Chapter 2

Trends Affecting Transportation
Trends Affecting Transportation

This chapter identifies trends affecting transportation in the recent past and projects those trends into the future. Transportation policy, demographics, economics, and technology each impact transportation decision-making. The previous Long-Range Plan identified and examined trends and recommended specific strategies reflecting broad policy direction for transportation programs in Kansas.

The 1995 Kansas Long-Range Transportation Plan

Public outreach efforts for the 1995 plan found that “many expressed the view that the current transportation network is sound and is serving the needs of the State well.” The principal concern at that time was balancing maintenance of existing facilities with the need to modernize and react to emerging needs for enhancements. The same can be said of current challenges. The plan also identified emerging concerns related to other modes of transportation. Enhancements and additional funding for rail, public transportation and air service facilities were identified as ways to support growth, maintain economic viability and increase the quality of life for Kansas residents.

As a result of public input from a broad cross section of transportation users and stakeholders, 48 recommendations were identified to help the Kansas Department of Transportation meet the transportation needs of Kansas. A complete list of these recommendations and their outcomes can be found in Appendix E. Below is a sample of some of the major KDOT initiatives that were influenced by recommendations in the 1995 Plan.

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>“A new program, with dedicated resources, should be established to conduct a limited number of studies annually on locations or corridors that may, in the future, require major capital investment.”</td>
<td>A Corridor Management Unit was established to oversee a set-aside program and to keep current on the interaction of land-use and transportation in Kansas. Several route-specific corridor studies have been conducted to determine future transportation needs.</td>
</tr>
<tr>
<td>“KDOT should develop a strategic plan for implementing Intelligent Transportation Systems (ITS) technology, as it becomes available.”</td>
<td>An ITS Unit was established, a Statewide ITS Plan was completed, and the ITS Set-Aside Fund was created. These efforts include urban, rural, and commercial vehicle applications.</td>
</tr>
<tr>
<td>“KDOT should develop a comprehensive public involvement plan. As part of that plan, a training program should be developed for KDOT employees that stresses not only when and how public involvement should be sought, but the importance of that involvement.”</td>
<td>The KDOT Bureau of Public Involvement was created. “Communications: A Key to Success” was developed in 1997. Nine positions have been established to implement this plan.</td>
</tr>
</tbody>
</table>
Demographic Trends

This section explores the changes, characteristics and major demographic trends of the Kansas population and examines how this affects transportation planning and the delivery of transportation-related services.

There are three demographic trends that will impact how the Kansas Department of Transportation fulfills its mission in the years ahead: the growth of the Kansas population; the aging of the Kansas population; and the continuing shift of people from rural areas to urban areas.

Population Growth in Kansas

According to the U.S. Census Bureau, the State's resident population increased from 2,477,574 in 1990 to 2,688,418 in 2000, amounting to an overall increase of 210,844 people or 8.5 percent. Kansas' percentage growth was less than the nationwide increase of 13.2 percent. Figure 2-1 shows that it was similar to our neighboring states, with the exception of Colorado.

The Kansas county showing the largest increase in population was in Johnson County, which grew by 96,032 persons during the decade, equating to a 27.1 percent increase (about 45% of the state population increase).

According to most predictions, less than half of the Kansas counties are expected to experience population increases between now and 2030. At that time, the total State population is expected to be 3,257,366, an increase of 568,948 persons from the 2000 census. Table 2-1 shows Kansas' population data between 1900 and 2000, and estimates to the year 2030.
Table 2-1: Kansas Population Growth
1900 – 2030

<table>
<thead>
<tr>
<th>YEAR</th>
<th>POPULATION TOTAL</th>
<th>PERCENTAGE CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>1,470,495</td>
<td></td>
</tr>
<tr>
<td>1910</td>
<td>1,690,949</td>
<td>+ 15.0</td>
</tr>
<tr>
<td>1920</td>
<td>1,769,257</td>
<td>+ 4.6</td>
</tr>
<tr>
<td>1930</td>
<td>1,880,999</td>
<td>+ 6.3</td>
</tr>
<tr>
<td>1940</td>
<td>1,801,028</td>
<td>- 4.3</td>
</tr>
<tr>
<td>1950</td>
<td>1,905,299</td>
<td>+ 5.8</td>
</tr>
<tr>
<td>1960</td>
<td>2,178,613</td>
<td>+ 14.3</td>
</tr>
<tr>
<td>1970</td>
<td>2,249,071</td>
<td>+ 3.2</td>
</tr>
<tr>
<td>1980</td>
<td>2,364,336</td>
<td>+ 5.1</td>
</tr>
<tr>
<td>1990</td>
<td>2,477,574</td>
<td>+ 4.8</td>
</tr>
<tr>
<td>2000</td>
<td>2,688,418</td>
<td>+ 8.51</td>
</tr>
<tr>
<td>2010</td>
<td>2,877,838</td>
<td>+ 7.05</td>
</tr>
<tr>
<td>2020</td>
<td>3,067,596</td>
<td>+ 6.59</td>
</tr>
<tr>
<td>2030</td>
<td>3,257,366</td>
<td>+ 6.19</td>
</tr>
</tbody>
</table>

Sources: 1900-2000, U.S. Census Bureau; 2010-2030, Governor’s Economic and Demographic Report, 2001-2002

The Aging Population of Kansas Brings New Challenges

There is a major shift occurring in the Kansas population age distribution that mirrors national trends. Advances in healthcare are allowing people to live longer than ever before. This increase in life expectancy, combined with the size of the “Baby Boom” generation, has caused a gradual increase in the median age of the Kansas population. In 1970, the median age was 28.7 years, 29.3 in 1980, 32.9 in 1990 and 35.2 years in 2000.

Most older adults retire in the communities in which they have worked and raised their families. Only a small percentage of retirees move to retirement havens in the Sun Belt. In 2000, persons 65 years of age and older constituted roughly 13% of Kansas’ population, an increase of 3.9% since 1990. Out of 105 counties, ten have at least a quarter of their population over 65 years old. These counties are Cheyenne, Comanche, Decatur, Elk, Jewell, Osborne, Rawlins, Republic, Smith and Washington. By 2025, the U.S. Census projects that 19.5% of Kansans will be 65 years of age and over. The maps on page 2-4 depict the percentage of population in each Kansas county age 65 and older in the years 2000 and 2025, respectively.
According to the Federal Highway Administration, by the year 2020 about 22 million people in the United States will be 75 years or older and still be eligible for drivers' licenses and 7 million will be 85 or older. Eighty percent of the total driving population between the ages 65 and 69 retains drivers' licenses; for those 70 and older, 62 percent have drivers' licenses.

A primary concern of older adults is the ability to maintain their personal mobility and independence. Most people, regardless of age, view the ability to drive as the key to their personal independence. Quality of life for many elderly persons depends on freedom of choice, and flexibility and mobility is an important factor. It has been documented that those living outside the central city rely on private vehicles, if available, even when traditional public transit is available. In order to be successful, transportation options need to recognize this desire for freedom.

More than 80% of trips by persons 65 and older are made in automobiles and this percentage is growing. Therefore, measures that promote older persons’ abilities to drive and access to their own automobiles will assist the greatest number of older people. Examples of some of these might include: adapting highway signs and pavement marking for maximum clarity and visibility, roadway modification to provide adequate sight-distance and left turn lanes, and mandatory safety belt use laws.

Although the mobile elderly are in the majority, there is a growing population of physically impaired elderly who are able to live in their own homes but who are unable to drive. Public transportation is vital to serve the needs of this population. Programs to address these needs include public transit, subsidized taxi operations, coordination of transportation services, and research to assist local governments in developing services appropriate for the older persons in their communities.

The Rural to Urban Shift Continues

Along with the growth and aging of the population, transportation analysts must consider where Kansans live. Mirroring national trends, the metropolitan areas in Kansas are growing, while many rural areas continue to decline. Trends between 1940 and 1970 showed a strong movement from rural areas to urban areas. Improvements in the transportation system facilitated changes in land use patterns and opened up new areas for suburban development. Since the 1970’s, the movement from rural areas to urban areas has continued to increase each decade, although at a slower rate. In the 1980’s, 79 of the State's 105 counties lost population. During the 1990’s, 57 counties lost population. This has resulted in significant rural population declines since nearly all of the counties losing population are rural. This trend was accompanied by population growth in a few urban centers in other counties. In the recent decade, there has been an increase in urban families moving to rural areas near urban centers; however, this movement is not strong enough to reverse the trend.
Chapter 2 – Trends Affecting Transportation

Figure 2-3

Source: US Census Bureau

NOTE: 1900-1940 figures are based on a previously-used definition, while 1950-1990 figures define urban areas as "any incorporated area exceeding 5000 inhabitants, or any unincorporated area, regardless of population, located within an urbanized zone." 2000 figures use density to define Urban Clusters and Urbanized Areas.

The map on page 2-7 summarizes the population changes of all Kansas counties between 1990 and 2000. Overall, counties in northwest, north central, and southeast Kansas showed population losses, while several northeast and southwest counties gained population. Sixteen counties grew 10 percent or more. In 2000, 90 percent of the population lived in just 46 counties, and 50 percent lived in the five urban counties of Douglas, Johnson, Wyandotte, Sedgwick, and Shawnee.9

This shift in population from rural to urban areas is important from a transportation perspective for two reasons. Declining rural populations reduce the rural tax base. Consequently, rural counties will have trouble supporting county and secondary roads. Often these roads are critical for agricultural transport and access to the state highway system. Secondly, declines in population can also result in declines of services. The people that do remain in the rural areas may have to travel further distances for services such as grocery stores, schools, and health care facilities.

Table 2-2: Kansas County Population 2000

<table>
<thead>
<tr>
<th>County Population</th>
<th>Kansas Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5,000</td>
<td>34</td>
</tr>
<tr>
<td>5,000- 9,999</td>
<td>28</td>
</tr>
<tr>
<td>10,000-49,999</td>
<td>33</td>
</tr>
<tr>
<td>50,000 – 199,999</td>
<td>8</td>
</tr>
<tr>
<td>200,000 and greater</td>
<td>2</td>
</tr>
</tbody>
</table>
Driver and Travel Trends

How and why people travel is a very important consideration when undertaking any transportation-planning project. Several trends have begun to emerge in the last 20 years that will likely continue into the future. Between 1980 and 2000, the percentage increase of the U.S. population was far outpaced by both the percentage increase in the number of licensed drivers and the percentage increase in the number of registered vehicles. The trend in Kansas was very similar. Additionally, not only are more vehicles being registered in the U.S. and in Kansas, more miles are being traveled, more people are driving alone for the majority of their driving miles, and the average age of the licensed driver is increasing as well. Increases in these facets of travel trend behavior significantly affects Kansas and how the KDOT must plan for the future.

Increase in the Number of Licensed Drivers

The number of licensed drivers is increasing at a higher rate than the total population. Nationwide, in the 1980’s the number of licensed drivers increased 17.8 percent and 14.2 percent in the 1990’s. The number of licensed drivers in Kansas increased by 11 percent in the 1990’s, compared to an 8.5 percent increase in the population.

Increase in the Number of Registered Vehicles

In 2000, the number of registered vehicles in the U.S. (218 million) exceeded the number of licensed drivers (191 million). In 2000, the number of registered vehicles in Kansas totaled 2,266,868, exceeding the number of licensed drivers (1,908,117) in the State by over 350,000.

Increase in the Number of Miles Traveled

The number of miles traveled in Kansas is growing at a rate even faster than that of population, registered vehicles, or the level of employment. The total number of miles traveled grew nearly 30 percent in each decade during the 1970’s and 1980’s, while the growth from 1990 to 2000 was 26 percent. The amount of travel by trucks is growing at a faster rate than automobile travel. Between 1990 and 2000, truck travel grew by 68 percent.

Thus, as evidenced by both Table 2-3 and Figure 2-5 on page 2-9, the State's highway needs are influenced more by personal driving habits and by the shift from rural to urban residences than by population growth, the growth in the number of vehicles, or the level of employment.
### Table 2-3: Travel Growth for Total Travel and Truck Travel for All Roads in Kansas 1970 - 2020

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL TRAVEL (DVMT)</th>
<th>% CHANGE</th>
<th>TRUCK TRAVEL (DVMT)</th>
<th>% CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>36,646,000</td>
<td></td>
<td>2,382,027</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>47,371,000</td>
<td>29.3</td>
<td>3,306,944</td>
<td>38.8</td>
</tr>
<tr>
<td>1990</td>
<td>62,604,000</td>
<td>32.2</td>
<td>5,046,714</td>
<td>52.6</td>
</tr>
<tr>
<td>2000</td>
<td>78,935,299</td>
<td>26.1</td>
<td>8,498,568</td>
<td>68.4</td>
</tr>
<tr>
<td>2010</td>
<td>95,000,000</td>
<td>20.4</td>
<td>11,200,000</td>
<td>31.9</td>
</tr>
<tr>
<td>2020</td>
<td>112,000,000</td>
<td>17.9</td>
<td>14,000,000</td>
<td>24.9</td>
</tr>
</tbody>
</table>

DVMT is the abbreviation for Daily Vehicle Miles Traveled (DVMT).

### Population, Employment and Travel Trends

![Graph showing trends in total vehicle miles of travel, truck miles of travel, employment, licensed drivers, and population from 1970 to 2020.](image)

*Figure 2-5*
Commuting

The 2000 Census and other recent studies indicate that the number of people who drive alone continues to increase. Even though public transportation is provided in the United States, including Kansas, few drivers appear willing to use alternatives to the single occupant auto mode of travel. According to national averages from the 2000 Census, 75.7% of commuters drove alone, 12.2% of commuters carpooled, 4.7% utilized public transportation (including taxicabs), and 3.3% biked or walked to work. However, it is unclear from these figures whether more people would utilize alternative modes of transportation if they were more widely available and convenient. It should be noted that the national average work trip took 25.5 minutes, a reasonable commuting time that may not be high enough to encourage the use of public transit.\textsuperscript{10}

According to the 2000 Census, 81.5% of workers in Kansas drove to work alone, 10.6% carpooled, 0.5% used public transit, and 2.8% used a bicycle or walked.\textsuperscript{11} In 2000, the average travel time to work was 19 minutes.\textsuperscript{12} It may be inferred that like at the national level, travel times in Kansas may not be long enough to encourage means of commuting other than driving alone. This however, does not mean that alternatives do not deserve further study and consideration.

In the growing metropolitan areas and developing non-urban areas, there may be need for concern over commuter trends. An increased number of cars on the road, low-density suburban development and the predominance of single occupancy vehicle trips all contribute to congested highways and detrimental environmental effects. Many Kansans assume that solo commuters and the resulting congestion is a "problem for other states, but not for Kansas." However, Johnson County, Kansas ranks as one of the highest solo-commuting counties in the nation, where 86.7% of all commuting trips are made in single occupancy vehicles.\textsuperscript{13}

Because commuting trips are relatively predictable events, it appears that commuters could easily travel in groups. Why then do commuters insist on driving alone? How people in Kansas choose to travel to work is affected by the availability of alternate modes of commuting, perceived travel-time, and the supply and location of jobs. Many personal factors also contribute to the decision to commute alone. Prime among these factors is the large portion of working women who have entered the employment ranks in the last two decades and who, like most men, often have no realistic transportation alternatives to the one-person vehicle.\textsuperscript{14}

Although commutes are more spread out during the day and over a wider geographic area than in previous surveys, there is still substantial strain on the transportation system. Commuting patterns are influenced by “trip-chaining”, or the tendency to link together a series of trips of different purposes. For instance, data from the National Personal Transportation Study (NPTS) of 1990 demonstrates that women are likely to run errands, and make more shopping and family-oriented trips and to link these to the work trip, particularly if they have young children. Not only does trip chaining impact commuter patterns it also makes transit a difficult means of transportation and adds to the number of automobiles on the road.\textsuperscript{15}
Business Climate Trends

Transportation needs and economic strength go hand-in-hand. Some of the most important aspects of the State's economy affecting transportation are discussed in this section.

The Kansas Economy - Sectors of Trade

Wholesale and retail trade, services, government, and manufacturing each account for 16 percent or more of Kansas’ employment. This diversity of employment has helped the State avoid being too closely aligned with a single industry or economic force. This provides the State's economy with some resistance to recession, because it is unusual for all of the economic sectors to decline at the same time.

Although agriculture now directly employs only a small percentage of Kansas residents, agriculture and agricultural products are critically important to the State's economy. Kansas ranks first in the United States in the production of milled wheat flour and wheat milling capacity and is the number one exporter, by value, of wheat and wheat products. It ranked second nationally in the amount of all wheat and sorghum grain produced, and second in the total number of cattle slaughtered.

During the 1990’s, the Kansas economy grew at a healthy pace but slower than the national economy. The Kansas economy was weakening through the summer of 2001 prior to the events of September 11, 2001. Changes in consumer behavior and confidence in the wake of those events, as well as announcements of layoffs in the aviation manufacturing, telecommunications, and public utility sectors, have indicated that Kansas is in the midst of an economic downturn. While current forecasts call for the U.S. economy to begin a gradual recovery during 2002, the specific problems afflicting Kansas’ key industries suggest that the State’s own economic recovery will lag behind. It is assumed that growth will resume in the Kansas economy in 2002, but at a more modest pace than that in the U.S. economy.16

Employment

Kansas has experienced unemployment rates below the national average for almost three decades. Likewise, annual employment growth in Kansas has exceeded the national rate from 1998 to 2000. Table 2-4 summarizes employment growth between 1970 and 2000 and predicts what growth will occur between now and 2025.
Table 2-4: Employment Growth Figures for Kansas
1970 – 2025

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL EMPLOYMENT</th>
<th>PERCENTAGE CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>1,017,400</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>1,312,150</td>
<td>29.0</td>
</tr>
<tr>
<td>1990</td>
<td>1,483,560</td>
<td>13.1</td>
</tr>
<tr>
<td>2000</td>
<td>1,805,700</td>
<td>21.7</td>
</tr>
<tr>
<td>2010</td>
<td>2,013,680</td>
<td>11.5</td>
</tr>
<tr>
<td>2020</td>
<td>2,226,700</td>
<td>10.6</td>
</tr>
<tr>
<td>2025</td>
<td>2,337,630</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Income

Over the past century, per capita income in Kansas has trailed the national average. In 2000, the Kansas average was $27,408, which is 93% of the U.S. rate. Even within the State, there is a wide range of incomes regionally. The highest income region has a per capita rate of $31,909, which is 51% higher than the lowest at $21,101.
Transportation Funding Trends

Traditionally, highways in the United States have been funded by taxes or fees imposed directly on the user of the facility. Vehicle registration fees and motor fuel taxes were designed to fund highway improvements while relating use to tax burden. In addition to these early forms of user taxes and fees, there are numerous others, such as sales taxes on vehicles and fuels, and weight distance taxes. The primary advantage of traditional user fees is these fees provide an equitable distribution of the burden for financing highways to the users of the system.

On July 1, 2002, the gasoline tax in Kansas was raised to 23 cents per gallon from 21 cents. As the table below shows, the gasoline tax rates among the states that border Kansas vary greatly.

<table>
<thead>
<tr>
<th>STATE</th>
<th>TAX RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>23.0 cents per gallon</td>
</tr>
<tr>
<td>Colorado</td>
<td>22.0 cents per gallon</td>
</tr>
<tr>
<td>Missouri</td>
<td>17.0 cents per gallon</td>
</tr>
<tr>
<td>Nebraska</td>
<td>23.9 cents per gallon</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>16.0 cents per gallon</td>
</tr>
</tbody>
</table>

*The Kansas rate will increase to 24 cents on July 1, 2003.*
*A portion of Nebraska gasoline tax is on a variable rate.*
*Also, tax rates exclude environment and inspection fees.*

The use of alternative fuels has financing implications due to their historically lower rate of taxation compared to traditional fuels. Because of the relatively low cost of conventional motor fuels and the higher cost associated with the production of alternative fuels, alternative fuels have been subsidized by lower tax rates to promote their usage. Revenues from motor fuel taxes, given stable tax rates, have been relatively flat due to the increased fuel economy of newer cars and trucks. Future revenues may even be reduced by an increase in the usage of alternative fuels.

Federal and state legislation encourages the use of alternative fuels. Federal law provides for a lower tax rate (5.3 cents per gallon) for gasohol, thus subsidizing the use of alternative fuels. In addition, The Energy Policy Act of 1992 (EPAct) was passed by Congress to reduce our nation's dependence on imported petroleum by requiring certain fleets to acquire alternative fuel vehicles, which are capable of operating on non-petroleum fuels. Kansas' law further provides for incentive subsidies for producing ethanol to be mixed with gasoline and sold as gasohol in Kansas.

While having positive benefits for agriculture and the environment, alternative fuels have significant financing implications that are imposed on transportation programs. In order to promote the use of alternative fuels, the tax rate for gasohol is lower than gasoline. This affects revenues to
transportation in two ways. First, in Kansas, an incentive subsidy to ethanol producers is paid from revenues in the Highway Fund. This subsidy therefore reduces the amount of funds available for use by transportation programs. The current incentive subsidy is $3.5 million per year.

Secondly, subsidies to gasohol affect federal transportation funding coming to a state. The current federal legislation that authorizes funding for transportation programs is the Transportation Equity Act for the 21st Century (TEA-21). One criteria for determining funding apportioned to states from TEA-21 is the relative share of funding that states provide to the Highway Trust Fund (HTF). The contributions from those states which sell a lot of gasohol is less than it would be if all sales were for gasoline due to the subsidy provided by lower federal taxes for gasohol and an additional transfer of 2.5 cents per gallon from the HTF to the General Fund. Therefore states with a large percentage of sales of gasohol receive less federal aid than they otherwise would receive.

Currently the use of gasohol in Kansas is relatively low and the reduction of federal funding is not a major concern. However, KDOT needs to be watchful that the impact to the transportation program does not worsen significantly. Further, efforts should be supported that reduce the impact to transportation programs by crediting the federal Highway Trust Fund with all revenues collected including the 2.5 cents per gallon currently collected for gasohol but transferred to the General Fund. Additionally, the General Fund should credit the Highway Trust Fund with revenues representing the 5.3 cents per gallon in lower taxes provided as a subsidy for programs that benefit agriculture and the economy.

Other alternative fuels may have significant financial implications for transportation programs in the future depending on their adoption by the transportation users. Other than registration fees, there are currently no user fees paid by the owners of vehicles powered by electricity from batteries or solar cells. Vehicles powered by fuel cells may also become widely available in the future and could have a significant impact on transportation financing. Fuel cells convert hydrogen to electricity that in turn is used to power a vehicle. Fuel cells can operate using a variety of fuels including gasoline, ethanol, methanol, natural gas, and hydrogen. Methanol is the auto industry's favored fuel to power fuel cells. Currently fuel cell vehicles are not competitively priced to gasoline vehicles but improvements in technology could quickly close the gap. If that happens, it will be important for transportation programs to capture motor fuel tax revenues from the methanol or other fuel used by these vehicles.

The increased use of alternative fuels and the improvement in vehicle fuel efficiency could have a significant effect on motor fuel revenues. KDOT needs to prepare for these changes and take an active role in identifying new funding sources to replace the loss of the traditional motor fuels tax.
Funding of the State Highway System

Comprehensive Transportation Program

House Bill 2071 in May 1999 authorized the Fiscal Year 2000-2009 Comprehensive Transportation Program (CTP). The Transportation 2000 Study Group collected substantial public input prior to the CTP (more information on this study group can be found in the Involving the Public section of this document.) The program is a ten-year plan that addresses the total transportation system. Forty-seven specific Major Modification, Interstate and Non-Interstate road projects, and Priority Bridge projects were listed in the legislative record, known as the “red map”, see page 2-16. At the time House Bill 2071 was passed, specific projects from other components of the highway program had not been identified. A complete list of CTP highway major modification and priority bridge projects can be found in the 2001 KDOT Annual Report.

The total program was approved for $12.9 billion, including $2.66 billion in additional revenues. Through this revenue increase, funding for highways and transit was increased and new funding was made available for rail and aviation for the first time. New funding for the CTP came from three sources. A four cents per gallon motor fuels tax increase was phased in between 1999 and 2003, which sunsets in 2020. Stepped sales tax transfer increases were also approved; however, historically KDOT has not received the statutory amount of sales tax transfer. Additional bonding authority of $996 million was granted in the form of 20-year bonds.

The CTP is a 10-year program. Although a long-term approach to transportation is desirable, it can also complicate the financial aspects of the program. KDOT is different from most other state agencies in that a large part of the agency’s business is capital improvements. These capital improvements often take years to develop, design, and construct and will be funded with money that is anticipated to be available a number of years into the future. Just as revenues are fluid, highway construction cost estimates are dynamic as project development proceeds toward bid letting. As projects progress, current and future project needs must be balanced against design life and costs before an improvement’s plan can be completed and a commitment of construction dollars made.

As figure 2-7 on page 2-17 illustrates, the highway portion of the CTP is comprised of three specific State Highway System components, a local jurisdiction component, and an other-modes component.
COMPREHENSIVE TRANSPORTATION PROGRAM FY 2000-2009
Major Modification Interstate and Non-Interstate and Priority Bridge Only
Assumes Funding as per HB2071 as Passed 4-30-99

See project list for more specific project information.
See separate list for explanation of changes from 2001 annual report map.
The **Preservation** component serves to protect the State’s transportation investments by preserving “as-built” conditions as long as possible. These projects are funded through KDOT’s Substantial Maintenance category. They are programmed to address short-term needs on an annual basis, and are not part of a prioritized list beyond the first year. Resurfacing projects are based on the Pavement Management System, which optimizes performance and cost. The Pavement Management System analyzes funding constraints, system condition goals, segment condition and feasibility to recommend a segment-based optimal rehabilitation solution. Bridge repair projects are based on information from the Bridge Management System. Lastly, set-aside programs are identified for specific needs such as safety, pavement marking, signing, and highway lighting based on objective selection criteria.

**Modernization** is a second component of the State Highway System and includes Major Modification and Priority Bridge projects. Major Modification road projects go beyond preservation to improve road geometry, add capacity, and enhance safety. Priority Bridge projects target the most deficient bridges for replacement or modernization. The primary modernization programs consist of Major Modification Interstate, Non-Interstate Road, and Priority Bridge projects. These projects are selected based on a Priority Formula and have already been approved by the Legislature as part of the CTP. The Modernization component
also includes set-aside programs that are identified for specific needs such as Economic Development, Geometric Improvement (both local partnership programs), Intelligent Transportation Systems, Railroad Grade Separations, and Corridor Management based on objective selection criteria. The projects generally have a one-to-three-year planning horizon, and many of the projects are selected based on applications and priorities submitted by local units of government.

- The last component of the State Highway System is **Expansion**. The System Enhancement Program was established as a part of the CTP to substantially improve safety, relieve congestion, improve access, or enhance economic development. Projects are selected based on engineering and safety factors (80%), economic development enhancement (20%) plus extra credit for local match funds, lane-miles removed from the State Highway System, and partially completed project development. Project applications were solicited from local units of government in June 1999, and the 29 projects selected for System Enhancement funding were announced August 4, 2000. Most System Enhancement projects will be let to construction in the latter years of the CTP because of their size and complexity.

  The CTP also includes the partnerships KDOT has with other modal providers and local jurisdictions. Modal components include aviation, public transit, and rail. The Kansas Airport Improvement Program was funded at $3 million per year with state monies. This funding assists general aviation airports in the state with needed improvements to runways, taxiways and ramps, and facilities and equipment (i.e. radios, lighting, navigational tools). Public transit was funded at $6 million per year in state subsidies for capital upgrade and operating costs, an increase from $1 million per year under the previous program. There is also $3 million in state funds available annually for eight years to assist Kansas short-line railroads with track rehabilitation. This is a revolving loan and grant program that is beneficial to rural areas that depend on short-line railroads for transporting grain and other agricultural products.

  Under the Local Jurisdiction component, funding was increased to the Special City and County Highway Fund. The Local Partnership Program was continued at higher amounts providing funding for economic development and city connecting link resurfacing and geometric improvements. The CTP also continued to share Federal funding with local units of governments to meet transportation needs.

  The pie chart in Figure 2-8 shows how the funds programmed in the CTP will be expended.
The future success of the CTP is dependent on legislative and economic impacts on the CTP budget. Since the passage of the CTP in 1999, several changes have been made to its funding components. One of the most critical changes has been the reduction of the sales tax demand transfer, a legislatively mandated percentage of sales tax receipts that is to be transferred from the State General Fund (SGF) to the State Highway Fund (SHF). The transfer was reduced in FY 2000, FY 2001, FY 2002, and eliminated entirely in FY 2003. These actions alone have resulted in a $238.3 million loss to the program.

In addition to the cuts in the demand transfer, the downturn in the economy has resulted in actual tax collections being less than originally projected when the CTP was passed in 1999. Motor Fuels Tax collections for FY 2000-2002 are $37.5 million less than originally projected and the Quarter-Cent Sales Tax collections for FY 2000-2002 are $9.0 million less than originally projected. This is a concern for future tax collections as the economy faces an uncertain future.
There have been other reductions in CTP funding, which have created a total reduction of $291.1 million as of the end FY 2002. In addition to those reductions, the 2002 Legislature borrowed $95 million from the SHF to shore up the SGF ending balance. This loan is statutorily mandated to be repaid by the end of FY 2003 (June 30, 2003).

The Legislature has also taken action to offset some of the impact of the demand transfer reductions. In 2001, the Legislature increased KDOT’s bonding authority by $277 million. This increase (less debt service through FY 2009) was authorized to offset the $160 million funding reduction and keep the program intact. It is important to note that, while the increased bonding addressed the funding reduction in FY 2004-2009, it left the State Highway Fund greater in debt after FY 2009.

During the 2002 session, the legislature eliminated the entire $147 million sales tax demand transfer for FY 2003. To replace that funding, the legislature passed House Bill (HB) 3011, which made the following changes:

- Motor Fuels (Gas and Diesel) Tax increase effective July 1, 2002
  - 2 cents per gallon, all of which goes to the State Highway Fund
  - This 2 cents "sunsets" in 2020
- Registration Fee increase effective July 1, 2002
  - $5 for cars and pickups
  - Varies from $2 to $10 for trucks

The tax increases authorized by HB 3011 have been tempered by reductions in the Sales Tax Demand Transfer. Two issues that KDOT will be watching closely are the FY 2004 demand transfer, which is to resume at the statutory amount, and the $95 million loan repayment. The continuing pressure on the SGF jeopardizes the demand transfer to KDOT for FY 2004, and possibly future years. If the demand transfer would be eliminated for FY 2004, the remaining six years of the CTP and the $95 million loan is not paid back, the CTP would face a deficit of $1.3 billion. Even one more year of eliminating the transfer will result in a CTP deficit of more than $400 million.

Concerned about the adequacy of funding for the Comprehensive Transportation Program, Governor Bill Graves reconvened the Transportation 2000 Study Group in August, 2002. In his letter to the study group members, the Governor wrote, “I believe it is important for the public to understand how much the state transportation program will be impacted should funding for the CTP continue to be used to make up the State General Fund deficit. I am asking the Transportation 2000 Study Group to reconvene to review CTP funding, confirm that there is a real problem, and discuss these issues at several public meetings across the state.” The group held an organizational meeting in Topeka on September 4, 2002 and determined to conduct four public meetings on four consecutive weeks in October in Fort Scott, Overland Park, Dodge City, and Wichita. Approximately 800 city and county leaders, business people, and citizens attended the four meetings. About 150 people spoke or gave presentations. The testimony showed overwhelming support for the CTP from the public and emphatically rejected any funding cuts.

The Study Group met on November 14, 2002 to discuss the results of the meetings. The following findings and recommendations were presented to Governor Graves:

1. It is evident from the recent hearings that the citizens of the state of Kansas continue to overwhelmingly support completion of the entire 1999 Comprehensive Transportation Program.
Transportation Program and strenuously oppose any reduction in funding, which would prevent the completion.

The members of the Transportation 2000 study group therefore strongly voice their opposition to any further reduction in funding, which would cause the elimination of any promised highway project, or reductions in funding for any modes, or in the amounts of city/county revenue transfers.

The study group further states that only at such time as such funding may become inadequate to meet all of the commitments of the program should the state consider options that would allow it to still meet every commitment of the 1999 Comprehensive Transportation Program.

2. The current sales tax demand transfer funding component of the 1999 Comprehensive Transportation Program (CTP) should be replaced by a revenue transfer based on the percentage of sales tax collected from the sales of new and used vehicles, as it has long been recognized that this portion of the sales tax should be considered users fees whose appropriate repository is the State Highway Fund.

Transportation spending stabilizes and stimulates the state’s economy during all times, but especially during difficult economic times. This is illustrated in the following quote from a US News and World Report article in 1992, referring to the CHP, “As the nation slid into recession...highway money worked its way through Kansas’ economic bloodstream, personal income climbed at 2.4%, more than twice the national average (in 1991).” KDOT is hopeful that the Legislature will maintain its commitment to the CTP.

The CTP also supports statewide economic development. According to a report by Dr. Michael Babcock of Kansas State University, economic stimulus from the previous highway plan resulted in an economic multiplier of 2.6 for every dollar spent, an increase of nearly 118,000 private sector jobs statewide, and $1.4 billion increase in statewide income. Further, a recent report from the United States Department of Transportation (USDOT) showed that, in 2001, every dollar spent on highway improvements yielded an average benefit of $5.70. Outside of new economic stimulus the CTP also serves to protect the state’s investment in its infrastructure. When a project is delayed due to lack of funding, it not only impacts that particular road section, it also causes other projects to be delayed by pushing those other projects even further out into the future, creating a ripple effect. This in turn leaves not only current highway needs unaddressed, but also delays addressing anticipated future needs. The overall result is an even larger pool of future unmet highway needs and increased costs. Lastly, and probably most importantly, the CTP responds to the concerns of Kansas’ citizens based on results from the KDOT External Customer survey. Ninety-two percent of the residents surveyed thought that funding for transportation in Kansas should stay at least the same over the next five years. The results of the survey also showed approval of the quality of KDOT’s products during the Comprehensive Highway Program (CHP) and CTP. Reduced funding could jeopardize that satisfaction and approval rating of Kansas’ transportation facilities.

The issue of flexibility for program re-evaluation was identified as a potential area of improvement during a review of the Priority Formula process. KDOT’s latest program of highway improvements is a fully announced ten-year list of projects. This creates a problem in that unforeseen circumstances may arise during the ten-year period, resulting in new critical needs that must be addressed and cannot wait until the next program. The Priority Formula review concluded that a fixed ten-year highway program does not provide the necessary flexibility to respond to changing road and bridge conditions.
**Kansas Department of Transportation Fund Sources and Disposition**

**FY 2000 - 2009**

- **9.6%** Bond Proceeds
- **7.7%** Sales Tax 1/4 Cent
- **9.6%** Sales Tax Transfer
- **4.3%** Other (Incl. Drivers License Fees)
- **11.0%** Vehicle Registration Fees
- **31.4%** Motor Fuels Tax*
- **4.3%** Local Funds
- **22.1%** Federal Funds**

**State Highway Funds**

**Routine Maintenance**
- (Incl. Snow Removal & Mowing)
  - 8.8%

**Local Transportation Programs**
- (Special City & County Highway, Local Federal Aid Programs, Local Partnership Program, City Connecting Link Payments, Transportation Enhancement)
  - 19.8%

**Transfers**
- (Incl. KHP, Revenue)
  - 4.0%

**Highway Construction**
  - 51.3%

**Buildings**
- (Incl. Administration, Support Services, Technical & Planning Assistance)
  - 4.4%

**Management**
- Service (Incl. Administration, Support Services, Technical & Planning Assistance)
  - 9.8%

**Debt Service**
- Other Modal Programs (Aviation, Public Transit, Railroads)
  - 1.3%

**Figure 2-9**

**Highway Funding of Local Governments**

As shown in figure 2-9, 20% of the CTP funding goes back to cities and counties for their transportation needs. Local government sources of transportation funds include state motor fuel tax revenue received through the Special City and County Highway Fund, federal motor fuels tax revenue received from the Federal Highway Administration (FHWA) through KDOT, state funds from KDOT’s local partnership program, property taxes, local option sales taxes, and bond issues. In fiscal year 2002, the amount of State motor fuel tax receipts dispersed to the cities and counties was $142 million. Property taxes are the largest source of transportation revenues for local governments, with much of this revenue being spent on maintenance rather than construction.

Construction funds that local governments receive from FHWA through KDOT include Surface Transportation (STP) and Bridge (BR) funds. Each year, the county STP funds are distributed based on the percentage of state motor fuels tax each county received in the prior year. Small Urban STP funds are divided into three categories based on population and cities compete within these categories for funding.

KDOT maintains a log of all deficient bridges within the state. Each local government is eligible to receive a portion of the BR funds. KDOT utilizes the proportion of deficient bridge area within their jurisdiction to the total deficient bridge area of all local jurisdictions in the state for programming these local government projects.
The Kansas Highway Program includes a number of Local Partnership Programs. In these programs, the State and local units of government share a project’s cost. The City Connecting Link (KLINK) Resurfacing, Geometric Improvement, and Economic Development Programs are designed to assist local governments in making surfacing and geometric improvements on city connecting links and to finance projects that are needed as a result of rapid economic growth or to spur economic development.

**Governmental Accounting Standards Board- Statement 34**

The Governmental Accounting Standards Board (GASB), a private, nonprofit organization, establishes concepts and standards that guide the preparation of external financial reports through generally accepted accounting principles that are utilized by auditors charged with the evaluation of state and local government financial statements. In June 1999, the GASB established new financial reporting standards that will fundamentally change the way state and local governments report their financial results. GASB Statement 34 was initiated in response to a belief that the financial reports of state and local governments were not providing information sufficient to assess financial position and cost of services. Under GASB-34, Kansas governmental agencies that use Generally Accepted Accounting Practices (GAAP) reporting must begin showing the value of infrastructure assets in their financial reports. To comply, governments will need to determine the cost associated with their transportation infrastructure assets. This includes initial construction costs and the cost of subsequent capital improvements as well as the associated expense of using the assets. Previously, accounting was limited to static costs that did not provide a clear idea of the value of the infrastructure asset gained.

There are several reasons that this statement is significant. First, GASB-34 establishes methods for governments to be more accountable to bond market analysts and underwriters, citizens and other financial users. It provides for a comprehensive understanding of a government’s financial position, and clarifies the government’s ability to repay long-term debt and deal with infrastructure maintenance obligations.

In a general sense, implementation of GASB-34 may highlight the fact that considerable resources are spent on transportation infrastructure assets and that the benefits from these facilities extend many years beyond the initial investment. Infrastructure expenditures may then be viewed more as investments.

For KDOT, GASB-34 means a heightened level of public accountability, but also it is an opportunity to demonstrate that the department is properly caring for the assets with which it has been entrusted. It also provides an opportunity to reinforce the importance of system preservation instead of deferred maintenance. The increased emphasis on life-cycle costs may help to demonstrate preservation saves money by avoiding premature replacement of an asset, potentially at a higher cost.

<table>
<thead>
<tr>
<th>Accountability to the Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Does KDOT allocate its resources in an efficient manner?</td>
</tr>
<tr>
<td>➢ Are citizen needs and wants being adequately addressed?</td>
</tr>
<tr>
<td>➢ What is the prognosis for the future condition of the system?</td>
</tr>
<tr>
<td>➢ How does the performance of KDOT compare to other similar agencies?</td>
</tr>
<tr>
<td>➢ Are the government’s maintenance strategies resulting in the renewal of infrastructure needs?</td>
</tr>
</tbody>
</table>
Funding for Other Transportation Modes

Approximately $9 million annually of Federal-aid is passed through the State to railroads to upgrade railroad-crossing signal systems. In rail transportation, KDOT provides $3 million annually (for the first eight years of the CTP) in the form of revolving, low-interest loans and grants to assist Kansas short-line railroads with track rehabilitation. Additionally, the CTP set up a local partnership program addressing grade separation for highway/rail crossings at approximately $5 million per year. KDOT also has a set-aside for grade separations on the State Highway System supplying $10 million per year.

In Federal Fiscal Year (FFY) 2001, approximately $8 million was passed from the Federal Aviation Administration (FAA) to general aviation airports in Kansas to maintain existing aviation facilities. The State of Kansas for the first time provided funds, under the CTP, for rehabilitation of public-use airports, in the amount of $3 million in projects annually.

In the area of public transportation, the Federal Transit Administration (FTA) provided over $4.1 million to Kansas for public transit services to the general public and the elderly and disabled in non-urbanized areas in FFY 2001. The urbanized areas received over $15.6 million in federal funds in FFY 2001 for public transit (this includes approximately $10 million dollars for the Kansas City metropolitan area - the funds are not separated between Kansas and Missouri). In addition, the Kansas Legislature increased state funding for public transportation programs in 1999 from an annual amount of $1 million to $6 million.

Through the FHWA Transportation Enhancement program, KDOT obligated almost $2 million to bicycle and pedestrian projects in FFY 2001. While the Kansas Department of Transportation expects these various transportation funding sources to continue, significant growth in the amounts of these funds is not expected.