	2.975%	2.750%	4.000%
BOONVILLE BOONVILLE RIVERFRONT TDD	9.225%	5.975%	6.225%	2.975%	2.750%	5.000%
BOONVILLE HAIL RIDGE CID	9.225%	5.975%	6.225%	2.975%	2.750%	5.000%
BUNCETON	7.225%	5.975%	4.225%	2.975%	1.750%	3.000%
OTTERVILLE	7.225%	5.975%	4.225%	2.975%	2.750%	3.000%
PILOT GROVE	8.225%	7.975%	5.225%	4.975%	1.750%	4.000%
PLEASANT GREEN	6.225%	5.975%	3.225%	2.975%	1.750%	2.000%
PRAIRIE HOME	6.225%	5.975%	3.225%	2.975%	1.750%	2.000%
WINDSOR PLACE	7.225%	5.975%	4.225%	2.975%	1.750%	3.000%
WINDSOR PLACE WINDSOR PLACE CID	8.225%	6.975%	5.225%	3.975%	1.750%	4.000%
WOOLDRIDGE	6.225%	5.975%	3.225%	2.975%	1.750%	2.000%
<b>HOWARD COUNTY</b>						
ARMSTRONG	6.850%	6.850%	3.850%	3.850%	2.125%	2.625%
FAYETTE	7.975%	7.975%	4.975%	4.975%	3.125%	3.750%
FRANKLIN	8.850%	6.850%	5.850%	3.850%	2.125%	4.625%
GLASGOW	8.600%	8.600%	5.600%	5.600%	3.375%	4.375%
NEW FRANKLIN	8.850%	6.850%	5.850%	3.850%	3.625%	4.625%
<b>MONITEAU COUNTY</b>						
CALIFORNIA	7.975%	6.725%	4.975%	3.725%	2.000%	3.750%
CLARKSBURG	7.475%	5.225%	4.475%	2.225%	2.000%	3.250%
JAMESTOWN	6.475%	5.225%	3.475%	2.225%	1.000%	2.250%
LUPUS	6.475%	5.225%	3.475%	2.225%	1.000%	2.250%
TIPTON	8.225%	5.225%	5.225%	2.225%	1.000%	4.000%

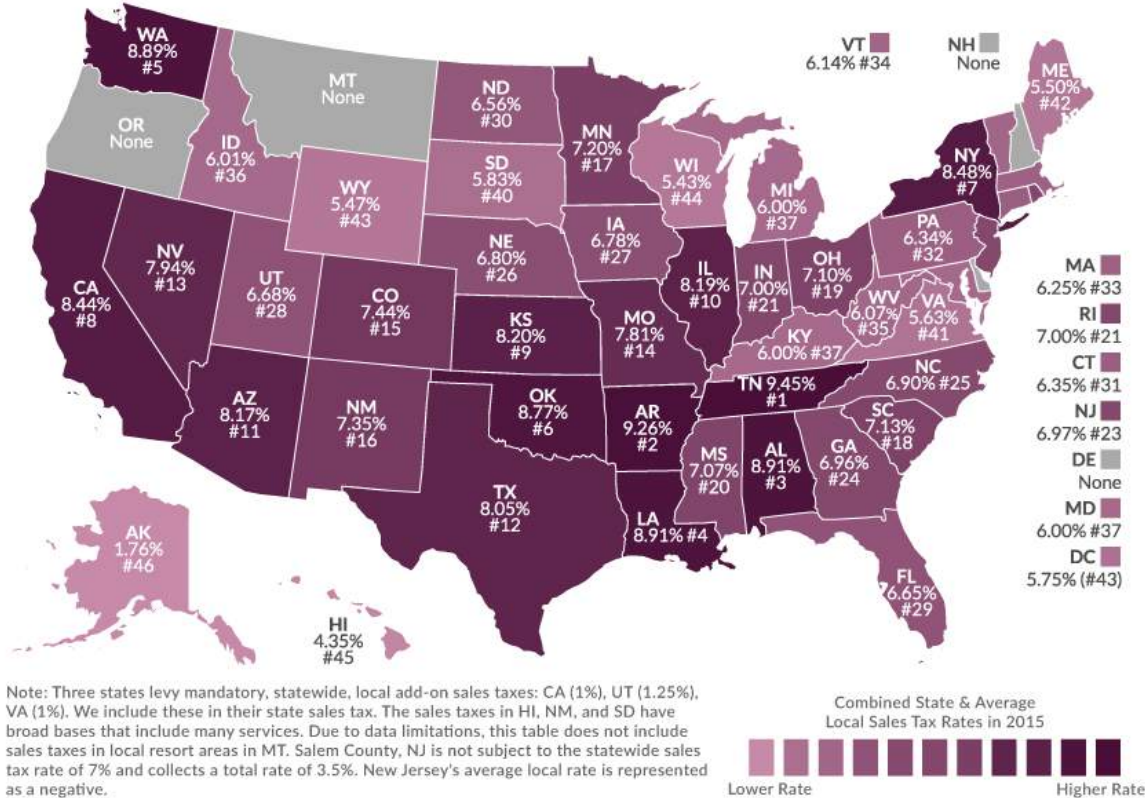
Source: Missouri Department of Revenue

## Sales Tax

The 4.225% state sales/use tax rate in Missouri is lower than the rates in 35 other states. Figure 12.11 illustrates the combined state and average local sales tax rates in 2015. The average rate for Missouri is 7.81% when factoring in all local and special district rates. The average rate in the Mid-MO RPC region is approximately 7.26%, which is slightly lower than the state average.

**Figure 12.11**

*Combined State & Average Local Sales Tax Rates in 2015*



TAX FOUNDATION @TaxFoundation  
Source: taxfoundation.org

Missouri’s local tax rates range from 4.725% in St. Clair County to 10.863% in a St. Louis County Community Improvement District (CID). In Mid-Missouri, sales tax rates range from 5.725% in Callaway County to 9.225% in the Boonville Hail Ridge CID. Missouri communities have the option of adopting a local sales tax, generally ranging from one-half to one percent. Counties may also adopt a sales tax generally ranging from one-fourth to one percent that can be used for transportation.

## Use Tax

Use Tax is similar to sales tax, but is imposed when tangible personal property comes into the state and is stored, used or consumed in Missouri. Communities have the option of adopting a local use tax equal to the local sales tax for that community to use for transportation expense. The use tax rate for Missouri is 4.225% unless the city and /or county for your residential location have entered a local option use tax, which will increase the use tax rate. Four counties in the Mid-MO RPC region: Cole, Cooper Howard, and Moniteau. Additionally, a few cities in the region have also adopted a use tax. Figure 13.XX lists the use tax rates for those counties and cities.

## Local Finance Initiatives

According to the Missouri Department of Economic Development, Local Finance Initiatives are success-proven incentive programs that financially assist development activities in Missouri communities. They represent a diverse inventory of economic opportunities; each specifically designed to benefit a select customer base including local governments, not-for-profit organizations, for-profit developers, community development corporations, volunteer organizations and more.

- **Community Improvement Districts** provide funding for certain public improvements or services in the designated benefit area. Funding may be through a special tax on sales, special assessment on certain real property or by fees, rents or charges generated in the District.
- **Local Option Economic Development Sales Tax** allows citizens to authorize a supplemental sales tax dedicated exclusively for certain economic development initiatives in their home municipality.
- **Neighborhood Improvement Districts** finance certain public facilities, improvements or redevelopment in the designated benefit area. Funding is accomplished by issue of general obligation bonds of the governing municipality.
- **Property Tax Abatement** is offered to private companies for certain urban redevelopment or industrial development projects by cities and counties.
- **Tax Increment Financing** provides local tax financial assistance for the redevelopment of designated economically depressed areas. TIF allows the use of a portion of certain new local tax revenues generated for a limited number of years in the redevelopment area to help pay for the redevelopment.
- **Transportation Development Districts** are created for the purpose of developing, improving, maintaining or operating one or more projects relative to the transportation needs of the benefit area, related to streets and highways, railroads or urban light rail, aviation, bus or other mass transit, river port, ferry or any other conveyance and related infrastructures within the broad definition of transportation.

There are 23 Local Finance Initiative taxing districts in the Mid-MO RPC region. These include 6 CIDs and 17 TDDs which are listed below. Figure 12.12 lists the names of each district. Figure 12.13 depicts the location of each TDD and CID in the Mid-MO RPC Region.

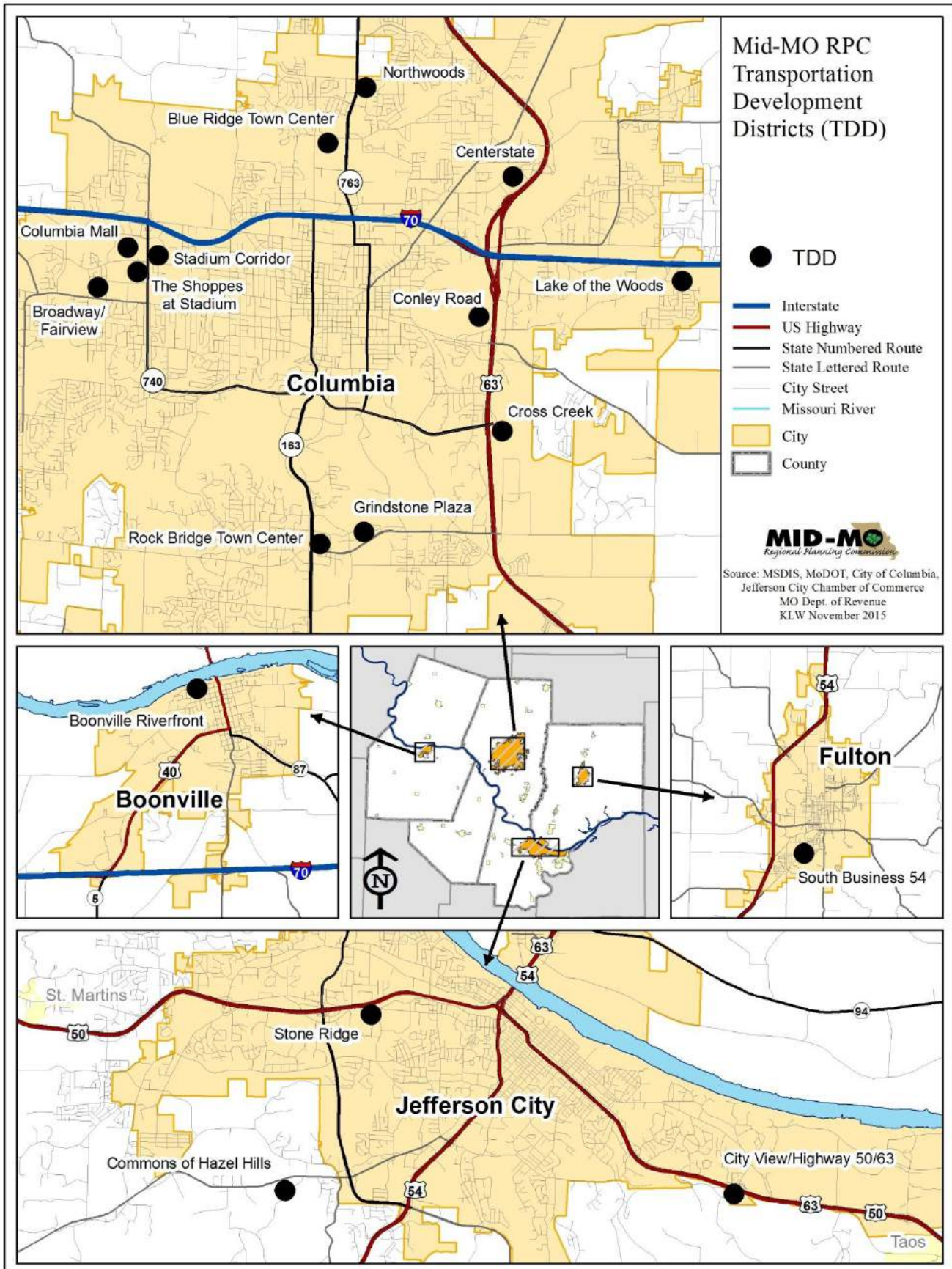
Figure 12.12

Mid-MO RPC TDDs and CIDs	
Boonville Boonville Riverfront TDD	Columbia Stadium Corridor A TDD
Columbia Blue Ridge Town Centre TDD	Fulton Fulton South Business 54 TDD
Columbia Broadway-Fairview TDD	Jefferson City Commons Of Hazel Hill TDD
Columbia Centerstate TDD	Jefferson City Stone Ridge TDD
Columbia Columbia Mall TDD	Jefferson City Us Highway 50/63 Cityview TDD
Columbia Conley Road TDD	Ashland East Ashland Plaza CID
Columbia Cross Creek TDD	Boonville Hail Ridge CID
Columbia Grindstone Plaza TDD	Columbia Downtown CID
Columbia Lake Of The Woods TDD	Columbia North 763 CID
Columbia Northwoods TDD	Jefferson City Capital Mall CID
Columbia Rock Bridge Center TDD	Windsor Place Windsor Place CID
Columbia Shoppes At Stadium TDD	

Source: Missouri Department of Revenue – October 2015



Figure 12.13



# Chapter 13: Plan Implementation

- Update of Regional Transportation Plan
- Implementation



## Update of Regional Transportation Plan (RTP)

The RTP is meant to be continuously updated to reflect the current needs and capacity of the region. While it is not federally mandated, it is anticipated that Mid-MO RPC will fully update the entire plan at least every five years, meaning all chapters and data are reviewed and changed to match the current conditions. Keeping the RTP up to date is a function both of updating the entire plan every five years as well as an ongoing process of updating that information which is subject to frequent change. The five-year re-working of this plan will take place in 2020-2021. All statistics and transportation system information may be updated as new information becomes available. For example, the 2020 Decennial Census will provide an excellent resource with which to update this plan, including all maps contained herein. Chapter 12, the Funding section of this plan, will be subject to change as transportation legislation expires and Congress authors a new transportation bill or re-authorization. For these reasons, routine review of this plan is necessary.

The Regional Needs section must be updated as part of the annual planning process. Once a year, as MID-MO RPC's TAC engages in prioritization of needs and Chapter 10 will need to be updated to reflect the results of prioritization. Appendices will also be updated to reflect MoDOT's planning documents and studies, such as the Statewide Transportation Improvement Program (STIP) and any new initiatives introduced.

## Implementation

Through an inclusive process, which includes MoDOT staff, city and county leaders, regional stakeholders, and the Transportation Advisory Committee (TAC), Mid-MO RPC actively plans for and facilitates improvement to the region's transportation system. The transportation planning goals, listed in Chapter 1 of this plan, are used to guide implementation activities. These activities include:

- Identification and Prioritization of regional transportation needs
- Facilitating regular TAC meetings
- Public outreach to communities and the general public
- An annual Transportation Work Program that addresses the goals and needs identified in the RTP
- RPC Staff participation in local, regional, and statewide committees, advisory groups, and forums including:
  - Mid-Missouri Transportation Coordination Council
  - Missouri Coalition for Roadway Safety
- Grant writing to access transportation funding
- Technical assistance in inventorying and mapping infrastructure
- Maintaining regional planning documents including:
  - Regional Transportation Plan
  - Coordinated Public Transit-Human Service Transportation Plan

All of these activities are integral to Mid-MO RPC providing service to member communities and to the continued success of the planning process and state wide planning framework.