executive summary

Nebraska Long-Range Transportation Plan

Summary of Existing and Future Conditions and Transportation System

prepared for

Nebraska Department of Roads

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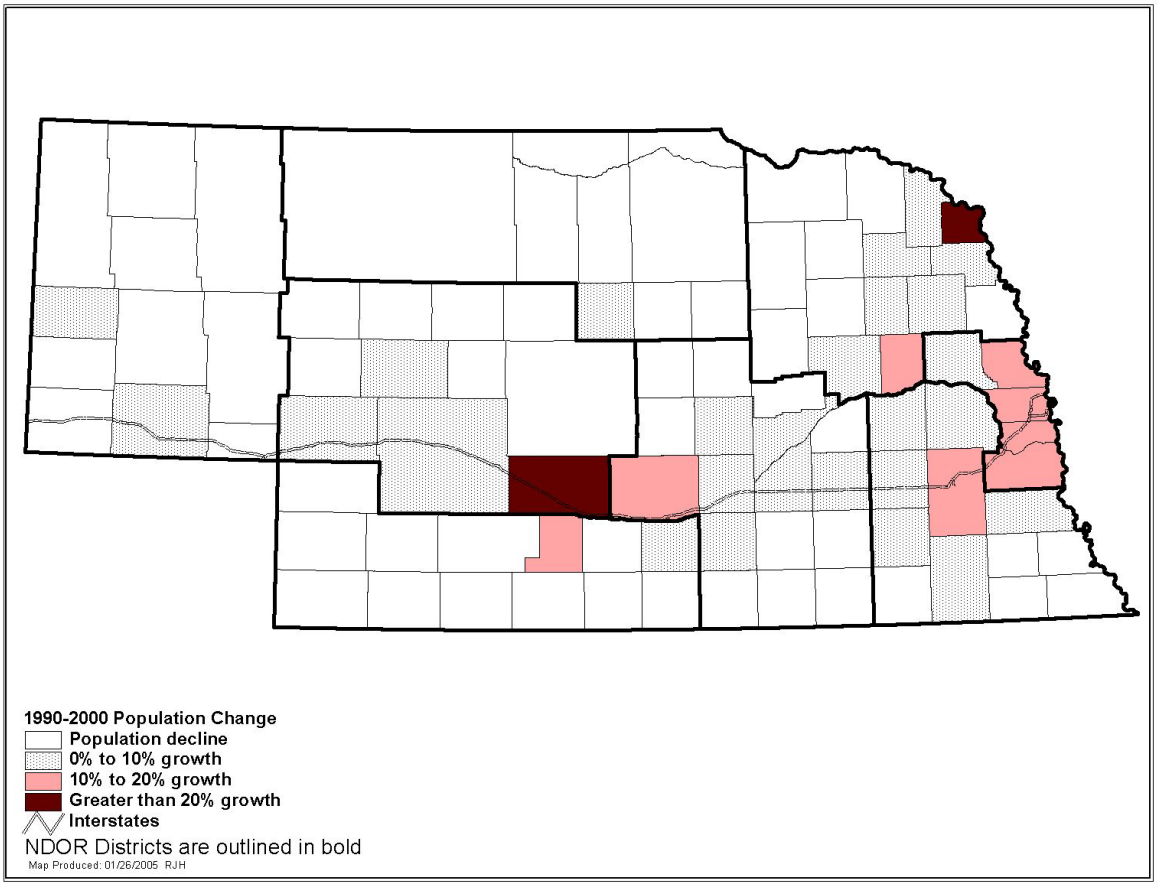
Executive Summary

Nebraska Geography, Population, and Economy

Population forecasts indicate that the needs for increases in transportation system capacity will continue be in the eastern and urban areas and along the I-80 corridor. However, the needs for infrastructure renewal, system preservation, mobility and accessibility, and maintenance will continue to be spread throughout Nebraska. Nebraska's resident population increased from 1.58 million in 1990 to 1.71 million in 2000, an increase of more than eight percent. As shown in Figure ES.1, the largest increases occurred in the eastern portion of the State and along I-80.

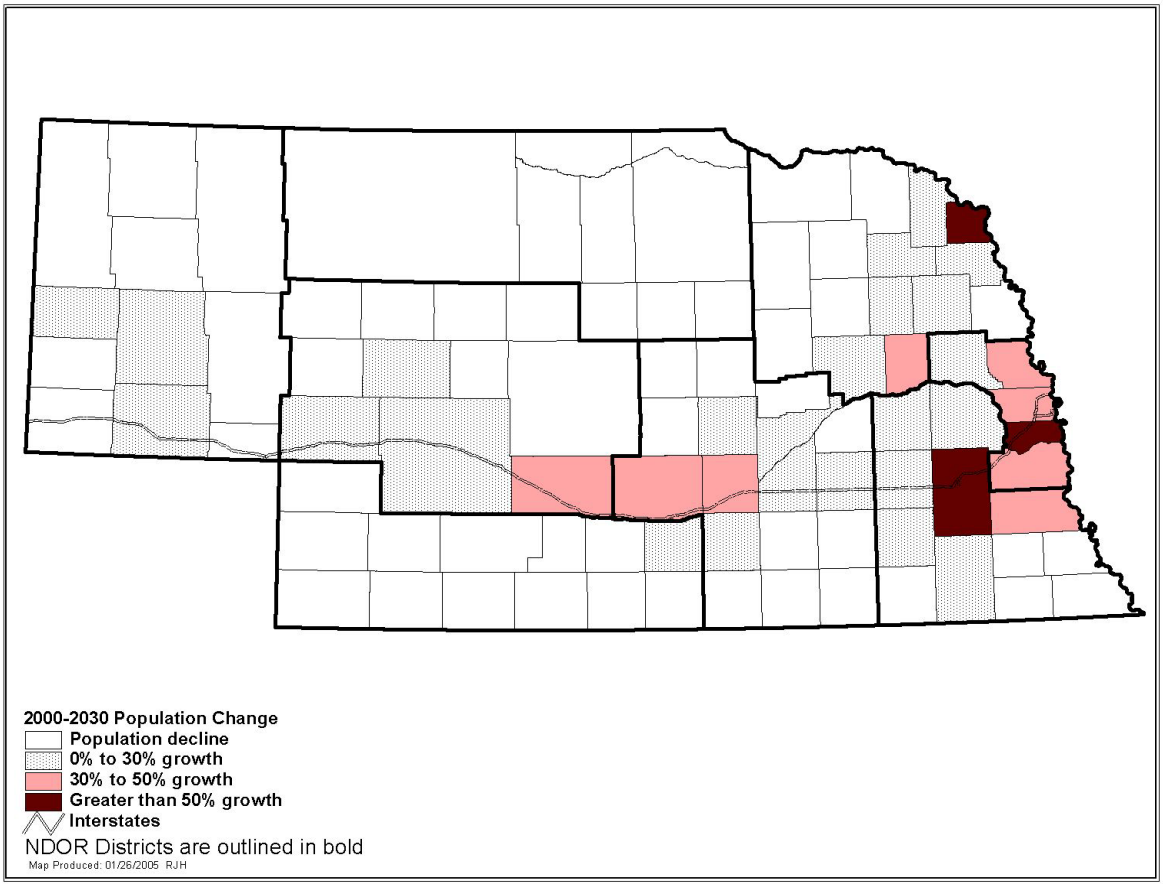
Figure ES.1 Nebraska Population Change: Percentage by County 1990 to 2000



Source: U.S. Census.

By 2030, the population of Nebraska is projected to increase to more than 2.27 million, or by about one-third. As shown in Figure ES.2, most of the projected population growth is expected to occur in counties along I-80 and to the east with much of the growth in the State's urbanized areas.

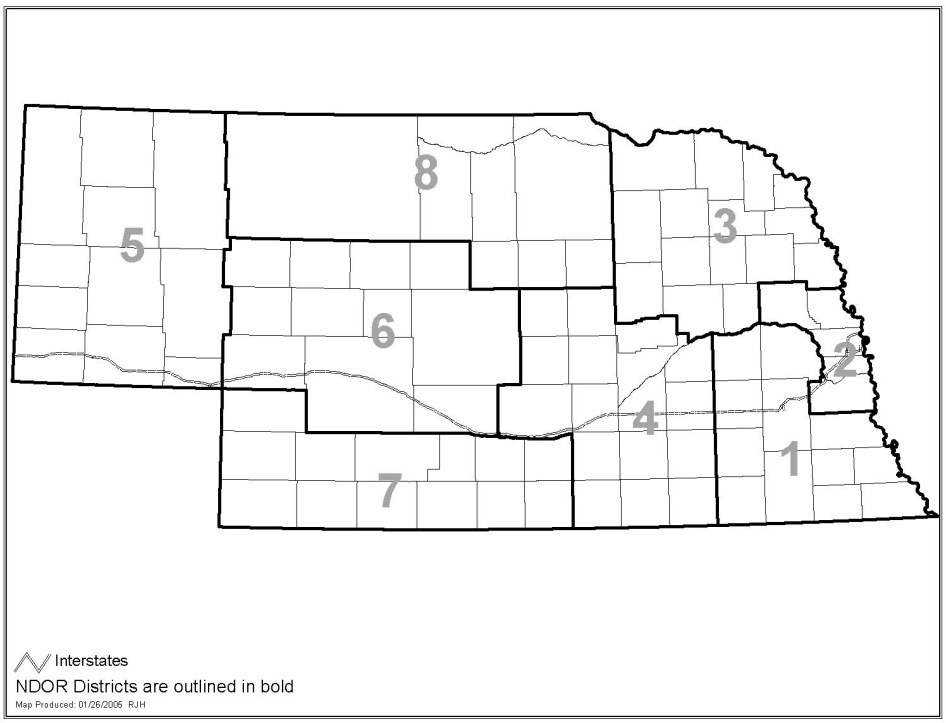
Figure ES.2 Forecast of Nebraska Population Change 2000 to 2030



Source: University of Nebraska, Bureau of Business Research.

Nebraska's transportation system supports a wide range of economic activity across the State. Figure ES.3 shows employment by industry for transportation districts in Nebraska. Wholesale and retail trade, transportation, construction, and manufacturing account for the largest portion of Nebraska's employment.

Figure ES.3 Employment by Industry 2000

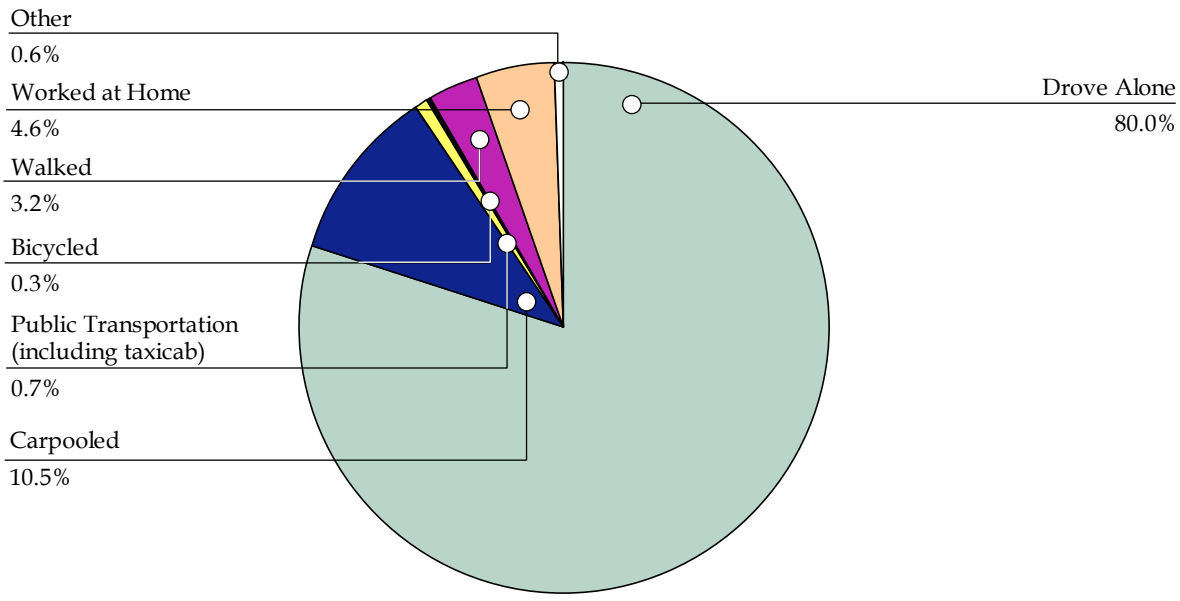


District	Total Employment	Agriculture/ Mining	Construction	Manufacturing	Transportation/ Utilities	Wholesale and Retail Trade	Professional Services	Education, Health, and Social Services	Other (Arts, Food, Etc.)	Government
1	200,389	3.4%	6.6%	13.3%	5.5%	13.6%	16.5%	23.2%	11.6%	6.3%
2	367,725	0.8%	6.8%	10.0%	7.0%	16.1%	24.4%	18.8%	11.3%	4.8%
3	69,230	13.4%	5.5%	23.7%	5.5%	12.1%	9.6%	17.9%	9.4%	2.9%
4	108,988	8.6%	6.3%	14.3%	5.2%	16.6%	11.5%	21.8%	12.2%	3.4%
5	43,372	11.5%	5.9%	6.5%	10.3%	17.7%	11.0%	21.0%	12.1%	4.0%
6	61,154	9.1%	5.9%	14.6%	9.0%	16.9%	10.1%	18.7%	12.3%	3.4%
7	27,168	18.8%	7.0%	7.9%	5.9%	14.6%	10.2%	21.2%	10.7%	3.8%
8	14,577	28.2%	6.2%	3.5%	5.4%	14.7%	8.0%	18.9%	11.2%	4.0%
Total	**892,603**	**5.4%**	**6.5%**	**12.3%**	**6.5%**	**15.4%**	**17.6%**	**20.3%**	**11.4%**	**4.6%**

Source: U.S. Census, 2000.

The vast majority of trips made in the State are in personal vehicles. According to the 2000 Census, 80 percent of Nebraska commuters drove alone to work as shown in Figure ES.4. Commuting travel times in Nebraska are lower than for the entire nation. In 2000, the average travel time to work in Nebraska was just 18 minutes in comparison to the U.S. average of 25 minutes.

Figure ES.4 Method of Travel to Work in Nebraska
2000



Source: U.S. Census, 2000.

Nebraska Transportation System

Nebraska Highway System

The Nebraska highway and roadway network serves as the primary mode of transportation for both personal and freight travel within the State. Nebraska has 96,344 miles of roads, of which 9,959 miles (10.3 percent) are state-owned roads. In 2003, there were 18.59 billion annual vehicle miles of travel (VMT) on Nebraska roadways, with approximately 63 percent on state-owned roads. An estimated 25.9 billion ton-mile of freight moved on Nebraska's highways in 2002, with 87 percent on the state system.

The differences in traffic volumes on various road systems are extreme. The urban and rural Interstate system in Nebraska comprises about one-half of one percent of the total state roadway system mileage but carries 21 percent of all vehicle traffic. By contrast, Nebraska's rural local roads comprise about 65 percent of miles but carry only six percent of vehicle traffic. Because most of these roadways are important for a functioning transportation system, these lower volume roads cannot be neglected. Table ES.1 shows the road inventory by functional class, mileage, and ownership.

Table ES.1 Centerline Mileage of Nebraska Highways by Road Type and Ownership

By National Functional Classification – As of December 31, 2003

Road Type	State-Owned Mileage	Non-State Mileage	Total Mileage
Urban			
Interstate	53	-	53
Principal Arterials	280	147	427
Minor Arterials	4	675	679
Collectors	-	411	411
Local Roads	-	4,178	4,178
Subtotal Urban	*337*	*5,411*	*5,748*
Rural			
Interstate	429	-	429
Principal Arterials	2,721	-	2,721
Minor Arterials	4,191	-	4,191
Collectors	2,276	18,067	20,343
Local Roads	5	62,907	62,912
Subtotal Rural	*9,622*	*80,974*	*90,595*
Grand Total	**9,959**	**86,385**	**96,344**

Source: NDOR Materials & Research Division – January 13, 2005.

Traffic Forecasts – State Highway System

Projected annual VMT growth provides an indicator of future demands on Nebraska's transportation system. As shown in Table ES.2, total VMT is expected to grow on all state systems by 54 percent over 20 years with the Interstate system forecast to experience the highest level of growth.

Table ES.2 Forecast of Annual Vehicle Miles of Travel (VMT) – State Highway System Routes Only

State System Roadway Type	2002 VMT (Billions)	Forecast 2022 VMT (Billions)	Percent Average Annual Growth 2002-2022	Percent Total Growth 2002-2022
Interstate	3.897	6.596	2.67%	69%
Expressways	1.916	2.976	2.23%	55%
Other	5.857	8.442	1.84%	44%
System Totals	**11.670**	**18.014**	**2.19%**	**54%**

Source: NDOR forecasts; NDOR confirmation pending of forecasts for 2022.

Pavement Conditions – State Highway System

NDOR measures the quality of the highway surface based on annual inspections and rates the roads based upon the Nebraska Serviceability Index (NSI). Ninety-six percent of the Interstate system mileage is rated as "good" or "very good," while 86 percent of expressways and 84 percent of the total state highway system is rated as "good" or "very good." Only two percent of the state highway system is rated as "poor."

Bridge Conditions

NDOR maintains 3,524 bridges on the state system and there are 12,119 bridges under the jurisdiction of local governments. Bridges on the state system, which carry much higher volumes, are in better condition than local bridges, with only seven percent of state bridges being structurally deficient or functionally obsolete. Thirty-two percent of local bridges are structurally deficient or functionally obsolete.

Safety

In 2003, there were an estimated 293 fatalities, 21,984 persons injured, and 46,602 total accidents on Nebraska's roads. Nebraska's highway traffic fatality rate closely parallels the U.S. average, but Nebraska's rate has declined somewhat over the five years from 1998

to 2003. Nebraska now experiences 1.6 fatalities per 100 million miles of travel, in comparison to 1.5 for the nation.

Public Transportation Inventory

Public transportation serves an important role in providing mobility and transportation choices for citizens of the State. Table ES.3 provides a brief summary of key statistics for the metropolitan transit systems. Each of these transit agencies also provides demand-responsive door-to-door services within the regular route service areas. Transit service for the counties outside the metropolitan areas is primarily demand-responsive transit or paratransit, but all are open to the general public. A total of 78 out of the 93 counties in Nebraska provide some form of transit service.

Table ES.3 Metropolitan Area Transit Providers in Nebraska

Transit System Indicator	Omaha – MAT	Lincoln – StarTran	Sioux City – SCTS[1]
Fleet Size	117	64	26
Routes	30	21	1[1]
Annual Unlinked Trips	3,640,000	1,581,000	6,393
Annual Passenger Miles	13,981,000	7,969,000	2,087
Percentage of Total Trips that are Demand Responsive	1.2%	3.3%	52.5%
Fare Recovery Ratio	21.9%	16.6%	19.6%[2]

Source: *2002 National Transit Database Report*; additional information was obtained from the web sites for MAT, StarTran, and SCTS.

Notes: [1] One route serves South Sioux City.

[2] Fare recovery ratio includes routes in Sioux City, Iowa.

In Omaha and Lincoln, annual transit ridership is lower today than 20 years ago. Transit services in Lincoln carried approximately 3.5 million annual trips in 1981, in comparison to approximately 1.6 million trips in 2002. More recently, transit ridership in the two metropolitan areas has remained constant. In 2002, there were approximately 625,000 passenger boardings for the 61 rural transit systems in the State. With the aging population within Nebraska, particularly in rural counties, the usage and demand for transit services is likely to grow. In 2004, NDOR initiated a "Rural Transit Needs Assessment" Study, from which inventory results are anticipated to be available prior to the completion of the Nebraska Long-Range Transportation Plan.

Intercity Rail and Bus

Amtrak serves one route, called the California Zypher, which operates on freight railroad tracks owned by Burlington Northern. This route has one train per day in each direction between San Francisco and Chicago, with Nebraska stops in Omaha, Lincoln, Hastings, Holdrege, and McCook. In 2001, there were 38,161 Amtrak passenger boardings in Nebraska. In 2002, there were approximately 12,000 passenger boardings in Nebraska for intercity bus providers (excluding Greyhound). The majority of these intercity providers utilize passenger vans. Most of these providers make one roundtrip per day for each of their routes. In some cases, a route is only run once a week or a few times a week.

Bicycle and Pedestrian Inventory

The State of Nebraska and others have made significant investments in constructing new multiuse trails to serve pedestrian and bicycle travel. Over the last decade, many miles of trails (e.g., Cowboy) and bridges (e.g., Lied Platte River Bridge) have been constructed and several communities are in the process of planning or constructing additional multi-use trails. The state highway system also offers another means for bicyclists to travel between communities in Nebraska, and NDOR has prepared a map showing the compatibility of bicycling on each state highway.

Rail Freight Inventory

Nebraska has an extensive rail freight system, estimated at 3,462 rail miles in 2002. Rail carried an estimated 56.8 percent of the 33.2 billion ton-mile of freight originating in Nebraska in 2002. Farm products are the top commodity carried by rail from Nebraska. The impact of the through rail traffic is also substantial, with some rail lines averaging more than 100 trains per day. Nebraska had 6,559 rail-highway grade crossings in 2004. BNSF and UP control most of the rail network in Nebraska.

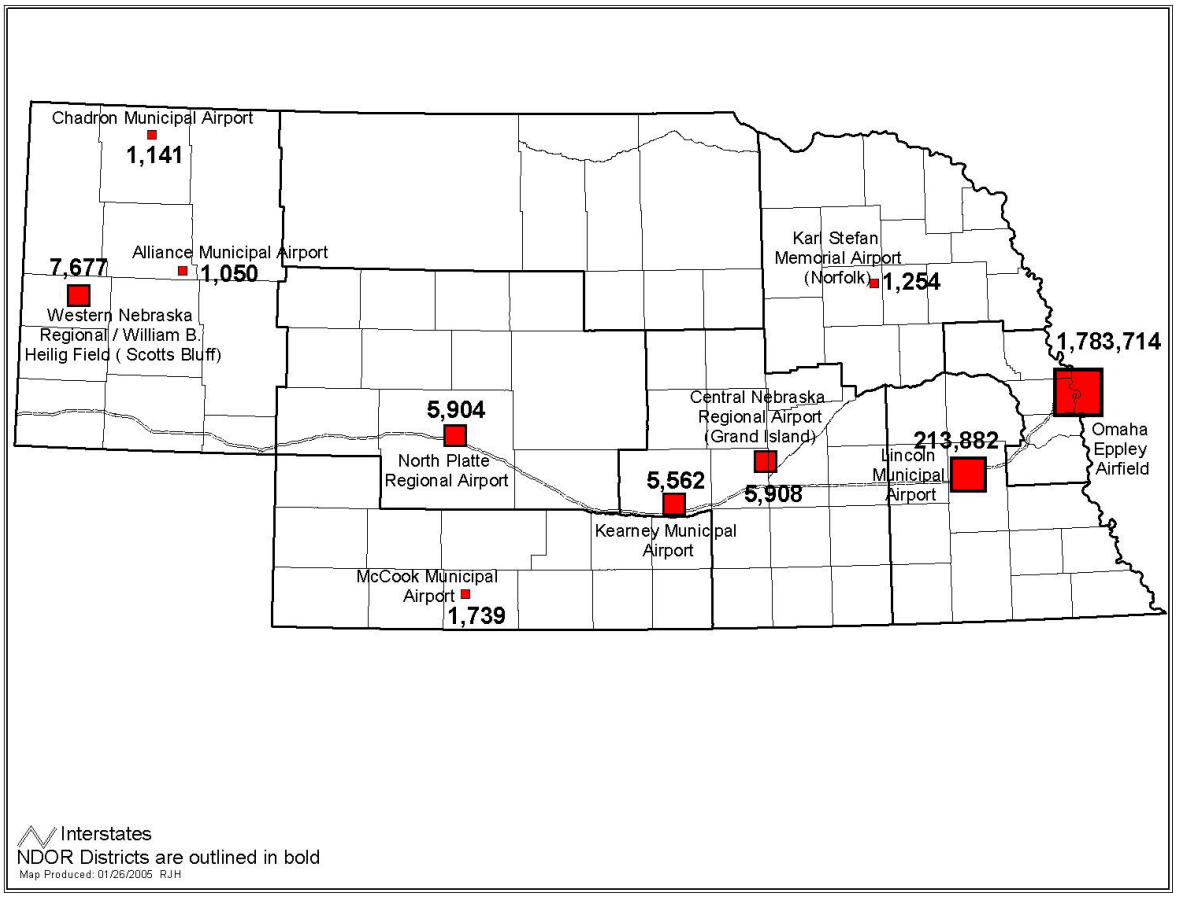
Marine Inventory

The Missouri River provides the only route for waterborne commerce in the State. The Missouri River is navigable from Sioux City, Iowa, to its junction with the Mississippi River, a length of 735 miles. In 2002, 219,000 tons of commodities (mostly sand and gravel, food and farm products) moved to and from Nebraska via the Missouri River. Shipments from Nebraska were destined to Arkansas, Illinois, Louisiana, Mississippi, and Missouri and shipments to Nebraska originated in Alabama and Louisiana.

Aviation Inventory

In 2003, there were more than two million commercial air passenger enplanements at Nebraska airports. Figure ES.5 shows the number of enplanements at each of the commercial airports in Nebraska. Eppley Airfield in Omaha and the Lincoln Municipal Airport together account for more than 98 percent of the statewide total. Eppley Airfield ranked 64th in the United States in terms of the number of enplanements, and Lincoln Municipal ranked 165th.

Figure ES.5 2003 Commercial Airport Enplanements



Source: Federal Aviation Administration.