Louisiana Statewide Transportation Plan

Executive Summary

Prepared for

LOUISIANA'S ON THE MOVE... DOTD BUILDS THE WAY

Louisiana Department of Transportation and Development

Prepared by

ENGINEERS PLANNERS ECONOMISTS

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Louisiana's Department of Transportation and Development (DOTD) began an effort in mid-2000 to update the State's transportation plan. Louisiana is a model for how each transportation mode plays a vital role in moving both passengers and freight, and the DOTD hoped to build upon recent studies that articulated this point.

Louisiana's water ports, some of the largest in the country, are critical for the movement of raw materials and finished products in support of the agricultural, mining, and industrial base of the State and other areas of the United States, particularly the Midwest. The State's aviation sector provides vital air service for business travel and tourism, and for the movement of time-sensitive, high-value cargo. Public transportation in Louisiana is imperative in workforce development and the State faces an increasing segment of the population that is becoming transit-dependent. Further, the DOTD has recognized the importance of providing choices in transportation modes to as much of the population as practicable. The State's railroads are key players in moving freight and to some extent passengers. The interaction between modes is critical to the efficiencies needed to move the State's economy forward. The highway mode continues to be the cornerstone mode with which all others interact. In addition to providing door-to-door service, trucking provides the connectivity with ports, rail, and aviation. The highway system directly impacts the entire population due to its implications for personal mobility, the standard of living, and economic security. Highways are crucial to both tourism and to commerce, and their condition directly impacts the economy.

Finally, Louisiana needs to foster growth in the economy and in overall population. A safe, efficient, and well-maintained transportation system can be a catalyst for economic growth, while a poor system can be an impediment.

PLANNING CONTEXT

Customer Involvement

The Work Plan for updating Louisiana's Statewide Transportation Plan recognized the importance of building upon the body of work that had already been accomplished. The 1996 Transportation Plan was widely considered to be a strong document, and the DOTD's widespread public involvement process was regarded as the starting point for the Plan update. The Department leaned heavily on a group of Advisory Councils, each responsible for a particular mode. The Councils are, in effect, independent bodies charged with formulating recommendations for inclusion in the Plan. Each met separately but also had the opportunity on several occasions to listen to what the other Councils were considering. Each Council named its own chair, and it is this chairperson that advanced the Advisory Council's recommendations to the Intermodal Advisory Council (IAC).

The IAC is the receptor of recommendations from the other Councils, and was charged with accepting, revising, rejecting, and prioritizing a wide variety of inputs. The IAC worked directly with the DOTD staff and consultant team to assemble a recommended plan that is fiscally constrained, addresses the State's transportation deficiencies in an effective manner, helps

achieve the proper modal balance, and satisfies the transportation system goals and objectives adopted by the LIIEP Commission.

The Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission is charged with overseeing the plan development and serves as the final decision-maker in the planning process. It is comprised of 13 individuals from a wide range of experience and backgrounds, helping ensure a balanced view that considers every possible perspective.

The DOTD also incorporated additional efforts to reach its customers and stakeholders. The agency conducted two large Statewide Conferences, one to kick off the study and one to present the draft Plan. A comprehensive website was established and updated regularly. In addition, several newsletters were mass mailed, along with the aforementioned Advisory Council interaction. Further, the DOTD conducted nine regional public meetings to present the draft Plan and provided copies of the document to every library in the State for public review and comment.

The DOTD's public involvement process is extensive and sincere. The Department went to great lengths to listen and consider all points of view regarding what transportation policies, programs and projects should be enacted in Louisiana.

Transportation System Goals

The Values, Goals, and Objectives adopted for the update of the Louisiana Statewide Transportation Plan are based upon those contained in the 1996 Plan with revisions as appropriate. The revisions resulted from a consultant team review, a review of *Louisiana: Vision 2020*, the 2000 Louisiana Transportation Conference, the first round of Advisory Council meetings, a review by the LIIEP Commission, and from a review of the most recent federal transportation planning requirements. The goals for Louisiana's transportation system are:

: To develop and maintain an innovative, balanced, safe, equitable, integrated system of transportation facilities and services.

: To provide essential passenger-transportation services at reasonable public expense, meeting the diverse needs of the people of Louisiana regardless of their geographic location, physical condition, economic status or service requirements.

: To provide a transportation system that fosters diverse economic and job growth, international and domestic commerce, and tourism through prudent investment in facilities and services that improve mobility and access. The system should be responsive to free markets, to user needs and expectations, through flexibility and choice, in a competitive, multimodal environment.

: To provide a regulatory and comprehensive policy framework that promotes partnerships, coordination, and cooperation among transportation users and providers in a competitive multimodal environment.

: To improve safety in all transportation modes through timely maintenance of existing infrastructure, development of new infrastructure, enhancement of operational controls of both passenger and freight movements, and through expanded public education and awareness.

: To develop an efficient transportation system that improves air, water and noise indices to acceptable levels as defined by regulatory standards, reduces dependency on foreign energy sources, preserves historic, cultural, and environmentally sensitive sites, promotes the natural beauty of the State, raises the quality of life for Louisiana's citizens, use land resources efficiently by incorporating smart growth development principles, and promote and implement the context-sensitive design of transportation infrastructure.

: To develop stable but flexible transportation financing that provides adequate funds for both the preservation of existing and the construction/ implementation of new facilities and services.

Technical Analysis

Louisiana's DOTD wanted the update of the Statewide Transportation Plan to be technically

grounded. That is, the basis of prioritizing investments and projects for inclusion in the Plan should be as technical as possible. A technical analysis will quantify miles of rough roads, number of deficient bridges, miles of congested roadways, number of aged transit vehicles, over-capacity runways, rail line obstacles, etc. Once there is a sound technical basis for considering a project, other factors can be introduced into the prioritization process (like geographic balance, equity, local support, etc.). There is nothing wrong with sound political support for a project, but the technical analysis should drive the process.

To that end, the DOTD directed the consultant team to be performance-oriented in its approach. Output from the DOTD's pavement and bridge management systems are important components of developing the investment strategies.

The Department also contracted to develop a Statewide Travel Demand Forecasting Model, which is a computerized model that simulates traffic movements, both now and in the future. The Louisiana Model is for highways only, but covers all major roadways (arterials) for both autos and trucks. The model is populated with current traffic counts, then it simulates future movements based on population growth, economic activity, and traffic generators. The model can show which roadway segments become congested and when. This is obviously a significant tool in prioritizing complex, high-cost congestion relief projects.

The model output became the primary indicator of priority for Louisiana's "Mega" highway projects — those high cost capacity enhancement projects that are of major interest.

Funding Scenarios

Another important aspect of transportation planning is to array priorities in line with the revenues that can reasonably be expected. In that way, the capital program does not become over-subscribed and, subsequently, irrelevant. All states face the issue of over-programming — it's okay to identify some additional projects that the DOTD would undertake with additional money or if some projects become delayed (many often do), but this must be a manageable number. Many states are unable to control their over-programming because of political pressure to add projects that they cannot afford. When this occurs, the Plan and capital program become irrelevant, as they cannot realistically be delivered. People's expectations rise ("well, the project is in the Plan"), only to be dashed when reality sets in.

Sound fiscal constraint was used as the foundation of this Plan. Four scenarios were developed, with allocations from programmatic categories identified for each. However, two of the four scenarios involve generating additional transportation revenues, and the DOTD has made it clear that it cannot proceed to implement these scenarios unless additional revenues are made available.

The four scenarios advanced in this Plan:

- **A** (baseline) — no additional revenues, but all current funding stays in place at existing levels. Some growth is assumed in each of the revenue types, which differentiates this scenario from a "status quo" scenario that would assume no growth. However, no adjustments for inflation are assumed to occur during the 30-year planning period.
- (baseline with adjustment) — this scenario is exactly the same as 1A except that inflation adjustments are made in the revenue stream in year 11 and again in year 21 of the 30-year planning period. This assumes the Louisiana Legislature, Congress, or both will take some unspecified action in the future to stabilize the buying power of the transportation program, as has happened historically. The Plan assumptions at year 11 and 21 restore lost buying power due to assumed inflation, resulting in about $2.9 billion (Base 2002 dollars) in additional revenues over 1A.
- ($250 million increase) — Scenario 2 assumes $250 million in new revenues in year 1 from State sources. The revenues in this scenario are also adjusted for inflation in years 11 and 21 (restore buying power), resulting in about $5 billion additional 2002 dollars for highways over Scenario 1B, and $1.6 billion (Base 2002 dollars) for non-highway modes.

- ($150 million increase) — Scenario 3 adds $150 million in federal highway aid to Scenario 2 revenues, which is also adjusted for inflation. This generates $3.4 billion in increased revenues over Scenario 2. An increase of approximately $90 million in federal transit aid is also included under this scenario.

Thus, the clear identification of these four scenarios and the programmatic implications of each are the cornerstone of this Plan. Each scenario is fiscally constrained, with specific program elements identified.

Multimodal Scope

Louisiana wanted this transportation plan to be truly multimodal. With the Advisory Councils leading the way, each mode was offered the opportunity to become a player at the financial table, depending upon the costs and potential benefits of each initiative. As the reader will see later in this document, the recommended Plan increases support for aviation, public transit, rail/highway crossings, ports, light rail, railroads, as well as highways. The issue of providing modal choices and efficiency was paramount.

In order to position the State to seize upon future federal funding opportunities, the DOTD also specified that new, stand-alone Freight Rail and Aviation Plans be prepared as input to the overall Plan. These modes had not had new inventories conducted for some time, so it made sense to incorporate this effort.

Consideration of Both Passengers and Freight

Transportation planning efforts have traditionally focused on the movement of people. While tourism, business trips, and personal travel are of the utmost importance, freight transportation is critical as well.

Louisiana has been a participant in several visionary transportation planning projects over the past few years. As part of the Southeastern Alliance engaged in the *Latin American Trade and Transportation Study (LATTS)*, Louisiana confirmed the importance of freight transportation to economic growth. The LATTS study also warned that states which do not accommodate increased trade will lose economic opportunity. This principle applies to domestic freight movement also.

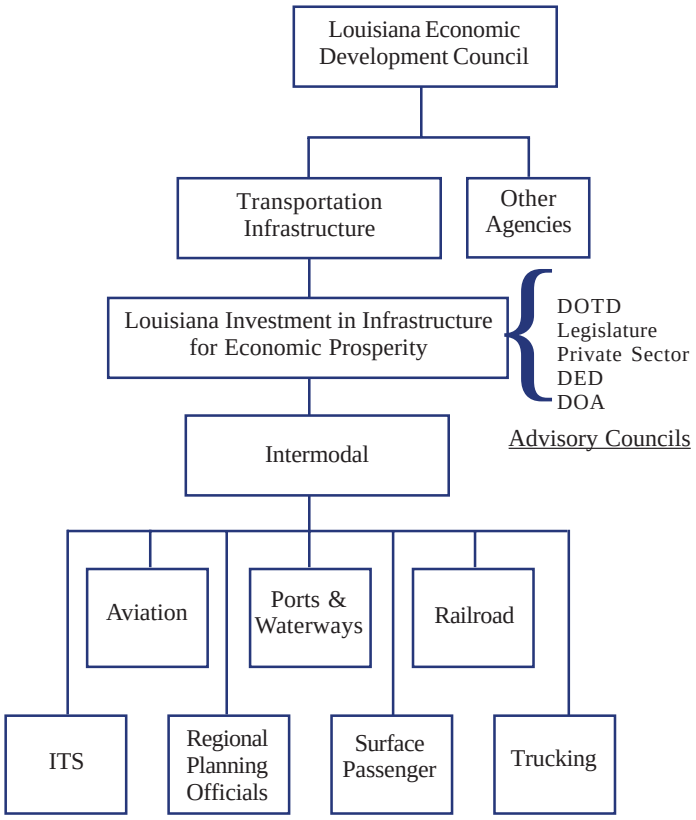
The recommendations of this Plan are truly multimodal in nature and are reflective of the way DOTD intends to do business over the next several decades.

PLAN DEVELOPMENT AND COORDINATION

As mentioned under the Customer Involvement section, the coordination and development of this Plan update was undertaken in close cooperation with the eight transportation Advisory Councils. The Advisory Councils are comprised of 20-30 individuals each, with many representatives from the private sector:

- Aviation
- Freight Railroad
- Intelligent Transportation Systems
- Ports and Waterways
- Regional Planning Officials (highways)
- Surface Passenger (transit, passenger rail, intercity bus)
- Trucking
- Intermodal

Each Council conducted sessions during the development of the Plan to identify issues important, but not limited to, its core area of transportation. Each Council began its deliberations with an examination of the Plans goals and objectives, followed by an examination of issues. These issues ranged from Statewide policy declarations ("support passenger rail") to DOTD initiatives ("hire staff for Rail Division") to capital recommendations. Each Council advanced its recommendations to the Intermodal Advisory Council. The Intermodal Advisory Council was charged with receiving the recommendations, hearing testimony from the various Councils, and then formulating a draft Plan. Once the Intermodal Advisory Council finalized the draft Plan, it was presented to the LIIEP Commission for consideration. The relationship among the Advisory Councils and the LIIEP Commission is illustrated below:



The LIIEP Commission, as called for in the enacting legislation (Act 437 of 2001), is composed of 13 members as follows:

- The governor or his designee
- An assistant chief of staff, appointed by the governor, from the Office of the Governor
- The secretary of the DOTD or his designee (Chair)
- The commissioner of the Division of Administration or his designee
- The secretary of the Department of Economic Development or his designee
- The president of the Louisiana Senate or his designee
- The speaker of the Louisiana House of Representatives or his designee
- The chairman of the Senate Transportation, Highways and Public Works Committee or his designee
- The chairman of the House Transportation, Highways and Public Works Committee or his designee
- The chairman of the Senate Commerce Committee or his designee
- The chairman of the House Commerce Committee or his designee
- Two commissioners, appointed by the governor, selected from the State at large who are representatives of Louisiana business

The final Plan reflects input from the Commission, as well as consideration of input from Statewide information meetings and a formal public review and comment process.

The Statewide Transportation Plan is built from the input of those that know the system best. The Plan, as it evolved through this process, became a vision of the Advisory Councils that shaped it.

RELATIONSHIP WITH OTHER PLANS

Louisiana: Vision 2020 is the State's long-term economic development strategy. Adopted in March 1999, *Vision 2020* establishes specific benchmarks designed to develop Louisiana into a "vibrant, balanced economy; a fully engaged, well-educated workforce; and

a quality of life that places it among the top ten states in the nation to live, work, visit and do business." The Plan is based upon three primary goals:

- Learning Enterprise — providing learning opportunities for the pursuit of knowledge
- Culture of Innovation — developing a diverse and thriving set of technology-driven industries
- Top Ten State — elevating Louisiana's standard of living for all citizens

Each goal has an identified set of objectives. Transportation is an important component of both Goals 2 and 3. Objective 2.3 states "To improve and sustain Louisiana's physical infrastructure, including highways, waterways, ports, and rail." The objective contains 22 separate benchmarks for infrastructure quality and extent, ranging from implementation of the TIMED Program to pavement/bridge condition, parishes with a public transportation system, rail/highway crossings with active warning devices, airport performance, and water port performance.

Objective 2.4, development of the State's information and telecommunications infrastructure, has three benchmarks related to transportation. Objective 3.3 ("to have safe homes, schools, and streets …") lists three safety-related benchmarks for transportation.

Even Goal 1 has implications for public transportation by providing access to education and job training and enabling all citizens to fully participate in the workforce.

The transportation objectives and benchmarks identified in *Vision 2020* are readily apparent as one reviews this document. The DOTD was ever mindful of the objectives established in *Vision 2020*, and the Plan's scenarios are crafted to implement these important benchmarks.

TRANSPORTATION SYSTEM ANALYSIS

Existing conditions on the transportation system were thoroughly reviewed to identify current needs. Forecasts were then made to provide a basis for identifying future transportation needs and improvements in the State. An overview of the system analysis is provided below.

Population and Employment

Future year forecasts serve as inputs into the Statewide travel demand model which is used to estimate future trip generation and traffic volumes for roadways and to evaluate highway improvement options. Forecasts utilized in this study were obtained from Woods & Poole Economics, who develop long-term economic and demographic regional projections for every county (parish) in the United States. Woods & Poole projections were only available to the year 2025 and therefore were extrapolated to the year 2030 based on projected growth rates. Projections for population and employment are shown in Table 1. Population in Louisiana is expected to grow from 4.5 million in 2000 to 5.4 million in 2030. This represents an annual growth rate of 0.6 percent. With regard to employment, over 900,000 jobs are expected to be added to the Louisiana economy by the year 2030, increasing employment from 2,416,492 in the year 2000 to 3,345,073 in the year 2030. This represents an annual increase of 1.1 percent.

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Arkansas	2,673,400	3,645,132	1,508,746	2,218,439
Louisiana	4,468,976	5,437,145	2,416,492	3,345,073
Mississippi	2,844,658	3,627,795	1,512,021	2,139,201
Texas	20,851,820	32,035,969	12,164,883	19,376,875

Source: U.S. Census Bureau, Woods and Poole, WSA.

Highways

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The DOTD has adopted several strategic goals pertaining to the condition of highway pavements. The goal for interstate highways is to eliminate pavements classified as "poor" or "very poor." The goal for State roads on the National Highway System (NHS) and those on the Statewide Highway System (SHS) is to hold the proportion classified as poor or very poor to no more than 5 percent at any given time. There is no strategic goal for the Regional Highway System (RHS), composed mostly of lower-order, low-volume rural and urban roads; therefore, the focus is on keeping the system from deteriorating.

An extensive analysis of pavement preservation needs was conducted using the DOTD Pavement Management System. A summary of the recommended pavement preservation investment levels is provided in Table 2.

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Interstate System	$55
National Highway System	$36
Statewide Highway System	$72
Regional Highway System	$56
T P R N	

Figures 1-4 display pavement condition information for each highway system at the recommended investment level.

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There are more than 13,000 bridges on public roads in Louisiana. Well over half are on State highways. Currently 3.4 percent of all deck area on State bridges is in poor condition, while 18.4 percent is projected to be in poor condition by the year 2030, as shown in Figure 5. The largest percentage of bridge deck area currently in poor condition consists of timber (25.5 %). Forty-eight percent of bridge deck area composed of timber is projected to be in poor condition by the year 2030. It should be noted that although current and projected bridge deck area composed of timber consists of the highest percentage in poor condition, timber bridge deck area only represents 1 percent of total deck area.

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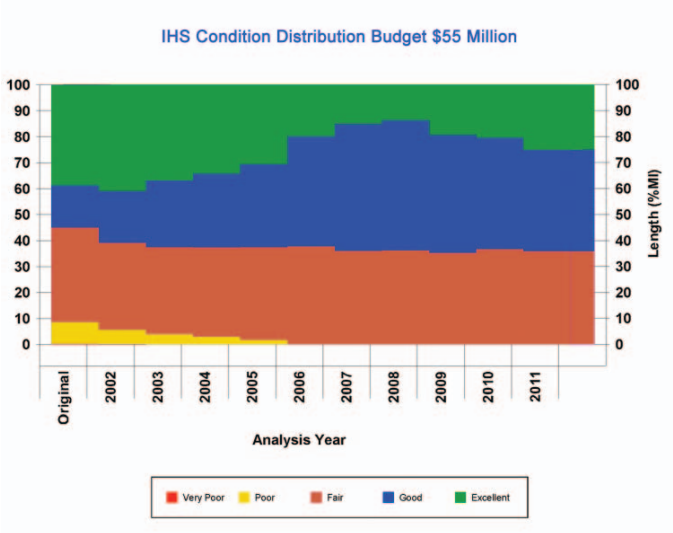

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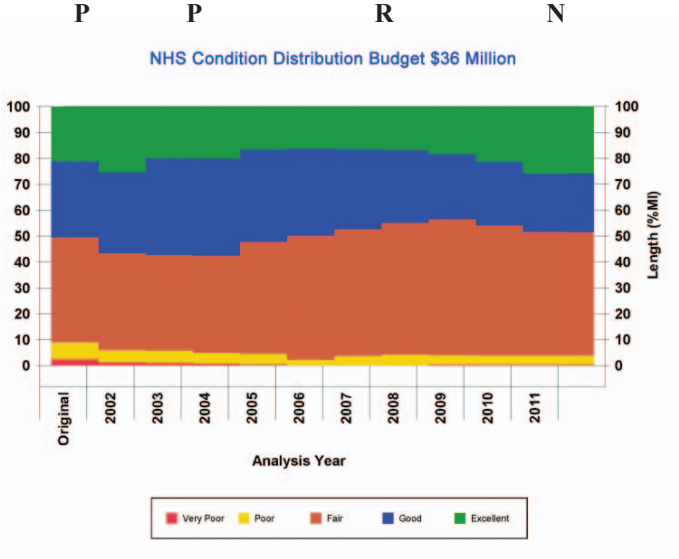

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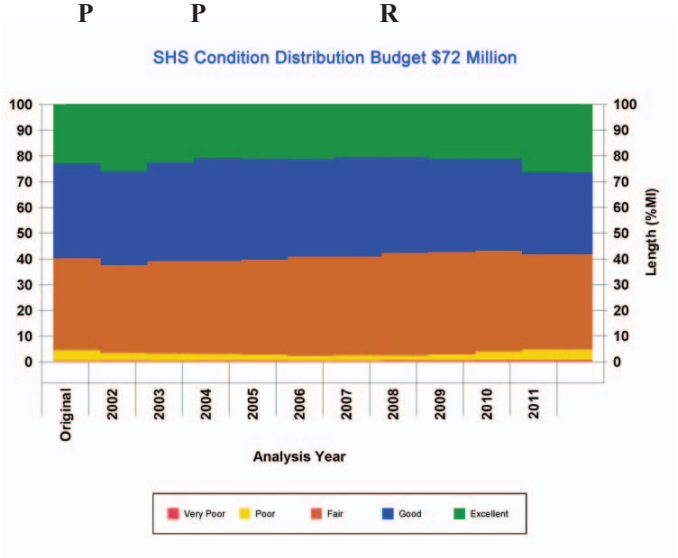

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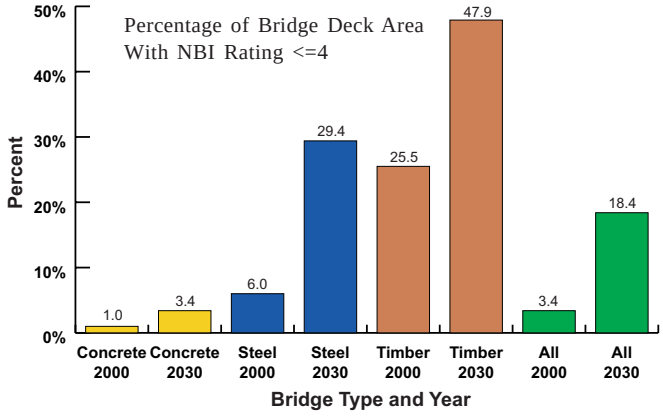

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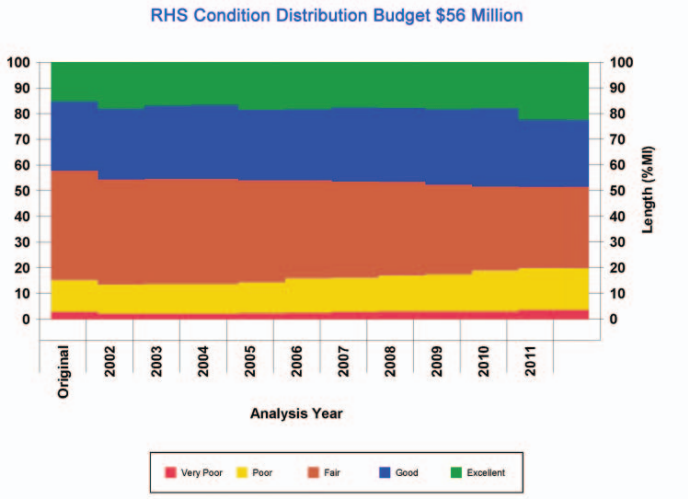

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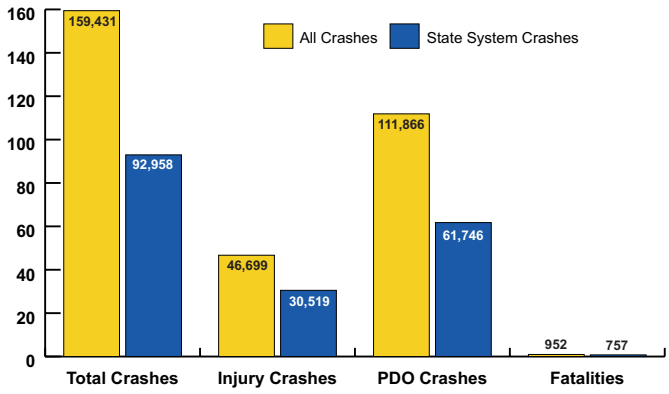

Based on 2001 traffic crash data, there were a total of 92,958 crashes along the State-maintained highway system in Louisiana. Of the total crashes, 693 were fatal (757 fatalities), resulting in Louisiana having the third highest fatality rate in the country. Injury crashes accounted for 33 percent of total crashes and resulted in 53,433 injuries. The largest percentage of crashes, 66 percent, were property damage only. Figure 6 shows total crashes in Louisiana versus the State system. Crashes along the State system accounted for 58 percent of total crashes in Louisiana. Fatalities along the State system accounted for 80 percent of total fatalities, while injury crashes and property damage only accounted for 65 percent and 55 percent respectively. The majority of crashes, 31 percent, consisted of rear-end collisions followed by other collisions and right angle collisions at 21 percent and 16 percent respectively.

Figure 7 displays current (2000) Level of Service (LOS). The majority of the highways in the State have a LOS of A-C, meaning they are operating below capacity, resulting in acceptable traffic operation. However, segments of several highways have a LOS of D-F, which is considered unacceptable on the rural highway system. The majority of capacity problems are occurring in urban areas where volume-to-capacity ratios are equal to or greater than 1.0 (traffic volumes exceeding highway capacity).

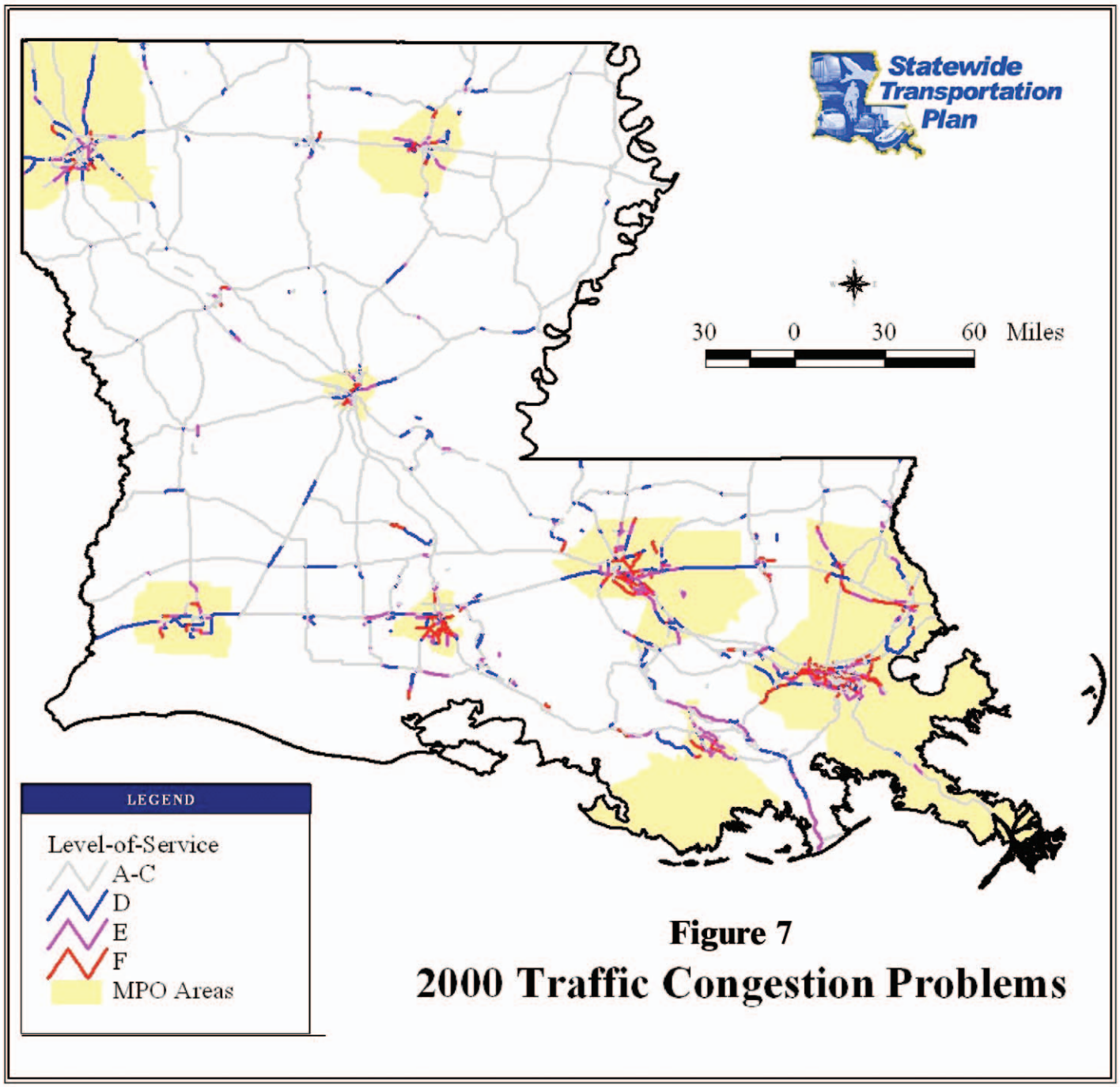

Figure 7
2000 Traffic Congestion Problems

Figures 8 and 9 displays LOS in the Year 2030 without and with the implementation of the TIMED projects respectively. Improvements in LOS occur along those segments of highways where TIMED projects are implemented. For example, segments of US 171 improve from a LOS D to a LOS A-C and segments of US 165 improve from a LOS D and E to a LOS A-C.

The Transportation Infrastructure Model for Economic Development is a long-range transportation plan that includes extensive improvements to the highway system. Louisiana's TIMED projects include improvements to US 61, US 90, US 165, US 167, US 171, LA 15, LA 3241 and other highways and bridges in the State. TIMED projects are funded by a dedicated four-cent per gallon fuel tax.

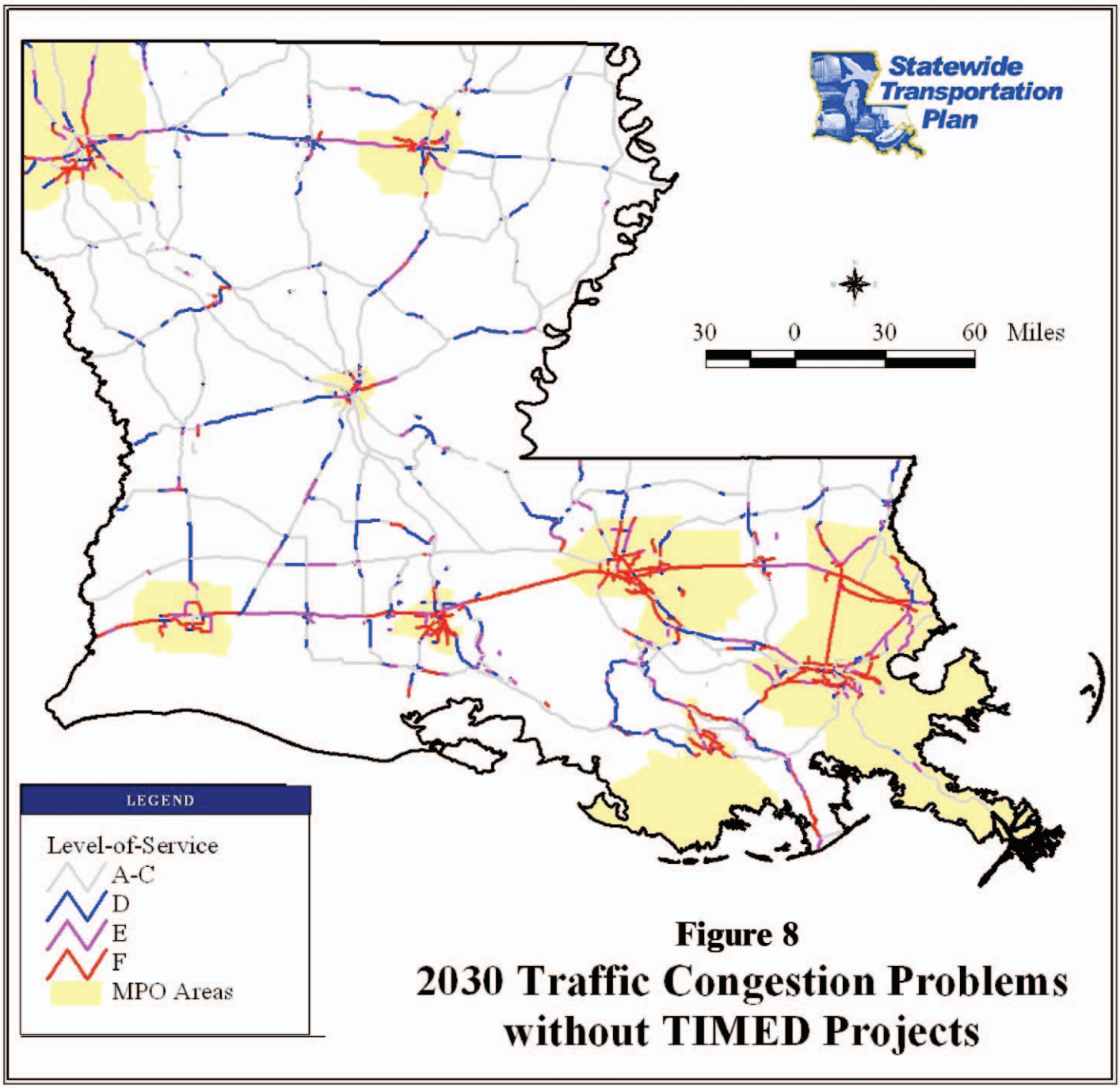

Figure 8
2030 Traffic Congestion Problems without TIMED Projects

In 2030, the congestion problems have spread from the urban areas into the rural areas of the State. On the rural highway system, most of the capacity problems are occurring along I-10 and I-12 where the majority of segments along these highways have a LOS of E or F. I-20 also has congestion problems as the majority of segments along this highway have a LOS between D and F. Sections of other roadways experiencing some capacity problems, with a LOS D or E include: I-49 (north of Lafayette), I-55, US 84, LA 3 (north of Bossier City), LA 1 (north and south), LA 2, LA 28 (west of Alexandria) and LA 70.

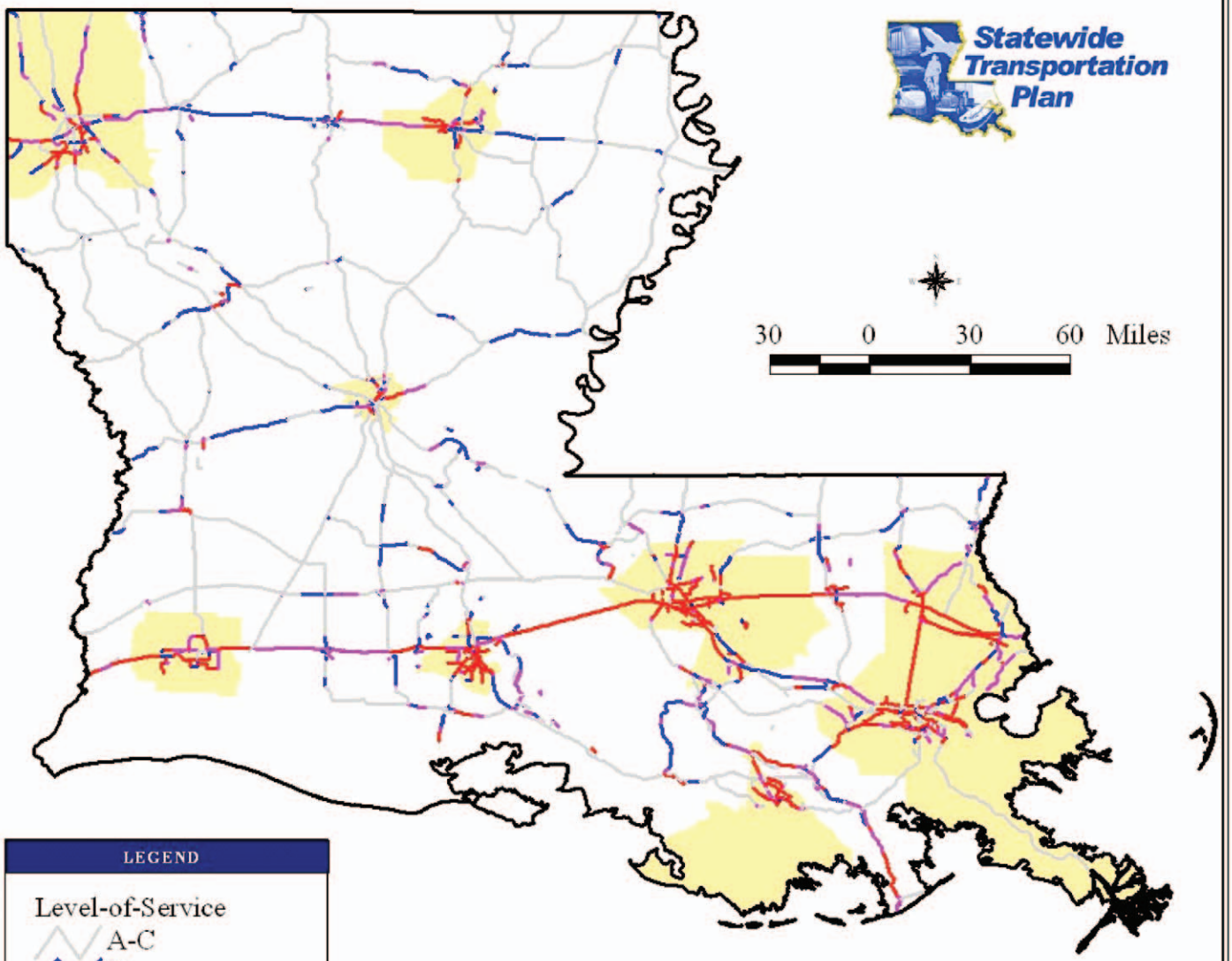

Figure 9
2030 Traffic Congestion Problems with TIMED Projects

In addition to conventional, commuter- and shopping-based automobile traffic, two classes of auto trip warrant special attention: Business Trips and Tourist Trips. These trips comprise a significant portion of long-distance travel in Louisiana. The Louisiana Statewide Travel Demand Model forecasts these trips as part of its overall function. Figures 10 and 11 depict daily business and tourist traffic forecasts on Louisiana highways.

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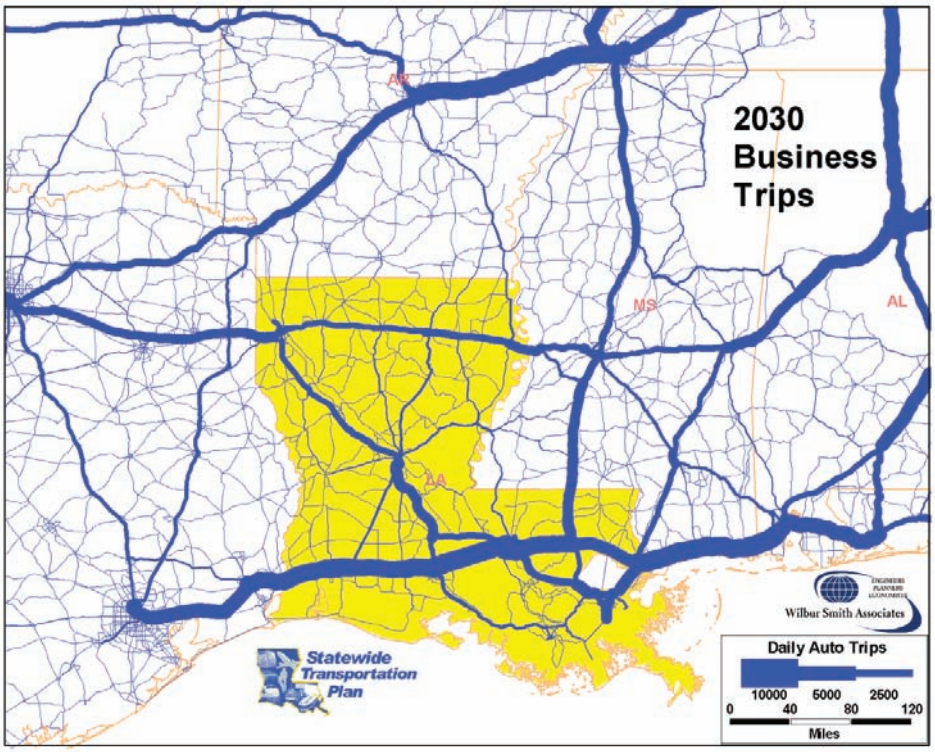

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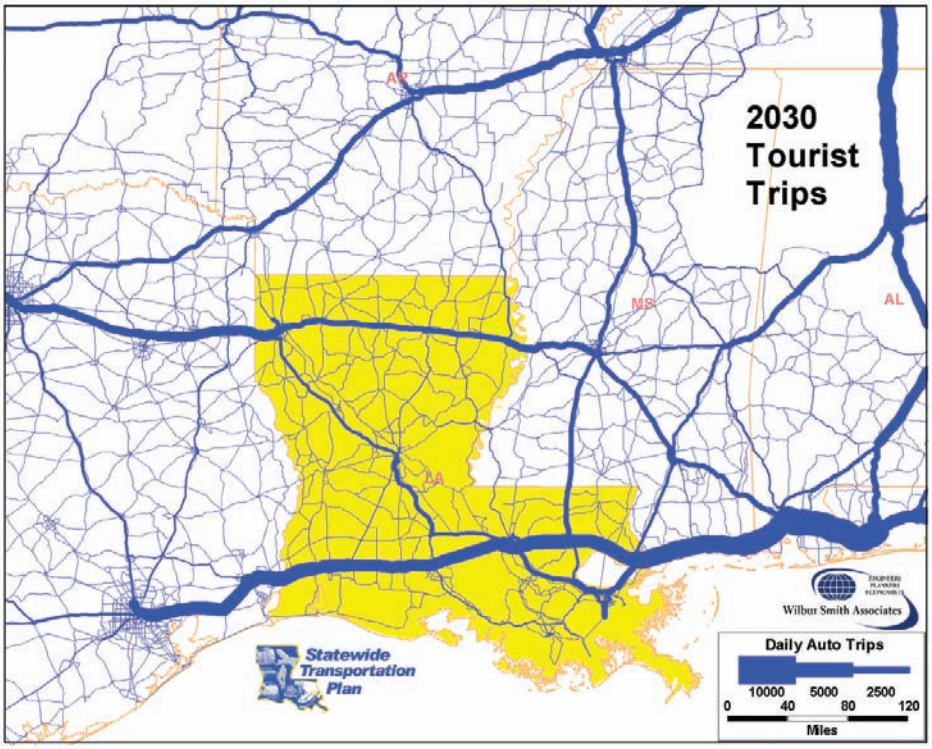

Trucking

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In the year 2000, 384 million tons of freight valued at $526 billion moved to, from, within, or through Louisiana by truck. This accounts for 45 percent of domestic tonnage by mode as shown in Figure 12.

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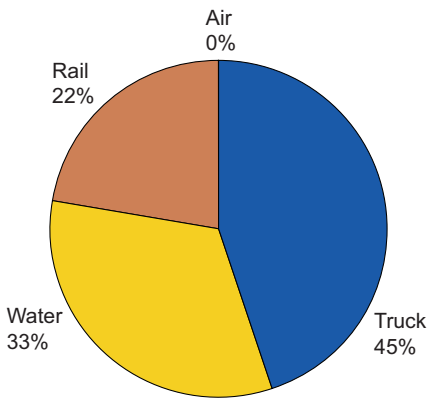

Source: TRANSEARCH 2000

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Truck traffic is projected to grow by 105 percent by the year 2030 (Figure 13). Inbound truck tonnage is projected to grow by 101 percent, outbound by 68 percent, intrastate by 157 percent, and through truck traffic by 67 percent. These growth rates are determined by a combination of commodity and geographical forecast factors. The large growth in intrastate truck volumes is driven by growth in food (191%), lumber (141%), clay/concrete/glass (227%), and secondary traffic (264%). These four groups make up half of the intrastate truck tonnage. The lower growth rate for outbound truck movements is largely due to a modest 31 percent increase projected for chemical shipments. Inbound trucks from Arkansas, Mississippi, and the Mountain Region (AZ, CO, ID, MT, NV, NM, UT, WY) are expected to increase by more than 150 percent, while inbound truck shipments from the Pacific Region (AK, CA, HI, OR, WA) are only projected to increase 26 percent. Arkansas and New England (CT, ME, MA, NH, RI, VT) are the only outbound regions expected to grow at more than 100 percent, while outbound truck tonnage to the East North Central (IL, IN, MI, OH, WI) and Mid Atlantic (DE, DC, MD, NJ, NY, PA, WV) show 32 percent and 29 percent growth, respectively.

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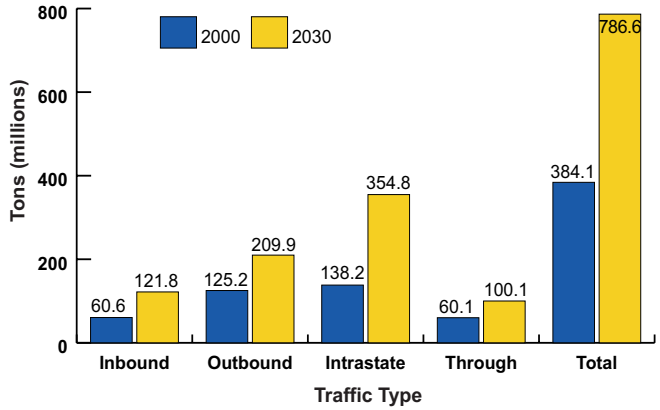

Source: TRANSEARCH 2000, DRI-WEFA Forecasts.

Aviation

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As shown in Table 3, the State's busiest commercial service airport is New Orleans International, with nearly 5 million enplanements in 2000. By 2030, this number is projected to grow to 14.4 million, an average annual

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Alexandria	134,000	247,000	432,100
Baton Rouge	435,200	494,600	687,500
Lafayette	189,200	341,500	589,300
Lake Charles	82,900	138,300	230,700
Monroe	126,900	153,100	235,700
New Orleans	4.94 m	8.63 m	14.4 m
Shreveport	379,600	447,500	707,000

** US Total Enplanement data for 2020 and 2030 based on WSA growth rate estimates.
Sources: FAA Terminal Area Forecasts, FAA Aerospace Forecast, FY 2000-2011, Airport Management Records, WSA.

increase of 3.6 percent over the 30-year period. Baton Rouge Regional Airport registered the next-highest number of enplanements in 2000, with just over 435,000. By 2030, this is expected to grow by an average of 1.5 percent, to 687,500.

The airport projected to have the largest growth in enplanements is Alexandria Regional Airport. With 134,000 enplanements in 2000, and 432,100 in 2030, this represents an average annual growth rate of 4.0 percent. Lafayette Regional Airport registered the next-highest projected average annual growth rate over the 30-year period (3.9%), with 189,200 enplanements in 2000 and 341,500 projected in 2030.

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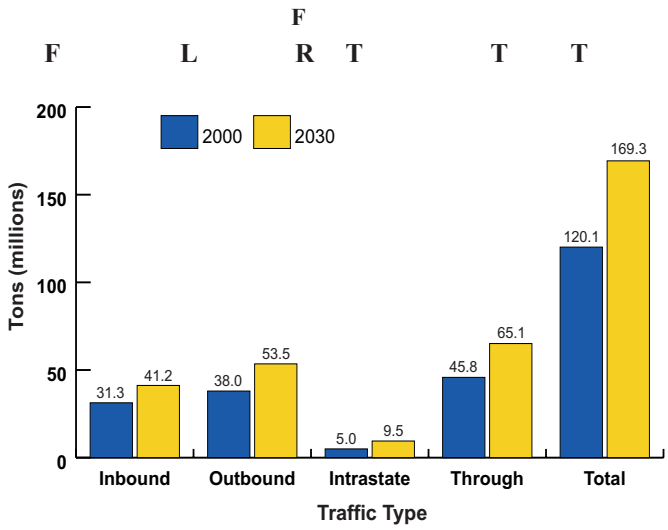
Air cargo tonnage was identified for those system airports that accommodate air cargo on a regular basis. Air cargo is measured in metric tons. One metric ton is the equivalent of 2,204 pounds. The volume of air cargo tonnage at Louisiana airports is projected to increase at an annual average rate of 3.9 percent. This is considered a moderate annual growth rate when in the early 1990s the air cargo industry was experiencing double-digit growth rates. The growth rate used for this analysis is based on Boeing's 1999 World Air Cargo Forecast and is applied throughout the forecast period. This growth rate is slightly lower than the US Gross Domestic Product (GDP) 1995-2000 annual growth rate of 4.4 percent. Projections of air cargo tonnage are presented in Table 4.

Freight Railroad

Figure 14 contains the forecasted rail tonnage for the year 2030. Overall, rail is projected to grow by 40 percent, though there is a great variance across commodities and regions. Food is projected to grow by



Source: TRANSEARCH 2000, DRI-WEFA Forecasts.

* As through rail tonnages were not provided through the TRANSEARCH database, the 2030 through tonnage shown in Figure 14 were derived from applying the proportion of through to total tonnage in 1999 (the year of the STB Waybill sample [which does include through rail tonnage] used in the Louisiana Statewide Rail Plan) to total tonnage in 2030. A new total tonnage value for 2030 was then calculated, reflecting the addition of through tonnage.

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A	A N		AA R					
Alexandria	Alexandria International	71	3.90%	73	91	114	142	222
Baton Rouge	Baton Rouge Regional	3,106	3.90%	3,211	3,995	4,972	6,191	9,707
Lafayette	Lafayette Regional	1,211	3.90%	1,252	1,558	1,938	2,414	3,785
Lake Charles	Lake Charles Regional	161	3.90%	166	207	258	321	503
Monroe	Monroe Regional	79	3.90%	82	102	126	157	247
New Orleans	New Orleans International	85,815	3.90%	89,271	111,090	138,337	172,362	70,245
Shreveport	Shreveport Regional	30,020	3.90%	31,039	38,610	48,054	59,838	93,819
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Sources: Airports Council International, airport management, WSA.

130 percent, chemicals by 35 percent, miscellaneous mixed shipments by 23 percent, and clay/concrete/glass by 180 percent. Commodities moving by rail and expecting a decline from current volumes include farm products (-45%) and coal (-11%). The largest growth in inbound rail traffic is expected to come from Mississippi (112%), with growth in inbound also from New England (101%), East South Central (74%), and Arkansas (71%). A decline of 15 percent is anticipated from the West Central Region (IA, KS, MN, MO, NE, ND, OK, SD) due to a reduction in grain moves. Outbound growth is expected for all regions with Arkansas (103%), West Central (75%), Texas (70%), and Mountain (60%) being the fastest growing. Intrastate rail tonnage is forecast to grow by 91 percent.

Ports and Waterways

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The forecasts for domestic waterborne freight are contained in Figure 15. Overall, tonnage is projected to grow by 44 percent between 2000 and 2030. This includes growth of 11 percent for inbound, 46 percent for outbound, and 124 percent for intrastate. Intrastate growth is fueled by a projected 97 percent growth in petroleum tonnage. Inbound and outbound growth is slowed by a 2 percent projected increase in agriculture/grain and an 11 percent increase in coal.

The forecasts for international waterborne traffic are given in Figure 16. A very robust increase in international trade is projected, with imports increasing by 195 percent and exports growing by 129 percent.

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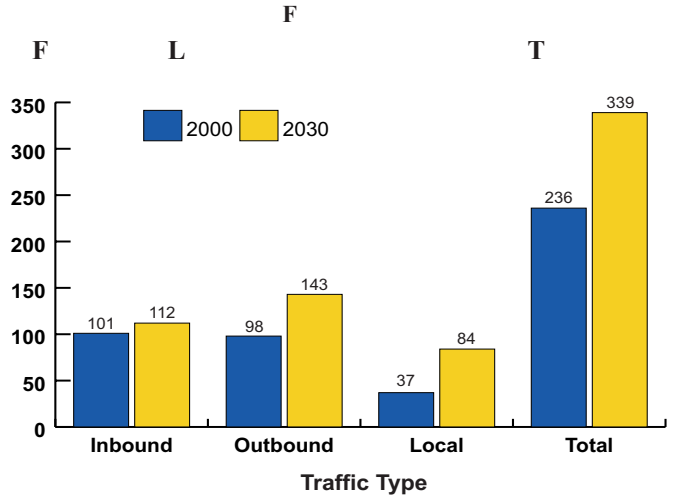
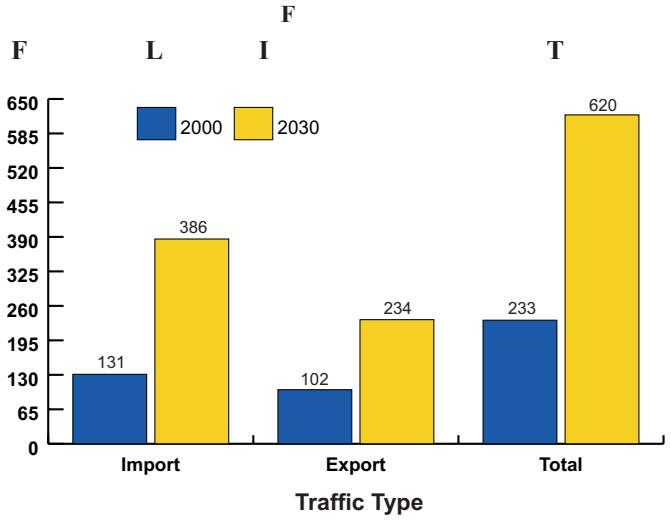
Figure 17 illustrates projected container shipments and capacities at the Port of New Orleans. Container handling capacities at the Port of New Orleans, (Napoleon Terminal Phase I and Phase II) are adequate to facilitate short and medium term needs. Timing for implementation of Phase II expansion depends on how long and to what extent container operations will continue at the France Road terminal. It is expected that these operations will be phased out by 2010 or possibly sooner. In the latter case, the Port of New Orleans may experience capacity deficits as early as 2005. Accordingly, Phase II of the Napoleon Terminal needs to be initiated without delay. In the year 2015, the utilization of the Port of New Orleans container terminal will amount to about 96 percent. This indicates that additional container handling capacities will have to be created in the Lower Mississippi River in the long term to



Source: TRANSEARCH 2000, DRI-WEFA Forecasts.



Source: P.I.E.R.S. 2001, LATTS †

†The international forecasts factors were taken from the Latin America Trade and Transportation Study (LATTS).

accommodate the projected demand. This new terminal should eventually provide additional capacity equal to both phases of the Napoleon Terminal.

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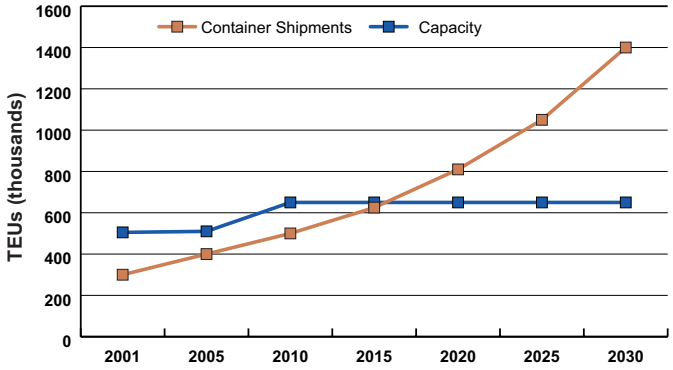

Surface Passenger

In 1999, the State adopted *Louisiana: Vision 2020* as its economic development master plan. *Vision 2020* has three primary goals and nearly 30 objectives. Progress is measured through benchmarks, some of which are directly related to transportation. Benchmark 2.3.7 is especially focused on surface passenger transportation, and is summarized in Table 5.

The number of transit systems in the table includes both urban and rural systems. Urban systems include fixed route bus, streetcar and demand response services. *Vision 2020* calls for every parish to have a transit system by 2018. However, the number of transit systems has declined to 39 (as of 2001): 10 urban and 29 rural systems (there are four parishes who have both an urban and rural system). Currently, there are 29 parishes, primarily rural, without a system, many of them are located in the northeast part of the State. The total population in parishes without transit is 1,014,447 (2000 census). The parishes without rural or urban transportation systems are shown in Figure 18.

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) is a broad term that describes a wide variety of technology-driven techniques to improve traffic and transportation operations. Implementation of ITS improvements can improve utilization of existing transportation networks, and enhance their efficiency and safety.

DOTD has developed a Statewide ITS plan. Implementation of this plan will cost approximately $17 million annually for 10 years (the Fiscal Year 2003 budget for ITS is $10 million). This cost includes the implementation of a Commercial Vehicle Information Systems Network (CVISN) in Louisiana. CVISN comprises a subset of ITS technologies that focuses on maximizing the efficiency of commercial vehicle operations.

While highly effective at increasing the operational efficiency of transportation networks, ITS alone cannot overcome the current or projected congestion problems on Louisiana's highway system.

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N	42	47	52	58	64

Source: *Vision 2020 Master Plan for Economic Development.*

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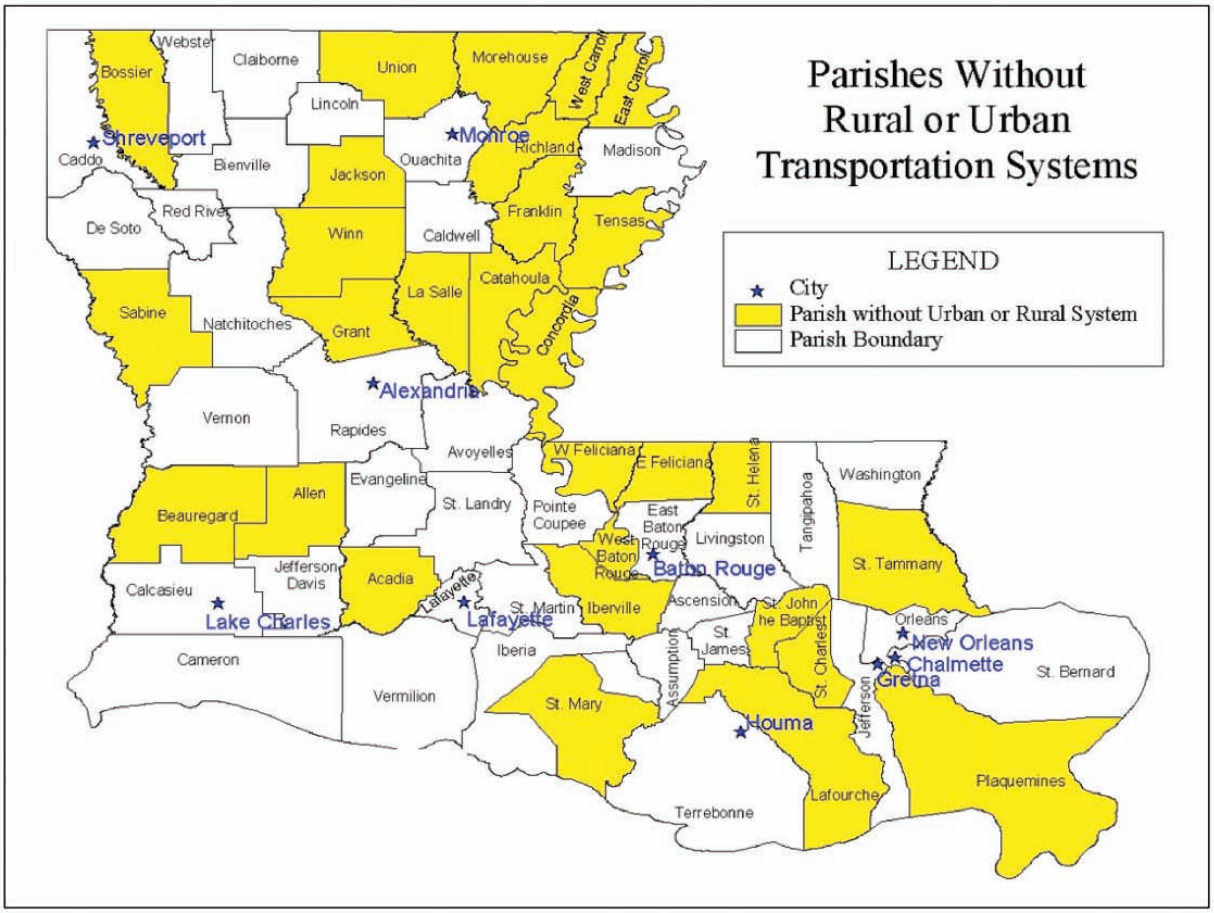

Bicycle and Pedestrian

One of the provisions of TEA-21 is to make bicycling and walking a safer and more viable way of travel. States have been using the funding available through the Federal Transportation Enhancement Program to make considerable improvements to their bicycle and pedestrian infrastructure. Louisiana has only recently begun to address these issues. DOTD has a staff person who coordinates bicycle projects at the State level; Metropolitan Planning Organizations (MPOs) and various municipalities have been increasing their efforts to acquire TEA-21 Enhancement Funds to provide bicycle and pedestrian facilities in their areas. Stronger efforts should be made to acquire funds available for bicycle and pedestrian uses and to continue efforts at providing the necessary infrastructure. Improving bicycle and pedestrian facilities relates to a planning factor of TEA-21; protecting and enhancing the environment, promoting energy conservation, and improving quality of life.

An important element in improving bicycle and pedestrian facilities in the State is the consideration of bicycle and pedestrian infrastructure, where feasible, as an integral part of the design process for highways and transit projects. In other words, consideration of those for whom bicycling and walking are their main forms of transportation should be routine procedure. For many states, this is already standard policy. For example, State

highway projects should consider the feasibility of wide shoulders for use by bicycles; the replacement of bridges should consider dedicated bike lanes and pedestrian walkways; transit projects should consider getting bicycles onto buses or improving bicycle facilities at transit hubs. Doing so might encourage more Louisiana citizens to make trips by bicycle or on foot.

RECOMMENDATIONS

As discussed earlier, the Louisiana Statewide Transportation Plan has been developed around four revenue scenarios. Two of the four scenarios involve generating additional transportation revenues; these scenarios cannot be implemented unless additional funding is made available.

The financial baseline referred to as Scenario 1A assumes some growth in revenues, expenses and inflation, but also assumes no other transportation revenues will be enacted over the life of the Plan period. It is from this baseline that other financial scenarios have been developed, along with the programmatic decisions that formulate a Plan. It is widely believed that Scenario 1A is very unlikely, as legislative bodies have historically taken actions to provide new revenues at key points. However, the Scenario 1A baseline identifies the basement, or lowest expected revenue availability, over the 30-year Plan horizon.

Gross federal and State highway funds expected to be available under Scenario 1A total $21.54 billion, which is equivalent to $12.96 billion in base 2002 dollars. The Scenario 1A for highways targets these resources toward pavement preservation ($6.55 billion), bridge preservation ($3.46 billion), safety ($1.25 billion), and operations ($1.1 billion), leaving just $870 million for small capacity projects ($125 million per year for seven years, with none thereafter). This essentially reduces the DOTD to a maintenance agency, as virtually no revenues are available for modernization or expansion. This is in keeping with the preservation goal for infrastructure and recognizes the importance of preserving the transportation system.

With no increase in safety funding, no progress can be expected against reducing Louisiana's fatality rate (third highest in the nation), and congestion would continue virtually unchecked. Although funding is continued to implement the TIMED program, the economy would certainly suffer as no revenues would be available to expand the transportation system in support of business and industry.

Scenario 1A makes no advances for the non-highway modes, though the Aviation and Port Priority programs are continued at current levels. Thus, the State would not be able to finance improvements to airports, railroads, public transportation, and water ports to accommodate the expected growth in tourism, trade, and the transit-dependent population. Louisiana can expect to lose market share in domestic and international trade to competing states and suffer from a decline in transportation services to the poor, elderly, and disabled.

The economic outlook under Scenario 1A is bleak, to say the least. Louisiana could not expect to achieve Top Ten State status with transportation investment at this level. Virtually none of the benchmarks identified under *Vision 2020* for transportation would be met.

Scenario 1B is a slightly more realistic view of the future, even assuming no significant increase in transportation revenues. Under Scenario 1B, it is assumed that adjustments would take place twice during the 30-year period that restore the lost buying power of transportation revenues. Thus, Scenario 1B assumes an infusion of new revenue in years 11 and 21 that essentially "net out" the effects of inflation over the Plan period. The base year highway funding increases by nearly $3 billion over the 30 years, which allows the State to implement some modest capacity improvements. Under Scenario 1B, the level of investment in preservation, operations, and safety is identical to Scenario 1A.

The increase in small capacity funding allows the DOTD to implement a $125 million annual capacity expansion program for the first seven years, decreasing to about $100 million annually thereafter. Thus, Scenario 1B approximates the current capital program and extends it for the 30-year period.

There is a host of no-cost recommendations that are to be implemented at the Scenario 1 level. They require little in the way of new money and are part of the individual Advisory Council reports.

Significant additional transportation revenues are assumed under Scenario 2. This increase amounts to $250 million annually in State-generated revenues beginning in year 1 and continuing throughout the period. Several examples of how such revenue could be raised are presented in Chapter 8 of the main Plan document. In addition, new revenues to offset inflation (lost buying power) are added to the revenue stream in years 11 and 21, similar to Scenario 1B. The net effect of this assumption is to add $6.6 billion (base year) to the revenue stream, with the following highlights:

- Increase pavement preservation to $235 million annually; this 47 percent increase allows the DOTD to keep pace with pavement deterioration and improve all roadways in poor condition on the Interstate system and most on the NHS, and Statewide systems.
- Increase bridge preservation funding to $119 million annually, allowing the DOTD to keep pace with bridge deterioration for both on-and off-system bridges.
- Increase the safety program to $75 million annually — this nearly doubling of the safety effort will allow the State to make significant safety advances.
- Increase operations by $9 million annually — enables more attention to flooding problems, traffic signal replacement, rest area rehabilitation, etc.
- Target an additional $70 million over ten years to increase the ITS program — allows implementation of the ITS Plan, which focuses on early action traffic flow and information programs.
- Create a $20 million/year Intermodal Connector program, which enables the DOTD to implement projects that improve access to ports, airports, etc.
- Fund small capacity projects at $125 million per year through 2010 and then $85 million per year thereafter.
- Create a Jurisdictional Transfer program, which identifies highways that should logically be under local jurisdiction and provides resources for their continued maintenance once transferred off the State system.
- Implement Priority A "Mega" highway projects, which were selected through a process that considered future travel demand, as estimated by the Statewide Travel Demand Model, economic impacts, safety, etc. In this way, the most needed projects are implemented first.
- Provide $1.6 billion over 30 years to enact the following programs and projects for other modes:
  - $6 million annually to help local agencies match Federal Transit Authority funds, which represents 25 percent of the total cost, with the balance coming from federal and local sources.
  - $175 million to help finance the proposed light rail connection between New Orleans International Airport and downtown New Orleans — this would be combined with $200 million in Federal New Starts money and $25 million from local agencies — the local agencies would operate and maintain the system once constructed.
  - Establish a One-Stop Truck Center in North Louisiana ($20 million total — $5 million construction and $500,000 annual operating costs).
  - Provide $5 million annually to establish State funding assistance for railroads — to address bottlenecks, "286,000 pound" improvements, upgrading lines to help with agricultural shipments, and circuitry upgrades, and to match federal passenger rail funding, if available.
  - $5 million annually for grade separating highways and railroads at key crossing locations.
  - Increase Louisiana's Port Priority program by $15.5 million annually — gradual increase to $40 million annually by 2008, then protected from inflation.
  - Implement a Statewide Maritime Marketing program (take-down from the Port Priority program) — $500,000 annually.
  - Implement new Aviation Marketing program — $2 million annually to attract additional air service to the State.
  - Increase State funding for the Aviation Infrastructure program by $10 million annually.
  - Provide State support for a new runway at New Orleans International Airport — $100 million State, to be added to $200 million federal and $150 million local funding.

Scenario 3 implements another layer of new revenues for transportation in Louisiana, assuming that more federal funding will flow Louisiana's way. This could happen through the implementation of new user fees at the federal level, increasing the overall level of transportation funding, Louisiana getting a larger share of federal funding through changes in apportionment formulas or a shift to help donor states, or a combination. Regardless of the mechanism, an additional $150 million annually in federal highway funding, adjusted for inflation at year 11 and 21, was assumed for Scenario 3. This results in an additional $3.37 billion being available over the 30-year period, which is recommended to implement Priority B "Mega" highway projects.

The recommended transportation Plan for Louisiana is identified below for each mode of transportation.

Highways

Transportation improvements pertaining to highways are summarized in Tables 6a, through 6c. Many of the policy-related recommendations, including increasing funding for pavement and bridge preservation, highway safety and highway operations are identified in funding Scenarios 1A and 1B (Table 6a). The "Megaproject" improvements are included in funding Scenarios 2 and 3. For purposes of this planning effort, a Megaproject is defined as a high-cost project or a project of high significance when viewed from a Statewide perspective. Priority A Megaprojects (Table 6b) which scored and ranked high in both the quantitative (travel demand model results) and qualitative (plan goals and objectives) evaluation, were considered highest priority and included in funding Scenario 2. Priority B Megaprojects (Table 6c), which scored and ranked high in either the quantitative or qualitative evaluation were included in funding Scenario 3. Priority C and D Megaprojects (Tables 6d and 6e) are included in the Plan but are not included in funding Scenarios 1, 2, or 3.

The recommended improvements for Priority A, which include a total of 22 projects with an estimated total cost of $3.1 billion, are shown in Figure 19. Projects in this scenario include improvements along I-49 North, I-49 South, I-10, I-20, US 61, LA 1, LA 23 and LA 28

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1A	Development and implement a Statewide Access Management Policy	$0.20
1A	Develop and implement a Statewide Traffic Impact Policy	$0.10
1A	Allow Local Option Gas Tax (exempt diesel)	
1A, 1B, 2, 3	Support regional transportation planning initiatives in rural areas on a test basis	$0.1/yr.
1A, 1B, 2, 3	Increase funding for Pavement Preservation	1A/B: $218/yr., 2/3: $235/yr.
1A, 1B, 2, 3	Increase funding for Bridge Preservation	1A/B: $115/yr., 2/3: $119/yr.
1A, 1B, 2, 3	Maintain regular capacity Enhancement Program through 2010	Existing Revenues
1B, 2, 3	Continue regular capacity Enhancement Program beyond 2010	$85/yr - $100/yr.
2, 3	Increase funding for Highway Safety	$75/yr.
2, 3	Increase funding for Highway Operations	$35/yr.
2, 3	Implement the Statewide ITS Plan	$17/yr. (for 10 yrs.), then 10/yr.
2, 3	Create Intermodal Connector Program to improve access to ports, airports, etc.	$20/yr.
2, 3	Transfer 5,000 miles of State highways to local governments	$35/yr*

*Taken from pavement preservation funding.

West. The recommended improvements for Priority B, which include a total of 11 projects with an estimated total cost of $2.9 billion, are shown in Figure 20. Projects in this scenario include improvements along I-49 South, I-69, US 165/US 425 Bypass, US 167, US 190, LA 1 South, LA 511, LA 3139, the Pontchartrain Causeway and other improvements. Note: Project ID Numbers are not assigned or listed in any order of priority.

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P I	**A**		**L**	**I T**	**T P**	**P**
LSTP - 001	Shreveport	I-49 North	I-220 to AR Line	New 4-lane Freeway	$363	$363
LSTP - 002a	I-49 Lafayette	I-49 South	Lafayette Urban	Upgrade to Freeway	$350	$350
LSTP - 004*	Lafourche Parish	LA 1 South	Port Fourchon to US 90	Phase 1 (Leeville Bridge)	$125	$115
LSTP - 005*	Houma	N-S Hurricane	US 90 to LA 3127 Route	Build New 2 Lanes	$150	$150
LSTP - 011	Leeville/Alexandria	LA 28 West	US 171 to Alexandria	Widen 2 to 4 Lanes	$80	$40
LSTP - 020a	Shreveport	I-20	TX Line to I-220 W, Red River Bridge, LA 3 to I-220 E	Widen 4 to 6 Lanes	$175	$175
LSTP - 020b	Monroe	I-20	LA 546 to LA 594	Widen 4 to 6 Lanes	$150	$150
LSTP - 020c	Sulphur/Lake Charles	I-10	TX Line to Sulphur	Widen 4 to 6 Lanes	$80	$80
LSTP - 020d	Lake Charles	I-10	I-210W to Ryan St.	Replace Bridge/ Widen Road	$200	$200
LSTP - 020e	Lake Charles/Iowa	I-10	US 171 to US 165	Widen 4 to 6 Lanes	$50	$50
LSTP - 020f	Lafayette	I-10	LA 93 to Louisiana Ave.	Widen 4 to 6 Lanes	$60	$60
LSTP - 020g	Baton Rouge	I-10	I-110 to I-12	Widen 6 to 8 Lanes	$250	$250
LSTP - 020h	Baton Rouge	I-10	I-12 to LA 22 (includes new interchange bet. LA 42 and LA 73)	Widen 4 to 6 Lanes	$185	$145
LSTP - 020i	Baton Rouge	I-12	O'Neal to Denham Springs	Widen 4 to 6 Lanes	$60	$60
LSTP - 020j	New Orleans	I-10	Williams Blvd. to Causeway Blvd.	Widen 6 to 8 Lanes	$85	$0
LSTP - 020k	New Orleans	I-10	Bullard Ave. to Elysian Fields Ave.	Widen; implement ITS	$185	$185
LSTP - 20l	Hammond	I-12	LA 16 to I-55	Widen 4 to 6 Lanes	$150	$150
LSTP - 20m	Slidell	I-12	LA 21 to I-10/I-59	Widen 4 to 6 Lanes	$150	$150
LSTP - 028	New Orleans	LA 23	Belle Chase Tunnel	Build 4-Lane Bridge	$50	$50
LSTP - 031	St. Francisville	US 61	Thompson Creek to Baines	Widen 2 to 4 Lanes	$40	$20
LSTP - 034	Baton Rouge	US 61 (Airline)	Gonzales to US 190 (Florida Blvd)	Widen 4 to 6 Lanes	$60	$40
LSTP - 047	New Orleans	I-10 Twin Span	US 11 to North Shore - Lake Pontchartrain	Widen 4 to 6 Lanes	$100	$100
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* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.

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LSTP - 002b	Lafayette/New Orleans	I-49 South	Lafayette to I-310	Upgrade to Freeway	$865	$865
LSTP - 003*	Shreveport	I-69	US 171 to 1-20	New 4-Lane Freeway	$380	$380
LSTP - 004*	Lafourche Parish	LA 1 South	Port Fourchon to US 90	Phase 2 (Four-Lane)	$545	$545
LSTP - 006*	New Orleans	LA 3139 (Earhart)	Hickory, Orleans Parish Line	Add Ramps at Each Limit to Airline Hwy. (US 61)	$125	$125
LSTP - 012*	Monroe	New Bridge	Ouachita River in Monroe Metro area	New Bridge	$50	$50
LSTP - 013	Bastrop	US 165/US 425 Bypass	US 425 to US 165	Build 4 Lanes	$20	$20
LSTP - 024	Abbeville/Esther	US 167	Abbeville to Esther	Build/Upgrade 0/2 to 4/2 Lanes	$25	$25
LSTP - 038	Shreveport/Bossier City	LA 511 (Jimmie Davis Bridge)	70th St. to Barksdale Blvd.	Replace 2-Lane Bridge with 4-Lane Bridge	$50	$50
LSTP - 041**	New Orleans	Pontchartrain Causeway	US 190 to I-10	Widen 4 to 6 Lanes/Transit	$425	$425
LSTP - 044	St. Tammany Parish	US 190	Pontchartrain Causeway to US 11	Widen 2 to 4 Lanes	$100	$75
LSTP - 051	Baton Rouge	North Bypass	I-10 to I-12	Build/Upgrade to 4-Lane Interstate Standards	$800	$800
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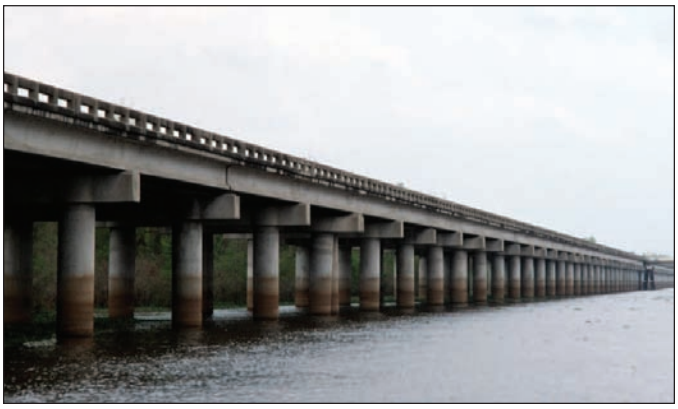
* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.
** Cost of LSTP 041 not included in total cost. This project is assumed to be totally financed by Toll Authority funds.



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LSTP - 002c	New Orleans	I-49 South	New Orleans Urban (I-310 to W. Bank Expwy)	Upgrade to Freeway	$750	$750
LSTP - 003*	Shreveport	I-69	TX to I-49/I-20 to AR	Build 4-Lane Freeway	$600	$600
LSTP - 005*	Houma	N-S Hurricane Route & LA 3127	LA 70 to LA 641 US 90 to LA 3127	Widen 2 to 4 Lanes Add Other 2 Lanes	$250	$250
LSTP - 006*	New Orleans	LA 3139 (Earhart)	Hickory to I-310	Build New 6-Lane Freeway	$300	$300
LSTP - 8a	Baton Rouge	LA 1	LA 30	New Bridge	$500	$500
LSTP-010*	West Central LA	LA 6/US 84	Prioritization Tier I Projects from the El Camino Corridor Masterplan	Widen 2 to 4 Lanes	$100	$100
LSTP - 017	SW Louisiana	US 190/LA 12	TX to Basile	Widen 2 to 4 Lanes	$230	$230
LSTP - 018*	W Central Louisiana	LA 117	LA 8 to Military Training Ground	Reconstruct 2 Lanes with Full Shoulders	$20	$20
LSTP - 019	Rustin/Grambling	LA 149 & Tarbutton Rd. Interchange (No Frontage Rds)		Interchange/Widen	$30	$30
LSTP - 022*	NW Louisiana	LA 1 (Tri-State Corridor)	LA 169 to LA 538	Widen 2 to 4/5 Lanes	$40	$40
LSTP - 023	E Central Louisiana	US 84	Archie to Ferriday	Widen 2 to 4 Lanes	$80	$55
LSTP - 027	Houma	LA 30/40	Houma Tunnel	Build 4-Lane Bridge	$50	$50
LSTP - 033	Central Louisiana	LA 28 East	Alexandria to Archie	Widen 2 to 4 Lanes	$85	$79
LSTP - 037	N of Baton Rouge	LA 67 (Plank Rd)	Baker to Clinton	Widen 2 to 4 Lanes	$70	$70
LSTP - 045	Lafayette	Lafayette Beltway	I-10 to US 90	Build 4-Lane	$300	$300
LSTP - 046	W Baton Rouge Parish	I-10 - LA 1 Connector	I-10 to LA 1	Build 4-Lane	$75	$75
LSTP - 048a	Gonzales	Industrial Access Corridor	I-10 to LA 30	Build 4-Lane	$35	$35
LSTP - 049	Alexandria	McArthur Drive	I-49N to I-49S	Upgrade to Freeway	$60	$60
LSTP-053	Shreveport	I-49	I-20 to I-220	New 6-Lane Freeway	$150	$150
LSTP-054	West Central LA	LA 8	TX to US 171	Widen 2 to 4 Lanes	$65	$65
LSTP-055	New Orleans	I-12	I-55 to LA 21	Widen 4 to 6 Lanes	$125	$125
LSTP-056	W. of Baton Rouge	US 190	I-49 to Baton Rouge Bypass	Upgrade to Freeway	$500	$500
LSTP-057	NW of Lafayette	US 165/US 190	I-10 to US 190 US 190 to I-49	Upgrade to Freeway	$650	$650
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*Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.

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LSTP - 007	New Orleans	Florida Ave. Expressway	I-10 to LA 47	Build 6-Lane Freeway	$350	$350
LSTP - 009	Alexandria/Bogalusa	Zachary Taylor Blvd.	I-49 to I-59	Widen 2 to 4 lanes	$970	$970
LSTP - 010*	West Central LA	LA 6/US 84 El Camino	TX to Archie	Widening 2 to 4 Lanes	$384	$384
LSTP - 012	Monroe	Ouachita Loop	I-20 to I-20	Build 2 Lanes	$245	$245
LSTP - 014	NW Louisiana	US 371 (Bi-State Corridor)	LA 6 to AR Line	Widen 2 to 4 Lanes	$295	$295
LSTP - 016	NE Louisiana	US 65	LA 15 to AR Line	Widen 2 to 4 Lanes	$225	$225
LSTP - 018*	W Central Louisiana	LA 117	LA 8 to LA 6	Widen 2 to 4 Lanes	$130	$130
LSTP - 021	Monroe/Lake Charles	US 165	I-20 to I-10	Upgrade to Freeway	$1,000	$1,000
LSTP - 022*	NW Louisiana	LA 1 (Tri-State Corridor)	LA 173 to AR Line	Widen 2 to 4 Lanes	$105	$88
LSTP - 025	Baton Rouge	LA 408 (Hooper Rd.)	LA 37 to LA 16	Build 2-Lane	$35	$35
LSTP - 029	New Orleans	Chalmette Bridge/ I-510	MRGO to Westbank Expressway	Extend Fwy; Build new Bridge	$1,000	$1,000
LSTP - 032	Natchitoches	East Bypass	LA 1 to LA 6	Build 2-Lane	$20	$20
LSTP - 048b	Gonzales	Industrial Access Corridor	LA 30 to LA 942	Build 4-Lane	$35	$35
LSTP - 050	New Orleans	Donner Rd.	Westbank Expwy. to Peters Rd.	Build 4-Lane	$80	$80
LSTP - 052	Monroe	LA 137/133	I-20 to Bastop	Widen 2 to 4 lanes	$100	$100
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* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.

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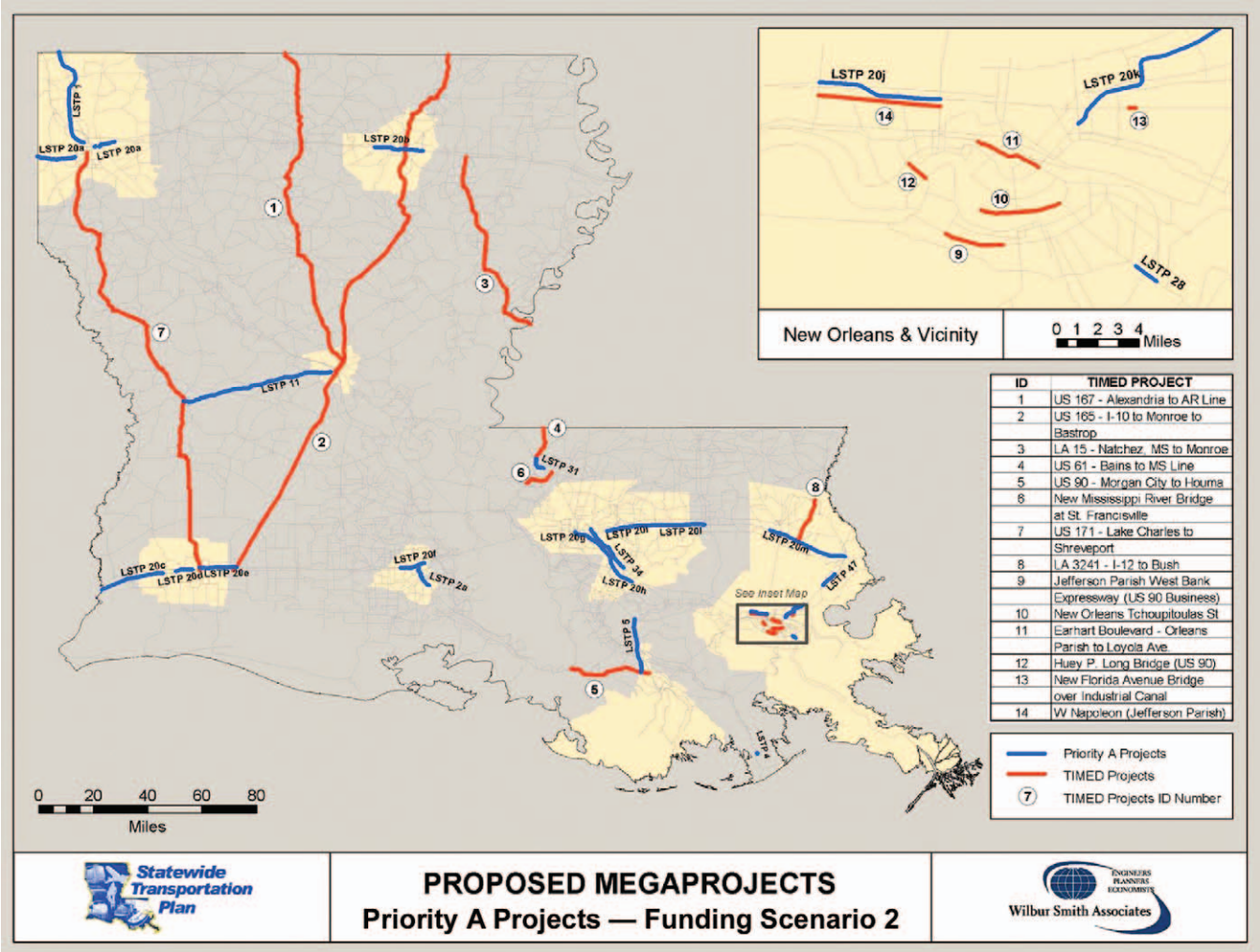
LSTP 20j
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New Orleans & Vicinity
0 1 2 3 4 Miles
LSTP 11
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LSTP 20h
LSTP 20f
LSTP 2a
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LSTP 20e
LSTP 20m
LSTP 47
LSTP 5
LSTP 4
See Inset Map
0 20 40 60 80
Miles
ID | TIMED PROJECT
1 | US 167 - Alexandria to AR Line
2 | US 165 - I-10 to Monroe to Bastrop
3 | LA 15 - Natchez, MS to Monroe
4 | US 61 - Bains to MS Line
5 | US 90 - Morgan City to Houma
6 | New Mississippi River Bridge at St. Francisville
7 | US 171 - Lake Charles to Shreveport
8 | LA 3241 - I-12 to Bush
9 | Jefferson Parish West Bank Expressway (US 90 Business)
10 | New Orleans Tchoupitoulas St
11 | Earhart Boulevard - Orleans Parish to Loyola Ave.
12 | Huey P. Long Bridge (US 90)
13 | New Florida Avenue Bridge over Industrial Canal
14 | W Napoleon (Jefferson Parish)
Priority A Projects
TIMED Projects
TIMED Projects ID Number
Statewide Transportation Plan
PROPOSED MEGAPROJECTS
Priority A Projects — Funding Scenario 2
Wilbur Smith Associates

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P A P F
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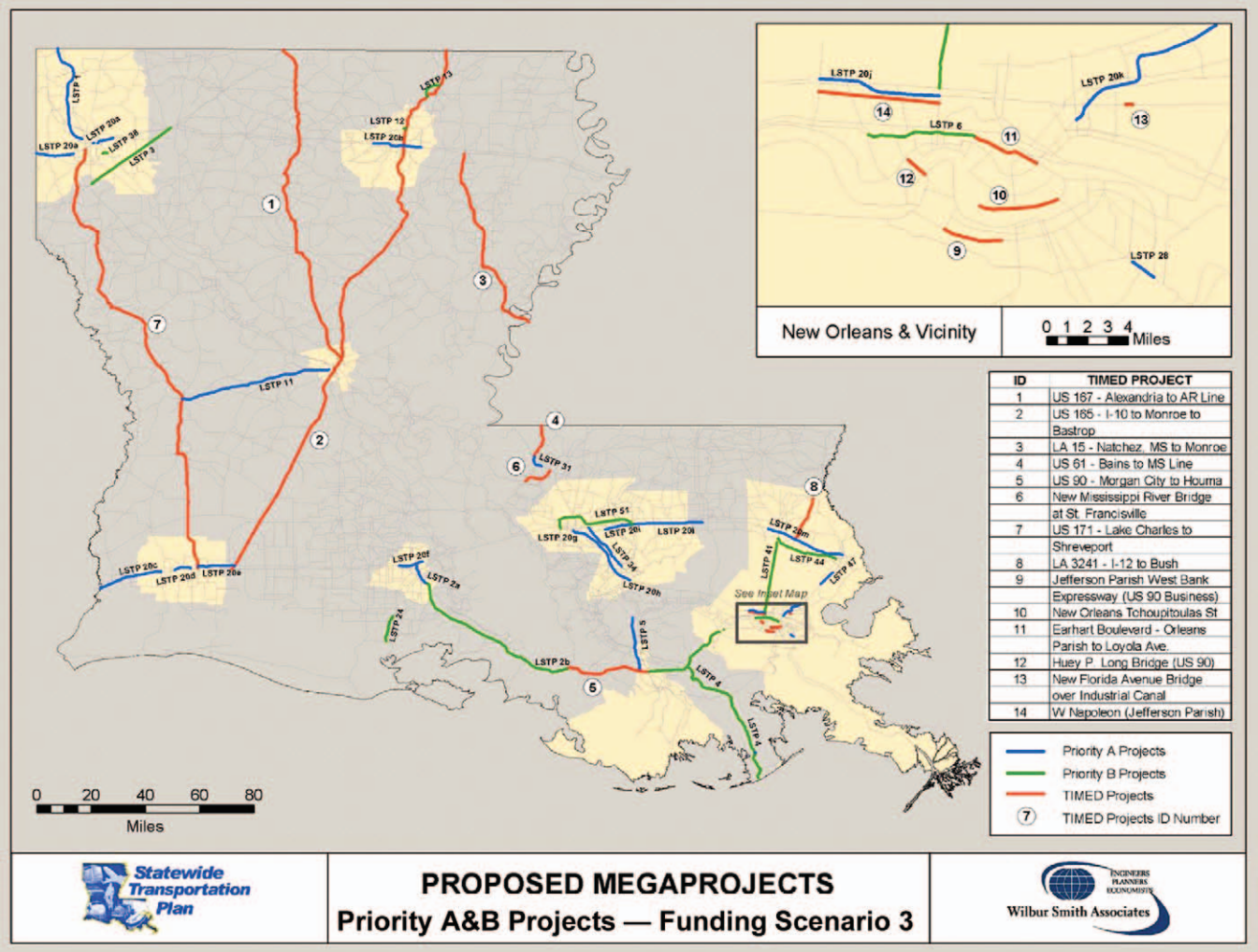


† The alignments shown for LSTP-3, LSTP-51 and other "Build" projects are for illustrative purposes only and will likely change as the project(s) proceed through the initial engineering and environmental evaluation processes.

The projects listed below in Table 6f are projects that could be funded under the proposed Intermodal Access Connector Program.

T

P L P P F P I A P

P I	A		L	I T	T P	P
LSTP - 030	Hammond	LA 3234 (University Ave.)	LA 1065 to Hammond Airport	Build 2-Lane	$8	$8
LSTP - 035	New Orleans	Almonaster Br.		New Bridge	$45	$12
LSTP - 039	Monroe	Garrett Rd.	I-20 to Kansas Lane	Widen 2 to 4 Lanes	$25	$25
LSTP - 040	Lake Charles	Port Access Rd.	Prien Lake Rd. to Marine St.	Build 4 Lanes	$25	$25
LSTP - 042a	LaPlace	Port of S. LA Connector	LA 44 to Airline Hwy.	Build 2 Lanes	$10	$10
LSTP - 042b	LaPlace	Port of LA Connector	Airline Hwy. to I-10	Build 4 Lanes	$25	$25
LSTP - 043	New Orleans	LA 3017 (Peters Rd.)	Westbank Expwy. to LA 23	Widen/Build 2/0 to 3/2 Lanes	$80	$80
				TOTAL O T		

Trucking

Table 7 identifies transportation improvements related to trucking. All trucking recommendations are included in the 1A and 1B funding scenarios with the exception of recommendation T-2, which involves establishing a one-stop State truck

T

T R

F	R	
1A, 1B, 2, 3	Establish Regional Operations Advisory Councils	
1A, 1B, 2, 3	Modify port zone permitting to address distance issue	
1A, 1B, 2, 3	Automate weigh stations (WIM and AVI)	Incorporated in existing capital budget for Operations/Motorist Services
1A, 1B, 2, 3	Pursue uniformity in permitting and enforcement of overweight and oversize vehicles	
1A, 1B, 2, 3	Create economic development incentives to encourage extended hours at truck terminals, including public port facilities	
1A, 1B, 2, 3	Develop model truck facility site access design standards	
2, 3	Establish one-stop State truck permitting/processing center in North Louisiana	$5 one time & $0.5 annually

permitting/processing center in North Louisiana. This recommendation will involve an initial investment of up to $5 million and $0.5 million annually, and is included in Scenario 2.

Aviation

Recommended aviation improvements are identified in Table 8 Major aviation initiatives in funding Scenarios 2 and 3 include an aviation marketing program ($2 million/year), airfield and terminal capacity improvements, a new runway at New Orleans International Airport ($450 million) and an increase in State support for aviation.

Freight Railroad

Recommended improvements for freight rail are identified in Table 9. Major freight rail initiatives are included in funding Scenarios 2 and 3 and include establishing State funding for railroads ($5 million/year) and increased support for rail/highway grade crossings ($5 million/year).

Ports & Waterways

Table 10 identifies ports and waterways recommendations. Major initiatives in funding Scenarios 2 and 3 include increasing the State's Port Priority Program, and dedicating $0.5 million/year for a Statewide maritime marketing program.

T
A R

F	R	
1A, 1B, 2, 3	Rehabilitate infrastructure deficiencies identified in the Louisiana Airport System Plan to minimum standards*	$97.6
1A, 1B, 2, 3	Continue program of land acquisition/aviation easements for obstruction removal	$3.0
1A, 1B, 2, 3	Update intrastate air service study to reflect current conditions in airline industry	$0.1
1A, 1B, 2, 3	Study feasibility and role of vertical take off aircraft in Louisiana aviation	$0.25
1A, 1B, 2, 3	Support the private development of a new air cargo airport and intermodal transportation center in southeast Louisiana	
1A, 1B, 2, 3	Support an ongoing annual appropriation from the general fund to support the General Aviation and Reliever Airport Maintenance Program	$0.2
1A, 1B, 2, 3	Support reauthorization of the Federal Airport Improvement Program	
1A, 1B, 2, 3	Support continued development of passenger and air cargo facilities at all commercial service airports	
1A, 1B, 2, 3	Fund airfield and passenger terminal capacity improvements Statewide**	$1,000
2, 3	Market aviation program to attract additional air service	$2.0 per year
2, 3	Participate in the funding of an additional air carrier runway at New Orleans International Airport (Total Cost = $450M)	$100 State Share
2, 3	Increase the level of funding from $5 million to $15 million annually for Louisiana's aviation program	$10/Year

* Long-term goal as part of DOTD annual budget process.
** Total for all LASP deficiencies and short-term projects (5-10 years) for all airports in the State, including New Orleans International, is estimated at $1.4 billion.

T

F R R

F	R	
1A, 1B, 2, 3	Educate the State's Congressional delegation on the need for federal funding for the State's 11 small railroads	
1A, 1B, 2, 3	Continue and expand Louisiana's Freight Rail Advisory Council	$0.01 per year
1A, 1B, 2, 3	Support the interests of rail shippers and small railroads	
1A, 1B, 2, 3	Help small railroads secure grants and loans from existing and future federal assistance programs	
1A, 1B, 2, 3	Add three positions to the Rail Section of DOTD, including a Rail Safety Compliance Officer and two program managers	$0.3 per year
1A, 1B, 2, 3	Monitor, study and potentially fund ongoing rail-related projects that may be important to the economic competitiveness of Louisiana, including the Millennium Port project, North Shore Freight Distribution Rail Shuttle, Rail Connectivity to the proposed LA Transportation Center, and rail connectivity to sugar cane mills	
2, 3	Establish State funding for railroads	$5 per year
2, 3	Establish highway/rail grade separation program	$5 per year
2, 3	Research incentive programs for closures of public and private grade crossings	$0.3

T

P R

F	R	
1A, 1B, 2, 3	Address the backlog in improvements to Federally-maintained waterways	$250-$300M,2003-07 (from State capital outlay bonds)
1A, 1B, 2, 3	Continue to work through the Gulf Rivers Intermodal Partnership (GRIP) to increase utilization of the inland waterway system and of coastal shipping	
1A, 1B, 2, 3	Support development of the Millennium Port through public/private partnership	
2, 3	Grow combined public and private investments in port facility expansion to accommodate expected growth in demand to $535 million/year by 2007. Increase the State's Port Priority Program contribution to these improvements by $5 million/year, resulting in contributions of $40 million/yr by 2008.	Increase to $40 million/yr by 2008 and sustain thereafter
2,3	Dedicate $0.5 million/year to the development of a Statewide Maritime Marketing Program (take-down from Port Priority Program)	$0.5 million/year (included in recommendation

Surface Passenger

Table 11 identifies surface passenger recommendations. Most of the recommendations in funding Scenarios 1A and 1B are policy-oriented initiatives including promoting the National Passenger Rail System, supporting the Southern Rapid Rail Transit Commission, creating an Intercity Bus Task Force, and other initiatives. Major initiatives included in funding Scenarios 2 and 3 include increasing the availability of rural public transportation services ($6 million/yr.), which addresses *Vision 2020* Benchmark 2.3.7 with regards to increasing the number of parishes with a public transportation system, and supporting the Airport to New Orleans CBD light rail link ($175 State contribution).

Intelligent Transportation Systems

Intelligent Transportation System recommendations are shown in Table 12. ITS recommendations include implementing the Statewide ITS Plan, implementing the LA Commercial Vehicle Information and Systems Network (CVISN) plan, and other policy-related initiatives.

T

P R

F	R	
1A, 1B, 2, 3	Educate elected officials about the need for, and benefits of, public transportation	
1A, 1B, 2, 3	Create new funding sources for public transportation	
1A, 1B, 2, 3	Market/promote public transportation	
1A, 1B, 2, 3	Promote and implement Transit-Oriented Developments	
1A, 1B, 2, 3	Develop programs to enhance the safety and security of public transportation systems through ITS	
1A, 1B, 2, 3	Support improvements to increase passenger rail ridership and fare box recovery ratios	
1A, 1B, 2, 3	Continue to study existing and potential passenger rail corridors where ridership levels can be sustained or increased	$0.2 per year
1A, 1B, 2, 3	Promote and develop connectivity between public transportation systems	
1A, 1B, 2, 3	Develop alternatives to traditional rural transit systems	
1A, 1B, 2, 3	Coordinate planning of federal funding sources for specialized transit	
1A, 1B, 2, 3	Utilize Intelligent Transportation Systems	
1A, 1B, 2, 3	Promote public transportation service with centers of higher learning	
1A, 1B, 2, 3	Promote the National Passenger Rail System	
1A, 1B, 2, 3	Continue financial support for the activities of the Southern Rapid Rail Transit Commission (SRRTC)	$0.07
1A, 1B, 2, 3	Create an intercity bus task force	
1A, 1B, 2, 3	Develop a Statewide intercity bus needs assessment	$0.125
1A, 1B, 2, 3	Support pending federal legislation to fund essential bus service	
1A, 1B, 2, 3	Continue to partner with FRA to develop Maglev technologies	
1A, 1B, 2, 3	Develop comprehensive transit master plan for the entire Baton Rouge metropolitan area	$0.5
2, 3	Increase availability of basic public transportation services; State share @ 25% (balance from federal & local sources)	$6 per yr.
2,3	Construct the Airport - New Orleans CBD light rail line	$175 (State contribution)

T

IT R

F	R	
1A, 1B, 2, 3	Incorporate ITS projects that support the ability of rural transit systems to respond to users and improve safety into the Statewide ITS Implementation Plan	
1A, 1B, 2, 3	Support the standardization of ITS Technologies being implemented at ports in Louisiana	
1A, 1B, 2, 3	Amend the policy on Management and Operations of TMCs to address the issues of collection and archiving of ITS data	
1A, 1B, 2, 3	Include user representatives on the regional ITS Policy Committees	
2, 3	Support the implementation of the Statewide ITS Plan	Additional $7M per year for 10 years
2, 3	Support the implementation of the LA Commercial Vehicle Information and Systems Network (CVISN) plan	$12M over 5 years

T

P

F	R	
1A, 1B, 2, 3	Develop a comprehensive policy for non-motorized transportation	
1A, 1B, 2, 3	Develop Statewide bicycle suitability map	
1A, 1B, 2, 3	Develop Statewide bicycle goals map	
1A, 1B, 2, 3	Provide for routine accommodation of bicycle/pedestrian needs in DOTD planning and design processes	
1A, 1B, 2, 3	Support incorporation of bicycle and pedestrian improvements in transportation planning and in highway and transit projects	

Bicycle and Pedestrian

Bicycle and pedestrian recommendations are shown in Table 13. The majority of recommendations are policy-oriented initiatives including developing a comprehensive policy for non-motorized transportation and supporting the incorporation of bicycle and pedestrian improvements in transportation planning and in highway and transit projects.

Multimodal Recommendations

The Advisory Councils developed several recommendations that applied across the board in a multimodal sense. These recommendations have been extracted from the individual Advisory Councils and listed here to apply to each mode:

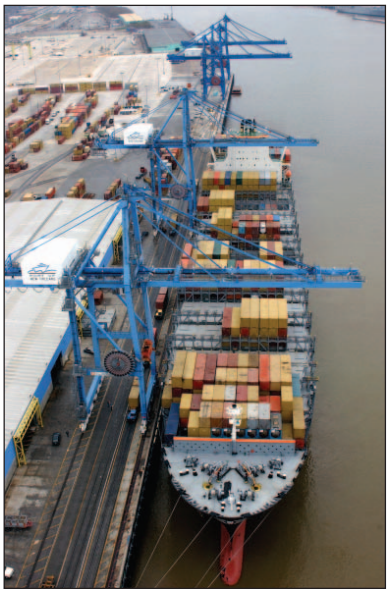
- Educate/inform Louisiana's Congressional Delegation concerning the status of transportation in the State, especially concerning:

- Louisiana's transportation needs, including the extent, shortfall, and funding needed to maintain existing performance levels and improve performance.
- Louisiana's transportation priorities — the delegation must be familiar with the results and recommendations contained in the updated Plan to guide their federal agenda for Louisiana.
- Advance special funding requests — the delegation will be presented with numerous opportunities to pursue/secure special federal funding, both on a regular basis and as the reauthorization of federal transportation legislation is developed. The delegation must be informed concerning those high priority projects that the State believes should be advanced.

• Continue/expand the various Advisory Councils — the forum they provide is beneficial to transportation in Louisiana.
• Identify Strategic Freight Transportation System — in recognition of the importance of freight, identify the multimodal system of greatest importance to the State's economy.

Coordination with Metropolitan Planning Organizations

This Transportation Plan focuses primarily on Statewide transportation corridors, facilities, programs, and initiatives. However, it should be noted that the fiscally constrained long-range metropolitan transportation plans, developed by the respective MPOs for each of the nine metropolitan areas in Louisiana, are incorporated into this Plan by reference, and without modification. As a result of the 2000 Census, a tenth metropolitan area (Mandeville-Covington) has been designated. A fiscally constrained long-range plan will be developed for this new metropolitan area and upon its completion, will be incorporated into this Plan.



ENGINEERS
PLANNERS
ECONOMISTS

Wilbur Smith Associates

Introduction

Louisiana's Department of Transportation and Development (DOTD) began an effort in mid-2000 to update the State's transportation plan. Louisiana is a model for how each transportation mode plays a vital role in moving both passengers and freight, and the DOTD hoped to build upon recent studies that articulated this point.

Organizational Structure

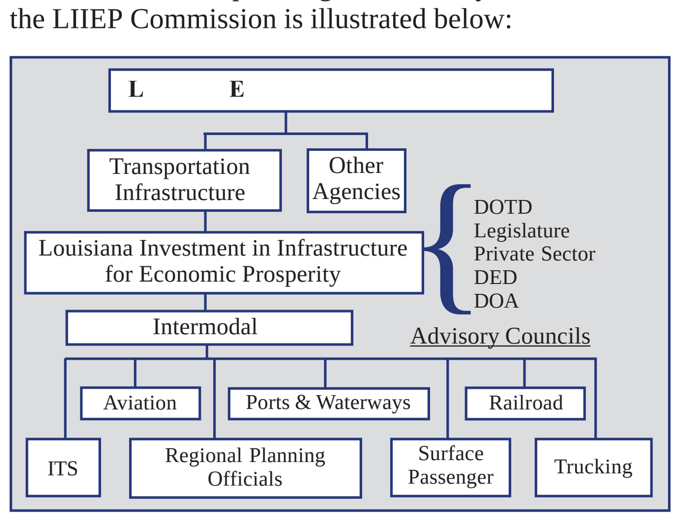
The Department leaned heavily on a group of Advisory Councils, each responsible for a particular mode. The modes included in this planning effort are:

- Aviation
- Freight Railroad
- Intelligent Transportation Systems
- Ports & Waterways
- Regional Planning Officials (highways)
- Surface Passenger (transit, passenger rail, intercity bus)
- Trucking
- Intermodal

The Councils are independent bodies charged with formulating recommendations for consideration in the Plan. Each met separately but also had the opportunity on several occasions to listen to what the other Councils were considering. Each Council named its own chair, and it is this chairperson that advanced the Advisory Council's recommendations to the Intermodal Advisory Council (IAC). The IAC is the receptor of recommendations from the other Councils, and was charged with accepting or rejecting, revising, and prioritizing a wide variety of inputs.

The Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission is charged with overseeing the plan development and serves as the final decision-maker in the planning process. It is comprised of 13 individuals from a wide range of experience and backgrounds, helping ensure a balanced view that considers every perspective.

The relationship among the Advisory Councils and the LIIEP Commission is illustrated below:



Relationship with Other Plans

Louisiana: Vision 2020 is the State's long-term economic development strategy. Adopted in March 1999, *Vision 2020* establishes specific benchmarks designed to develop Louisiana into a "vibrant, balanced economy; a fully engaged, well-educated workforce; and a quality of life that places it among the top ten states in the nation to live, work, visit, and do business." The plan is based upon three primary goals:

- Learning Enterprise - providing learning opportunities for the pursuit of knowledge.
- Culture of Innovation - developing a diverse and thriving set of technology-driven industries.
- Top Ten State - elevating Louisiana's standard of living for all citizens.

Each goal has an identified set of objectives. Transportation is an important component of both Goals 2 and 3. Objective 2.3 states "To improve and sustain Louisiana's physical infrastructure, including highways, waterways, ports, and rail." The objective contains 22 separate benchmarks for infrastructure quality and extent, ranging from implementation of the TIMED Program to pavement/bridge condition, parishes with a public transportation system, rail/highway crossings with active warning devices, airport performance, and water port performance.

Objective 2.4, development of the State's information and telecommunications infrastructure, has three benchmarks related to transportation. Objective 3.3 ("to have safe homes, schools, and streets …") lists three safety-related benchmarks for transportation.

Even Goal 1 has implications for public transportation by providing access to education and job training and enabling all citizens to fully participate in the workforce.

The transportation objectives and benchmarks identified in *Vision 2020* are readily apparent as one reviews this document. The DOTD was ever mindful of the objectives established in *Vision 2020*, and the Plan's scenarios are crafted to implement these important benchmarks.

Transportation System Analysis

Existing conditions on the transportation system were thoroughly reviewed to identify current needs. Forecasts were then made to provide a basis for identifying future transportation needs and improvements in the state. An overview of the system analysis is provided below.

P E Future year forecasts serve as inputs into the statewide travel demand model which is used to estimate future trip generation and traffic volumes for roadways and to evaluate highway improvement options. Forecasts utilized in this study were obtained from Woods & Poole Economics who develop long-term economic and demographic regional projections for every county (parish) in the United States. Woods & Poole projections were only available to the year 2025 and therefore were extrapolated to the Year 2030 based on projected growth rates. Projections for population and employment are shown below. Population in Louisiana is expected to grow from 4.5 million in 2000 to 5.4 million in 2030. This represents an annual growth rate of 0.6 percent. With regards to employment, over 900,000 jobs are expected to be added to the Louisiana economy by the year 2030, increasing employment from 2,416,492 in the Year 2000 to 3,345,073 in the Year 2030. This represents an annual increase of 1.1 percent.

P E F

	P		E	
Arkansas	2,673,400	3,645,132	1,508,746	2,218,439
Louisiana	4,468,976	5,437,145	2,416,492	3,345,073
Mississippi	2,844,658	3,672,795	1,512,021	2,139,201
Texas	20,851,820	32,035,969	12,164,883	19,376,875

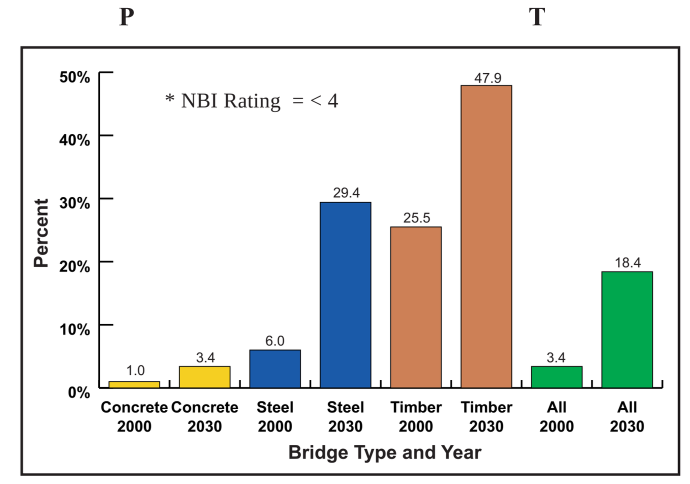
P P An extensive analysis of state system pavement preservation needs was conducted using the DOTD's Pavement Management System. The results of this analysis are presented below for each of the four highway categories (i.e., Interstate, NHS, SHS, RHS). The amounts shown represent the costs associated with maintaining Louisiana pavements at a minimum acceptable condition over the 30-year planning horizon.

L P P N

Interstate System	$55
National Highway System	$36
Statewide Highway System	$72
Regional Highway System	$56
Total Pavement Rehabilitation Needs	$219

P There are more than 13,000 bridges on public roads in Louisiana, with over half on State highways. Most of those on parish roads and city streets are relatively small in comparison to those on the State system. The analysis conducted during Plan development is limited to the over 7,000 State system bridges. A summary of Louisiana bridges in poor condition, by type, follows.

P T



Average annual bridge construction funding from 1991 to 2002 was $48.3 million. *Additional* funding required to maintain current rating levels, including cost of replacement and cost of rehabilitation, is $32 million; therefore the total required annual construction budget to maintain current levels of service for on-system bridges is $80 million.

The magnitude of the highway safety problem in Louisiana cannot be overstated. In addition to humanitarian concerns surrounding this issue, traffic crashes are a significant drain to the State's economy. The majority of traffic crashes, and particularly fatal crashes, occur on State highways since this is where the majority of travel occurs and where vehicle speeds tend to be higher.

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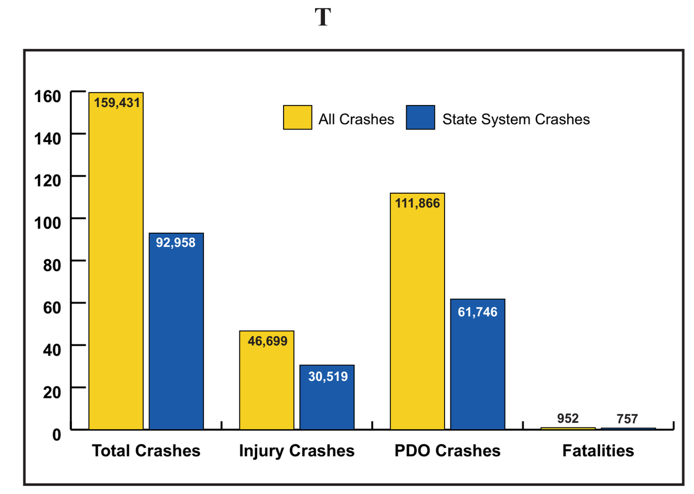

The following figure displays current (2000) Level of Service. The majority of the highways in the State have a LOS of A-C, meaning they are operating below capacity, resulting in acceptable traffic operation. However, segments of several highways have a LOS of D-F, which is considered unacceptable on the rural highway system. The majority of capacity problems are occurring in urban areas where v/c ratios are equal to or greater than 1.0 (traffic volumes exceeding highway capacity).

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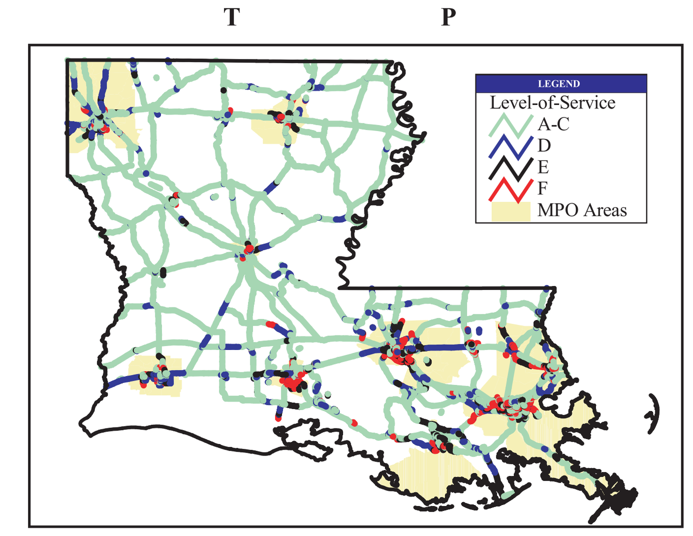
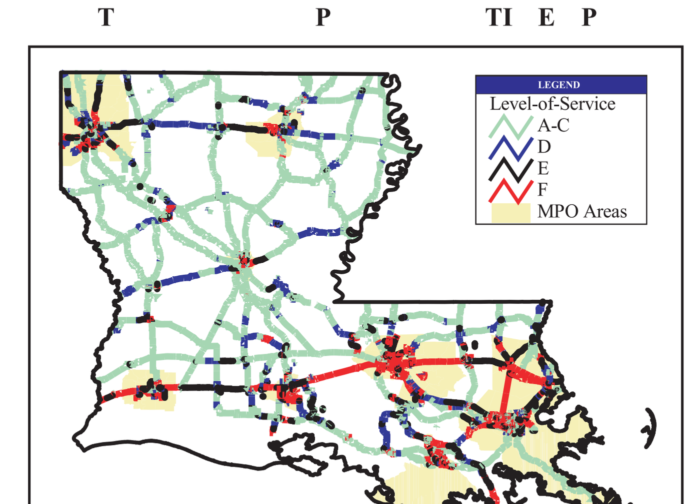


The figure below displays LOS in the Year 2030 with the implementation of Transportation Infrastructure Model for Economic Development (TIMED) projects funded by a dedicated four-cent per gallon fuel tax. In 2030, congestion in the urban areas will be much worse than it is now. Further, much of the rural interstate highway system will be congested as well as key principal arterials

T P TI E P



A As shown in the following table, the State's busiest commercial service airport is New Orleans International, with nearly five million enplanements in 2000. By 2030, this number is projected to grow to 14.4 million, an average annual increase of 3.6% over the 30-year period. Baton Rouge Regional Airport registered the next-highest number of enplanements in 2000, with just over 435,000. By 2030, this is expected to grow by an average of 1.5%, to 687,500.

The airport projected to have the largest growth in enplanements is Alexandria Regional Airport. With 134,000 enplanements in 2000, and 432,100 in 2030, this represents an average annual growth rate of 4.0%. Lafayette Regional Airport registered the next-highest projected average annual growth rate over the 30-year period (3.9%), with 189,200 enplanements in 2000 and 341,500 projected in 2030.

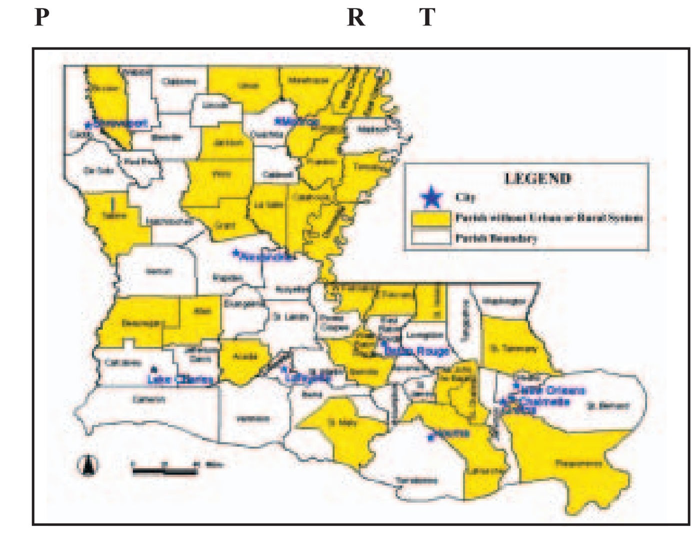
P E

A N			
Alexandria	134,000	247,000	432,100
Baton Rouge	435,200	494,600	687,500
Lafayette	189,200	341,500	589,300
Lake Charles	82,900	138,300	230,700
Monroe	126,900	153,100	235,700
New Orleans	4.94 m	8.63 m	14.4 m
Shreveport	379,600	447,500	707,000

** US Total Enplanement data for 2020 and 2030 based on WSA growth rate estimates.
Sources: FAA Terminal Area Forecasts, FAA Aerospace Forecast, FY 2000-2011, Airport Management Records, WSA.

P T Vision 2020 calls for every parish to have a transit system by 2018. However, the number of transit systems has declined to 39 (as of 2001): 10 urban and 29 rural systems (There are four parishes who have both an urban and rural system). Currently, there are 29 parishes, primarily rural, without a system, many of them are located in the northeast part of the state. The total population in parishes without transit is 1,014,447 (2000 census). The parishes without rural or urban transportation systems are shown in the following figure.

P R T



Acknowledgments

Freight Transportation

Transportation planning efforts have traditionally focused on the movement of people. While tourism, business trips, and personal travel are of the utmost importance, freight transportation is critical as well.

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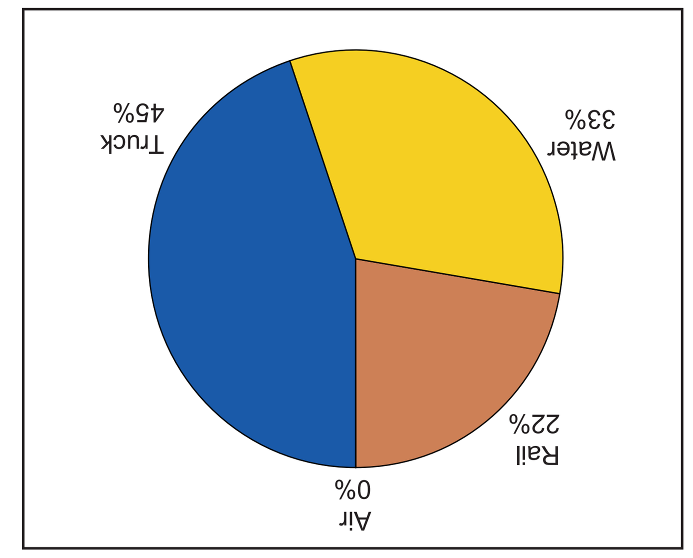

Source: TRANSEARCH 2000, DRI-WEFA

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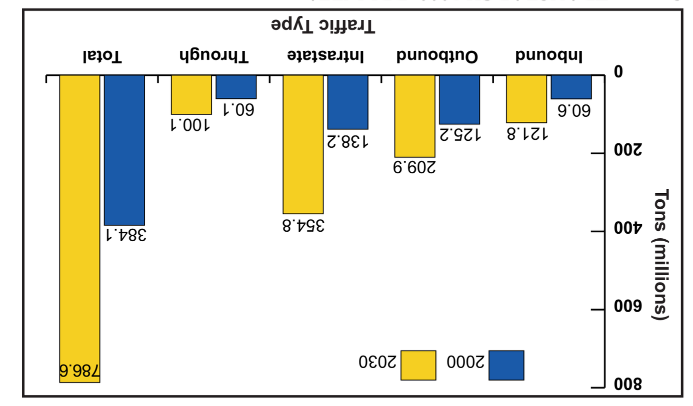


Source: TRANSEARCH 2000, DRI-WEFA

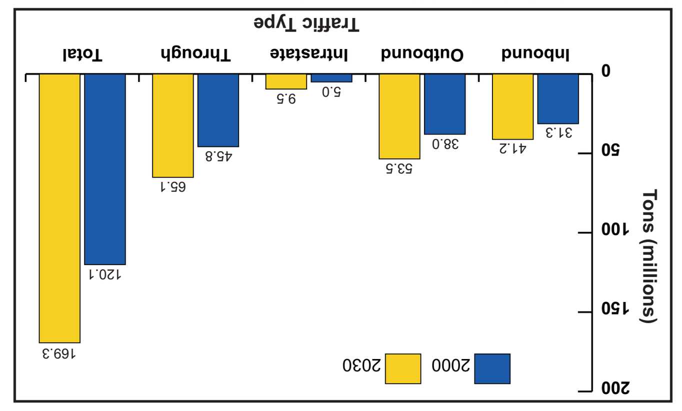
A T F

A N			
Alexandria International	71	114	222
Baton Rouge Regional	3,106	4,972	9,707
Lafayette Regional	1,211	1,938	3,785
Lake Charles Regional	161	258	503
Monroe Regional	79	126	247
New Orleans International	85,815	138,337	270,245
Shreveport Regional	30,020	48,054	93,819
T			

Sources: Airports Council International, airport management, WSA
*AAGR = Average Annual Growth Rate

The distribution of freight among the modes in Louisiana, as well as forecasts for each mode, are shown in the various figures and table below.

F L R T T T



Source: TRANSEARCH 2000, DRI-WEFA

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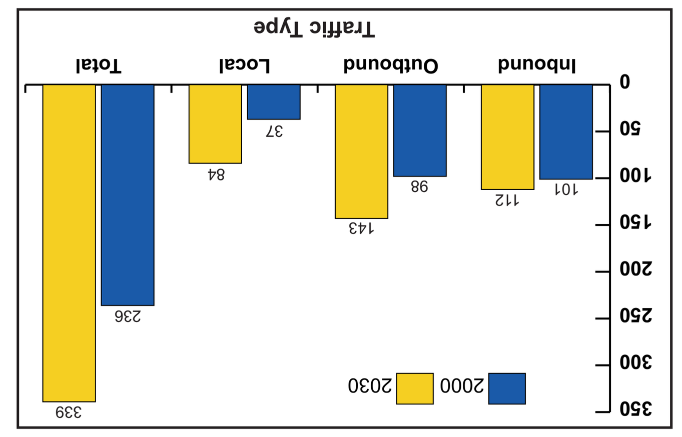

Source: TRANSEARCH 2000, DRI-WEFA

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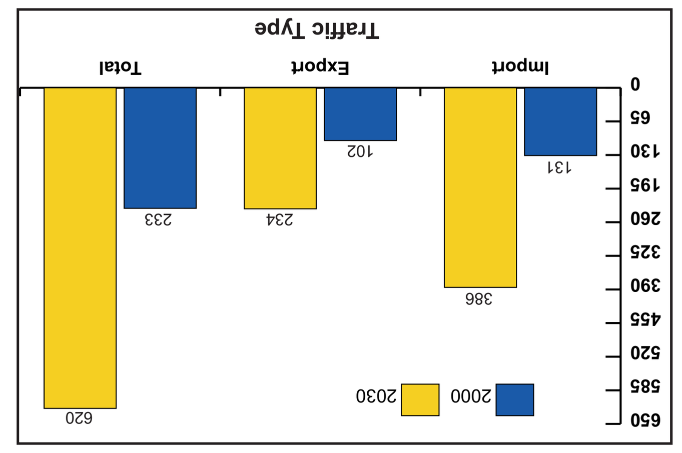


Source: P.I.E.R.S. 2001, LATTS †

†The international forecasts factors were taken from the Latin America Trade and Transportation Study (LATTS).

Megaprojects

F

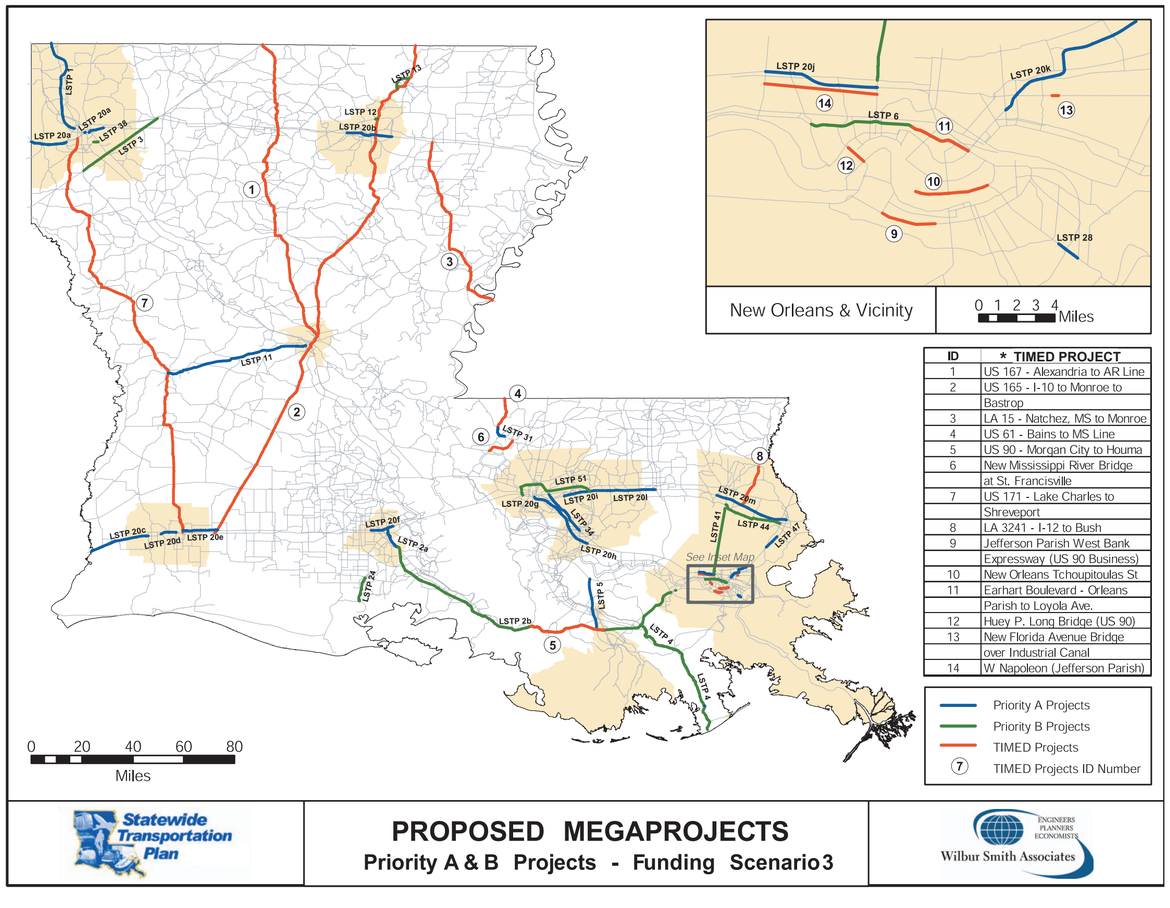
As part of this planning effort, advocates of Louisiana's "megaprojects" were given the opportunity to present to the Regional Planning Officials Advisory Council reasons why their highway improvement project should be included in the updated Plan. Project sponsors provided and presented specific information regarding their proposed project including its description, purpose, benefits, cost, importance to the State, potential funding sources, and other related information.

A total of 57 "megaprojects" have been identified, and include the widening of portions of Interstates 10, 20, and 12; widening of portions of US Highways 61, and 190; construction of I-49 north and south extension and I-69; and other highway improvements throughout the State. The total cost of the 57 megaprojects is approximately $16.7 billion. Projects were identified as having a statewide, regional, or local impact, with the majority of projects having either a statewide or regional impact.

Traffic impacts of these highway improvements were evaluated using the statewide travel demand model created as part of the Plan. Technical criteria used in evaluating the projects included change in level of service, as well as traffic utilization. Additionally, a qualitative evaluation of the proposed highway improvements was performed by the consultant team and DOTD, which took into consideration the projects based on the goals and objectives of the Plan through the following criteria: transportation efficiency, economic development impacts, environmental impacts, and potential improvements to traffic and community safety.

Initially, megaprojects that scored and ranked high in both the quantitative (travel demand model results) and qualitative (plan goals and objectives) evaluation were considered to be the highest priority (Priority A). Megaprojects that scored and ranked high in either the quantitative or qualitative evaluation were considered to be the second highest priority (Priority B). The remaining megaprojects were included in Priorities C and D. The priorities were further refined by the Regional Planning Officials Advisory Council based on available revenue scenarios.

The recommended improvements included in Priorities A and B are shown at right, and summarized in the tables below. Megaproject alignments depicted on the map are illustrative in nature, and are not final representations of project alignments. (Note: Project ID numbers are not assigned or listed in any order of priority).



ID	* TIMED PROJECT
1	US 167 - Alexandria to AR Line
2	US 165 - I-10 to Monroe to
	Bastrop
3	LA 15 - Natchez, MS to Monroe
4	US 61 - Bains to MS Line
5	US 90 - Morgan City to Houma
6	New Mississippi River Bridge
	at St. Francisville
7	US 171 - Lake Charles to
	Shreveport
8	LA 3241 - I-12 to Bush
9	Jefferson Parish West Bank
	Expressway (US 90 Business)
10	New Orleans Tchoupitoulas St
11	Earhart Boulevard - Orleans
	Parish to Loyola Ave.
12	Huey P. Long Bridge (US 90)
13	New Florida Avenue Bridge
	over Industrial Canal
14	W Napoleon (Jefferson Parish)

* The Transportation Infrastructure Model for Economic Development is a program enacted in 1989 that includes extensive improvements to the highway system. TIMED projects are funded by a dedicated four-cent per gallon fuel tax.

P A

P I	A		L	I T	T P	P
LSTP – 001	Shreveport	I-49 North	I-220 to AR Line	New 4-lane Freeway	$363	$363
LSTP – 002a	I-49 Lafayette	I-49 South	Lafayette Urban	Upgrade to Freeway	$350	$350
LSTP – 004*	Lafourche Parish	LA 1 South	Port Fourchon to US 90	Phase 1 (Leeville Bridge)	$125	$115
LSTP – 005*	Houma	N-S Hurricane Route	US 90 to LA 3127	Build New 2 Lanes	$150	$150
LSTP – 011	Leeville/ Alexandria	LA 28 West	US 171 to Alexandria	Widen 2 to 4 Lanes	$80	$40
LSTP – 020a	Shreveport	I-20	TX Line to I-220 W, Red River Bridge, LA 3 to I-220 E	Widen 4 to 6 Lanes	$175	$175
LSTP – 020b	Monroe	I-20	LA 546 to LA 594	Widen 4 to 6 Lanes	$150	$150
LSTP – 020c	Sulphur/Lake Charles	I-10	TX Line to Sulphur	Widen 4 to 6 Lanes	$80	$80
LSTP – 020d	Lake Charles	I-10	I-210W to Ryan St.	Replace Bridge/ Widen Road	$200	$200
LSTP – 020e	Lake Charles/Iowa	I-10	US 171 to US 165	Widen 4 to 6 Lanes	$50	$50
LSTP – 020f	Lafayette	I-10	LA 93 to Louisiana Ave.	Widen 4 to 6 Lanes	$60	$60
LSTP – 020g	Baton Rouge	I-10	I-110 to I-12	Widen 6 to 8 Lanes	$250	$250
LSTP – 020h	Baton Rouge	I-10	I-12 to LA 22 (includes new interchange between LA 42 and LA 73)	Widen 4 to 6 Lanes	$185	$145
LSTP – 020i	Baton Rouge	I-12	O'Neal to Denham Springs	Widen 4 to 6 Lanes	$60	$60
LSTP – 020j	New Orleans	I-10	Williams Blvd. to Causeway Blvd.	Widen 6 to 8 Lanes	$85	$0
LSTP – 020k	New Orleans	I-10	Bullard Ave. to Elysian Fields Ave.	Widen; implement ITS	$185	$185
LSTP – 20l	Hammond	I-12	LA 16 to I-55	Widen 4 to 6 Lanes	$150	$150
LSTP – 20m	Slidell	I-12	LA 21 to I-10/I-59	Widen 4 to 6 Lanes	$150	$150
LSTP – 028	New Orleans	LA 23	Belle Chase Tunnel	Build 4-Lane Bridge	$50	$50
LSTP – 031	St. Francisville	US 61	Thompson Creek to Baines	Widen 2 to 4 Lanes	$40	$20
LSTP – 034	Baton Rouge	US 61(Airline)	Gonzales to US 190 (Florida Blvd)	Widen 4 to 6 Lanes	$60	$40
LSTP - 047	New Orleans	I-10 Twin Span	US 11 to North Shore – Lake Pontchartrain	Widen 4 to 6 Lanes	$100	$100
TOTAL O T						

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.

P

P I	A		L	I T	T P	P
LSTP – 002b	Lafayette/New Orleans	I-49 South	Lafayette to I-310	Upgrade to Freeway	$865	$865
LSTP – 003*	Shreveport	I-69	US 171 to 1-20	New 4-Lane Freeway	$380	$380
LSTP – 004*	Lafourche Parish	LA 1 South	Port Fourchon to US 90	Phase 2 (Four-Lane)	$545	$545
LSTP – 006*	New Orleans	LA 3139 (Earhart)	Hickory, Orleans Parish Line	Add Ramps at Each Limit to Airline Hwy. (US 61)	$125	$125
LSTP – 012*	Monroe	New Bridge	Ouachita River in Monroe Metro area	New Bridge	$50	$50
LSTP – 013	Bastrop	US 165/US 425 Bypass	US 425 to US 165	Build 4 Lanes	$20	$20
LSTP – 024	Abbeville/Esther	US 167	Abbeville to Esther	Build/Upgrade 0/2 to 4/2 Lanes	$25	$25
LSTP – 038	Shreveport/ Bossier City	LA 511 (Jimmie Davis Bridge)	70th St. to Barksdale Blvd.	Replace 2 lane Bridge with 4 lane Bridge	$50	$50
LSTP – 041**	New Orleans	Pontchartrain Causeway	US 190 to I-10	Widen 4 to 6 Lanes/Transit	$425	$425
LSTP – 044	St. Tammany Parish	US 190	Pontchartrain Causeway to US 11	Widen 2 to 4 Lanes	$100	$75
LSTP – 051	Baton Rouge	North Bypass	I-10 to I-12	Build/Upgrade to 4-Lane Interstate Standards	$800	$800
TOTAL O T						

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios

** Cost of LSTP 041 not included in total cost. This project is assumed to be totally financed by Toll Authority funds

What's at stake?

The policies, programs, and projects in the Louisiana Statewide Transportation Plan are intended to:

- Support the wealth-building industries and employment that we already have.
- Strengthen our foundation for economic growth.
- Take advantage of opportunities in international trade.
- Enhance the quality of life for Louisiana citizens.
- Send the message that our state is progressive.

Funding Scenarios

Another important aspect of transportation planning is to array priorities in line with the revenues that can reasonably be expected. In that way, the capital program does not become over-subscribed and, subsequently, irrelevant. All states face the issue of over-programming — it's okay to identify some additional projects that the DOTD would undertake with additional money or if some projects become delayed (many often do), but this must be a manageable number. Many states are unable to control their over-programming because of political pressure to add projects that they cannot afford. When this occurs, the Plan and capital program become irrelevant, as they cannot realistically be delivered. People's expectations rise ("well, the project is in the Plan"), only to be dashed when reality sets in.

Sound fiscal constraint was used as the foundation of this Plan. Four scenarios were developed, with allocations from programmatic categories identified for each. However, two of the four scenarios involve generating additional transportation revenues, and the DOTD has made it clear that it cannot proceed to implement these scenarios unless additional revenues are made available.

The four scenarios advanced in this Plan:

- **A** (baseline) — no additional revenues, but all current funding stays in place at existing levels. Some growth is assumed in each of the revenue types, which differentiates this scenario from a "Status quo" scenario that would assume no growth. However, no adjustments for inflation are assumed to occur during the 30-year planning period.
- (baseline with adjustment) — this scenario is exactly the same as 1A except that inflation adjustments are made in the revenue stream in year 11 and again in year 21 of the 30-year planning period. This assumes the Louisiana Legislature, Congress, or both will take some unspecified action in the future to stabilize the buying power of the transportation program, as has happened historically. The Plan assumptions at year 11 and 21 restore lost buying power due to assumed inflation, resulting in about $2.9 billion (Base 2002 dollars) in additional revenues over 1A.
- ($250 million increase) — Scenario 2 assumes $250 million in new revenues in year 1 from state sources. The revenues in this scenario are also adjusted for inflation in years 11 and 21 (restore buying power), resulting in about $5 billion additional 2002 dollars for highways over Scenario 1B, and $1.6 billion (base 2002 dollars) for non-highway modes.
- ($150 million increase) — Scenario 3 adds $150 million in federal highway aid to Scenario 2 revenues, which is also adjusted for inflation. This generates $3.4 billion in increased revenues over Scenario 2. An increase of approximately $90 million in federal transit aid is also included under this scenario.

Scenario 2 – Enhanced State Funding

- Increase pavement preservation (i.e., overlays, etc.) funding from $160 to $235 million annually.
- Increase bridge preservation (i.e., rehabilitation or replacement) funding from $100 to $120 million/ year.
- Increase highway safety funding from $45 to $75 million annually (includes $9 million/year for highway/railroad crossings).
- Increase highway operations funding by $9 million/ year.
- Increase ITS funding by $7 million/year for 10 years.
- Maintain program for small highway capacity projects at an average of $90 million annually.
- Establish a program for improving connections to ports, airports, etc., at $20 million annually.
- Construct Priority A "Mega" highway projects (see list) - $2.83 billion.
- Construct light rail line, New Orleans Airport to CBD, state share = $175 million.
- Establish statewide rural public transit program, state share = $6 million annually.
- Establish one-stop truck center in north Louisiana - $20 million ($5 million construction plus $500 k annually for operation).
- Establish short-line railroad program at $5 million/ year.
- Establish a highway-railroad grade separation program at $5 million annually.
- Increase Port Priority Program funding from $24.5 to $40 million/year with a $500 k annual takedown for marketing Louisiana ports.
- Establish a marketing program to attract additional air service (passenger and cargo) to Louisiana airports at $2 million annually.
- Construct an additional air carrier runway at New Orleans International Airport, state share = $100 million.
- Increase State Aviation Program from $5 to $15 million/year.

Scenario 3 - Enhanced State and Federal Funding

- Construct Priority B "Mega" highway projects (see list) - $2.94 billion in addition to Scenario 2 programs and projects.

Finance

Comparison of User Fees in the United States

A national comparison of taxes and fees paid by automobile users was prepared by Wilbur Smith Associates. Louisiana ranks 46th in the nation in fees and taxes paid by automobile users in 2000. This ranking has declined from 1990, when Louisiana ranked 36th in the nation.

Purchasing Power

When looking at revenues estimated into the future, particularly 30-years into the future, it can appear that a significant amount of revenue will be available. However, it is important to remember that future dollars do not have the same value as dollars today.

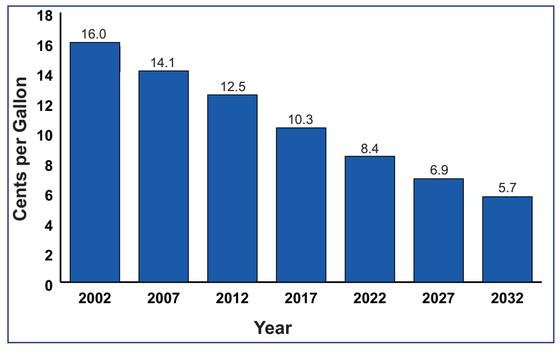
The chart below shows the erosion of the purchasing power of the motor fuels tax due to inflation. Using constant 2002 dollars, over time, the 16-cent motor fuels tax only provides revenue that is equivalent to a 5.7-cent motor fuels tax by 2032.

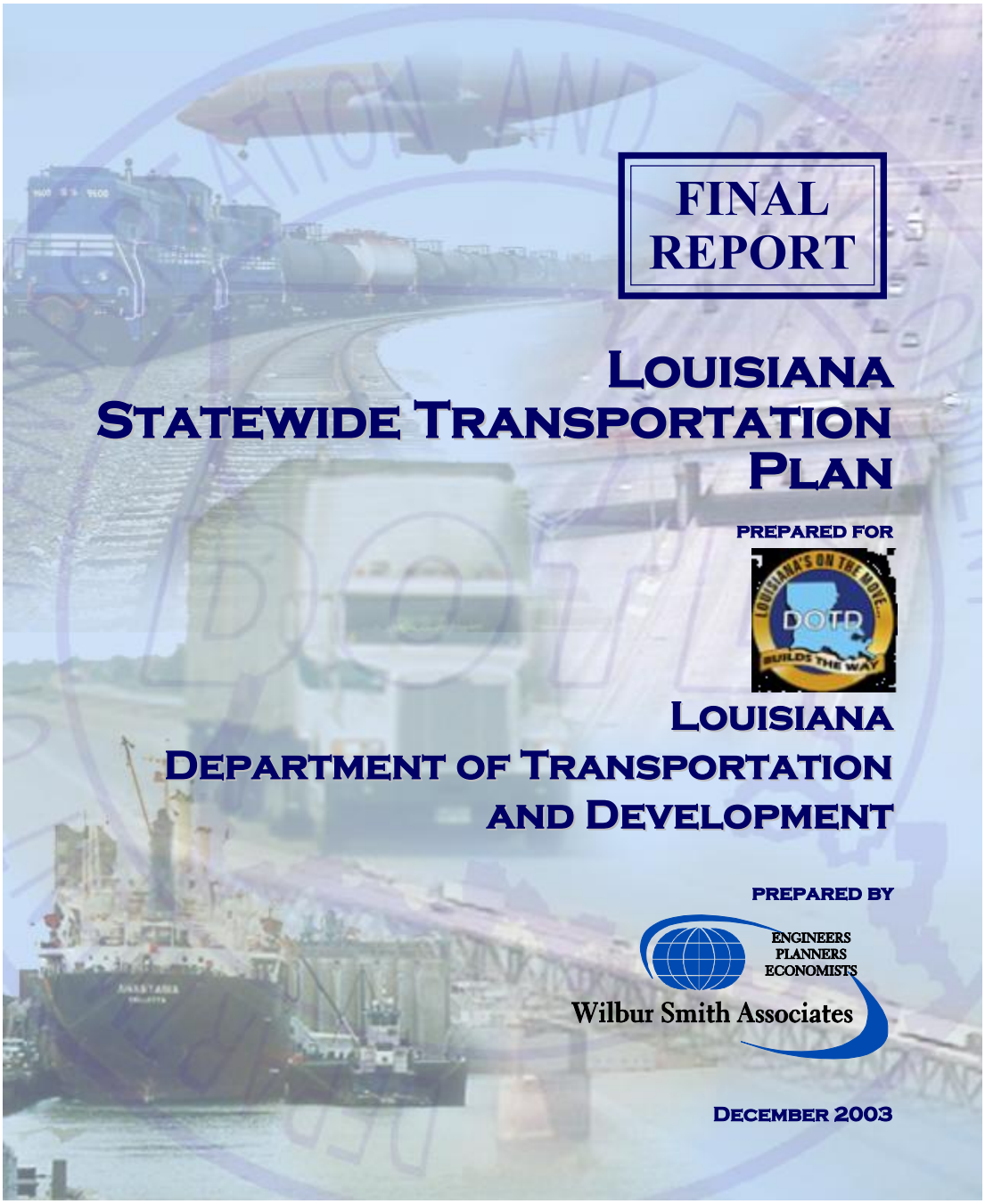
Consequently, it is important to consider the time value of money when considering the sufficiency of the 30-year revenue projections. To do that, the projected loss of purchasing power was analyzed by taking into consideration inflation rates. A review of available inflation rate projections indicated that most projections were for a much shorter period than the 30-year period under consideration in this planning effort. However, a review of inflation rates found that the "Budget of the United States Government for Fiscal Year 2003" projected an inflation rate of 2.3 percent through 2012. The Congressional Budget Office in their "Budget and Economic Outlook, An Update" projected 2.5 percent through 2012. Roger Ibbotson, Professor in the Practice of Finance, Yale School of Management, in a paper entitled "Predictions of the Past and Forecasts for the future: 1976 – 2025 forecasts an inflation rate of 3.1 percent.

Because inflation has been at historic low rates, it is likely that future inflation will increase beyond the low rates currently forecasted. Using this reasoning, an inflation rate of 2.5 percent per year through 2012 was assumed. From 2013 to 2032, an inflation rate of four percent per year was assumed.

The results of the analysis of the loss of purchasing power can be seen in the chart presented below. Even though the 30-year revenue projections for the Transportation Trust Fund grow 108.6 percent from 2003 to 2032, the cumulative purchasing power of the increase and the base year funds declines by 40 percent.

P L P P N R I





FINAL REPORT

Louisiana Statewide Transportation Plan

PREPARED FOR

Louisiana Department of Transportation and Development

PREPARED BY

ENGINEERS
PLANNERS
ECONOMISTS

Wilbur Smith Associates

DECEMBER 2003

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Louisiana Megaprojects Considered in the Update of the LSTP

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Aviation Advisory Council

Mr. Roy Miller, Director, Shreveport Regional Airport **(Chair)**

Mr. W.S. App, Jr., President, J. W. Allen & Company, Inc.
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Mr. Robert Evans, Jr., President, Con Tech International
Mr. Emile Garlepeid, Board Member, New Orleans Air Cargo Association
Mr. Jon Grafton, Jr., Executive Director, England Economic & Industrial Dev. District
Mr. George Heard, Executive Director, Chennault Industrial Airpark Authority
Mr. Paul Hurley, **Sr**., Vice President, Krebs, LaSalle, LeMieux Consultants, Inc.
Mr. Luis Iribarres, Cargo Manager, GRUPO TACA International Airlines
Ms. Glenda Jeansonne, Economic Development Director, Louisiana Airport Authority
Mr. Alan Kratzer, Executive Director, Lake Charles Regional Airport
Mr. Randy LaCaze, Director of Community Development, City of Natchitoches
Mr. Rock Lasserre, Jr., Manager, Acadiana Regional Airport
Mr. Anthony Marino, Director of Aviation, Baton Rouge Metropolitan Airport
Mr. Dan Mobley, Executive Director, Louisiana Travel Promotion Association
Mr. Stanley Muller, President, Stanley Muller & Associates
Justice Revius Ortique, Jr., Chairman, New Orleans Aviation Board
Mr. Elton Pody, Jr., Executive Vice President, Chamber of Commerce
Ms. Jeanne Shows-Andre, President, International Freight Forwarders & Customs Brokers Association, The Kearney Company
Mr. Glenn Smith, Chairman, Louisiana Airport Authority
Mr. Roy Williams, Director of Aviation, New Orleans International Airport

Freight Railroad Advisory Council

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Mr. Jim Bridger, General Manager, New Orleans Public Belt Railroad
Mr. Robert Brocker, Executive Vice President, N.O. Gulf Coast Railroad
Mr. Rick Crawford, Special Assistant, Office of the Chairman, Norfolk Southern Corporation
Mr. Columbus DeCouette, Executive Assistant, Port of Lake Charles
Mr. Gladny Dillon, General Manager, Louisiana and Northwest Railroad
Mr. Billy Eason, Assistant, Louisiana and Delta Railroad
Mr. Dave Freeman Genera, General Manager, Gulf Division, Burlington Northern-Santa Fe Railroad
Mr. Gary Jackson, District Superintendent, CSX Transportation
Mr. Jeff Leapelt, Superintendent, Gulf Region, CNIC Railroad
Ms. Karen Parsons, Transportation Planner, New Orleans Regional Planning Commission
Mr. Bill Slinkard, Superintendent, Gulf Division, KCS Railroad
Mr. James Veronesi, Manager, Operational Services, PPG Industries, Inc.
Mr. Bill Wainwright, President, Delta Southern Railroad Co. Madison Parish
Mr. Dale Walsh, Materials Flow Manager, Rubicon, Inc.
Mr. Joe Whalen, Superintendent, Union Pacific Railroad
Mr. Paul Zimmermann, Director of Terminal Operations, Port of New Orleans

Intelligent Transportation Systems Advisory Council

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Mr. John Broemmelsiek, Traffic Operations Engineer, Federal Highway Administration
Mr. Dom Cali, Information Systems Director, LDOTD
Mr. Robert Canfield, Private Consultant
Mr. Blaise Carriere, Deputy Secretary, LDOTD
Ms. Carol Cranshaw, Public Transportation Administrator, LDOTD
Ms. Elizabeth Delaney, Senior Project Manger, PB Faradyne, Inc.
Mr. Huey Dugas, Chief of Planning, Capital Region Planning Commission
Mr. Matt Farlow, Operations Division Chief, Louisiana Emergency Preparedness
Ms. Cathy Gautreau, Executive Director, Louisiana Motor Transport Association
Mr. Stephen Glascock, ITS Engineer, LDOTD
Dr. Eric Kalivoda, Deputy Assistant Secretary, Office of Planning & Programming, LDOTD
Mr. Ingolf Partenheimer, Traffic Engineer, Traffic Engineering Division, City of Baton Rouge
Lt. Tim Sharkey, Motor Carrier Safety Assistance Program, Louisiana State Police
Mr. Denny Silvio, Weight Enforcement & Permits Administrator, LDOTD
Mr. Steven Strength, District 02 Traffic Operations Engineer, LDOTD

Intermodal Advisory Council

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Mr. W. S. App, Jr., President, J. W. Allen & Company, Inc.
Mr. Louis Bangma, Louisiana Association of Railroad Passengers
Mr. Carmack Blackmon, General Counsel & Legislative Representative, Louisiana Railroads
Mr. Walter Boasso, Chief Executive Officer, Boasso American Corporation
Mr. J. S. Brown III, President, Bruce Foods
Mr. Kevin Davis, President, St. Tammany Parish Police Jury, Member, Regional Planning Commission
Honorable George Dement, Mayor of Bossier City
Mr. George Duffy, President, Navios Ship Agencies, Inc.
Mr. Huey Dugas, Chief of Planning, Capital Region Planning Commission
Mr. Edward Flynn, Director of Safety & Health, Louisiana Chemical Association
Ms. Cathy Gautreaux, Executive Director, Louisiana Motor Transport Association
Mr. Glenn Guillot, President, Southeastern Motor Freight
Mr. James Harvey, Director of Planning, Regional Planning Commission
Mr. Channing Hayden, Jr., President, New Orleans, Steamship Association
Mr. John Holt, Jr., Executive Director, Caddo-Bossier Port Commission
Mr. Jeff Jones, Director of Transportation, Union Pacific Railroad
Mr. Patrick Judge, President, Louisiana Public Transit Association
Mr. Daniel Juneau, President, Louisiana Association of Business & Industry
Mr. Alan Kratzer, Executive Director, Lake Charles Regional Airport
Mr. Paul Lawrence, Public Affairs Manager, United Parcel Service
Mr. Jeff Leapelt, Superintendent, Gulf Region, CNIC Railroad
Mr. Anthony Marino, Director of Aviation, Baton Rouge Metropolitan Airport
Ms. Dorothy "Dot" McConnell, Executive Director, Ports Association of Louisiana
Mr. Roy Miller, Director, Shreveport Regional Airport
Mr. Daniel Mobley, Executive Director, LA Travel Promotion Association
Justice Revius Ortique, Jr., Chairman, New Orleans Aviation Board
Mr. Kenneth Perret, Jr., Assistant Secretary, Office of Planning & Programming, LDOTD
Mr. Elton Pody, Executive Vice President, Central LA Chamber of Commerce
Mr. John Polanski, Executive Director, Lake Charles Harbor & Terminal District
Mr. Donald Redman, Director of Public & Government Relations, American Automobile Association
Mr. Kent Rogers, Executive Director, Northwest Louisiana, Council of Governments

Mr. Darryl Saizan, Consultant on Intermodal Activities, New Orleans International Airport
Ms. Jeanne Shows-Andre, President, International Freight Forwarders & Customs Brokers Association, The Kearney Company
Mr. Bill Slinkard, Superintendent, Gulf Division, Kansas City Southern Railway
Mr. Glen Smith, Chairman, Louisiana Airport Authority
Mr. Gary Soileau, Executive Director, Greater Krotz Springs Port Commission
Mr. Glenn Thibodaux, General Traffic Manager, Saia Motor Freight Line
Mr. Tony Tramel, Director, Traffic & Transportation Department, Lafayette Consolidated Government
Mr. David Wagner, Managing Director, Port of New Orleans
Mr. Dale Walsh, Materials Flow Manager, Rubicon, Inc.
Mr. Mike Walters, Terminal Manager, Greyhound Lines, Inc.
Mr. Paul Wegener, Vice President, M. G. Maher & Company, Inc.
Ms. Maggie Woodruff, Director, Area Councils & Trans., New Orleans Regional Chamber of Commerce
Mr. Paul Zimmermann, Director of Terminal Operations, Port of New Orleans

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Mr. Raymond Butler, Executive Director, Gulf Intracoastal Canal Association
Mr. John Carnes, Director, Central Region Office, US Maritime Administration
Mr. Thomas Chen, Traffic Coordinator, Formosa Plastics
Mr. R. J. DeBate, Traffic Superintendent, IMC - Agrico
Mr. George Duffy, President, Navios Ship Agencies, Inc.
Mr. Ted Falgout, Executive Director, Greater Lafourche Port Commission
Ms. Elizabeth Ford, Vice President, Jackson-Kearney Group
Mr. Ken Guidry, Executive Director, Red River Waterway Commission
Mr. Channing Hayden, **Jr**., President, New Orleans Steamship Association
Mr. John Holt, Jr., Executive Director, Caddo-Bossier Port Commission
Mr. Erik L. Johnsen, Vice President, Central Gulf Lines, Inc.
Mr. Irvin Joseph, President, Local 3000, Vice President, South Atlantic and Gulf Coast District, I.L.A.
Mr. Patrick Morrissey, President, N.O.M.C., Inc.
Ms. Kathleen Norman, President, H.C. Freight Systems, Inc.
Mr. John Polanski, Deputy Director, Lake Charles Harbor & Terminal District
Mr. Robert Scafidel, Executive Director, Saint Bernard Port, Harbor and Terminal District
Mr. Robert Shaw, Manager, Purchasing, Scheduling, & Distribution, International Paper
Mr. Gary Soileau, Executive Director, Greater Krotz Springs Port Commission
Capt. Jake Stahl, President, Ms. Valley Trade & Transport Council
Mr. Dominic Verona, President, National Marine, Inc.
Mr. David Wagner, Managing Director, Port of New Orleans
Mr. Paul Wegener, Vice President, M.G. Maher & Company, Inc.
Ms. Kathy Williams, Export Traffic Manager, Baumer Foods/Crystal International Association
Ms. Maggie Woodruff, Director, Area Councils and Trans., New Orleans Regional Chamber of Commerce

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Mr. Bruce Easterly, District Engineer Administrator, District 04, LDOTD
Mr. John Evanco, District Engineer Administrator, District 02, L DOTD
Mr. William Fontenot, District Engineer Administrator, District 03, LDOTD
Mr. James Forrest, District Engineer Administrator, District 58, LDOTD
Mr. Kevin Ghirardi, Planning Administrator, South Central Planning and Development Commission
Mr. Grayling Hadnott, Regional Economic Dev. Planner, Acadiana Regional Development District.
Mr. Luke Haynie, Transportation Planner, Rapides Area Planning Commission
Mr. Robert Hennigan, District Engineer Administrator, District 07, LDOTD
Mr. Mike Hollier, Planning Manager, Lafayette Consolidated Government.
Mr. J. Dwight LeBlanc, Jr., Chairman, WTC Transportation Committee
Mr. Max LeComte, President, The Coordinating and Development Corporation
Mr. Wayne Marchand, District Engineer Administrator, District 08, LDOTD
Mr. Stan McGee, Executive Director, Evangeline Economic Development
Mr. Doug Mitchell, Planning Director, North Delta Planning and Development District
Mr. James Porter, Executive Director, Imperial Calcasieu Regional Planning & Development Comm.
Mr. Kent Rogers, Executive Director, Northwest LA Council of Governments.
Mr. Robert Roth, District Engineer Administrator, District 62, LDOTD
Mr. Keith Sayer, Transportation Planner, Rapides Area Planning Commission
Mr. Roy Schmidt, District Engineer Administrator, District 61, LDOTD
Mr. Don Tolar, District Engineer Administrator, District 05, LDOTD
Mr. Jimmy Williams, Executive Director, Kisatchie-Delta Economic Development District Council

Surface Passenger Advisory Council

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Mr. Louis Bangma, Louisiana Association of Railroad Passengers
Mr. Jim Bridger, General Manager, New Orleans Public Belt Railroad
Mr. Walter Brooks, Executive Director, Regional Planning Commission, New Orleans
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Mr. Thomas Clark, Business Development Manager, Aillet, Fenner, Jolly & McClelland, Inc.
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Mr. Daniel Mobley, Executive Director, LA Travel Promotion Association
Mr. Michael Palmieri, Editor, *Louisiana Railroads Quarterly*
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Ms. Lori Reneau, Vice President Government & Infrastructure, Monroe Chamber of Commerce
Mr. John Sita, President, Louisiana Assoc. of Railroad Passengers
Mr. Craig Smith, Vice President & General Manager, N.O. Tours & Airport Shuttle, Inc.
Mr. Robert Tannen, Vice President, Frederick R. Harris, Inc.
Mr. Mike Walters, Terminal Manager, Greyhound Lines, Inc.
Ms. Debera Wetter, General Manager, Intercity Rail Service, National Railroad Passenger Corporation

Trucking Advisory Council

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Major Joseph Booth, Command Inspector, Transportation & Environmental Safety Section, Office of State Police, Dept. of Public Safety & Corrections
Mr. Ronnie Cline, Trucking Division Manager, Nichols Construction Company
Mr. John Deris, Vice President, Acme Truck Line
Ms. Cathy Gautreaux, Executive Director, Louisiana Motor Transport Association
Mr. Gil Giddens, District Manager, Rollins Truck Rental Leasing
Mr. Randy Guillot, President, Triple G Express, Inc.
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Louisiana Statewide Transportation Plan
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CHAPTER 1

INTRODUCTION

Louisiana's Department of Transportation and Development (DOTD) began an effort in mid-2000 to update the State's transportation plan. Louisiana is a model for how each transportation mode plays a vital role in moving both passengers and freight, and the DOTD hoped to build upon recent studies that articulated this point.

Louisiana's water ports, some of the largest in the country, are critical for the movement of raw materials and finished products in support of the agricultural, mining, and industrial base of the State and other areas of the United States, particularly the Midwest. The State's aviation sector provides vital air service for business travel and tourism, and for the movement of time-sensitive, high-value cargo. Public transportation in Louisiana is imperative in workforce development and the State faces an increasing segment of the population that is becoming transit-dependent. Further, the DOTD has recognized the importance of providing choices in transportation modes to as much of the population as practicable. The State's railroads are key players in moving freight and to some extent passengers. The interaction between modes is critical to the efficiencies needed to move the State's economy forward. The highway mode continues to be the cornerstone mode with which all others interact. In addition to providing door-to-door service, trucking provides the connectivity with ports, rail, and aviation. The highway system directly impacts the entire population due to its implications for personal mobility, the standard of living, and economic security. Highways are crucial to both tourism and to commerce, and their condition directly impacts the economy.

Finally, Louisiana needs to foster growth in the economy and in overall population. A safe, efficient, and well-maintained transportation system can be a catalyst for economic growth, while a poor system can be an impediment.

PLANNING CONTEXT

Customer Involvement

The Work Plan for updating Louisiana's Statewide Transportation Plan recognized the importance of building upon the body of work that had already been accomplished. The 1996 Transportation Plan was widely considered to be a strong document, and the DOTD's widespread public involvement process was regarded as the starting point for the Plan update. The Department leaned heavily on a group of Advisory Councils, each responsible for a particular mode. The Councils are, in effect, independent bodies charged with formulating recommendations for inclusion in the Plan. Each met separately but also had the opportunity on several occasions to listen to what the other Councils were considering. Each Council named its own chair, and it is this chairperson that advanced the Advisory Council's recommendations to the Intermodal Advisory Council (IAC).

The IAC is the receptor of recommendations from the other Councils, and was charged with accepting, revising, rejecting, and prioritizing a wide variety of inputs. The IAC worked directly with the DOTD staff and consultant team to assemble a recommended plan that is fiscally constrained, addresses the State's transportation deficiencies in an effective manner, helps achieve the proper modal balance, and satisfies the transportation system goals and objectives adopted by the LIIEP Commission.

The Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission is charged with overseeing the plan development and serves as the final decision-maker in the

planning process. It is comprised of 13 individuals from a wide range of experience and backgrounds, helping ensure a balanced view that considers every possible perspective.

The DOTD also incorporated additional efforts to reach its customers and stakeholders. The agency conducted two large Statewide Conferences, one to kick off the study and one to present the draft Plan. A comprehensive website was established and updated regularly. In addition, several newsletters were mass mailed, along with the aforementioned Advisory Council interaction. Further, the DOTD conducted nine regional public meetings to present the draft Plan and provided copies of the document to every library in the state for public review and comment.

The DOTD's public involvement process is extensive and sincere. The Department went to great lengths to listen and consider all points of view regarding what transportation policies, programs and projects should be enacted in Louisiana.

Technical Analysis

Louisiana's DOTD wanted the update of the Statewide Transportation Plan to be technically grounded. That is, the basis of prioritizing investments and projects for inclusion in the Plan should be as "technical" as possible. A technical analysis will quantify miles of rough roads, number of deficient bridges, miles of congested roadways, number of aged transit vehicles, over-capacity runways, rail line obstacles, etc. Once there is a sound technical basis for considering a project, other factors can be introduced into the prioritization process (like geographic balance, equity, local support, etc.). There is nothing wrong with sound political support for a project, but the technical analysis should "drive" the process.

To that end, the DOTD directed the consultant team to be performance oriented in its approach. Output from the DOTD's pavement and bridge management systems are important components of developing the investment strategies.

The Department also contracted to develop a Statewide Travel Demand Forecasting Model, which is a computerized model that simulates traffic movements, both now and in the future. The Louisiana Model is for highways only, but covers all major roadways (arterials) for both autos and trucks. The model is "populated" with current traffic counts, then it simulates future movements based on population growth, economic activity and traffic generators. The model can show which roadway segments become congested and when — this is obviously a significant tool in prioritizing complex, high-cost congestion relief projects.

The Model output became the primary indicator of priority for Louisiana's "Mega" highway projects — those high cost capacity enhancement relief projects that are of major interest.

Financial Scenarios

Another important aspect of transportation planning is to array priorities in line with the revenues that can reasonably be expected. In that way, the capital program does not become over-subscribed and, subsequently, irrelevant. All states face the issue of overprogramming – it's okay to identify some additional projects that the DOT would undertake with additional money or if some projects become delayed (many often do), but this must be a manageable number. Many states are unable to control their overprogramming because of political pressure to add projects that they cannot afford. When this occurs, the Plan and capital program become irrelevant, as they cannot realistically be delivered. People's expectations rise ("well, the project is in the Plan"), only to be dashed when reality sets in.

The DOTD used sound fiscal constraint as the foundation of this Plan update. Four scenarios were developed, with allocations from programmatic categories identified for each. However,

two of the four scenarios involve generating additional transportation revenues, and the DOTD has made it clear that it cannot proceed to implement these scenarios unless additional revenues are made available.

The four scenarios advanced in this Plan:

- **Scenario 1A (Baseline)** – no additional revenues, but all current funding stays in place at existing levels. Some growth is assumed in each of the revenue types, which differentiates this scenario from a "Status quo" scenario that would assume no growth. However, no adjustments for inflation are assumed to occur during the 30-year planning period.
- **Scenario 1B (Baseline with Adjustment)** – this scenario is exactly the same as 1A except that inflation adjustments are made in the revenue stream in year 11 and again in year 21 of the 30-year planning period. This assumes the Louisiana Legislature, Congress, or both will take some unspecified action in the future to stabilize the buying power of the transportation program, as has happened historically. The Plan assumptions at year 11 and 21 restore lost buying power due to assumed inflation, resulting in about $2.9 billion (Base 2002 dollars) in additional revenues over 1A.
- **Scenario 2 ($250 million Increase)** – Scenario 2 assumes $250 million in new revenues in year 1 from state sources. The revenues in this scenario are also adjusted for inflation in years 11 and 21 (restore buying power), resulting in about $5 billion additional 2002 dollars for highways over Scenario 1B, and $1.6 billion (Base 2002 dollars) for non-highway modes.
- **Scenario 3 ($150 million Increase)** – Scenario 3 adds $150 million in federal highway aid to Scenario 2 revenues, which is also adjusted for inflation. This generates $3.4 billion in increased revenues over Scenario 2. An increase of approximately $90 million in federal transit aid is also included under this scenario.

Thus, the clear identification of these four scenarios and the programmatic implications of each are the cornerstone of this Plan. Each scenario is fiscally constrained, with specific program elements identified.

Multimodal Scope

Louisiana wanted this transportation plan to be truly multimodal. With the Advisory Councils leading the way, each mode was offered the opportunity to become a player at the financial table, depending upon the costs and potential benefits of each initiative. As the reader will see later in this document, the recommended plan increases support for aviation, public transit, rail/highway crossings, ports, light rail, railroads, as well as highways. The issue of providing modal choices and efficiency was paramount.

In order to position the State to seize upon future federal funding opportunities, the DOTD also specified that new, stand-alone Freight Rail and Aviation Plans be prepared as input to the overall plan. These modes had not had new inventories conducted for some time, so it made sense to incorporate this effort.

Consideration of Both Passengers and Freight

Transportation planning efforts have traditionally focused on the movement of people. While tourism, business trips and personal travel are of the utmost importance, freight transportation is critical as well.

Louisiana has been a participant in several visionary transportation planning projects over the past few years. As part of the Southeastern Alliance engaged in the *Latin American Trade and Transportation Study*, Louisiana confirmed the importance of freight transportation to economic growth. The LATTS study also warned that states which do not accommodate increased trade will lose economic opportunity. This principle applies to domestic freight movement also.

The recommendations of this Plan are truly multimodal in nature and are reflective of the way DOTD intends to do business over the next several decades.

PLAN DEVELOPMENT AND COORDINATION

As mentioned under the Customer Involvement section, the coordination and development of this Plan update was undertaken in close cooperation with the eight transportation advisory councils. The advisory councils are comprised of 20-30 individuals each, with many representatives from the private sector:

- Aviation
- Freight Railroad
- Intelligent Transportation Systems
- Ports & Waterways
- Regional Planning Officials (highways)
- Surface Passenger (transit, passenger rail, intercity bus)
- Trucking
- Intermodal

Each Council conducted sessions during the development of the Plan to identify issues important, but not limited to, its core area of transportation. Each Council began its deliberations with an examination of the Plan's goals and objectives, followed by an examination of issues. These issues ranged from statewide policy declarations ("support passenger rail") to DOTD initiatives ("hire staff for Rail Division") to capital recommendations. Each Council advanced its recommendations to the Intermodal Advisory Council. The Intermodal Council was charged with receiving the recommendations, hearing testimony from the various Councils, and then formulating a draft Plan. Once the Intermodal Advisory Council finalized the draft Plan, it was presented to the LIIEP Commission on December 10, 2002 for consideration. The final Plan reflects input from the Commission, as well as consideration of input from statewide information meetings and a formal public review and comment process.

The Statewide Transportation Plan is built from the input of those that know the system best. The Plan, as it evolved through this process, became a vision of the Advisory Councils that shaped it.

RELATIONSHIP WITH OTHER PLANS

Louisiana: Vision 2020 is the State's long-term economic development strategy. Adopted in March 1999, *Vision 2020* establishes specific benchmarks designed to develop Louisiana into a "vibrant, balanced economy; a fully engaged, well-educated workforce; and a quality of life that places it among the top ten states in the nation to live, work, visit and do business." The plan is based upon three primary goals:

- Learning Enterprise – providing learning opportunities for the pursuit of knowledge;
- Culture of Innovation – developing a diverse and thriving set of technology-driven industries;
- Top Ten State – elevating Louisiana's standard of living for all citizens.

Each goal has an identified set of objectives. Transportation is an important component of both Goals 2 and 3. Objective 2.3 states "To improve and sustain Louisiana's physical infrastructure, including highways, waterways, ports, and rail." The objective contains 22 separate benchmarks for infrastructure quality and extent, ranging from implementation of the TIMED Program to pavement/bridge condition, parishes with a public transportation system, rail/highway crossings with active warning devices, airport performance, and water port performance.

Objective 2.4, development of the State's information and telecommunications infrastructure, has three benchmarks related to transportation. Objective 3.3 ("to have safe homes, schools, and streets …") lists three safety-related benchmarks for transportation.

Even Goal 1 has implications for public transportation by providing access to education and job training and enabling all citizens to fully participate in the workforce.

The transportation objectives and benchmarks identified in *Vision 2020* are readily apparent as one reviews this document. The DOTD was ever mindful of the objectives established in *Vision 2020*, and the Plan's scenarios are crafted to implement these important benchmarks.

CHAPTER 2

VALUES, GOALS & OBJECTIVES

The Values, Goals, and Objectives adopted for the update of the Louisiana Statewide Transportation Plan are based upon those contained in the 1996 Plan with revisions as appropriate. The revisions resulted from a consultant team review, a review of *Louisiana: Vision 2020*, the 2000 Louisiana Transportation Conference, the first round of Advisory Council meetings, a review by the LIIEP Commission, and from a review of the most recent federal transportation planning requirements.

What follows is a presentation of the revised values, goals and objectives, based on this input from the statewide transportation planning process. Having incorporated these revisions, this set of values, goals and objectives was submitted to and adopted by the Commission during their meeting on March 4, 2002.

Values

- **Mobility:** Movement of people and freight on the statewide transportation system without undue restriction;
- **Accessibility:** Equitable and strategic access to transportation facilities, terminals and services;
- **Choice/Flexibility:** Access to all feasible transportation alternatives and the right to select the most advantageous alternative on an on-going basis;
- **Safety:** Ability to travel or transport products at a reasonable level of risk commensurate with the prudence of the users;
- **Environmental Responsibility:** Travel or transport which is compatible with environmental values and which seeks to enhance the natural and human environment;
- **Visionary:** A view of the future that goes beyond the ability to predict from current trends. Pursuing a set of actions that minimizes pre-emption of future choices;
- **Partnering/Interdependence:** Use of the strengths of the component transportation systems to the greatest advantage of the whole;
- **Innovation/Adaptability:** Pursuit, implementation and integration of the best technological and organizational advancements available;
- **Balance/Equity:** Provision for fair and honest competition and impartial system access;
- **Market Responsiveness:** Ability to react to quantitative and qualitative changes in transportation supply and demand;
- **Service Quality:** System effectiveness in meeting user needs and expectations;

- **Economic Vitality:** Promotion of the growth of a diverse, vigorous and durable marketplace and business community;

- **Fiscal Responsibility:** Prudent acquisition and allocation of resources without unduly restricting future investment opportunities;

- **Beauty/Aesthetic Quality:** Compatibility with urban and rural landscape and pleasing to the human senses; and

- **Social Responsibility:** Providing transportation services to meet basic human needs.

Goals and Objectives

Goal 1: To develop and maintain an innovative, balanced, safe, equitable, integrated system of transportation facilities and services.

- Develop a multimodal Statewide Transportation Plan which can be used to guide statewide transportation policy and investment decisions;

- Promote the coordinated and efficient use of available and future modes of transportation;

- Promote a balanced spatial distribution of activity and equitable opportunities for all groups;

- Develop innovative management practices, new intelligent transportation system (ITS) technologies, and other techniques to improve transportation facilities and services;

- Develop intermodal connections to facilitate transfers among transportation modes;

- Identify underutilized facilities and services to avoid redundant investments; and

- Provide connectivity among state, local, and private transportation facilities and services.

Goal 2: To provide essential passenger-transportation services at reasonable public expense, meeting the diverse needs of the people of Louisiana regardless of their geographic location, physical condition, economic status or service requirements.

- Define appropriate minimum levels of passenger-transportation service, considering reasonable public expenditure, to provide access to, and within all regions of the State;

- Increase accessibility of individuals to employment, educational/vocational training opportunities, and to high-quality health-care services; and

- Develop special programs to address the needs of the elderly and handicapped.

Goal 3: To provide a transportation system that fosters diverse economic and job growth, international and domestic commerce, and tourism through prudent investment in facilities and

services that improve mobility and access. The system should be responsive to free markets, to user needs and expectations, through flexibility and choice, in a competitive, multimodal environment.

- Develop a multimodal Statewide Transportation Plan consistent with statewide economic goals;
- Ensure public investment is consistent with, and does not degrade, market-driven private investment;
- Improve the level of service of freight and passenger transportation throughout the State;
- Develop and implement programs to improve access to intermodal facilities and the efficiency of intermodal transfers;
- Improve access to major existing industrial, commercial, agricultural, and recreational facilities;
- Open new areas for industrial use, commercial use, tourist and other productive uses;
- Where feasible, provide a meaningful choice of travel modes for freight and passengers;
- Provide resources necessary for Louisiana to promote itself as a gateway for Latin American Trade; and
- Recognize and promote the strategic importance of Louisiana's intermodal transportation system to the nation's energy supply, and secure and provide the resources necessary to support and enhance that role.

Goal 4: To provide a regulatory and comprehensive policy framework that promotes partnerships, coordination, and cooperation among transportation users and providers in a competitive multimodal environment.

- Promote effective public and private transportation partnerships;
- Develop and implement a marketing program to educate providers and users about the capabilities of each mode, in order to foster partnerships and competition;
- Develop and effectively communicate the State's position on federal policies and regulations as they relate to a broad range of transportation issues;
- Cooperate with metropolitan planning organizations and other local agencies in the development of multimodal plans and improvement programs to ensure consistency between their plans and programs, and statewide goals, needs, and priorities;
- Identify and eliminate regulatory barriers to partnerships among transportation users and providers, while maintaining a competitive environment; and

- Provide the opportunity for stakeholder input and involvement in the development and implementation of the multimodal Statewide Transportation Plan.

Goal 5: To improve safety in all transportation modes through timely maintenance of existing infrastructure, development of new infrastructure, enhancement of operational controls of both passenger and freight movements, and through expanded public education and awareness.

- Design and implement Pavement and Bridge Management Systems to address pavement and bridge maintenance and rehabilitation in a timely manner;

- Design and implement a Safety Management System that will assist the State in reducing injury and property damage accidents;

- Design and implement a Congestion Management System for selected metropolitan areas to manage the efficiency of the existing transportation system and minimize the need for investment in new infrastructure;

- Review safety awareness, education, and training programs in order to improve their effectiveness and to achieve increased cooperation among state and local governments, and private organizations. Develop and implement new programs where necessary; and

- Enhance transportation operations control and communications systems to improve safety, convenience and efficiency.

Goal 6: To develop an efficient transportation system that improves air, water and noise indices to acceptable levels as defined by regulatory standards, reduces dependency on foreign energy sources, preserves historic, cultural, and environmentally sensitive sites, promotes the natural beauty of the State, raises the quality of life for Louisiana's citizens, use land resources efficiently by incorporating smart growth development principles, and promote and implement the context-sensitive design of transportation infrastructure.

- Develop transportation facilities and services that encourage the conservation of energy resources and enhance the State's environmental, historic, and scenic values;

- Develop criteria for evaluation and selection of transportation enhancement projects for historic, cultural, scenic, or environmental preservation in transportation corridors;

- Develop transportation projects and programs that conform to the State Implementation Plan (SIP) for air-quality non-attainment and maintenance areas;

- Develop and implement a Congestion Management System in selected metropolitan areas to alleviate congestion and improve air quality;

- Mitigate transportation-related water pollution, especially in wetland areas, to maintain acceptable ground and surface water quality as defined by regulatory standards;

- Mitigate noise pollution from transportation sources to maintain an acceptable acoustical environment as defined by regulatory standards;

- Identify and seek to resolve contradictions between federal and state environmental regulations pertaining to transportation; and

- Promote a strong dialogue between state and federal resource agencies, as well as the private sector, to help advance a planning process that supports environmental streamlining.

Goal 7: To develop stable but flexible transportation financing that provides adequate funds for both the preservation of existing and the construction/implementation of new facilities and services.

- Support fair and equitable treatment of public and private transportation modes in terms of public subsidies and taxation;

- Support public investment that complements private investment, and vice-versa;

- Encourage focused private-sector investments in Louisiana's transportation infrastructure and services by creating financial incentives;

- Identify and utilize non-traditional public funding sources to improve transportation facilities and services;

- Identify and eliminate regulatory barriers to financing intermodal facilities;

- Designate a portion of transportation revenues exclusively for preservation of existing facilities and services;

- Limit new facilities and services to those economically justified based on user benefits and true economic development. Recognize the intangible social benefits in the economic valuation of public transportation facilities and services;

- Develop a cross-modal evaluation capability to establish priorities among competing projects;
- Initiate a comprehensive review of innovative financing options, such as toll financing, local option taxes, private financing, tax increment financing, and local state infrastructure/land banks;
- Initiate a comprehensive review of tax and fiscal reform; and
- Create/advocate creation of a State toll authority.

TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The most recent federal transportation legislation, TEA-21, revised and amended federal planning requirements. The statewide transportation planning process establishes a cooperative, continuous, and comprehensive framework for making transportation investment decisions throughout the State and is administered jointly by Federal Highway Administration and Federal Transit Administration.

Continuing Provisions

Among the most significant continuing provisions are the following:

- Federal reliance on the statewide transportation planning process, established under Intermodal Surface Transportation Efficiency Act (ISTEA), as the primary mechanism for cooperative transportation decision-making throughout the State.
- Coordination of statewide planning with metropolitan planning.
- Opportunity for public involvement provided throughout the planning process.
- Emphasis on fiscal constraint and public involvement in the development of a three-year Statewide Transportation Improvement Program.
- Emphasis on involving and considering the concerns of Tribal governments in planning.
- State development of statewide transportation plans and programs.

Key Modifications

TEA-21 consolidates the previous 23 planning factors into seven broad areas to be considered in the planning process (same as for metropolitan planning): [1204(c)]

- Support the economic vitality of the United States, the States, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety and security of the transportation system for motorized and nonmotorized users;
- Increase the accessibility and mobility options available to people and for freight;
- Protect and enhance the environment, promote energy conservation, and improve quality of life;
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.

The Federal/State partnership is very important to transportation planning; the DOTD has nurtured its relationship with the FHWA and other federal transportation agencies, and has made every reasonable effort to comply with the intent of Congress and with the federal regulations resulting from TEA-21.

CHAPTER 3

PUBLIC INVOLVEMENT

The Louisiana Department of Transportation and Development (DOTD) has strived to include public input at every opportunity during development of the Statewide Transportation Plan. There were several mechanisms by which DOTD sought and received this input:

- The Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission
- Eight Advisory Councils
- Two Statewide Transportation Conferences
- Project Website
- Newsletters
- Nine Regional Public Meetings
- DOTD's Formal Public Involvement Process

LIIEP COMMISSION

On June 15, 2001, Louisiana Governor M.J. "Mike" Foster signed Act 437, creating the Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission.

The LIIEP Commission, as called for in the enacting legislation, is composed of 13 members as follows:

- The governor or his designee
- An assistant chief of staff, appointed by the governor, from the Office of the Governor
- The secretary of the DOTD or his designee (Chair)
- The commissioner of the division of administration or his designee
- The secretary of the Department of Economic Development or his designee
- The president of the Louisiana senate or his designee
- The speaker of the Louisiana House of Representatives or his designee
- The chairman of the Senate Transportation, Highways and Public Works Committee or his designee
- The chairman of the House Transportation, Highways and Public Works Committee or his designee
- The chairman of the Senate Commerce Committee or his designee
- The chairman of the House Commerce Committee or his designee
- Two commissioners, appointed by the governor, selected from the state at large who are representatives of Louisiana business

The role of the Commission is outlined below:

- Serve as Policy Committee for the update of the Statewide Transportation Plan.
- Serve as the advocate for funding for transportation infrastructure and services critical to economic growth in Louisiana.
- Oversee and guide implementation of the Plan.

ADVISORY COUNCILS

As previously described, the Advisory Councils are independent bodies charged with formulating recommendations for inclusion in the Plan. Each met separately, but also had the opportunity on several occasions to listen to what the other Councils were considering. Each Council named its own chair, and it was this chairperson that advanced the Advisory Council's recommendations within the Intermodal Advisory Council (IAC).

The IAC acted as the clearinghouse for recommendations from the other Advisory Councils, and was charged with accepting, revising, rejecting, and prioritizing a wide variety of inputs used in formulating these recommendations. The IAC worked directly with the DOTD and consultant team to assemble the recommended plan, which was then presented to the LIIEP Commission (**Figure 3.1**)

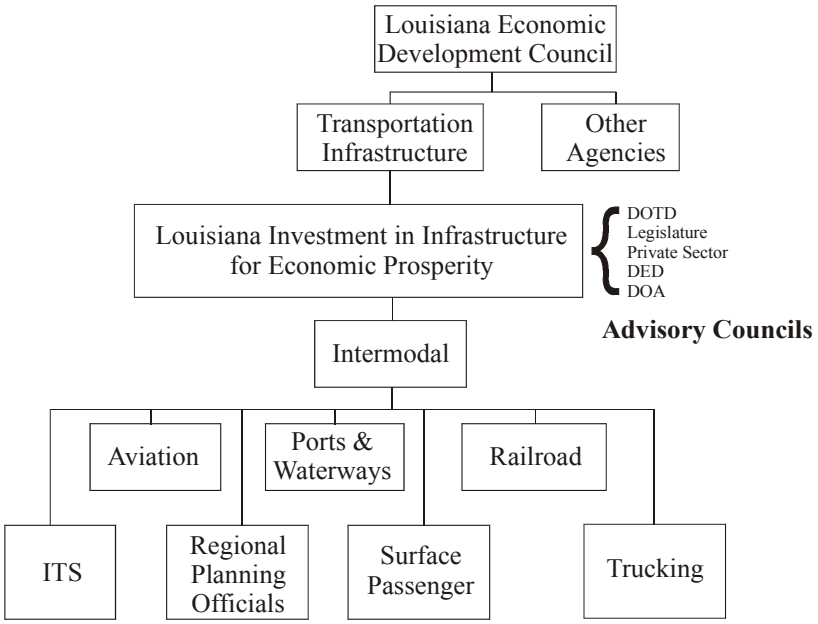


Figure 3.1
Relationship of Modal Councils in Updating the LSTP

With the exception of the Intermodal and Regional Planning Officials Advisory Councils, each Advisory Council met three times during the course of developing the draft Statewide Transportation Plan. The meetings were held during the following times:

April 17-18, 2001

Late February – Early April, 2002

October, 2002

The fourth IAC meeting was held November 14, 2002

The Regional Planning Officials (RPO) Advisory Council

The RPO Advisory Council was the main conduit for input regarding the highway component of the Statewide Transportation Plan. As its name implies, the group is made up of planning officials from Louisiana's nine DOTD Districts, nine metropolitan planning areas, and eight rural planning areas, as well as representatives from the Department of Economic Development and the World Trade Center.

A main function of the RPO MAC was to provide an opportunity for advocates of 51 "Megaprojects" to present to the Council reasons why their major roadway improvements should be included in the Plan. Project sponsors were requested to provide and present specific information regarding their proposed project, including its description, purpose, benefits, cost, importance to the state, potential funding sources and other related information. The presentations from project sponsors took place from late February to early April 2002.

During the last of these meetings, on April 3, the Consultant Team distributed and presented exhibits summarizing the megaprojects, as well as the evaluation criteria and process to be used in assessing their impacts and justification for inclusion in the updated Plan. The results of the April 3 meeting served as the foundation of the evaluation process that DOTD staff and the consultant team implemented to determine those projects that would provide the most benefit to the State in accordance with the adopted Goals and Objectives.

The Intermodal Advisory Council

The third and fourth meetings of the Intermodal Advisory Council, held on October 23 and November 14, 2002 served as the primary mechanisms whereby recommendations from the seven other Advisory Councils were considered for incorporation into the draft Statewide Transportation Plan, and for presentation to the LIIEP Commission. During the meetings, chairs from each Advisory Council presented the recommendations formulated through previous deliberations of their Advisory Council, where they were commented on and further refined by the IAC.

At the conclusion of the November 14 meeting, consensus was reached on the overall set of recommendations to be included in the initial draft of the Plan. These recommendations were presented to the LIIEP Commission on December 10, 2002.

Other Advisory Council Participation

In addition to generating recommendations for consideration by the IAC, several Councils, including Aviation, Freight Rail, Ports & Waterways and Surface Passenger Transportation, used the Council meetings to participate in the development of the separate, individual plans created for these modes as part of the statewide Plan update.

While separate plans were not created for the ITS and Trucking modes, these Advisory Councils similarly used their meetings to discuss issues related to each mode. Over the course of the three meetings, these discussions evolved into recommendations that were included, where appropriate, in the initial draft of the Statewide Transportation Plan.

STATEWIDE TRANSPORTATION CONFERENCES

As with the update of the Plan, public input was essential in developing the original Louisiana Statewide Intermodal Transportation Plan (SITP, published in 1996). The SITP was built on a strong foundation of public involvement and consensus-building. For the update, DOTD wanted an equal amount of attention to be paid to the solicitation and incorporation of the public's views as was done for the SITP.

With this mandate in hand, DOTD, in collaboration with the Consultant Team, held the first Statewide Transportation Conference in New Orleans, from July 31 to August 1, 2000, to kick-off the update to the STIP.

The conference was attended by more than 175 persons representing each transportation mode, state and local governments, educators, elected officials, state agencies, shippers, operators, the business community and other interest groups. DOTD arranged for presentations and comments from a host of speakers, providing a sound basis for discussing the future of transportation in Louisiana.

Conference attendees enthusiastically weighed in on how, where, why and by how much the DOTD could improve transportation. The DOTD secretary, Dr. Kam K. Movassaghi, presided over the conference, delivered his personal comments on the state of transportation in Louisiana, attended breakout sessions and made himself available to answer questions offered during the conference.

A second Statewide Transportation Conference was held January 9 – 10, 2003, in Baton Rouge to formally present the initial draft of the Louisiana Statewide Transportation Plan. The 1 ½- day gathering consisted of presentations by experts on each modal aspect of the Plan, a briefing by Carla Berroyer, Wilbur Smith Associates, on the possible implications of federal transportation legislation reauthorization for Louisiana transportation interests, a ½-day "open house" where conference attendees had the opportunity to ask questions directly of DOTD officials and staff, as well as the consultant team, and a ½-day comment forum where conference attendees were able to make formal public comment regarding their thoughts on the draft Plan.

OTHER PUBLIC INVOLVEMENT ACTIVITIES

Several other techniques for engaging the public were employed in the planning process:

Project Website

In the fall of 2000, a project website, fully documenting the development of the Statewide Transportation Plan was established at www.lastateplan.org. The website provides a "one-stop shop" to information related to the Plan, including links to event details, as well as key documents and contacts.

Newsletters

Periodically over the course of development, a series of newsletters were published that provided the general public details of how the update of the Statewide Transportation Plan was progressing. The newsletters provided information regarding Advisory Council meetings, development of the statewide travel demand forecasting model, and various other aspects of developing the Plan. The newsletters are included in Appendix B.

Regional Public Meetings

In July 2000, the Louisiana Department of Transportation and Development (LDOTD) initiated an update to the state's long-range multi-modal transportation plan. The Louisiana Statewide Transportation Plan (LSTP) includes the policies, programs and projects that are needed to improve existing and future transportation conditions throughout Louisiana, as well as strengthen the state's economy and improve the quality of life for its citizens. The LSTP addresses the movement of people and freight across all modes of transportation.

The LSTP included an extensive public outreach program including two Statewide Conferences, establishment and meetings with the Louisiana Investment in Infrastructure and Economic Prosperity (LIIEP) Commission and Advisory Councils for each transportation mode, newsletters, and a project website, and the regional public meetings summarized in this document.

Purpose of Meetings

The regional public meetings were part of LDOTD's extensive outreach program to present the preliminary results of the LSTP and to provide all local and regional governmental agencies and stakeholders throughout the state an opportunity to comment on the transportation needs in their respective areas. The regional public meetings were conducted in each of the state's nine metropolitan areas during the month of February 2003.

Public Meeting Format

Preliminary findings and recommendations of the LSTP were presented. The presentation, as well as a meeting hand-out, included an overview and background of the LSTP and its preliminary findings and recommendations for each mode of transportation.

Following the presentation, meeting attendees were given an opportunity to state their comments regarding the Plan results. Display boards of key project findings and recommendations were available for review by meeting attendees and facilitated one-on-one discussions with the Study Team.

Public Meeting Locations

The regional public meetings were conducted in the following locations:

Tuesday, February 11, 2003
Clifton Chenier Center
Lafayette, Louisiana

Wednesday, February 12, 2003
Pineville City Hall
Pineville, Louisiana

Thursday, February 13, 2003
St. Tammany Council Chambers
Mandeville, Louisiana

Tuesday, February 18, 2003
East Bank Jefferson Parish Library
Metairie, Louisiana

Wednesday, February 19, 2003
Lake Charles Civic Center
Lake Charles, Louisiana

Thursday, February 20
DOTD Maintenance Unit Office
Gray, Louisiana

Tuesday, February 25, 2003
Bluebonnet Library
Baton Rouge, Louisiana

Wednesday, February 26, 2003
Monroe City Hall
Monroe, Louisiana

Thursday, February 27, 2003
Shreveport Fire Fighter's Museum
Shreveport, Louisiana

The regional public meetings were advertised in the Official Parish Journals for the areas in which the meetings were held. Local governments also advertised the meetings through their standard meeting notification procedures.

Attendees at the regional public meetings were informed that copies of the Draft Plan Report were located at all public libraries across the state as well as each DOTD District Office.

Public Meeting Attendance

A total of 343 attended the nine regional meetings. Meeting attendees included elected officials, LDOTD staff, representatives of local and regional governments, chambers of commerce and local organizations, citizens, and other transportation stakeholders. The number of meeting attendees by location follows:

Lafayette – 40 persons
Pineville/Alexandria – 32 persons
Mandeville – 26 persons
Metairie/New Orleans – 22 persons
Lake Charles – 30 persons
Gray/Houma – 40 persons
Baton Rouge – 78 persons
Monroe – 27 persons
Shreveport – 48 persons

Formal Public Comment

Formal procedures for incorporating public involvement within statewide transportation planning activities were adopted by DOTD and the nine metropolitan planning organizations in March 1995[1]. The procedures call for a draft statewide plan to be published, with copies being made available directly to the following agencies:

- Federal Highway Administration Division offices
- Federal Transit Administration, Region office
- Federal Aviation Administration
- US Department of Housing and Urban Development
- US Environmental Protection Agency, Regional office
- US Department of Commerce
- US Army Corps of Engineers Districts
- US Coast Guard Districts
- LA Department of Environmental Quality, Air Quality Division
- LA Department of Economic Development
- LA State Planning Office
- Each Metropolitan Planning Organization
- Each Urban Transit System Operator
- Each Parish Police Jury

Additionally, copies of the draft are to be made available at each DOTD District Office, and at the main and branch libraries in each parish, as well as the state libraries.

Notices of the availability of the document are to be published twice in the official Parish journal in each parish and the Baton Rouge Advocate as display advertisements with the location where the document could be reviewed, a brief description of the document, the deadline for comments and the address where comments may be sent for consideration. The period for public review and comment is no less than 45 days.

[1] *Statewide Transportation Planning Public Involvement Procedures*, March 1995.

All written and oral comments to the initial draft Statewide Transportation Plan received during the nine regional meetings and formal public review period were carefully considered by DOTD, in collaboration with the Intermodal Advisory Committee and the consultant team, for incorporation into the final draft of the Statewide Transportation Plan.

A summary of comments received relating to the Draft Statewide Transportation Plan can be found in **Appendix C**.

Upon revision and/or establishment of the document as the official Statewide Transportation Plan, the document is to be distributed and notices of availability were published as described above; however, notices were published once and gave the location where the document may be reviewed, as well as a brief description of the document.

Major revisions to the official Statewide Transportation Plan are to be published and made available to the public as described above. Minor revisions to the official Statewide Transportation Plan are to be published and availed to the public as described above, except that the public review and comment period was no less than 15 days.

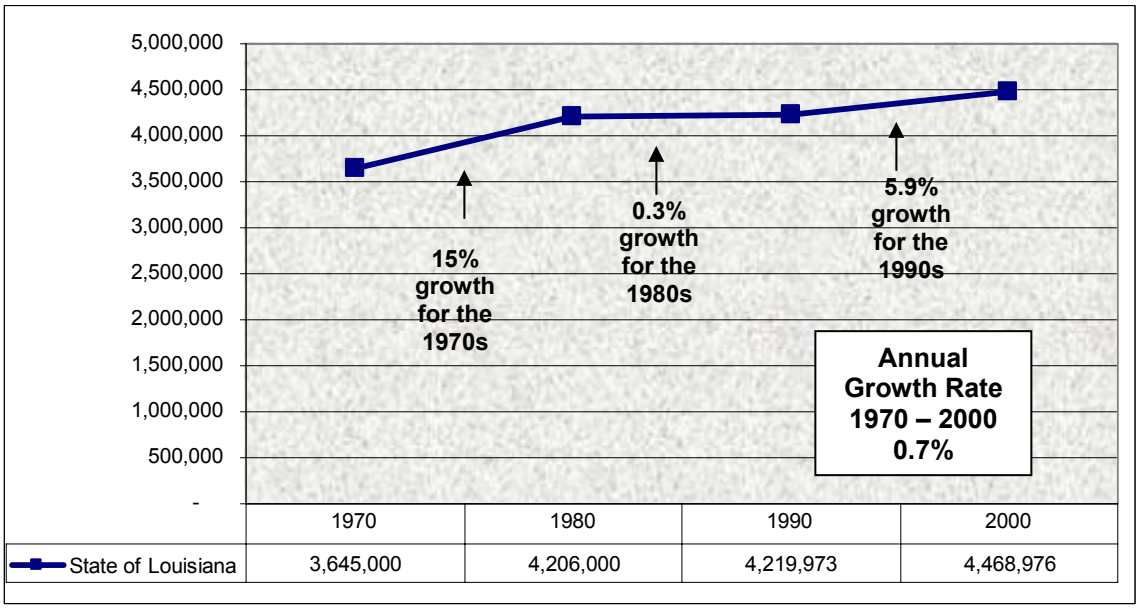
An overview of key demographic characteristics in Louisiana related to population, employment and income is presented in this chapter. Additionally, this chapter includes forecasts for population and employment, which served as inputs into the statewide travel demand model and helped identify transportation improvements that will be needed in the future.

HISTORICAL POPULATION AND EMPLOYMENT GROWTH

Population

Figure 4.1 displays historical population growth in Louisiana. As shown, Louisiana's population in the Years 1970 and 2000 were 3.6 million and 4.5 million, respectively. The population grew by just over 800,000 persons or 23 percent between 1970 and 2000, an annual growth rate of 0.7 percent. The majority of this growth occurred during the 1970s when the population grew by 15 percent. Minimal growth occurred during the 1980s and population began to increase again during the 1990s with a 5.9 percent growth over 10 years.

Figure 4.1
Historical Population



Source: US Census Bureau

As shown in **Table 4.1**, the population in Louisiana increased by 249,000 persons between 1990 and 2000. This represents an annual growth rate of 0.6 percent. St. Tammany Parish accounted for 19 percent of this increase, followed by East Baton Rouge Parish with 13 percent, and Lafayette Parish with 10 percent. Although the majority of parishes experienced growth during the 1990s several parishes, including Orleans, Rapides, St. Mary and Vernon Parishes, experienced population loss. **Figure 4.2** displays the parishes in Louisiana.

Table 4.1
Population by Parish

Parish	Population			Employment			Median Household Income		
	1990	*2000*	*% Difference*	*1990*	*2000*	*% Difference*	*1989 ($)*	*1999 ($)*	*% Difference*
Acadia	55,882	58,861	5.33%	18,087	21,705	20.00%	16,022	26,684	66.55%
Allen	21,226	25,440	19.85%	6,570	11,561	75.97%	15,838	27,777	75.38%
Ascension	58,214	76,627	31.63%	28,504	41,152	44.37%	27,435	44,288	61.43%
Assumption	22,753	23,388	2.79%	6,434	6,756	5.00%	20,021	31,168	55.68%
Avoyelles	39,159	41,481	5.93%	12,270	15,960	30.07%	13,451	23,851	77.32%
Beauregard	30,083	32,986	9.65%	10,823	12,622	16.62%	22,442	32,582	45.18%
Bienville	15,979	15,752	-1.42%	5,212	5,587	7.19%	16,043	23,663	47.50%
Bossier	86,088	98,310	14.20%	37,827	55,260	46.09%	26,058	39,203	50.45%
Caddo	248,253	252,161	1.57%	134,850	151,703	12.50%	22,395	31,467	40.51%
Calcasieu	168,134	183,577	9.18%	82,838	105,265	27.07%	24,375	35,372	45.12%
Caldwell	9,810	10,560	7.65%	3,186	3,972	24.67%	16,069	26,972	67.85%
Cameron	9,260	9,991	7.89%	5,503	5,702	3.62%	25,164	34,232	36.04%
Catahoula	11,065	10,920	-1.31%	3,707	4,243	14.46%	14,956	22,528	50.63%
Claiborne	17,405	16,851	-3.18%	5,810	6,054	4.20%	16,073	25,344	57.68%
Concordia	20,828	20,247	-2.79%	6,789	7,578	11.62%	17,265	22,742	31.72%
Desoto	25,346	25,494	0.58%	8,010	9,596	19.80%	16,315	28,252	73.17%
East Baton Rouge	380,105	412,852	8.62%	231,480	291,026	25.72%	27,224	37,224	36.73%
East Carroll	9,709	9,421	-2.97%	3,158	3,428	8.55%	9,791	20,723	111.65%
East Feliciana	19,211	21,360	11.19%	6,516	8,188	25.66%	20,139	31,631	57.06%
Evangeline	33,274	35,434	6.49%	9,963	11,955	19.99%	13,797	20,532	48.81%
Franklin	22,387	21,263	-5.02%	7,647	9,122	19.29%	15,159	22,964	51.49%
Grant	17,526	18,698	6.69%	4,295	4,640	8.03%	17,711	29,622	67.25%
Iberia	68,297	73,266	7.28%	30,632	36,561	19.36%	20,838	31,204	49.75%
Iberville	31,049	33,320	7.31%	15,729	18,186	15.62%	20,371	29,039	42.55%
Jackson	15,705	15,397	-1.96%	5,222	5,511	5.53%	18,804	28,352	50.78%
Jefferson	448,306	455,466	1.60%	226,552	278,308	22.85%	27,916	38,435	37.68%
Jefferson Davis	30,722	31,435	2.32%	10,548	11,360	7.70%	18,467	27,736	50.19%
Lafayette	164,762	190,503	15.62%	107,340	142,173	32.45%	24,339	36,518	50.04%
Lafourche	85,860	89,974	4.79%	31,497	41,221	30.87%	21,416	34,910	63.01%
Lasalle	13,662	14,282	4.54%	5,399	5,580	3.35%	18,597	28,189	51.58%
Lincoln	41,745	42,509	1.83%	20,622	24,290	17.79%	19,254	26,977	40.11%
Livingston	70,526	91,814	30.18%	16,118	26,375	63.64%	25,470	38,887	52.68%
Madison	12,463	13,728	10.15%	4,101	5,238	27.72%	12,792	20,509	60.33%
Morehouse	31,938	31,021	-2.87%	11,043	11,764	6.53%	17,309	25,124	45.15%
Natchitoches	36,689	39,080	6.52%	13,656	18,153	32.93%	15,778	25,722	63.02%
Orleans	496,938	484,674	-2.47%	327,098	323,199	-1.19%	18,477	27,133	46.85%
Ouachita	142,191	147,250	3.56%	70,451	86,316	22.52%	21,129	32,047	51.67%
Plaquemines	25,575	26,757	4.62%	19,790	21,967	11.00%	24,076	38,173	58.55%
Pointe Coupee	22,540	22,763	0.99%	6,824	8,585	25.81%	18,772	30,618	63.10%

Table 4.1, continued
Population by Parish

Parish	Population			Employment			Median Household Income		
	1990	*2000*	*% Difference*	*1990*	*2000*	*% Difference*	*1989 ($)*	*1999 ($)*	*% Difference*
Rapides	131,556	126,337	-3.97%	61,959	72,563	17.11%	20,811	29,856	43.46%
Red River	9,387	9,622	2.50%	3,406	3,546	4.11%	14,831	23,153	56.11%
Richland	20,629	20,981	1.71%	8,418	8,882	5.51%	15,298	23,668	54.71%
Sabine	22,646	23,459	3.59%	7,427	8,443	13.68%	16,790	26,655	58.76%
St. Bernard	66,631	67,229	0.90%	18,081	23,207	28.35%	25,482	35,939	41.04%
St. Charles	42,437	48,072	13.28%	22,033	25,141	14.11%	31,777	45,139	42.05%
St. Helena	9,874	10,525	6.59%	2,295	2,757	20.13%	15,475	24,970	61.36%
St. James	20,879	21,216	1.61%	9,338	8,598	-7.92%	23,105	35,277	52.68%
St. John	39,996	43,044	7.62%	14,014	16,487	17.65%	29,035	39,456	35.89%
St. Landry	80,331	87,700	9.17%	26,042	29,444	13.06%	14,670	22,855	55.79%
St. Martin	43,978	48,583	10.47%	14,301	15,529	8.59%	19,116	30,701	60.60%
St. Mary	58,086	53,500	-7.90%	31,141	33,056	6.15%	20,980	28,072	33.80%
St. Tammany	144,508	191,268	32.36%	50,421	84,759	68.10%	30,656	47,883	56.19%
Tangipahoa	85,709	100,588	17.36%	31,477	45,219	43.66%	16,849	29,412	74.56%
Tensas	7,103	6,618	-6.83%	2,460	2,913	18.41%	11,931	19,799	65.95%
Terrebonne	96,982	104,503	7.76%	43,766	54,864	25.36%	21,765	35,235	61.89%
Union	20,690	22,803	10.21%	5,791	8,751	51.11%	18,083	29,061	60.71%
Vermillion	50,055	53,807	7.50%	17,731	21,087	18.93%	18,202	29,500	62.07%
Vernon	61,961	52,531	-15.22%	30,000	25,194	-16.02%	19,147	31,216	63.03%
Washington	43,185	43,926	1.72%	14,938	17,665	18.26%	16,246	24,264	49.35%
Webster	41,989	41,831	-0.38%	16,913	17,263	2.07%	18,716	28,408	51.78%
West Baton Rouge	19,419	21,601	11.24%	9,218	14,099	52.95%	24,852	37,117	49.35%
West Carroll	12,093	12,314	1.83%	3,714	4,347	17.04%	14,924	24,637	65.08%
West Feliciana	12,915	15,111	17.00%	7,001	8,066	15.21%	19,402	39,667	104.45%
Winn	16,269	16,894	3.84%	5,922	6,750	13.98%	16,967	25,462	50.07%
Totals/State Average	**4,219,973**	**4,468,976**	**5.9%**	**2,019,908**	**2,416,492**	**19.63%**	**21,949**	**32,566**	**48.37%**

Source: Employment – Woods & Poole, Population and Income - US Census Bureau

Employment

Employment in Louisiana increased from 2.0 million jobs in 1990 to 2.4 million in 2000. While population grew at an annual rate of 0.6 percent between 1990 and 2000, employment grew three times faster at a rate of 1.8 percent. Nearly half (46 percent) of the employment growth during the 1990s occurred in the following four parishes: East Baton Rouge, Jefferson, Lafayette and St. Tammany. Three parishes experienced a loss in employment during the 1990s, including Orleans, St. James and Vernon Parishes.

Median Household Income

Median household income in Louisiana grew from $21,949 in 1989 to $32,566 in 1999 (unadjusted dollars), an increase of 48 percent (annual increase of 4 percent). This is 22 percent below the 1999 national average of $41,994. Median household income in 1999 ranged from $19,799 in Tensas Parish to $47,883 in St. Tammany Parish.

Figure 4.2
Parishes

POPULATION AND EMPLOYMENT FORECASTS

Forecasts are important to long range transportation planning and serve as a basis for determining future transportation needs in the State. Future year forecasts serve as inputs into the statewide travel demand model which is used to estimate future trip generation and traffic volumes for roadways and to evaluate highway improvement options. Forecasts utilized in this study were obtained from Woods & Poole Economics, who develop long-term economic and demographic regional projections for every county (parish) in the United States. Projections at the Parish level for population and employment for the Years 2010 and 2030 are shown in **Tables 4.2 and 4.3**.

The Woods & Poole Forecasting Process

Woods & Poole uses a five-step process for developing their population and employment forecasts:

US Population and Employment Projections – National population projections are based on cohort analysis from the US Census Bureau. Employment projections are based on Woods & Poole's nationally-recognized employment forecasting model.

Table 4.2
Projected Population by Parish

Parish	2000	2010	Annual Growth Rate (2000-2010)	2030	Annual Growth Rate (2010-2030)
Acadia	58,861	61,348	0.4%	67,749	0.5%
Allen	25,440	26,521	0.4%	29,155	0.5%
Ascension	76,627	93,204	2.0%	127,672	1.6%
Assumption	23,388	24,273	0.4%	26,751	0.5%
Avoyelles	41,481	42,644	0.3%	46,043	0.4%
Beauregard	32,986	34,987	0.6%	39,884	0.7%
Bienville	15,752	15,785	0.0%	16,235	0.1%
Bossier	98,310	111,227	1.2%	139,499	1.1%
Caddo	252,161	257,106	0.2%	273,595	0.3%
Calcasieu	183,577	197,574	0.7%	230,168	0.8%
Caldwell	10,560	10,852	0.3%	11,691	0.4%
Cameron	9,991	10,600	0.6%	12,140	0.7%
Catahoula	10,920	10,760	-0.1%	10,759	0.0%
Claiborne	16,851	16,934	0.0%	17,467	0.2%
Concordia	20,247	19,851	-0.2%	19,589	-0.1%
De Soto	25,494	26,710	0.5%	29,853	0.6%
East Baton Rouge	412,852	466,696	1.2%	585,120	1.1%
East Carroll	9,421	8,956	-0.5%	8,221	-0.4%
East Feliciana	21,360	22,806	0.7%	26,356	0.7%
Evangeline	35,434	36,792	0.4%	40,432	0.5%
Franklin	21,263	20,812	-0.2%	20,430	-0.1%
Grant	18,698	19,656	0.5%	22,091	0.6%
Iberia	73,266	77,180	0.5%	86,803	0.6%
Iberville	33,320	33,966	0.2%	36,195	0.3%
Jackson	15,397	15,491	0.1%	16,164	0.2%
Jefferson	455,466	492,782	0.8%	579,739	0.8%
Jefferson Davis	31,435	32,214	0.2%	34,548	0.4%
Lafayette	190,503	217,538	1.3%	276,551	1.2%
Lafourche	89,974	93,037	0.3%	101,471	0.4%
La Salle	14,282	14,683	0.3%	15,874	0.4%
Lincoln	42,509	44,066	0.4%	48,279	0.5%
Livingston	91,814	113,899	2.2%	159,733	1.7%
Madison	13,728	14,242	0.4%	15,644	0.5%
Morehouse	31,021	30,734	-0.1%	30,945	0.0%
Natchitoches	39,080	40,086	0.3%	43,088	0.4%
Orleans	484,674	461,888	-0.5%	430,181	-0.4%
Ouachita	147,250	156,095	0.6%	177,723	0.7%
Plaquemines	26,757	27,032	0.1%	28,283	0.2%
Pointe Coupee	22,763	22,602	-0.1%	22,936	0.1%
Rapides	126,337	128,686	0.2%	136,826	0.3%

Table 4.2, Continued
Projected Population by Parish

Parish	2000	2010	Annual Growth Rate (2000-2010)	2030	Annual Growth Rate (2010-2030)
Red River	9,622	9,699	0.1%	10,016	0.2%
Richland	20,981	20,813	-0.1%	21,009	0.0%
Sabine	23,459	23,836	0.2%	25,244	0.3%
St. Bernard	67,229	70,598	0.5%	79,287	0.6%
St. Charles	48,072	52,630	0.9%	62,855	0.9%
St. Helena	10,525	10,742	0.2%	11,475	0.3%
St. James	21,216	21,279	0.0%	22,007	0.2%
St. John The Baptist	43,044	46,474	0.8%	54,513	0.8%
St. Landry	87,700	92,017	0.5%	102,546	0.5%
St. Martin	48,583	51,131	0.5%	57,372	0.6%
St. Mary	53,500	52,413	-0.2%	51,522	-0.1%
St. Tammany	191,268	230,525	1.9%	312,066	1.5%
Tangipahoa	100,588	111,738	1.1%	135,995	1.0%
Tensas	6,618	6,227	-0.6%	5,590	-0.5%
Terrebonne	104,503	112,480	0.7%	130,967	0.8%
Union	22,803	24,343	0.7%	28,039	0.7%
Vermilion	53,807	56,203	0.4%	62,312	0.5%
Vernon	52,531	53,228	0.1%	56,319	0.3%
Washington	43,926	43,902	0.0%	45,005	0.1%
Webster	41,831	42,230	0.1%	44,132	0.2%
West Baton Rouge	21,601	23,433	0.8%	27,759	0.9%
West Carroll	12,314	12,578	0.2%	13,380	0.3%
West Feliciana	15,111	16,034	0.6%	18,288	0.7%
Winn	16,894	16,992	0.1%	17,564	0.2%
Total Population	**4,468,976**	**4,753,860**	**0.6%**	**5,437,145**	**0.7%**

Source: US Census Bureau, Woods & Poole

Table 4.3
Projected Employment by Parish

Parish	2000	2010	Annual Growth Rate (2000-2010)	2030	Annual Growth Rate (2010-2030)
Acadia	21,705	23,222	0.7%	28,477	1.0%
Allen	11,561	12,769	1.0%	15,264	0.9%
Ascension	41,152	49,751	1.9%	66,000	1.4%
Assumption	6,756	7,254	0.7%	8,636	0.9%
Avoyelles	15,960	17,137	0.7%	19,865	0.7%
Beauregard	12,622	13,882	1.0%	16,121	0.8%
Bienville	5,587	5,839	0.4%	6,506	0.5%
Bossier	55,260	68,394	2.2%	96,511	1.7%
Caddo	151,703	159,346	0.5%	186,958	0.8%

Table 4.3, Continued
Projected Employment by Parish

Parish	2000	2010	Annual Growth Rate	2030	Annual Growth Rate
Calcasieu	105,265	117,304	1.1%	147,726	1.2%
Caldwell	3,972	4,364	0.9%	5,230	0.9%
Cameron	5,702	6,545	1.4%	7,874	0.9%
Catahoula	4,243	4,463	0.5%	5,029	0.6%
Claiborne	6,054	6,419	0.6%	7,287	0.6%
Concordia	7,578	8,441	1.1%	10,606	1.1%
De Soto	9,596	10,681	1.1%	12,968	1.0%
East Baton Rouge	291,026	339,646	1.6%	452,913	1.4%
East Carroll	3,428	3,680	0.7%	4,528	1.0%
East Feliciana	8,188	9,343	1.3%	11,677	1.1%
Evangeline	11,955	13,279	1.1%	16,748	1.2%
Franklin	9,122	9,637	0.6%	11,133	0.7%
Grant	4,640	5,116	1.0%	6,162	0.9%
Iberia	36,561	40,510	1.0%	50,615	1.1%
Iberville	18,186	18,952	0.4%	21,198	0.6%
Jackson	5,511	5,573	0.1%	6,167	0.5%
Jefferson	278,308	315,135	1.3%	424,450	1.5%
Jefferson Davis	11,360	12,204	0.7%	13,962	0.7%
Lafayette	142,173	169,494	1.8%	225,313	1.4%
Lafourche	41,221	43,271	0.5%	50,507	0.8%
La Salle	5,580	5,990	0.7%	6,998	0.8%
Lincoln	24,290	27,477	1.2%	32,495	0.8%
Livingston	26,375	32,479	2.1%	44,198	1.6%
Madison	5,238	5,582	0.6%	6,630	0.9%
Morehouse	11,764	12,637	0.7%	15,244	0.9%
Natchitoches	18,153	19,980	1.0%	22,800	0.7%
Orleans	323,199	315,683	-0.2%	332,851	0.3%
Ouachita	86,316	97,481	1.2%	124,080	1.2%
Plaquemines	21,967	23,721	0.8%	27,234	0.7%
Pointe Coupee	8,585	9,598	1.1%	11,786	1.0%
Rapides	72,563	81,579	1.2%	102,265	1.1%
Red River	3,546	3,910	1.0%	4,666	0.9%
Richland	8,882	9,553	0.7%	11,876	1.1%
Sabine	8,443	8,924	0.6%	10,048	0.6%
St. Bernard	23,207	24,804	0.7%	31,690	1.2%
St. Charles	25,141	28,280	1.2%	32,891	0.8%
St. Helena	2,757	2,915	0.6%	3,261	0.6%
St. James	8,598	8,720	0.1%	9,626	0.5%
St. John The Baptist	16,487	18,077	0.9%	22,921	1.2%
St. Landry	29,444	31,558	0.7%	39,599	1.1%

Table 4.3, Continued
Projected Employment by Parish

Parish	2000	2010	Annual Growth Rate	2030	Annual Growth Rate
St. Martin	15,529	17,040	0.9%	21,265	1.1%
St. Mary	33,056	34,376	0.4%	39,390	0.7%
St. Tammany	84,759	107,498	2.4%	154,305	1.8%
Tangipahoa	45,219	50,970	1.2%	62,712	1.0%
Tensas	2,913	3,117	0.7%	3,600	0.7%
Terrebonne	54,864	60,394	1.0%	74,153	1.0%
Union	8,751	10,343	1.7%	12,630	1.0%
Vermilion	21,087	22,782	0.8%	27,570	1.0%
Vernon	25,194	27,849	1.0%	33,297	0.9%
Washington	17,665	18,700	0.6%	21,280	0.6%
Webster	17,263	17,768	0.3%	19,637	0.5%
West Baton Rouge	14,099	16,697	1.7%	21,814	1.3%
West Carroll	4,347	4,624	0.6%	5,446	0.8%
West Feliciana	8,066	8,831	0.9%	10,888	1.1%
Winn	6,750	6,873	0.2%	7,496	0.4%
Total Employment	**2,416,492**	**2,678,461**	**1.0%**	**3,345,073**	**1.1%**

Source: Woods & Poole, 2002

Regional and Countywide Allocation of Primary Employment – Primary employment categories include agribusiness, mining, manufacturing and federal government. National projection figures are used as control totals for regions, while regional projections are used as control totals for counties.

Development of Secondary Regional and Countywide Employment Forecasts based on Primary Employment Projections – Secondary employment categories include retail and various other service-based categories as well as state and local government.

Allocation of Population based on Employment Opportunities – National projections are used as control totals for regions, regional projections are used as control totals for counties. Retiree estimates are based on migration trends.

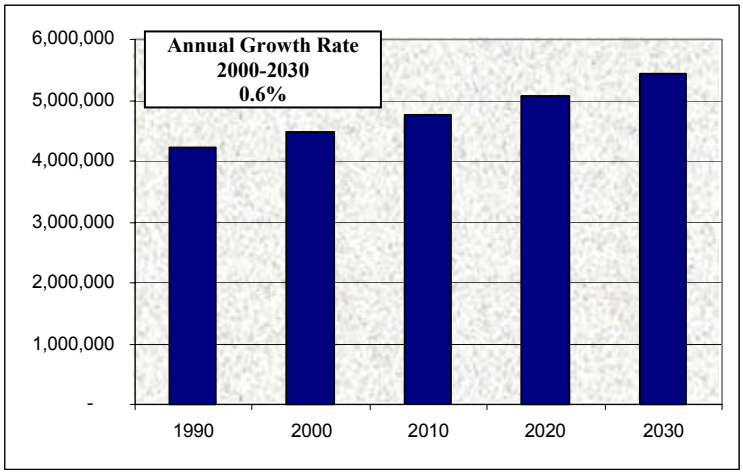
Population

As shown in **Figure 4.3**, population in Louisiana is expected to grow from 4.5 million in 2000 to 5.4 million in 2030. This represents an annual growth rate of 0.6 percent, which is slightly lower than the historic growth rate of 0.7 percent (1970-2000). The largest growth, 43 percent, is projected to occur in three Parishes: East Baton Rouge, Jefferson and St. Tammany. Several Parishes are expected to experience population decline over the next 20 years, including Catahoula, Concordia, East Carroll, Franklin, Orleans, St. Mary and Tensas Parishes.

Metropolitan Statistical Area

Table 4.4 shows projected population for major metropolitan areas. There are eight Metropolitan Statistical Areas (MSAs) in Louisiana, with a population in the Year 2000 of 3.4 million, which represents 75 percent of the State's total population. The eight MSAs are expected to grow to 4.1 million by the Year 2030. In the Year 2000 the New Orleans Metropolitan Statistical Area had the largest population of 1.3 million and is expected to grow to over 1.5 million by the year 2030.

Figure 4.3
Projected Population (Louisiana)



Source: US Census Bureau, Woods & Poole

Table 4.4
Population by MSA

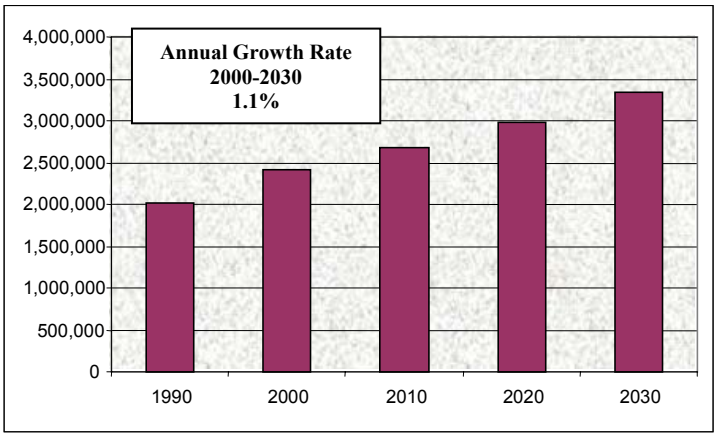
Year	Alexandria MSA	Baton Rouge MSA	Houma MSA	Lafayette MSA	Lake Charles MSA	Monroe MSA	New Orleans MSA	Shreveport--Bossier City MSA	Total
2000	126,337	602,894	194,477	385,647	183,577	147,250	1,337,726	392,302	3,370,210
2010	128,686	697,232	205,517	422,034	197,574	156,095	1,403,208	410,563	3,620,909
2030	136,826	900,284	232,438	504,218	230,168	177,723	1,514,418	457,226	4,153,301

Source: US Census Bureau, Woods & Poole

Employment

Figure 4.4 displays projected employment trends in Louisiana until the Year 2030. As shown, over 900,000 jobs are expected to be added to the economy by the year 2030, increasing employment from 2,416,492 in the Year 2000 to 3,345,073 in the Year 2030. This represents an annual increase of 1.1 percent, which is slightly lower than the annual growth rate during the 1990s of 1.8 percent. As with population, the largest employment growth, 42 percent, is expected to occur in three Parishes, East Baton Rouge, Jefferson and Lafayette.

Figure 4.4
Projected Employment (MSAs)



Source: US Census Bureau, Woods & Poole

CHAPTER 5
EXISTING CONDITIONS

An inventory of the existing transportation infrastructure in Louisiana was conducted as an initial task in the development of the Louisiana Statewide Transportation Plan. This chapter provides an overview of the existing transportation system for all modes of transportation including the highway system, trucking, aviation, freight rail, ports and waterways, surface passenger transportation, bicycle and pedestrian facilities, and intelligent transportation systems.

HIGHWAY SYSTEM

Louisiana's highway network is the 32nd largest in the nation, with the State highway system the 11th largest. The network is comprised of over 60,000 miles and more than 13,000 bridges under the jurisdiction of federal, state and local governments and entities. The 27.4 percent of highway network centerline mileage which are State-owned places Louisiana 10th nationally, while the 30 percent of total highway network lane mileage which are State-owned, places Louisiana 11th.

The network typically handles just under 41 billion miles traveled annually. While a larger percentage of total vehicle miles traveled is on rural roads and highways, the urban highway system is experiencing a greater percentage of vehicle miles traveled when compared to the highway mileage available. Of Louisiana's 4,468,976 citizens, 2,759,120 are licensed drivers. The State ranks 47th nationally in the number of licensed drivers per 1,000 persons, at 617. Drivers averaged 14,915 miles traveled for 2000, placing Louisiana 28th nationally.

Figure 5.1 displays the existing highway network in Louisiana. The highway network consists of several Interstate highways including I-10, I-12, I-20, I-49, I-55 and I-59. Major US highways in Louisiana include US Routes 51, 61, 65, 71, 79, 80, 84, 90, 165, 167, 171, 190, 371 and 425.

Functional Classification

Functional classification of transportation facilities are designed to describe the hierarchical arrangement and interaction between various roadways. Classification is based on each roadway's functional role in the overall network, including traffic movement and access. Louisiana's highway network is classified in the following categories:

- Interstate
- Other Freeway/Expressway
- Other Principal Arterial
- Minor Arterial
- Collector
- Local

Table 5.1 shows Louisiana's highway network by functional classification and jurisdiction. As shown Louisiana's highway network comprises over 60,000 miles of Interstate, Freeway, Arterial, Collector and Local roadways. Interstate and Principal Arterial roadways comprise 893 (1.2 percent) and 2,012 (3.5 percent) miles respectively. The majority of the total public roadway network is under Parish jurisdiction.

Figure 5.1
Louisiana Major Highway Network

Table 5.1
Louisiana Highway Network
Functional Classification by Jurisdiction

	State	Parish	City	Total
Interstate	893	0	0	893
Other Freeway/Expressway	45	0	0	45
Other Principal Arterial	1,801	64	102	1,967
Minor Arterial	2,532	218	518	3,268
Collector	8,723	326	858	9,907
Local	2,706	32,703	9,423	44,832
Total	**16,700**	**33,311**	**10,901**	**60,912**

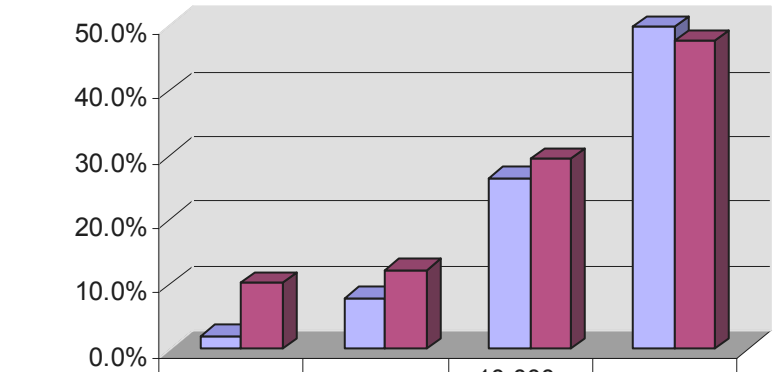
Source: DOTD, US DOT – FHWA, Office of Highway Policy Information, 2000.

Interstate Highway System

Louisiana's 893-mile Interstate system represents only 1.2 percent of the total highway network mileage, yet accounts for 25 percent of the total traffic volume. The Interstate network plays an integral role in the health of the State's economy through the provision of freight and passenger transport facilities, and thus the maintenance and preservation of the system is a core objective of the State's transportation planning initiatives.

As shown in **Figure 5.2**, traffic volume on Louisiana's rural Interstate system is higher than the US average. Nearly 90 percent of the State's rural Interstate network had ADT volumes of more than 10,000, as compared to less than 77 percent nationally. The largest ADT volume (20,000 and greater) is found on almost two-thirds of the State's rural Interstate network.

Figure 5.2
Rural Interstate ADT
Louisiana vs. US Average

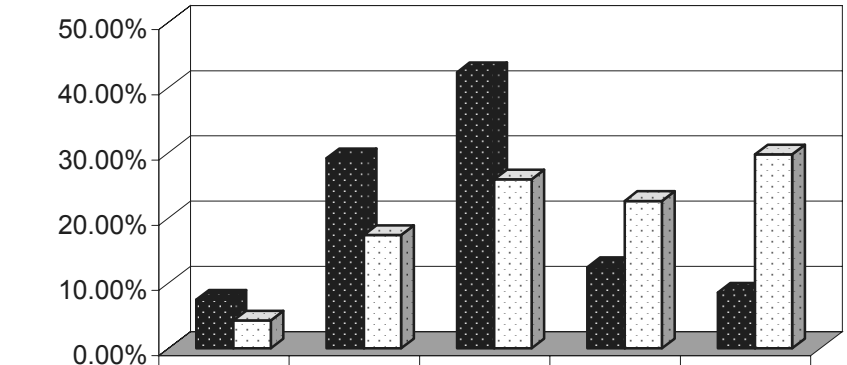


	<6,000	6,000-9,999	10,000-19,999	>20,000
Louisiana	2.1%	8.0%	26.5%	63.4%
US	10.4%	12.3%	29.5%	47.8%

Source: Highway Statistics, US DOT – FHWA, Office of Highway Policy Information, 2000.

As shown in **Figure 5.3**, Louisiana's urban Interstate system is not as heavily traveled when compared to the national average. ADT volumes of more than 60,000 vpd are found on roughly 21 percent of the State's urban Interstate network, compared with 52 percent nationally. ADT volume between 35,000 and 59,999 provides the largest percentage of urban Interstate travel at close to 42 percent.

Figure 5.3
Urban Interstate ADT
Louisiana vs. US Average



	<15,000	15,000-34,999	35,000-59,999	60,000-99,999	>100,000
Louisiana	7.47%	29.18%	42.35%	12.46%	8.54%
U.S.	4.28%	17.39%	25.93%	22.62%	29.78%

Source: Highway Statistics, US DOT – FHWA, Office of Highway Policy Information, 2000

National Highway System

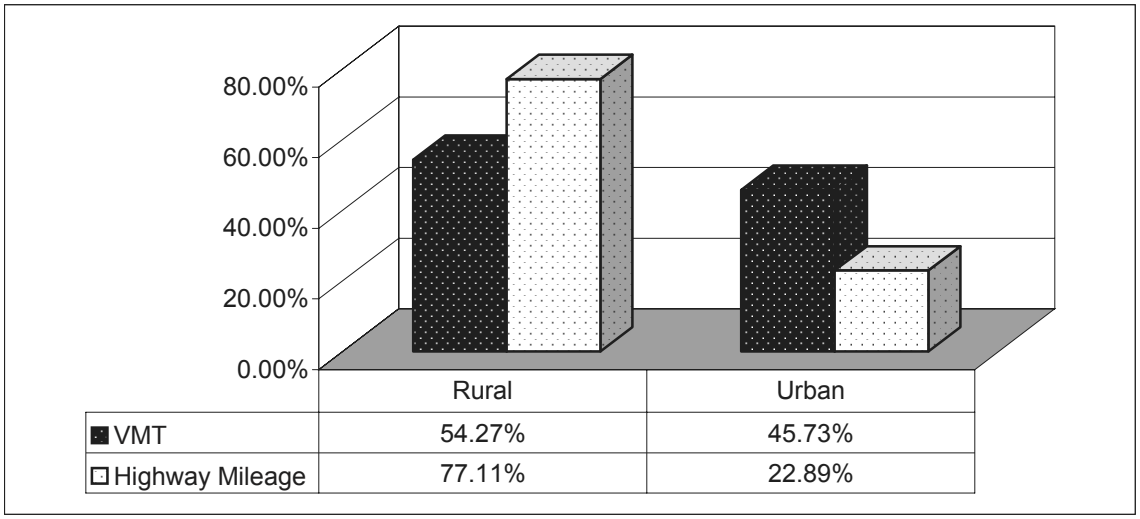
Through the National Highway System Designation Act of 1995, up to 178,250 miles of national highway facilities may be designated as part of the National Highway System (NHS). The NHS will become the focal point of future federal interest due to the inclusion of the Interstate system and selected non-Interstate principal arterial routes. As of the Year 2000, the total mileage of the NHS open to traffic stood at 160,788. Louisiana's portion as of this same date was 2,599 miles, or approximately 1.6 percent. The State's Interstate portion of its NHS mileage is 34.3 percent, compared to the national average of 29 percent. Both statewide and nationally, the majority of the NHS is drawn from the non-Interstate principal arterial network.

Utilizing volume-service flow ratios of >0.80 as a determinant of system congestion, Louisiana's National Highway System mileage parallels the total highway network mileage, in that congestion is disproportionately higher on the urban network. Just over one percent of the rural NHS network has a volume-to-service ratio greater than 0.80, while over 29 percent of the urban NHS network meets that congestion threshold.

Rural vs. Urban

Figure 5.4 displays the percent of highway mileage and vehicle miles of travel along rural and urban highways. As shown, three-quarters of the highway network mileage and just over half of the traffic volume are in rural areas. While a greater proportion of highway mileage traveled is in rural areas, when comparing highway mileage to vehicle miles traveled, Louisiana's travel patterns are placing a greater burden upon the urban highway network.

Figure 5.4
Percent of Highway Mileage and
Vehicle Miles of Travel (VMT)



	Rural	Urban
VMT	54.27%	45.73%
Highway Mileage	77.11%	22.89%

Source: Highway Statistics, US DOT – FHWA, Office of Highway Policy Information, 2000.

Bridges

The ratio of bridges to total highway miles places Louisiana 5th nationally. Due to the frequency with which bridges are observed throughout the State's highway network, the condition of the highway bridge system is potentially at a higher priority within the highway network when compared to other states.

Louisiana's 13,426 bridges rank it 20th nationally; 121 out of this total are movable, allowing for clearance of maritime traffic. Of the total number of bridges, 2,425 (18.1 percent) are structurally deficient, and 2,166 (16.1 percent) are functionally obsolete. The term *structurally deficient* means the bridge is in need of rehabilitation in order to carry loads for which it was originally designed. The term *functionally obsolete* means the bridge is structurally sound, yet in most cases with width and/or clearance restrictions. Of the 10,851 non-NHS bridges, 2,320 are structurally deficient, with 1,636 functionally obsolete. Of the 2,575 bridges on the National Highway System, 105 are structurally deficient, and 530 functionally obsolete.

Safety

Based on 2001 traffic crash data there were a total of 92,958 crashes along the State-maintained highway system in Louisiana. Of the total crashes, 693 were fatal (757 fatalities), resulting in

Louisiana having the third highest fatality rate in the country. Injury crashes accounted for 33 percent of total crashes and resulted in 53,433 injuries. The largest percentage of crashes, 66 percent, were property damage only. **Figure 5.5** shows total crashes in Louisiana versus the State system. Crashes along the State system accounted for 58 percent of total crashes in Louisiana. Fatalities along the State system accounted for 80 percent of total fatalities, while injury crashes and property damage only accounted for 65 percent and 55 percent respectively. As shown in **Figure 5.6,** the majority of crashes, 31 percent consisted of rear-end collisions followed by other collisions and right angle collisions at 21 percent and 16 percent respectively.

Figure 5.5
2001 Crashes: Total vs. State System

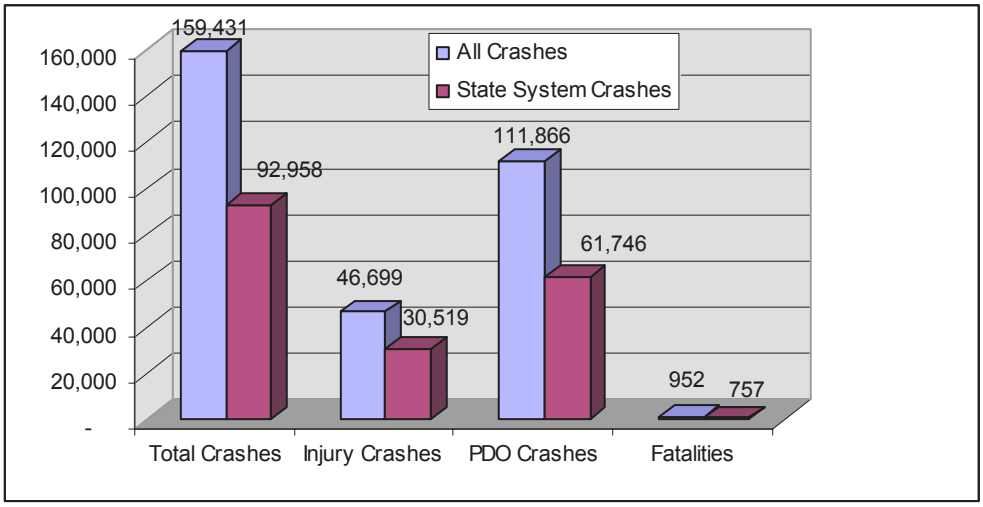
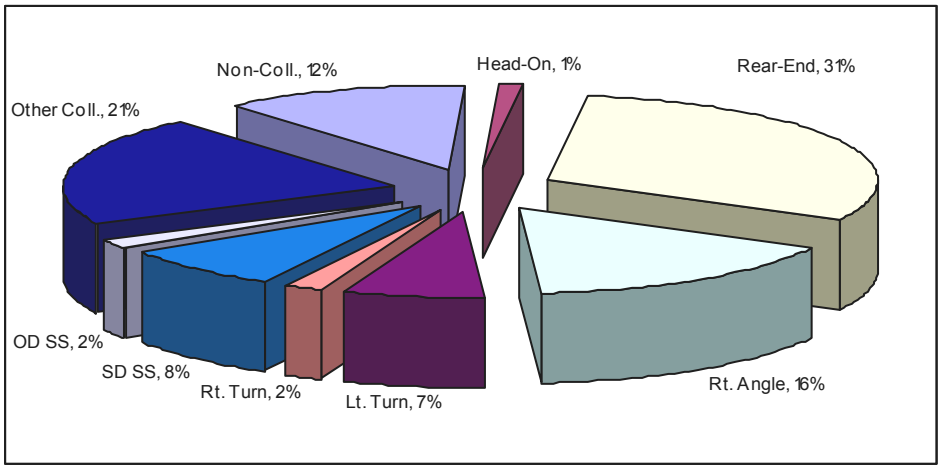


Figure 5.6
2001 Crashes by Type



Average Daily Traffic

Figures 5.7 and 5.8 display total daily auto and truck traffic volumes on the rural State highway system in Louisiana. The highest daily auto traffic volumes are along I-10 followed by I-20, I-55

and US 171 between LA 8 and US 190. The maximum auto traffic volume is 32,000 autos per day along I-10 near the Texas State line. The highest average daily truck traffic volumes are along I-10 and I-20, with a maximum volume of 8,300 trucks per day along I-10 between the Texas State Line and Lake Charles. Other routes heavily traveled by trucks include I-49, I-55, I-59 and US 171 between LA 6 and US 190.

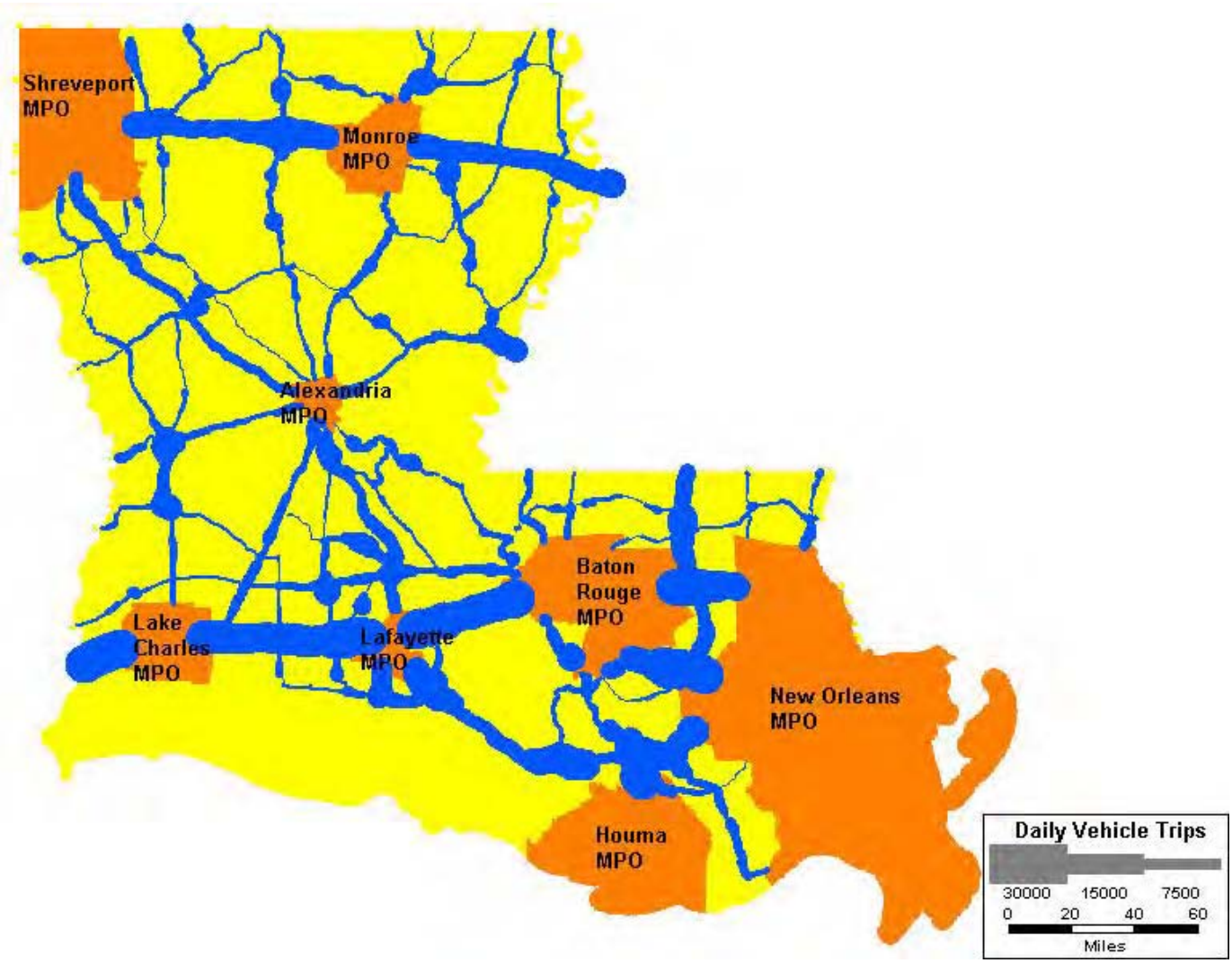


Figure 5.7: Louisiana Total Daily Auto Traffic

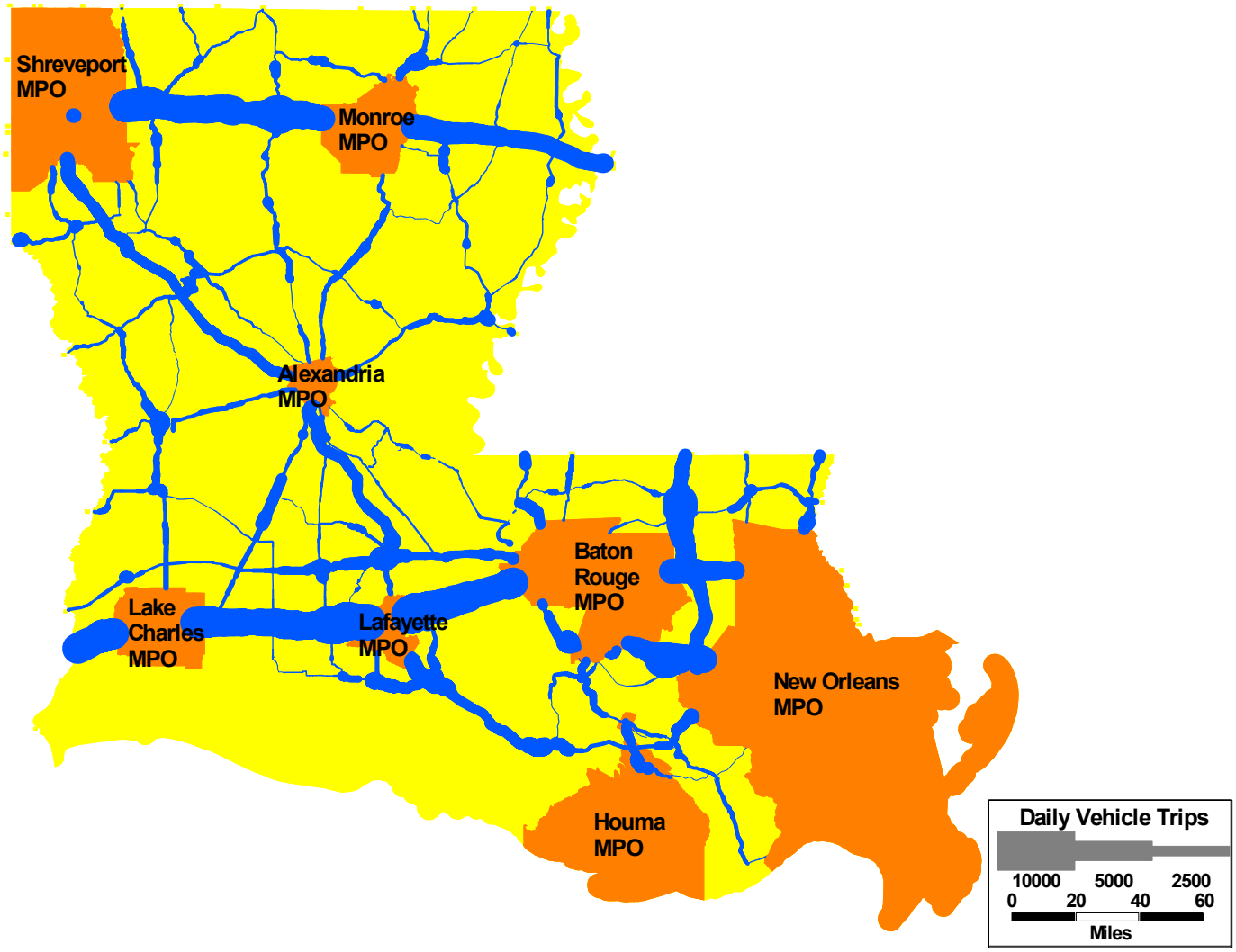


Figure 5.8: Louisiana Total Daily Truck Traffic

Level-Of-Service

Level-of-Service (LOS) is a qualitative measure of traffic congestion related to the volume/capacity ratio (v/c) of a particular section of roadway. Categories range from ratings A through F. The range describes a progressive deterioration from A (which indicates very good operating conditions) through F (which essentially represents the functional failure of the roadway in terms of traffic movement). **Figure 5.9** displays existing LOS in Louisiana. The majority of the highways in the State have a LOS in the A to C range, meaning they are operating below capacity, resulting in acceptable traffic operation. The majority of congestion problems are occurring in urban areas where v/c ratios are equal to or greater than 1.0 (traffic volumes exceeding highway capacity during peak periods). Sections of rural roadways experiencing some congestion problems, with a LOS D include: I-10, I-12, US 165, US 190, LA 3, LA 23, LA 1, and LA 28. The majority of these highway segments are approaching or within the vicinity of an urban area.

TRUCKING

The flow of goods to and from Louisiana is heavily dependent upon the State's highway network. Due to the strength of the chemical and petroleum industries and the international traffic through the ports, the percentage of total vehicle miles of heavy trucks on Louisiana roads is greater than the national average. Given the dependence of Louisiana's economic development efforts upon freight transportation, it is important to analyze the impact of trucking on the State's transportation network and the contributions made to the entire intermodal freight system. Louisiana's STAA (Surface Transportation Act Access)-designated truck network, which includes Interstate, US and State highways, is displayed in **Figure 5.10**.

In examining the traffic mix of the Louisiana highway system, the largest volume of heavy truck traffic as a percentage of total traffic volume is seen on the Interstate network, with the rural Interstate network having the highest percentage at 22.6 percent. When compared nationally, heavy truck traffic on the State's Interstate system is typical of most states. However, when looking at the traffic mix on the State's urban and rural arterial network, Louisiana leads the nation in the percentage of heavy truck traffic.

Louisiana ranks first nationally in terms of heavy truck travel as a percentage of non-Interstate/Freeway/Expressway urban traffic volume. Heavy truck travel accounts for 11.8 percent of other principal arterial traffic volume, and 9.7 percent of minor arterial traffic volume. Heavy truck travel accounts for 17.8 percent of total rural Other Principal Arterial traffic volume, ranking it second highest nationally. The State ranks fourth highest when it comes to heavy truck volume on the Rural Minor Arterial system, accounting for 18.5 percent of total traffic volume on that network.

While the transport of freight by way of trucks has a direct impact on Louisiana's transportation network, so too does the transportation network have a direct impact on trucking. In general, intermodal facilities (rail and port) allow for truck pickup and deliveries during normal business hours (8 am to 5 pm) only, thereby confining intermodal truck trips to peak daytime hours and increasing congestion on main urban routes. Increasing the hours of operation at these facilities offers greater flexibility in trip making for trucks, thereby creating a broader distribution of truck trips and decreasing peak congestion on major urban roads. Further impacting truck travel are turning radii and egress and ingress concerns at intermodal facilities and truck stops. Intermodal

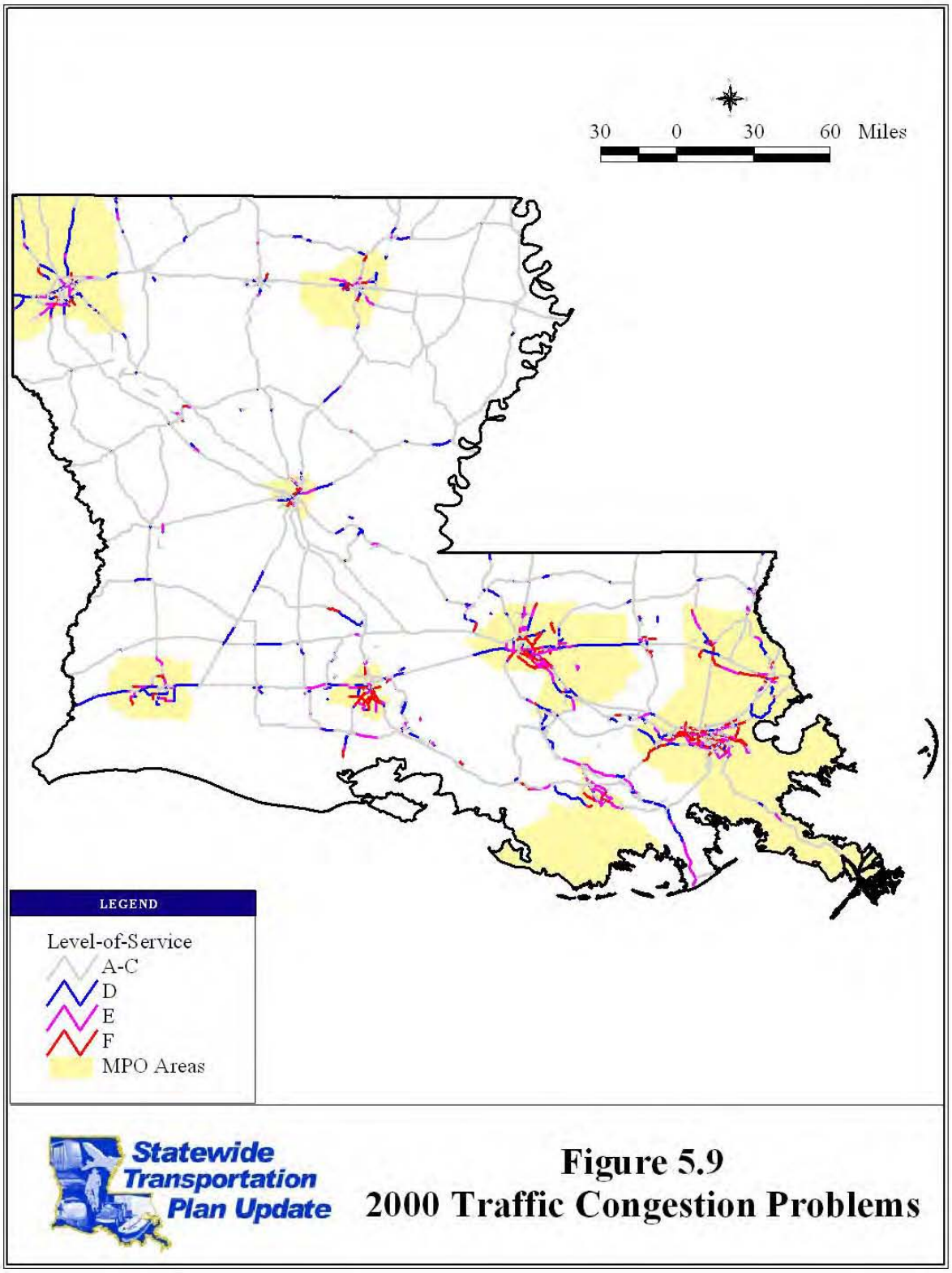


Figure 5.9
2000 Traffic Congestion Problems

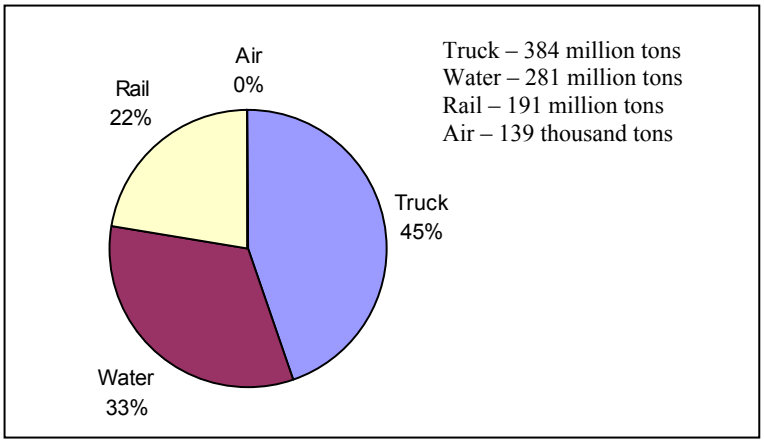
Figure 5.10
Louisiana's STAA-Designated
Truck Network

accessibility and mobility with respect to trucking will have a direct bearing on the efficiency of freight transport and subsequently contribute to the success of Louisiana's economic development efforts. By creating a greater efficiency in truck travel through successful highway and intermodal planning, a positive impact on the State's industrial recruitment and expansion efforts can be recognized.

Truck Volumes

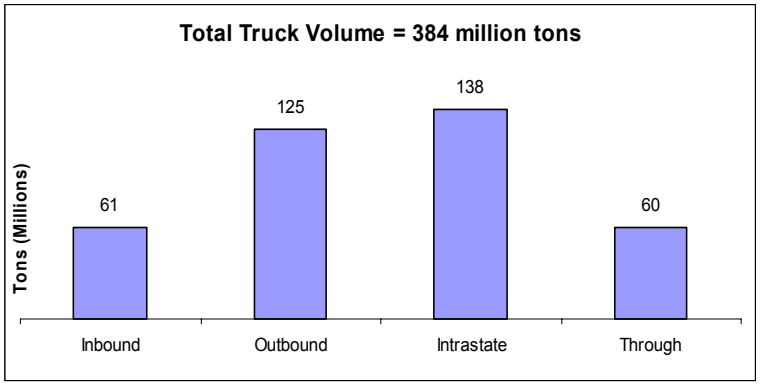
In the year 2000, 384 million tons of freight valued at $526 billion moved to, from, within, or through Louisiana by truck. This accounts for 45 percent of domestic tonnage by mode as shown in **Figure 5.11**. From a tonnage viewpoint, intrastate movements were the largest category as shown in **Figure 5.12** with petroleum being the largest commodity. When using revenue as the metric, rather than tonnage, Louisiana outbound movements was the largest category as shown in **Figure 5.13** with chemicals the primary commodity.

Figure 5.11
Domestic Tonnage by Mode (LA)



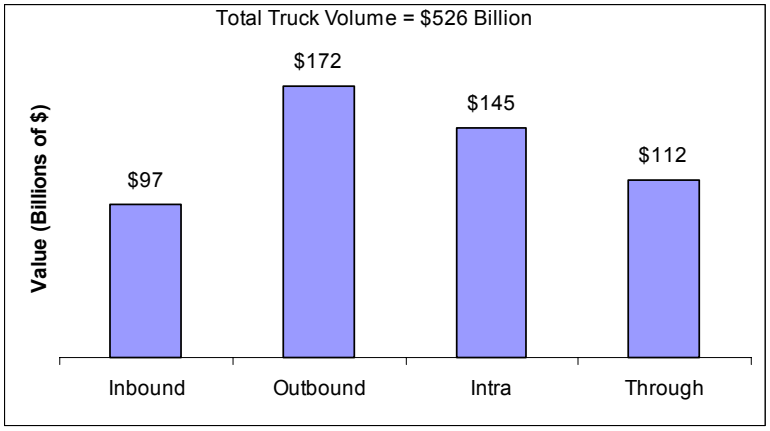
Source: TRANSEARCH 2000

Figure 5.12
Total Domestic Truck Volume (LA)



Source: TRANSEARCH 2000

Figure 5.13
Total Domestic Truck Freight Value (LA)



Source: TRANSEARCH 2000

Table 5.2 breaks down the domestic truck tonnage by two-digit Standard Transportation Commodity Code (STCC) and traffic type. Chemicals (88 million tons) and petroleum (79 million tons) are the largest commodities, but also significant are secondary traffic (42 million tons), food (40 million tons), lumber (40 million tons), and metals (32 million tons). Secondary traffic refers to shipments from warehouses and distribution centers to the final customer, rather than direct shipments from factories. Chemicals are the largest outbound commodity, accounting for 40 percent of outbound truck tonnage. The two largest inbound commodities are petroleum (12 million tons) and food (10 million tons). The predominant intrastate truck movement is petroleum (36 million tons) followed by secondary traffic (24 million tons). The primary through traffic is also chemicals and petroleum.

Table 5.2
Louisiana Domestic Truck Volumes by Commodity
Year 2000 Net Tons

STCC2	STCC2 Name	Outbound	Inbound	Intrastate	Through	Total
01	Farm Products	1,150,691	483,948	51,553	1,613,392	3,299,584
11	Coal	0	0	1,013,141	919	1,014,060
20	Food	11,612,261	10,012,631	12,505,737	5,994,903	40,125,532
21	Tobacco	9,022	51,579	276	32,405	93,281
22	Textiles	109,879	465,317	132,915	692,477	1,400,588
23	Apparel	296,372	111,306	31,787	614,107	1,053,572
24	Lumber	10,650,728	7,091,026	17,452,342	4,352,894	39,546,989
25	Furniture	89,071	210,232	27,651	472,928	799,883
26	Paper	5,526,468	1,509,551	1,361,758	2,466,637	10,864,415
27	Printed Goods	33,601	193,908	120,795	433,562	781,866
28	Chemicals	49,751,526	8,960,841	14,328,812	15,313,707	88,354,886
29	Petroleum	18,844,278	12,070,118	35,607,215	11,982,256	78,503,867
30	Rubber/Plastics	212,137	1,101,481	206,583	1,512,470	3,032,671
31	Leather	5,460	12,873	173	76,922	95,428
32	Clay, Concrete, Glass	1,877,486	2,739,850	16,088,910	1,947,219	22,653,465
33	Metal	14,237,493	2,422,040	12,800,427	2,707,888	32,167,848
34	Metal Products	855,219	1,134,192	434,745	1,584,008	4,008,163
35	Machinery	398,074	620,417	247,671	1,127,306	2,393,468
36	Electrical Equipment	163,157	508,183	161,521	964,831	1,797,692
37	Transportation Equipment	3,882,015	2,560,686	1,809,817	1,403,372	9,655,890
38	Instruments	21,309	47,758	6,530	156,513	232,110
39	Misc. Mfg Products	80,727	145,038	145,277	341,802	712,845
50	Secondary Traffic	5,423,943	8,162,257	23,689,166	4,329,398	41,604,764
	Totals	125,230,918	60,615,234	138,224,801	60,121,914	384,192,867

Reebie Associates TRANSEARCH Inc.

On a geographical basis, the largest trading partners were Texas, Mississippi, and the South Atlantic Region, as shown in **Table 5.3**. Most inbound traffic originated in Texas (20 million tons) and most outbound traffic was also destined for Texas (23 million tons). The following regional definitions used in Table 5.3 are:

East North Central: IL, IN, MI, OH, WI
East South Central: AL, KY, TN
Mid Atlantic: DE, DC, MD, NJ, NY, PA, WV
Mountain: AZ, CO, ID, MT, NV, NM, UT, WY
New England: CT, ME, MA, NH, RI, VT
Pacific: AK, CA, HI, OR, WA
South Atlantic: FL, GA, NC, SC, VA
West Central: IA, KS, MN, MO, NE, ND, OK, SD

Table 5.3
Louisiana Domestic Truck Tonnages by Region

Region	Inbound	Outbound	Totals
Arkansas	3,487,720	5,068,462	8,556,182
East North Central	7,530,748	14,177,206	21,707,955
East South Central	4,260,184	10,537,281	14,797,465
Mid Atlantic	1,382,938	15,856,147	17,239,086
Mountain	909,878	2,781,491	3,691,368
Mississippi	9,901,123	17,344,051	27,245,174
New England	78,508	1,483,812	1,562,320
Pacific	1,225,783	5,090,844	6,316,626
South Atlantic	6,141,339	20,816,934	26,958,273
Texas	19,594,311	23,627,097	43,221,408
West Central	6,102,702	8,447,592	14,550,294
Totals	60,615,234	125,230,918	185,846,151

Source: TRANSEARCH 2000

Truck Flows

Figure 5.14 displays total truck flows for Louisiana. As shown, I-10 between Lake Charles and Baton Rouge experienced the highest truck flows. Other highways that experienced significant truck flows include I-12, I-20, I-55, I-59, I-49, US 171, US 71, US 165, US 90 and US 61.

Figure 5.14
Total Truck Flows for Louisiana

AVIATION

Louisiana has a broad system of airports throughout the State. There are 71 airports recognized by the Louisiana Department of Transportation and Development (DOTD) as system airports. These airports range in size and scope from large international airports serving commercial airlines to small turf strips accommodating aerial applicators and general aviation aircraft. These airports accommodate passenger, military, air cargo, and general aviation aircraft. There are 4,223 registered aircraft in the State and 7,254 registered pilots. **Figure 5.15** identifies all public airports in the Louisiana system of airports.

There are several key issues in the aviation industry in Louisiana. These issues include runway development, development and retention of passenger service, development of international air service related to passengers and cargo, agricultural aviation issues, and whether a new, privately-financed, airport should be developed between Baton Rouge and New Orleans.

Current Air Service

Twenty-one passenger airlines serve Louisiana at seven commercial service airports. **Table 5.4** identifies airlines serving Louisiana's commercial service airports as of October, 2001. Air cargo is transported in and out of Louisiana on passenger aircraft and all-cargo aircraft. These aircraft are operated by airlines, all-cargo carriers, and integrated express operators.

Air cargo transport typically takes place at commercial service airports, but may on occasion occur on an ad hoc basis at general aviation airports. There are seven commercial service airports in the State:

- Alexandria International Airport
- Baton Rouge Metropolitan Airport
- Lake Charles Regional Airport
- Lafayette Regional Airport
- Louis Armstrong New Orleans International Airport
- Monroe Regional Airport
- Shreveport Regional Airport

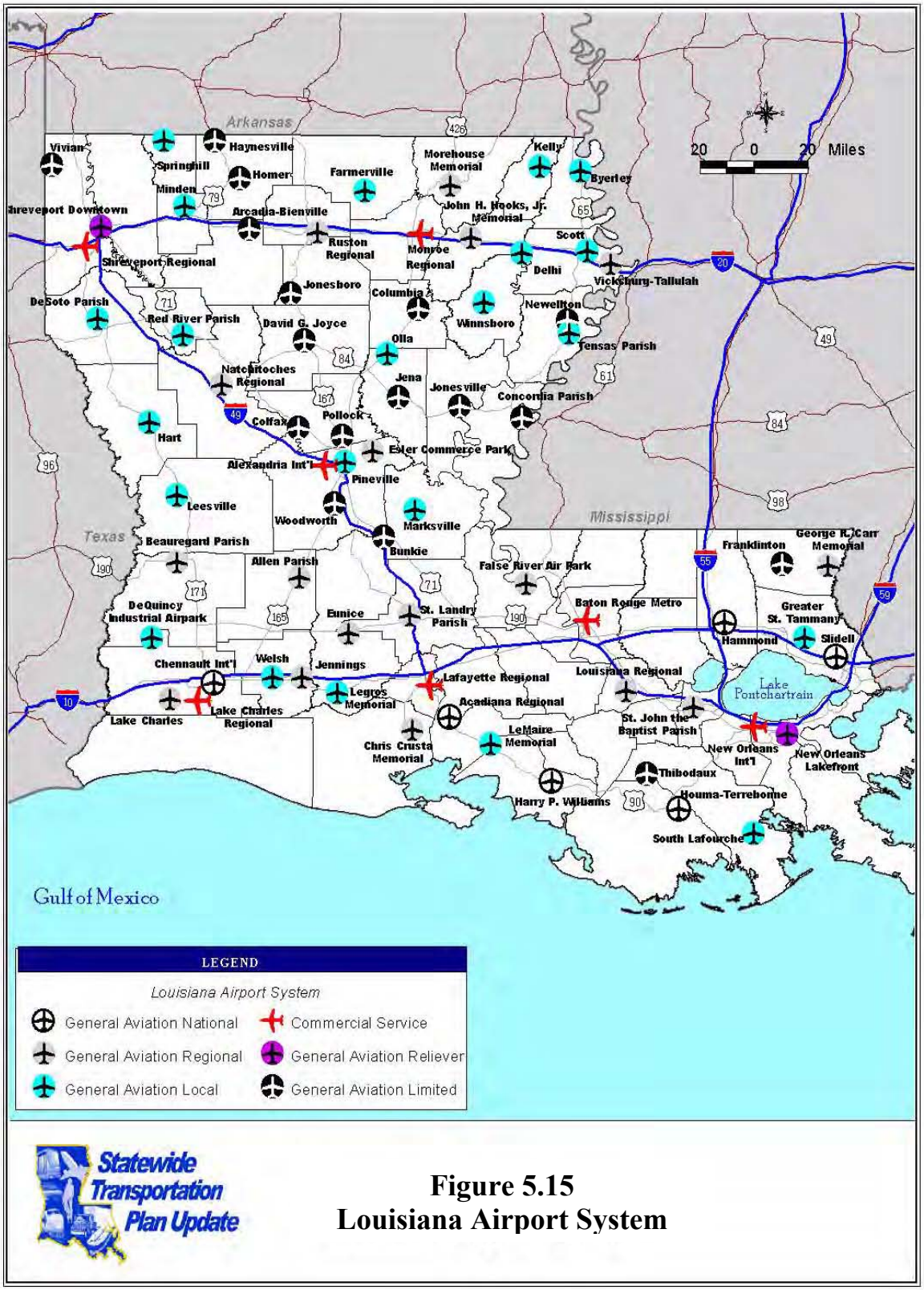


Figure 5.15
Louisiana Airport System

Table 5.4
Airlines Serving Louisiana's Commercial Service Airports

New Orleans International Airport	**Shreveport Regional Airport**
Air Canada	American Eagle
AirTran	Atlantic Southeast Airlines
America West	Continental Express
American Airlines	Delta Air Lines
Comair	Northwest Airlink
Continental	TWA
Delta Air Lines	US Airways Express
Frontier	
Grupo Taca	
jetBlue	**Baton Rouge Metropolitan Airport**
Metrojet	American Eagle
Midwest Express	Atlantic Southeast Airlines
Northwest	Continental Express
Southwest	Delta Air Lines
United	Northwest
US Airways	U·S Airways Express
Vanguard	
Monroe Regional Airport	**Lafayette Regional Airport**
Delta Air Lines	American Eagle
Continental Express	Delta Air Lines
Northwest Airlink	Continental Express
	Northwest Airlink
Alexandria International Airport	
Atlantic Southeast Airlines	**Lake Charles Regional Airport**
Continental Express	Continental Express
Northwest Airlink	

Source: Wilbur Smith Associates, 2001

General Aviation Airports

General aviation airports in Louisiana support a host of aviation functions in the State. The stratification process in the Louisiana Aviation System Plan identifies in more detail the role each airport plays in the State's aviation system. Some of the aviation activities at the State's general aviation airports include the following:

- Corporate aviation
- Air cargo activity
- Agricultural aviation
- Flight instruction
- Military operations
- Skydiving
- Recreational flying
- Air shows

- Medical evacuation
- Organ transport
- Forest firefighting
- Real estate tours
- Aerial photography
- Pipeline patrols
- Oil rig support
- Environmental mitigation
- Civil Air Patrol
- Search and rescue

There are 71 airports in the Louisiana Airport System Plan (LASP). Seven of these airports are commercial service airports and the remaining 64 are general aviation airports. Two of the general aviation airports are considered reliever airports. Reliever airports support aviation activity in large markets and are developed to encourage general aviation activity away from commercial service airports. The reliever airports and their associated cities include the following:

- New Orleans Lakefront Airport — New Orleans
- Shreveport Downtown Airport — Shreveport

Annual Passenger Enplanements

Table 5.5 displays annual passenger enplanements from 1991 to 2000. As shown the State's market share of total US enplanements has decreased over the past nine years from 0.901 percent in 1991 to 0.890 percent in 2000. The average market share over the nine-year period is 0.893 percent.

Table 5.5
Annual Passenger Enplanements

Year	Louisiana All Airports Enplanements	United States Total Enplanements	Louisiana All Airports Share	Louisiana Growth Rate
1991	4,405,968	489,154,800	0.901%	- -
1992	4,478,490	510,598,100	0.877%	1.65%
1993	4,468,431	520,038,100	0.859%	-0.22%
1994	5,035,873	562,059,200	0.896%	12.70%
1995	5,279,367	582,042,600	0.907%	4.84%
1996	5,490,944	613,637,400	0.895%	4.01%
1997	5,715,877	637,497,700	0.897%	4.10%
1998	5,879,754	649,125,600	0.906%	2.87%
1999	6,072,314	674,139,700	0.901%	3.27%
2000	6,287,718	706,106,300	0.890%	3.55%

Air Cargo

Table 5.6 identifies air cargo tonnage in the Year 2000 for those system airports that accommodate air cargo on a regular basis. Total tonnage of cargo being transported by air equaled 120,463 metric tons. New Orleans International Airport accounted for the largest percentage, 71 percent, of total volume followed by Shreveport Regional Airport with 24 percent.

Table 5.6
Air Cargo Tonnage, 2000
(metric tons)

Associated City	Airport Name	2000
Alexandria	Alexandria International	71
Baton Rouge	Baton Rouge Regional	3,106
Lafayette	Lafayette Regional	1,211
Lake Charles	Lake Charles Regional	161
Monroe	Monroe Regional	79
New Orleans	New Orleans International	85,815
Shreveport	Shreveport Regional	30,020
Total		**120,463**

Source: 2000 Reebie TransSearch Airports Council International, airport management, Wilbur Smith Associates

FREIGHT RAIL

Louisiana has an extensive railroad network consisting of 2,699 route miles of track in freight service. Seventeen freight railroads are presently operating lines in the State. Including trackage rights that allow one railroad to run trains on the tracks of another, these railroads operate 3,187 total route miles.

The current railroad network in Louisiana is shown in **Figure 5.16**. Louisiana, like many other states, has been losing rail mileage. Between 1985 and 1995, 618 miles of track were abandoned. Since then, another 118 miles of railroad have been taken out of service. In most cases, the right-of-way for these facilities has been lost as well, thereby effectively preventing rail service from ever being re-established.

There are approximately 6,700 highway-rail at-grade crossings in Louisiana, of which approximately 3,100 are public. Only about 1,400 of the public grade crossings have active warning devices. Current annual funding to improve grade crossings is $8 million.

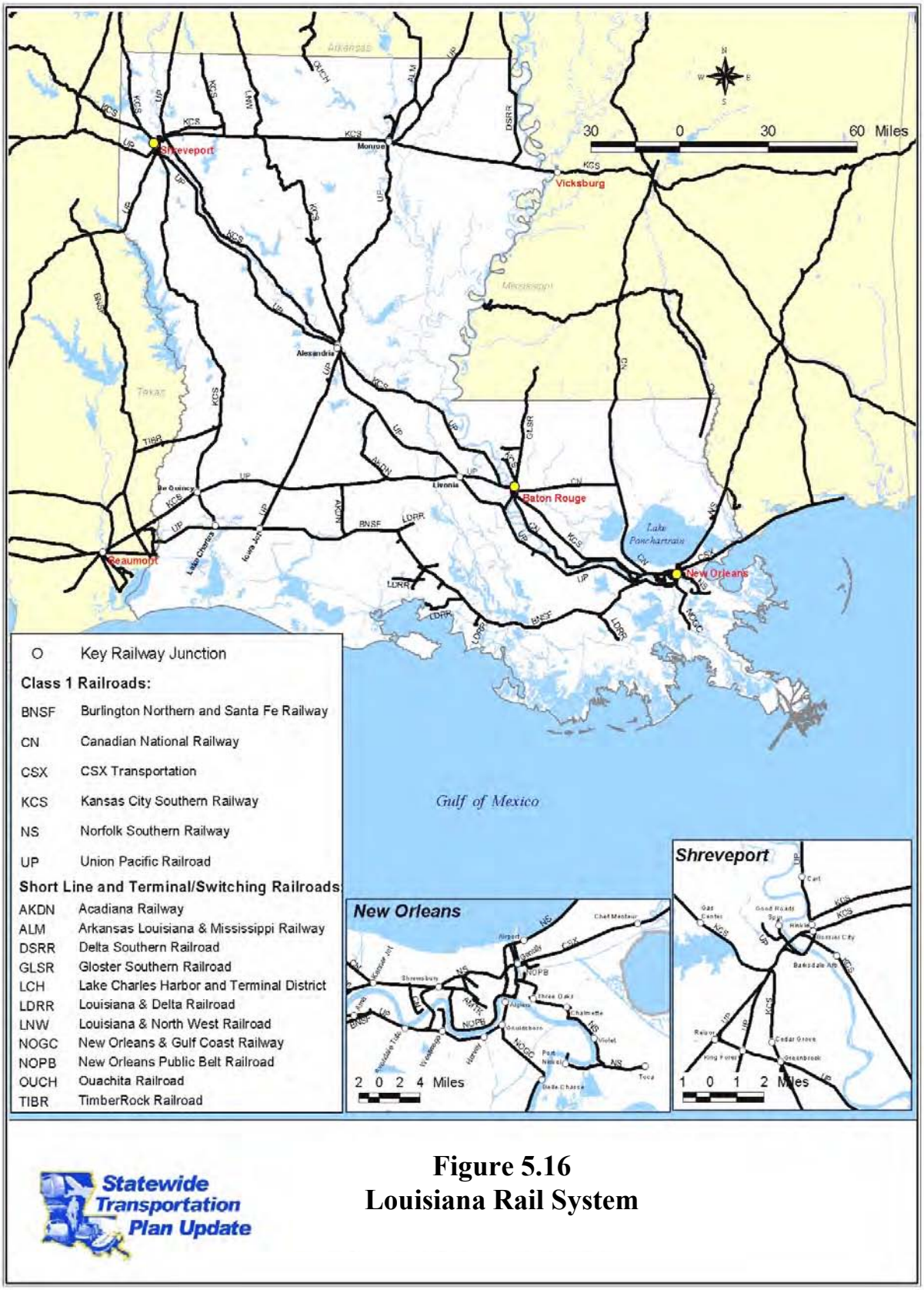


Figure 5.16
Louisiana Rail System

Current Freight Service

Louisiana's railroads can be classified into three main categories. These are Class 1 railroads, short line railroads, and switching and terminal railroads. As defined by the US Surface Transportation Board (STB), the federal agency charged with regulatory oversight of railroads, a Class 1 railroad has operating revenues of at least $260 million per year.

Two industry interest groups, the American Association of Railroads (AAR) and the American Short Line and Regional Railroad Association (ASLRRA), define short lines as small non-Class 1 railroads, operating on less than 350 miles of track and with less than $40 million in annual revenues. Switching and terminal railroads are also non-Class 1 railroads engaged primarily in switching and terminal service for other railroads. The State's freight railroads, along with their route miles and trackage rights, appear in **Table 5.7**. Included below is the Lake Charles Harbor and Terminal District, state agency and track owner, which contracts with UP for service over its lines.

Table 5.7
Miles of Freight Railroad in Louisiana
(including trackage rights)

Freight Railroad Company	Route Miles Owned/Leased	Route Miles of Trackage Rights	Total Route Miles
Acadiana Railway (AKDN)	63	21	84
Arkansas Louisiana & Mississippi Railway (ALM)	45	0	45
Burlington Northern and Santa Fe Railway (BNSF)	192	80	272
Canadian National Railway (CN)	257	0	257
CSX Transportation (CSXT)	35	0	35
Delta Southern Railroad (DSRR)	66	0	66
Gloster Southern Railroad (GLSR)	21	0	21
Kansas City Southern Railway (KCS)	901	0	901
Lake Charles Harbor and Terminal District (LCH)	13	0	13
Louisiana & Delta Railroad (LDRR)	120	195	315
Louisiana & North West Railroad (LNW)	38	0	38
New Orleans & Gulf Coast Railway (NOGC)	24	0	24
New Orleans Public Belt Railroad (NOPB)	25	0	25
Norfolk Southern Railway (NS)	80	0	80
Ouachita Railroad (OUCH)	8	0	8
TimberRock Railroad (TIBR)	22	0	22
Union Pacific Railroad (UP)	789	192	981
TOTAL MILES	2,699	488	3,187

Sources: *Railroad and States, 1999*, published by the American Association of Railroads (AAR); "Trains" magazine issue of July 2001; DOTD's 1995 *Statewide Intermodal Transportation Plan*; and Professional Railroad Atlas of North America by Railroad Information Services, 1998. The 1999 AAR data actually showed 2,747 route miles in the state. Mileage of Acadiana Railway was increased and that of UP decreased from the totals identified in the aforesaid sources, per a statement of Acadiana that it presently lease 5 miles of track from UP.

Class 1 Railroads

As shown in **Figure 5.16**, there are six Class 1 railroads serving Louisiana, operating over 2,526 miles of railroad, including trackage rights. New Orleans is a major interchange point or gateway for western railroads UP and BNSF and eastern railroads CSXT and NS. All of the Class 1 railroads connect in New Orleans, either individually or through the switching services of the New Orleans Public Belt Railroad. Likewise, they all serve the Port of New Orleans.

The traffic densities on these lines, shown in ranges of millions of gross ton-miles per mile (MGTM/M) for the most recent year available, appear in **Figure 5.17 (**MGTM/M is the common railroad measure of traffic activity on specific line segments). Lines handling more than 40 MGTM/M can be considered very busy lines. On the other hand, those handling less than 5 MGTM/M are known as light density lines, according to the Federal Railroad Administration (FRA).

Short Line & Switching and Terminal Railroads:

There are nine local or short line railroads in Louisiana, operating 661 miles of railroad, including trackage rights. There are two switching and terminal railroads in Louisiana, operating a total of 38 route miles of railroad.

Freight Traffic

Total rail freight traffic in Louisiana in 1999 was comprised of 119.4 million tons as shown in **Table 5.8**. Out of the total, 37.1 million tons originated in the State with destinations outside of the State, and 31.5 million tons terminated in the State from origins outside of the State. There were 4.9 million tons which originated and terminated within Louisiana; that is, freight traffic that remains within the State (intrastate traffic). Through traffic (traffic passing through without an origin or destination in Louisiana) accounted for 45.9 million tons. Together, the commodities shown in the table below account for almost 98 percent of all rail shipments to, from, within and through the State.

Table 5.8
Louisiana Freight Traffic, 1999

Commodity		Tonnage					
STCC	Description	Originat'g	Terminat'g	Intrastate	Through	Total	% Total
28	Chemicals or allied products	10,957,661	2,542,499	1,990,783	13,802,101	29,293,044	24.5%
49	Hazardous materials	8,841,553	1,695,154	1,231,861	9,080,788	20,849,356	17.5%
01	Farm products	476,869	6,585,678	8,630	2,124,069	9,195,246	7.7%
46	Miscellaneous mixed shpmts.	4,072,584	3,738,181	640	1,326,799	9,138,203	7.7%
11	Coal		4,242,394		4,739,836	8,982,230	7.5%
26	Pulp, paper, or allied products	4,340,667	525,566	305,167	2,923,821	8,095,221	6.8%
20	Food or kindred products	1,580,049	2,354,773	110,679	2,286,834	6,332,336	5.3%
29	Petroleum or coal products	2,015,218	737,325	679,706	2,184,621	5,616,869	4.7%
14	Non metallic minerals	97,805	4,020,622	7,920	503,674	4,630,022	3.9%
24	Lumber or wood products	1,777,220	953,384	272,867	1,022,015	4,025,486	3.4%
33	Primary metal products	794,816	358,637	15,332	2,338,365	3,507,150	2.9%
32	Clay, concrete, glass, stone prod.	478,615	1,040,913	14,683	1,457,819	2,992,029	2.5%
37	Transportation equipment	708,941	1,407,319	142,545	376,628	2,635,434	2.2%
40	Waste or scrap materials	298,016	568,760	29,762	601,334	1,497,872	1.3%
	All others	647,675	681,719	132,648	1,109,264	2,571,306	2.2%
	Total	37,087,690	31,452,924	4,943,223	45,877,968	119,361,805	100.0%

Source: STB Waybill Sample compiled by Wilbur Smith Associates.

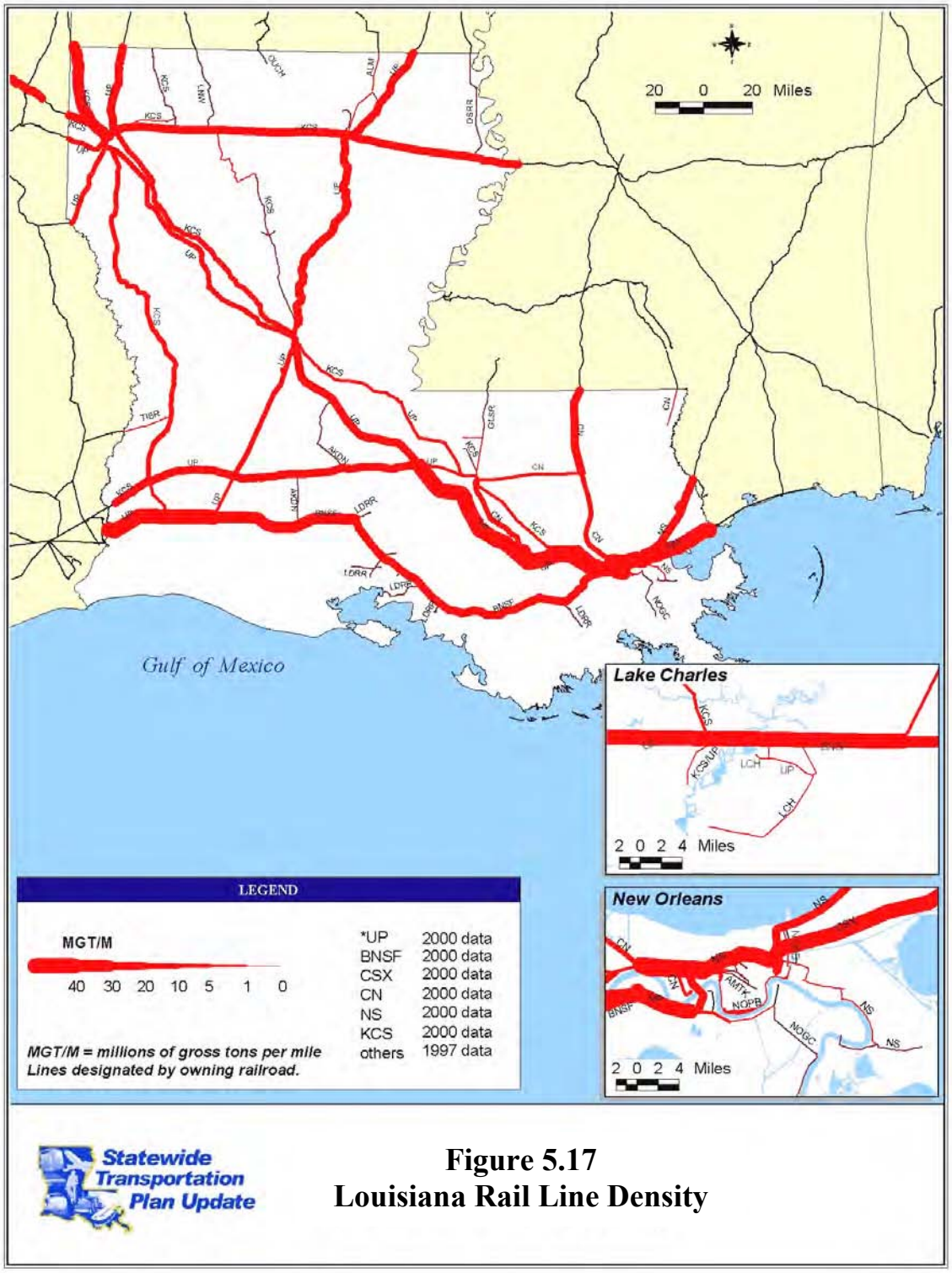


Figure 5.17
Louisiana Rail Line Density

Commodities and Flows

In the aggregate (all movement types), chemicals or allied products comprise the largest commodity moving by rail (24.5 percent) in or through Louisiana. Hazardous materials are second at 17.5 percent (probably chemicals in large part). Three commodity types – farm products (grains including wheat, corn, and soybeans), mixed shipments (intermodal trailers and containers), and coal – each account for about 8 percent of rail totals. Pulp, paper, and allied products make up 6.8 percent of Louisiana rail traffic.

The significance of each commodity varies, however, by movement type. The following paragraphs elaborate on the differences.

Originating Traffic

The 37.1 million tons of commodities originating by rail in Louisiana, and terminating outside the State, are comprised principally by four groups:

- Chemicals or allied products (29.5 percent)
- Hazardous materials (23.8 percent)
- Pulp, paper, or allied products (11.7 percent)
- Miscellaneous mixed shipments (11.0 percent).

Together the commodity shipments above embrace more than three-fourths of the originating total. Other significant outbound commodities include petroleum or coal products at 5.4 percent, food or kindred products (e.g., frozen foods, beer, etc.) at 4.3 percent, and lumber and wood products at 4.8 percent.

Rail freight originating in Louisiana predominantly terminates in Texas, as shown in **Figure 5.18**. The next largest areas are California, Illinois, Georgia and Florida. Combined, these states account for 18.1 million tons or 48.7 percent of originating Louisiana volumes. The shipments to California are largely intermodal, chemicals and pulp/paper products. Traffic to Florida is mostly intermodal and hazardous material, as are the largest shipments to Illinois and Texas.

Terminating Traffic

Nine commodity types dominate tonnage terminating by rail in Louisiana and originating by rail outside the State. They are a diverse group, comprised of the following, which account for almost 88 percent of total terminating shipments.

- Farm products at 20.9 percent
- Coal at 13.5 percent
- Non-metallic minerals at 12.8 percent
- Miscellaneous mixed shipments (intermodal containers and trailers) at 11.9 percent
- Chemicals or allied products at 8.0 percent
- Food or kindred products at 7.5 percent
- Hazardous materials at 5.4 percent
- Transportation equipment at 4.5 percent
- Clay, concrete, glass or stone products at 3.3 percent

The leading exporters to Louisiana are Wyoming and Arkansas, as shown in **Figure 5.19**. California, Texas, Iowa and Illinois follow them. Combined, these states account for 20.8 million tons or 66.1 percent of terminating Louisiana shipments.

Figure 5.18
Destination of Rail Traffic Originating in Louisiana

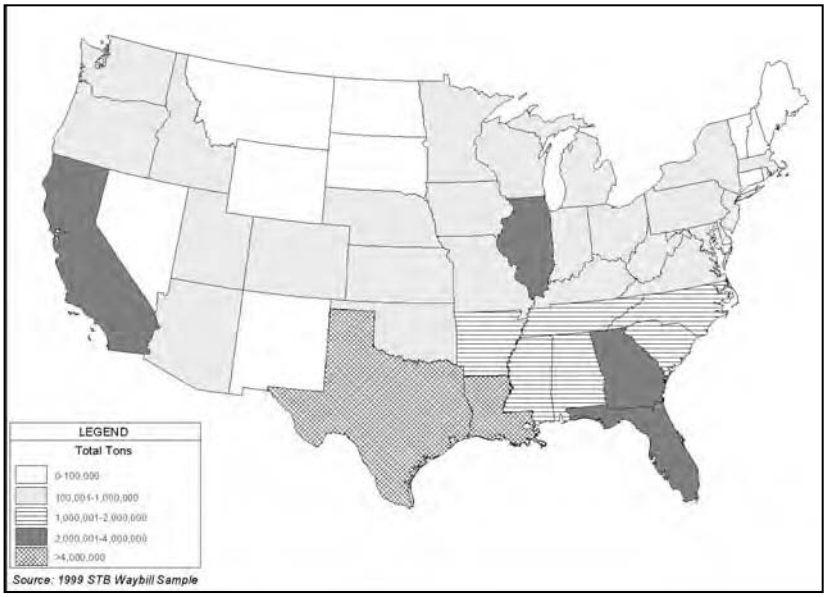
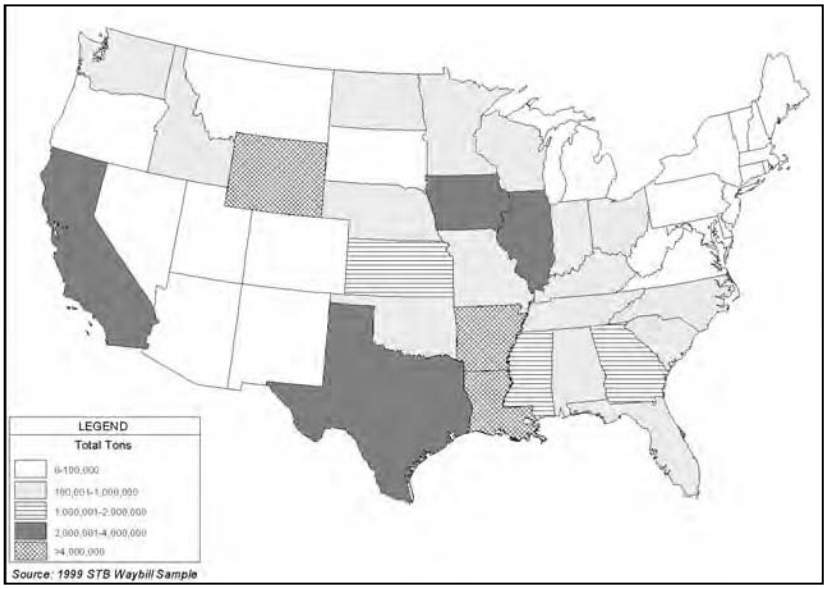


Figure 5.19
Origination of Rail Traffic Terminating in Louisiana



Shipments from Arkansas are predominantly non-metallic minerals (ballast and gravel); from California, intermodal; from Iowa, farm products; and from Wyoming, coal. Shipments from

Texas are more varied than from these other states, but over half are chemicals and hazardous materials.

Intrastate Traffic

Louisiana intrastate traffic – traffic that both originated and terminated in Louisiana – totaled 4.9 million tons in 1999. This sum is small compared to the other types of movements which is logical since rail is not conducive to short distance movements under most circumstances.

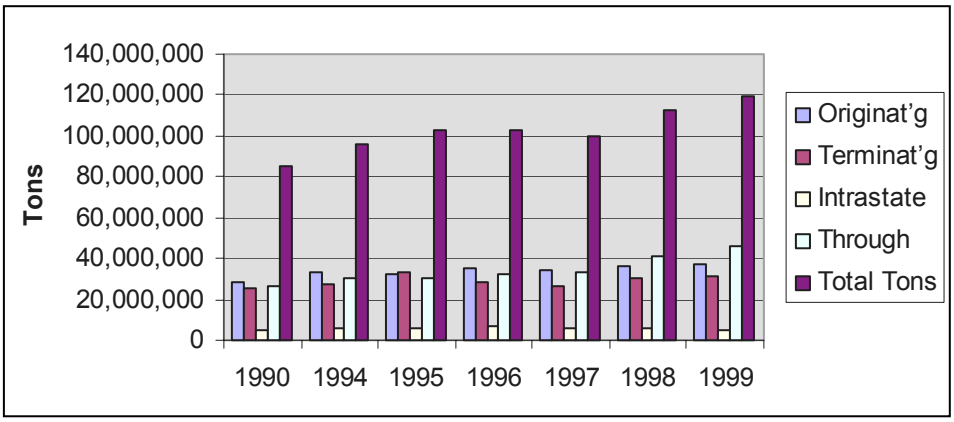
Through Commodities

Rail traffic passing through Louisiana from origins outside of the State and destined for delivery in states other than Louisiana comprise the largest rail traffic movement at 45.9 million tons.

Traffic History

As shown in **Figure 5.20**, total freight traffic in the 10 years between 1990 and 1999 increased 40 percent. Traffic volumes dropped slightly in 1997, presumably due to the service problems on the Union Pacific Railroad, but recovered in 1998. Growth over the following year topped 5.7 percent.

Figure 5.20
Louisiana Freight Traffic History



PORTS & WATERWAYS

The network of ports and navigable waterways in Louisiana is an important component of the intermodal freight transportation infrastructure. In terms of physical infrastructure it includes the navigable waterways, shallow- and deep-draft ports and intermodal connections serving waterfront activities, and the vessel fleet operating on the network. On a functional basis, it can essentially be defined as two subsystems: an inland barge transportation system engaged primarily in domestic commerce; and a deep-draft ports system providing access to international markets through the Gulf of Mexico.

Navigable Network

Louisiana is located at the intersection of the two largest waterway networks, the Mississippi River System and the Gulf Intra-Coastal Waterway, comprising 86 percent of the national network in terms of length and 97 percent of the system's overall tonnage. Therefore, the water transportation system provides accessibility to a large hinterland including states in the Midwest

and the Gulf Coast. These highly developed transportation systems with heavy traffic are efficient modes of transportation with increasing economies of scale, especially for low-value, high-volume bulk cargoes. As a result, a large number of multinational businesses engaged in foreign commerce, petrochemical industries, shipbuilding and many other value-added industrial activities are located at the waterfront.

The basic physical features and the traffic densities of the navigable waterway segments are shown in **Table 5.9**. As the data is reported from the US Army Corps of Engineers database, the information on some segments extends beyond state boundaries. The major economic activities in foreign commerce are concentrated on the 236 river-mile long section on the Lower Mississippi below Baton Rouge. The ship channel depth in this section is maintained at 45'. In addition, the Calcasieu Ship Channel (40' deep) serves as the access channel to the Port of Lake Charles and several other private terminals.

Table 5.9
The Navigable Waterways Network in Louisiana by Major Segments

Waterway Segment	Length (Miles)	Depth (Feet)	Vessel trips in 1999
Atchafalaya River	121	14	15,442
Calcasieu River and Pass	110	12-40	50,640
GIWW- Mobile Bay, AL to New Orleans	134	12	48,655
GIWW- Mississippi River to Sabine River	266	10-12	126,038
GIWW- Morgan City-Port Allen Route	64	10	29,811
Baton Rouge to state border*	271	9	232,466
Mississippi River - New Orleans to Head of Passes	106	45	209,254
Mississippi River - Baton Rouge to New Orleans	130	40-45	273,313
Mississippi River Gulf Outlet	75	35	2,368
Red River-Shreveport to Mississippi River**	236	9	5,787

Note:
* Trips shown for this waterway segment are from the Mouth of Ohio River to Baton Rouge.
**Trips shown for the Red River segment are traffic below Fulton, AR.
Source: Waterborne Commerce of the United States, US Army Corps of Engineers, 1999.

Ports and Intermodal Land Connections

Louisiana's intermodal port system consists of a large number of private terminals and twenty-six public ports can be classified in several ways, as shown in **Figure 5.21.** For the purposes of this analysis, the port sector is presented in three main categories:

- Deep-draft ports, both public and private, engaged in foreign commerce.
- Shallow-draft public and private ports mainly engaged in industrial processing activities.
- Coastal ports functioning as supply bases to the offshore oil and gas industry in the Gulf of Mexico.

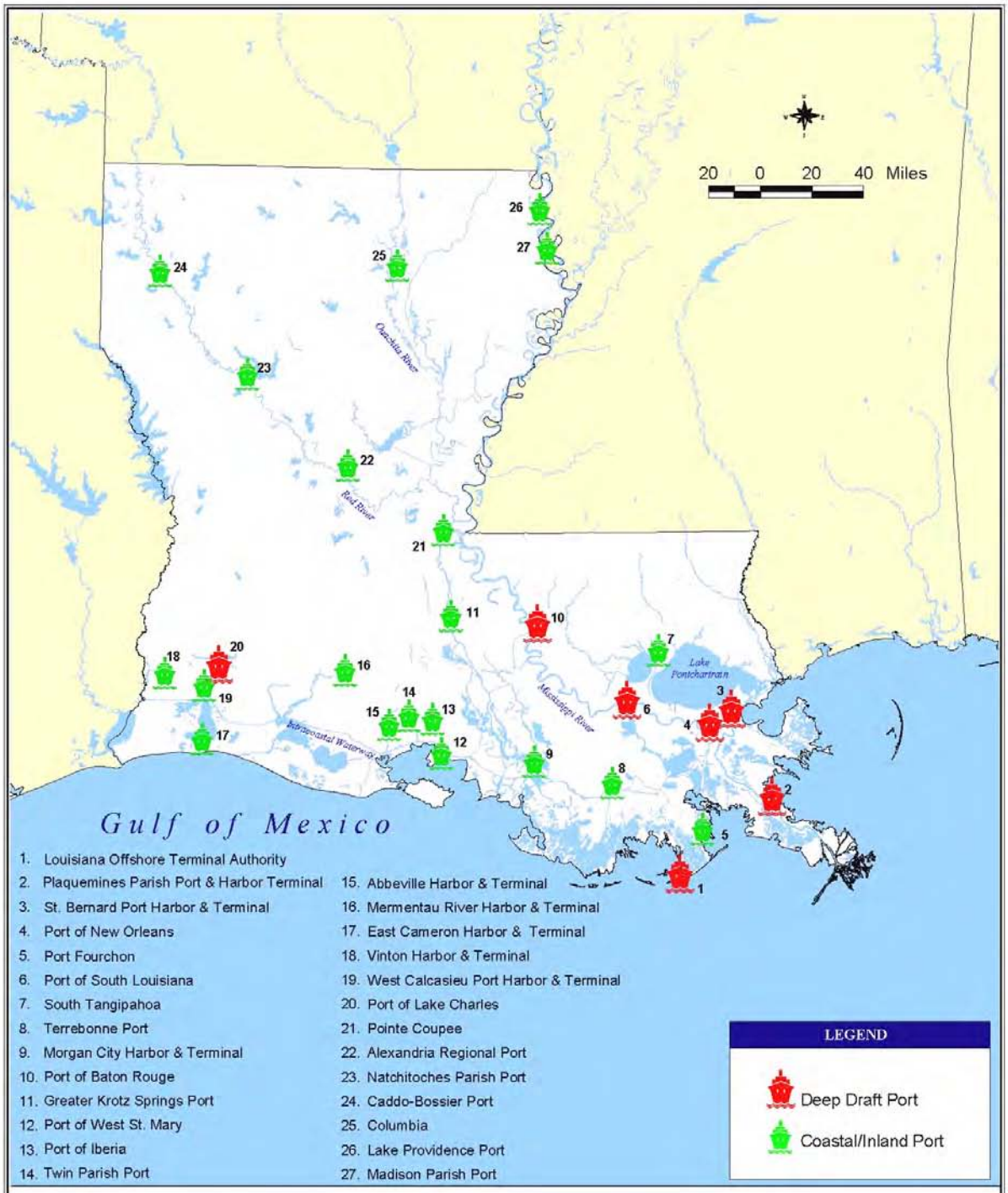


Figure 5.21
Louisiana's Ports and Waterways

Deep Draft Ports

All maritime terminals on the Lower Mississippi River segment (including MRGO) and the Calcasieu Ship Channel fall into this category. In general, the navigable waterway segments with more than 25' in depth are regarded as deep-draft port terminals. The five deep draft public ports located on the waterway segment from Baton Rouge to Head of Passes are among the largest in the nation in terms of tonnage handled. A large number of private terminals operating in each public port area are primarily responsible for this performance.

The tonnage shown in **Table 5.10** includes cargo handled at public as well as private terminals. The private sector contribution to the total tonnage comes from cargo such as grains and coal exports, as well as crude petroleum imports.

The privately owned and operated port terminals are typically dedicated to handle one type of cargo such as grains and coal export terminals and crude petroleum import terminals. These terminals are mostly under the management of multi-national firms with vertically integrated operations (e. g., grain buying at farm level, cleaning, blending for export and loading for shipping).

The cargo handling activities are highly automated using state of the art equipment, with scale economies. Consequent to the recent increases in steel imports, several mid-stream terminals exhibiting similar characteristics have developed, transferring cargo direct from ship to barges in large volumes.

The private sector operators also lease public port facilities, and manage bulk cargo terminals, general cargo and container berths at public ports. The role of public ports is mainly to function as 'landlord' ports supplying port facilities to the private sector and engaging in port marketing and promotion activities.

Table 5.10
Deep-Draft Ports in Louisiana, Tonnages Handled, and National Ranking in 1999 (000 tons)

Port	Total	Imports	Exports	Rank
South Louisiana	214,197	29,407	65,336	1
New Orleans	87,511	29,187	19,722	4
Baton Rouge	63,729	13,331	7,074	7
St. Bernard	538	191	347	---
Plaquemines	62,461	12,839	9,011	8
Lake Charles	50,742	27,001	3,751	13

Source: Waterborne Commerce of the United States, Part 5-National Summaries, US Army Corps of Engineers, 1999

Grain Export Elevators

During the 1990s farm products were responsible for more than one third of the total tonnage handled, about 79 million tons handled in 1999.

The grain exports from Louisiana are handled by land-based export elevators, by floating rigs located mid-river and by direct transfer from barges to ocean vessels. The essential difference is that the land-based elevators have the added capability of performing two important value-added activities: grain blending and grain storage.

Except for the public grain elevator at the Port of Lake Charles, all other grain export elevators are located on the Lower Mississippi River. The concentration of thirteen of them on a 75-mile

stretch of the River is partly related to the fleeting operations of barges. The land-based grain elevators are complete facilities with long-term storage and highly automated grain-conveying systems.

Coal Terminals

Coal is a major commodity transported on the Lower Mississippi contributing on the average 10 to 12 percent of the total waterborne tonnage. The transportation of coal in Louisiana is primarily for three purposes: for local use at electric utilities and industrial plants, through traffic in transit from producing states to consumption states, and coal shipments for export.

Export volumes of coal in the 1990s were too low to utilize the full capacity of major coal export terminals. Fortunately, as the designs of these terminals are suitable for handling other dry-bulk cargos, a gradual diversification of the cargo base ensued from coal to pig iron, barite, cement, steel billets, etc. For example, IMT terminal, where the coal to other cargo ratio was 70:30 percent in the 1980's, diversified its cargo base to a ratio of 45:55 in 1999, making the coal tonnage less than the other cargo.

Break-bulk and Neo-bulk Terminals

The container, break-bulk and neo-bulk cargos are broadly identified as general cargo. The differences among these categories are: container cargo is in standardized steel containers and measured in twenty-foot equivalent units (TEU); break-bulk cargo can be described as conventional packaged goods, and neo-bulk cargos are large consignments of loose cargo such as steel billets, steel wire coils, sawn timber etc. The classification is important from a cargo handling perspective as port infrastructure requirements and operations will be very different to the requirements for handling bulk cargo.

A functional classification of cargo handled by Louisiana ports in 1999 indicates that 8.6 percent of the tonnage handled falls into this category, with break-bulk and neo-bulk comprising close to 20 million tons, about equally divided between public and private terminals. The typical terminal design for handling general cargo consists of alongside a ship-berth, transit sheds and yard space for storage, and cranes and other cargo handling equipment. Five deep-draft ports in Louisiana (except Port of Plaquemine) have facilities to handle break-bulk and neo-bulk cargo. The Ports of New Orleans and Lake Charles handle more than 98 percent of the cargo. A substantial part of this cargo consists of steel billets and coils of wire directly transferred from ship to barges.

Large shipments of steel imports made in the latter part of the 1990's contributed to rapid growth of neo-bulk cargo. Between 1992/1994 and 1997/1999 the tonnage handled doubled. In addition to the cargo that is handled at public terminals, several mid-river rigs also handle steel products. As most steel products need covered storage, the majority of the shipments are directly transferred from ship to barge or rail wherever possible. The break-bulk and neo-bulk terminals are multipurpose terminals that can adapt to a variety of operations.

Shallow-Draft Ports

There are twenty shallow-draft ports either located on inland waterways or on the coast serving mainly as industrial sites for water-related industries, and servicing the offshore oil and gas industry in the Gulf of Mexico. These ports vary in size, with Port Fourchon and the Port of Iberia generating large economic impacts as bases for the offshore oil and gas industry.

Most shallow-draft ports function as industrial parks for water related industries and facilitate diversification of the local economy and the creation of jobs in rural communities with limited opportunities. The performance evaluation of these ports cannot be gauged by a single index

such as the volume of cargo tonnage handled or the amount of revenue generated. It requires a complex process of evaluation involving economic, social and regional growth factors.

Ports Serving OCS

Louisiana is the nation's second largest producer of natural gas and third largest producer of crude oil among the 50 states. In terms of offshore oil and gas production, the Gulf of Mexico accounts for more than 90 percent of the US production. Three major public ports, Port Fourchon, Iberia and Morgan City and a large number of private terminals operate as supply bases to this fast growing offshore oil and gas industry in the State. Commercial fishing and recreational boating activities are much less important than other port activities.

The rapid growth in oil and gas activities has imposed pressures on the limited public infrastructure facilities in the region. For example, southbound truck traffic to Port Fourchon has grown by 47 percent in a four-year period and inland waterway traffic by 24 percent. The cargo volumes handled at the port have increased by 127 percent in three years. According to the data maintained by the port, in 1999 the main access channel from the port to the Gulf was utilized by 56,918 vessel transits. Similar growth trends can be observed at the Port of Morgan City and at the Port of Iberia.

SURFACE PASSENGER

The Louisiana Department of Transportation and Development is working with both users and providers of our existing surface passenger transportation systems to develop a comprehensive and equitable transportation service delivery network that addresses this important component of the State's overall transportation system. Surface passenger includes passenger rail, intercity bus and the local transit systems.

Private Intercity Motorcoach Carriers

According to the Louisiana Public Service Commission, in 2001, there were 193 registered motorcoach companies statewide. Of these, 107 offer motorcoach services in Louisiana. As displayed in **Table 5.11,** the majority of these companies are primarily involved in charter and tour services and most (96) have fleets of 10 vehicles or less. Twelve companies have vehicle fleets in the range of 11-50. Only three companies have fleets in excess of 50. Four companies operate fixed route intercity operations: Greyhound Lines, Inc., Delta Bus Lines, Inc., Kerrville Bus Company, Inc, and Flag Enterprises, Inc. Among these four companies, service is provided to 71 terminals located throughout the State. **Figure 5.22** displays Louisiana's private motor carrier system.

Table 5.11
Registered Motor Carriers in Louisiana in 2001

Number of Vehicles	1-5	6-10	11-15	16-20	20-50	>50
Number of Motor Carriers	77	19	4	5	3	3

Figure 5.22
Statewide Private Motor Carrier System (FY 00)

Passenger Rail System

Current Amtrak Service

The State is served by three long distance Amtrak trains, centered on New Orleans: The Sunset Limited, The City of New Orleans and The Crescent. There currently is no commuter or intercity corridor service provided in the State, either by Amtrak or by other operators. Rail lines used for current and proposed Amtrak services are shown in **Figure 5.23**.

Proposed Services

Amtrak has evaluated a series of proposals that are designed to increase markets served and to improve the economic performance of its long distance routes. Termed the Network Growth Strategy (NGS), Amtrak has identified two proposals that affect service in Louisiana.

Crescent Star

Amtrak is pursuing plans to establish a new rail link between Meridian, Mississippi and Fort Worth, Texas. The service would involve splitting the Crescent at Meridian, and operating a segment of the train from Meridian to Dallas/Fort Worth via Jackson and Shreveport. The remainder of the Crescent would continue to New Orleans, as it presently does.

Sunset Limited

A second NGS proposal potentially affecting Louisiana is a long-range plan to reroute the Sunset Limited between Houston and El Paso to operate through Dallas, Fort Worth, Abilene, and Odessa instead of the current route through San Antonio and Alpine.

Gulf Coast High Speed Rail

The Transportation Equity Act for the 21st Century (TEA-21; Section 1103 (c)) directed the US Secretary of Transportation to designate federally recognized emerging high-speed rail corridors. The proposed Gulf Coast High Speed Rail Corridor was defined in an FRA and Louisiana funded study conducted in 1997 for the Southern Rapid Rail Transit Commission, a group representing the three states (LA, AL, MS) fostering high-speed rail travel in the Gulf Coast Region. This federally designated corridor (circa 1998) extends east/west between Houston, New Orleans, Gulfport/Biloxi, and Mobile with a possible future extension across the Florida panhandle to Jacksonville. It also extends northeasterly from New Orleans through Meridian, Tuscaloosa and Birmingham, ultimately connecting to the East Coast High Speed Rail Corridor extension in Atlanta.

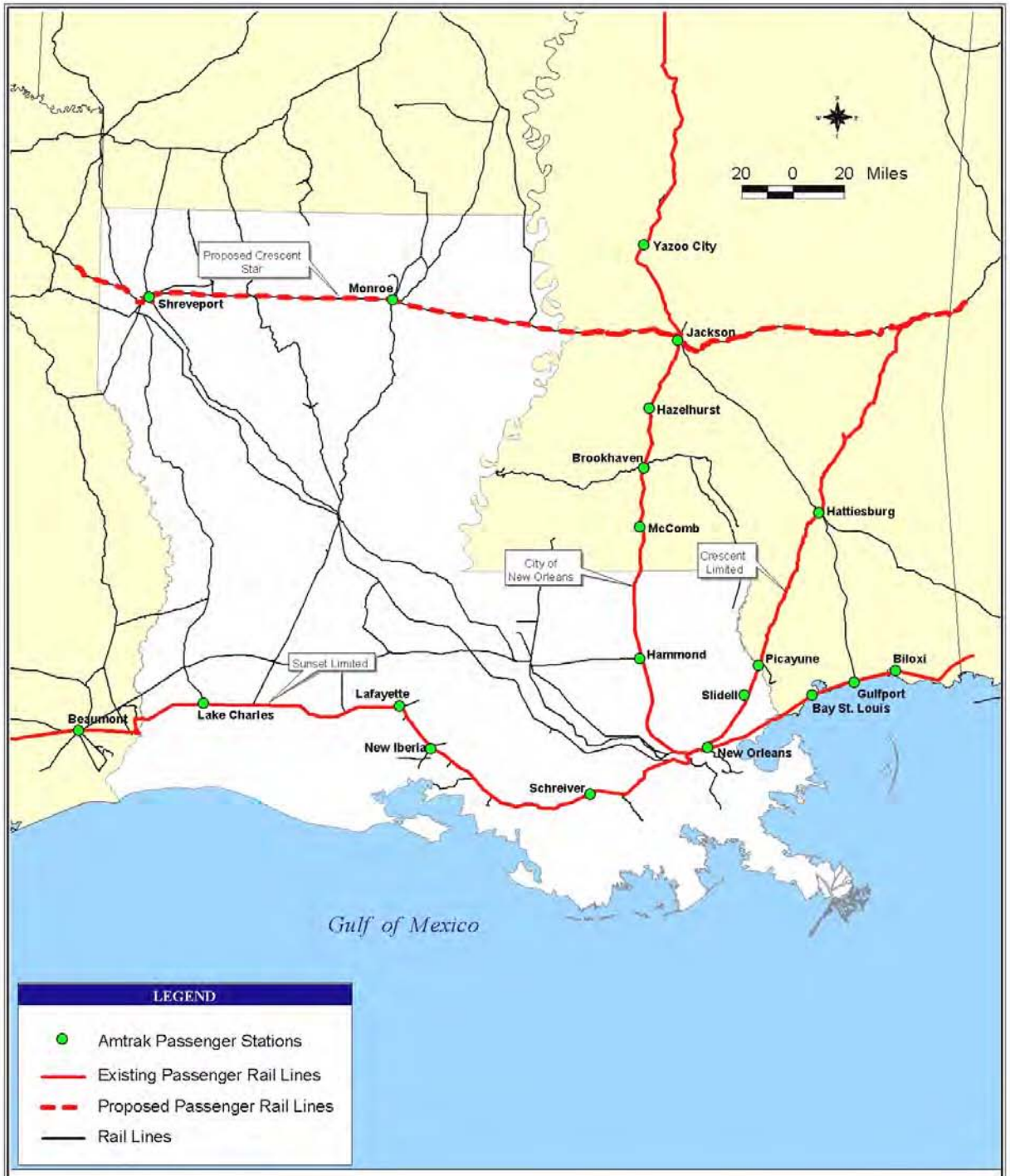


Figure 5.23
Lines with Passenger Rail Service

Louisiana Rail Passenger Stations

Amtrak currently serves seven stations in Louisiana that account for almost 200,000 annual boarding and alighting passengers. Recent ridership data are shown in **Table 5.12** below.

Table 5.12
Annual Amtrak Patronage
For Louisiana Stations

Station	1999	2000
New Orleans	171,298	177,824
Hammond	9,078	11,178
Slidell	4,345	4,483
Lake Charles	2,352	2,320
Lafayette	2,591	2,215
New Iberia	1,062	1,060
Schriever	480	446

Source: Amtrak Quarterly Station Reports

Public Transit

The *elderly*, *poor,* and *handicapped* are considered the "non-auto, transportation disadvantaged" users. These are the most likely users of the states' and nation's non-auto, surface passenger transportation systems. Many elderly persons are retired, have low incomes, and suffer from physical disabilities. Automobile ownership is much lower among the poor than among higher-income groups. The handicapped as a group have lower employment rates, lower incomes, and are often afflicted by mobility problems. These represent the primary users of surface passenger transportation alternatives: transit, passenger rail, and intercity bus carriers. An overview of public transportation users in Louisiana and the US is provided in **Table 5.13**. Louisiana has a higher percentage of persons living in poverty, 19.6 percent, compared to the national average of 12.4 percent. The disabled population (ages 21-64) in the State comprised 22.1 percent of the population, which is slightly higher that the national average of 19.2 percent. The elderly comprised 11.6 percent of the State's total population. Dependency on public transportation is far from uniform across geographical areas. The transit dependency of the transportation disadvantaged is much larger in the largest Metropolitan Statistical Areas (urban areas), but dramatically lower in rural areas or areas with lower density**.**

Table 5.13
Overview of Public Transportation Users, 2000

	Louisiana	**USA**
Population	4,468,976	281,421,906
Below Poverty Line	851,113 (19.6%)	33,899,812 (12.4%)
Age 65 and Over	516,929 (11.6%)	34,991,753 (12.4%)
Disabled Population (age 21-64)	540,838 (22.1%)	30,553,796 (19.2%)
Mobility Impaired Aged 16-64 (1990 Census)	77,118 (2.99%)	3,793,697 (2.41%)

	Louisiana	USA
Households with no vehicle available	196,305 (11.9%)	10,861,067 (10.3%)

Public transit is provided in both urban and rural areas of the State. Currently 35 parishes have an urban and/or rural system, 10 parishes have an urban system, 29 parishes have a rural system and four parishes have both an urban and rural system. Twenty-nine parishes have no transit system. Urban systems include fixed route bus, streetcar (Orleans Parish only), and demand responsive services. There are currently 121 providers being funded by FTA funds for demand responsive services in both rural and elderly / disabled categories. One or more of these service types is present in all but 6 parishes within the State: Beauregard, Grant, Union, Vermon, West Caroll and Plaquemines. It was mutually agreed by both DOTD and consultant team that FY 1999 public transit data would be used throughout this report, as that is the most current year that includes all relevant data. The statewide public transportation system is displayed in **Figure 5.24**.

BICYCLE AND PEDESTRIAN

Historically, bicycle and pedestrian modes have received comparatively little emphasis in Louisiana, as a result of the magnitude of needs in other modes. However, bicycling and walking are becoming more prominent modes, due in part to mandates from ISTEA and TEA-21 legislation to incorporate bicycle and pedestrian issues into statewide transportation planning.

In Louisiana, bicycle and pedestrian concerns are treated mainly as local issues; however, several initiatives at DOTD are enhancing the State's role in bicycle and pedestrian planning. There are a number of opportunities to build upon these initiatives, through the development of policies related to bicycle and pedestrian improvements, expanding partnerships with other local and state organizations interested in bicycle and pedestrian concerns, and potential facilities improvements.

Existing Facilities

Several dedicated bicycle / pedestrian facilities are in place or under construction in Louisiana, mostly in the form of dedicated pathways. The Tammany Trace Trail, in St. Tammany Parish, is Louisiana's first rail trail. A significant portion has already been completed, and the entire trail will be over 30 miles long when finished. The trail includes an innovative tunnel under a U.S. highway. A multi-use trail is also being constructed along the top of the Mississippi River levees in the New Orleans area. The paved trail will be 10 feet wide and presents a significant safety improvement for bicyclists, who previously had to use the adjacent River Road, which has a high volume of truck traffic and is prone to flooding. The trail will be approximately 40 miles long when complete, and will extend through several parishes. DOTD has also improved shoulders along existing roadways to create a better environment for bicyclists. Examples of shoulder improvements can be found along the roadways that comprise the Mississippi River Trail.

At the local level, many cities and towns have benefited from dedicated bicycle and pedestrian facilities funded through the federal Transportation Enhancements program.

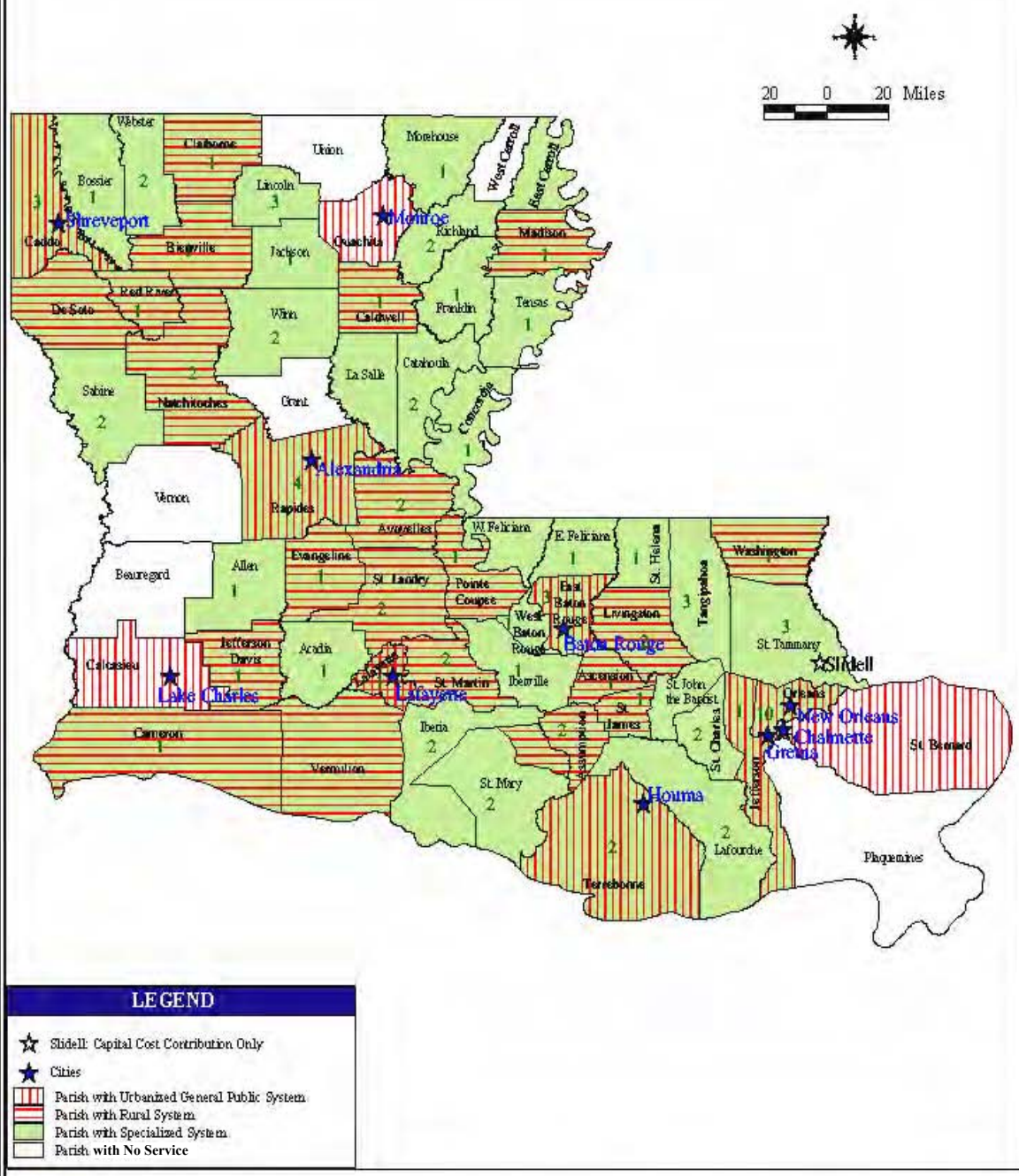


Figure 5.24
Statewide Public Transportation System
(FY 99)

INTELLIGENT TRANSPORTATION SYSTEMS

In recent years the DOTD has made significant progress towards a statewide, integrated approach to the implementation of Intelligent Transportation Systems (ITS) in Louisiana. The development of the Louisiana ITS program has been a coordinated effort involving numerous governmental transportation agencies. ITS is a tool for the active management of roadway operations. ITS is comprised of communication networks, computer monitoring and field control devices. These components include cameras, vehicle sensors, variable message signs, highway advisory radio communications, etc. that are common features of modern roadway networks. ITS components in conjunction with traffic management strategies are applied in an integrated manner to improve the operation and safety of transportation networks.

The Louisiana ITS program is a cooperative effort between federal, state, and local transportations agencies, the Metropolitan Planning Organizations (MPOs) and private organizations. The ITS program employs technology and process based initiatives to improve the overall operation of the State's transportation system.

Louisiana transportation agencies are focusing their efforts in two distinct and overlapping ITS program applications. The first is traffic management systems to improve traveler mobility, reduce traffic congestion and improve transportation safety. Traffic management activities typically focus on, and have their greatest benefits in, major urban areas. The second is commercial vehicle operations (CVO). CVO ITS technologies are used to automate the permitting and documentation processes, increase the efficiency and effectiveness of vehicle and cargo inspections, and improve the overall safety of truck operations.

The framework for implementing ITS in the State is reflected in three ITS-related business plans sponsored by DOTD. They are:

- Louisiana ITS Business Plan
- Louisiana CVO/ITS Business Plan
- Louisiana CVISN Business Plan

Louisiana ITS Business Plan - 2000

Louisiana's ITS Business Plan is broad in scope and provides a long-term strategic vision and program of projects to assist the State in integrating ITS applications into its surface transportation planning, operation and management activities. The Plan resulted from the combined efforts of state transportation and emergency service providers and the MPOs of Baton Rouge, New Orleans and Shreveport/Bossier City. The Plan identifies the State's role in coordinating, planning, integrating, funding and deploying a statewide program of ITS initiatives to improve the safety and efficiency of the State's existing and planned transportation network, and highlights a series of ITS initiatives to be undertaken by the State. The Plan builds upon and integrates local planning and deployment efforts to maximize the regional benefit of locally developed/funded projects.

<u>Existing, Programmed or Planned ITS Installations</u>

During development of the ITS Business Plan, a high-level review was conducted of existing ITS projects already in place and/or planned for near-term implementation. At that time, 36 ITS projects were already programmed in the Statewide Transportation Improvement Program (STIP), located in seven different urban areas. These projects included computerized traffic signal

installation, a traffic management center, weigh-in-motion systems, roadway incident management, etc.

Louisiana CVO/ITS Business Plan - 2000

Truck freight movement in Louisiana is approximately 385 million tons per year. Trucks are used to transport almost 100 percent of goods to and from the State's service and trade sectors which are responsible for 50 percent of total State employment.

The importance of the trucking industry is critical to maintaining the economic health of Louisiana. The State performs an essential role in commercial vehicle operations in three functional areas: regulatory and administrative, safety assurance and enforcement, and infrastructure/mobility provision and maintenance. To more effectively address the needs of the trucking industry, Louisiana is developing and implementing ITS technologies.

The State's CVO/ITS Business Plan provides a long-term strategic vision and implementation program for meeting Louisiana's Commercial Vehicle Operations/Intelligent Transportation Systems (CVO/ITS) needs.

The CVO/ITS Business Plan identifies a coordinated program of "no-tech," low-tech and technology-based initiatives to achieve the following:

- Increase administrative productivity of both the state and private sector.
- Maximize commercial vehicle operational safety through improved compliance and targeted enforcement.
- Increase CVO productivity by improving the efficiency of freight movement.

Louisiana's CVO/ITS Business Plan presents itself as a tool for change. The Plan provides a roadmap for changing the way that the State and motor carriers do business together, and a framework for implementing that change, with expected result of decreasing costs for both the State and industry, improving productivity and compliance, and decreasing unsafe/illegal carrier, vehicle and driver operations. Louisiana's CVO/ITS Business Plan helps position the State to take advantage of and leverage the technologies being developed nationally through the federal Commercial Vehicle Information Systems and Networks (CVISN) program.

The Commercial Vehicle Information Systems Network is being developed by the FHWA to provide the information infrastructure required to support the safety assurance, credentials administration, electronic screening and carrier operations functions that make up the national ITS/CVO program. CVISN is not a new system or database, but rather a way for existing systems to exchange information electronically through standards developed in CVISN and commercially available communications systems.

<u>Existing, Programmed or Planned ITS Installations</u>

During development of the CVO/ITS Business Plan a high level review was conducted of existing projects already in place and/or planned for near-term implementation. At that time, 30 ITS projects were already programmed. Total cost for projects identified was approximately $32.4 million.

Louisiana CVISN Business Plan - 1999

Commercial Vehicle Information Systems and Networks (CVISN) is the collection of information systems and communications networks that support commercial vehicle operations (CVO).

Owners and operators of these systems primarily are federal and state governments and private motor carriers. CVISN is focused on ways for existing and newly designed network systems to exchange information through the use of standards and available communications infrastructure. CVISN provides a framework "architecture" that enables transportation agencies and the motor carrier industry, to exchange information and conduct business transactions electronically. The goal of the CVISN program is to improve the safety and efficiency of commercial vehicle operations.

CVISN architecture is the commercial vehicle operation component part of the National Intelligent Transportation Systems (ITS) Architecture. The CVISN architecture for the Louisiana ITS program is consistent with the national ITS architecture and applicable standards. This is required by the Transportation Equity Act for the 21st Century (TEA-21) for ITS projects funded from the federal Highway Trust Fund. This includes standards for communications technologies to promote system compatibility, interoperability and efficiency.

The national CVISN program supports the exchange of CVO related information within and among states, between state regulatory agencies and individual motor carriers and federal regulators. The free-flow of information increases the effectiveness and efficiency of CVO credentialing, screening and safety assurance procedures. Guiding principles of the CVISN program include:

- Capturing regulatory, compliance and enforcement data at the source to increase the accuracy and timeliness of information.
- Making information that is currently "locked up" in state and national legacy systems (hardware and software systems managing credentialing, safety and screening programs) available to all authorized users from both roadside and desk-side locations.
- Development and implementation of open communication system and database standards that facilitate data exchange.

Louisiana is committed to improving the efficiency and effectiveness of commercial vehicle operations for both state agencies and motor carriers. The State has participated in the Federal Motor Carrier Safety Administration's (FMCSA) Intelligent Transportation Systems/Commercial Vehicle Operations (ITS/CVO) Mainstreaming Program and its partnership with FMCSA in the CVISN program stem from this commitment.

The State developed a CVISN program plan in 1999. The overriding purpose of the CVISN program is to apply proven technologies to:

- Improve the safety of commercial vehicles and drivers.
- Improve motor carrier, vehicle and driver regulatory compliance.
- Improve motor carrier and state productivity by reducing the number of administrative steps, documentation, money, and person-hours required to ensure safety and compliance.

Existing, Programmed or Planned ITS Installations

During development of the CVISN Business Plan, a review was conducted of existing projects already in place and/or planned for near-term implementation. At that time, 17 ITS projects were already identified for implementation. Total capital cost for projects was approximately $15.1 million with a total operating cost of $761,000 (as of December, 1999).

CHAPTER 6
SUMMARY ANALYSIS OF FREIGHT MOVEMENT

The movement of freight over Louisiana's transportation system is discussed in this Chapter. It includes an analysis of freight flows to, from, through, and within Louisiana, along with forecasts to the year 2030. This freight flow analysis is intended to depict:

- Louisiana's trading partners
- The types of commodities transported
- The preferred modes of travel
- Growth in freight traffic in Louisiana.

The remainder of this chapter is organized by mode of transport.

1. Truck Movements
2. Rail Freight
3. Waterborne Freight
4. Air Cargo

SOURCE OF DATA

All **truck, rail, and domestic water** movements reported in this chapter are from Reebie Associates' TRANSEARCH 2000 freight flow database. Reebie has maintained and updated TRANSEARCH annually since 1980. It is a commercially available source for analyzing nationwide, regional, and local freight patterns and quantified volumes of freight activity by individual commodity and mode of transport. A variety of data sources are used to compile the database ranging from government agencies to private sector industry associations and the carriers themselves. The primary sources are contained in **Table 6.1**

Table 6.1
Primary Transearch Data Sources

Mode	Data Source	Agency/Organization
Rail	Car Load Waybill Sample	Surface Transportation Board
Water	Waterborne Commerce Statistics	Army Corps of Engineers
Air	FAA Airport Originating Tonnages Airport to Airport Flows Commodity Flow Survey Transearch	Office of Airline Statistics (DOT Form 41) BTS Office of Airline Information Bureau of Transportation Statistics Reebie Associates
Truck	Carrier Data Exchange Program Transearch Annual Survey of Manufactures Freight Locator Data Service	Reebie Associates Reebie Associates US Census Bureau Reebie Associates

Mode	Data Source	Agency/Organization
	General Statistics for Verification Commodity Flow Survey	Industry Associations Bureau of Transportation Statistics

Forecasts of truck, rail, and domestic water were developed by Reebie Associates using the FHWA Freight Analysis Framework freight forecast rates to 2010, and then between 2010 and 2020. These forecasts rates, which were prepared by DRI-WEFA, were applied to the 2000 Louisiana TRANSEARCH data. Reebie Associates then used the growth rates from the 2010-2020 time frame in the Freight Analysis Framework forecasts to extend the Louisiana forecasts from 2020 to 2030.

International waterborne traffic (import/export) was obtained from *The Journal of Commerce's* 2001 Port Import Export Reporting Service (P.I.E.R.S.). These data are captured directly from ships' cargo manifests at all US ports. They include containerized cargo as well as bulk and neo-bulk.

Forecasts of international waterborne traffic were derived by WSA using growth rates obtained from the Latin American Trade and Transportation Study (LATTS). Over 400 separate growth rates were established for import versus export, Latin America versus the rest of the world, Louisiana port, and commodity. LATTS forecasts were through 2020, so the rate of growth from 2015-2020 was used to extend the projections to 2030.

Year 2000 baseline air cargo volumes for individual Louisiana airports were derived from airport air cargo surveys conducted by WSA. Survey data was supplemented with Airports Council International (ACI) data. TRANSEARCH 2000 data was utilized to establish inbound and outbound flow and commodity mix (including mail and express traffic) at Louisiana airports. Louisiana international air cargo traffic figures were obtained from US DOT T-100 segment data for the year 2000. T-100 segment data provides volume and trade partner (city-pairs) for US origin and destination international air commerce.

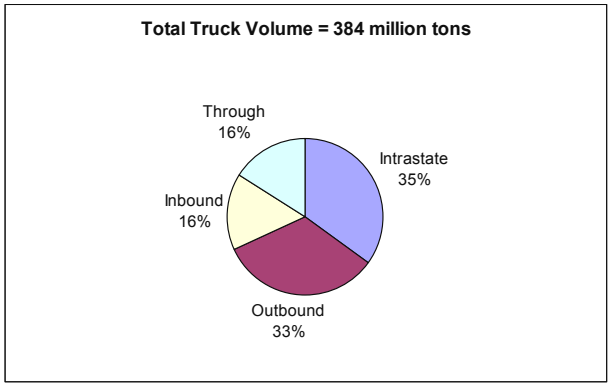
Air cargo forecasts were derived from a combination of geographical based growth rates. Source data for the growth rates include FAA Aerospace Forecasts 2002-2013, Boeing World Air Cargo Forecast 2000/2001, and MergeGlobal 2002 Air Freight Forecast. Projections include domestic, international, freight, and mail traffic, each having been calculated using distinct growth factors based upon market (domestic, international, and specific region) and freight versus mail.

TRUCK MOVEMENTS

Trucks hauled $526 billion[1] worth of goods to, from, within, or through Louisiana in the Year 2000. This totaled 384 million tons moving over the road network. Intrastate movements accounted for 35 percent of the tonnage, with outbound moves contributing 33 percent and inbound and through truck tonnages accounting for 16 percent each (**Figure 6.1**).

[1] Estimated from TRANSEARCH 2000 tonnages and 1997 Commodity Flow Survey value of goods factored to Year 2000 dollars.

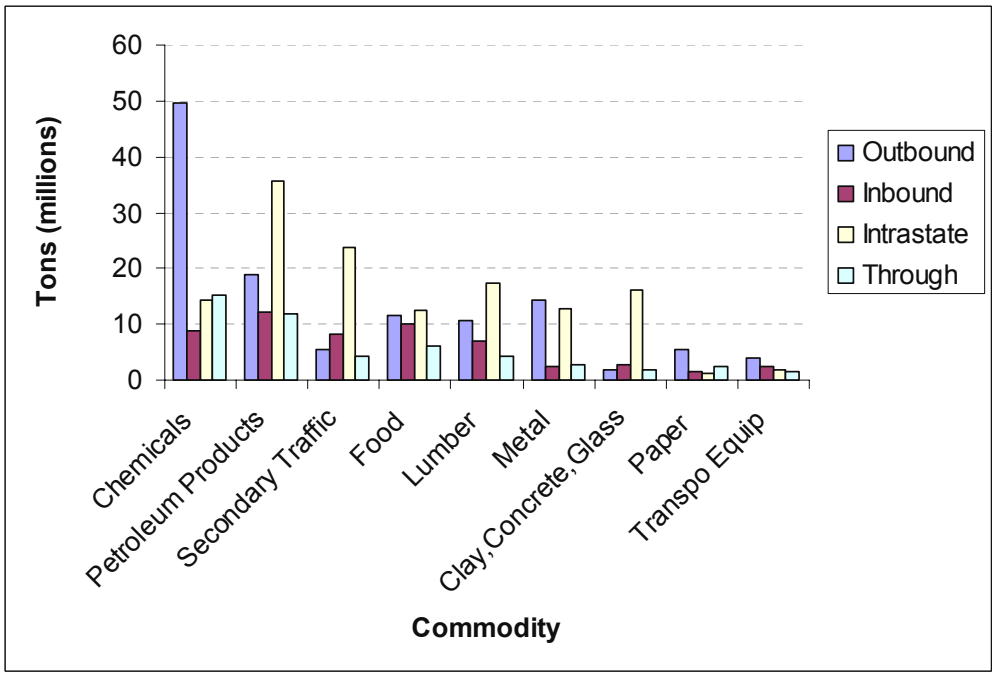
Figure 6.1
Louisiana Truck Tonnage by Traffic Type



Source: TRANSEARCH 2000

At 50 million tons, chemicals trucked out of Louisiana were easily the largest commodity movement (**Figure 6.2**). Other outbound commodities include petroleum (19 million tons), metal (14 million tons), food (12 million tons), and lumber (11 million tons). Inbound truck moves were spread across many commodities, with the two largest being petroleum and food. Intrastate

Figure 6.2
Louisiana Truck Tonnage by Commodity and Traffic Type

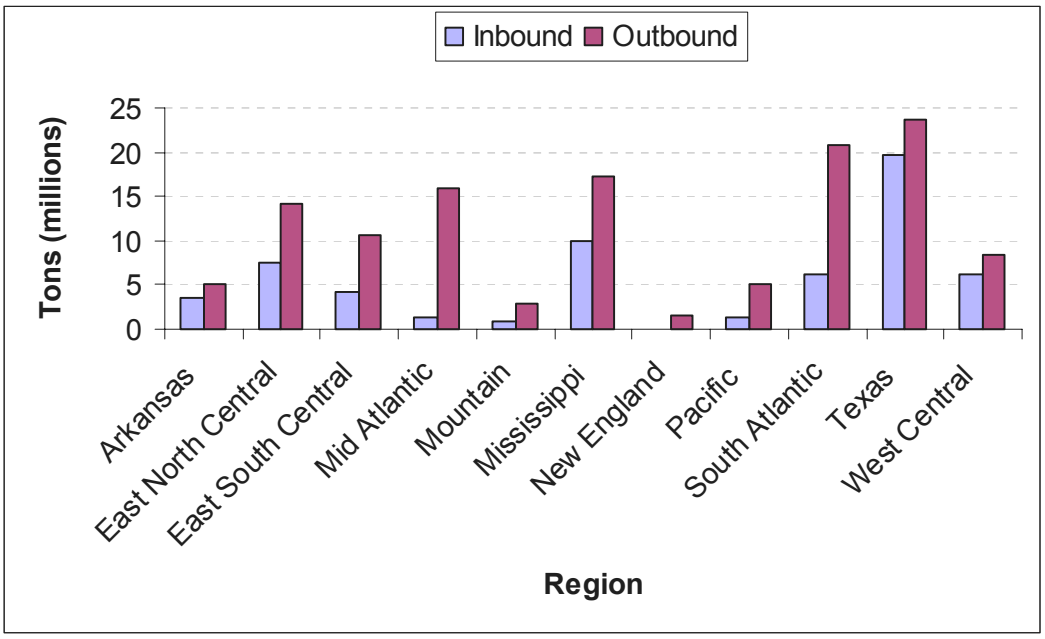


Source: TRANSEARCH 2000

movements were dominated by petroleum (36 million tons) and secondary traffic[2] (24 million tons), though lumber, clay/concrete/glass[3], chemicals, food, and metal were all above 10 million tons.

Figure 6.3 breaks down the interstate truck movements by origin and destination regions[4]. For primary originators of Louisiana inbound truck shipments were the East North Central Region (IL, IN, MI, OH, WI) food and chemicals were the main commodities, Mississippi (lumber and secondary traffic), South Atlantic (FL, GA, NC, SC, VA) chemicals, food, and metal, Texas (9.1 million tons of petroleum products and 4.0 million tons of chemicals), and West Central (IA, KS, MN, MO, NE, ND, OK, SD) 3.4 million tons of food. Outbound truck shipments headed to the Mid Atlantic Region (DE, DC, MD, NJ, NY, PA, WV) chemicals and metal, Mississippi (chemicals and lumber), South Atlantic (FL, GA, NC, SC, VA) 9.3 million tons of chemicals and 5.6 million tons of petroleum products, and Texas (7.9 million tons of chemicals and more than 3 million tons each of food, petroleum products, and metal).

Figure 6.3
Interstate Louisiana Truck Tonnage by Region and Traffic Type



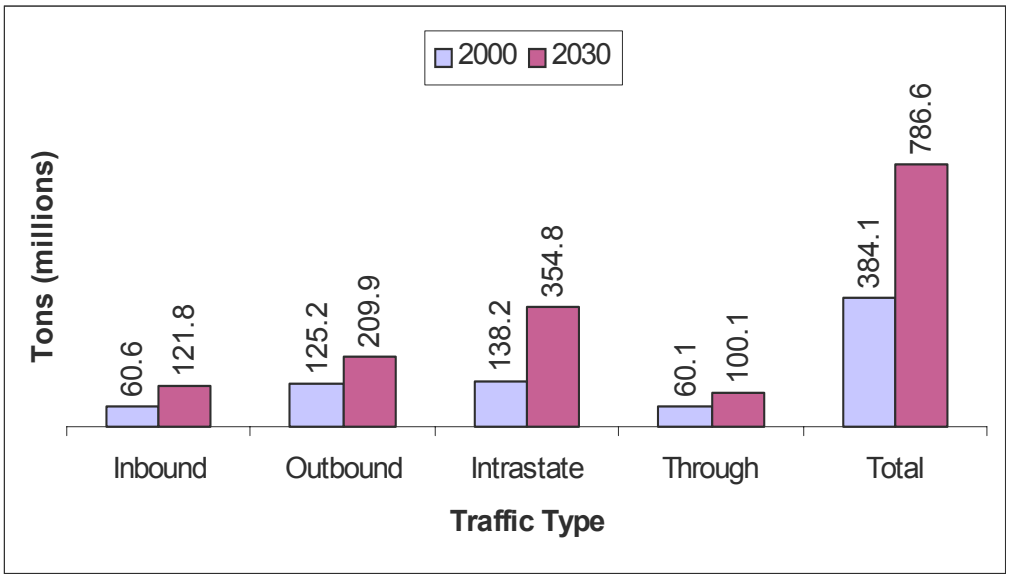
Source: TRANSEARCH 2000

Overall, truck traffic is projected to grow by 105 percent by the Year 2030 (**Figure 6.4**). Inbound truck tonnage is projected to grow by 101 percent, outbound by 68 percent, intrastate by 157 percent, and through truck traffic by 67 percent. These growth rates are determined by a combination of commodity and geographical forecast factors. The large growth in intrastate truck

[2] Secondary traffic is the movement of shipments between warehouses and stores, rather than direct from a manufacturer.
[3] Clay/concrete/glass generally reflects growth in building and construction.
[4] East North Central – IL, IN, MI, OH, WI; East South Central – AL, KY, TN; Mid Atlantic – DE, DC, MD, NJ, NY, PA, WV; Mountain – AZ, CO, ID, MT, NV, NM, UT, WY; New England – CT, ME, MA, NH, RI, VT; Pacific – AK, CA, HI, OR, WA; South Atlantic – FL, GA, NC, SC, VA; West Central – IA, KS, MN, MO, NE, ND, OK, SD.

volumes is driven by growth in food (191%), lumber (141%), clay/concrete/glass (227%), and secondary traffic (264%). These four groups make up half of the intrastate truck tonnage. The lower growth rate for outbound truck movements is largely due to a modest 31 percent increase projected for chemical shipments. Inbound trucks from Arkansas, Mississippi, and the Mountain Region (AZ, CO, ID, MT, NV, NM, UT, WY) are expected to increase by more than 150 percent, while inbound truck shipments from the Pacific Region (AK, CA, HI, OR, WA) are only projected to increase 26 percent. Arkansas and New England (CT, ME, MA, NH, RI, VT) are the only outbound regions expected to grow at more than 100 percent, while outbound truck tonnage to the East North Central (IL, IN, MI, OH, WI) and Mid Atlantic (DE, DC, MD, NJ, NY, PA, WV) show 32 percent and 29 percent growth, respectively.

Figure 6.4
Forecasts of Louisiana Truck Tonnages by Traffic Type



Source: TRANSEARCH 2000, DRI-WEFA Forecasts

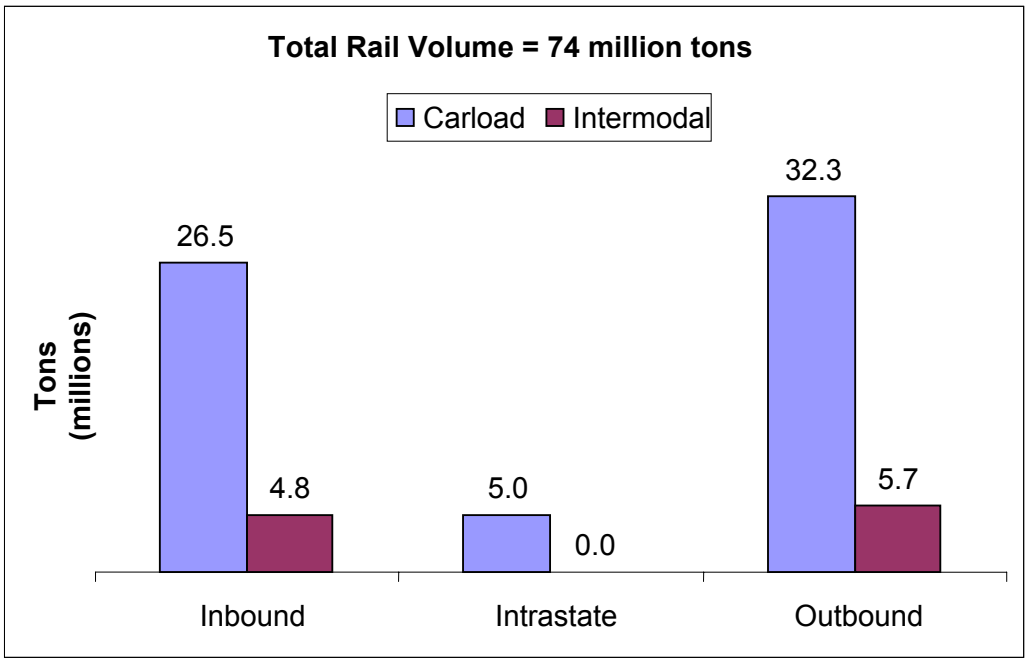
RAIL FREIGHT

In the Year 2000, 17 freight railroads operated in Louisiana. These railroads carried more than 1.8 million carloads, operated on 3,187 route-miles of track, and employed more than 3,300 workers[5].

Interstate movements account for 94 percent of Louisiana's 74 million tons of rail traffic. **Figure 6.5** contains a summary of Louisiana rail freight by traffic type (inbound, outbound, intrastate). There was 32 million tons of carload rail freight originated in Louisiana and shipped out of state, 26 million tons of out of state traffic that terminated in Louisiana, and another 5 million tons of carload traffic that moved locally within Louisiana by rail. The corresponding intermodal tonnages are 5.7 million tons outbound, 4.8 million tons inbound, and 38 thousand tons local. Using an average weight of 15 tons per container, there were approximately 380,000 outbound containers and 320,000 inbound containers.

[5] Association of American Railroads

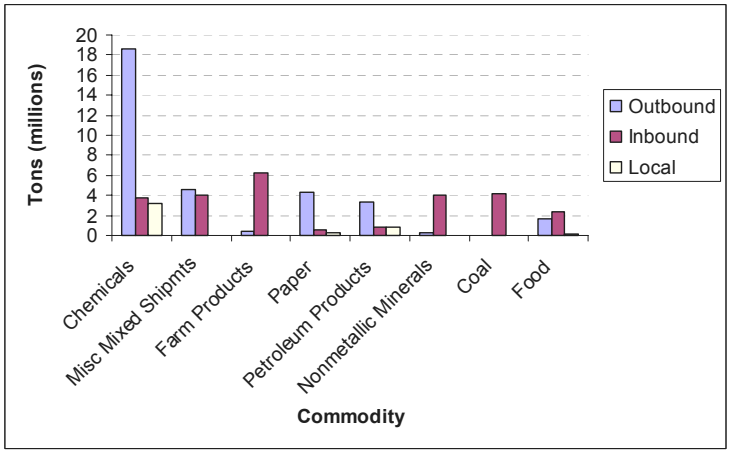
Figure 6.5
Louisiana Rail Tonnage by Traffic Type



Source: TRANSEARCH 2000

Figure 6.6 subdivides the rail traffic by major commodity groupings and traffic type. The dominant outbound commodity is chemicals, accounting for nearly 19 million tons. Other large outbound movements were miscellaneous mixed shipments (4.5 million tons), paper (4.4 million tons), petroleum (3.3 million tons), and food (1.6 million tons). Inbound primary inbound commodities were agriculture/grains (6.2 million tons), coal (4.2 million tons), nonmetallic minerals (4.1 million tons), miscellaneous mixed shipments (4.0 million tons), and chemicals (3.8 million tons). Local rail traffic included 3.2 million tons of chemicals and less than 1 million tons of petroleum.

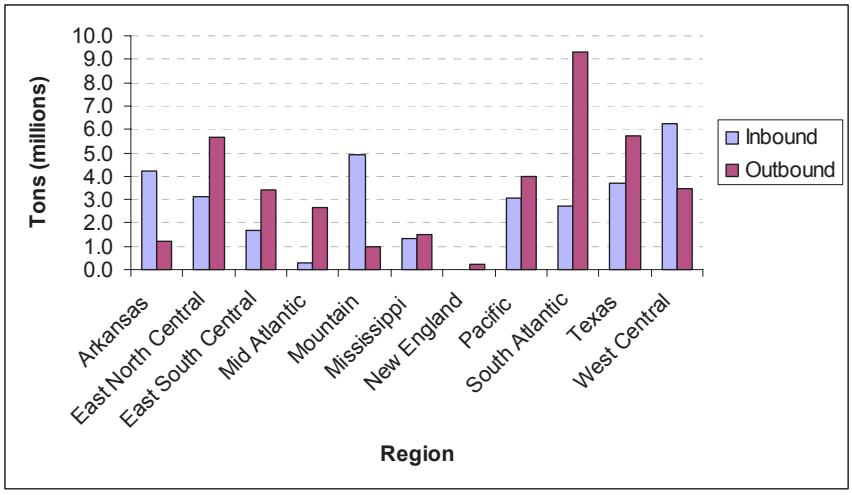
Figure 6.6
Louisiana Rail Tonnage by Commodity and Traffic Type



Source: TRANSEARCH 2000

On a regional basis (**Figures 6.7**), the primary originators of inbound traffic were Arkansas, Mountain, Texas, and West Central. The principal commodities received were 3.6 million tons of nonmetallic minerals from Arkansas, 4.2 million tons of coal from the Mountain Region (AZ, CO, ID, MT, NV, NM, UT, WY), 4.7 million tons of farm products from the West Central Region (IA, KS, MN, MO, NE, ND, OK, SD), and a variety of products from Texas including chemicals, transportation equipment, and petroleum. The main recipients of outbound traffic were the East North Central, Pacific, South Atlantic, and Texas. The East North Central Region (IL, IN, MI, OH, WI) received, among other commodities, 3.3 million tons of chemicals. The Pacific Region (AK, CA, HI, OR, WA) received intermodal, chemicals, and paper, while the South Atlantic Region (FL, GA, NC, SC, VA) received intermodal, chemicals, petroleum products, and paper. The largest tonnages of goods to Texas were chemicals, petroleum products, and paper. **Figures 6.8 (a, b)** and **6.9 (a, b)** describe current and future Louisiana through rail tonnage on a regional basis from a nationwide perspective.

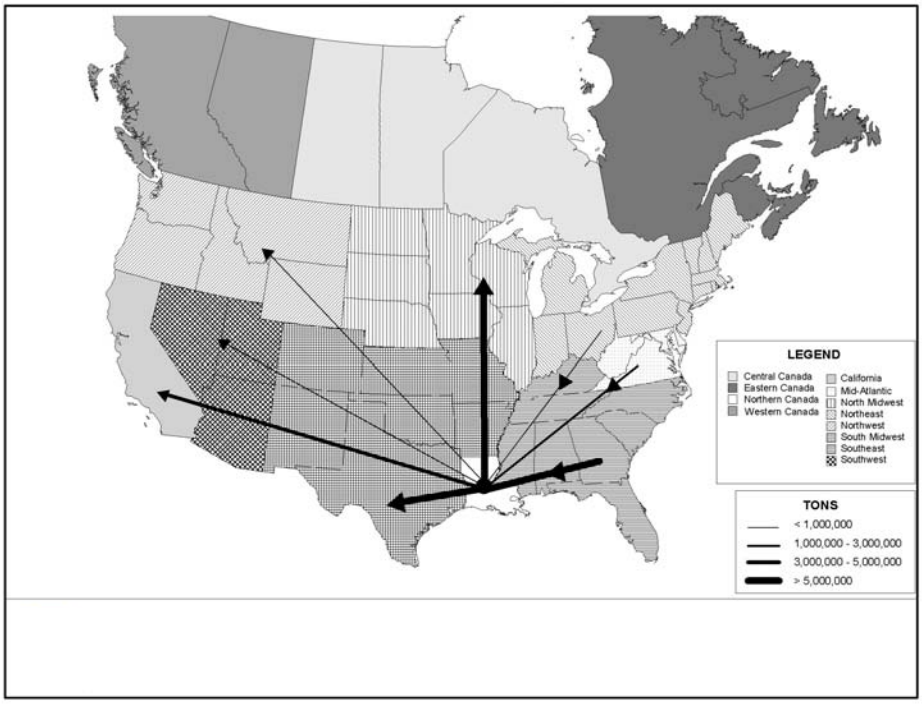
Figure 6.7
Interstate Louisiana Rail Tonnage By Region and Traffic Type



Source: TRANSEARCH 2000

Figures 6.8 (a) – 1999 Louisiana E-W Through Rail Tonnages and (b) – W-E Through Rail Tonnages

(a)

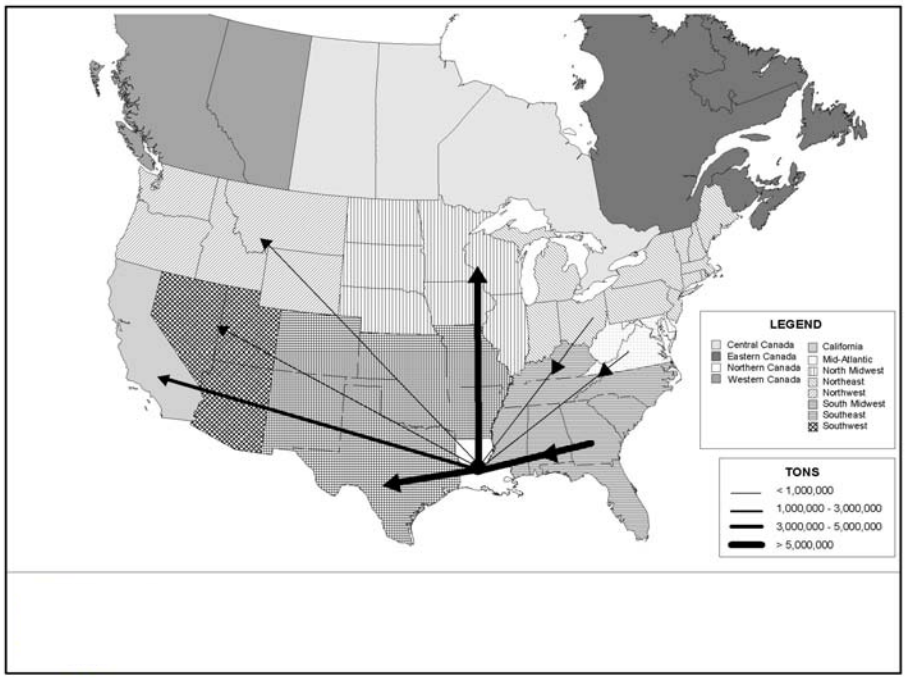


(b)

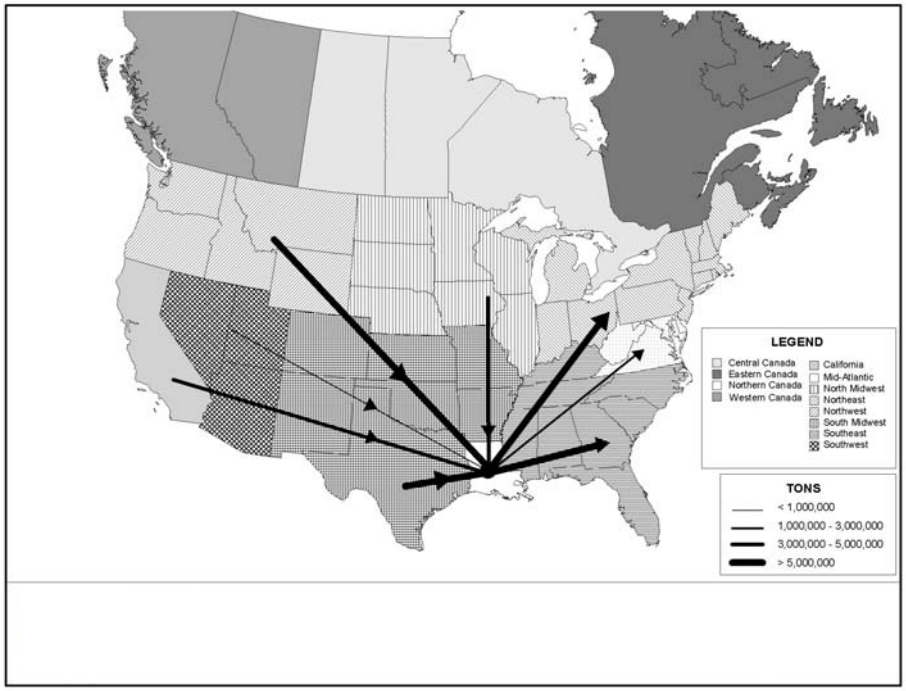
Sources: 1999 STB Waybill Sample

Figures 6.9 (a) – 2030 Louisiana E-W Through Rail Tonnages and (b) – W-E Through Rail Tonnages

(a)



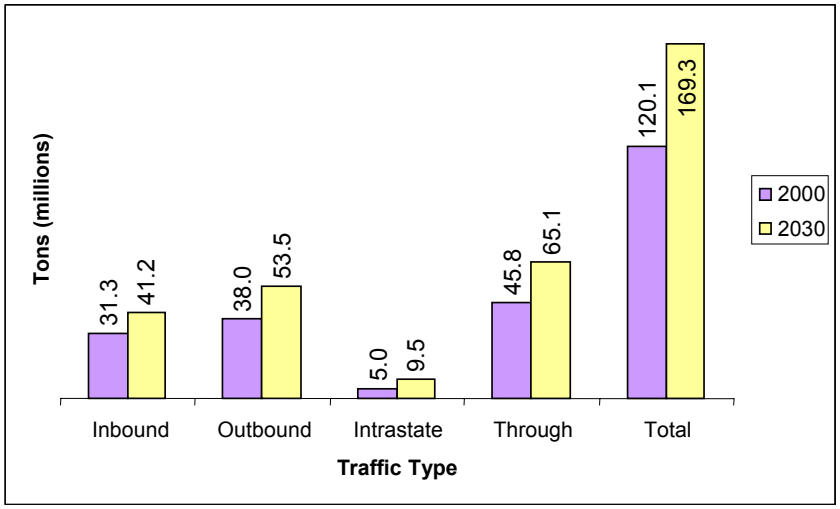
(b)



Sources: 1999 STB Waybill Sample, WSA

Figure 6.10 contains the forecasted rail tonnage for the Year 2030. Overall, rail is projected to grow by 40 percent, though there is a great variance across commodities and regions. Food is projected to grow by 130 percent, chemicals by 35 percent, miscellaneous mixed shipments by 23 percent, and clay/concrete/glass by 180 percent. Commodities moving by rail and expecting a decline from current volumes include farm products (-45%) and coal (-11%). The largest growth in inbound rail traffic is expected to come from Mississippi (112%), with growth in inbound also from New England (101%), East South Central (74%), and Arkansas (71%). A decline of 15 percent is anticipated from the West Central Region (IA, KS, MN, MO, NE, ND, OK, SD) due to a reduction in grain moves. Outbound growth is expected for all regions with Arkansas (103%), West Central (75%), Texas (70%), and Mountain (60%) being the fastest growing. Intrastate rail tonnage is forecast to grow by 91 percent.

Figure 6.10
Forecasts of Louisiana Rail Tonnages by Traffic Type[6]



Source: TRANSEARCH 2000, DRI-WEFA Forecasts

WATERBORNE FREIGHT

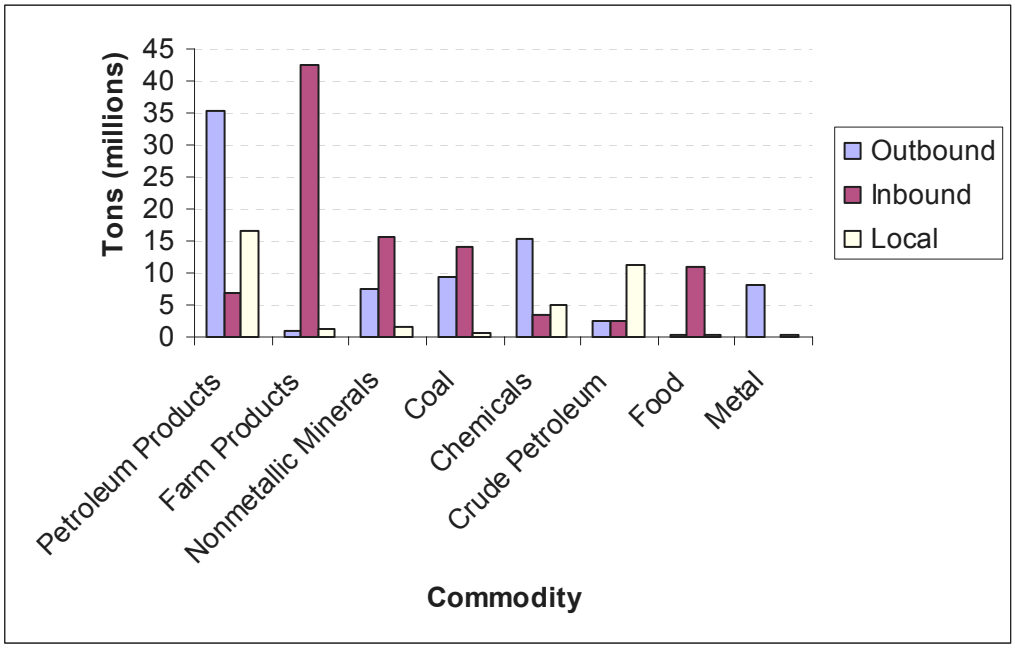
The Louisiana waterway network has two distinct components: domestic barge service on the inland waterway system and international shipping at Gulf Coast ports. Louisiana domestic barge tonnage totaled 281 million tons in the Year 2000[7]. Imports totaled 112 million tons and exports were 87 million tons in the Year 2001[8].

The domestic tonnage breaks down into 101 million tons inbound, 98 million tons outbound, and 37 million tons moving locally in Louisiana. As illustrated in **Figure 6.11**, the dominant

[6] As through rail tonnages were not provided through the TRANSEARCH database, the 2030 through tonnage shown in **Figure 6.10** were derived from applying the proportion of through to total tonnage in 1999 (the year of the STB Waybill sample [which does include through rail tonnage] used in the Louisiana Statewide Rail Plan) to total tonnage in 2030. A new total tonnage value for 2030 was then calculated, reflecting the addition of through tonnage.
[7] Domestic waterborne data are from Reebie Associates' 2000 TRANSEARCH database and are based on US Army Corps of Engineers data.
[8] International waterborne data are from the Journal of Commerce's Port Import Export Reporting Service (P.I.E.R.S.) for the most recent complete year available (2001).

domestic inbound commodity was agriculture/grains at 42 million tons, with nonmetallic minerals, coal, and food also being significant contributors. The primary outbound domestic commodity was petroleum products (35 million tons), with chemicals, coal, nonmetallic minerals, and metal generating more than 7.5 million tons each. Of the 37 million tons of waterborne traffic moving locally within Louisiana, 17 million tons was petroleum products, 11 million tons crude petroleum, and 5 million tons chemicals.

Figure 6.11
Louisiana Domestic Waterborne Tonnage by Commodity and Traffic Type



Source: TRANSEARCH 2000

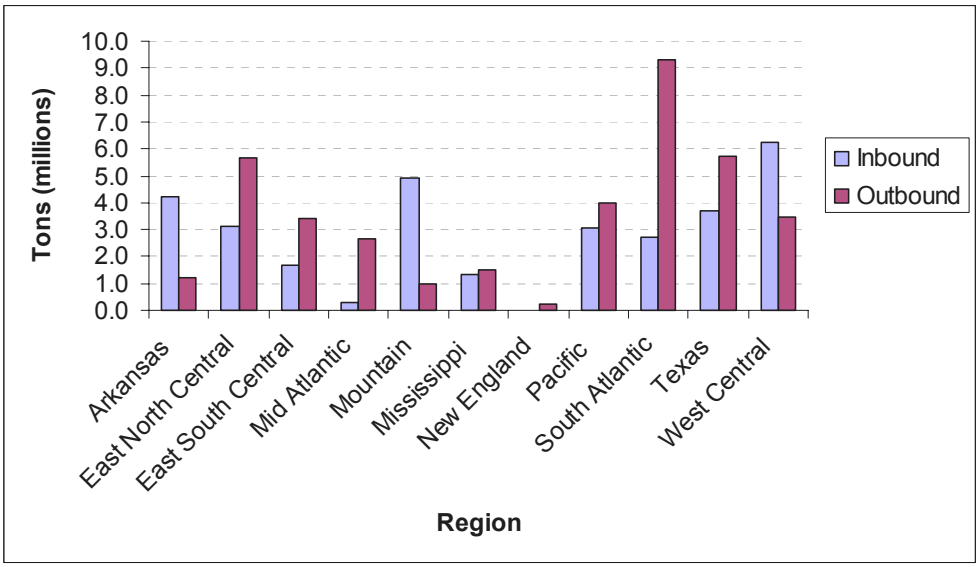
On a regional basis (**Figure 6.12)**, the principal suppliers of inbound domestic waterborne freight were the East North Central (IL, IN, MI, OH, WI) 24 million tons, East South Central (AL, KY, TN) 12 million tons, and West Central (IA, KS, MN, MO, NE, ND, OK, SD) 40 million tons Regions.

The East North Central tonnage included 17 million tons of agriculture/grain and 5 million tons of food, while the East South Central originated 6 million tons of nonmetallic minerals and 3 million tons of food. The West Central Region (IA, KS, MN, MO, NE, ND, OK, SD) sent 20 million tons of agriculture/grain and 10 million tons of coal by barge to Louisiana. Outbound movements included 18 million tons of petroleum products, 8 million tons of coal, and a total of 28 million tons of freight to the South Atlantic Region (FL, GA, NC, SC, VA).

There were 14 million tons of outbound moves each to the East North Central (IL, IN, MI, OH, WI) including 2 million tons nonmetallic minerals, 3 million tons chemicals, 3 million tons

petroleum, and 2 million tons metal and East South Central (AL, KY, TN) including 2 million tons metallic ores, 2 million tons chemicals, 5 million tons petroleum products, and 2 million tons metals Regions. Plaquemines Parish accounted for over 40 percent of the originations and terminations of domestic waterborne traffic.

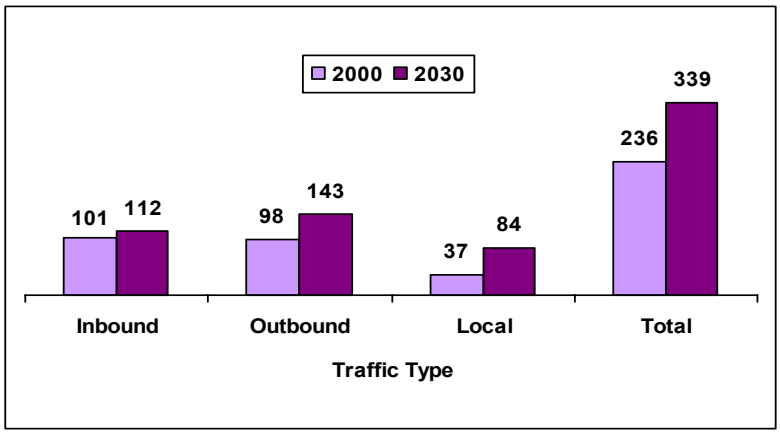
Figure 6.12
Louisiana Domestic Waterborne Tonnage by Region



Source: TRANSEARCH 2000

The forecasts for domestic waterborne freight are contained in **Figure 6.13**. Overall, tonnage is projected to grow by 44 percent between 2000 and 2030. This includes growth of 11 percent for inbound, 46 percent for outbound, and 124 percent for intrastate. Intrastate growth is fueled by a projected 97 percent growth in petroleum tonnage. Inbound and outbound growth is slowed by a 2 percent projected increase in agriculture/grain and an 11 percent increase in coal.

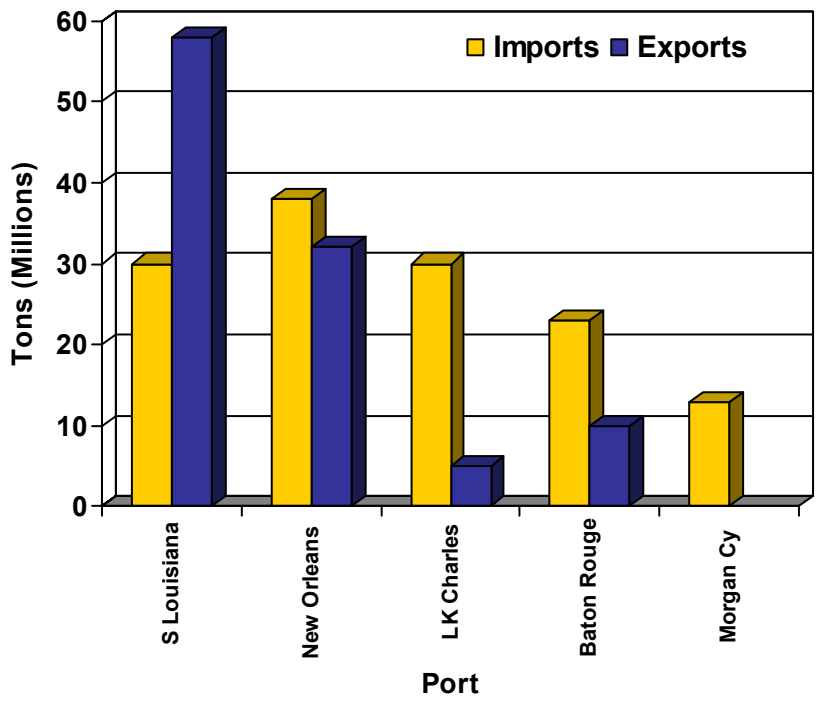
Figure 6.13
Forecasts of Louisiana Domestic Waterborne Tonnages



Source:TRANSEARCH 2000, DRI-WEFA Forecasts

Figure 6.14 displays the international waterborne traffic by Louisiana port of entry or exit, while **Tables 6.2** and **6.3** contain the top movements by commodity. The largest imported commodity is fuels/oil, which is more than an order of magnitude larger, both in tonnages and value, than the next commodity. The largest exports are cereals and grains.

Figure 6.14
International Louisiana Waterborne Tonnages



Source: P.I.E.R.S. 2001

Table 6.2
Top Ten Imports Through Louisiana Ports

HSCODE2	HSABBR	2001 Tons	2001 Value
27	Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	92,088,441	$11,973,068,878
26	Ores, Slag and Ash	8,850,750	$1,109,168,300
25	Salt; Sulfur; Earth & Stone; Lime & Cement Plaster	7,786,439	$1,070,041,997
72	Iron and Steel	6,788,516	$2,403,910,816
31	Fertilizers	5,968,046	$689,732,066
28	Inorg Chem; Prec & Rare-Earth Met & Radioact Compd	3,294,607	$1,198,123,075
29	Organic Chemicals	2,273,854	$622,113,626
27	Coal	2,149,530	$67,522,710
15	Animal or Vegetable Fats, Oils etc., & Waxes	655,951	$491,029,394
73	Articles of Iron or Steel	555,228	$930,970,246

Source: P.I.E.R.S. 2001

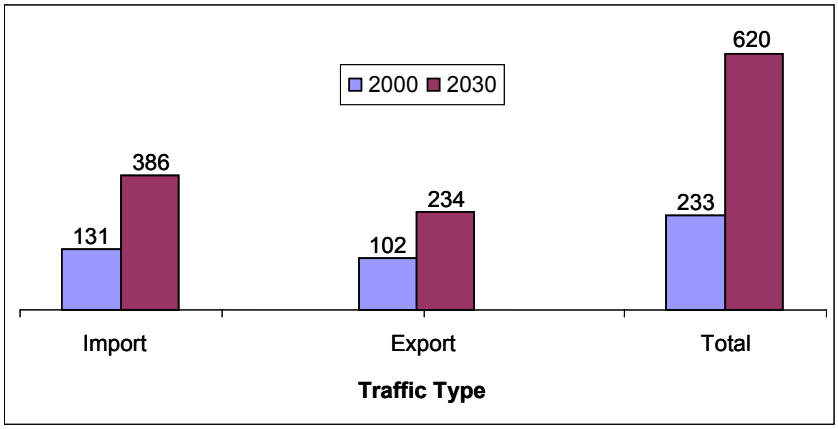
Table 6.3
Top Ten Exports Through Louisiana Ports

HSCODE2	HSABBR	2001 Tons	2001 Value
10	Cereals	50,493,504	$8,104,569,008
12	Oil Seeds etc.,; Misc Grain, Seed, Fruit, Plant etc.	25,728,610	$8,116,099,362
27	Mineral Fuel, Oil etc.; Bitumin Subst; Mineral Wax	12,220,363	$1,427,392,874
23	Food Industry Residues & Waste; Prep Animal Feed	6,816,348	$1,085,466,392
15	Animal or Vegetable Fats, Oils etc., & Waxes	1,689,574	$952,259,592
28	Inorg Chem; Prec & Rare-Earth Met & Radioact Compd	1,126,497	$1,900,244,251
11	Milling Products; Malt; Starch; Inullin; Wht Gluten	1,113,410	$416,884,768
27	Coal	1,099,065	$72,802,736
29	Organic Chemicals	1,090,111	$727,117,949
31	Fertilizers	645,344	$240,708,739

Source: P.I.E.R.S. 2001

The forecasts for international traffic are given in **Figure 6.15**. A very robust increase in international trade is projected, with imports increasing by 195 percent and exports growing by 129 percent.

Figure 6.15
Forecasts of Louisiana International Waterborne Tonnages



Source: P.I.E.R.S. 2001, LATTS[9]

[9] The international forecasts factors were taken from the Latin America Trade and Transportation Study (LATTS).

AIR CARGO

Current Domestic Air Cargo

Louisiana air cargo volume, defined as air freight, express traffic, and mail traffic enplaned or deplaned at a Louisiana airport, consists overwhelmingly of domestic traffic. Over 99.5 percent of total Louisiana air cargo volume is inbound from or outbound to another U.S. airport. Note that some of the air cargo volume classified as domestic may be international material that will enter or exit the U.S. through a primary international gateway airport such as Los Angeles International, JFK International, or Miami International. However, since the first leg from Louisiana or last leg into Louisiana of this international air cargo involves a stop at a U.S. airport, it is considered a domestic movement relative to Louisiana airport operations. **Table 6.4** details 2000 tonnage by direction (inbound versus outbound) of the seven airports providing air cargo service in Louisiana.

Table 6.4
2000 Domestic Tonnage by Direction
Louisiana Cargo Airports - Freight and Mail
(Metric Tons)

Airport	Code	Inbound	Outbound	Total Volume
New Orleans International Airport	MSY	55,655	30,160	85,815
Shreveport Regional Airport	SHV	10,672	19,348	30,020
Baton Rouge Metropolitan Airport	BTR	2,001	1,105	3,106
Lafayette Regional Airport	LFT	780	431	1,211
Lake Charles Regional Airport	LCH	109	52	161
Monroe Regional Airport	MLU	38	41	79
Alexandria International Airport	AEX	44	27	71
Total Louisiana Volume:		69,299	51,164	120,463

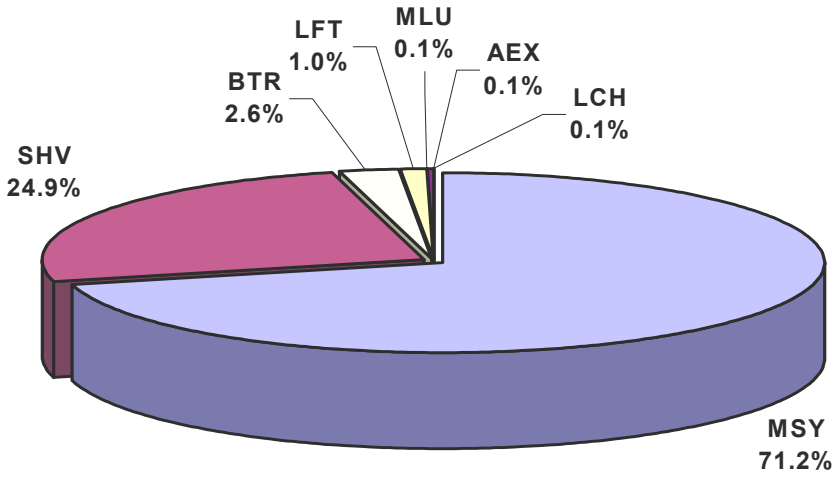
Source: 2000 Reebie TransSearch, ACI, and WSA

Just over 96 percent of Louisiana's air cargo tonnage moves via two airports. Louis Armstrong New Orleans International Airport (MSY) alone accounts for over 71 percent of the state's total volume, while Shreveport Regional Airport accounts for another 25 percent. **Figure 6.16** details the market share (in terms of total tonnage) of the seven Louisiana air cargo airports. (Louisiana air cargo airports are simply defined as any Louisiana airport with recorded air cargo volume; they need not be dedicated air cargo facilities.)

Overall, Louisiana air cargo volume is heavier on the inbound side by a 58 percent inbound to 42 percent outbound imbalance. The ratio differs by specific airport, with the Shreveport and Monroe Regional Airports as the only Louisiana airports with heavier outbound than inbound air cargo volume.

Figure 6.16

2000 DomesticTonnage by Airport
Percent of Statewide Total - Freight and Mail



Current International Air Cargo

In 2000, International air cargo traffic transiting Louisiana airports accounted for less than one percent of the total Louisiana air cargo tonnage for the year. This limited percent of the total Louisiana air cargo market is not expected to change significantly in any future volume projections. Louis Armstrong New Orleans International Airport handled all Louisiana international air cargo traffic in 2000. Alexandria International Airport has customs clearing capability, yet lacks any scheduled international flights; thus any international air cargo arriving or departing Alexandria International would need to be via international charter flights. **Table 6.5** details the primary origin and destination international airports (trade partner), by airport and tonnage, served by Louis Armstrong New Orleans International Airport.

Table 6.5

2000 International Annual Tonnage by Airport*

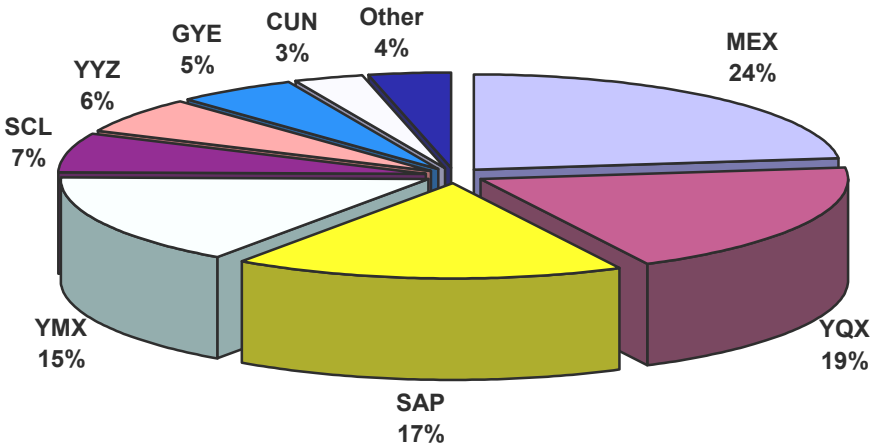
Louis Armstrong International - Freight Only (Metric Tons)

Trade Partner Airport	Code	Tons
Mexico City, Mexico	MEX	115
Gander, Canada	YQX	96
San Pedro Sula, Honduras	SAP	87
Montreal, Canada	YMX	77
Santiago, Chile	SCL	33
Toronto, Canada	YYZ	30
Guayaquil, Ecuador	GYE	27
Cancun, Mexico	CUN	15
Other	Other	18
Total International:		**498**

Source: U.S. DOT International T-100 Segment Data
*Data is bi-directional - reported tons include both inbound and outbound freight.

Figure 6.17 depicts the primary origin and destination international airports served by MSY, sorted by percent of total international tonnage.

Figure 6.17
2000 International MSY Trade Partners by Airport
(Percent of Total)
Total 2000 Tons: 498



In **Table 6.6**, the specific international airports (trade partners) listed in Exhibit 3 are consolidated into their respective countries and/or geographic regions to identify Louisiana's primary international trading partners. This regional designation of tonnage will also assist in forecasting functions for determining international air cargo growth.

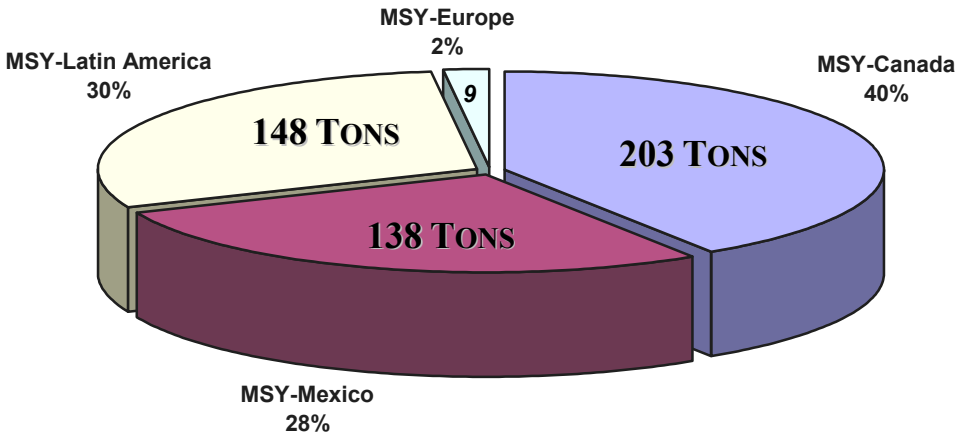
Table 6.6
2000 International Tonnage by Region
Inbound versus Outbound
(Metric Tons)

Trade Partner	Tons Inbound	Tons Outbound	Tons Total
Louisiana-Canada	51	152	203
Louisiana-Mexico	84	54	138
Louisiana-Latin America	90	58	148
Louisiana-Europe	5	4	9
Total:	**229**	**269**	**498**

Source: U.S. DOT International T-100 Segment Data, MergeGlobal Airflow Model

Figure 6.18 further details Louisiana's primary international trading partners, sorting regions by both tonnage and percent of total international tonnage.

Figure 6.18
2000 International Trade Partners by Region
(Percent of Total)
Total 2000 Metric Tons: 498



Air Cargo Commodity Mix

Industries using air cargo services are those that will benefit both from increasing their speed of inventory movements/stock turns and from improving their stock availability. These companies have inventories such as high-value products, short life cycle products, and time-critical spare part requirements that benefit from increased speed of distribution or better stock availability of commodities being shipped via air cargo. Examples include the following:

- Aeronautics - Equipment & Parts
- Automotive - Equipment & Parts
- Pharmaceuticals
- Computers & Computer Components
- Diagnostic Equipment
- Medical Equipment
- Software
- Textiles - Garments
- Perishables - Flowers, Fruit, Vegetables & Fish
- Economic perishables - Printed material
- Telecommunications Equipment - Cell Phones, Pagers
- Photographic Film

All of the commodities identified are high in value, relatively lightweight, and time-critical. However, not all of these attributes need to apply to one shipment. For example, several containers of fresh fish will be heavy and bulky; but due to the perishable nature of the product and its high value, it is necessary to transport the fish via air cargo. Printed material, such as newspapers (i.e. The Wall Street Journal is commonly shipped via air), is lower in value per pound than most air cargo shipments; but due to the time-sensitivity of the newspapers and the high expectations by customers, shipping via air cargo may be warranted.

Table 6.7 lists Louisiana's air cargo commodity mix by direction, tonnage, and percent of total. Note that express/contract traffic (a category often inclusive of USPS mail) accounts for over 34 percent of Louisiana's total air cargo. This is not an unreasonably high percentage – the express category includes parcel and small package traffic from carriers such as FedEx and UPS. Business-to-consumer shipments, fueled by Internet and catalog sales, help drive this category to the top position.

Table 6.7
2000 Domestic Tonnage by Commodity (STC Classification)
Louisiana Cargo Airports
(Metric Tons)

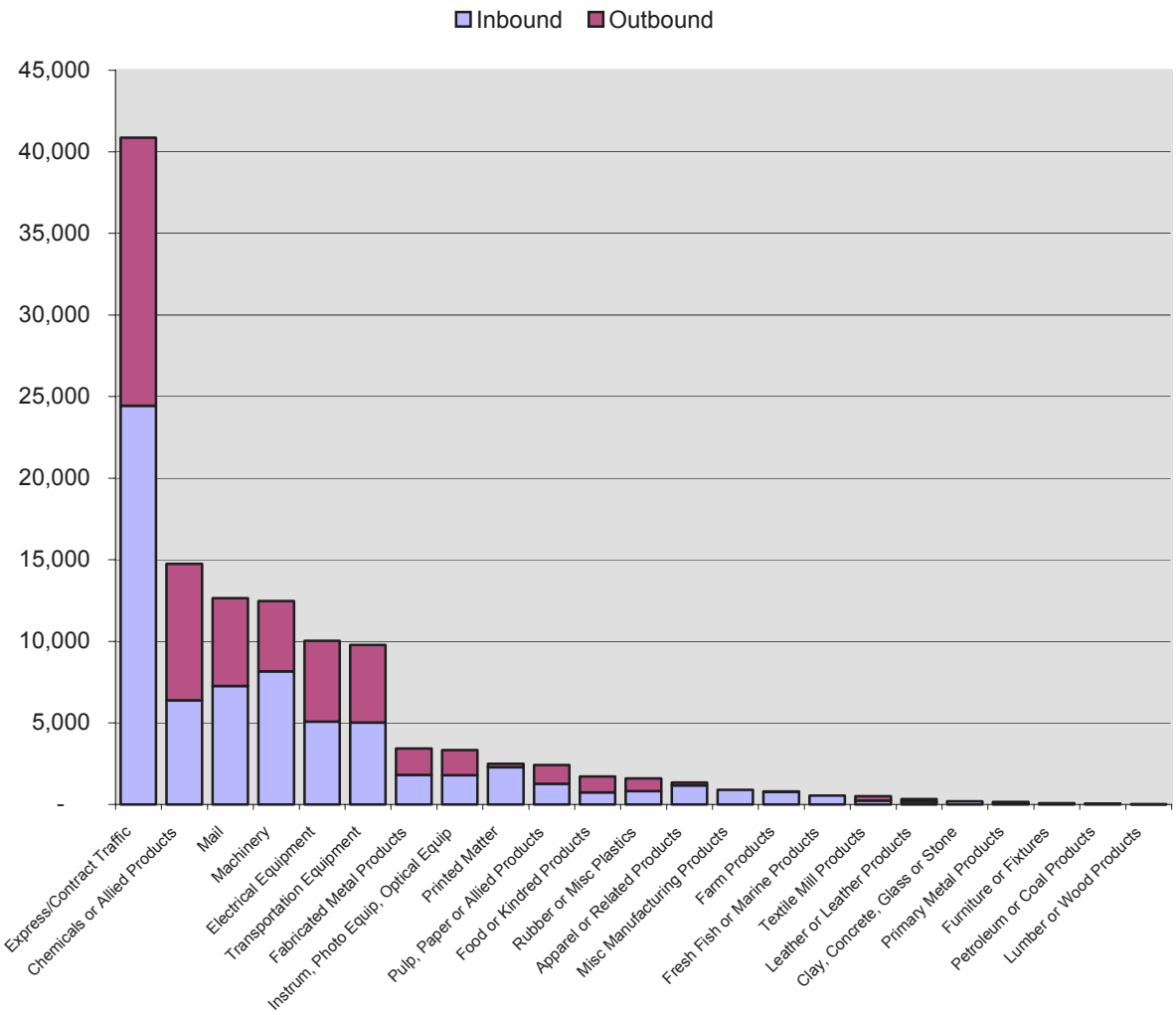
STCC2 Code	Description	Inbound	Outbound	Total	Percent of Total
43	Express/Contract Traffic	24,430	16,434	40,864	33.9%
28	Chemicals or Allied Products	6,400	8,346	14,746	12.2%
43	Mail	7,277	5,372	12,649	10.5%
35	Machinery	8,157	4,313	12,470	10.4%
36	Electrical Equipment	5,086	4,955	10,041	8.3%
37	Transportation Equipment	5,026	4,758	9,784	8.1%
34	Fabricated Metal Products	1,806	1,616	3,421	2.8%
38	Instrum, Photo Equip, Optical Equip	1,789	1,547	3,336	2.8%
27	Printed Matter	2,280	220	2,500	2.1%
26	Pulp, Paper or Allied Products	1,275	1,143	2,417	2.0%
20	Food or Kindred Products	736	985	1,721	1.4%
30	Rubber or Misc Plastics	813	780	1,594	1.3%
23	Apparel or Related Products	1,169	178	1,347	1.1%
39	Misc Manufacturing Products	888	6	894	0.7%
01	Farm Products	789	4	793	0.7%
09	Fresh Fish or Marine Products	540	1	541	0.4%
22	Textile Mill Products	237	262	498	0.4%
31	Leather or Leather Products	175	161	335	0.3%
32	Clay, Concrete, Glass or Stone	196	-	196	0.2%
33	Primary Metal Products	85	66	151	0.1%
25	Furniture or Fixtures	73	13	86	0.1%
29	Petroleum or Coal Products	58	-	58	0.0%
24	Lumber or Wood Products	18	2	20	0.02%
	Total Tonnage:	**69,300**	**51,163**	**120,463**	**100.0%**

Source: 2000 Reebie TransSearch Data and WSA

For forecasting and analysis purposes STCC2 Code 43, Mail/Contract Traffic (Express), is divided into separate categories – Express/Contract Traffic and Mail. This is designed to segregate US Postal Service mail volume, which is expected to drastically decline through 2004, from integrated express traffic (i.e., FedEx, UPS), whose volume is expected to increase. This distinction allows for a more accurate forecast of total Louisiana air cargo traffic.

Figure 6.19 illustrates Louisiana's air cargo commodity mix by tonnage and direction.

Figure 6.19
2000 Louisiana Non-Mail Air Cago Tonnage
by Commodity Type and Direction



Air Cargo Forecast

The primary objective of a forecasting effort is to define the magnitude of change that can be expected over time. Because of the cyclical nature of the economy, it is virtually impossible to

predict with certainty year-to-year fluctuations in activity when looking 20 years into the future. However, a trend can be established that characterizes long-term growth potential. While a single line is often used to express the anticipated growth, it is important to remember that actual growth may fluctuate above and below this line. The point to remember about forecasts is that they serve only as guidelines and planning must remain flexible to respond to unforeseen air cargo facility needs. It should also be noted that the air cargo industry is in continuous change and evolution. For example, an air cargo "merger deal" during the planning period could have implications on the industry's operation in any given Louisiana market.

Prior to forecasting the demand for air cargo, several assumptions were developed based on historic air cargo trends and recent developments in the industry. These trends reflect the recent current logistics modes used by integrated express operators. The following assumptions were used when forecasting Louisiana air cargo volumes:

- Integrated express carriers will generally operate using the same mode of transport throughout the planning period. The ratio of trucks-to-aircraft used to serve the Louisiana air cargo market by the major integrators (FedEx, UPS, Airborne, Emery, DHL) will not change over the forecast period.
- The FedEx/USPS mail contract continues throughout the 20-year period.
- The types of air cargo aircraft operating by the end of the planning period will generally be the same as are currently operating in the air cargo fleet today.
- Louisiana airports will maintain constant relative market share throughout the forecast period.

A combination of growth rates, depending on market origin and destination, is applied to Louisiana's 2000 baseline air cargo tonnage. Source data for the applied growth rates include FAA Aerospace Forecasts 2002-2013, Boeing World Air Cargo Forecast 2000/2001, and MergeGlobal 2002 Air Freight Forecast. **Table 6.8** details total air cargo tonnage forecasted though 2020 by Louisiana airport. These projections include domestic, international, freight, and mail traffic, each having been calculated using distinct growth factors based upon market (domestic, international, and specific region) and material type freight or mail).

Table 6.8
Louisiana Air Cargo Forecast 2000-2020 by Airport*
Freight and Mail, Domestic and International
(Metric Tons)

Airport	Code	2000	2001	2002	2003	2004	2005	2010	2015	2020
Louis Armstrong International Airport	MSY	86,313	82,683	79,930	81,809	85,457	89,271	111,090	138,337	172,362
Shreveport Regional Airport	SHV	30,020	28,763	27,800	28,448	29,715	31,039	38,610	48,054	59,838
Baton Rouge Metropolitan Airport	BTR	3,106	2,976	2,876	2,943	3,074	3,211	3,995	4,972	6,191
Lafayette Regional Airport	LFT	1,211	1,160	1,121	1,148	1,199	1,252	1,558	1,938	2,414
Lake Charles Regional Airport	LCH	79	76	73	75	78	82	102	126	157
Monroe Regional Airport	MLU	71	68	66	67	70	73	91	114	142
Alexandria International Airport	AEX	161	154	149	153	159	166	207	258	321
Louisiana Air Cargo Total:		**120,961**	**115,881**	**112,016**	**114,643**	**119,753**	**125,095**	**155,652**	**193,799**	**241,424**

Source: Reebie Transearch, FAA Aerospach Forecast 2002, Boeing Air Cargo Forecast 2001/2002, MergeGlobal and WSA
*Assumes constsnt market share per airport through forecast period.

Figure 6.20 depicts the forecasted Louisiana air cargo growth detailed in **Table 6.8** while illustrating the relative market share of each Louisiana air cargo airport. Note that the top two airports, Louis Armstrong New Orleans International and Shreveport Regional, account for roughly 96 percent of Louisiana's air cargo volume throughout the forecast period.

Figure 6.20
Louisiana Air Cargo Forecast 2000-2020 by Airport
Freight and Mail, Domestic and International
(Metric Tons)

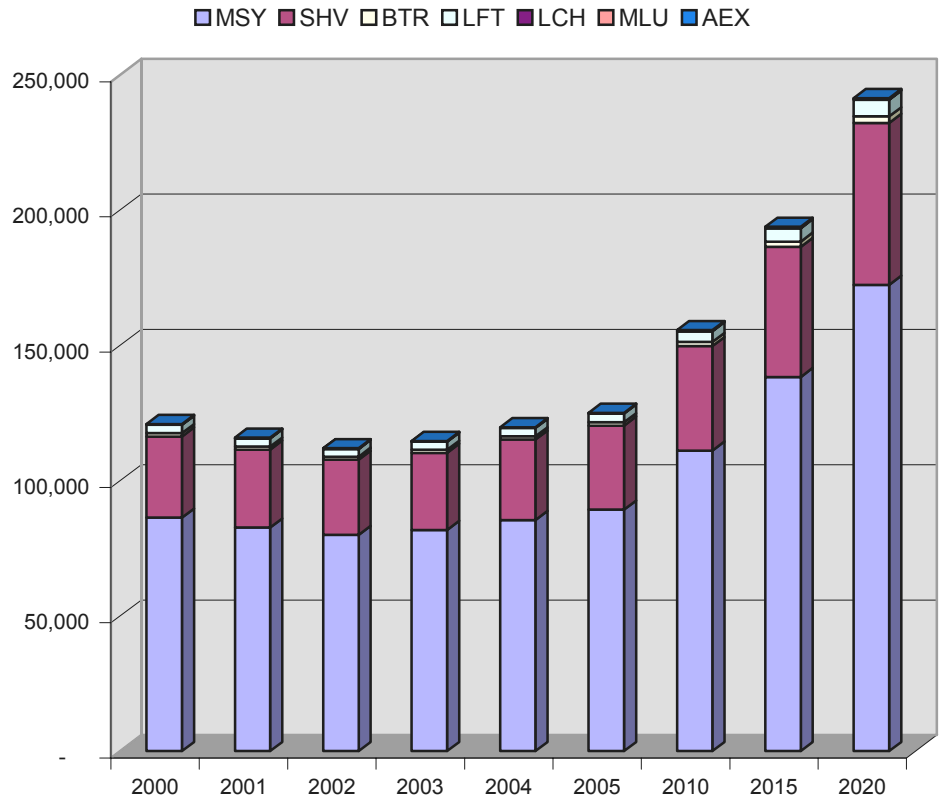


Table 6.9 examines the forecasted Louisiana air cargo volumes in terms of domestic and international traffic. Domestic traffic is forecasted by freight/express volume versus mail volume, while international traffic is broken down in terms of geographic region. International traffic is expected to increase at the highest growth rate, with Canadian traffic leading the group in terms of both volume and growth rates. Domestic mail will experience the slowest growth over the forecast period, with volumes expected to decrease through 2003 before mounting a modest recovery in 2004.

Table 6.9
Louisiana Air Freight Forecast
Annual Tonnage 2000 - 2020
(Metric Tons)

	2000	2001	2002	2003	2004	2005	2010	2015	2020
Domestic Freight[1]	107,762	104,421	102,229	105,295	110,139	115,205	144,255	180,630	226,177
Domestic Mail[1]	12,701	10,999	9,327	8,861	9,100	9,346	10,677	12,199	13,937
Domestic Total	120,463	115,420	111,556	114,156	119,239	124,551	154,933	192,829	240,114
Louisiana-Canada[2]	203	188	188	200	213	227	312	440	620
Louisiana-Mexico[3]	138	128	128	134	142	149	195	261	350
Louisiana-Latin America[3]	148	137	137	143	150	158	201	255	324
Louisiana-Europe[3]	9	8	8	9	9	10	12	14	17
International Total	498	460	460	487	514	544	720	970	1,310
Lousiana Air Cargo Total	**120,961**	**115,881**	**112,016**	**114,643**	**119,753**	**125,095**	**155,652**	**193,799**	**241,424**

[1]Growth rate based on FAA Aerospace Forecasts 2002
[2]Growth rate based on Boeing World Air Cargo Forecast 2000/2001

Figure 6.21 illustrates the growth rates detailed in **Table 6.9**, depicting domestic volume growth by freight and mail categories. **Figure 6.22** depicts the growth of Louisiana international air cargo by region.

Figure 6.21
Louisiana Domestic Air Cargo Forecast
2000-2020 Annual Tons by Freight and Mail

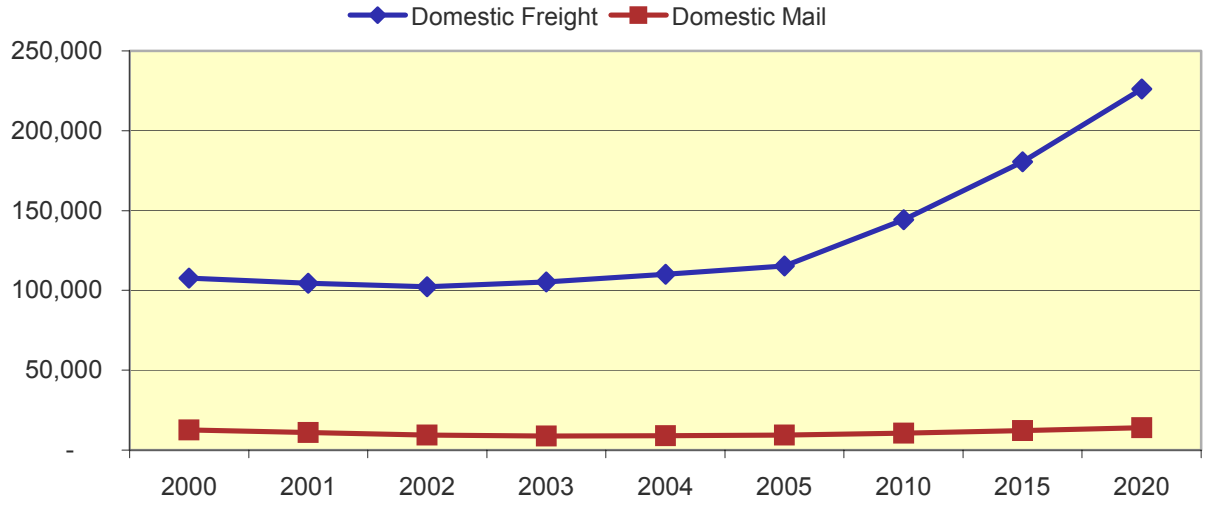
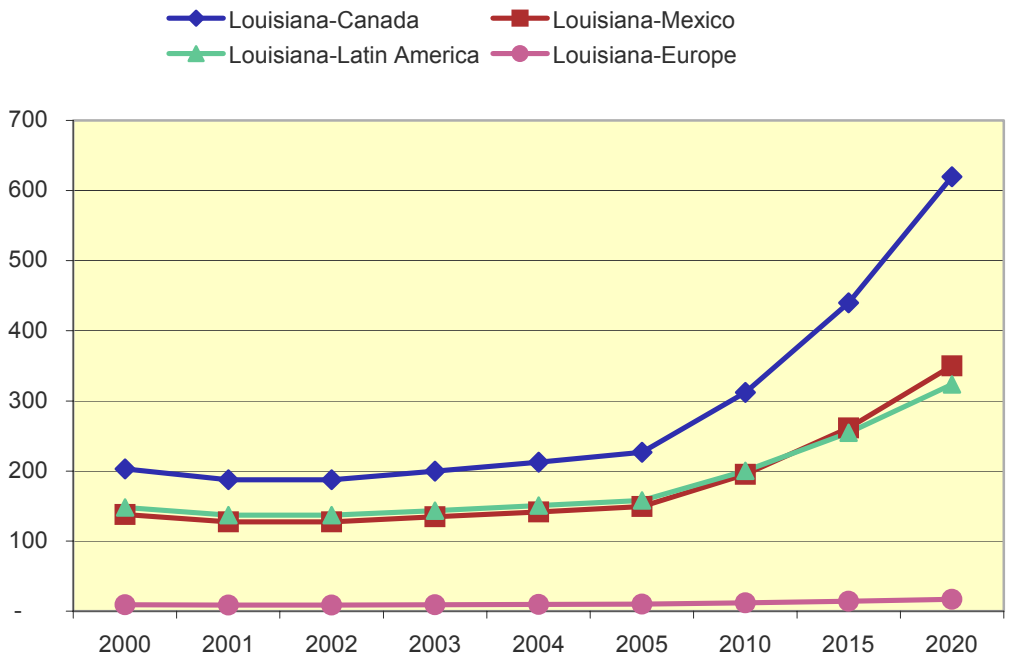


Figure 6.22
Louisiana International Air Cargo Forecast
2000-2020 Annual Tons by Region



The first step in developing the Louisiana Statewide Transportation Plan involved identifying current and future needs and opportunities, and then formulating policies, programs, and projects to address them. An analysis of current and future transportation demands, input obtained from stakeholders through the outreach program (principally through the Advisory Councils), consideration of the goals and objectives for the State's transportation system, and review of previous plans and studies served as the basis for accomplishing this task. This chapter is organized by mode beginning with highways.

HIGHWAYS

Pavement Preservation

The DOTD has adopted several strategic goals pertaining to the condition of highway pavements. The goal for Interstate highways is to eliminate pavements classified as "poor" or "very poor." The goal for State roads on the National Highway System (NHS) and those on the Statewide Highway System (SHS) is to hold the proportion classified as "poor" or "very poor" to no more than 5 percent at any given time. There is no strategic goal for the Regional Highway System (RHS), composed mostly of lower order, low volume rural and urban roads; therefore, the focus is on keeping the system from deteriorating.

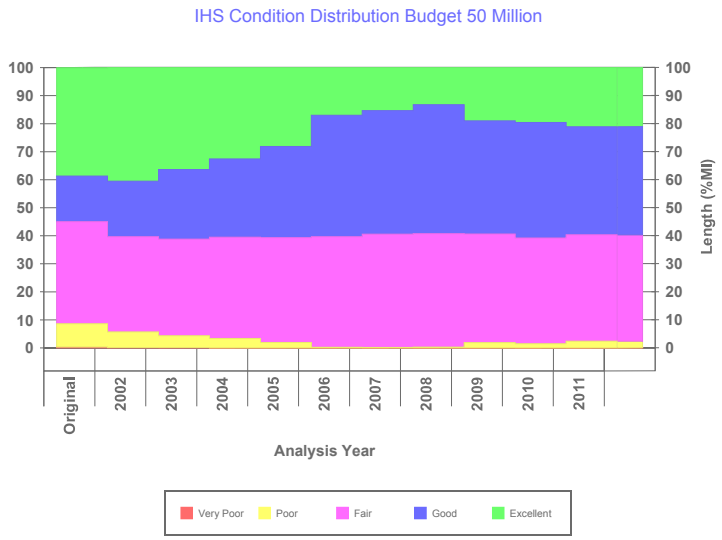
An extensive analysis of pavement preservation needs was conducted using the DOTD Pavement Management System. The results of this analysis are presented on the following pages for each of the four highway categories (i.e., Interstate, NHS, SHS, RHS). The recommended investment level is shown as the middle of three charts on each page. A summary of the recommended pavement preservation investment levels is provided in **Table 7.1**.

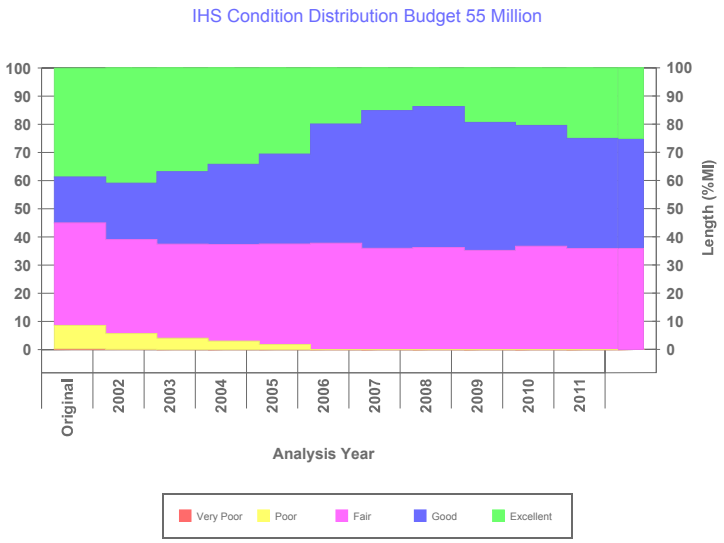
Table 7.1
Pavement Preservation and Rehabilitation Needs Summary

Highway System	Cost ($M/year)
Interstate System	$55
National Highway System	$36
Statewide Highway System	$72
Regional Highway System	$56
Total Pavement Rehabilitation Needs	**$219**

Figures 7.1 – 7.4 display pavement condition information for each highway system at different investment levels.

Figure 7.1
Pavement Preservation and Rehabilitation- Interstate





Recommended

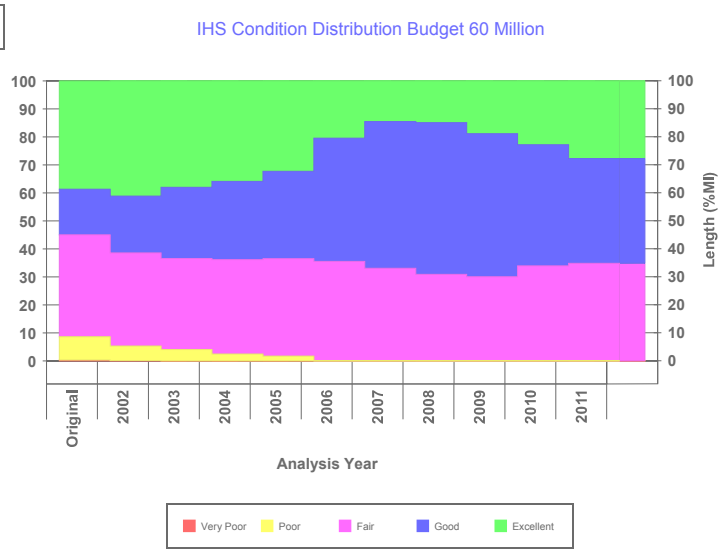
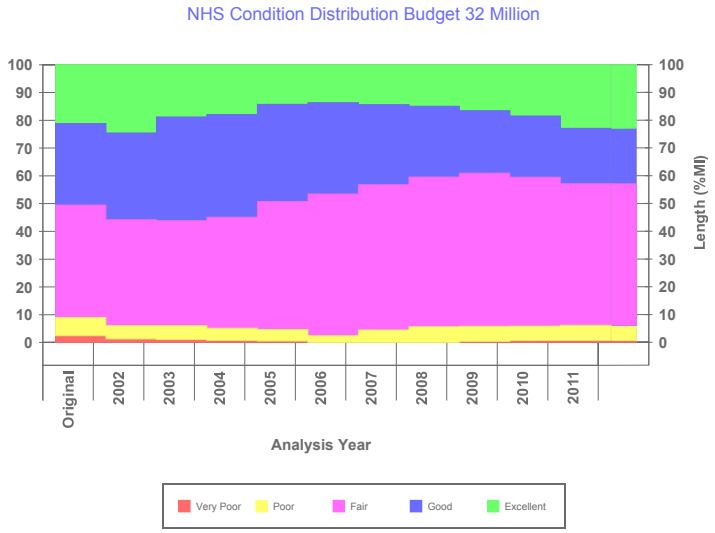
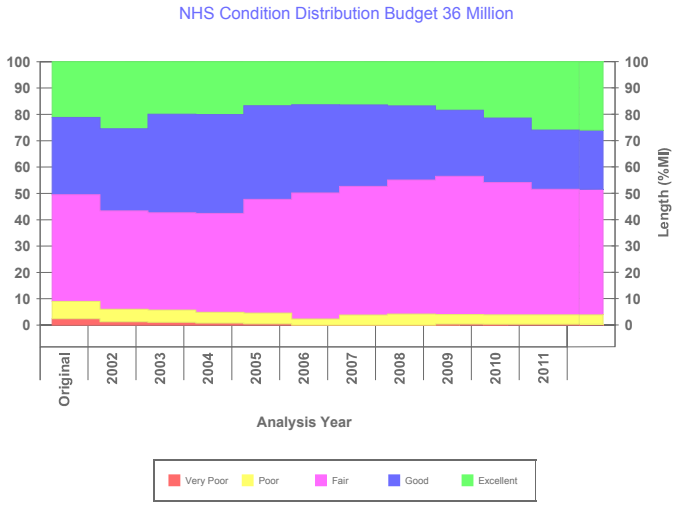


Figure 7.2
Pavement Preservation and Rehabilitation – NHS





Recommended

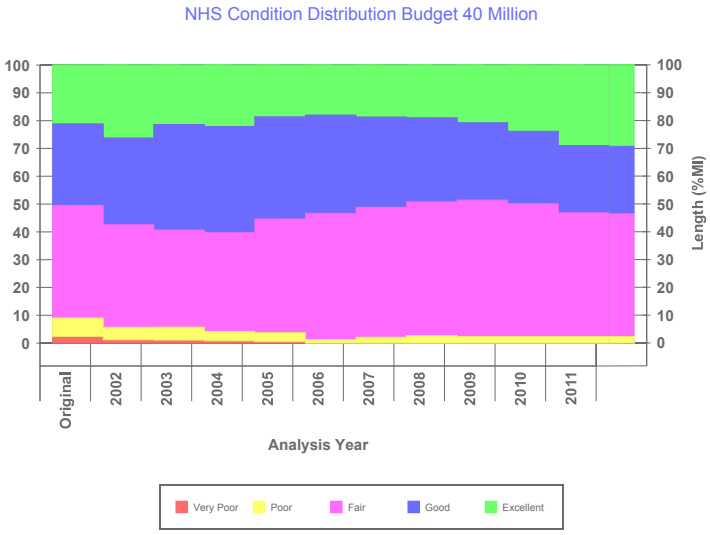
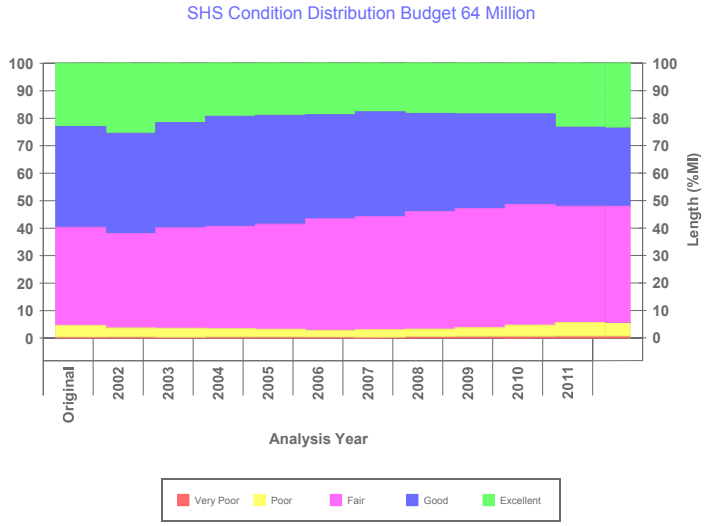
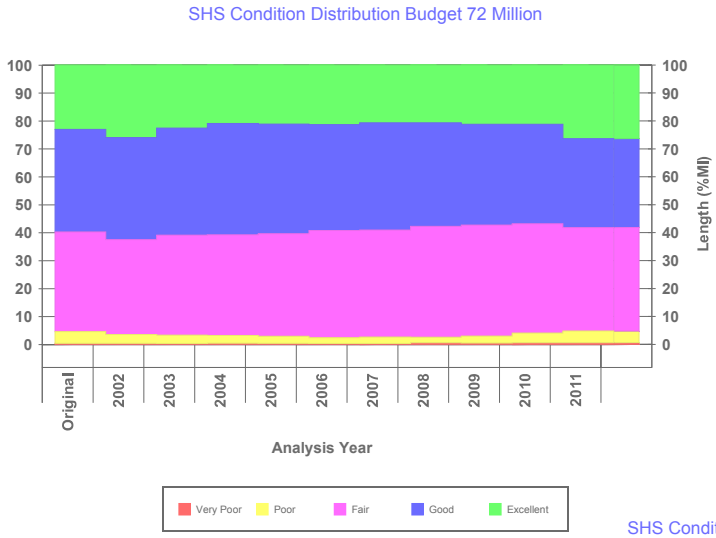


Figure 7.3
Pavement Preservation and Rehabilitation - SHS





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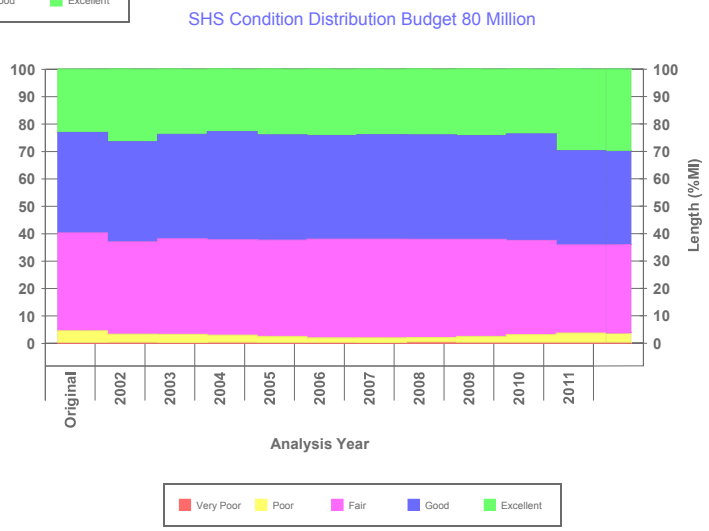
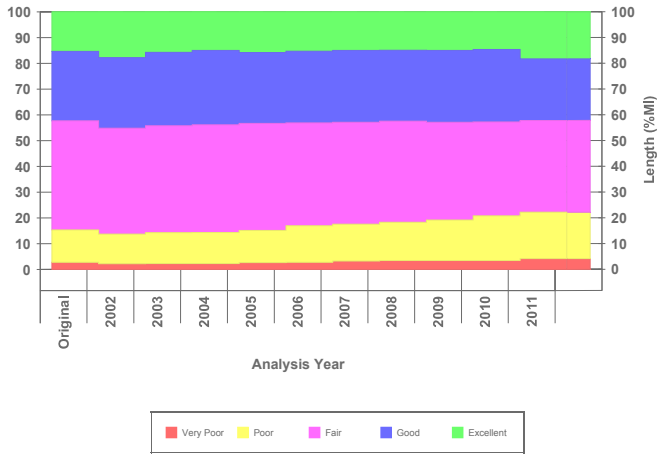
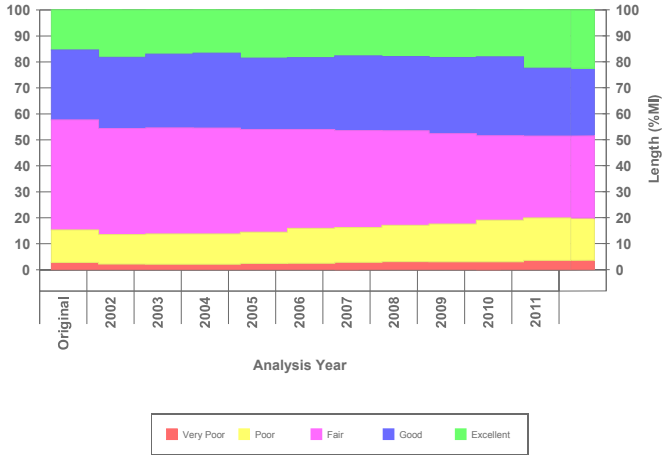


Figure 7.4
Pavement Preservation and Rehabilitation - RHS

RHS Condition Distribution Budget 48 Million

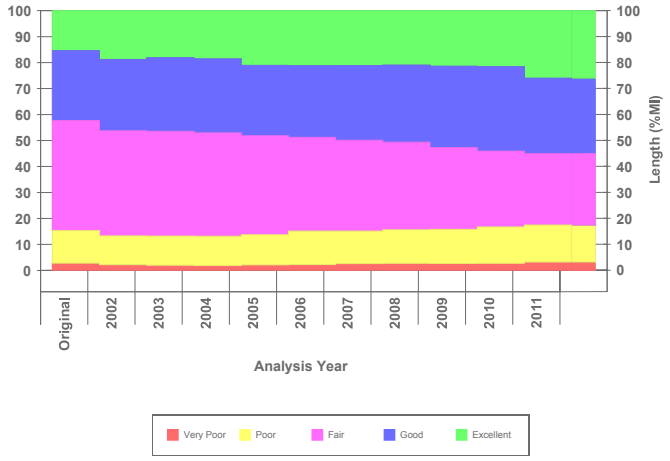


RHS Condition Distribution Budget 56 Million



Recommended

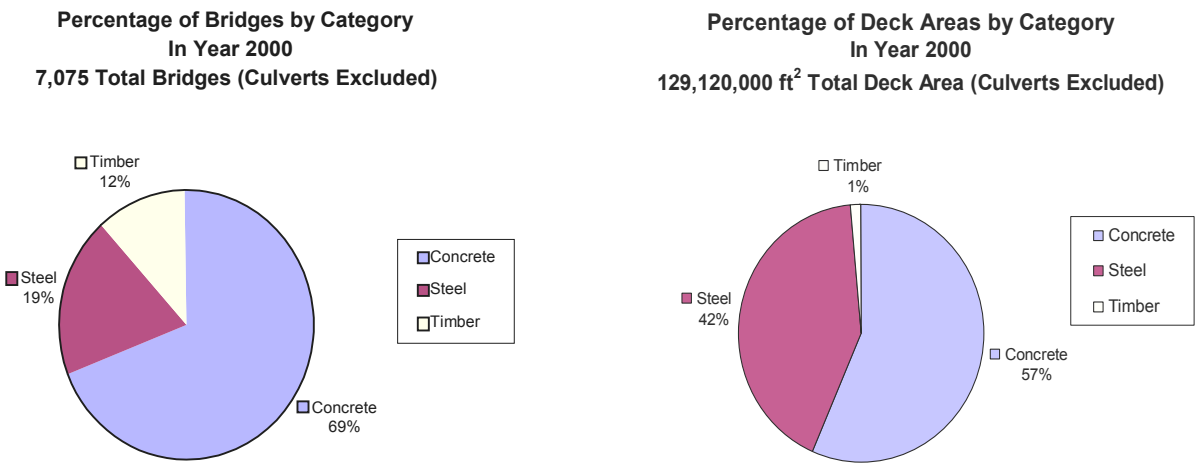
RHS Condition Distribution Budget 64 Million



Bridge Preservation

There are more than 13,000 bridges on public roads in Louisiana. Well over one-half are on State highways. Most of those on parish roads and city streets are relatively small in comparison to those on the State system. The analysis presented herein is limited to the 7,075 State system bridges. **Figure 7.5** displays the percentage of bridges and deck area by bridge type. Concrete bridges represent the largest category of bridges at 69 percent followed by steel at 19 percent and timber at 12 percent. The largest percentage of deck area consists of concrete (57 percent), followed by steel (42 percent), and timber (one percent).

Figure 7.5
Percentage of Bridges and Deck Areas by Category, 2000



Currently 3.4 percent of all deck area on State bridges is in poor condition, while 18.4 percent is projected to be in poor condition by the Year 2030, as shown in **Figure 7.6**. The largest percentage of bridge deck area currently in poor condition consists of timber (25.5 percent). Forty eight percent of bridge deck area composed of timber is projected to be in poor condition by the Year 2030. It should be noted that although current and projected bridge deck area composed of timber consists of the highest percentage in poor condition, timber bridge deck area only represents 1 percent of total deck area.

Figure 7.6
Louisiana Bridges in Poor Condition by Type

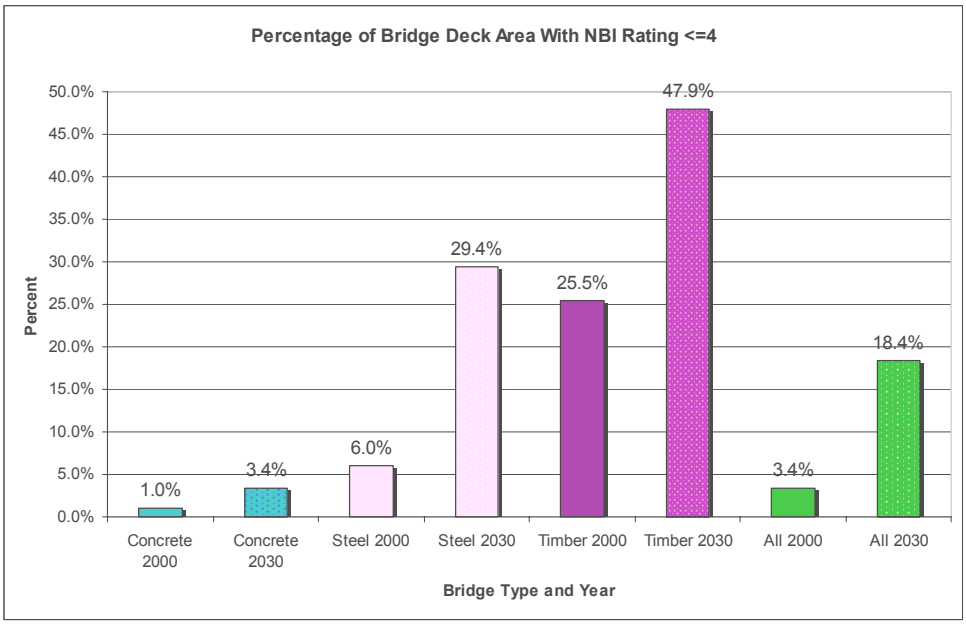


Table 7.2 displays the required budget to maintain current level of service for on-system bridges. Average annual funding from 1991 to 2002 was $48.3 million. Additional funding required to maintain current rating levels, including cost of replacement and cost of rehabilitation, is $32 million; therefore the total required annual budget to maintain current levels of service for on-system bridges is $80 million.

Table 7.2
Required Budget to Maintain Current Level of Service for on-System Bridges

Historical Budget	$48 Million
Additional Required	$32 Million
Average Required	**$80 Million**

Highway Safety

The magnitude of the highway safety problem in Louisiana cannot be overstated. In addition to humanitarian concerns surrounding this issue, traffic crashes are a significant drain to the State's economy. The figures presented earlier in this report are repeated here (**Figures 7.7** and **7.8**). The majority of traffic crashes, and particularly fatal crashes, occur on State highways since this is where the majority of travel occurs and where vehicle speeds tend to be higher.

The State's highway safety needs are so great, this one program could easily consume the entire budget each year. Therefore, after considerable discussion, a consensus was reached in the Regional Planning Officials Advisory Council that a $50 million annual construction program for highway safety should be implemented. This is approximately double the Fiscal Year 2003 construction program. Further, it was agreed that the budget for safety improvements to highway/railroad at-grade crossings should be maintained at its Fiscal Year 2003 level of $9 million (this is approximately triple the historic level).

Figure 7.7
2001 Crashes: Total vs. State System

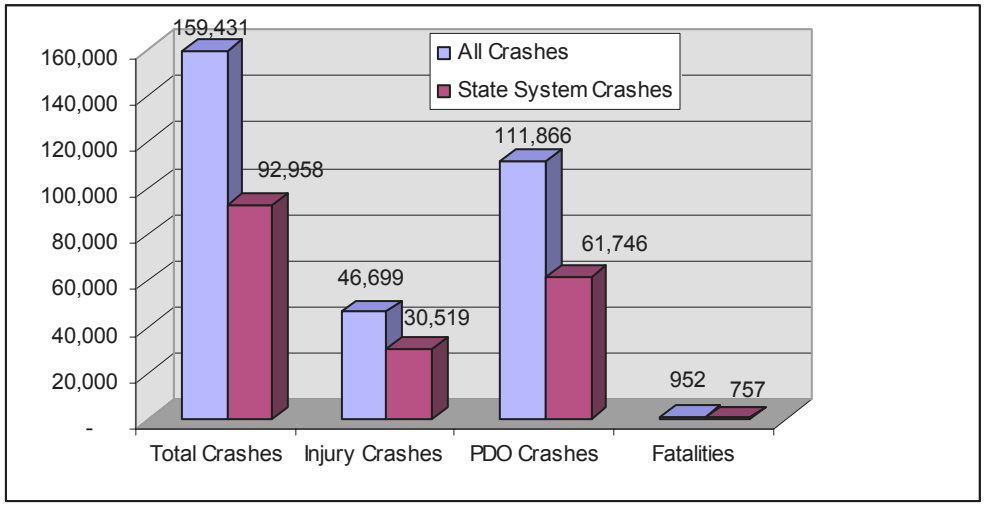
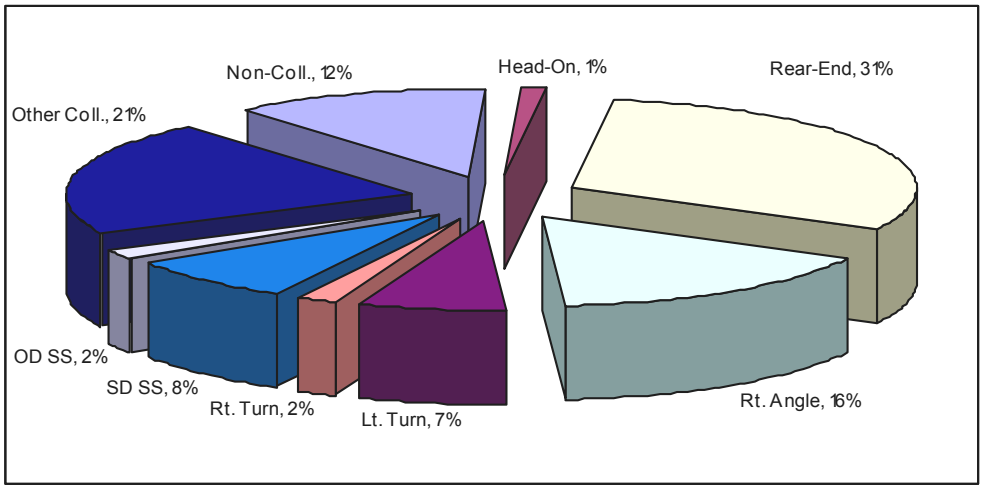


Figure 7.8
2001 Crashes by Type



Mobility

Statewide Travel Demand Model

To help identify future deficiencies on the highway network and test alternative improvement strategies, a statewide travel demand forecasting model was developed. This model is used to forecast auto and truck traffic on those portions of the State highway system that fall outside the nine major urbanized areas. These traffic forecasts are based on expected changes in both demographic and economic conditions within and outside Louisiana. Like traditional urban travel models, this statewide model is used to evaluate statewide transportation projects and issues, and to assist in developing and maintaining the Statewide Transportation Plan.

State of the art modeling approaches and techniques were used to develop the statewide travel demand model, including:

- A macro-micro modeling framework that allows DOTD to evaluate impacts of transportation projects that lie within or outside Louisiana. The nationwide macro model and the Louisiana-only micro model use different network coverages, zone structures and modeling procedures.
- An activity based zone structure allows accurate prediction of intercity auto and truck movements. The two-tiered macro model zone structure was designed to take advantage of American Travel Survey information and commercial commodity flow data. For the micro model, a Census Place and Block Group-based zone structure was designed to reflect population concentrations where the activities occur.
- Travel market segmentation techniques allow better understanding and prediction of each travel component. Trips are distinguished by purpose, length and other characteristics such as interstate vs. intrastate trips.
- Preservation of Linear Reference System linkages to DOTD legacy databases in network design allows for simplified updating of network attributes.

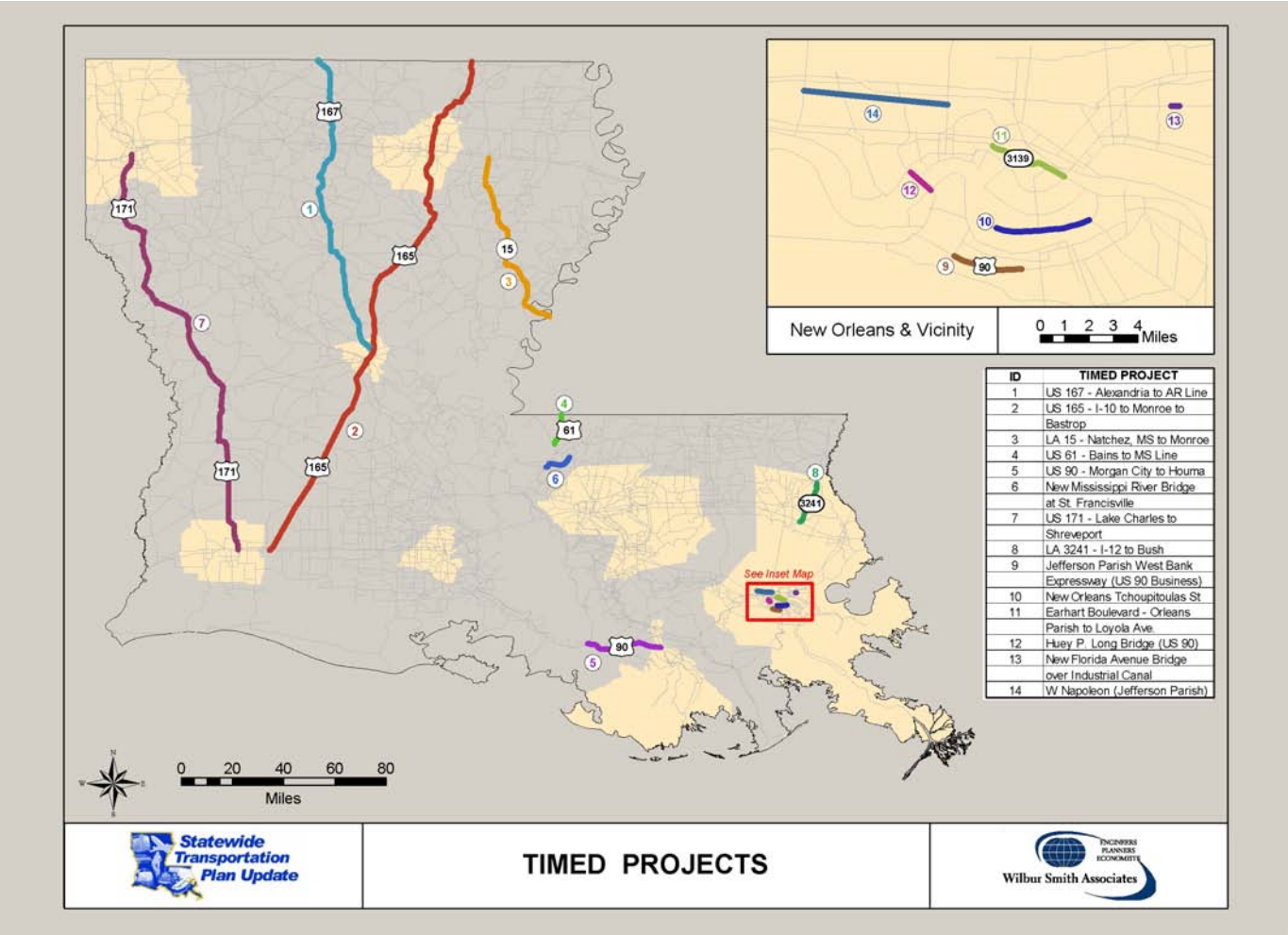
This new planning tool has been used to:

- Identify existing roadway deficiencies.
- Forecast future (Year 2030) roadway deficiencies with and without the planned TIMED projects.
- Analyze the need for and benefits of additional roadway improvements above and beyond the TIMED Program.

TIMED Program

The Transportation Infrastructure Model for Economic Development (TIMED) is a long-range transportation plan that includes extensive improvements to the highway system. TIMED projects in Louisiana are displayed in **Figure 7.9** and include improvements to US 61, US 90, US 165, US 167, US 171, LA 15, LA 3241 and other highways and bridges in the State. TIMED projects are funded by a dedicated four-cent per gallon fuel tax.

Figure 7.9: TIMED Projects



Traffic Forecasts

The Louisiana Statewide Travel Demand Model was used to forecast 2030 average daily traffic (both auto and truck) on the rural state highway system. This model complements and supports the nine urban travel demand models. The statewide travel demand model was used to forecast traffic to and through the metropolitan areas but did not forecast traffic within the metropolitan areas. **Figure 7.10** displays total daily traffic volumes along the rural state highway system in Louisiana. The greatest daily traffic volumes are along I-10 followed by I-20, I-12, I-55, I-59 and US 171 between LA 8 and US 190. The highest rural traffic volume is 59,000 vpd along I-10 between Lafayette and Baton Rouge.

Year 2030 trips are projected to total 16.11 million, which represents an increase of 26 percent from Year 2000. Auto and truck trips are projected to increase 26 percent and 36 percent respectively. Rural vehicle-miles of travel (VMT) are projected to increase 41 percent from 37.05 million in the Year 2000 to 52.38 million in the Year 2030. Rural vehicle hours of travel (VHT) are projected to increase by 40 percent from 709,000 in the Year 2000 to 989,000 in the Year 2030.

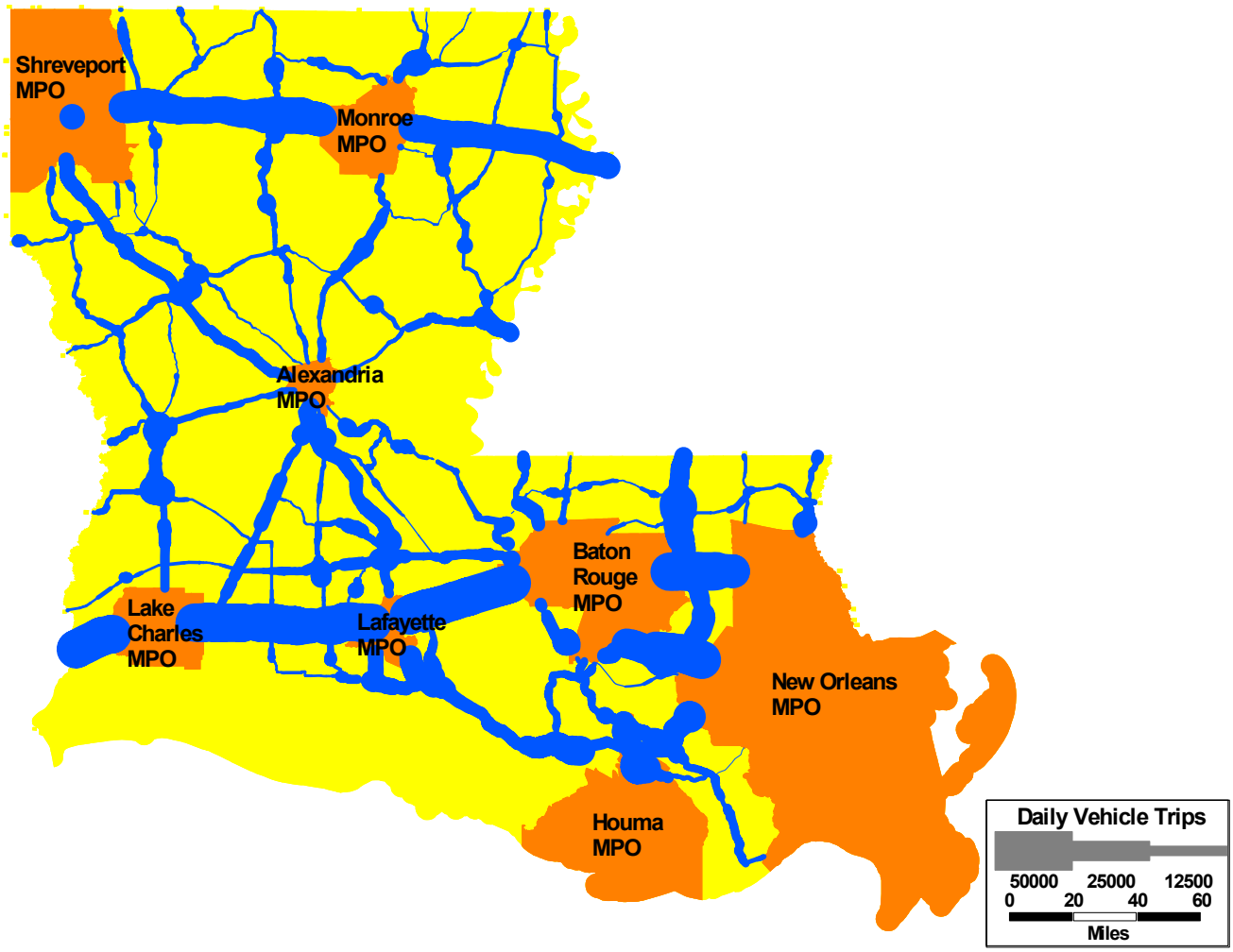


Figure 7.10: 2030 Daily Rural Vehicle Volume

Current and Future Highway Congestion

Figure 7.11 displays current (2000) Level of Service, and **Figure 7.12** displays LOS in Louisiana in the Year 2030 without implementing the TIMED projects. The majority of the highways in the State have a LOS of A-C, meaning they are operating below capacity, resulting in acceptable traffic operation. However, segments of several highways have a LOS of D-F, which is considered unacceptable on the rural highway system. The majority of capacity problems are occurring in urban areas where v/c ratios are equal to or greater than 1.0 (traffic volumes exceeding highway capacity).

On the rural highway system, the majority of capacity problems are occurring along I-10 and I-12 where the majority of segments along these highways have a LOS of E or F. I-20 also has congestion problems as the majority of segments along this highway have a LOS between D and F. Sections of other roadways experiencing some capacity problems, with a LOS D or E include: I-49 (north of Lafayette), I-55, US 84, US 165, US 171 (south of LA 28), LA 3 (north of Bossier City), LA 1 (North and South), LA 2, LA 28 (west of Alexandria) and LA 70.

Figure 7.13 displays LOS in the Year 2030 with the implementation of the TIMED projects. Improvements in LOS occur along those segments of highways where TIMED projects are implemented. For example segments of US 171 improve from a LOS D to a LOS A-C and segments of US 165 improve from a LOS D and E to a LOS A-C.

In addition to conventional, commuter- and shopping-based automobile traffic, two classes of auto trip warrant special attention: *Business Trips* and *Tourist Trips*. These trips comprise a significant portion of long-distance travel in Louisiana. The Louisiana Statewide Travel Demand Model forecasts these trips as part of its overall function. **Figures 7.14 and 7.15** depict daily business and tourist traffic forecasts, respectively, on Louisiana highways.

Further, the Statewide Travel Demand Model forecasts truck trips. **Figure 7.16** shows forecast 2030 daily truck trips from a national perspective. **Figure 7.17** shows the growth in freight tonnage from 2000 to 2030 by direction.

Overall, truck traffic is projected to grow by 105 percent by the Year 2030. Inbound truck tonnage is projected to grow by 101 percent, outbound by 68 percent, intrastate by 157 percent, and through truck traffic by 67 percent.

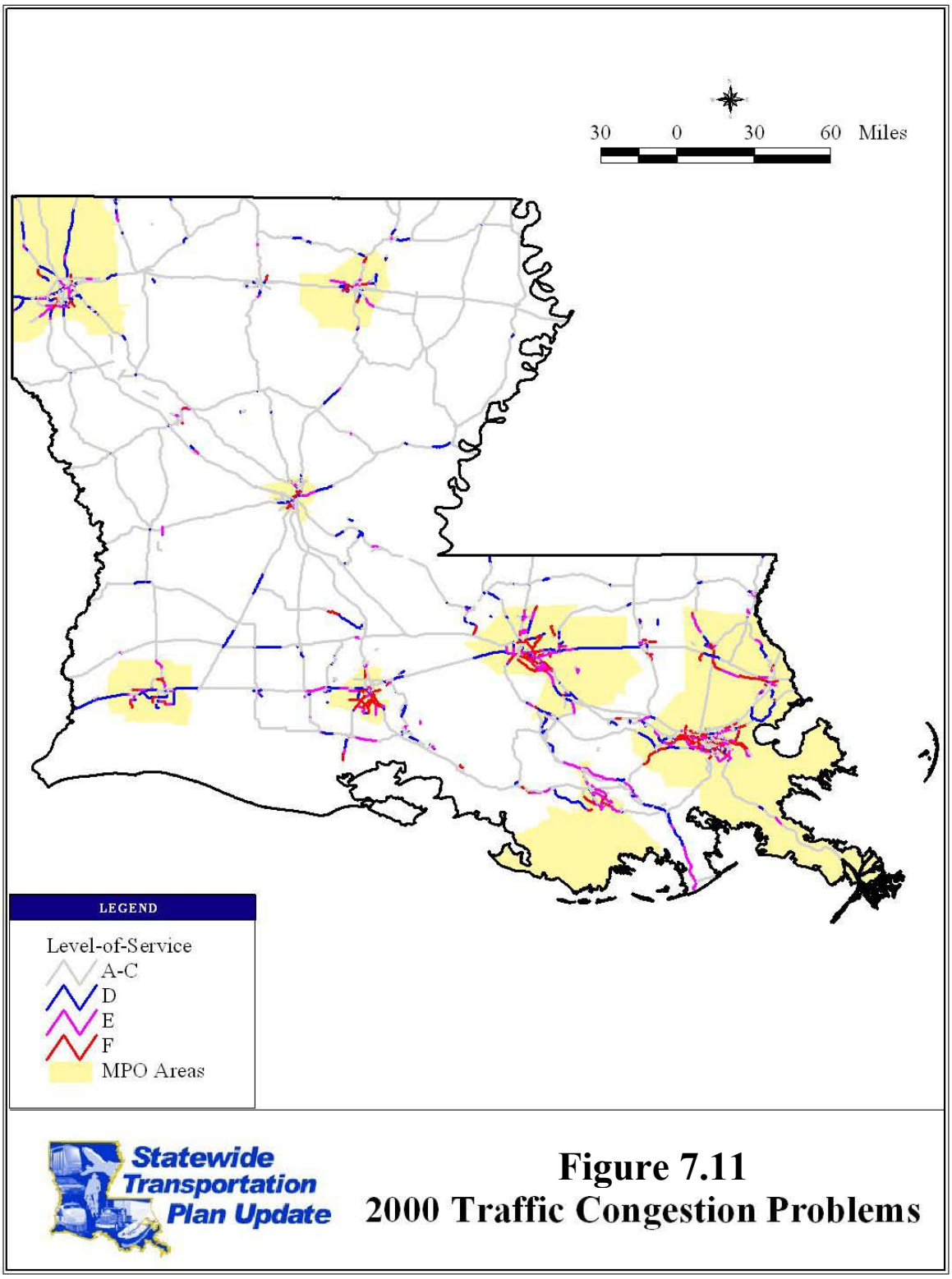


Figure 7.11
2000 Traffic Congestion Problems

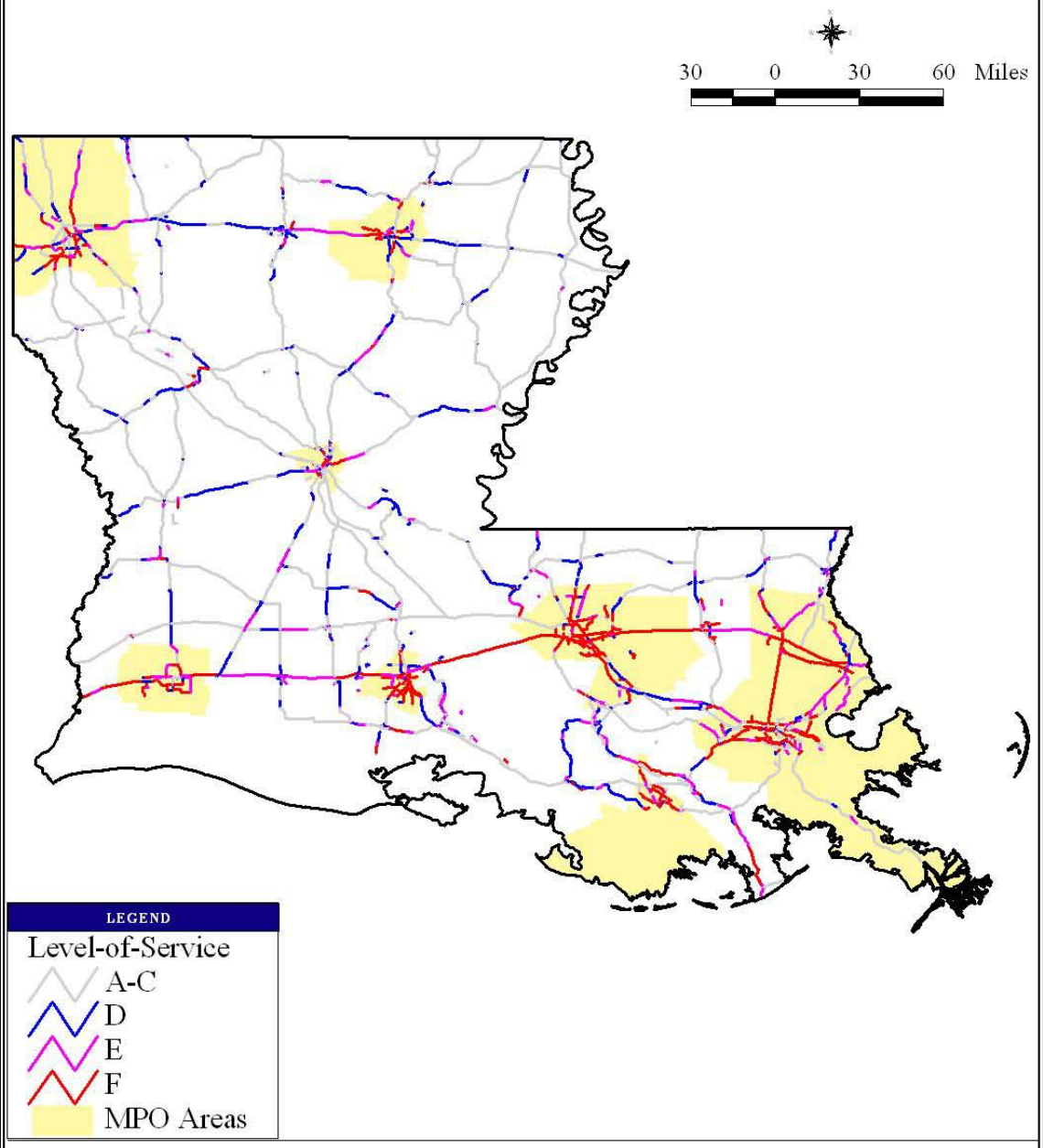


Figure 7.12
2030 Traffic Congestion Problems without TIMED Projects

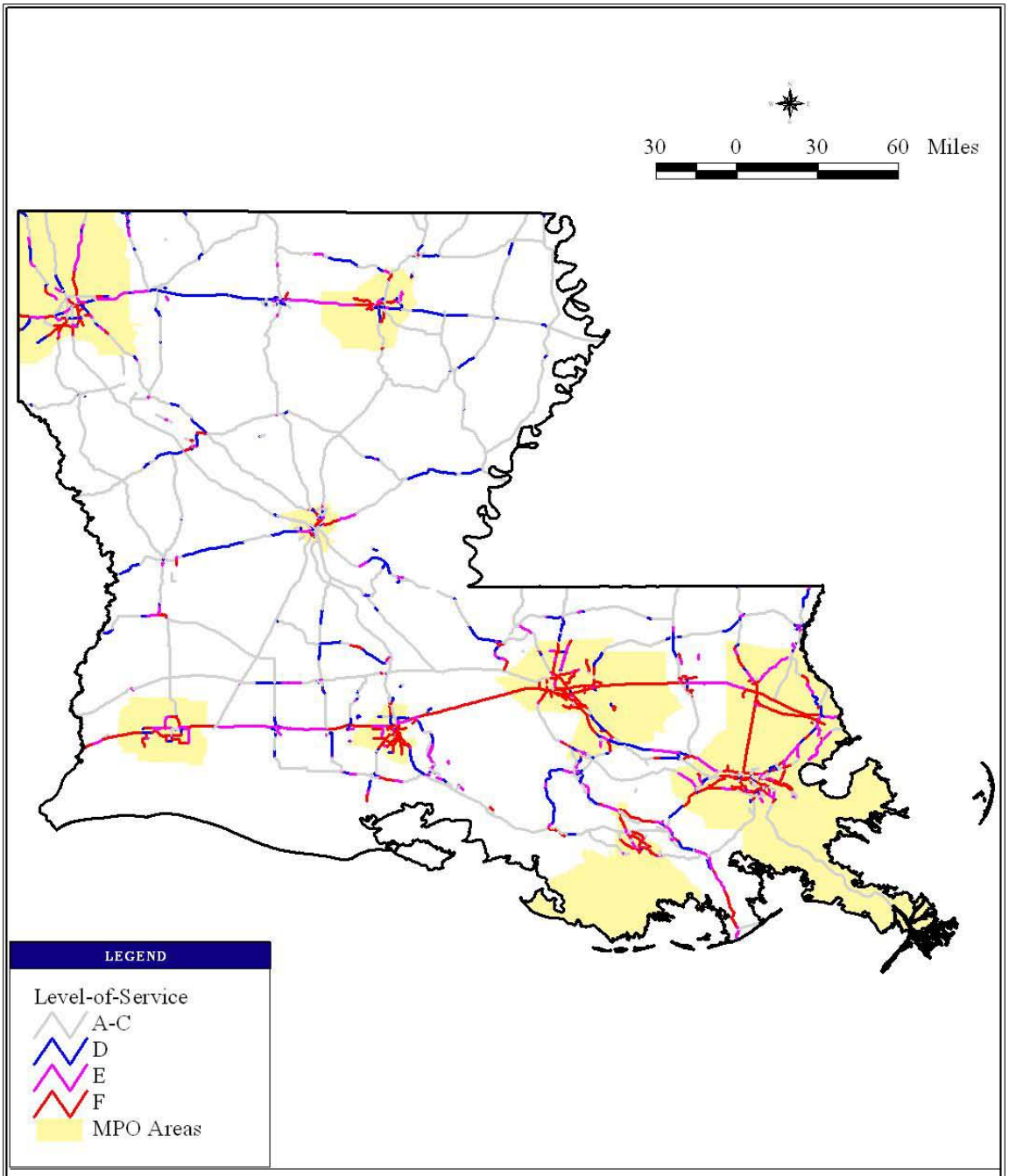


Figure 7.13
2030 Traffic Congestion Problems with TIMED Projects

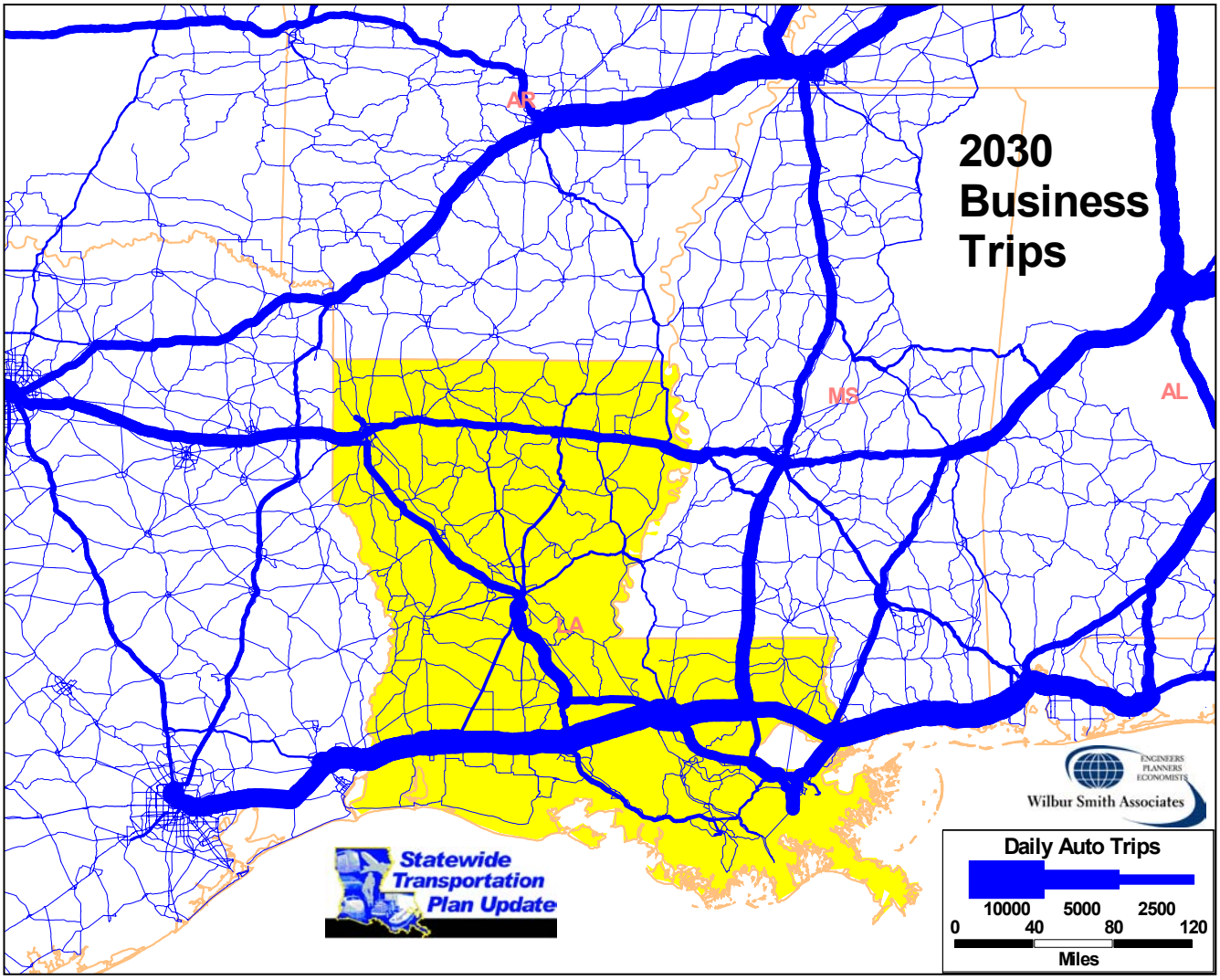


Figure 7.14: Total Daily Auto Business Trips

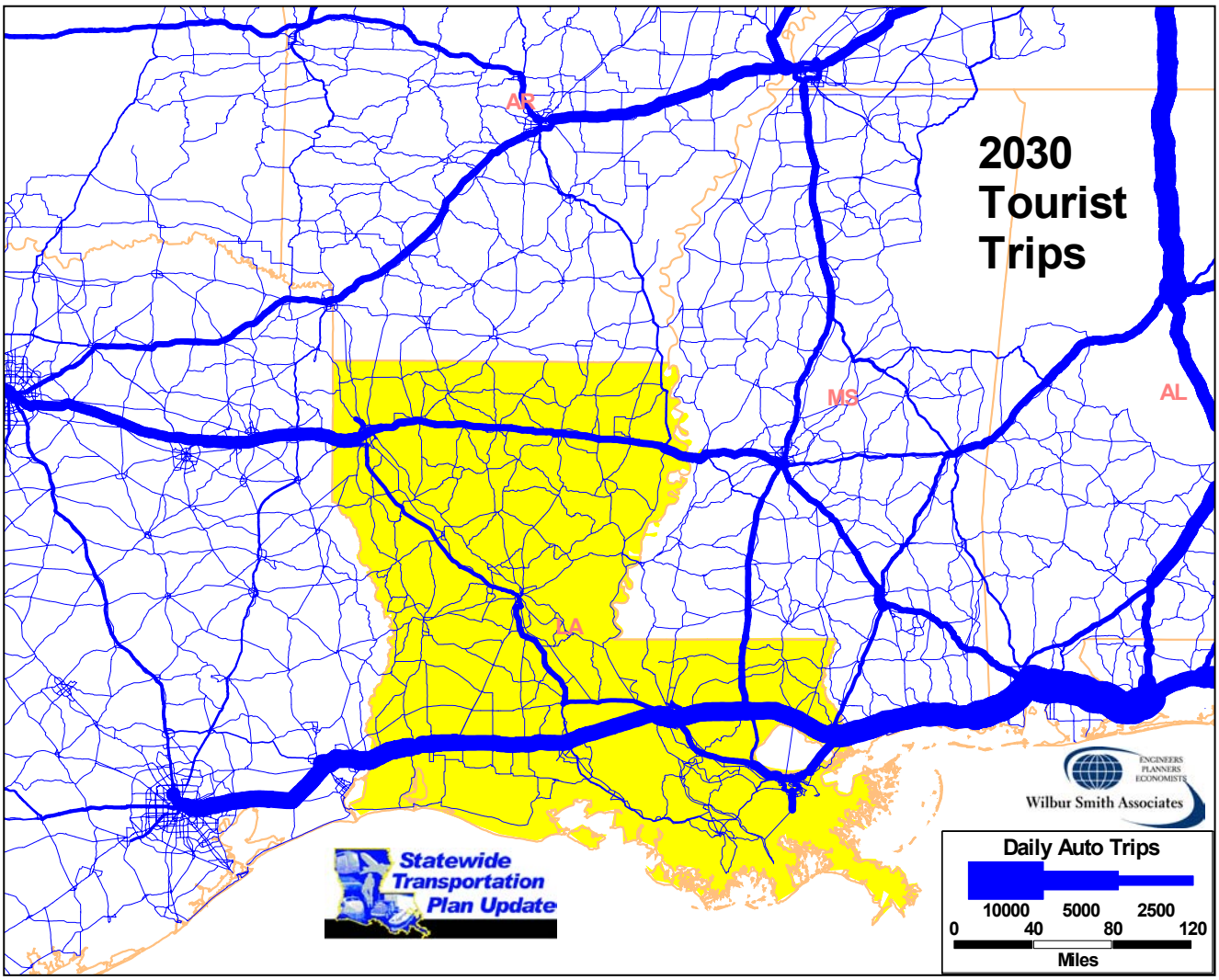


Figure 7.15: Total Daily Tourist Trips

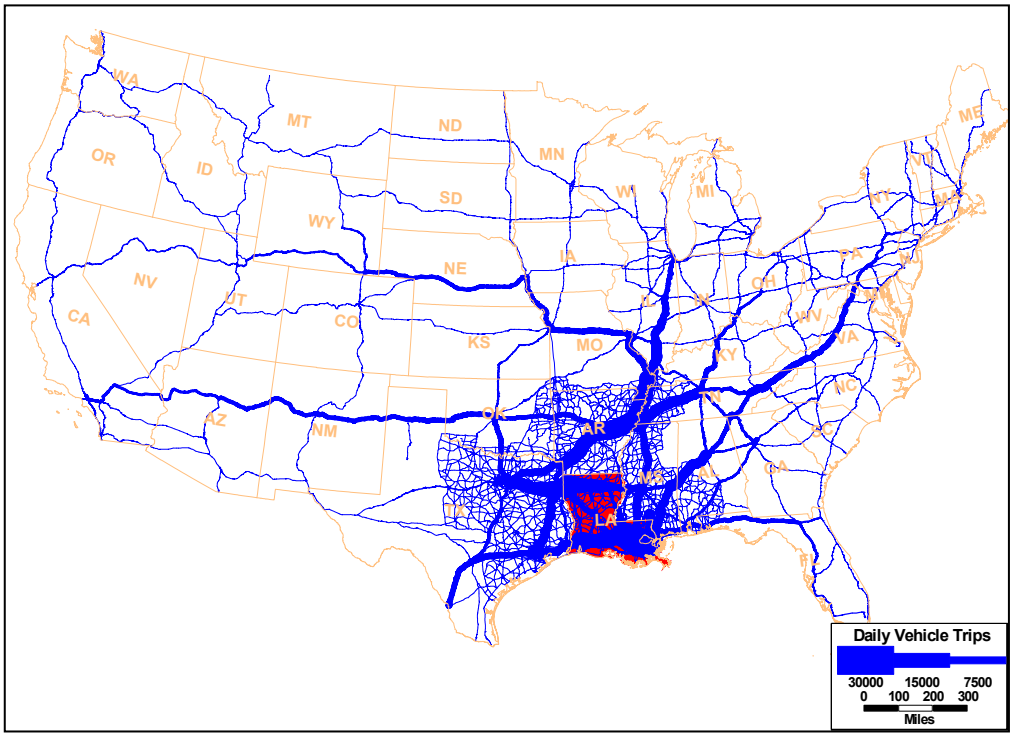


Figure 7.16: 2030 Daily Truck Trips

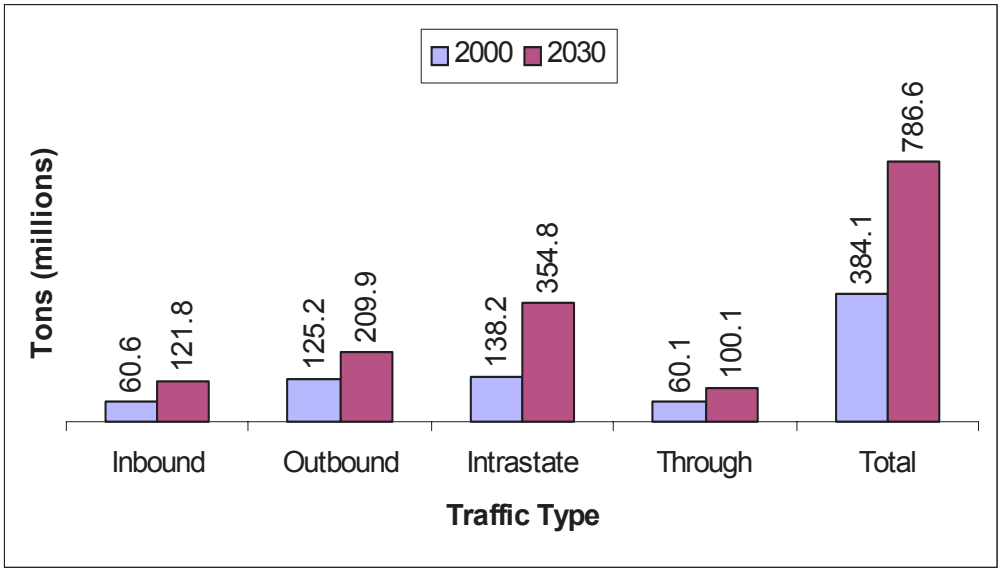


Figure 7.17: 2000 vs. 2030 Louisiana Truck Tonnage by Type of Movement

Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) is a broad term that describes a wide variety of technology-driven techniques to improve traffic and transportation operations. Implementation of ITS improvements can improve utilization of existing transportation networks, and enhance their efficiency and safety.

DOTD has developed a statewide ITS plan. Implementation of this plan will cost approximately $17 million annually for 10 years (the Fiscal Year 2003 budget for ITS is $10 million). This cost includes the implementation of a Commercial Vehicle Information Systems Network (CVISIN) in Louisiana. CVISN comprises a subset of ITS technologies that focuses on maximizing the efficiency of commercial vehicle operations.

While highly effective at increasing the operational efficiency of transportation networks, ITS alone cannot overcome the current or projected congestion problems on Louisiana's highway system.

Consideration of "Mega" Highway Improvement Projects

In the spring of 2002, advocates of Louisiana's "megaprojects" were given the opportunity to present to the Regional Planning Officials Advisory Council reasons why their highway improvement project should be included in the updated Plan. **For purposes of this planning effort, "megaproject" is defined as a high-cost project or a project of high significance when viewed from a statewide perspective.** Project sponsors provided and presented specific information regarding their proposed project including its description, purpose, benefits, cost, importance to the State, potential funding sources, and other related information.

As displayed in **Figures 7.18(a) and (b)**, a total of 57 "megaprojects" have been identified and include the widening of portions of Interstates 10, 20 and 12; widening of portions of US Highways 61, 65 and 190; construction of I-49 north and south extension and I-69; and other highway improvements throughout the State. The total cost of the 57 megaprojects is approximately $16.7 billion. Projects were identified as having a statewide, regional, or local impact, with the majority of projects having either a statewide or regional impact. A complete list of the megaprojects and their attributes can be found in the Appendix.

Traffic impacts of these highway improvements were evaluated using the statewide travel demand model. Criteria used in evaluating the projects included change in level of service and traffic utilization. Additionally, a subjective evaluation of the proposed highway improvements was performed by the consultant team and DOTD, which took into consideration the projects based on the goals and objectives of the Plan through the following criteria: Transportation Economics, Economic Development, Environment, and Safety:

Transportation Efficiency

1. Accommodation of present and future freight and passenger transportation demands
2. Efficiency in the movement of freight and passengers
3. Interurban, interstate, and international connectivity
4. Equitable accessibility to all regions of the state
5. Provision of basic passenger transportation services for all regions of the State
6. Transportation partnerships
7. Overhead costs/regulatory burden
8. Operations and maintenance costs
9. Capital costs
10. Financial viability

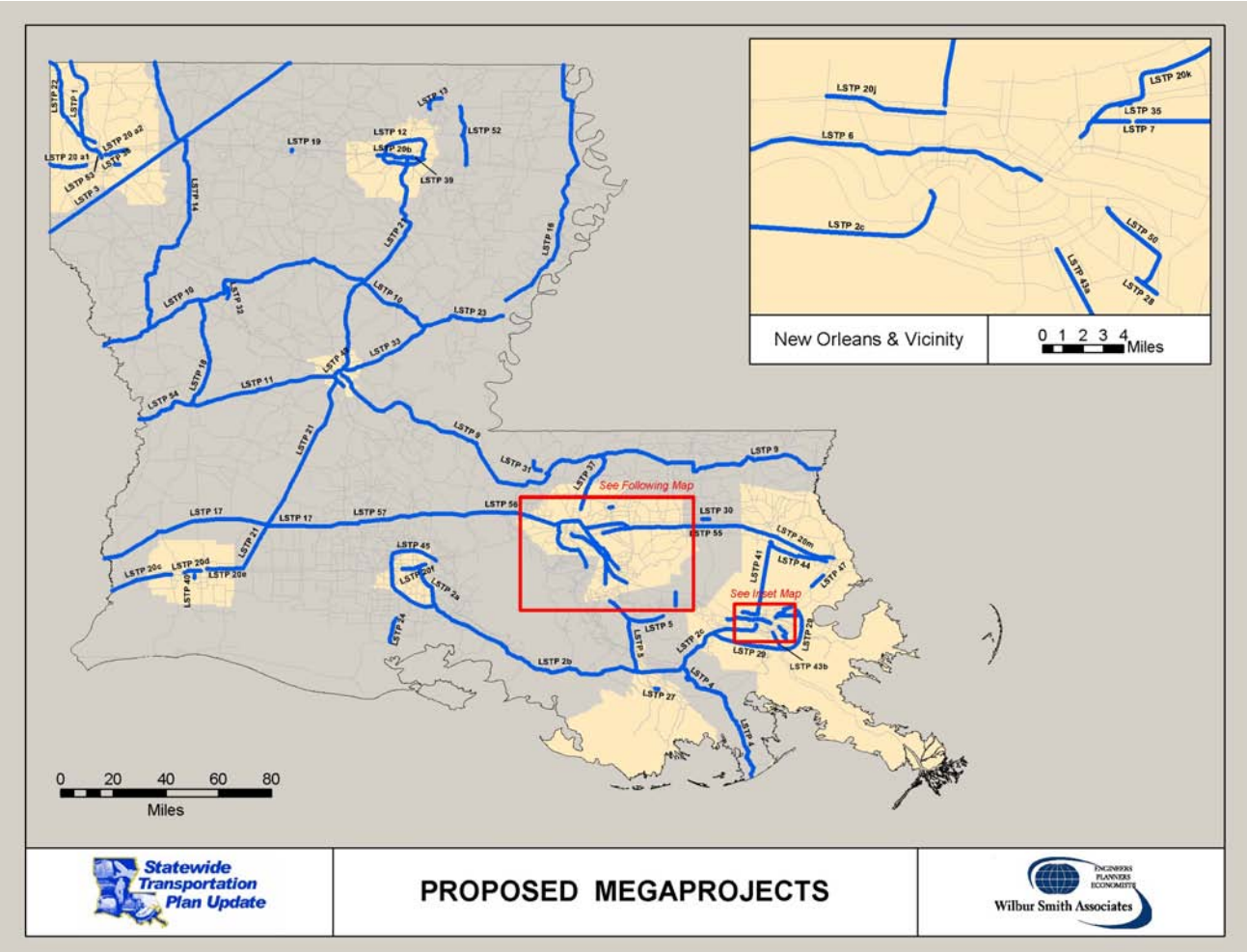


Figure 7.18(a): Megaprojects Proposed in the Statewide Transportation Plan Update*
(See Appendix A for Details)

* The alignments shown for LSTP-3 and other "Build" projects are for illustrative purposes only and will likely change as the project(s) proceed through the initial engineering and environmental evaluation processes.

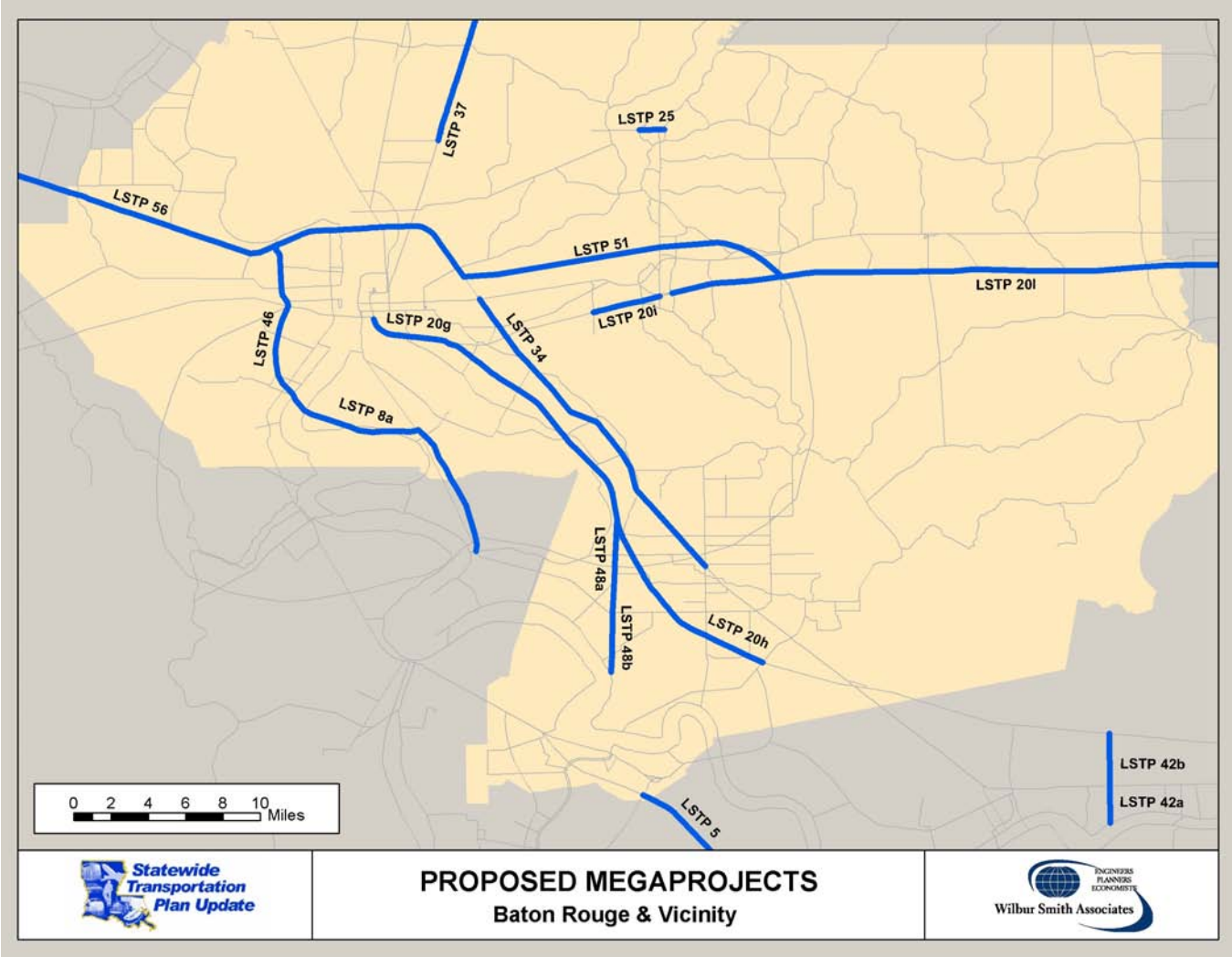


Figure 7.18(b): Megaprojects – Baton Rouge Area*
(See Appendix A for Details)

* The alignments shown for LSTP-51 and other "Build" projects are for illustrative purposes only and will likely change as the project(s) proceed through the initial engineering and environmental evaluation processes.

Economic Development

1. Attraction of new business and industry
2. Diversification of business and industry
3. Employment/personal income/population
4. Generation vs. relocation of opportunities
5. Tourism
6. Domestic and international trade – accessibility to markets
7. Existing state and local economic development programs
8. Potential to serve and promote Louisiana's transportation system as strategically important to the nation's energy supply
9. Access to educational institutions
10. Access to existing and new industrial and commercial areas

Environment

1. Air quality in nonattainment/maintenance areas
2. Water quality
3. Noise pollution
4. Energy consumption
5. Historic, cultural, and/or environmentally sensitive areas
6. Aesthetics, promotion of natural beauty
7. Demonstrating context-sensitive design and/or sound growth management principles

Safety

1. Reduction of collision potential
2. Potential to reduce collision severity
3. Reduction of hazardous materials spill potential
4. Emergency evacuation capabilities
5. Overall community safety
6. Transportation system security

Initially, megaprojects that scored and ranked high in both the quantitative (travel demand model results) and qualitative (plan goals and objectives) evaluation were considered to be the highest priority (Priority A). Megaprojects that scored and ranked high in either the quantitative or qualitative evaluation were considered to be the second highest priority (Priority B). The remaining megaprojects were included in Priorities C and D. The priorities were further refined by the Regional Planning Officials Advisory Council based on available revenue scenarios as discussed in Chapter 8.

The recommended improvements included in Priority A are summarized in **Table 7.3.** The recommended improvements included in Priority B are summarized in **Table 7.4**. Priority C and D megaprojects are listed in **Tables 7.5 and 7.6** and reflect those projects not included in one of the revenue scenarios discussed in the next chapter. **Table 7.7** displays intermodal projects that could be funded under the proposed Intermodal Access Program.

Note: Project ID Numbers are not assigned or listed in any order of priority.

Table 7.3
Priority "A" Megaprojects

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 001	Shreveport	I-49 North	I-220 to AR Line	New 4-lane Freeway	$363	$363
LSTP – 002a	I-49 Lafayette	I-49 South	Lafayette Urban	Upgrade to Freeway	$350	$350
LSTP – 004*	Lafourche Parish	LA 1 South	US 90 to Port Fourchon	Phase 1 (Leeville Bridge)	$125	$115
LSTP – 005*	Houma	N-S Hurricane Route	US 90 to LA 3127	Build new 2 Lanes	$150	$150
LSTP – 011	Leesville/ Alexandria	LA 28 West	US 171 to Alexandria	Widen 2 to 4 Lanes	$80	$40
LSTP – 020a	Shreveport	I-20	TX Line to I-220W, Red River Bridge, LA 3 to I-220E	Widen 4 to 6 Lanes	$175	$175
LSTP – 020b	Monroe	I-20	LA 546 to LA 594	Widen 4 to 6 Lanes	$150	$150
LSTP – 020c	Sulphur/Lake Charles	I-10	TX Line to Sulphur	Widen 4 to 6 Lanes	$80	$80
LSTP – 020d	Lake Charles	I-10	US 171 to Ryan St.	Widen 4 to 6 Lanes	$200	$200
LSTP – 020e	Lake Charles/Iowa	I-10	I-210E to US 165	Widen 4 to 6 Lanes	$50	$50
LSTP – 020f	Lafayette	I-10	LA 93 to Louisiana Ave.	Widen 4 to 6 Lanes	$60	$60
LSTP – 020g	Baton Rouge	I-10	I-110 to I-12	Widen 6 to 8 Lanes	$250	$250
LSTP – 020h	Baton Rouge	I-10	I-12 to LA 22 (includes new interchange between LA 42 and LA 73)	Widen 4 to 6 Lanes	$185	$145
LSTP – 020i	Baton Rouge	I-12	O'Neal to Denham Springs	Widen 4 to 6 Lanes	$60	$60
LSTP – 020j	New Orleans	I-10	Williams Blvd. to Causeway Blvd.	Widen 6 to 8 Lanes	$85	$0
LSTP – 020k	New Orleans	I-10	Bullard Ave. to Elysian Fields Ave.	Widen; implement ITS	$185	$185
LSTP – 20l	Hammond	I-12	LA 16 to I-55	Widen 4 to 6 Lanes	$150	$150
LSTP – 20m	Slidell	I-12	LA 21 to I-10/I-59	Widen 4 to 6 Lanes	$150	$150
LSTP – 028	New Orleans	LA 23	Belle Chase Tunnel	Build 4-Lane Bridge	$50	$50
LSTP – 031	St. Francisville	US 61	Thompson Creek to Baines	Widen 2 to 4 Lanes	$40	$20
LSTP – 034	Baton Rouge	US 61(Airline)	Gonzales to US 190	Widen 4 to 6 Lanes	$60	$40
LSTP - 047	New Orleans	I-10 Twin Span	US 11 to North Shore – Lake Pontchartrain	Widen 4 to 6 Lanes	$100	$100
TOTAL COST					**$3,098**	**$2,883**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.

Table 7.4
Priority "B" Megaprojects

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 002b	Lafayette/New Orleans	I-49 South	Lafayette to I-310	Upgrade to Freeway	$865	$865
LSTP – 003*	Shreveport	I-69	US 171 to 1-20	New 4-Lane Freeway	$380	$380
LSTP – 004*	Lafourche Parish	LA 1 South	Port Fourchon to US 90	Phase 2 (Four-Lane)	$545	$545
LSTP – 006*	New Orleans	LA 3139 (Earhart)	Hickory, Orleans Parish Line	Add Ramps at Each Limit to Airline Hwy. (US 61)	$125	$125
LSTP – 012*	Monroe	New Bridge	Ouachita River in Monroe Metro area	New Bridge	$50	$50
LSTP – 013	Bastrop	US 165/US 425 Bypass	US 425 to US 165	Build 4 Lanes	$20	$20
LSTP – 024	Abbeville/Esther	US 167	Abbeville to Esther	Build/Upgrade 0/2 to 4/2 Lanes	$25	$25
LSTP – 038	Shreveport/Bossier City	LA 511 (Jimmie Davis Bridge)	70th St. to Barksdale Blvd.	Replace 2 lane Bridge with 4 lane Bridge	$50	$50
LSTP – 041**	New Orleans	Pontchartrain Causeway	US 190 to I-10	Widen 4 to 6 Lanes/Transit	$425	$425
LSTP – 044	St. Tammany Parish	US 190	Pontchartrain Causeway to US 11	Widen 2 to 4 Lanes	$100	$75
LSTP – 051	Baton Rouge	North Bypass	I-10 to I-12	Build/Upgrade to 4-Lane Interstate Standards	$800	$800
TOTAL COST					**$2,960**	**$2,935**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios

** Cost of LSTP 041 not included in total cost. This project is assumed to be totally financed by Toll Authority funds

Table 7.5
Priority "C" Megaprojects

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 002c	New Orleans	I-49 South	New Orleans Urban (I-310 to W. Bank Expwy)	Upgrade to Freeway	$750	$750
LSTP – 003*	Shreveport	I-69	TX to I-49/I-20 to AR	Build 4-Lane Freeway	$600	$600
LSTP – 005*	Houma	N-S Hurricane Route & LA 3127	LA 70 to LA 641 US 90 to LA 3127	Widen 2 to 4 Lanes Widen 2 to 4 Lanes	$250	$250
LSTP – 006*	New Orleans	LA 3139 (Earhart)	Hickory to I-310	Build New 6-Lane Freeway	$300	$300
LSTP – 8a	Baton Rouge	LA 1	LA 30	New Bridge	$500	$500
LSTP-010*	West Central LA	LA6 / US 84	Prioritization Tier I Projects from the El Camino Corridor Masterplan	Widen 2 to 4 Lanes	$100	$100
LSTP – 017	SW Louisiana	US 190/LA 12	TX Line to Basile	Widen 2 to 4 Lanes	$230	$230
LSTP – 018*	W Central Louisiana	LA 117	LA 8 to Military Training Ground	Reconstruct 2 Lanes with Full Shoulders	$20	$20
LSTP – 019	Rustin/Grambling	LA 149 & Tarbutton Rd. Interchange (No Frontage Rds)		Interchange/Widen	$30	$30
LSTP – 022*	NW Louisiana	LA 1 (Tri-State Corridor)	LA 169 to LA 538	Widen 2 to 4/5 Lanes	$40	$40
LSTP – 023	E Central Louisiana	US 84	Archie to Ferriday	Widen 2 to 4 Lanes	$80	$55
LSTP – 027	Houma	LA 30/40	Houma Tunnel	Build 4-Lane Bridge	$50	$50
LSTP – 033	Central Louisiana	LA 28 East	Alexandria to Archie	Widen 2 to 4 Lanes	$85	$79
LSTP – 037	N of Baton Rouge	LA 67 (Plank Rd)	Baker to Clinton	Widen 2 to 4 Lanes	$70	$70
LSTP – 045	Lafayette	Lafayette Beltway	I-10 to US 90	Build 4-Lane	$300	$300
LSTP – 046	W Baton Rouge Parish	I-10 – LA 1 Connector	I-10 to LA 1	Build 4-Lane	$75	$75
LSTP – 048a	Gonzales	Industrial Access Corridor	I-10 to LA 30	Build 4-Lane	$35	$35
LSTP – 049	Alexandria	McArthur Drive	I-49N to I-49S	Upgrade to Freeway	$60	$60
LSTP-053	Shreveport	I-49	I-20 to I-220	New 6-Lane Freeway	$150	$150
LSTP-054	West Central LA	LA 8	TX to US 171	Widen 2 to 4 Lanes	$65	$65
LSTP-055	New Orleans	I-12	I-55 to LA 21	Widen 4 to 6 Lanes	$125	$125
LSTP-056	W. of Baton Rouge	US 190	I-49 to Baton Rouge Bypass	Upgrade to Freeway	$500	$500
LSTP-057	NW of Lafayette	US 165/US 190	I-10 to US 190 US 190 to I-49	Upgrade to Freeway	$650	$650
				TOTAL COST	**$5,065**	**$5,034**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios

Table 7.6
Priority "D" Megaprojects

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 007	New Orleans	Florida Ave. Expressway	I-10 to LA 47	Build 6-Lane Freeway	$350	$350
LSTP – 009	Alexandria/Bogalusa	Zachary Taylor Pkwy.	I-49 to I-59	Widen 2 to 4 Lanes	$970	$970
LSTP – 010*	West Central LA	LA 6/US 84 El Camino	TX Line to Archie	Widening 2 to 4 Lanes	$384	$384
LSTP – 012	Monroe	Ouachita Loop	I-20 to I-20	Build 2 Lanes	$245	$245
LSTP – 014	NW Louisiana	US 371 (Bi-State Corridor)	LA 6 to AR Line	Widen 2 to 4 Lanes	$295	$295
LSTP – 016	NE Louisiana	US 65	LA 15 to AR Line	Widen 2 to 4 Lanes	$225	$225
LSTP – 018*	W Central Louisiana	LA 117	LA 8 to LA 6	Widen 2 to 4 Lanes	$130	$130
LSTP – 021	Monroe/Lake Charles	US 165	I-20 to I-10	Upgrade to Freeway	$1,000	$1,000
LSTP – 022*	NW Louisiana	LA 1 (Tri-State Corridor)	LA 173 to AR Line	Widen 2 to 4 Lanes	$105	$88
LSTP – 025	Baton Rouge	LA 408 (Hooper Rd.)	LA 37 to LA 16	Build 2-Lane	$35	$35
LSTP – 029	New Orleans	Chalmette Bridge/I-510	MRGO to Westbank Expressway	Extend Fwy; build new Bridge	$1,000	$1,000
LSTP – 032	Natchitoches	East Bypass	LA 1 to LA 6	Build 2-Lane	$20	$20
LSTP – 048b	Gonzales	Industrial Access Corridor	LA 30 to LA 942	Build 4-Lane	$35	$35
LSTP – 050	New Orleans	Donner Rd.	Westbank Expwy. to Peters Rd.	Build 4-Lane	$80	$80
LSTP – 052	Monroe	LA 137/133	I-20 to Bastop	Widen 2 to 4 lanes	$100	$100
TOTAL COST					**$4,934**	**$4,917**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios

Table 7.7
Preliminary List of High Priority Projects to be Funded Under the Proposed Intermodal Access Program

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 030	Hammond	LA 3234 (University Ave.)	LA 1065 to Hammond Airport	Build 2-Lane	$8	$8
LSTP - 035	New Orleans	Almonaster Br.		New Bridge	$45	$12
LSTP – 039	Monroe	Garrett Rd.	I-20 to Kansas Lane	Widen 2 to 4 Lanes	$25	$25
LSTP – 040	Lake Charles	Port Access Rd.	Prien Lake Rd. to Marine St.	Build 4 Lanes	$25	$25
LSTP – 042a	LaPlace	Port of S. LA Connector	LA 44 to Airline Hwy.	Build 2 Lanes	$10	$10
LSTP – 042b	LaPlace	Port of LA Connector	Airline Hwy. to I-10	Build 4 Lanes	$25	$25
LSTP – 043	New Orleans	LA 3017 (Peters Rd.)	Westbank Expwy. to LA 23	Widen/Build 2/0 to 3/2 Lanes	$80	$80
TOTAL COST					**$218**	**$185**

Impacts of Priority A and B Improvements

Figures 7.19 and **7.20** display Level of Service (LOS) in the Year 2030 with the implementation of the TIMED projects and Priority A and Priority B projects. Improvements in LOS occur along those segments of the highway system where projects were implemented. For example with the implementation of Priority A projects, segments of LA 28 West (Leesville to Alexandria) improve from a LOS D to a LOS A-C, segments of I-12 improve from a LOS F to LOS D-E, and segments of I-10 west of Lake Charles improve from a LOS F to a LOS D. With the implementation of Priority A and B projects, segments of LA 1 south of US 90 improve from a LOS D-F to LOS A-C, and the Lake Pontchartrain Causeway improves from an LOS F to a LOS E. Although improvements do occur with the implementation of the megaprojects, many segments of rural highways still experience congestion problems (LOS D-F), including portions of I-10, 1-12, I-20, US 84, LA 2, LA 70 and LA 1. Additionally, many urban highways and relatively small segments of rural highways also experience congestion problems. **Therefore, an annual program to address congestion is still needed even with the implementation of TIMED, Priority A, and Priority B projects.**

AVIATION

In identifying the needs for the airport system in Louisiana, the existing demand for aviation services was measured. Once this was accomplished, the existing system's performance and ability to meet this demand was evaluated.

Forecasts

The development of aviation activity projections for the airports included in Louisiana's aviation system was an essential step in assessing the need for and phasing of future development requirements. Activity projections were used in determining the role for each airport within the State system, evaluating the ability of the system to accommodate future activity levels, and planning future airside and landside facilities.

Commercial Service Activity Projections

As shown in **Table 7.8**, the State's market share of total U.S. enplanements has decreased over the past nine years from 0.901 percent in 1991 to 0.890 percent in 2000. The average market share over the nine-year period was 0.893 percent. Statewide enplanements are projected to increase from 6,287,718 in 2000 to 10,246,100 in 2015 and 16,892,900 in 2030. This growth in enplanements represents an overall statewide average annual growth rate of 3.35 percent. This rate is considered to be in line with national projections, which project enplanements to increase at an average annual rate of 3.47 percent from 2000 to 2015. Even though the Louisiana increases are significant, the overall national market share for the State is expected to decrease slightly.

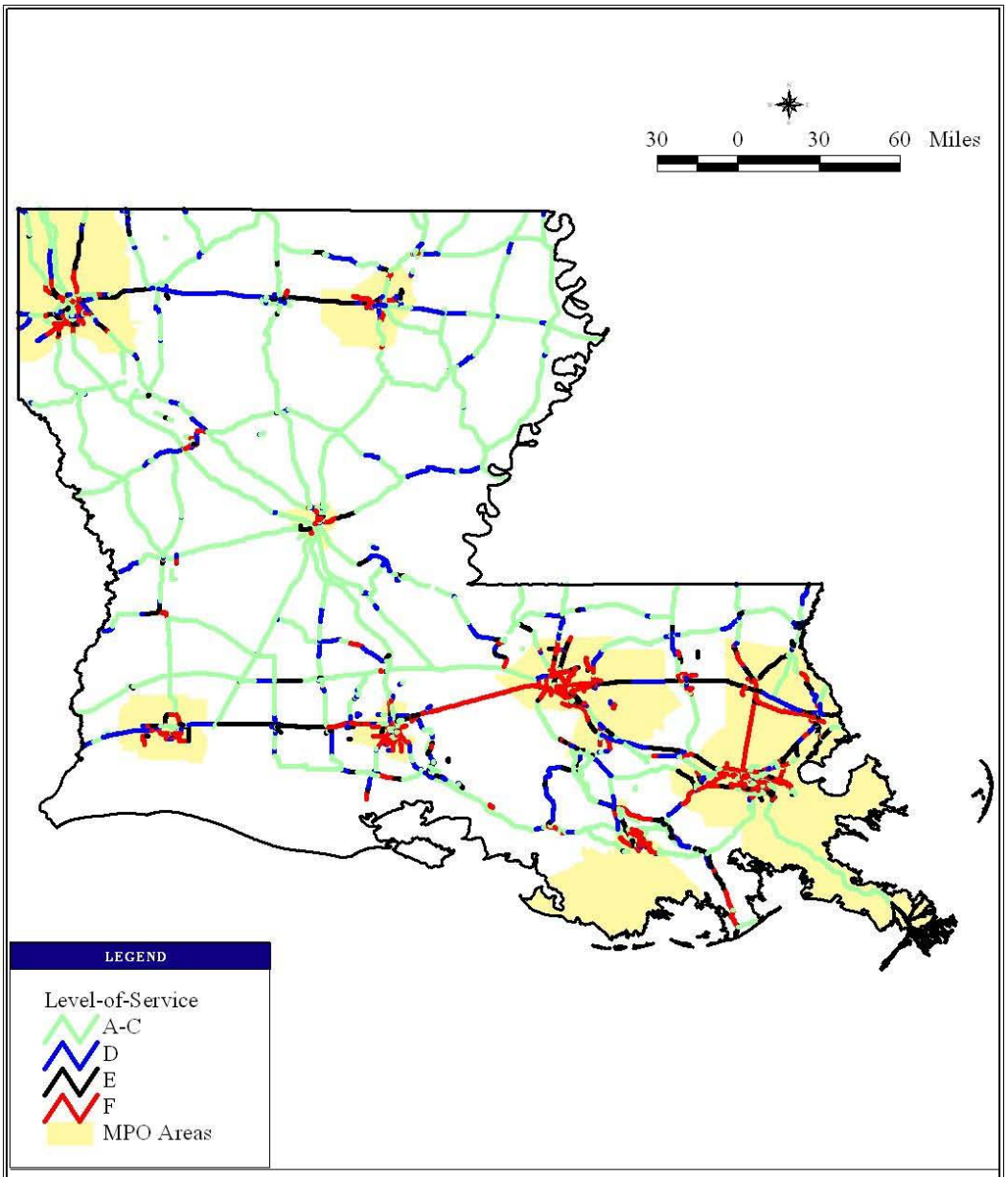


Figure 7.19
2030 Traffic Congestion Problems with TIMED and Priority "A" Projects

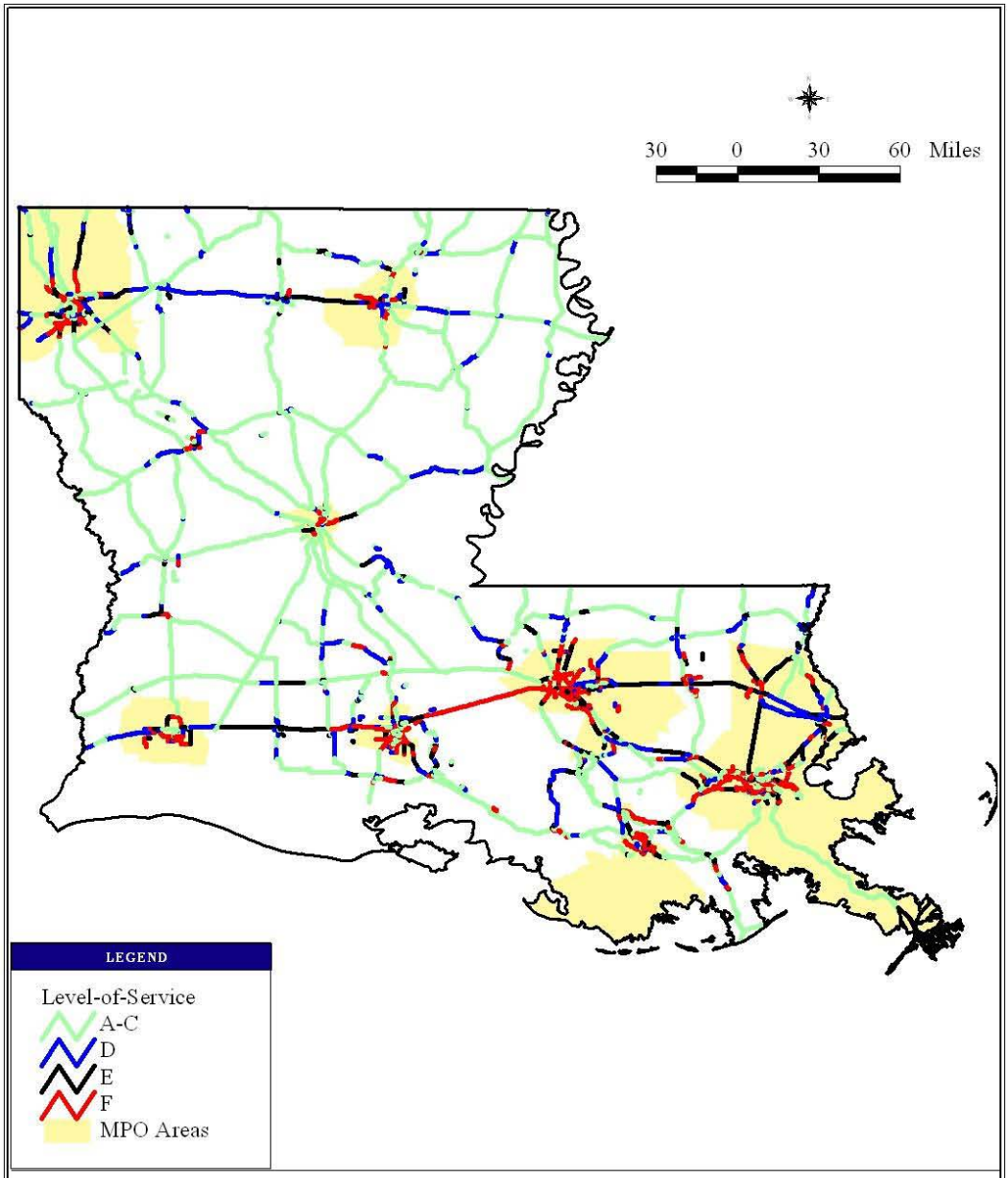


Figure 7.20

2030 Traffic Congestion Problems with TIMED, Priority "A" and Priority "B" Projects

Capacity analysis for Louisiana's commercial service airports indicates that only New Orleans International Airport will experience capacity problems within the 30-year planning horizon.

Table 7.8
Projected Enplanements

Year	All LA Airports Enplanements	US Enplanements	Louisiana Share	Growth Rate
2000	6,287,718	706,106,300	0.890%	3.55%
2005	7,670,400	866,242,200	0.885%	4.06%
2010	8,999,700	1,022,142,500	0.880%	3.65%
2015	10,246,100	1,177,707,200	0.870%	3.31%
2020**	12,011,300	1,396,667,700	0.860%	3.29%
2030**	16,892,900	1,964,285,400	0.860%	3.35%

** US Total Enplanement data for 2020 and 2030 based on WSA growth rate estimates.
Sources: FAA Terminal Area Forecasts, FAA Aerospace Forecast, FY 2000-2011, Airport Management Records, WSA

Preferred Based Aircraft Projection

The results from two based aircraft projection methodologies developed in the Louisiana Airport Systems Plan were compared for each airport. In 2000, the Louisiana airports examined as part of this analysis accommodated 2,526 based aircraft. The bottom up methodology produced a 2030 projection of 3,583 based aircraft, an average annual growth rate of 1.17 percent. The top down methodology produced a 2030 projection of 3,342 based aircraft, an average annual growth rate of 0.94 percent. After comparing the results and the average annual growth rates of the two methodologies, the bottom up growth rate methodology, as shown in **Table 7.9**, was chosen as the preferred methodology because it more closely mirrors the growth in based aircraft that has been experienced in the recent past at Louisiana's airports.

Table 7.9
General Aviation Based Aircraft Forecast

		Historic	Based Aircraft Forecast					Forecast
1992	2000	AAGR	2005	2010	2015	2020	2030	AAGR
1,953	2,526	3.3%	2,670	2,825	2,993	3,174	3,583	1.17%

Sources: FAA Terminal Area Forecast and WSA

Air Cargo Tonnage Projections

Air cargo tonnage was identified for those system airports that accommodate air cargo on a regular basis. Air cargo is measured in metric tons. One metric ton is the equivalent of 2,204 pounds. The volume of air cargo tonnage at Louisiana airports is projected to increase at an annual average rate of 3.9 percent. This is considered a moderate annual growth rate when in the early 1990s the air cargo industry was experiencing double digit growth rates. The growth rate used for this analysis is based on Boeing's 1999 World Air Cargo Forecast and is applied throughout the forecast period. This growth rate is slightly lower than the US gross domestic product (GDP) 1995-2000 annual growth rate of 4.4 percent. Projections of air cargo tonnage are presented in **Table 7.10.**

Table 7.10
Air Cargo Tonnage Forecast

Associated City	Airport Name	2000	AAGR	2005	2010	2015	2020	2030
Alexandria	Alexandria International	71	3.90%	73	91	114	142	222
Baton Rouge	Baton Rouge Regional	3,106	3.90%	3,211	3,995	4,972	6,191	9,707
Lafayette	Lafayette Regional	1,211	3.90%	1,252	1,558	1,938	2,414	3,785
Lake Charles	Lake Charles Regional	161	3.90%	166	207	258	321	503
Monroe	Monroe Regional	79	3.90%	82	102	126	157	247
New Orleans	New Orleans International	85,815	3.90%	89,271	111,090	138,337	172,362	270,245
Shreveport	Shreveport Regional	30,020	3.90%	31,039	38,610	48,054	59,838	93,819
Total		**120,463**		**125,095**	**155,652**	**193,799**	**241,424**	**378,528**

Sources: Airports Council International, airport management, WSA

Demand Analysis

The Louisiana airport system was structured based on demand for aviation services. Following the demand evaluation, functional roles were developed for the airports, and facility and service standards were established. Airports were classified as being in one of six functional classifications: Commercial Service, General Aviation - Reliever, General Aviation - National, General Aviation - Regional, General Aviation - Local, and General Aviation - Limited.

System Adequacy Analysis

The process to evaluate the existing performance of the Louisiana airport system is based on goals or criteria and specific objectives or benchmarks. Three system performance criteria were identified:

- Access
- Economic
- Physical

Within these three categories, specific benchmarks were developed for each objective as a way of measuring the airport system's performance.

Access

Figure 7.21 depicts the overall coverage provided by the six airport classifications with shading demonstrating the various coverages provided by the six airport classifications. As identified, when combining the airports and discounting overlaps, the 71 public airports serve 98 percent of the State's population and 79 percent of the State's land area. This indicates that nearly all of the State's population as well as developable areas have adequate airport access to general aviation airport services through the existing airport system. The largest areas without reasonable access include many of the coastal parishes of Cameron, Vermilion, Terrebonne and Plaquemine, and sparsely populated portions of the following parishes:

- East Feliciana
- Assumption
- St. Bernard
- Allen
- Beauregard
- St. Helena
- Lafourche
- Bienville
- Iberville
- Concordia
- Vernon

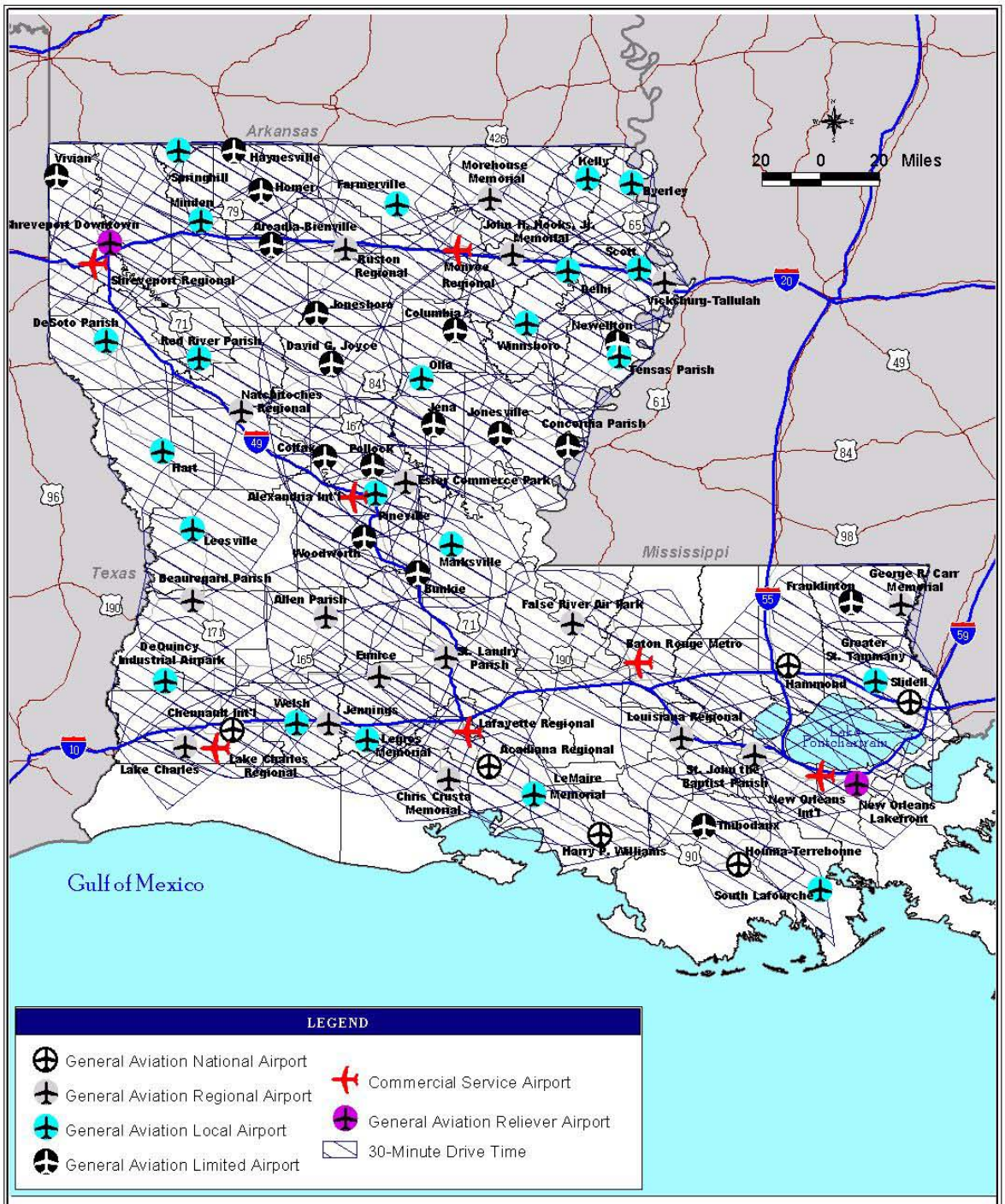


Figure 7.21
Louisiana Airports With
30-Minute Drive Times

Economic

Much of the State's population is distributed across eight Metropolitan Statistical Areas (MSAs) throughout Louisiana, in descending order of population:

- New Orleans
- Baton Rouge
- Shreveport/Bossier City
- Lafayette
- Houma/Thibodaux
- Lake Charles
- Monroe
- Alexandria

The distribution of population among these areas, however, is disproportional. Nearly one-third of the State's 2000 population of 4,468,976 is concentrated in the New Orleans area. According to US Census Bureau County Estimates for Median Household Income (1997), approximately 44 percent of Louisiana's median household income is concentrated in the eight MSAs. Most of the MSAs have more than one airport. Houma-Thibodaux lacks a commercial service airport, however, demand is likely satisfied by facilities in New Orleans as it is within the 60-minute drive time radius. Louisiana's rural composition suggests coverage could be improved through surface transportation infrastructure improvements, such as improved highways, to offer better connectivity.

While agricultural aviation is needed to ensure the success of numerous Louisiana agricultural crops, which are important to the state's economy, the actual facility needs for aerial applicators are minimal in contrast to other industry requirements. Aerial applicators can operate with basic provisions, such as turf strip runways or smaller General Aviation – Limited airports, but need to be based near agricultural crops targeted for application as depicted by the 10-mile radius around airports that reported agricultural spraying activity. During periods of heavy rainfall in the State, many agricultural aerial operators relocate their operations from privately owned turf airstrips to publicly owned airports. Although these operations are generally welcome at these airports, it does create increased "wear and tear" on the facilities and increased demand for aircraft and support.

Physical

Physical performance of the aviation system is determined by examining the ability of the airports to meet at least minimum standards. Minimum standards can be defined in terms of facilities and services. These minimum standards were developed as part of the previous chapter for each of the six functional classifications.

Figure 7.22 displays a summary of the existing Commercial Service airports' compliance with standards promulgated for facilities and services. All of the Commercial Service airports meet the minimum required facilities and services identified in this study.

Figure 7.22
Commercial Service Airports

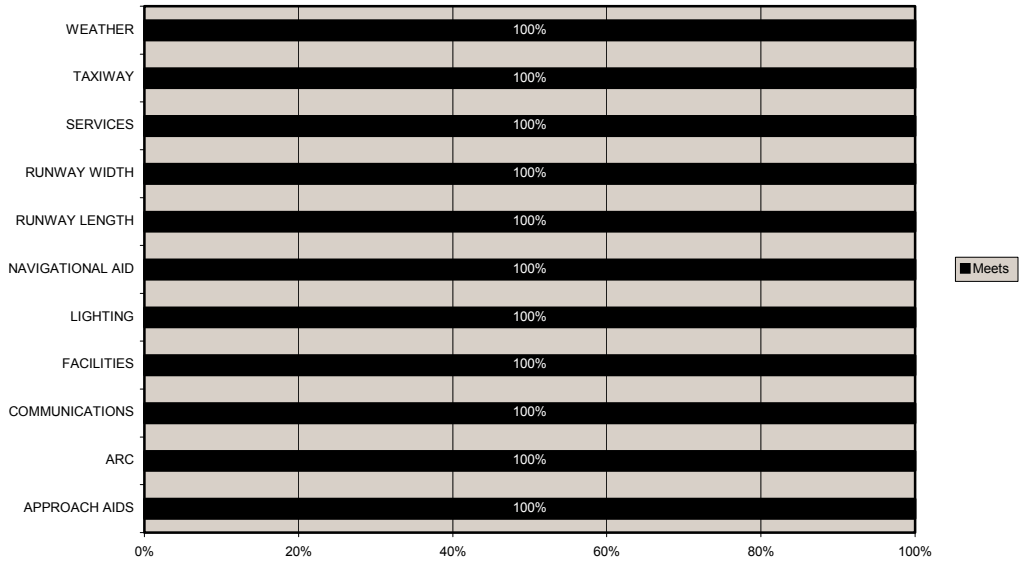


Figure 7.23 presents a summary of the existing GA – Reliever airports' ability to meet the minimum standards set as part of this study for facilities and services. As evidenced by the figure, both facilities, Shreveport Downtown Airport and the New Orleans Lakefront Airport, meet or exceed the standards with the exception of the Airport Reference Code (ARC) at the Shreveport Downtown Airport.

Figure 7.23
General Aviation – Reliever Airports

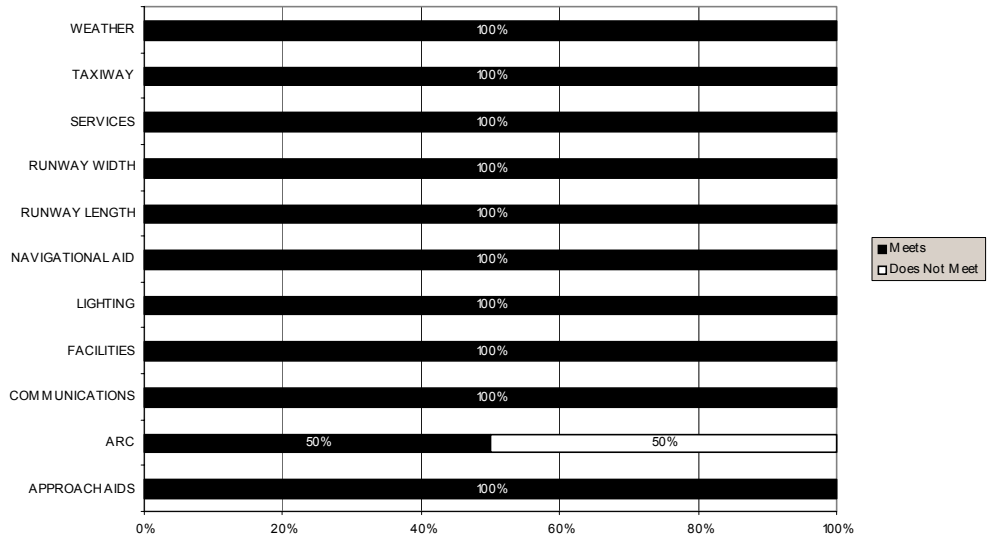


Figure 7.24 provides a summary of the existing General Aviation - National airports' ability to meet the minimum standards set for facilities and services. In contrast to the previously referenced airport classifications, Louisiana's General Aviation - National airports as a whole meet fewer of the objectives. As indicated in the figure, all six General Aviation - National airports meet minimum criteria for services, runway width, navigational aids, lighting and facilities.

Figure 7.24
General Aviation - National Airports

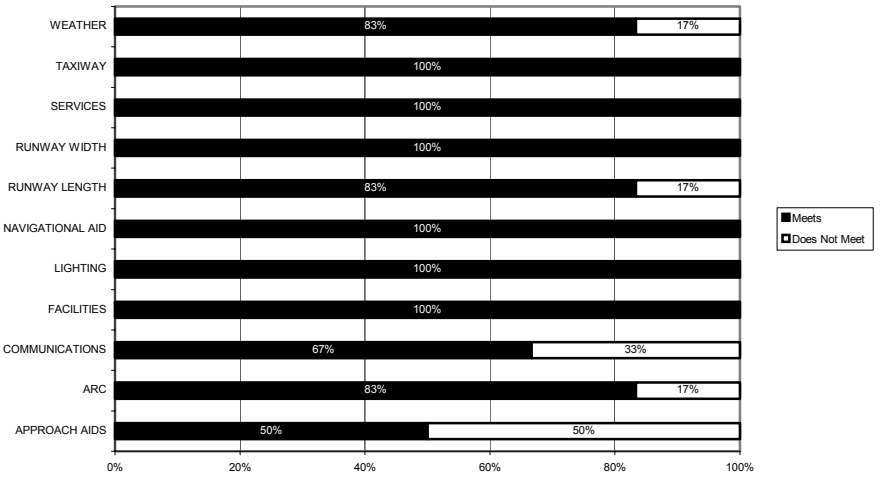


Figure 7.25 presents a summary of the existing General Aviation - Regional airports' abilities to meet the minimum standards set as part of this study for facilities and services. As shown, the majority of airports meet the minimum objectives, with the exception of communications, where only 18 percent of General Aviation - Regional airports meet the criteria.

Figure 7.25
General Aviation – Regional

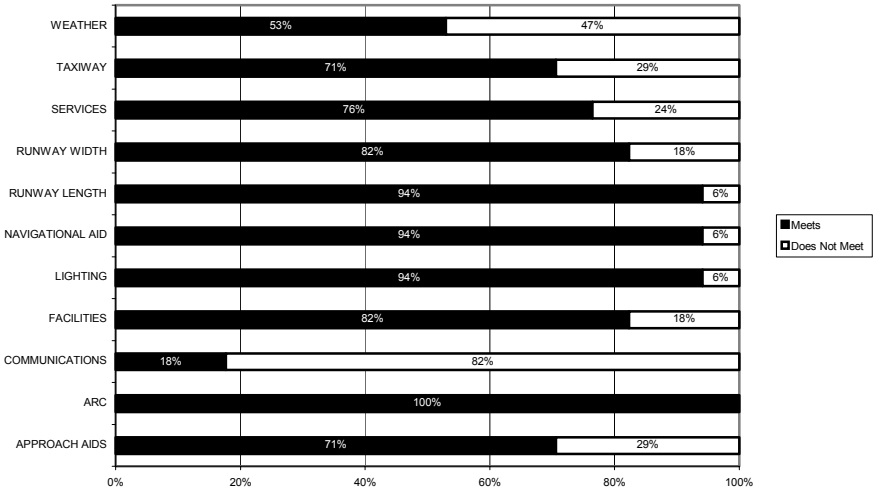


Figure 7.26 presents a summary of the existing General Aviation - Local airports' abilities to meet the minimum standards set as part of this study for facilities and services. As shown, none of General Aviation - Local airports meet criteria for communications and very few meet the criteria for facilities and approach aids. Most General Aviation - Local airports meet the minimum criteria for runway width, runway length, and lighting.

Figure 7.26
General Aviation – Local

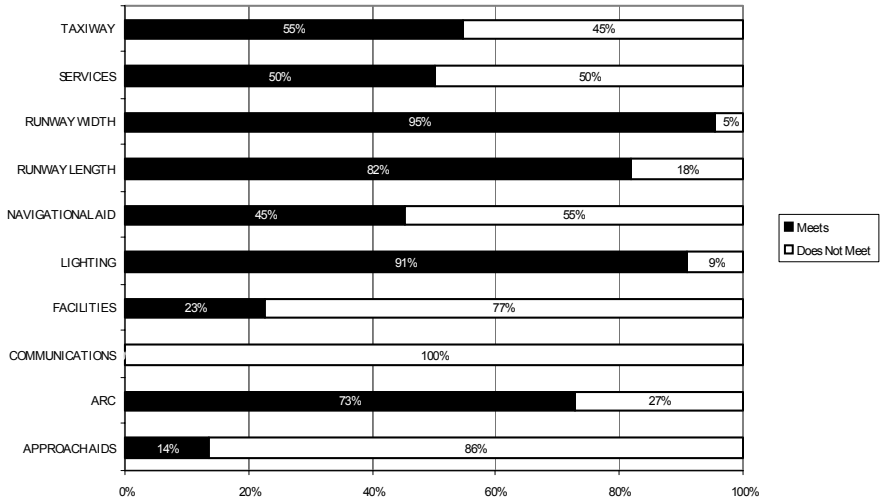
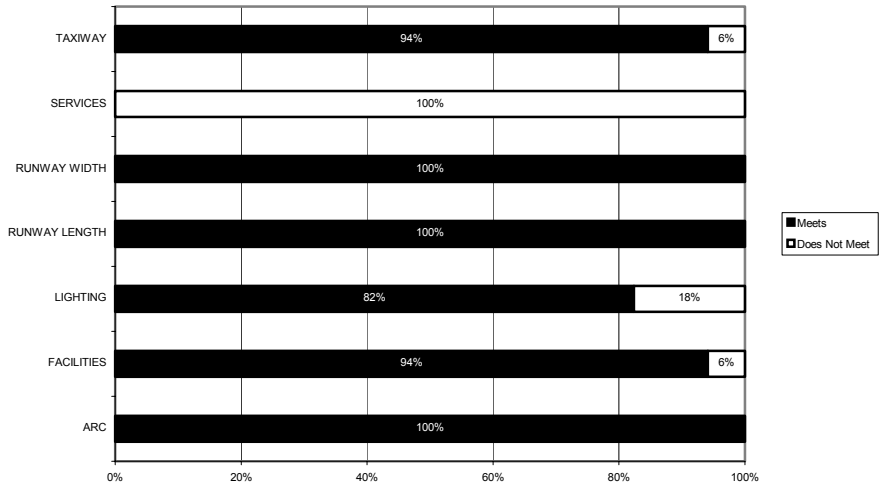


Figure 7.27 presents a summary of the existing General Aviation - Limited airports' abilities to meet the minimum standards set for facilities and services as part of this study. As shown all General Aviation - Limited airports meet the minimum criteria for runway length, runway width and ARC. None of the airports meet the criteria for services.

Figure 7.27
General Aviation – Limited



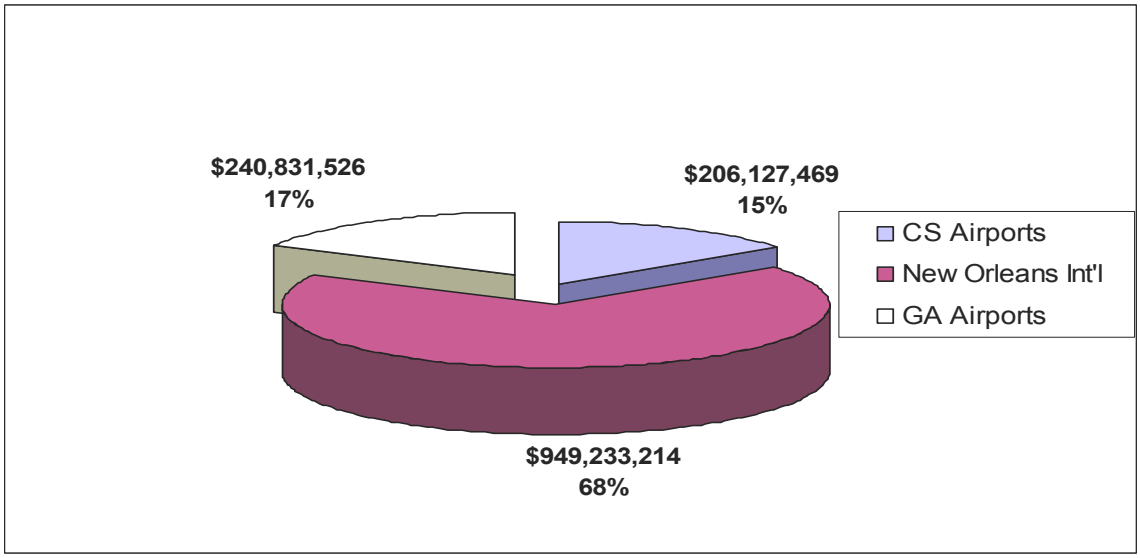
Summary of Options Analysis

The options analysis revealed that, for the most part, the existing Louisiana Aviation System meets the objectives set for the LASP. The analysis showed that the stratification system used to determine the airport roles resulted in many airports providing overlapping coverage and services to the same areas.

Overall Aviation Needs

The cost of addressing the needs of Louisiana aviation infrastructure total approximately $1.4 billion. The cost for each category of aviation facilities is illustrated in **Figure 7.28**. These costs include all aviation infrastructure improvements necessary to accommodate the increase in enplanements and air cargo shipments over the planning horizon.

Figure 7.28: Costs to Address Louisiana Aviation System Needs, by Airport Category



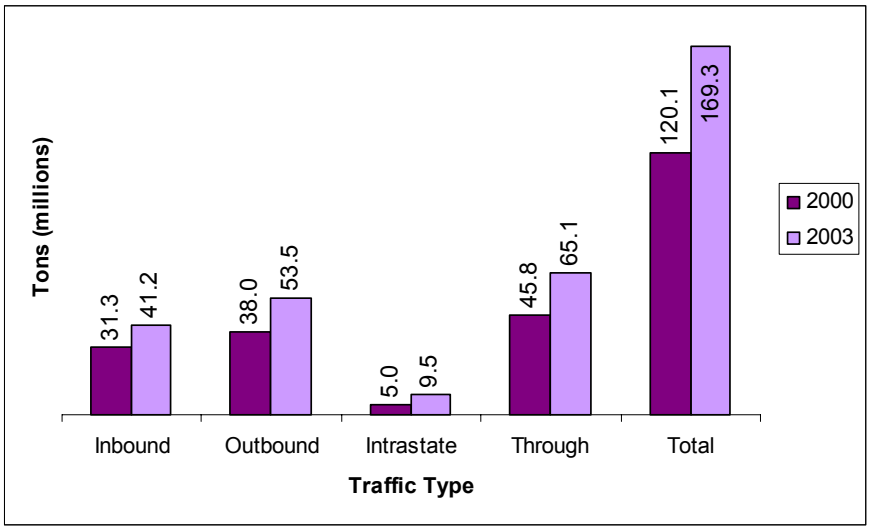
The package of improvements that address the needs identified for the Louisiana aviation system are detailed in **Chapter 9**. Some of the primary improvements are detailed below:

- Addressing infrastructure deficiencies for existing airports
- Acquisition of easements for obstruction removal
- Update of intrastate air service study
- Supporting continued development of passenger and air cargo facilities at all Louisiana commercial service airports
- Statewide funding of airfield and terminal capacity improvements
- Support of GA and Reliever Maintenance Program (GRF)
- Funding of a Statewide Aviation Marketing Program
- Increasing State support for aviation
- New runway at Louis Armstrong New Orleans International Airport

FREIGHT RAIL

Figure 7.29 contains the forecasted rail tonnage for the Year 2030. Overall, rail is projected to grow by 40 percent, though there is a great variance across commodities and regions. Food is projected to grow by 130 percent, chemicals by 35 percent, miscellaneous mixed shipments by 23 percent, and clay/concrete/glass by 180 percent. Commodities moving by rail and expecting a decline from current volumes include farm products (-45 percent) and coal (-11 percent). The largest growth in inbound rail traffic is expected to come from Mississippi (112 percent), with growth in inbound also from New England (101 percent), East South Central (74 percent), and Arkansas (71 percent). A decline of 15 percent is anticipated from the West Central Region (IA, KS, MN, MO, NE, ND, OK, SD) due to a reduction in grain moves. Outbound growth is expected for all regions with Arkansas (103 percent), West Central (75 percent), Texas (70 percent), and Mountain (60 percent) being the fastest growing. Intrastate rail tonnage is forecast to grow by 91 percent.

Figure 7.29
Forecasts of Louisiana Rail Tonnages[1]



Source: TRANSEARCH 2000, DRI-WEFA Forecasts

There are several potential impacts associated with the forecast increase in Louisiana rail traffic. Increased congestion on rail lines will directly affect the operational efficiency of the shippers and carriers that utilize Louisiana's rail network. Additionally, these forecasts direct attention to safety considerations at Louisiana's many rail-highway grade crossings. As rail traffic increases over the forecast period, care must be taken to mitigate hazards at key, high volume crossings. The issue of safety at these crossings was raised repeatedly during meetings of the Freight Rail Advisory Council.

The importance of small railroads to the Louisiana economy, particularly in rural areas, should not be underestimated. Small railroads serve a key niche in that they provide rail access to light-

[1] As through rail tonnages were not provided through the TRANSEARCH database, the 2030 through tonnage shown in **Figure 7.29** were derived from applying the proportion of through to total tonnage in 1999 (the year of the STB Waybill sample [which does include through rail tonnage] used in the Louisiana Statewide Rail Plan,) to total tonnage in 2030. A new total tonnage value for 2030 was then calculated, reflecting the addition of through tonnage.

industrial areas, typically found in rural or exurban environments, that otherwise would not have this service. As the shipping chain for light-industrial commercial enterprises requires rail access at some point, small railroads are extremely important for this sector of economic development. Small railroads also provide an extremely important service to the agricultural sector, serving as the primary means by which these commodities are brought to market.

Small Railroad Survey

As part of the *Louisiana State Rail Pl*an, all of Louisiana's short line and terminal/switching railroads were surveyed to determine future unfunded capital needs. The survey also sought to capture what short line and terminal/switching railroad operators thought of the overall service provided by their Class 1 connections, and to uncover their chief concerns. DOTD conducted the survey by mail. Follow-up efforts were made by telephone to encourage responses. DOTD received responses from all inquiries.

Small Railroad Unmet Capital Needs

Expressed needs consisted principally of rehabilitation of track and bridges. Much of the rehabilitation need was related to 286,000-pound cars. Total loaded car weights of 286,000 pounds represent about a 10 percent increase over previous maximum car weights. These cars are popular with shippers and Class 1 railroads as they represent opportunities to maximize loads and minimize operating costs. However, many short lines do not have the underlying track and structures capable of supporting these heavier cars.

One short line, Ouchita Railroad, cited a $13 million need to restore service to Bernice and Ruston. The line is a former Chicago Rock Island & Pacific Railroad line, and its southern extension from Lillie was abandoned several years ago. Ouchita Railroad officials related that resumption of service to these points would provide a rail alternative to shippers in Bernice, and a competitive alternative to the KCS for shippers in Ruston.

In contrast with the short lines, the switching and terminal railroads, the Lake Charles Harbor and Terminal District and the New Orleans Public Belt Railroad, cited comparatively few needs that were related directly to upgrades for handling 286,000-pound cars. LCHTD's needs pertained mostly to relieving congestion and handing increasing traffic. NOPB's largest projects are for a new rail deck on the Huey P. Long Bridge and upgrading switch and signal operations – neither of which is exclusively related to heavier cars. In all, short line and terminal/switching unfunded capital needs total $102.6 million, as shown in **Table 7.11**.

Table 7.11
Survey Results – Immediate Unfunded Capital Needs of Small Railroads

Short Line Railroad	Project Description	Purpose	Estimated Cost	Total Need
Acadiana Railway	Tie installation	Upgrade for 286,000-pound cars	3,750,000	
	Bridge upgrade	Upgrade for 286,000-pound cars	1,750,000	
	New rail	Upgrade for 286,000-pound cars	2,100,000	
	New ballast	Upgrade for 286,000-pound cars	1,100,000	8,700,000
Arkansas, Louisiana & Mississippi Railway	Bridge upgrade	Upgrade for 286,000-pound cars	1,000,000	1,000,000
Delta Southern	General rehabilitation of facilities	Upgrade for 286,000-pound cars	15,000,000	15,000,000
Gloster Southern Railroad	Bridge maintenance	Remove decay	200,000	200,000
Louisiana and Delta Railroad	Trackwork upgrade	Not reported	3,467,480	
	Locomotive upgrade	Not reported	175,000	
	Other equipment and maintenance items	Not reported	114,000	3,756,480
Louisiana & North West Railroad	New rail	Upgrade for 286,000-pound cars	7,500,000	7,500,000
New Orleans & Gulf Coast Railway	Track upgrade, Madison Street	Improve residential street on which railroad runs	700,000	
	Bridge repair, Belle Chase Lift Bridge	Repair bridge over Intracoastal Waterway Canal	200,000	
	Highway-rail crossing improvements	Improve crossings	250,000	
	Tie installation	Improve track	400,000	1,550,000
Ouchita Railroad	Bernice Extension	Restore track for rail service to Bernice, LA	3,000,000	
	Ruston Extension	Restore track for rail service to Ruston, LA	10,000,000	13,000,000
Timber Rock Railroad	New rail	Upgrade for 286,000-pound cars	7,000,000	7,000,000

Table 7.11 (Continued)
Survey Results – Immediate Unfunded Capital Needs of Small Railroads

Short Line Railroad	Project Description	Purpose	Estimated Cost	Total Need
New Orleans Public Belt Railroad	Paint removal, Huey P. Long Bridge	Remove lead base paint	500,000	
	Ballasted deck, Huey P. Long Bridge	Eliminate renewing of 35,000 timber bridge ties	12,000,000	
	Upgrades, East Bridge and West Bridge Jct.	Upgrade interlocking plants; consolidate towers	6,000,000	
	Continuous welded rail, Huey P. Long Bridge	Replace curve worn track	16,000	
	Main track improvement	Renew and upgrade 11.5 miles of main track	1,250,000	
	Rail yard tie replacements	Replace 21,000 ties for 286,000-pound cars	650,000	
	Rail yard lead switch replacement	Renew 35 yard lead switches	1,750,000	
	Bulk Yard Terminal near-term improvements	Replace ties, switches; return tracks to service	1,100,000	
	Bulk Yard Terminal long-term improvements	Add tracks for a new classification yard	5,500,000	
	France Yard long-term improvements	Increase capacity	1,000,000	
	New Alvar Yard	Build a new classification and intermodal yard	4,000,000	33,766,000
Terminal/Switching Railroads				
Lake Charles Harbor & Terminal District	New storage yard	Decrease congestion in existing yards	3,800,000	
	Track rehabilitation, Industrial Canal lead	Accommodate sugarcane shipments	3,400,000	
	Track rehabilitation, Bulk Terminal No. 1	Accommodate customer shipments	1,400,000	
	Track rehabilitation, City Docks	Accommodate increasing rail traffic	2,500,000	11,100,000
Total			**102,572,480**	**102,572,480**

Notes:
Class 1 Railroads were not surveyed to assess their needs.
This list of unfunded needs will be updated periodically.

PORTS & WATERWAYS

In 2001, the total value of trade handled by the Louisiana port system was more than $80 billion, with $50 billion in imports and $30 billion in exports. Most of the traffic, about 80 percent, is a transit for foreign trade. Major trading area for Louisiana in the US is defined as East North Central (IL, IN, MI, OH, WI) and East South Central (AL, KY, TN) regions. These regions account for 20 percent of total tonnage crossing Louisiana. Cargo movement generated within Louisiana (originated and destined in the State) amounts to about 13 percent of total.

In this planning effort, capacity is estimated at the overall, statewide level. Therefore, even if at the State level capacity appears to be sufficient, it does not exclude the possibility that at specific locations and for specific types of cargoes, there is a need for expansion of existing facilities or the creation of new facilities. The summary of capacity utilization is shown in **Table 7.12**.

Table 7.12
Capacity Utilization Factors

Existing Capacity in Tons *(Containers in TEUs)*

Commodity	2001	2005	2010	2015	2020	2025	2030
Coal	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
Coal and Other Bulk	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000	65,000,000
Containers (Louisiana)	700,000	710,000	860,000	860,000	860,000	860,000	860,000
Containers (Port of New Orleans)	500,000	510,000	660,000	660,000	660,000	660,000	660,000
General Cargo	21,000,000	21,500,000	21,500,000	21,500,000	21,500,000	21,500,000	21,500,000
Grain	100,000,000	100,000,000	100,000,000	125,000,000	140,000,000	140,000,000	140,000,000
Capacity Utilization							
Coal	5.9%	6.2%	8.4%	11.0%	15.4%	22.7%	35.2%
Coal and Other Bulk	49.0%	53.0%	70.0%	92.0%	118.0%	155.0%	206.0%
Containers (Louisiana)	44.0%	54.2%	57.4%	73.5%	94.9%	123.7%	162.5%
Containers (Port of New Orleans)	61.7%	75.5%	74.8%	95.8%	123.7%	161.2%	211.8%
General Cargo	99.4%	116.8%	146.0%	182.0%	229.2%	290.1%	368.8%
Grain	69.5%	79.9%	93.0%	88.8%	95.9%	116.2%	141.1%

Demand Capacity Relationship

Coal and Other Bulk Terminals

The cargo projections indicate minimal growth of coal exports and moderate increase of coal imports in the 2001-2030 period. In light of the recent trends in the world coal markets, these are still relatively optimistic assumptions. They reflect possibilities of disturbances in the world oil markets, and relatively quick improvement of economic conditions in the Latin American markets.

Even at these optimistic assumptions, the capacity of the Louisiana coal terminals significantly exceeds the projected coal trade volumes. The total capacity of coal terminals amounts to 50 million tons annually. The total coal trade volumes projected for the year 2030 are about 17.5 million tons. There will be, therefore, a significant long-term oversupply of coal handling terminals in the State. Facility utilization indices for coal terminals are: 11 percent in the year 2015, and less than 40 percent in the year 2030.

In that situation, it is projected that the trend to diversify cargo handled by these terminals will continue. As a result, all Louisiana coal terminals will continue to be minor coal terminals. Other commodities will constitute the majority of handled cargo, and their share in total shipments via coal terminals will continue to grow.

Other bulk commodities are expected to increase at a more substantial pace and reach about 42 million tons by 2010. Still existing coal and other dry bulk terminals provide sufficient capacity to accommodate all types of dry bulk at least up to 2010.

Grain Terminals

As shown in **Figure 7.30**, total grain exports (imports volumes are minimal) are projected to grow by about 3.5 percent annually in the period 2001-2030. According to this assumption, the demand for grain terminals will increase to 110 million tons in the year 2015, and 160 million tons in the year 2025. The current capacity of the Louisiana grain terminals amounts to about 100 million tons, annually.

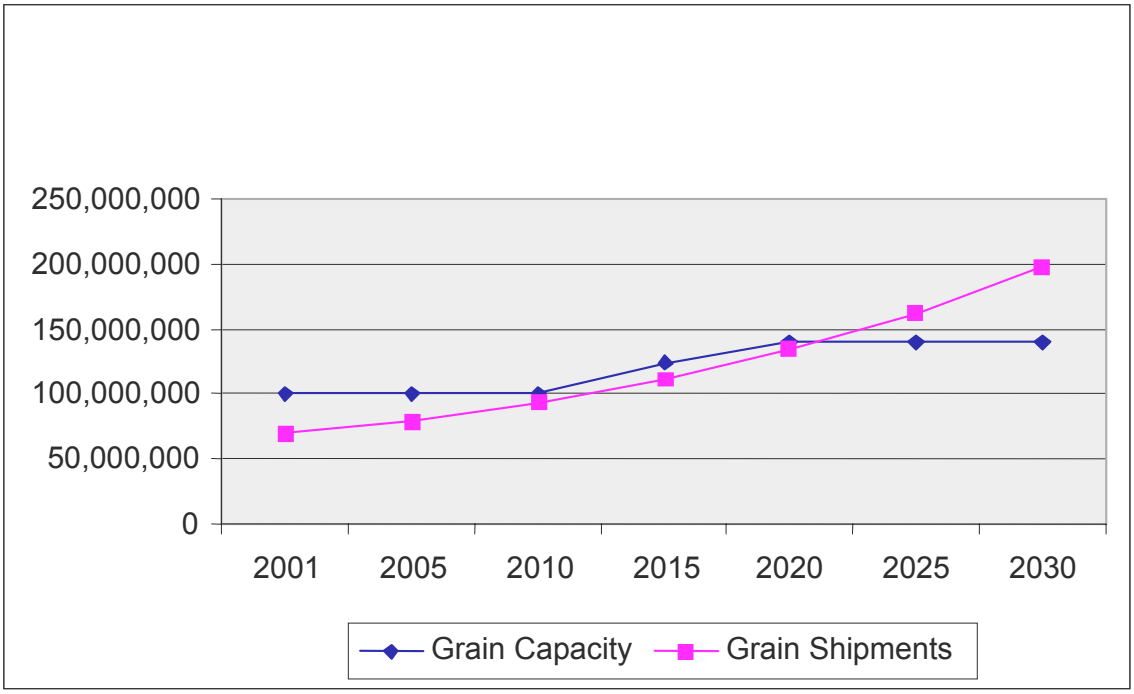
Review of existing facilities and operations indicate that:

- Capacities of land grain terminals may be increased by modernization and upgrades of the existing equipment up to about 20 to 25 percent. This will involve relatively limited investment. Additional capacity increases will necessitate more substantial investments in storage and blending facilities.
- The capacities of mid-stream operations may be quickly expanded at limited cost. Survey respondents indicated that a 50 percent increase is possible.

This leads to the conclusion that Louisiana grain terminals will be able to accommodate the projected cargo volumes under the following conditions:

- In the period 2001-2015, the projected grain trade may be handled by the existing infrastructure.
- Louisiana grain terminals utilization indices will amount to about 90 percent after 2010.
- In the years 2015-2030, some moderate expenditure will have to be made to expand the capacities of these terminals and mid-stream operations.
- Even in that period, there will be no need for building new terminals to handle the projected grain volumes until the year 2030; the needed capacity can be achieved by increased productivity, additional storage space, and other minor structural and non-structural changes.

Figure 7.30
Louisiana Grain Maritime Shipments and Capacities



General Cargo Terminals

In a long-term perspective, a significant increase of general cargo shipments is projected. General cargo export is projected to grow by about 3.5 to 4 percent annually, while imports will grow by about 5.4 percent annually.

In the year 2001, Louisiana shipments of general cargo amounted to almost 21 million tons. They are expected to increase to 30 million tons in 2010, and 50 million tons in 2020. If the projected trends materialize, in the year 2030, the demand for Louisiana general cargo facilities will amount to almost 80 million tons, as shown in **Figure 7.31**.

To be capable of utilizing these opportunities, the State's ports will have to significantly expand their general cargo terminals. Currently, general cargo utilization levels are almost 100 percent.

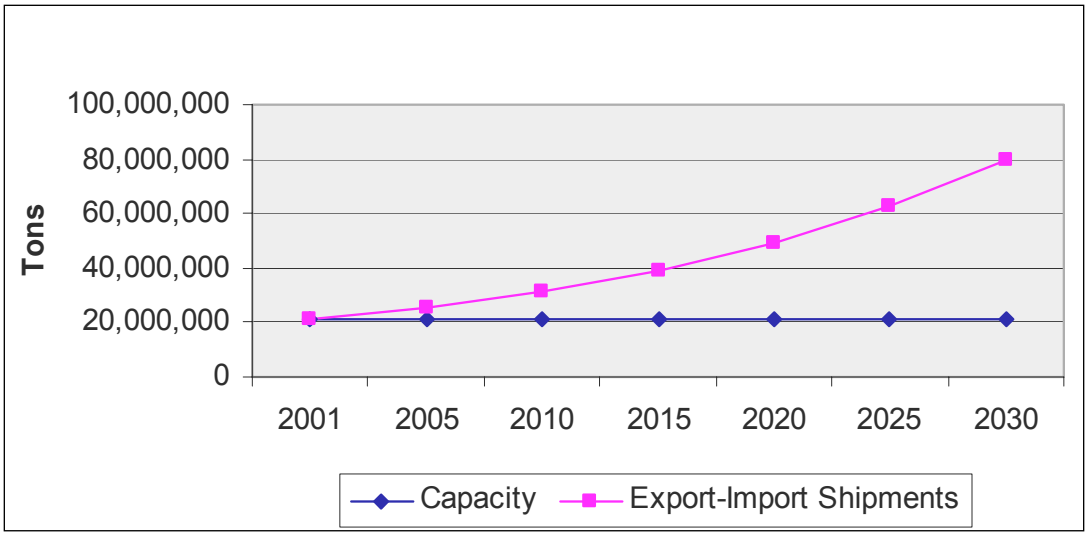
The expansion plans for general cargo terminals must be closely related to changes in the market place and respond to changes in cargo flows structure, as well as new cargo opportunities.

At current estimates, the total capacity of the Louisiana general cargo ports amounts to 23 million tons annually. The comparison of demand and supply data leads to the following conclusions:

- Louisiana ports will have to increase their general cargo handling capacities as an immediate priority to facilitate the projected cargo volumes. This conclusion stands valid even if additional capacities provided by private terminals are taken into account.
- Ports will also have to modify their existing facilities to accommodate changes in general cargo commodity structure.

- In the period 2001-2015, the total capacity of Louisiana general cargo terminals will have to be almost doubled.

Figure 7.31
Louisiana General Cargo Shipments and Capacity, 2001 – 2030



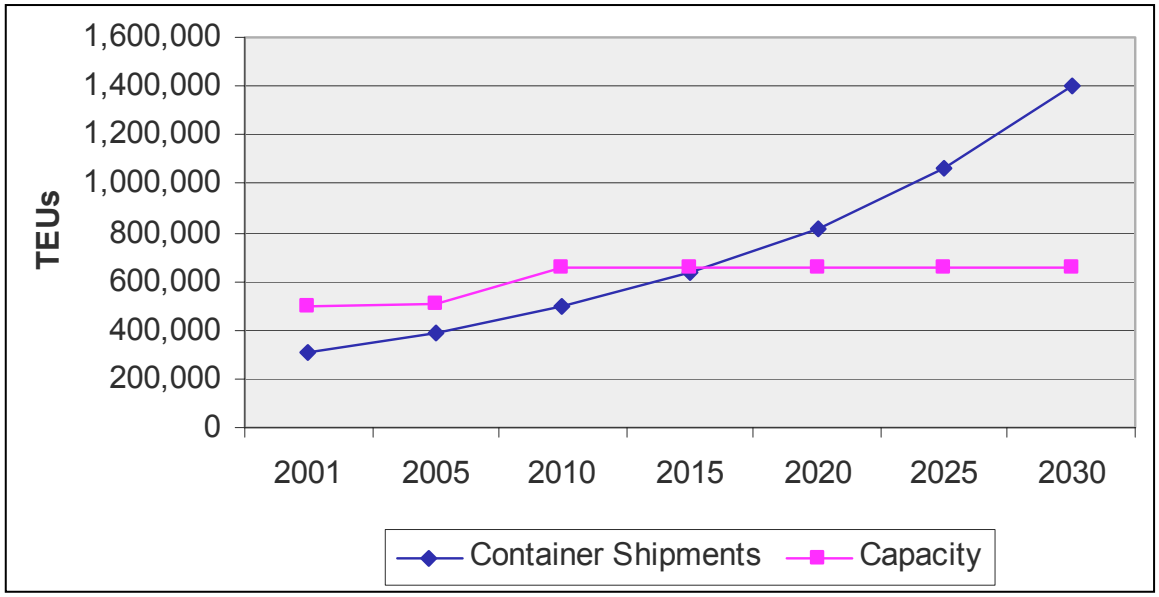
Containerized Cargo Terminals

The following conclusions emerge regarding demand and supply of container handling capacities in Louisiana:

- Container handling capacities at the Port of New Orleans, (Napoleon Terminal Phase I and Phase II) are adequate to facilitate short and medium term needs. Timing for implementation of Phase II expansion, depends on how long and to what extent container operations will continue at the France Road terminal. It is expected that these operations will be phased out by 2010 or possibly sooner. In the latter case, the Port of New Orleans may experience capacity deficits as early as 2005. Accordingly, Phase II of the Napoleon Terminal needs to be initiated without delay. In the year 2015, the utilization of the Port of New Orleans container terminal will amount to about 96 percent. This indicates that additional container handling capacities will have to be created in the Lower Mississippi River in the long term to accommodate the projected demand. This new terminal should eventually provide additional capacity equal to both phases of the Napoleon Terminal. **Figure 7.32** illustrates projected container shipments and capacities at the Port of New Orleans.
- At this time, container shipments at the Port of South Louisiana are small. The port has recently entered this business. It is possible that in the future when container activities develop, this facility will attract additional volumes of containers.
- The Port of Lake Charles is intending to significantly increase its container business. Basically, the emphasis is to attract short sea and expand barge services operating in the Gulf.

The projections presented equate to about a 5.4 percent annual growth in container trade. However, it is possible that structural changes in international container trade may provide additional cargo opportunities for the Gulf and Louisiana ports, e.g., diversion of Asian containers from landbridge to all water services. The detailed impact of market changes on cargo possibilities for Louisiana will require continued assessment of container shipping patterns.

Figure 7.32
Port of New Orleans, Container Exports and Imports, 2001-2030



Port Development Needs

Needs for expanding Louisiana port facilities result from:

- Necessity to provide sufficient capacity to handle projected cargo volumes.
- Need for increasing quality and efficiency of port facilities to insure the competitiveness of the Louisiana maritime industry and its capacity to capture new cargo opportunities.

Louisiana port projects that require public (state and federal) funding fall into several groups:

- Rehabilitation or expansion projects to assure sufficient capability (capacity) to meet projected demand.
- Projects related to technological advancement, increased productivity, and ability to capture emerging opportunities.
- Projects related to modernization and expansion of intermodal connectors.
- Projects to expand ports providing support for the supply and manufacturing needs of OCS (Outer Continental Shelf) exploration.
- Federal projects for safety, maintenance, and improvements of the State's waterways, which also require local cost sharing.

A number of examples of such projects are provided below. The following listing is shown as an illustration of the overall industry funding needs. The presented examples are neither prioritized

nor evaluated. The decision on their funding will be made according to rules and regulations of appropriate funding agencies or programs.

- Phase II of the development of the Napoleon Container Terminal at the Port of New Orleans.
- The second phase of the Port of South Louisiana strategic development plan involves a number of capacity increasing projects. For example, the Port plans to develop a second bulk cargo dock including a conveyor and adjacent storage facilities.
- The Port of Lake Charles developed plans to introduce an automated bag handling and loading terminal at the Contraband Bayou. A $15 million transit shed with associated automated bag handling and loading equipment is planned for construction at Berth 9A.
- Niche cargo markets, including LME metals, rubber, cotton, plywood and coffee require substantial warehousing in the vicinity of water terminals for storage and value-added processing. The demolition of transit sheds related to the development of Napoleon Container Terminal combined with the overall scarcity of warehousing space at the Port has created an urgent demand for developing additional warehousing areas. To respond to this demand the Port of New Orleans plans to initiate a series of investment projects with a total cost of about $24 million.
- A number of riverfront multi-purpose terminal improvements at the total cost of about $31 million planned by the Port of New Orleans to improve the capacity and efficiency of the port's multi-purpose terminals.
- A new $20 million container on barge terminal initiated by the Port of Baton Rouge will be critical for successfully launching and operating this service.
- Port Fourchon is creating conditions for capturing new offshore oil business. For that purpose, it initiated an $11 million Northern Expansion Project.
- The Port of Lake Charles proposes to create container-handling capacities at the City Docks location. The project includes the construction of a Roll On-Roll Off ramp, and related container yard improvements.
- To provide adequate access to the new container facility at the Port of New Orleans outside of downtown, an Intermodal Container Transfer Facility (ICTF) is proposed. The total cost of this project is estimated to be about $30 million.
- The Port of Lake Charles has for many years sought the development and construction of a direct truck access road from Interstate 210 to City Docks. In addition to improving access to port facilities this project will also open for development about 550 acres of waterfront property owned by the port. The total estimated cost of this project is $25 million.
- Maintenance and Operations of Louisiana waterways such as: the Atchafalaya River, Houma Navigation Channel, Bayou Lafourche, or Red River Waterway have critical importance to insure safe navigation and uninterrupted barge movements to/from Louisiana shallow draft ports.
- Deepening of the Atchafalaya River Navigation Channel to 35 feet from Morgan City to the Gulf of Mexico for providing direct access to Port of Iberia by also,

incorporating improvements to the Acadian Navigation Channel.

- Enlargement of the Calcasieu Ship Channel. This is needed to improve safety due to increasing commerce in the channel, particularly due to significant expansion of LNG terminals in the area.

Estimates of Investment Requirements

The recommendations presented below have been formulated based on the summary of the following factors:

- Development trends presented in the preceding sections of this report.
- Review of recommendations included in original SITP, published in 1996.
- Definition of the future needs, summarized above in five groups.
- Projected growth of demand.
- Recommendations provided by the Ports and Waterways Advisory Council.
- Examination of the various ports' financial capabilities.

A level and structure of annual investments in port development, is shown in the **Table 7.13**. Public funds are provided mostly by the Port Priority Program at the level of $24.5 million per year and by the State Capital Outlay Program. The latter program does not guarantee any specific funds for ports; and it fluctuates from year to year, depending on the competitive infrastructure needs in the State. Based on the past history of Capital Outlay appropriations, it can be assumed that this program on average contributes about $17 million to ports annually.

Table 7.13
Estimated Investment Needs

	Year 2002		Average 2003-2007		Year 2007	
Source of Funds	**000s**	**share**	**000s**	**share**	**000s**	**share**
Port Priority Program	24.5	7%	37.3	8%	50.0	9%
Capital Outlay Program	17.0	5%	17.0	4%	17.0	3%
Self-Generated Funds	91.0	24%	109.0	24%	127.0	24%
Subtotal	**132.5**	**35%**	**163.3**	**36%**	**194.0**	**36%**
Private Investments	244.0	65%	292.5	64%	341.0	64%
Total	**376.5**	**100%**	**455.8**	**100%**	**535.0**	**100%**

Self-generated funds have been obtained from a survey of actual expenditures by the State's ports commissions and average amount $91 million per year. It is well established that the ratio between private investments by port users and port commissions is about 1.8; this yields about an expected $244 million in private funds dedicated to port facilities and equipment. In total, therefore, in the recent past, the State ports have been investing more than $376 million per year, with public funds constituting 12 percent of this amount.

In the consensus reached by the Advisory Council, it is recommended that:

- In the short-term it is imperative that the Louisiana Port Priority Program funding be restored to $24.5 million.

- Subsequently, this program funding must be increased at a minimum, by $5 million increments in the next 5 years to reach in 2007, the amount of $50 million. This assumes that no more than $17 million annually will be available from the State General Fund (Capital Outlay).

This recommendation is also consistent with conclusions of the original SITP, made in 1996. It should be noted that out of the average annual investments by ports over the next five years of $163 million, about $117 million (or more than 70 percent) have been already dedicated by individual port commissions to specific projects.

There is currently a backlog, estimated at about $1.5-1.7 billion, for improvements in federally-maintained waterways in Louisiana, expected to be implemented in the next 5 years. In accordance with the existing federal cost sharing regulations, the State might need to contribute about $250-300 million as a matching share. It is expected that each of these projects will be assessed by the State individually with funding provided based on benefits to Louisiana.

Similarly connectors to ports are expected to be evaluated, based on their merits, by the DOTD and MPOs, and, most probably, funded by partnerships between Federal, State, and local sources.

Strategic Issues Relating to Ports and Waterways

A summary of the initiatives and issues discussed at the Ports and Waterways Advisory Council meetings are listed below.

Marketing

- *Public Awareness Program*- Louisiana ports cooperating with other economic development agencies in the State need to conduct a public awareness program emphasizing the benefits of water transportation and the economic impacts of the maritime sector.
- *Market Promotion* - Two broad areas of market promotion were identified. The first category is business negotiations and providing incentives to prospective clients to locate at individual ports, which is the responsibility of that port. Second, is a statewide marketing effort to attract industrial tenants, publicizing the location advantages, tax incentives, and facilities and services provided at public ports. This effort is the collective responsibility of statewide economic development agencies (principally the Department of Economic Development) and the Louisiana Ports Association.

National Policy Issues

- *Cost Sharing – COE Projects*- It is recommended that a major lobbying effort be undertaken to change the new federal cost sharing requirements for dredging projects. The requirement that the state or local sponsor must agree to pay 50 percent of the channel maintenance cost is a long-term commitment that most state or local governments are unable to comply with.
- *Maintenance Costs* – It was suggested that waterways maintenance should remain a federal responsibility, and local matching requirements on channel deepening should not exceed 25 percent of project costs.
- *Environmental Policies*- The Council noted that national environmental policies and concerns constrain waterway projects, mainly because these studies fail to consider the environmental benefits of water transportation. The development of a cohesive

industrial development policy with more involvement from DEQ and other federal agencies was recommended.

- *Monitoring National Policies* – The Advisory Council suggested that because of the vital importance of the maritime industry to the state economy, more concerted efforts should be directed to provide input in the formulation of national policies. An effective system should be developed in close communication with the Louisiana Congressional Delegation and by building coalitions with states in the Midwest.

Infrastructure Issues

- *The Offshore Oil and Gas Industry* – The State must pay adequate attention to the intermodal transportation needs of the rapidly expanding offshore oil and gas industry.
- *Upgrading the Mississippi River System* – The Advisory Council expressed support for the lock extension projects on the Upper Mississippi and in Louisiana and noted that these measures are needed to maintain the efficiency of inland barge transportation.
- *Connectors and Port Access*- The ports with access roads which are not in the State maintained highway system should explore the possibility of exchanging the roads in question with other roads within the same parish that are currently maintained by the DOTD.

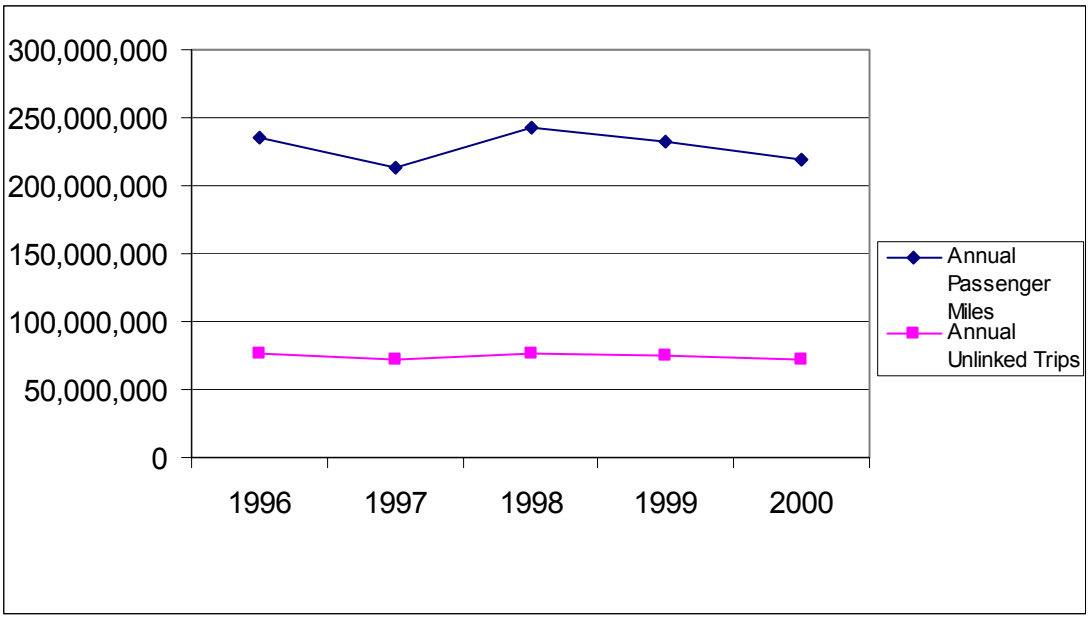
SURFACE PASSENGER

Transit Issues

Ridership

Based on figures for urban public transit systems in Louisiana that have more than nine vehicles, it can be concluded that ridership continues a downward trend. During the last four years annual unlinked passenger trips decreased by 5 percent. With the exception of the Baton Rouge Capital Transportation Corporation (CTC), which has shown strong growth in recent years, and ATRANS in Alexandria, all other systems had a downward ridership trend including the New Orleans Regional Transit Authority (RTA), Jefferson Parish Department of Transit Administration (Jet), City of Lafayette Transit (COLT), Shreveport Area Transit System (SporTran), City of Monroe Transit Systems (MTS) and Terrebonne Consolidated Government. **Figure 7.33** shows annual passenger miles and annual unlinked trips, based on the urban systems which have more than nine vehicles.

Figure 7.33
Louisiana Ridership Figures Annual Unlinked Passenger Trips



Local Match Requirements for Transit

A major issue in Louisiana is inadequate local match monies for transit, which is currently 20 percent for capital projects. It should be noted, however, that pending federal legislation is proposing increasing the local match requirement to either 40 or 50 percent rather than at its current level. This is especially important for Louisiana cities, given the high level of poverty and weak economic conditions.

Service Coordination

In many parishes service is so limited (or non-existent), that transit is not an option for many people. One of the major concerns remains the low service level in rural areas. Further, many times coordination has been lacking between the adjacent urban systems or between urban areas and surrounding rural areas. Examples can be found in the New Orleans and Alexandria areas. The urban transit system in New Orleans, the RTA, mainly provides service in Orleans Parish; however, there has been negligible cooperation with surrounding parishes, especially Jefferson Parish although it has improved in recent years. The service within the Alexandria urban areas is adequate, however there hardly exists any connectivity to the rural areas. This leaves people in the rural areas with no alternative but to use private automobiles.

Parishes Without Public Transit

In 1999, the State adopted *Louisiana: Vision 2020* as its economic development master plan. Vision 2020 has three primary goals and nearly 30 objectives. Progress is measured through benchmarks, some of which are directly related to transportation. Benchmark 2.3.7 is especially focused on surface passenger transportation, and is summarized in **Table 7.14.**

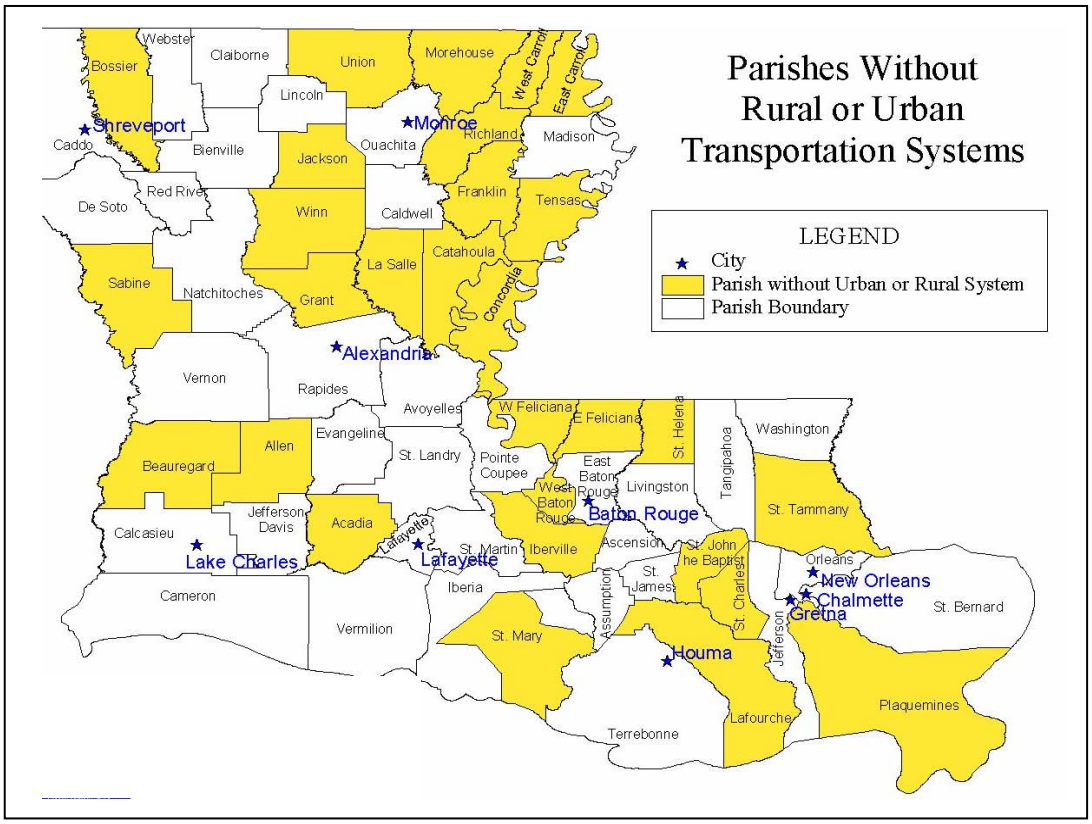
Table 7.14
Louisiana Vision 2020 Benchmark 2.3.7

	Baseline Statistic Used	2003	2008	2013	2018
	1997				
Number of parishes with a public transportation system	**42**	**47**	**52**	**58**	**64**

Source: Vision 2020 Master Plan for Economic Development

The number of transit systems in the above table includes both urban and rural systems. Urban systems include fixed route bus, streetcar and demand response services. Vision 2020 calls for every parish to have a transit system by 2018. However, the number of transit systems has declined to 39 (as of 2001): 10 urban and 29 rural systems (There are four parishes who have both an urban and rural system). Currently, there are 29 parishes, primarily rural, without a system, many of them are located in the northeast part of the State. The total population in parishes without transit is 1,014,447 (2000 census). The parishes without rural or urban transportation systems are shown in **Figure 7.34.**

Figure 7.34
Parishes Without Rural or Urban Transportation Systems



Costs of Service Provision

The following are estimates of the annual costs, by government sector, required to provide basic public transportation services in each parish:

- Federal: $12 million/year
- State: $6 million/year
- Local: $6 million/year

These costs represent those required to provide the necessary physical and administrative resources so that all Louisiana parishes are served by public transit.

Passenger Rail Issues

Operating and Financial Characteristics of Amtrak

In recent years, with the introduction of new management techniques and the Acela High Speed Rail system serving the Northeast Corridor, Amtrak ridership and revenues have increased significantly. Unfortunately, so too have operating costs. **Table 7.15** summarizes the 1996-2000 operating and financial characteristics of Amtrak.

Table 7.15
Amtrak Performance and Financial Characteristics 1996 - 2000
(Numbers are Millions of People or Dollars)

	1996	1997	1998	1999	2000
Intercity Ridership	19.7	20.2	21.1	21.5	22.5
Contract Commuter	45.9	48.5	54.0	58.3	61.6
Total Ridership	65.6	68.7	75.1	79.8	84.1
Total Revenues	$1,555	$1,674	$2,285	$2,011	$2,111
Total Expenses	$2,318	$2,436	$2,638	$2,744	$2,875
Operating Loss	($736)	($762)	($353)	($702)	($768)

Source: Amtrak Annual Reports

The Political Debate

Originally formed under the Nixon Administration in 1971, Amtrak was charged with the provision and maintenance of the passenger rail system nationwide. From its earliest years, Amtrak suffered from no clear mandate from Congress on its fundamental role: service provider or business unit. Consequently, over its 31 year history, it has done neither well. It has suffered and continues to suffer from inadequate levels of funding to address basic capital and operating needs. Of significant importance today are: infrastructure maintenance and upgrade (bridges, tunnels, track) and equipment refurbishment and replacement. Although its performance characteristics are improving, a national debate is still occurring among various elected officials, at all levels of government, concerning the role of Amtrak, if any, and of the national passenger rail system and the role government needs to play in addressing its operating and capital needs.

In Congress, Amtrak is always a hotly debated topic. In 2002, DOT Inspector General Ken Mead noted that Amtrak's "cash loses have not decreased and Amtrak is no closer to operational self-sufficiency now than … in 1997." Amtrak supporters maintain that factors other than operational self-sufficiency should be considered. They especially point out the role that Amtrak played in the immediate aftermath of the September 11, 2001 terrorist attack, in which Amtrak provided a viable and valuable alternative to air travel.

With the on-going debate in Congress, little actual progress is being made in the development of High Speed Rail (HSR) Corridors. Currently the only HSR service operating in the country is the recently opened Acela service along the Northeast Corridor (Washington to Boston). However, a total of eleven HSR corridors have been designated by the US Department of Transportation, including the Gulf Coast Corridor that is envisioned to connect New Orleans, with Houston, Birmingham, and Jacksonville. The Southern Rapid Rail Transit Commission, responsible for the Gulf Coast HSR Corridor, continues to advance various small projects regarding track and route analysis for selected portions of the corridor, evaluates grade crossing enhancements, and continues with strategic planning initiatives affecting the Commission and the Corridor.

Private Bus Carriers Issues

In addressing issues regarding private motor carriers, the operations of Greyhound Lines, Inc. were analyzed as it is the largest North American provider of intercity bus transportation, serving over 3,700 destinations with 21,000 daily schedules in the US and Canada and connections with all major bus lines in Mexico. The company also offers charter, package express, and food services. "We are the glue that binds rural and small towns and America's urban centers" a Greyhound executive recently stated. Greyhound today is actively engaging the public sector to raise awareness of the unique role the company can play in the provision of regional and statewide transportation services. Currently Greyhound is a major player in intermodal transportation, being a tenant in over 100 rural, small urban and urban intermodal centers throughout the US with planning and development for over 100 more.

New Initiatives

New areas of involvement by the company include the following:

- Commuter service
- Planning and development of regional intermodal transportation plans
- Service linkages with existing and planned air-rail-bus-train networks
- ITS applications and provision of applied information services

According to company literature, "Greyhound is now able to enter cost-sharing arrangements with local and state governments that minimize public outlay while sharing the risks and the rewards. We always hope that operating costs are borne by the farebox; but when that's not possible, a much smaller subsidy is required because in most areas Greyhound already has an investment in infrastructure and overhead."

Greyhound has expanded rural service in the last five years. The company is normally more cost competitive in rural areas. Currently they or their subsidiaries receive subsidies - either directly or indirectly - for rural intercity bus service in 15 states. As one example, Greyhound partners with South Central Arkansas to provide a local match for their state operating grant to provide feeder services and then Greyhound pays them a commission for each ticket they sell into the Greyhound system. Greyhound has been provided capital, operating, marketing and/or planning assistance, either directly or indirectly, from about 25 states. **Table 7.16** displays the passenger load analysis for Greyhound Lines.

Table 7.16
Greyhound Lines
1991, 1995, & 2000

	1991			1995			2000		
	Total Buses	Pass. Inbound	Pass. Outbound	Total Buses	Pass. Inbound	Pass. Outbound	Total Buses	Pass. Inbound	Pass. Outbound
Alexandria, LA	4,198	68,099	68,707	*			*		
Baton Rouge, LA	5,694	169,327	168,260	11,667	297,642	296,076	13,202	383,921	384,522
Lafayette, LA	4,024	110,732	111,735	*			*		
New Orleans, LA	12,954	296,230	296,135	10,270	197,402	182,837	9,048	191,816	183,529
Shreveport, LA	7,636	158,553	158,268	7,643	162,868	160,145	7,305	197,985	196,833

*Note-Greyhound discontinued using Alexandria & Lafayette as Control Points in 1992 and by-passed New Orleans, LA on selected schedules in 1999, thus reducing the number of passengers through New Orleans, LA (Baton Rouge, LA to Mobile, AL)

Ridership Profile

Greyhound, the nation's largest private bus carrier is representative of overall market trends in the motor carrier industry. Up until 9/11/01, the company was experiencing a roughly 8 percent annual growth rate during the period 1994 through 2000. Post 9/11 this rate of growth has declined: peak period travel is down 1 to 4 percent; off-peak travel is substantially worse. Company executives believe that the fundamental cause of this decline is the decision by potential riders to make discretionary trips by car. With regards to their ridership profile, according to Craig Lenzsch, president and CEO, "more riders are Latino (20-25 percent) and there has been a shift to an average younger age, however, senior citizens continue to be a significant part of the company's overall market."

Bicycle and Pedestrian Issues

One of the provisions of TEA-21 is to make bicycling and walking safer and more viable way of travel. States have been using the funding available through the federal Transportation Enhancement Program to make considerable improvements to their bicycle and pedestrian infrastructure. Louisiana has only recently begun to address these issues. DOTD has a staff person who coordinates bicycle projects at the State level; metropolitan planning organizations (MPOs) and various municipalities have been increasing their efforts to acquire TEA-21 Enhancement funds to provide bicycle and pedestrian facilities in their areas. Stronger efforts should be made to acquire funds available for bicycle and pedestrian uses and to continue efforts at providing the necessary infrastructure. Improving bicycle and pedestrian facilities relates to a planning factor of TEA-21; protecting and enhancing the environment, promoting energy conservation, and improving quality of life.

An important element in improving bicycle and pedestrian facilities in the State is the consideration of bicycle and pedestrian infrastructure, where feasible, as an integral part of the design process for highways and transit projects. In other words, consideration of those for whom bicycling and walking are their main forms of transportation should be routine procedure. For many states, this is already standard policy. For example, state highway projects should consider the feasibility of wide shoulders for use by bicycles; the replacement of bridges should consider dedicated bike lanes and pedestrian walkways; transit projects should consider getting bicycles onto buses or improving bicycle facilities at transit hubs. Doing so might encourage more Louisiana citizens to make trips by bicycle or on foot.

In order to prepare a 30-year transportation revenue forecast, it is necessary to review historic information as well as relevant future projections. Additionally, this needs to be done on a revenue source by revenue source basis because each revenue source is likely to grow at a different rate. By the same token, a 30-year forecast is highly speculative and one should not read too much specificity into the results. Rather it provides a planning-level sense of how current revenues forecasted into the future will match up with forecasted needs.

The following section provides background, growth trends, and comparisons to other states for each major revenue source used by the Louisiana Department of Transportation and Development. A brief review of the major revenue sources available to local governments is provided. In addition, other existing revenue sources not currently used by Louisiana, but which could be considered for future funding are also included. A discussion of innovative financing techniques is also included in this chapter.

REVENUE FORECASTS

The revenue forecasts have been prepared in two broad categories, highway funding sources and funding for non-highway modes. The highway funding sources include the Louisiana Transportation Trust Fund revenues including federal funds, self-generated funds, other revenue sources and Transportation Infrastructure Model for Economic Development (TIMED) revenues. The funding for non-highway modes includes aviation, transit, rail, ports and waterways, and bicycle and pedestrian, looking at both State and federal funding sources available.

HIGHWAY FUNDING SOURCES

The following is a discussion of the highway funding sources currently used by the DOTD.

Transportation Trust Fund Revenues

The Transportation Trust Fund was established in the State treasury effective January 1, 1990. The Transportation Trust Fund is a permanent fund into which all of the receipts received in each year from all taxes levied on motor fuels, which includes gasoline and special fuels, is deposited. Also, all monies appropriated by the Federal Highway Administration (FHWA) and the Federal Aviation Administration (FAA), either reimbursed or paid directly, are paid directly or deposited in and credited to the Transportation Trust Fund. By other legislative acts, the receipts from automobile license plate registrations and renewals, as well as from State sales taxes on aviation fuels are also deposited into the Trust Fund.

The monies in the Trust Fund are appropriated and dedicated solely and exclusively for the costs associated with construction and maintenance of the roads and bridges of the State and Federal Highway Systems, the Statewide Flood Control Program, ports, airports, transit, State Police for traffic control purposes, and the Parish Transportation Fund. Trust Fund monies are appropriated annually by the Legislature to ports, airports, flood control, State Police, Parish Transportation, and state highway construction. Though transit is an eligible activity for Transportation Trust Fund monies, to date, no funds have been directly appropriated from the Trust Fund for transit. Rather, monies are reserved for transit within the Parish Transportation Fund.

The constitution provides that the state generated tax monies appropriated for ports, Parish Transportation Fund, Statewide Flood-Control Program and State Police shall not exceed twenty percent of the annual state generated tax revenue in the Trust Fund. However, the 20 percent limit is calculated against the full 20 cent per gallon motor fuels tax, even though four cents of the tax is dedicated to the TIMED program and cannot be used for any other purpose. Additionally, the constitution directs that no less that one-cent of the tax on motor fuels and special fuels shall be appropriated each year to the Parish Transportation Fund.

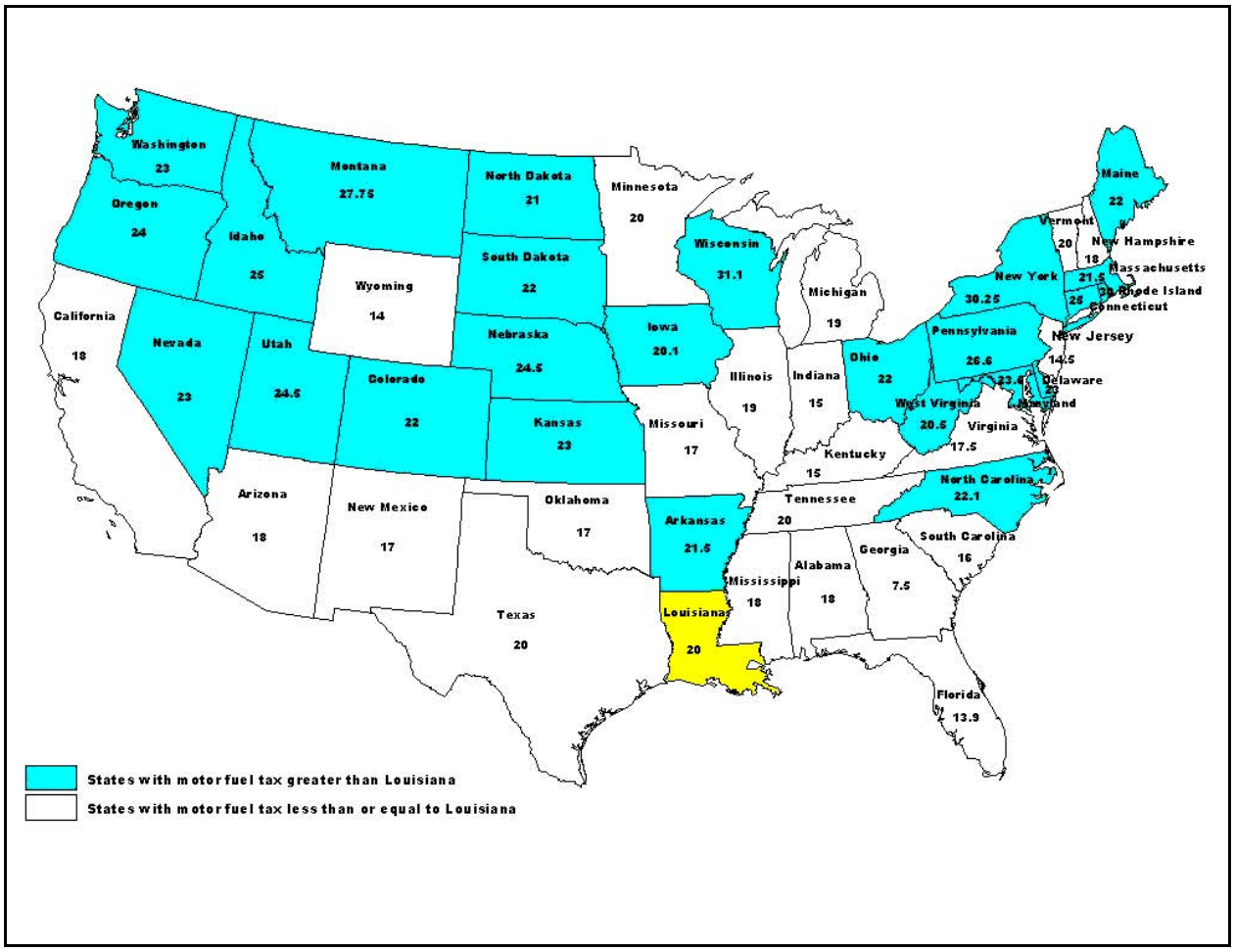
Motor Fuels and Special Fuels

"Motor fuels" is generally the term used for gasoline. Special fuels include diesel and Liquefied Petroleum Gas (LPG). The current tax rate in Louisiana for motor and diesel fuels is 20 cents per gallon (cpg). Four cents of the 20-cent tax is dedicated exclusively to the TIMED Program (discussed in more detail below). The tax rate for LPG is currently 16 cpg.

A state gasoline tax was first established in Louisiana in 1921. The rate was last raised in 1990 when the four-cent tax that is dedicated to the TIMED Program was begun. Prior to that, the rate was increased from 12 cpg to 16 cpg in 1985 in exchange for deleting the 4 percent sales tax on motor fuels.

The motor fuels tax in Louisiana is an excise tax. When Louisiana's excise tax is compared to the motor fuels excise tax for gasoline in other states, Louisiana falls within the middle range. Four other states in the nation have the same motor fuels tax rate for gasoline as Louisiana. Twenty-five states have a motor fuels tax rate that is higher than Louisiana's and 20 states have a rate that is lower. Of Louisiana's border-states only Mississippi has a lower rate. Louisiana has used the states of Alabama, Arkansas, Colorado, Kentucky, Mississippi, Oklahoma, and Tennessee as peer states. Of these states, only Arkansas and Colorado have a motor fuels tax rate for gasoline which is higher than Louisiana's. Tennessee has the same rate. See **Figure 8.1**.

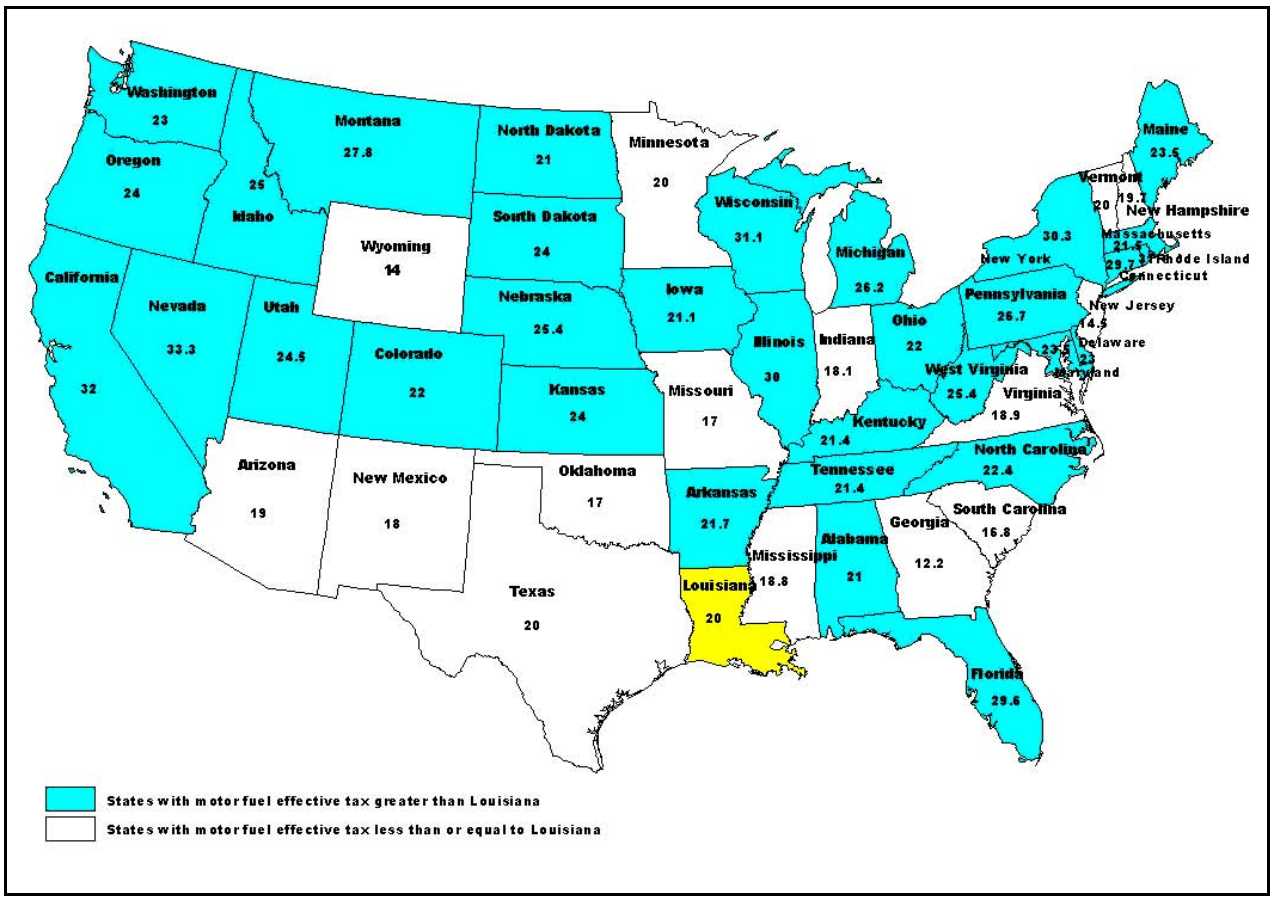
Figure 8.1
Motor Fuels Tax Rates for the United States



Note: Alaska (8cpg) and Hawaii (16cpg) are not shown.
Source: American Petroleum Institute, July 2002.

Some states have additional taxes on motor fuels. These additional taxes include applicable sales taxes, gross receipts taxes, oil inspection fees, underground storage tank fees, other miscellaneous environmental fees, and commercial motor fuel use fees. Adding these fees to the state excise taxes results in a volume-weighted average state tax of 23.6 cpg for gasoline across the nation. When these additional taxes are included in state motor fuels tax rates, three states in the nation have the same rate as Louisiana, 33 states have a higher rate, and 13 states have a lower rate. **Figure 8.2** shows the effective tax rates for motor fuels for the United States.

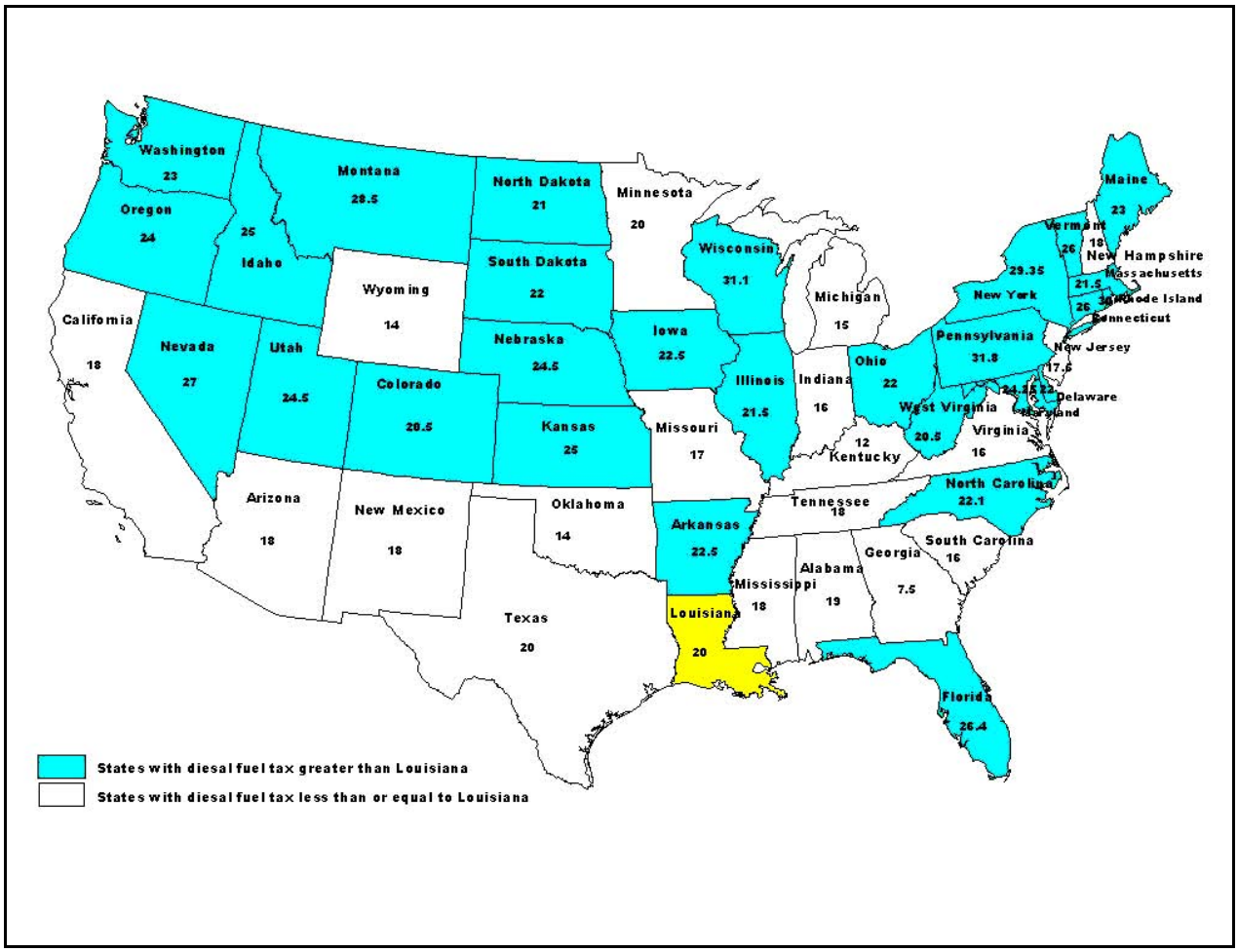
Figure 8.2
Motor Fuels Effective Tax Rates for the United States



Note: Alaska (8cpg) and Hawaii (35.1cpg) are not shown.
Source: American Petroleum Institute, July 2002.

Like motor fuels, the diesel fuels tax is an excise tax. The excise tax on diesel fuel is 20 cpg in Louisiana. Two other states have the same excise tax rate. Twenty-eight states have a diesel fuel excise tax that is higher than Louisiana's, and 19 states have a diesel excise tax rate that is lower. Of Louisiana's border-states, only Arkansas has a higher rate at 22.5 cpg. Of Louisiana's peer states of Alabama, Arkansas, Colorado, Kentucky, Mississippi, Oklahoma, and Tennessee; only Arkansas and Colorado have a higher excise tax rate for diesel fuel than does Louisiana. **Figure 8.3** shows the diesel tax rates for the United States.

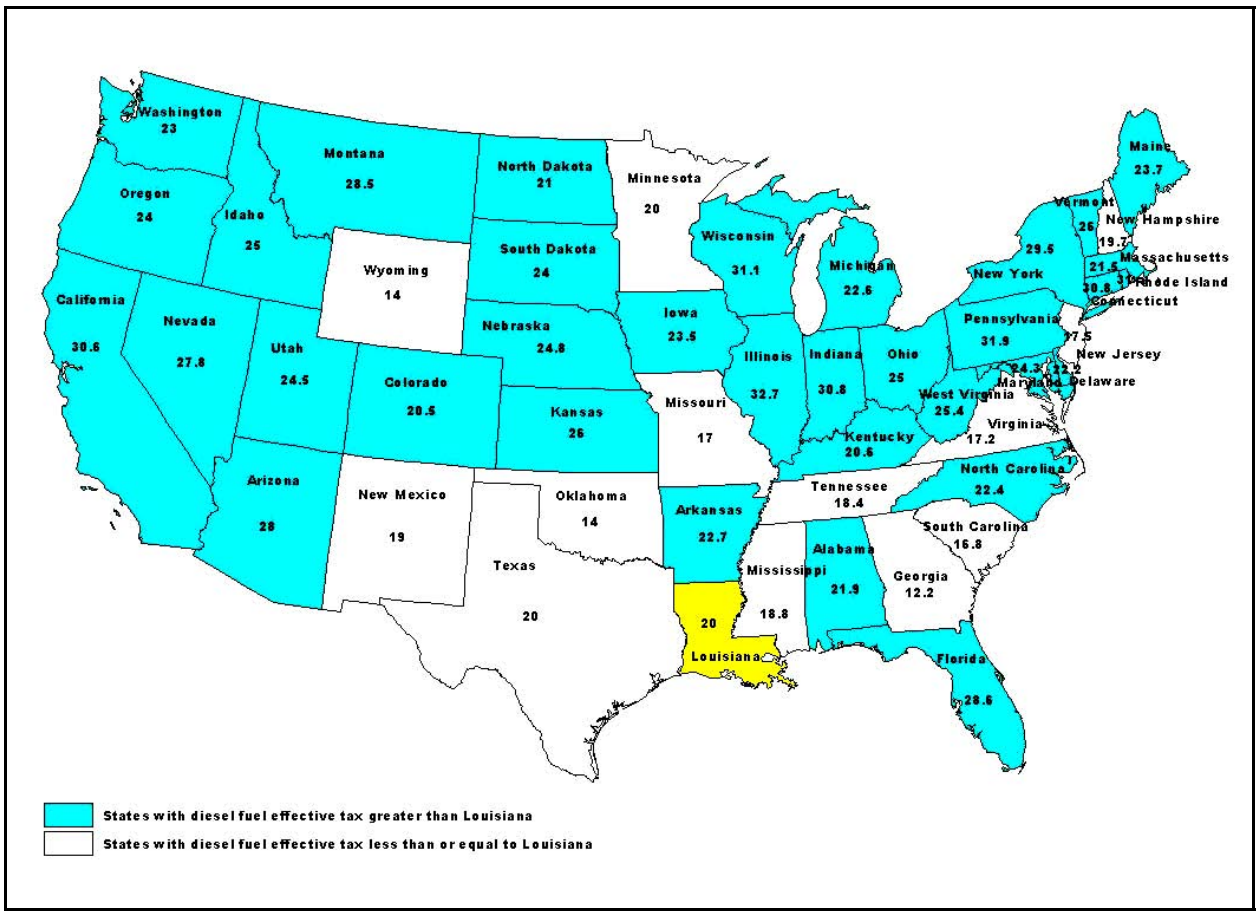
Figure 8.3
Diesel Tax Rates for the United States



Note: Alaska (8cpg) and Hawaii (16cpg) are not shown.
Source: American Petroleum Institute, July 2002.

Like motor fuels, some states have additional taxes on diesel. These additional taxes include applicable sales taxes, gross receipts taxes, oil inspection fees, underground storage tank fees, other miscellaneous environmental fees, and commercial motor fuel use fees. Adding these fees to the state excise taxes results in a volume-weighted average state tax of 23.6 cpg for diesel, the same average as for gasoline. When these additional taxes are included in state diesel tax rates, two states in the nation have the same rate as Louisiana, 35 states have a higher rate, and 12 states have a lower rate. **Figure 8.4** shows the effective tax rate for the diesel tax in the United States.

Figure 8.4
Diesel Tax Effective Rates for the United States



Note: Alaska (8cpg) and Hawaii (35.2cpg) are not shown.
Source: American Petroleum Institute, July 2002.

In order to forecast the future revenue from the motor fuels and special fuels tax, a number of factors such as the historic growth rate of the tax, population and employment forecasts, energy consumption, and travel forecasts can be considered. Louisiana's average annual growth rate for revenues collected from taxes on gasoline and special fuels is 2.14 percent (**Table 8.1**). What must also be considered is how likely it is that the future growth rate will mirror the historic growth rate. In order to determine the reasonableness of using the historic growth rate to determine the future growth rate, it is important to look at future forecasts where available. Motor fuels tax-revenue collections will be affected by factors such as population, employment, economic growth, energy consumption, and fuel efficiency. It is difficult to find projections, for these factors out to 2032, but projections for a shorter horizon are available.

In a demographic analysis provided by Woods and Poole, the population of the United States is projected to grow at a rate of 1 percent per year through 2025. The State of Louisiana is projected to grow slower than the rate for the United States, at approximately 0.6 percent per year through 2025. Historically, the population of the United States grew at an average rate of 1.3 percent from 1970 to 2001. During the same period, the population in Louisiana grew at an

average rate of 0.7 percent per year. These historic rates for population growth are consistent with the growth rates estimated for the next 30 years.

Table 8.1
Louisiana Historical Growth Rates for Revenues Collected from Taxes on Gasoline and Special Fuels[1]

91 to 92	1.62%
92 to 93	4.65%
93 to 94	(0.99%)
94 to 95	4.58%
95 to 96	2.74%
96 to 97	(1.49%)
97 to 98	7.39%
98 to 99	1.01%
99 to 00	2.48%
00 to 01	(2.02%)

According to Woods and Poole, employment for the United States is projected to grow at a rate of approximately 1.2 percent per year through 2025 and Louisiana is projected to grow at relatively the same rate. Historical employment data for the United States showed that from 1970 to 2001 employment grew at an average rate of 2.7 percent per year. Louisiana grew at an average rate of 2.3 percent per year during the same time period. This indicates that employment rates are projected to be slower for the next 25-year period than they were for the last 30-year period.

The Independent Petroleum Association of America (IPAA), in the report of their Supply and Demand Committee, projects that domestic economic activity, as measured by real (inflation-adjusted) Gross Domestic Product, is expected to grow by 3.0 percent. They project inflation to average 1.9 percent annually between 2000 and 2015. Energy consumption is projected to average 1.4 percent for the period of 2000 to 2015. US petroleum demand is projected to grow 1.8 percent annually between 2000 and 2005, by 1.3 percent from 2005 to 2010, and by 1.4 percent from 2010 to 2015. The IPAA also notes that growth in population and in travel per capita is expected to increase gasoline consumption which comprises over half of total transportation energy demand.

Vehicle fuel efficiency also affects revenue collections from motor fuel taxes. In the wake of the 1973 oil crisis, the US Congress passed the Energy Policy and Conservation Act of 1975. The act established the Corporate Average Fuel Economy (CAFÉ) program, which required automobile manufacturers to increase the sales-weighted average fuel economy of the passenger car and light-duty truck fleets sold in the United States. Average passenger car fuel efficiency rose from 18 miles per gallon (mpg) in 1978 to 27.5 mpg in 1985. The standards are currently set at 27.5 mpg for passenger cars and 20.7 mpg for light trucks. In 1996 provisions were added to the Department of Transportation's annual appropriations bill prohibiting the agency from changing or even studying CAFÉ standards. There are currently proposals in Congress to raise the

[1] *Source:* DOTD Budget Office.

standards to 38.3 for passenger cars and 32.0 for light trucks by 2013. However, even without congressional action, fuel efficiency is likely to improve due to technology innovations.

Taking all of the above data into consideration, it was determined that the historic growth rate of 2.8 percent should be tempered a bit for future projections. To be conservative, an annual growth rate of 2.0 percent was used. **Table 8.2** shows the revenue estimates out to 2032 for a one-cent motor fuels tax.

Table 8.2
30-Year Revenue Projection for 1 cent tax on Motor Fuels and Special Fuels
(In Millions of Dollars)

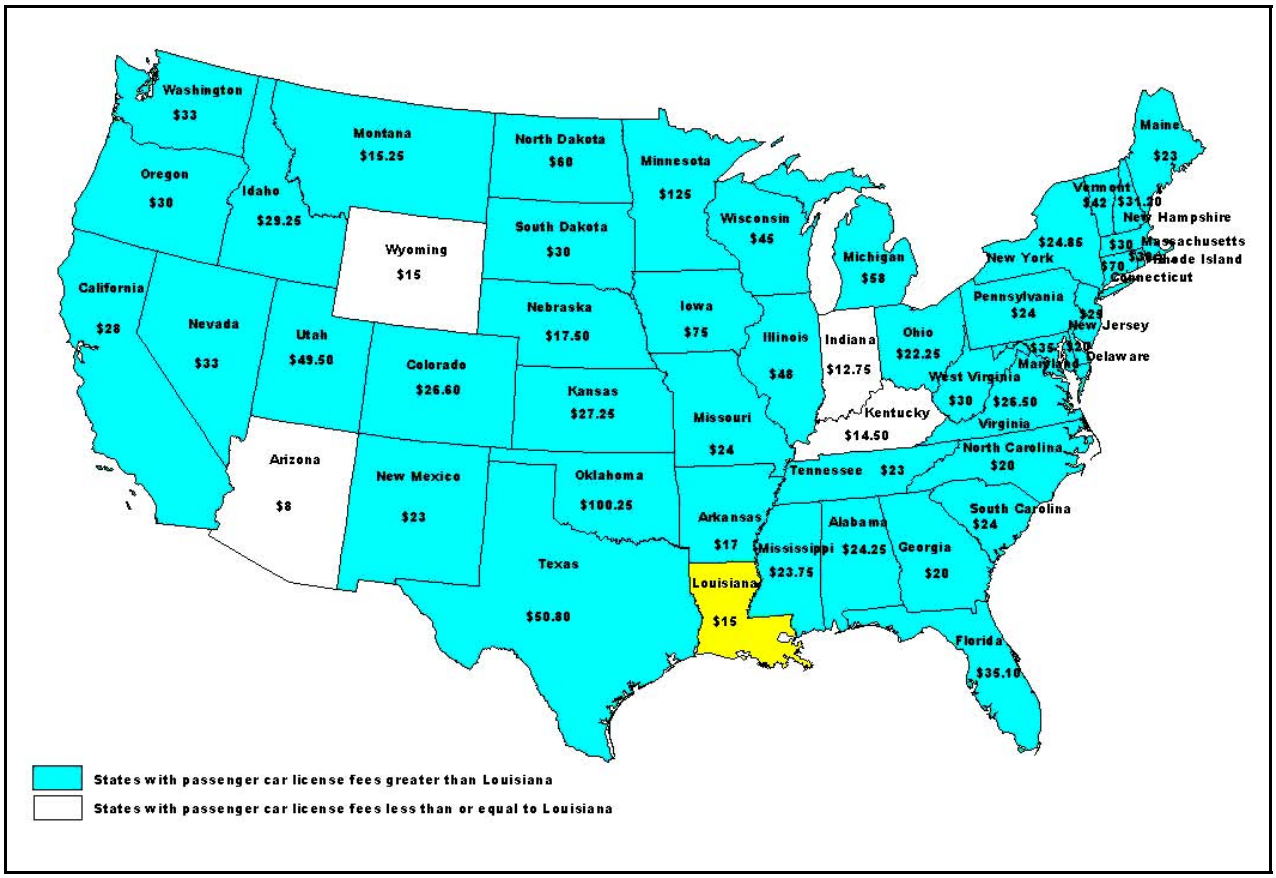
Revenue Source	FY 2002 Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
1 Cent Motor Fuels Tax	$27.5	$30.4	$33.5	$37.0	$40.9	$45.1	$49.8	$1,137.9

Passenger Car License Plate Registration

Passenger car (this category includes pick up trucks, vans, and SUVs) owners in Louisiana pay a registration fee on their automobiles and that fee is deposited into the Transportation Trust Fund. Passenger car license plate registration rates in Louisiana are based on the value of the vehicle. In some states, the rate is based on vehicle weight. The current registration rates in Louisiana range from $10 per year to $41 per year. The rate is $10 per year for a vehicle valued at $10,000 or less. The rate is $10 plus an additional $1 for each $1,000 in value above $10,000. There is also a heavy vehicle license fee in Louisiana for commercial vehicles, but that fee is not deposited into the Transportation Trust Fund.

In order to compare registration rates in different states, the Federal Highway Administration has defined a "typical" vehicle. The fee for the typical vehicle in Louisiana is $15. **Figure 8.5** shows the passenger car license plate registration rate for a "typical" vehicle for all of the states. Louisiana has one of the lowest passenger car license fees in the United States. Wyoming has the same rate as Louisiana and Indiana, Kentucky, and Arizona have a lower rate. All other states have a higher passenger car license fee than does Louisiana.

Figure 8.5
Passenger Car License Plate Registration for the United States



Note: Alaska ($68) and Hawaii ($88.70) not shown.
A 1992 4-door sedan of 3,111 pounds empty weight was selected as the "typical" passenger car.
Source: Federal Highway Administration, January 2001

Car ownership in the United States grew rapidly in the 1960s and the 1970s creating a situation where, by the early 1970s, there were more registered vehicles than licensed-drivers in the United States. This is a relationship that continues today. The ratio of registered vehicles to licensed drivers in the United States in 2000 was 1.43. This is to say that there are 1.43 registered vehicles per licensed driver. The same relationship holds true in Louisiana where there were 1.40 registered vehicles per licensed driver in 2000 (FHWA *Highway Statistics 2000*). Consequently, most of the growth that can take place due to households owning more vehicles has already taken place. Any additional growth in revenues due to license plate registration will likely come from population growth which increases vehicle ownership or from changes in the mix of vehicles registered changing the tax rate per vehicle.

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Between FY 1992 and FY 2001 passenger car registration collections in the Louisiana Transportation Trust Fund grew an average rate of six percent per year. Over the past five years, car registration collections in Louisiana grew by an average rate of 2.3 percent per year. However, during this same five-year time period, the number of registered vehicles in Louisiana grew at a low average rate of 0.6 percent per year and population in Louisiana grew by a modest

0.4 percent per year. The ratio of motor vehicles registered in Louisiana to population remained constant at approximately 0.43 for the five-year period.

It would be unrealistic to assume that revenue collections will grow by six percent per year for a 30- year period. Comparing the last five years of revenue collections with the growth anticipated for population in Louisiana, it is assumed that revenue collections from passenger car license fees will grow by 1.5 percent per year. **Table 8.3** shows the revenue estimate for license plate registration through the year 2032.

Table 8.3
30-Year Revenue Projection for License Plate Registration
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
License Plate Registration	$33.3	$35.9	$38.6	$41.6	$44.9	$48.3	$52.1	$1,268.8

Comparison of User Fees in the United States

A national comparison of taxes and fees paid by automobile users was prepared by Wilbur Smith Associates. Louisiana ranks 46th in the nation in fees and taxes paid by automobile users. This ranking has declined from 1990, when Louisiana ranked 36th in the nation.

Table 8.4 compares all state and local taxes and fees paid by automobile users. These taxes and fees include property taxes, license plate registration, and motor fuels taxes.

Table 8.4
Total Taxes and Fees for Mid-Sized Automobile

State	Auto Fee By Year		Rank	
	1990	2000	1990	2000
Alabama	$151.80	$259.56	17	30
Alaska	$90.00	$104.94	50	50
Arizona	$126.90	$426.67	34	18
Arkansas	$127.57	$396.85	33	21
California	$232.00	$530.41	3	12
Colorado	$149.50	$411.45	18	19
Connecticut	$261.76	$895.83	4	2
Delaware	$112.00	$143.33	41	44
Florida	$141.00	$199.14	24	35
Georgia	$131.00	$468.78	30	15
Hawaii	$105.00	$122.91	45	49
Idaho	$148.00	$205.75	20	32
Illinois	$190.00	$274.88	6	29
Indiana	$106.75	$326.60	44	25
Iowa	$105.00	$331.20	45	24
Kansas	$167.00	$719.46	11	6
Kentucky	$100.70	$315.22	47	26
Louisiana	$117.50	$131.70	36	46
Maine	$147.00	$692.75	21	8
Maryland	$129.00	$165.69	32	39
Massachusetts	$149.00	$703.66	19	7
Michigan	$159.00	$241.17	14	31
Minnesota	$115.00	$375.20	38	22
Mississippi	$157.15	$777.57	15	5
Missouri	$120.00	$433.57	35	16
Montana	$279.72	$479.54	2	14
Nebraska	$141.60	$410.77	23	20
Nevada	$180.31	$510.69	7	13
New Hampshire	$145.60	$535.52	22	11
New Jersey	$94.00	$144.30	48	43
New Mexico	$113.50	$127.64	39	47
New York	$169.60	$202.39	9	33
North Carolina	$112.50	$315.15	40	27
North Dakota	$132.00	$175.91	28	38
Ohio	$130.25	$152.62	31	40
Oklahoma	$94.00	$369.07	48	23
Oregon	$111.00	$138.04	42	45
Pennsylvania	$139.60	$180.49	25	36
Rhode Island	$299.56	$1,803.97	1	1
South Carolina	$156.00	$825.36	16	4
South Dakota	$117.40	$150.62	37	41
Tennessee	$107.10	$127.29	43	48

Table 8.4 Cont.
Total Taxes and Fees for Mid-Sized Automobile

State	Auto Fee By Year		Rank	
	1990	2000	1990	2000
Texas	$133.30	$178.50	26	37
Utah	$177.50	$300.90	8	28
Vermont	$133.00	$147.20	27	42
Virginia	$163.10	$837.93	12	3
Washington	$216.00	$612.08	5	9
West Virginia	$167.20	$546.16	10	10
Wisconsin	$160.20	$201.65	13	34
Wyoming	$131.03	$429.06	29	17
Average	**$147.49**	**$391.14**		

Sales Tax on Aviation Fuels

When the Transportation Trust Fund was created in 1990, it included a four-percent sales tax on aviation fuels. The funds are collected and deposited in the Transportation Trust Fund, but per the constitution, the funds can only be used for aviation. Because the aviation sales tax is collected by the state with the rest of the sales tax, there is no way to know precisely how much of the sales tax collection is attributable to aviation fuels. Since 1992, the Louisiana Department of Revenue has estimated the sales tax attributable to the four percent sales tax on aviation fuels to be $5 million. The $5 million is used to cover the administrative costs of the Aviation Division, provides funds for the Civil Air Patrol and provides funds for designated Capital Improvements at airports.

Future revenue collections for the sales tax on aviation fuels will be influenced by the growth or decline of general aviation and the cost of aviation fuels. General aviation activity in Louisiana is expected to grow, but not at a very robust rate. Based aircraft are projected to grow by 1.17 percent annually and general aviation operations are projected to grow by 1.1 percent annually.

It is difficult to predict the cost of aviation fuels. However, the long term view from WRTG Economics, a provider of data, analysis, planning, and forecasting to the energy and petrochemical industries, is that when controlled for inflation, crude oil prices will remain relatively constant. (WRTG Energy Economics Newsletter, Oil Price Analysis).

Based on the above information, a modest growth rate of one percent per year for the collection of the four percent sales tax on aviation fuels was used. **Table 8.5** shows the 30-year revenue projection for the aviation sales tax.

Table 8.5
30-Year Revenue Projection for Aviation Sales Tax
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
4% Aviation Fuels Sales Tax	$5.0	$5.3	$5.5	$5.8	$6.1	$6.4	$6.7	$175.7

Statewide Flood Control, Ports, State Police, and the Parish Transportation Fund.

There are several programs that do not provide revenue into the Transportation Trust Fund, but instead draw money from the Transportation Trust Fund for other programs. In order to estimate the ***available*** funds in the Transportation Trust Fund, it is first necessary to estimate how many dollars will be deducted from the fund to support these programs.

For purposes of this revenue estimate, it is assumed that statewide flood control, ports, State Police, and the Parish Transportation Fund will grow at the same rate as the overall rate by which all of the revenue sources are projected to grow. That average annual growth rate is about two percent. **Table 8.6** shows the 30-year projections for these programs.

Table 8.6
30-Year Projection for Other Programs
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Parish Transportation Fund	$40.0	$44.1	$48.5	$53.5	$58.9	$64.9	$71.6	$1,643.4
Statewide Flood Control	$10.0	$11.0	$12.1	$13.4	$14.7	$16.2	$17.9	$410.9
State Police	$40.0	$44.1	$48.5	$53.5	$58.9	$64.9	$71.6	$1,643.4
Ports	$25.0	$27.5	$30.3	$33.4	$36.8	$40.6	$44.7	$1,027.1
Total	$115.0	$126.7	$139.6	$153.8	$169.5	$186.7	$205.8	$4,724.9

Federal Funds

In addition to the state tax dollars which are used to fund the construction and repair of highways, Louisiana also receives federal funds to support highway construction and reconstruction. The Federal-Aid Highway Program is known as a federally-supported, but state-selected program because within the broad guidelines of the federal funding categories, states are free to select the projects that they fund with the federal dollars. There are a few exceptions, the most notable being federally earmarked projects. These are projects designated by Congress and typically the funds made available can only be used for a specifically designated project.

Federal highway funds are designated in multi-year bills. The funds are apportioned to states in categories and each category has its own funding formula. The multi-year bill provides the amount of "apportioned" funds, by category, by year, that each state will receive. However, on an annual basis Congress sets what is called an "obligation limitation." The obligation limitation is usually couched in a percentage and it limits the total amount of apportionment that a state may expend in that year. Consequently, in any given year, no state is able to spend 100 percent of their apportioned funds.

An analysis of the federally apportioned funds received by the State since 1970 shows that federally apportioned funds to Louisiana for highways have grown an average of 8.85 percent per year over the 30-year period. An analysis of the last 10 years of congressionally set obligation

limitations shows that it has averaged 90.45 percent. This is to say that on average, Louisiana has only been able to spend 90.45 percent of their apportioned federal funds. In order to estimate the federal highway funds that will be available to Louisiana it is important to take into consideration the obligation limitation.

It is unreasonable to assume that federal fund apportionments will grow at nearly 9 percent a year for 30 years. Even major transportation interests groups that are advocating for additional federal funds through the next reauthorization act, are looking at increases of three to four percent. Consequently, it is assumed that federal fund apportionments will grow an average of three percent per year, but that the obligation limitation will average 90.5 percent, reducing the funds available to spend each year by 9.5 percent. **Table 8.7** shows the 30-year revenue projections for federal funds.

Table 8.7
30-Year Revenue Projection for Federal Highway Funds
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Federal Apportionments	$448.5	$519.9	$602.7	$698.7	$810.0	$939.1	$1,088.6	$21,977.7
With Obligation Limitation of 90.5%	$405.9	$470.5	$545.5	$632.4	$733.1	$849.8	$985.2	$19,889.8

In addition to apportioned funds, states have also been receiving earmarked, or demonstration project funds, since 1982. Earmarked funds are projects specifically named by Congress and the funds earmarked can only be used on the designated project. The practice of earmarking funds began in 1982 and has grown enormously since that time. Since FY 1992, Louisiana has averaged $20.9 million per year in earmarked funds. However in the last five years, the State received an average of $27.7 million per year. Consequently, it has become a significant source of funding and it is a source of funding that is likely to continue into the future. Because the funds are earmarked by Congress for specific projects, it is difficult to predict the basis for how the funds will grow.

For purposes of this estimate, it is assumed that earmarked funds for the Louisiana will grow at about the same rate as federal funds overall. An assumed growth rate of 3 percent was used to estimate earmarked funds. **Table 8.8** shows the 30-year revenue projection for federal earmarked funds.

Table 8.8
30-Year Revenue Projection for Federal Earmarked Funds
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Federal Earmarked Funds	$33.6	$39.0	$45.2	$52.3	$60.7	$70.4	$81.6	$1,646.5

Summary of Transportation Trust Fund Revenue Sources

Table 8.9 provides the estimate through 2032 for all sources of funds in the Louisiana Transportation Trust Fund.

Table 8.9
Louisiana Transportation Trust Fund
(In Millions of Dollars)

Funding Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
State Revenue Sources								
Motor Fuels	$440.00	$485.80	$536.40	$592.20	$653.80	$721.90	$797.00	$18,207.00
Auto Registration	$33.30	$35.90	$38.60	$41.60	$44.90	$48.30	$52.10	$1,268.80
Aviation	$5.00	$5.30	$5.50	$5.80	$6.10	$6.40	$6.70	$175.70
Subtotal	**$478.30**	**$526.90**	**$580.50**	**$639.60**	**$704.80**	**$776.60**	**$855.80**	**$19,651.40**
Transfers Out of Trust Fund								
Flood Control	($10.00)	($11.00)	($12.10)	($13.40)	($14.70)	($16.20)	($17.90)	($410.90)
Ports	($25.00)	($27.50)	($30.30)	($33.40)	($36.80)	($40.60)	($44.70)	($1,027.10)
State Police	($40.00)	($44.10)	($48.50)	($53.50)	($58.90)	($64.90)	($71.60)	($1,643.40)
Parish Transportation	($40.00)	($44.10)	($48.50)	($53.50)	($58.90)	($64.90)	($71.60)	($1,643.40)
Subtotal	**($115.00)**	**($126.70)**	**($139.60)**	**($153.80)**	**($169.50)**	**($186.70)**	**($205.80)**	**($4,724.90)**
Federal Revenue Sources								
Obligations[1]	$405.90	$470.50	$545.50	$632.40	$733.10	$849.80	$985.20	$19,889.80
Earmarked Funds	$33.60	$39.00	$45.20	$52.30	$60.70	$70.40	$81.60	**$1,646.50**
Subtotal	**$439.50**	**$509.50**	**$590.60**	**$684.70**	**$793.80**	**$920.20**	**$1,066.80**	**$21,536.30**
Grand Total	**$802.80**	**$909.70**	**$1,031.60**	**$1,170.50**	**$1,329.10**	**$1,510.10**	**$1,716.80**	**$36,462.80**

1: Based on estimated apportionments with estimated obligation limitation applied.

Transportation Infrastructure Model for Economic Development

The Transportation Infrastructure Model for Economic Development (TIMED) Plan is financed through a dedicated four-cent tax on motor fuels and special fuels. The program was enacted in 1989 and the revenue increase was effective in 1990. The TIMED Plan includes a specific list of projects for which this funding is available. As the TIMED revenues are motor fuel taxes, it was assumed that they would grow at the same rate of 2 percent per year. **Table 8.10** shows the 30-year revenue estimate for TIMED.

Table 8.10
30-Year Revenue Projection for
Transportation Infrastructure Model for Economic Development (TIMED) Funds
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
TIMED 4-Cent Motor Fuel Tax	$110.0	$121.4	$134.1	$148.0	$163.5	$180.5	$199.2	$4,551.7

Self-Generated Funds

The DOTD also receives revenue from several sources which are termed "Self-Generated Funds." The Self-Generated Funds principally include revenues from permits, fees, and fines collected by the Weight and Standards Section, from ferry tolls, and from miscellaneous sources and for funds generated by the Crescent City Connection which is dedicated for use in debt service and operation of their facilities. Historical data on self-generated fund revenues was used to estimate an average yearly growth rate through year 2032. The historical data indicated that the average yearly growth rate was 3.3 percent per year from 1993 to 2002. Due to some fluctuations in year-to-year revenues, a more conservative average growth rate of 2.5 percent per year was assumed for self-generated funds. **Table 8.11** shows the 30-year forecast for the self-generated funds.

Table 8.11
30-Year Revenue Projection for Self-Generated Funds
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Self-Generated Funds[1]	$37.0	$41.9	$47.4	$53.6	$60.6	$68.6	$77.6	$1,665.0

1: Self-Generated funds include funds generated by Crescent City Connection; dedicated for use in debt service and operation of their facilities, as well as unrestricted funds from permits, fees, and fines collected by Weight and Standards Section, from ferry tolls and from miscellaneous sources.

Other Revenue Sources

Additionally, there are other minor sources of revenue, such as earned interest, reimbursements for damage to state property, etc. For these other, minor sources of revenue, an annual average growth rate of three percent was used. **Table 8.12** shows the 30-year forecast for the other revenue sources.

Table 8.12
30-Year Revenue Projection for Other Revenue Sources
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Other Revenue Sources	$41.5	$48.1	$55.8	$64.7	$75.0	$86.9	$100.7	$2,033.6

Summary of Total Funds Available for Highways

Table 8.13 provides an estimate through 2032 for all sources of funds available for highway spending in Louisiana. In order to determine the total funds available for highway spending, those funds required for operating expenses must be set aside. Operating expenses were 47 percent of total available Transportation Trust Fund revenues (excluding dedicated funds) in Fiscal Year 2002, the Baseline year. An annual compounded growth rate of approximately 2.4 percent was used to create a 30-year forecast of operating expenses.

Table 8.13
All Highway Funding Sources
(In Millions of Dollars)

Funding Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Transportation Trust Fund[1]	$802.8	$909.7	$1,031.6	$1,170.5	$1,329.1	$1,510.1	$1,716.8	$36,462.8
TIMED Funds[2]	$110.0	$121.4	$134.1	$148.0	$163.5	$180.5	$199.2	$4,551.7
Self-Generated Funds[2]	$37.0	$41.9	$47.4	$53.6	$60.6	$68.6	$77.6	$1,665.0
Grand Total	**$949.8**	**$1073.0**	**$1,213.0**	**$1,372.2**	**$1,553.2**	**$1,759.1**	**$1,993.7**	**$42,679.6**
Operating Expenses	($377.3)	($426.3)	($481.9)	($545.1)	($617.0)	($698.8)	($792.0)	($16,954.8)
Dedicated Funds (TIMED + Self-Generated)	($147.0)	($163.3)	($181.50)	($201.6)	($224.1)	($249.1)	($276.8)	($6,216.7)
Other Revenue Sources	$41.5	$48.1	$55.8	$64.7	$75.0	$86.9	$100.7	$2,033.6
Total Available	**$467.0**	**$531.6**	**$605.5**	**$690.1**	**$787.0**	**$898.1**	**$1,025.5**	**$21,541.6**

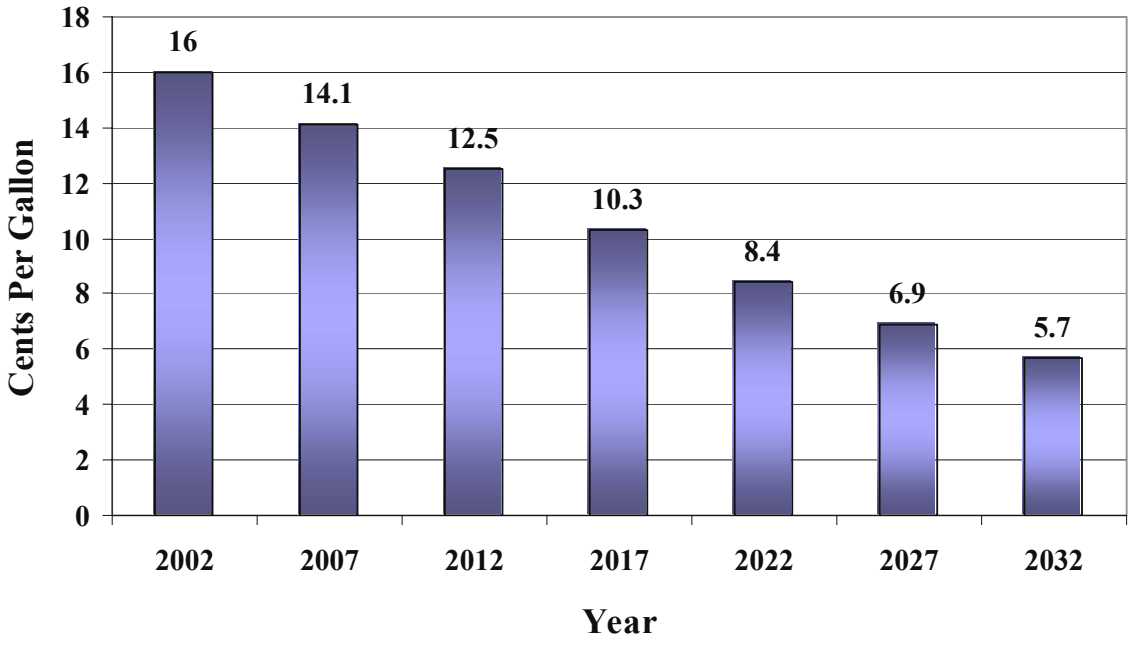
1: For more detailed information see Table 8.9 above.
2: Funds are already committed and not available for a new construction program.

Purchasing Power

When looking at revenues estimated into the future, particularly 30-years into the future, it can appear that a significant amount of revenue will be available. However, it is important to remember that future dollars do not have the same value as dollars today.

Figure 8.6 shows the erosion of the purchasing power of the motor fuels tax due to inflation. Using constant 2002 dollars, over time, the 16 cent motor fuels tax only provides revenue that is equivalent to a 5.7 cent motor fuels tax by 2032.

Figure 8.6
Projected Loss of Purchasing Power With No Revenue Increase

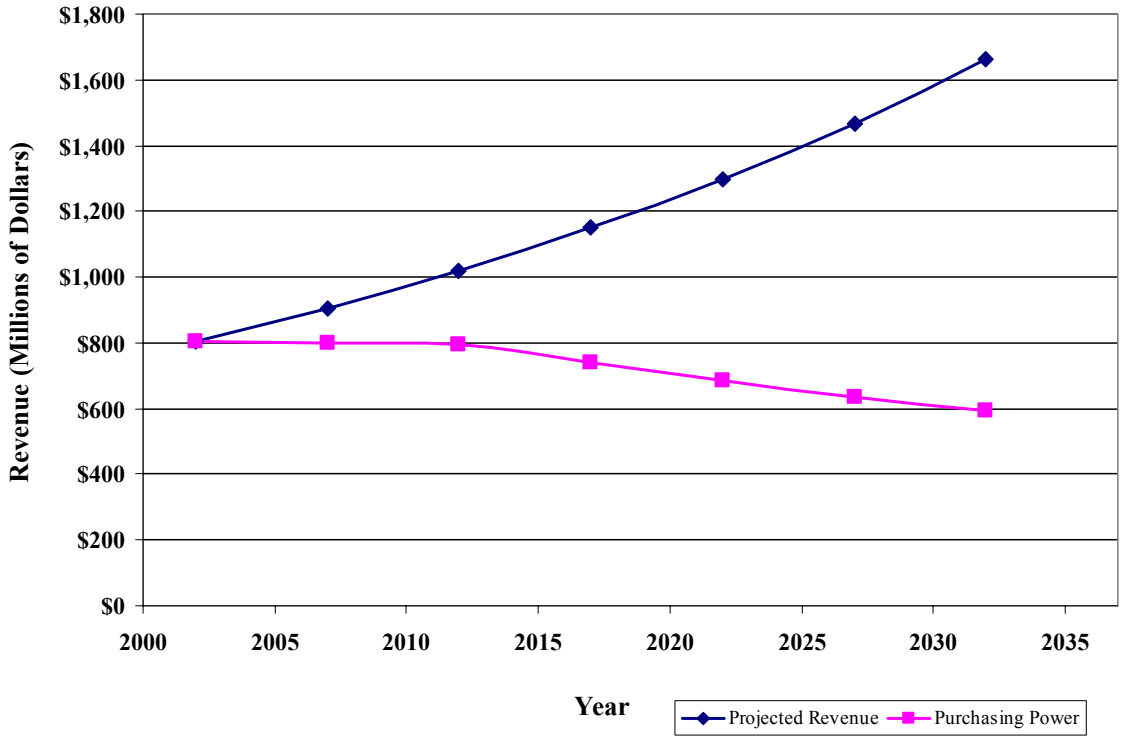


Consequently, it is important to consider the time value of money when considering the sufficiency of the 30-year revenue projections. To do that, the projected loss of purchasing power was analyzed by taking into consideration inflation rates. A review of available inflation rate projections indicated that most projections were for a much shorter period than the 30-year period under consideration in this document. However, a review of inflation rates found that the "Budget of the United States Government for Fiscal Year 2003" projected an inflation rate of 2.3 percent through 2012. The Congressional Budget Office in their "Budget and Economic Outlook, An Update" projected 2.5 percent through 2012. Roger Ibbotson, Professor in the Practice of Finance, Yale School of Management, in a paper entitled "Predictions of the Past and Forecasts for the future: 1976 – 2025 forecasts an inflation rate of 3.1 percent.

Because inflation has been at historic low rates, it is likely that future inflation will increase beyond the low rates currently forecasted. Using this reasoning, an inflation rate of 2.5 percent per year through 2012 was assumed. From 2013 to 2032, an inflation rate of four percent per year was assumed.

The results of the analysis of the loss of purchasing power can be seen in **Figure 8.7**. Even though the 30-year revenue projections for the Transportation Trust Fund grow 108.6 percent from 2003 to 2032, the cumulative purchasing power of the increase and the base year funds declines by 40 percent.

Figure 8.7
Projected Loss of Purchasing Power If No Revenue Increase



Constant Dollars

In order to have a clear understanding of the true worth of the revenue forecasts, the forecasted numbers have been converted back to constant 2002 dollars. **Table 8.14** shows the revenue forecasts for all highway funding sources in constant dollars.

Table 8.14
All Highway Funding Sources
(In Millions of Dollars)

Funding Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Transportation Trust Fund[1]	$802.8	$909.7	$1,031.6	$1,170.5	$1,329.1	$1,510.1	$1,716.8	$36,462.8
TIMED Funds[2]	$110.0	$121.4	$134.1	$148.0	$163.5	$180.5	$199.2	$4,551.7
Self-Generating Funds[2]	$37.0	$41.9	$47.4	$53.6	$60.6	$68.6	$77.6	$1,665.0
Grand Total	**$949.8**	**$1073.0**	**$1,213.0**	**$1,372.2**	**$1,553.2**	**$1,759.1**	**$1,993.7**	**$42,679.6**
Operating Expenses	($377.3)	($426.3)	($481.9)	($545.1)	($617.0)	($698.8)	($792.0)	($16,954.8)
Less Dedicated Funds (TIMED and Self-Generated)	(147.0)	(163.3)	(181.5)	(201.6)	(224.1)	(249.1)	(276.8)	(6,216.7)
Other Revenue Sources	$41.5	$48.1	$55.8	$64.7	$75.0	$86.9	$100.7	$2,033.6
Total Available	**$467.0**	**$531.6**	**$605.5**	**$690.1**	**$787.0**	**$898.1**	**$1,025.5**	**$21,541.6**
Total Available Constant 2002 Dollars	**$467.0**	**$469.8**	**$466.2**	**$442.4**	**$414.7**	**$388.9**	**$364.9**	**$12,961.3**

1: For more detailed information see Table 8.9 above.
2: Funds already committed and not available for a new construction program.

NON-HIGHWAY FUNDING SOURCES

The non-highway transportation modes include aviation, transit, rail, ports, and bicycle and pedestrian. Currently, Louisiana only provides State funding for aviation and ports. The modes of aviation, transit, navigable waterways, and bicycle and pedestrian all receive federal funds.

Aviation

Louisiana provides $5 million per year in State funds for aviation. The funds are used for the administrative costs of the Aviation Division and to provide capital improvements at the State's airports. The airports also receive funding from the Federal Aviation Administration (FAA) from what are called state apportionments and from non-primary funds. Airports in Louisiana receive approximately $5.4 million for state apportionments and approximately $5.8 million for non-primary funds. Commercial service airports also receive funding.

Only state funds for aviation are being estimated since the federal funds flow directly to airports. The growth rate for sales tax on aviation fuel was estimated earlier in this report, under the

Transportation Trust Fund section. In that estimate, a modest growth rate of one percent per year for the collection of the 4 percent sales tax on aviation fuels was used.

Transit

Louisiana does not provide direct State funding for transit. Transit services receive funding from the Federal Transit Administration (FTA). The majority of these are urbanized area formula grants which provide capital and operating assistance to urbanized areas with populations of over 50,000. In Louisiana, Alexandria, Baton Rouge, Houma, Lafayette, Lake Charles, Monroe, New Orleans, Shreveport, and Slidell all receive these funds. New Orleans is also receiving funds for fixed guideway modernization. Louisiana also receives formula grant funds for areas other than the urbanized areas and formula grants for the special needs of elderly individuals and individuals with disabilities.

In total, Louisiana received $27.5 million in transit funds from the FTA in FY 1998. By FY 2003, this figure is projected to grow to $43.1 million. Since FY 1998, transit funding to Louisiana has grown at a rate of approximately 9.4 percent per year.

Because there will be strong, continued pressure for additional transit services, it is projected that federal transit funding will grow by five percent per year. **Table 8.15** shows the 30-year revenue projections for federal transit dollars.

Table 8.15
30-Year Revenue Projection for Federal Transit Funds
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Federal Transit Funds	$40.5	$51.7	$66.0	$84.2	$107.5	$137.1	$175.0	$2,825.3

Ports

The State provides funding for ports through the Ports Construction and Development Priority Program, which was created in 1989. The funding for the program is provided through the Transportation Trust Fund. The program is limited to the construction, improvement, capital facility rehabilitation and expansion of publicly owned port facilities including intermodal facilities and maritime-related industrial park infrastructure developments.

Currently the program is funded at $25 million per year. In order to estimate future funding for this program, it was assumed that funding would increase at the rate of overall growth in State revenue. The growth in the Ports Construction and Development Priority Program is estimated to be about two percent per year through 2032; **Table 8.16** shows the 30-year revenue projections for the Port Priority Program.

Table 8.16
30-Year Revenue Projection for Ports and Waterways Fund
(In Millions of Dollars)

Revenue Source	Baseline	FY 2007	FY 2012	FY 2017	FY 2022	FY 2027	FY 2032	Total Funds 2003-2032
Ports and Waterways Fund	$25.0	$27.5	$30.3	$33.4	$36.8	$40.6	$44.7	$1,027.1

Bicycle and Pedestrian

There are no specific funds set aside for bicycle and pedestrian projects. Bicycle and pedestrian improvements are eligible activities under a number of the federal-aid highway funding categories. Specifically, the Transportation Enhancement Program can be used for bicycle and pedestrian projects. Louisiana receives approximately $10 million per year for the Transportation Enhancement program. It is up to the State's discretion to select projects under this program. The funds for Transportation Enhancements are included in the federal aid highway estimate provided under the Transportation Trust Fund. No further estimates are provided for the mode of bicycle and pedestrian.

LOCAL TRANSPORTATION FUNDING

Local governments in Louisiana have transportation needs just as does the state, but they also have access to revenue sources to help meet those needs. Each parish in Louisiana uses a different mix of revenue sources depending on their own unique situations, making it difficult to discuss local revenues in detail. According to the most recent statistics available (FY 2001) from the Federal Highway Administration, local governments in Louisiana used revenues of $587.2 million for highways. Major revenue sources used by local governments include appropriations from general funds, property taxes and special assessments, bond proceeds, and other local imposts.

A portion of the State motor fuels tax is provided each year to parishes through the Parish Transportation Fund. In accordance with the State constitution, the amount cannot be less than the revenues generated by one cent of the excise tax on fuels.

OTHER FUNDING MECHANISMS

Besides the revenue sources currently being used to fund transportation by Louisiana, there are other sources that could be considered. The following provides an overview of revenue sources used for transportation by other states but not by Louisiana and also discusses other possible revenue sources that could be considered.

The primary funding source for most State DOT's transportation programs are motor fuels taxes and registration fees; taxes that are considered traditional "user" fees. However, there are a number of other revenue sources used by states. Some of these sources are used to support the local road system rather than the state system and some are for specific transportation needs and not for more generalized transportation purposes. However, any of them could be considered by Louisiana and could be shaped to meet the State's specific needs.

Revenue Sources Used for Transportation by Other States

The most common revenue sources used by other states are the sales and use tax, the severance tax, a surcharge on rental cars, general fund appropriations, and bonds. Sixteen states use sales tax receipts to support highway construction. Seven states use severance taxes to support either state or local road construction, four have a surcharge on rental cars, 31 receive some kind of a general fund appropriation and 23 utilize bond proceeds. There are many variations in terms of how the taxes are assessed and many have dedicated purposes, but the following are examples that demonstrate the range of approaches.

Sales Tax

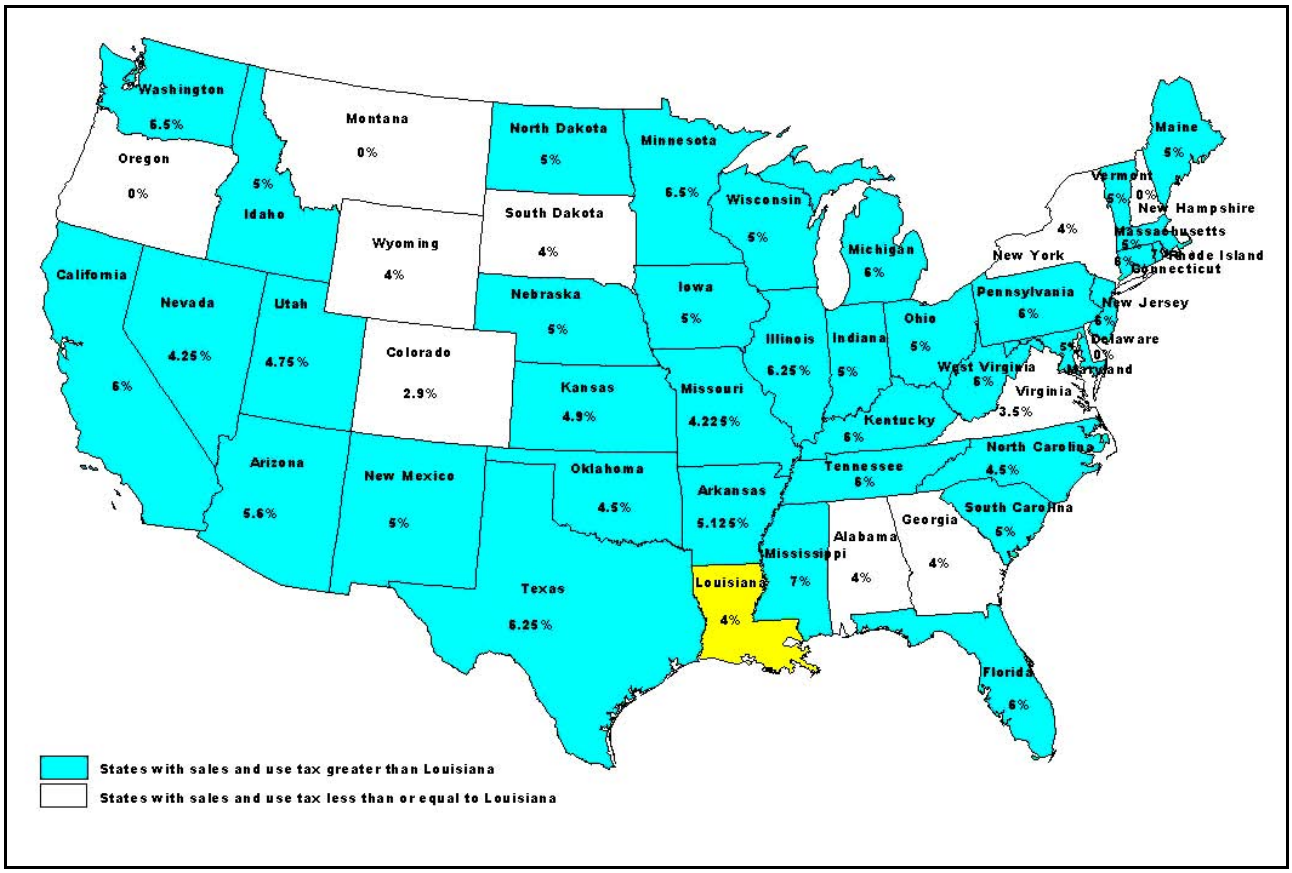
While a number of states use some portion of their sales tax to support transportation projects, Louisiana is not one of those states.

Figure 8.8 shows the state sales and use tax rates for the United States, whether those funds are used for transportation or not. The state sales tax rate in Louisiana is four percent. Six other states also share that same sales and use rate as Louisiana. Thirty-six states have a sales and use tax that is higher than Louisiana, which equates to 72 percent of the nation. Seven have a rate that is lower than Louisiana, which equates to 14 percent of the nation. Of Louisiana's border states, all have a higher sales and use tax rate than Louisiana. The border states tax rates range from 5.1 to seven percent.

The following looks at a few specific examples of states that use sales tax receipts to support transportation. While this isn't a comprehensive accounting of such states, it is illustrative of the variety of ways that states put general sales tax revenue to work for transportation improvements.

- Arizona – If the annual increase in sales tax revenue exceeds seven percent, a portion of the state General Fund share is transferred to the Highway User Revenue Fund.
- Illinois – A percentage, set to equal the amount of the diversions out of the Motor Fuel Tax Fund, of the net sales tax revenue from all taxable items from the state's 6.25 percent sales tax goes to the Motor Fuel Tax Fund. (This transfer was discontinued in April of 2000 after the last of the diversions were discontinued.)
- Iowa – 80 percent of a five percent use tax on new and used motor vehicles is distributed to a list of funds with the remainder being distributed to the Road Use Tax Fund.
- Kansas – The sales tax attributable to the sale of new and used motor vehicles is transferred to the State Highway Fund. The funds are first deposited into the State General Fund and transferred to the State Highway Fund. Also, a sales tax equivalent to 0.25 percent of the state sales tax is deposited directly into the State Highway Fund.
- Michigan – The Comprehensive Transportation Fund receives not less than 6.975 percent of the six percent Sales Tax on Motor Fuel, Motor Vehicles, and Auto Parts.

Figure 8.8
Sales Tax Rates for the United States



Note: Alaska (0%) and Hawaii (4%) are not shown.
Source: Sales Tax Institute, May 2002.

Sales Tax on Motor Fuels

According to the American Petroleum Institute, 10 states authorize a sales tax on motor fuels. States that levy a sales tax on motor fuels include California, Florida, Georgia, Hawaii, Illinois, Indiana, Michigan, New York, Virginia and West Virginia. Some states have other forms of taxation on motor fuels, such as gross receipts taxes and underground storage tank taxes as well.

Excise (Sales) Tax on Other Fuels/Oil

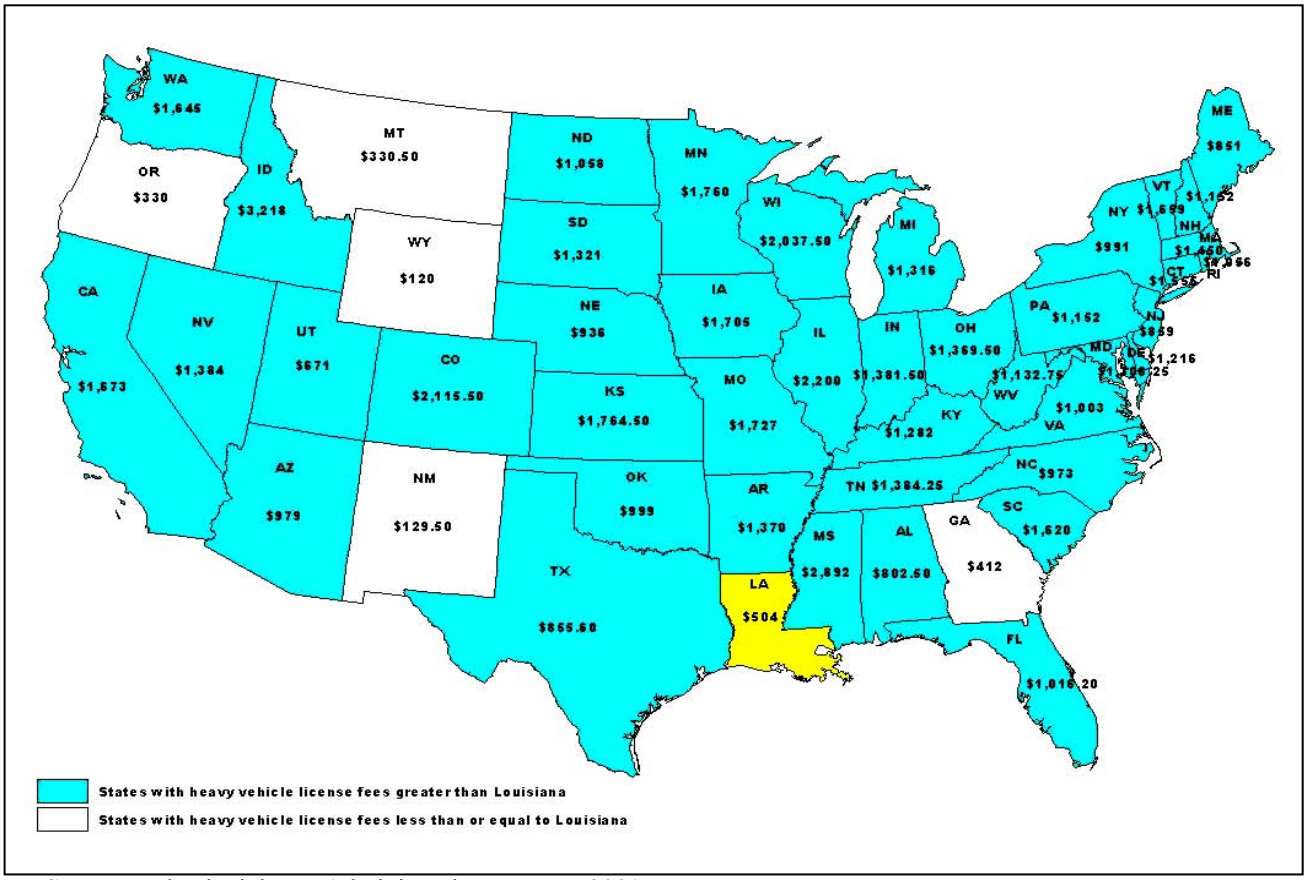
The following looks at some of the states that use excise tax receipts to support transportation.

- Alabama – four cent per gallon excise tax on lubricating oil.
- Mississippi – 5.75 cents per gallon on all other oil, except oil used in aviation.
- North Dakota – two percent excise tax on special fuels used for non-highway purposes.
- Texas – 6.25 percent excise tax on lube oil used in motor vehicles.
- Wyoming – 10 percent of the 4 percent sales tax on propane, butane, liquefied gas, and compressed natural gas.

Heavy Vehicle Registration

Heavy vehicle license fees are taxed at a rate of $504 in Louisiana however, none of the tax money currently goes to the State Transportation Trust Fund, as is common in most other states. Forty-three states have a heavy vehicle license fee that is higher than Louisiana, which equates to 86 percent of the nation. Five have a fee that is lower than Louisiana, which equates to 10 percent of the nation. One state has the same fee as Louisiana. Of Louisiana's border states, all states have a higher heavy vehicle license fee than Louisiana. The border states' fees range from $855.60 to $2,892, which is significantly higher than Louisiana's. **Figure 8-9** shows the heavy vehicle license fees for the United States.

Figure 8.9
Heavy Vehicle License Fees for the United States
(in Dollars)



Source: Federal Highway Administration, January 2001
Note: Alaska ($504) and Hawaii ($869.80) not shown.
A 2001 diesel-powered truck tractor of 14,440 pounds empty weight and a semitrailer of 12,300 pounds empty weight, registered for 80,000 pounds gross combination weight, in private operation, were selected as the "typical vehicles".

Severance Tax

The following looks at some of the states that use severance tax receipts to support transportation.

- Arkansas – 12.5 percent of 97 percent severance tax on natural resources plus 87.5 percent of 97 percent of an additional three cents per ton severance tax on stone and crushed stone (these funds are all dedicated to the County Highway Fund).
- New Mexico – All of the severance tax on natural resources, oil and gas go to paying debt service on severance tax bonds authorized by the Legislature for a variety of projects including some highway projects.
- Tennessee – Coal and mineral severance tax dedicated to counties for county highways and construction, maintenance and repair of county road system.
- Wyoming – All of a one percent severance tax on surface coal and underground coal and 1/3 of the revenues from a two percent severance tax on crude oil, lease condensate and natural gas (these funds are dedicated to the State Highway Fund).

Surcharges on Rental Cars

The following looks at some of the states that use surcharges on rental cars to support transportation.

- Florida – 80 percent of a rental car surcharge of $2.00 per day for the first 30 days is distributed to the State Transportation Fund.
- Hawaii – A rental motor vehicle surcharge tax of $2.00 per day goes to the State Highway Fund.
- Iowa – Five percent sales tax on auto rentals is distributed to the Road Use Tax Fund.
- Utah – 2.5 percent motor vehicle rental tax is distributed to the Corridor Preservation Revolving Loan Fund.

Other

Proceeds from Sale of Pine Grown on State Highway Right of Way:

- Arkansas – 50 percent of the proceeds go to the State Highway and Transportation Department Fund.

Gross Proceeds Tax on Gaming:

- Colorado – Appropriations may be made from the initial 50 percent distribution to the State General Fund and from 50 percent of the unexpended balance in the Limited Gaming Fund to the State Highway Fund.

Tour Vehicle Surcharge:

- Hawaii – $65.00 per month for each tour vehicle over 25 seats. $15 per month for each tour vehicle with eight to 25 seats.

Corporate Income Tax:

- Maryland – 10.714286 percent of net revenues from the seven percent corporate income tax go to the Gasoline and Motor Vehicle Revenue Account and is pledged to the Consolidated Transportation Bonds.

Sales Tax on Contractors:

- Mississippi – Dedicated to the "Four-Lane Highway Program" from proceeds of 3.5 percent tax on contracts for "Construction and Reconstruction of Highways under Four-Lane Highway Program."

Sales Tax on Purchase Price of Mobile Homes:

- South Dakota – 15 percent of the three percent sales tax on the purchase price of mobile homes goes to the Motor Vehicle Fund and 85 percent goes to the County Highway Fund.

Lease Rental of State Highway Right-of-Way and Air Space Rights:

- Texas – 100 percent of the proceeds go to the State Highway Fund.

Excise Tax on Special Fuels used for Non-Highway Purposes:

- North Dakota – Two percent tax applies to retail sales of agricultural, railroad, industrial, and heating fuel which are exempt from other fuel taxes.

Other Vehicle-Related Revenue Options

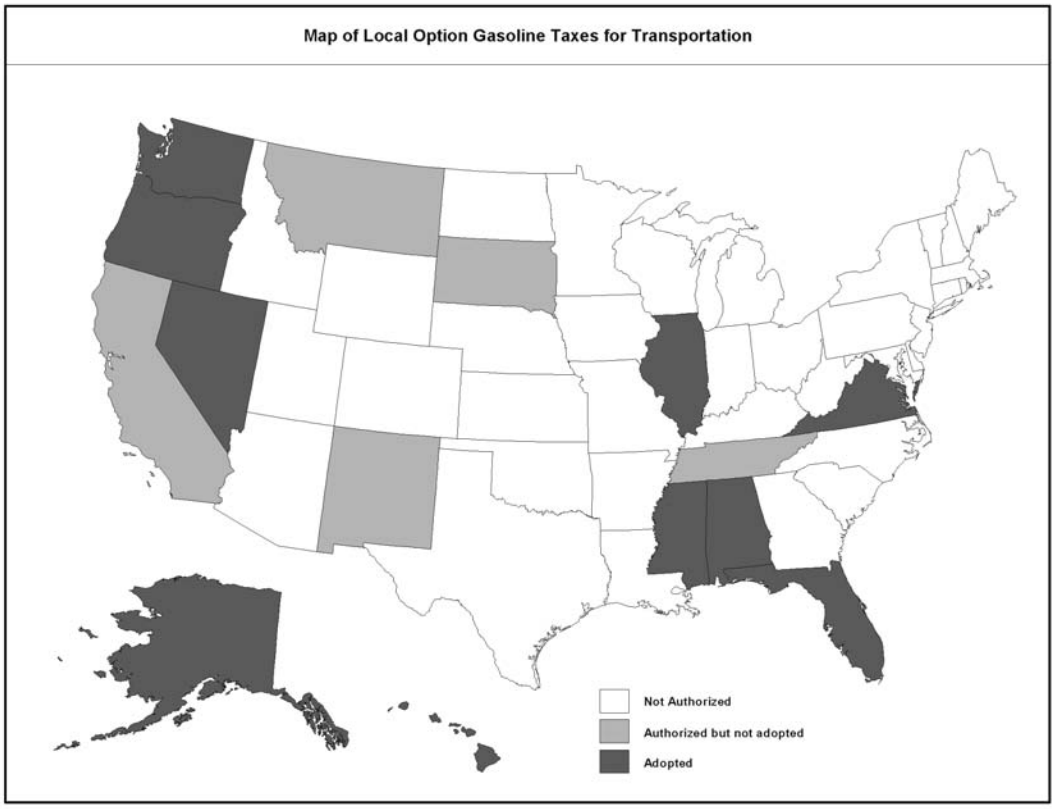
In addition to the approaches described above, there are other options that can be considered. These options include tolls, taxes based on vehicle miles traveled (VMT), and weight distance fees.

- **Tolls** – Tolls are used extensively around the world and in 29 of the 50 states (state and quasi-state toll facilities). Tolls are responsive to inflation and are market driven because the driver is paying to use the facility.
- **Tax on VMT** – There exists ITS technology that can be used to collect a tax on the basis of VMT driven and there is additional research and development underway. However, it will probably still require significant study and education before electronic methods to track VMT and tax on that basis is considered a viable taxing option. It would be an equitable taxing source that is responsive to inflation.
- **Weight distance fees** – Weight distance fees or a ton-mile tax is a tax based on weight and distance traveled. Few states use ton-mile taxes and they are strongly opposed by the trucking industry.

Other Revenue Options

Local Option Motor Fuels Tax – Louisiana has a local option sales tax, but not a local option motor fuels tax. A local option motor fuels tax could be provided, thereby allowing local governments to assume more responsibility for addressing local transportation problems. Fifteen states currently allow a local option motor fuels tax **(Figure 8.10)**, including Alabama, Alaska, California, Florida, Hawaii, Illinois, Mississippi, Montana, Nevada, New Mexico, Oregon, South Dakota, Tennessee, Virginia, and Washington. Out of these, only Alabama, Alaska, Hawaii, Illinois, Mississippi, Nevada, Oregon, Virginia and Washington have actually implemented the tax. Each of these states taxes only gasoline (diesel is exempt), and the rates are typically in the one to six cent per gallon range (Florida allows 11 cents).

Figure 8.10
Local Option Gasoline Taxes in the US



Capital Outlay – The State Legislature used to provide sizable funding for transportation projects through the capital outlay program. Since the inception of the Transportation Trust Fund, very few capital outlay funds are used for transportation projects. Nothing prevents transportation projects from being included in the capital outlay program and this could be an additional source of revenue for transportation.

INNOVATIVE FINANCING TECHNIQUES

Since 1994, the federal government has introduced a number of financing innovations designed to streamline procedures, improve existing programs, and implement new ideas for improving transportation infrastructure. **It is important to note that these are financing techniques, not revenue sources.** Many of these techniques will only be effective if they are also accompanied with changes in the project development process as well. Consequently, these techniques won't work for all states or work in all situations.

Innovative financing techniques fall into four broad categories: grant management strategies, grant application revenue vehicle (GARVEE bonds), credit assistance strategies, and tolling options.

Grant Management Strategies

- **Advance Construction and Partial Advance Construction** – Advance construction and partial conversion of advance construction are cash flow management tools that allow states to begin projects with their own funds and only later convert these projects to Federal assistance. Advance construction allows a state to request and receive approval to construct Federal-aid projects in advance of the apportionment of authorized Federal-aid funds. Under normal circumstances, states "convert" advance-constructed projects to Federal aid at any time sufficient Federal-aid funds and obligation authority are available, and do so all at once. Under partial conversion, a state may obligate funds for advance-constructed projects in stages.
- **Tapered Match** – Tapered match enables the project sponsor to vary the non-Federal share of a Federal-aid project over time, as long as the Federal contribution toward the project does not exceed the Federal-aid limit.
- **Flexible Match** – Flexible match allows a wide variety of public and private contributions to be counted toward the non-Federal match for Federal-aid projects.

Grant Application Revenue Vehicle (GARVEE Bonds)

GARVEE bonds permit states to pay debt service and other bond-related expenses with future Federal-aid highway apportionments. GARVEE bonds are useful for the following types of projects:

- They are large enough to merit borrowing rather than pay-as-you-go grant funding, with the costs of delay outweighing the costs of financing;
- They do not have access to a revenue stream (such as local taxes or tolls) and other forms of repayment (such as state appropriations) are not feasible; and
- The sponsors (generally state DOTs) are willing to reserve a portion of future year Federal-aid highway funds to satisfy debt service requirements.

Credit Assistance Strategies

- **Section 129 Loans** – Section 129 loans allow states to use regular Federal-aid highway apportionments to fund loans to projects that have dedicated revenue streams.
- **State Infrastructure Banks** – State Infrastructure Banks (SIBs) are revolving infrastructure investment funds for surface transportation that are established and administered by states. SIBs may be capitalized with regular Federal-aid highway apportionments and state funds and can offer a range of flexible financial assistance, including loans and various forms of credit enhancement.

  SIBs are a close relative of revolving loan funds, as they can lend money to an initial group of projects and then use the subsequent repayments to fund a future generation of loans. However, SIBs can also provide credit enhancement products (such as lines of credit and payment guarantees) in addition to loans.

  Currently, only states that capitalized a State Infrastructure Bank with Federal funds distributed in Federal fiscal years 1996 or 1997 may continue to operate a SIB with whatever Federal funds have already been deposited in the bank. These states are free also to supplement the initial capitalization with additional state or local funds. Four

states named in TEA-21 (California, Florida, Missouri, and Rhode Island) may continue to use Federal highway and transit funding to further capitalize their banks.

- **TIFIA Program** – TIFIA stands for the Transportation Infrastructure Finance and Innovation Act (TIFIA) program, authorized by TEA-21. TIFIA allows U.S. DOT to provide direct credit assistance, up to 33 percent of eligible project costs, to sponsors of major transportation projects. Credit assistance can take the form of a loan, loan guarantee, or line of credit.

Following is a brief description of the purposes served by the three forms of assistance.

- **Direct Loans** - Direct loans provide flexible long-term financing for a portion of construction costs. Loans must be repaid within 35 years following project completion. The interest rate must be equal to or greater than the yield on U.S. Treasury securities of a comparable maturity. In practice, U.S. DOT has offered the comparable U.S. Treasury rate to all borrowers with no distinction for credit risk.
- **Loan Guarantees** - Loan guarantees are intended to promote private investment in transportation projects by providing a Federal guarantee of debt service payments due to a commercial lender over the life of the loan. The terms of a loan guarantee are similar to those of a direct loan. The interest rate will be negotiated between the borrower and the lender and approved by U.S. DOT.
- **Lines of Credit** - Standby lines of credit represent a US DOT commitment to provide one or more direct loans contingent on shortfalls in revenues during the 10 years following substantial completion of a project. Lines of credit thus provide a secondary source of capital during this so-called ramp-up period when project-based revenues (such as toll receipts) are most likely to fall short of expectations. Up to 20 percent of the line can be converted into a loan in any given year during the 10-year window, and all draws on the line of credit are payable within 35 years of project completion. The interest rate on the line is established upon execution of a term sheet and must equal or exceed the current yield on 30-year Treasury securities.

Tolling Options

Toll provisions allow states to consider a tolling option for certain permitted types of federal-aid projects on the projects' own merits without the penalty of a reduced federal share.

A federal-aid highway project's eligibility for toll finance depends both on the type of facility and the nature of the project. Five categories of projects are eligible for federal funds:

- Initial construction of non-Interstate highways, bridges, and tunnels.
- Resurfacing, restoration, rehabilitation, and reconstruction (4R) of existing toll facilities.
- Reconstruction or replacement of Interstate or non-Interstate bridges and tunnels. The essential feature of this category is the conversion of a free bridge or tunnel to toll finance following the reconstruction or replacement.
- Reconstruction of non-Interstate highways. Again, this category involves the conversion of a free facility to a toll facility. This option exists only for Federal-aid highways that are not on the Interstate system. However, conversion of free Interstate highway segments to tolled facilities is possible through a special pilot program.

- Preliminary studies to determine the feasibility of any of the toll construction activities described above.

Eligible expenditures include debt service, operations and maintenance, establishment of necessary reserve funds, and a reasonable return on private investment for projects that include private participation.

POTENTIAL SOURCES OF NEW REVENUE

The Plan recommendations for Scenarios 2 and 3 assume an infusion of additional revenues for transportation, though the specific sources of the new revenues are not identified. Although the securing of new funding for transportation is clearly an issue to be resolved through an active dialogue between the Governor, legislators, business community and stakeholders, the LIIEP Commission asked that the Plan document identify potential sources that could yield the needed amounts.

The sources of revenue, units, and estimated yield included in the following discussion are illustrative only. They are not endorsed nor recommended by the DOTD, LIIEP Commission, nor any other political subdivision in the State of Louisiana. The information is provided to illustrate some potential sources and estimate what they might yield over a 30-year period.

Yield Target

As discussed in Chapter 9, Scenarios 2 and 3 assume new transportation revenues in Louisiana from state sources. In order to "drive" the program elements identified in the Plan, approximately $250 million in new state revenue is needed in the first year, with a total yield of about $9.7 billion over 30 years. This assumes a growth rate in the new revenue source of about 2 percent annually.

Additional "ramp ups" are assumed to mitigate lost buying power in the years 2013 and 2023, and ultimately may not be from the same source as the original new revenues. These "ramp up" adjustments would be added to the base of each revenue instrument; therefore this exercise is designed to address only the initial and total yield needed without consideration of the "ramp-up" revenue adjustments assumed in each 10-year increment.

Potential Sources

Following is a brief discussion of several potential revenue sources to fill the state funding gap in Scenarios 2 and 3 (see summary in **Table 8.17**):

- **Fuel Taxes** – The yield from Louisiana's 20-cent per gallon fuel taxes is discussed in considerable detail earlier in this chapter. The fuel tax is a "traditional" revenue source that grows at about 2 percent annually, yielding about $21.5 million from gasoline and about $6 million from diesel fuel per penny in year 1 (FY 2003). Thus, a five-cent increase in both fuel taxes would yield about $137 million in year 1 and $5.57 billion over the 30-year period.

- **Sales Tax on Fuel**– Louisiana does not now levy a tax on the sale of motor fuel, though at least ten states do levy such a tax. A 4 percent statewide sales tax levy on motor fuel sold in Louisiana would yield about $89 million in the first year, and the revenues would grow at the same rate as price and gallons sold, about 2 percent annually. This estimate is based on an assumed average price of $1.20 per gallon for gasoline and $1.26 per gallon for diesel, of which only $0.816 is subject to the sales tax since $0.384 for gasoline and $0.444 for diesel is federal and state excise tax. A 4 percent statewide sales tax on motor fuels is estimated to generate $3.26 billion over the 30-year period.

- **Vehicle Registration Fee** – Louisiana's registration fee schedule for autos ranks about 46th nationwide – the two-year license plate fee averages about $44 for a mid-sized two-year old vehicle, and the State's average registration fee is $18. The levy is based upon 0.1% per year of the vehicle's selling price, with a $10 annual minimum. A 50 percent increase in auto registration fees would yield about $20 million the first year and increase about 1.5% per year through the planning period. This estimate is based on increasing the tax rate by 50 percent but leaving the minimum fee at $10 annually. Total 30-year yield for this user fee increase is estimated at $744 million.

  A similar increase for truck registrations (light trucks, heavy trucks, trailers) would yield about $12 million the first year and $450 million over the 30-year period. Louisiana's truck registration fee schedule is among the lowest (45th) in the US. At present, Louisiana's truck registration fee revenues are deposited in the State General Fund and are <u>not</u> dedicated to transportation.

- **Statewide Sales Tax** – The largest single revenue generator for Louisiana is its' 4 percent statewide sales tax, which produced more than $2.4 billion in FY 00/01. The sales tax on food expired in July 2003, so the overall yield will dip slightly. We estimate the sales tax revenues will grow at 1.5 percent annually. More states are using sales tax revenues to support transportation each year (especially non-highway modes). A 0.25 percent statewide sales tax for transportation (earmark from the existing tax or increase in the rate) would generate about $125 million in its first year, with a 30-year yield of $4.74 billion.

- **Cigarette Tax** – Louisiana's 36-cent per pack tax on cigarettes has been in place since July 2002, when it was increased from 24 cents per pack. The current rate is the 27th highest in the US and yields about $9.4 million per month. The overall trend for cigarette sales is down (real decrease of about 1 - 2% annually), and demand is very elastic (subject to fluctuation) when taxes are increased. Imposition of a 5-cent per pack tax increase can be expected to drive demand down about 15 percent, which would yield about $14 million in the first 12 months, declining thereafter. Overall 30-year yield, assuming no further cigarette tax increases, is estimated at $375 million.

- **Alcohol Tax** – Louisiana taxes beer at 32 cents per gallon, the 12th highest rate in the US, while its wine and spirit taxes are variable. The current beer tax generates about $36 million annually and amounts to 3 cents on a 12-ounce can, and the hard liquor taxes generate nearly $16 million per year. Increasing the alcohol tax rate by 25 percent is expected to have a negligible effect on demand (annual sales increase of 1 - 2 % expected); it is estimated that such an increase would generate $13 million its first year and nearly $500 million over 30 years.

- **Car Rental** – The State levies a tax on car rentals that generates almost $5 million annually, which is deposited in the General Fund. Diversion of this auto rental tax to transportation (or levy of a like amount) would produce $230 million over the Plan time frame of 30 years. The auto rental tax is estimated to grow at about 3% annually.
- **Drivers' License** – Louisiana charges a drivers' license fee of $3.25 per year to operate an automobile (more for chauffer and truck licenses), which is one of the lowest rates in the US. A $5 annual increase in these fees would generate about $13 million annually and more than $500 million over 30 years.
- **Other Taxes** – Louisiana's state government is financed by a host of other fees and taxes, most of which could be earmarked for transportation. However, most generate very little in the way of revenue or are such traditional General Fund sources that they are not considered to be likely sources of transportation revenues. Among these are individual and corporate income taxes, severance taxes, corporate franchise taxes, occupancy taxes, and inheritance/estate taxes.

The following table summarizes the above discussion:

Table 8.17
Potential Transportation Funding Sources
(Yield in Millions of Dollars)

Funding Source	Amount	Year 1	Year 10	Year 20	Year 30	Total Funds 2003-2032
Gasoline Tax	5 cents/gallon	107.3	128.2	156.3	190.5	**4,353.0**
Diesel Tax	5 cents/gallon	30.1	36.0	43.9	53.5	**1,221.1**
Sales Tax on Fuel	4 %	89.3	106.7	130.1	158.6	**3.26**
Auto Registration	50% increase	19.8	22.7	26.3	30.5	**744.1**
Truck Registration	50% increase	12.0	13.7	15.9	18.5	**450.5**
Statewide Sales Tax	0.25 %	126.3	144.4	167.6	194.5	**4,740.7**
Cigarette Tax	5 cents/pack	14.4	13.2	11.9	10.8	**375.3**
Alcohol Tax	25% increase	13.3	15.1	17.6	20.4	**497.4**
Auto Rental Tax	Diversion	4.9	6.4	8.6	11.6	**233.6**
Drivers' License	$5/year	13.6	15.6	18.0	20.9	**510.5**

Using the estimates from **Table 8.17**, following are several examples of how the $250 million in State funds to implement Scenarios 2 and 3 of the Plan could be raised. In any of these examples, a portion of the needed revenues could be obtained by dedicating existing transportation-related fees to Plan implementation, including (a) appropriations from the Transportation Trust Fund to fund state police operations ($40 million); (b) truck registration fees ($24 million); (c) proceeds from the 4 percent State sales tax on diesel fuel used by railroads while operating in Louisiana ($2-3 million); and (d) proper credit to the Transportation Trust Fund for the proceeds from the 4 percent State sales tax on aviation fuel sold in Louisiana ($1.5 million additional). However, the problem with such an approach is that a funding gap would be created in the State General Fund by dedicating (i.e., transferring) these transportation-related fees to Plan implementation. Nevertheless, the first example listed below is based on dedicating these revenues and a portion of regular General Fund monies to Plan implementation. The other five examples below focus only on raising additional revenues from various sources:

Example 1: Appropriate $250 million annually in General Fund revenues to Plan implementation including all transportation-related fees as noted above.

Example 2: Increase the State general sales tax by 0.50 percent (i.e., from 4.00 percent to 4.50 percent).

Example 3: Increase the State fuel tax by 9 cents per gallon (i.e., from 20 cents/gallon to 29 cents/gallon).

Example 4: Increase the State fuel tax by 5 cents per gallon (i.e., from 20 cents/gallon to 25 cents/gallon) and increase the State general sales tax by 0.25 percent (i.e., from 4.00 percent to 4.25 percent).

Example 5: Increase the State fuel tax by 5 cents per gallon (i.e., from 20 cents/gallon to 25 cents/gallon) and apply the existing State sales tax of 4.00 percent to fuel and increase auto registration/truck registration/driver's license fees sufficiently to generate approximately $25 million annually (about 40 percent increase).

Example 6: Increase the State fuel tax by 8 cents per gallon (from 20 cents/gallon to 28 cents/gallon) and (a) increase auto registration/truck registration/driver's license fees sufficiently to generate approximately $30 million annually or (b) increase the State general sales tax by 0.10 percent (i.e., from 4.00 percent to 4.10 percent). [Note: In theory, a 0.10 percent increase in the State general sales tax would generate approximately $50 million annually. However, considering that such an increase would not affect purchases of less than $5 due to rounding to the nearest cent, a 0.10 percent sales tax increase would likely yield considerably less.]

"Hold Harmless" Provisions

Several of the specific projects included in Scenarios 2 and 3 of the Plan have advanced to the point where non-traditional finance methods (such as tolls and/or local funding) may be used to initiate construction of the entire project, or portions thereof, before the State and Federal funds called for become available. These projects will be "held harmless" in that when the State and Federal funding called for in the Plan becomes available, any remaining costs or debt can be

retired to the extent that such remaining costs or debt does not exceed the cost of implementing the project through traditional financing.

Inflation Adjustments

Implementation of Scenarios 1B, 2, and 3 of the Plan are dependent upon adjustments to the transportation revenue stream every 10 years to account for the effects of inflation (i.e., to restore base-year buying power). This can be accomplished through tax rate adjustments effective at the beginning of the 11th and 21st years of Plan implementation or the revenue stream can be "indexed" to inflation wherein tax rate adjustments are made each year. The "indexing" approach would spread the impacts of the tax rate adjustments over the entire 30-year period as opposed to implementing comparatively large adjustments at each 10-year point in Plan implementation.

ALTERNATIVE FUNDING SCENARIOS

Revenues identified to be available to Louisiana for transportation are documented in Chapter 8, Financing, along with the underlying assumptions. As can be seen from that detailed analysis, specific assumptions are made concerning the rate of growth for Federal and State transportation revenues and the traditional expenses and "take-downs" to be deducted from the total available. These take-downs include continuation of the TIMED program, DOTD operations, and continuation of existing transfers to other agencies. The net revenue balance represents the amount of funding upon which decisions must be made. That is, based upon a certain set of assumptions, an estimated sum is expected to be available. The Plan outlines spending these revenues in a certain manner (what mode, what improvement types). Thus, the Plan provides its most basic guidance: how the State intends to target available revenues.

All revenues and expenditures in this discussion will ultimately be reduced to Base Year 2002 dollars for comparison. The term "gross dollars" is used to represent the total of all revenues/expenses; these are sometimes referred to as "real" or "current" dollars in transportation plans. For the purposes of this Plan, *gross dollars* are totals with no reduction or adjustment for inflation. In order to compare the real buying power of each scenario, all gross dollars are reduced to *Base Year 2002 dollars,* which is their present value and adjusts out the expected loss of buying power over 30 years. Thus, the transportation "needs" can be accurately compared to revenues in Base Year dollars. The reader needs to keep in mind that the gross amounts are much larger before inflation adjustments are factored in.

The financial Baseline, which will be referred to as **Scenario 1A**, is a status quo revenue/expenditure estimate that assumes some growth in revenues, expenses and inflation, but also assumes no other transportation revenues will be enacted over the life of the Plan period. It is from this Baseline that other financial scenarios have been developed, along with the programmatic decisions that formulate a Plan. It is widely believed that Scenario 1A is very unlikely, as legislative bodies have historically taken actions to provide new revenues at key points. However, the Scenario 1A Baseline identifies the "basement," or lowest expected revenue availability over the 30-year Plan horizon.

Gross Federal and State highway funds expected to be available under Scenario 1A total $21.54 billion, which is equivalent to $12.96 billion in Base 2002 dollars. The Scenario 1A for highways targets these resources toward Pavement Preservation ($6.55 billion), Bridge Preservation ($3.46 billion), Safety ($1.25 billion), and Operations ($1.1 billion), leaving just $870 million for Small Capacity projects ($125 million per year for seven years, with none thereafter). This essentially reduces the DOTD to a maintenance agency, as virtually no revenues are available for modernization or expansion. This is in keeping with the preservation goal for infrastructure and recognizes the importance of preserving the transportation system.

With no increase in safety funding, no progress can be expected against reducing Louisiana's fatality rate (third highest in the nation), and congestion would continue virtually unchecked. Although funding is continued to implement the TIMED program, the economy would certainly suffer as no revenues would be available to expand the transportation system in support of business and industry.

Scenario 1A makes no advances for the non-highway modes, though the Aviation and Port Priority Programs are continued at current levels. Thus, the State would not be able to finance

improvements to airports, railroads, public transportation, and water ports to accommodate the expected growth in tourism, trade, and the transit-dependent population. Louisiana can expect to lose market share in domestic and international trade to competing states and suffer from a decline in transportation services to the poor, elderly, and disabled.

The economic outlook under Scenario 1A is bleak, to say the least. Louisiana could not expect to achieve Top Ten State status with transportation investment at this level. Virtually none of the benchmarks identified under *Vision 2020* for transportation would be met.

Scenario 1B is a slightly more realistic view of the future, even assuming no significant increase in transportation revenues. Under Scenario 1B, it is assumed that adjustments would take place twice during the 30-year period that restore the lost buying power of transportation revenues. Thus, Scenario 1B assumes an infusion of new revenue in Years 11 and 21 that essentially "net out" the effects of inflation over the Plan period. The Base Year highway funding increases by nearly $3 billion over the 30 years, which allows the State to implement some modest capacity improvements. Under Scenario 1B, the level of investment in preservation, operations, and safety is identical to Scenario 1A.

The increase in Small Capacity funding allows the DOTD to implement a $125 million annual capacity expansion program for the first seven years, decreasing to about $100 million annually thereafter. Thus, Scenario 1B approximates the current capital program and extends it for the 30-year period.

There is a host of no-cost recommendations that are to be implemented at the Scenario 1 level. They require little in the way of new money and are part of the individual Advisory Council reports.

Significant additional transportation revenues are assumed under **Scenario 2.** This increase amounts to $250 million annually in State-generated revenues beginning in Year 1 and continuing throughout the period. Several examples of how such revenue could be raised are presented in Chapter 8. In addition, new revenues to offset inflation (lost buying power) are added to the revenue stream in Years 11 and 21, similar to Scenario 1B. The net effect of this assumption is to add $6.6 billion (Base Year) to the revenue stream, with the following highlights:

- Increase pavement preservation to $235 million annually; this 47 percent increase allows the DOTD to keep pace with pavement deterioration and improve all roadways in poor condition on the Interstate system and most on the NHS, and Statewide systems.
- Increase bridge preservation funding to $119 million annually, allowing the DOTD to keep pace with bridge deterioration for both on-and off-system bridges.
- Increase the safety program to $75 million annually – this nearly doubling of the safety effort will allow the state to make significant safety advances.
- Increase operations by $9 million annually – enables more attention to flooding problems, traffic signal replacement, rest area rehabilitation, etc.
- Targets an additional $70 million over ten years to increase the ITS program – allows implementation of the ITS Plan, which focuses on early action traffic flow and information programs.
- Creates a $20 million/year Intermodal Connector program, which enables the DOTD to implement projects that improve access to ports, airports, etc.

- Funds small capacity projects at $125 million per year through 2010 and then $85 million per year thereafter.
- Creates a Jurisdictional Transfer Program, which identifies highways that should logically be under local jurisdiction and provides resources for their continued maintenance once transferred off the State system.
- Implements Priority A "Mega" highway projects, which were selected through a process that considered future travel demand, as estimated by a Statewide Travel Demand Model, economic impacts, safety, etc. In this way, the most needed projects are implemented first.
- Provides $1.6 billion over 30 years to enact the following programs and projects for other modes:
  - $6 million annually to help local agencies match Federal Transit Authority funds, which represents 25 percent of the total cost, with the balance coming from federal and local sources.
  - $175 million to help finance the proposed light rail connection between New Orleans International Airport and downtown New Orleans – this would be combined with $200 million in Federal "New Starts" money and $25 million from local agencies – the local agencies would operate and maintain the system once constructed.
  - Establish a One-Stop Truck Center in North Louisiana ($20 million total – $5 million construction and $500,000 annual operating costs).
  - Provide $5 million annually to establish State funding assistance for railroads – to address bottlenecks, "286,000 pound" improvements, upgrading lines to help with agricultural shipments, and circuitry upgrades, and to match federal passenger rail funding, if available.
  - $5 million annually for grade separating highways and railroads at key crossing locations.
  - Increase Louisiana's Port Priority Program by $15.5 million annually – gradual increase to $40 million annually by 2008, then protected from inflation.
  - Implement a Statewide Maritime Marketing Program (take-down from the Port Priority Program) – $500,000 annually.
  - Implement new Aviation Marketing Program – $2 million annually to attract additional air service to the State.
  - Increase State funding for the Aviation program by $10 million annually
  - Provide State support for a new runway at New Orleans International Airport – $100 million State, to be added to $200 million Federal and $150 million local funding.

Scenario 3 implements another layer of new revenues for transportation in Louisiana, assuming that more Federal funding will flow Louisiana's way. This could happen through the implementation of new user fees at the federal level, increasing the overall level of transportation funding, Louisiana getting a larger share of federal funding through changes in apportionment formulas or a shift to help donor states, or a combination. Regardless of the mechanism, an additional $150 million annually in federal highway funding, adjusted for inflation at Year 11 and

21, was assumed for Scenario 3. This results in an additional $3.37 billion being available over the 30-year period, which is recommended to implement Priority B "Mega" highway projects.

RECOMMENDATIONS

The recommended transportation plan for Louisiana is identified below for each mode of transportation. Recommendations were based on input from the Advisory Councils and the needs analysis conducted as a part of this Plan and outlined in Chapter 7. For each recommendation, cost (where available) and its relationship to the Statewide Plan's Goals and Objectives, the Vision 2020 Benchmarks and the TEA-21 planning variables were identified. Based on revenues and available funding, each recommendation was prioritized and grouped according to the four funding scenarios previously discussed: Scenario 1A (Baseline), Scenario 1B (Baseline with inflation adjustment), Scenario 2 ($250 million State increase) and Scenario 3 ($250 million State and $150 million Federal increase).

Highways

Transportation improvements pertaining to highways are summarized in **Tables 9.1a, through 9.1c**. Many of the policy-related recommendations, including increasing funding for pavement and bridge preservation, highway safety and highway operations are identified in funding Scenarios 1A and 1B **(Table 9.1a)**. The megaproject improvements are included in funding Scenarios 2 and 3. Priority A megaprojects (**Table 9.1b**) which scored and ranked high in both the quantitative (travel demand model results) and qualitative (plan goals and objectives) evaluation, were considered highest priority and included in funding Scenario 2. Priority B megaprojects **(Table 9.1c),** which scored and ranked high in either the quantitative or qualitative evaluation were included in funding Scenario 3. Priority C and D mega projects (**Tables 9.1d** and **9.1e**) are included in the plan but are not included in funding Scenarios 1, 2, or 3.

The recommended improvements for Priority A, which include a total of 22 projects with an estimated total cost of $3.1 billion, are shown in **Figure 9.1.** Projects in this scenario include improvements along I-49 North, I-49 South, I-10, I-20, US 61, LA 1, LA 23 and LA 28 West. The recommended improvements for Priority B, which include a total of 11 projects with an estimated total cost of $2.9 billion, are shown in **Figure 9.2.** Projects included in this scenario include improvements along I-49 South, I-69, US 165/US 425 Bypass, US 167, US 190, LA 1 South, LA 511, LA 3139, the Pontchartrain Causeway and other improvements. **Note: Project ID Numbers are not assigned or listed in any order of priority**.

Table 9.1a
Highway Policy Recommendations

Funding Scenario	Recommendation	Cost (million)	Recommendation #
1A	Development and implement a Statewide Access Management Policy	$0.20	H-1
1A	Develop and implement a Statewide Traffic Impact Policy	$0.10	H-2
1A	Allow Local Option Gas Tax (exempt diesel)		H-10
1A, 1B, 2, 3	Support regional transportation planning initiatives in rural areas on a test basis	$0.1/yr.	H-3

Funding Scenario	Recommendation	Cost (million)	Recommendation #
1A, 1B, 2, 3	Increase funding for Pavement Preservation	1A/B: $218/yr., 2/3: $235/yr.	H-4
1A, 1B, 2, 3	Increase funding for Bridge Preservation	1A/B: $115/yr., 2/3: $119/yr.	H-5
1A, 1B, 2, 3	Maintain regular capacity Enhancement Program through 2010	Existing Revenues	H-11
1B, 2, 3	Continue regular capacity Enhancement Program beyond 2010	$85/yr - $100/yr	H-12
2, 3	Increase funding for Highway Safety	$75/yr.	H-6
2, 3	Increase funding for Highway Operations	$35/yr.	H-7
2, 3	Implement the Statewide ITS Plan	$17/yr. (for 10 yrs.), then 10/yr.	H-8
2, 3	Create Intermodal Connector Program to improve access to ports, airports, etc.	$20/yr.	H-9
2, 3	Transfer 5,000 miles of state highways to local governments	$35/yr*	H-10

*Takedown from Pavement Preservation funding.

Table 9.1b
Priority A Megaprojects (Scenario 2)

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 001	Shreveport	I-49 North	I-220 to AR Line	New 4-lane Freeway	$363	$363
LSTP – 002a	I-49 Lafayette	I-49 South	Lafayette Urban	Upgrade to Freeway	$350	$350
LSTP – 004*	Lafourche Parish	LA 1 South	Port Fourchon to US 90	Phase 1 (Leeville Bridge)	$125	$115
LSTP – 005*	Houma	N-S Hurricane Route	US 90 to LA 3127	Build New 2 Lanes	$150	$150
LSTP – 011	Leeville/ Alexandria	LA 28 West	US 171 to Alexandria	Widen 2 to 4 Lanes	$80	$40
LSTP – 020a	Shreveport	I-20	TX Line to I-220 W, Red River Bridge, LA 3 to I-220 E	Widen 4 to 6 Lanes	$175	$175
LSTP – 020b	Monroe	I-20	LA 546 to LA 594	Widen 4 to 6 Lanes	$150	$150
LSTP – 020c	Sulphur/Lake Charles	I-10	TX Line to Sulphur	Widen 4 to 6 Lanes	$80	$80
LSTP – 020d	Lake Charles	I-10	I-210W to Ryan St.	Replace Bridge/ Widen Road	$200	$200
LSTP – 020e	Lake Charles/Iowa	I-10	US 171 to US 165	Widen 4 to 6 Lanes	$50	$50
LSTP – 020f	Lafayette	I-10	LA 93 to Louisiana Ave.	Widen 4 to 6 Lanes	$60	$60
LSTP – 020g	Baton Rouge	I-10	I-110 to I-12	Widen 6 to 8 Lanes	$250	$250

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 020h	Baton Rouge	I-10	I-12 to LA 22 (includes new interchange between LA 42 and LA 73)	Widen 4 to 6 Lanes	$185	$145
LSTP – 020i	Baton Rouge	I-12	O'Neal to Denham Springs	Widen 4 to 6 Lanes	$60	$60
LSTP – 020j	New Orleans	I-10	Williams Blvd. to Causeway Blvd.	Widen 6 to 8 Lanes	$85	$0
LSTP – 020k	New Orleans	I-10	Bullard Ave. to Elysian Fields Ave.	Widen; implement ITS	$185	$185
LSTP – 20l	Hammond	I-12	LA 16 to I-55	Widen 4 to 6 Lanes	$150	$150
LSTP – 20m	Slidell	I-12	LA 21 to I-10/I-59	Widen 4 to 6 Lanes	$150	$150
LSTP – 028	New Orleans	LA 23	Belle Chase Tunnel	Build 4-Lane Bridge	$50	$50
LSTP – 031	St. Francisville	US 61	Thompson Creek to Baines	Widen 2 to 4 Lanes	$40	$20
LSTP – 034	Baton Rouge	US 61(Airline)	Gonzales to US 190 (Florida Blvd)	Widen 4 to 6 Lanes	$60	$40
LSTP - 047	New Orleans	I-10 Twin Span	US 11 to North Shore – Lake Pontchartrain	Widen 4 to 6 Lanes	$100	$100
TOTAL COST					**$3,098**	**$2,883**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.

Table 9.1c
Priority B Megaprojects (Scenario 3)

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 002b	Lafayette/New Orleans	I-49 South	Lafayette to I-310	Upgrade to Freeway	$865	$865
LSTP – 003*	Shreveport	I-69	US 171 to 1-20	New 4-Lane Freeway	$380	$380
LSTP – 004*	Lafourche Parish	LA 1 South	Port Fourchon to US 90	Phase 2 (Four-Lane)	$545	$545
LSTP – 006*	New Orleans	LA 3139 (Earhart)	Hickory, Orleans Parish Line	Add Ramps at Each Limit to Airline Hwy. (US 61)	$125	$125
LSTP – 012*	Monroe	New Bridge	Ouachita River in Monroe Metro area	New Bridge	$50	$50
LSTP – 013	Bastrop	US 165/US 425 Bypass	US 425 to US 165	Build 4 Lanes	$20	$20
LSTP – 024	Abbeville/Esther	US 167	Abbeville to Esther	Build/Upgrade 0/2 to 4/2 Lanes	$25	$25
LSTP – 038	Shreveport/ Bossier City	LA 511 (Jimmie Davis Bridge)	70th St. to Barksdale Blvd.	Replace 2 lane Bridge with 4 lane Bridge	$50	$50
LSTP – 041**	New Orleans	Pontchartrain Causeway	US 190 to I-10	Widen 4 to 6 Lanes/Transit	$425	$425
LSTP – 044	St. Tammany Parish	US 190	Pontchartrain Causeway to US 11	Widen 2 to 4 Lanes	$100	$75
LSTP – 051	Baton Rouge	North Bypass	I-10 to I-12	Build/Upgrade to 4-Lane Interstate Standards	$800	$800
TOTAL COST					**$2,960**	**$2,935**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios

** Cost of LSTP 041 not included in total cost. This project is assumed to be totally financed by Toll Authority funds

Table 9.1d
Priority "C" Megaprojects

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 002c	New Orleans	I-49 South	New Orleans Urban (I-310 to W. Bank Expwy)	Upgrade to Freeway	$750	$750
LSTP – 003*	Shreveport	I-69	TX to I-49/I-20 to AR	Build 4-Lane Freeway	$600	$600
LSTP – 005*	Houma	N-S Hurricane Route & LA 3127	LA 70 to LA 641 US 90 to LA 3127	Widen 2 to 4 Lanes Add Other 2 Lanes	$250	$250
LSTP – 006*	New Orleans	LA 3139 (Earhart)	Hickory to I-310	Build New 6-Lane Freeway	$300	$300
LSTP – 8a	Baton Rouge	LA 1	LA 30	New Bridge	$500	$500
LSTP-010*	West Central LA	LA 6 / US 84	Prioritization Tier I Projects from the El Camino Corridor Masterplan	Widen 2 to 4 Lanes	$100	$100
LSTP – 017	SW Louisiana	US 190/LA 12	TX to Basile	Widen 2 to 4 Lanes	$230	$230
LSTP – 018*	W Central Louisiana	LA 117	LA 8 to Military Training Ground	Reconstruct 2 Lanes with Full Shoulders	$20	$20
LSTP – 019	Rustin/Grambling	LA 149 & Tarbutton Rd. Interchange (No Frontage Rds)		Interchange/Widen	$30	$30
LSTP – 022*	NW Louisiana	LA 1 (Tri-State Corridor)	LA 169 to LA 538	Widen 2 to 4/5 Lanes	$40	$40
LSTP – 023	E Central Louisiana	US 84	Archie to Ferriday	Widen 2 to 4 Lanes	$80	$55
LSTP – 027	Houma	LA 30/40	Houma Tunnel	Build 4-Lane Bridge	$50	$50
LSTP – 033	Central Louisiana	LA 28 East	Alexandria to Archie	Widen 2 to 4 Lanes	$85	$79
LSTP – 037	N of Baton Rouge	LA 67 (Plank Rd)	Baker to Clinton	Widen 2 to 4 Lanes	$70	$70
LSTP – 045	Lafayette	Lafayette Beltway	I-10 to US 90	Build 4-Lane	$300	$300
LSTP – 046	W Baton Rouge Parish	I-10 – LA 1 Connector	I-10 to LA 1	Build 4-Lane	$75	$75
LSTP – 048a	Gonzales	Industrial Access Corridor	I-10 to LA 30	Build 4-Lane	$35	$35
LSTP – 049	Alexandria	McArthur Drive	I-49N to I-49S	Upgrade to Freeway	$60	$60
LSTP-053	Shreveport	I-49	I-20 to I-220	New 6-Lane Freeway	$150	$150
LSTP-054	West Central LA	LA 8	TX to US 171	Widen 2 to 4 Lanes	$65	$65
LSTP-055	New Orleans	I-12	I-55 to LA 21	Widen 4 to 6 Lanes	$125	$125
LSTP-056	W. of Baton Rouge	US 190	I-49 to Baton Rouge Bypass	Upgrade to Freeway	$500	$500
LSTP-057	NW of Lafayette	US 165/US 190	I-10 to US 190 US 190 to I-49	Upgrade to Freeway	$650	$650
				TOTAL COST	**$5,065**	**$5,034**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios

Table 9.1e
Priority "D" Megaprojects

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 007	New Orleans	Florida Ave. Expressway	I-10 to LA 47	Build 6-Lane Freeway	$350	$350
LSTP – 009	Alexandria/Bogalusa	Zachary Taylor Pkwy.	I-49 to I-59	Widen 2 to 4 Lanes	$970	$970
LSTP – 010*	West Central LA	LA 6/US 84 El Camino	TX to Archie	Widening 2 to 4 Lanes	$384	$384
LSTP – 012	Monroe	Ouachita Loop	I-20 to I-20	Build 2 Lanes	$245	$245
LSTP – 014	NW Louisiana	US 371 (Bi-State Corridor)	LA 6 to AR Line	Widen 2 to 4 Lanes	$295	$295
LSTP – 016	NE Louisiana	US 65	LA 15 to AR Line	Widen 2 to 4 Lanes	$225	$225
LSTP – 018*	W Central Louisiana	LA 117	LA 8 to LA 6	Widen 2 to 4 Lanes	$130	$130
LSTP – 021	Monroe/Lake Charles	US 165	I-20 to I-10	Upgrade to Freeway	$1,000	$1,000
LSTP – 022*	NW Louisiana	LA 1 (Tri-State Corridor)	LA 173 to AR Line	Widen 2 to 4 Lanes	$105	$88
LSTP – 025	Baton Rouge	LA 408 (Hooper Rd.)	LA 37 to LA 16	Build 2-Lane	$35	$35
LSTP – 029	New Orleans	Chalmette Bridge/I-510	MRGO to Westbank Expressway	Extend Fwy; build new Bridge	$1,000	$1,000
LSTP – 032	Natchitoches	East Bypass	LA 1 to LA 6	Build 2-Lane	$20	$20
LSTP – 048b	Gonzales	Industrial Access Corridor	LA 30 to LA 942	Build 4-Lane	$35	$35
LSTP – 050	New Orleans	Donner Rd.	Westbank Expwy. to Peters Rd.	Build 4-Lane	$80	$80
LSTP – 052	Monroe	LA 137/133	I-20 to Bastop	Widen 2 to 4 lanes	$100	$100
TOTAL COST					**$4,934**	**$4,917**

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios

The projects listed below in **Table 9.1f** are projects that could be funded under the proposed Intermodal Access Connector Program.

Table 9.1f
Preliminary List of High Priority Projects to be Funded Under the Proposed Intermodal Access Connector Program

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 030	Hammond	LA 3234 (University Ave.)	LA 1065 to Hammond Airport	Build 2-Lane	$8	$8
LSTP - 035	New Orleans	Almonaster Br.		New Bridge	$45	$12
LSTP – 039	Monroe	Garrett Rd.	I-20 to Kansas Lane	Widen 2 to 4 Lanes	$25	$25
LSTP – 040	Lake Charles	Port Access Rd.	Prien Lake Rd. to Marine St.	Build 4 Lanes	$25	$25
LSTP – 042a	LaPlace	Port of S. LA Connector	LA 44 to Airline Hwy.	Build 2 Lanes	$10	$10
LSTP – 042b	LaPlace	Port of LA Connector	Airline Hwy. to I-10	Build 4 Lanes	$25	$25

Project ID	Area	Highway	Limits	Improvement Type	Total Project Cost ($m)	Unfunded Project Cost ($m)
LSTP – 043	New Orleans	LA 3017 (Peters Rd.)	Westbank Expwy. to LA 23	Widen/Build 2/0 to 3/2 Lanes	$80	$80
TOTAL COST					**$218**	**$185**

One project, LSTP-026, the relocation of LA 1 from US 90 to existing LA 1 in White Castle has been deleted from further consideration. The National Highway System (NHS) designation should therefore be removed from this proposed facility and reassigned to other existing and proposed routes included in this Plan.

Trucking

Table 9.2 identifies transportation improvements related to trucking. All trucking recommendations are included in the 1A and 1B funding scenarios with the exception of recommendation T-2, which involves establishing a one-stop state truck permitting/processing center in North Louisiana. This recommendation will involve an initial investment of $5 million dollars and $0.5 million annually, and is included in funding Scenario 2.

Table 9.2
Trucking Recommendations

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
1A, 1B, 2, 3	Establish Regional "Operations" Advisory Councils		T-1
1A, 1B, 2, 3	Modify port zone permitting to address distance issue		T-3
1A, 1B, 2, 3	Automate weigh stations (WIM and AVI)	Incorporated in existing capital budget for Operations/ Motorist Services	T-4
1A, 1B, 2, 3	Pursue uniformity in permitting and enforcement of overweight and oversize vehicles		T-5
1A, 1B, 2, 3	Create economic development incentives to encourage extended hours at truck terminals, including public port facilities		T-6
1A, 1B, 2, 3	Develop model truck facility site access design standards		T-7
2, 3	Establish one-stop state truck permitting/processing center in North Louisiana	$5 one time & $0.5 annually	T-2

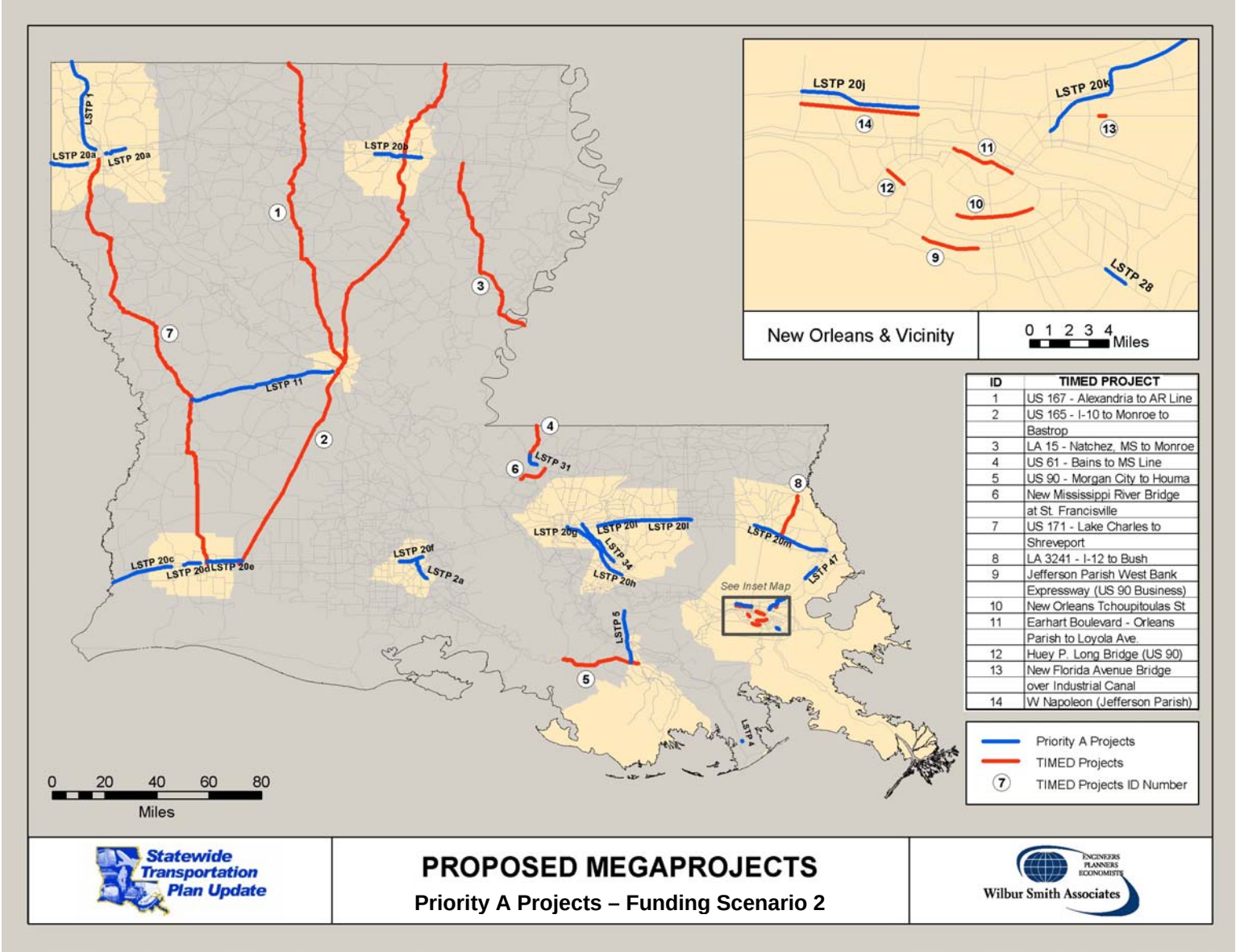


Figure 9.1
Priority 'A' Projects (Funding Scenario 2) Developed for the Louisiana Statewide Transportation Plan

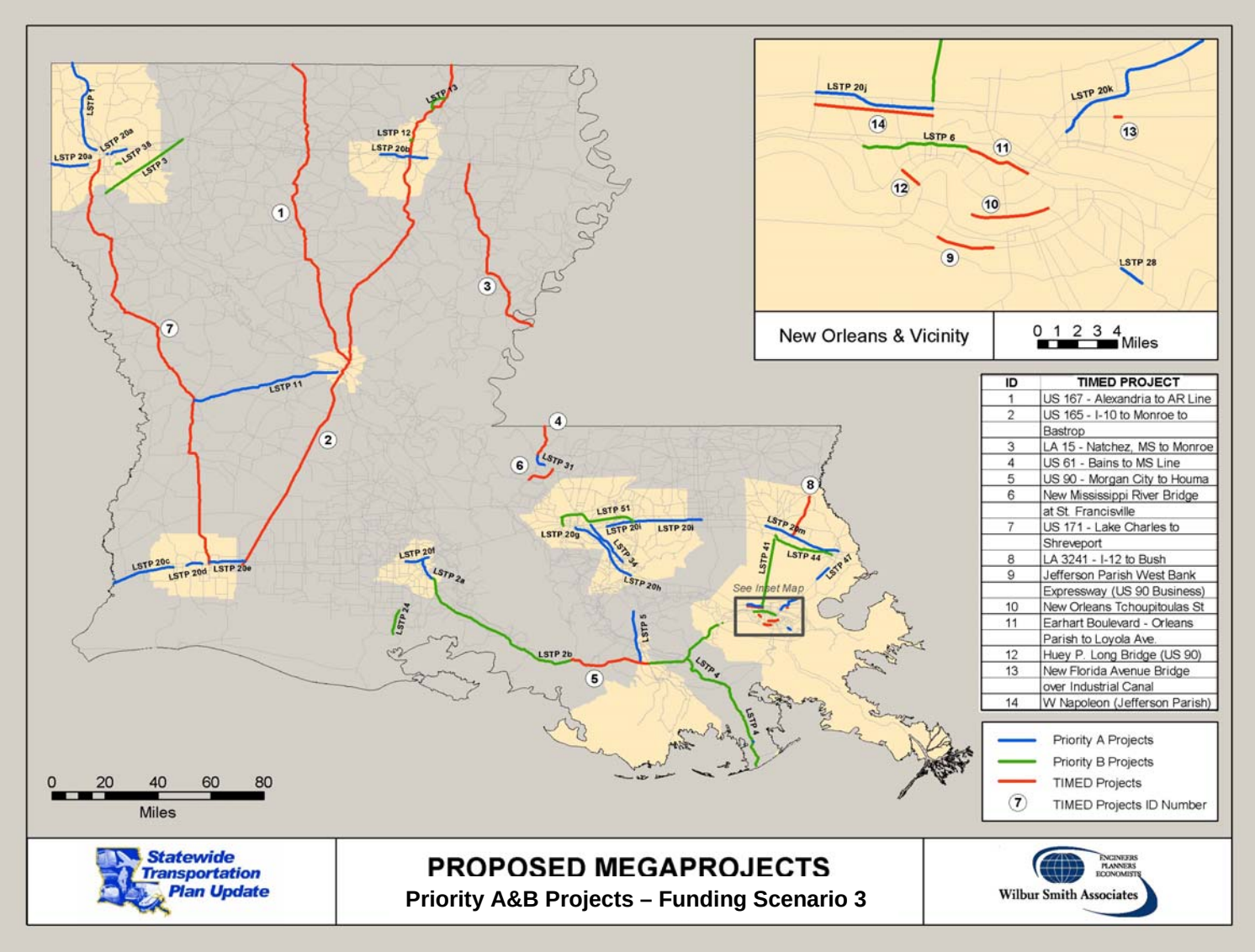


Figure 9.2
Priority 'A' and 'B' Projects (Funding Scenario 3) Developed for the Louisiana Statewide Transportation Plan *

* The alignments shown for LSTP-3, LSTP-51 and other "Build" projects are for illustrative purposes only and will likely change as the project(s) proceed through the initial engineering and environmental evaluation processes.

Aviation

Recommended aviation improvements are identified in **Table 9.3.** Major aviation initiatives in funding Scenarios 2 and 3 include an aviation marketing program ($2 million/year), airfield and terminal capacity improvements, a new runway at New Orleans International Airport ($450 million) and an increase in State support for aviation.

Table 9.3
Aviation Recommendations

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
1A, 1B, 2, 3	Rehabilitate infrastructure deficiencies identified in the Louisiana Airport System Plan to minimum standards*	$97.6	A-4
1A, 1B, 2, 3	Continue program of land acquisition/aviation easements for obstruction removal	$3.0	A-6
1A, 1B, 2, 3	Update intrastate air service study to reflect current conditions in airline industry	$0.1	A-7
1A, 1B, 2, 3	Study feasibility and role of vertical take off aircraft in Louisiana aviation	$0.25	A-8
1A, 1B, 2, 3	Support the private development of a new air cargo airport and intermodal transportation center in southeast Louisiana		A-9
1A, 1B, 2, 3	Support an ongoing annual appropriation from the general fund to support the General Aviation and Reliever Airport Maintenance Program	$0.2	A-14
1A, 1B, 2, 3	Support reauthorization of the Federal Airport Improvement Program		A-15
1A, 1B, 2, 3	Support continued development of passenger and air cargo facilities at all commercial service airports		A-16
1A, 1B, 2, 3	Fund airfield and passenger terminal capacity improvements statewide**	$1,000	A-10
2, 3	Market aviation program to attract additional air service	$2.0 per year	A-5
2, 3	Participate in the funding of an additional air carrier runway at New Orleans International Airport (Total Cost = $450M)	$100 State Share	A-11

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
2, 3	Increase the level of funding from $5 million to $15 million annually for Louisiana's aviation program to reflect the current contribution of taxes to the State from the sale of aviation fuel	$10/ Year	A-13

* Long-term goal as part of DOTD annual budget process

** Total for all LASP deficiencies and short-term projects (5-10 years) for all airports in the State, including New Orleans International, is estimated at $1.4 billion

Freight Railroad

Recommended improvements for freight rail are identified in **Table 9.4**. Major freight rail initiatives are included in funding Scenarios 2 and 3 and include establishing state funding for railroads ($150 million) and increased support for rail/highway grade crossings ($150 million).

Table 9.4
Freight Rail Recommendations

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
1A, 1B, 2, 3	Educate the state's Congressional delegation on the need for federal funding for the State's 11 small railroads		R-1
1A, 1B, 2, 3	Continue and expand Louisiana's Freight Rail Advisory Council	$0.01 per year	R-2
1A, 1B, 2, 3	Support the interests of rail shippers and small railroads		R-3
1A, 1B, 2, 3	Help small railroads secure grants and loans from existing and future federal assistance programs		R-4
1A, 1B, 2, 3	Add three positions to the Rail Section of DOTD, including a Rail Safety Compliance Officer and two program managers	$0.3 per year	R-11
1A, 1B, 2, 3	Monitor, study and potentially fund ongoing rail-related projects that may be important to the economic competitiveness of Louisiana, including the Millennium Port project, North Shore Freight Distribution Rail Shuttle, Rail Connectivity to the proposed LA Transportation Center, and rail connectivity to sugar cane mills		R-10
2, 3	Establish state funding for railroads	$5 per year	R-5
2, 3	Establish highway / rail grade separation program	$5 per year	R-8

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
2, 3	Research incentive programs for closures of public and private grade crossings	$0.3	R-13

Ports & Waterways

Table 9.5 identifies ports and waterways recommendations. Major initiatives in funding Scenarios 2 and 3 include increasing the State's Port Priority Program contribution, and dedicating $0.5 million/year to the development of a statewide maritime marketing program. Recommendations related to improving intermodal connectors are included in funding Scenario 2 for highways.

Table 9.5
Ports and Waterways Recommendations

Funding Scenario	Recommendation	Cost (million)	Recommendation #
1A, 1B, 2, 3	Address the backlog in improvements to Federally-maintained waterways	$250-$300M, 2003-07 (from State capital outlay bonds)	M-5
1A, 1B, 2, 3	Continue to work through the Gulf Rivers Intermodal Partnership (GRIP) to increase utilization of the inland waterway system and of coastal shipping		M-8
1A, 1B, 2, 3	Support development of the "Millennium Port" through public/private partnership		M-9
2, 3	Grow combined public and private investments in port facility expansion to accommodate expected growth in demand to $535 million/year by 2007. Increase the State's Port Priority Program contribution to these improvements by $5 million/year, resulting in contributions of $40 million/yr by 2008.	Increase to $40 million/yr by 2008 and sustain thereafter	M-1
2,3	Dedicate $0.5 million/year to the development of a Statewide Maritime Marketing Program (take-down from Port Priority Program)	$0.5 million/year (included in recommendation M-1)	M-4

Surface Passenger

Table 9.6 identifies surface passenger recommendations. Most of the recommendations in funding Scenarios 1A and 1B are policy oriented initiatives including promoting the National Passenger Rail System, supporting the Southern Rapid Rail Transit Commission, creating an Intercity Bus Task Force and other initiatives. Major initiatives included in funding Scenarios 2

and 3 include increasing the availability of rural public transportation services ($24 million/yr.), which addresses Vision 2020 Benchmark 2.3.7 with regards to increasing the number of parishes with a public transportation system, and supporting the Airport to New Orleans CBD light rail link ($175 state contribution).

Table 9.6
Surface Passenger Recommendations

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
1A, 1B, 2, 3	Educate elected officials about the need for, and benefits of, public transportation		SP-1
1A, 1B, 2, 3	Create new funding sources for public transportation		SP-2
1A, 1B, 2, 3	Market/promote public transportation		SP-3
1A, 1B, 2, 3	Promote and implement Transit Oriented Developments		SP-4
1A, 1B, 2, 3	Develop programs to enhance the safety and security of public transportation systems through ITS		SP-5
1A, 1B, 2, 3	Support improvements to increase passenger rail ridership and fare box recovery ratios		R-6
1A, 1B, 2, 3	Continue to study existing and potential passenger rail corridors where ridership levels can be sustained or increased	$0.2 per year	R-7
1A, 1B, 2, 3	Promote and develop connectivity between public transportation systems		SP-8
1A, 1B, 2, 3	Develop alternatives to traditional rural transit systems		SP-9
1A, 1B, 2, 3	Coordinate planning of federal funding sources for specialized transit		SP-10
1A, 1B, 2, 3	Utilize Intelligent Transportation Systems		SP-11
1A, 1B, 2, 3	Promote public transportation service with centers of higher learning		SP-12
1A, 1B, 2, 3	Promote the National Passenger Rail System		SP-13
1A, 1B, 2, 3	Continue financial support for the activities of the Southern Rapid Rail Transit Commission (SRRTC)	$0.07	SP-14
1A, 1B, 2, 3	Create an intercity bus task force		SP-18
1A, 1B, 2, 3	Develop a statewide intercity bus needs assessment	$0.125	SP-19

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
1A, 1B, 2, 3	Support pending federal legislation to fund essential bus service		SP-20
1A, 1B, 2, 3	Continue to partner with FRA to develop Maglev technologies		SP-21
1A, 1B, 2, 3	Develop comprehensive transit master plan for the entire Baton Rouge metropolitan area	$0.5	SP-22
2, 3	Increase availability of basic public transportation services; State share @ 25% (balance from federal & local sources)	$6 per yr.	SP-7
2,3	Construct the Airport - New Orleans CBD light rail line	$175 (state contribution)	SP-16

Intelligent Transportation Systems

Intelligent Transportation System (ITS) recommendations are shown in **Table 9.7.** ITS recommendations include implementing the Statewide ITS Plan, implementing the LA Commercial Vehicle Information and Systems Network (CVISN) plan, and other policy related initiatives.

Table 9.7
ITS Recommendations

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
1A, 1B, 2, 3	Incorporate ITS projects that support the ability of rural transit systems to respond to users and improve safety into the Statewide ITS Implementation Plan		ITS-4
1A, 1B, 2, 3	Support the standardization of ITS Technologies being implemented at ports in Louisiana		ITS-5
1A, 1B, 2, 3	Amend the policy on Management and Operations of TMCs to address the issues of “collection and archiving of ITS data		ITS-6
1A, 1B, 2, 3	Include user representatives on the regional ITS Policy Committees		ITS-1
2, 3	Support the implementation of the Statewide ITS Plan	Additional $7M per year for 10 years	ITS-2
2, 3	Support the implementation of the LA Commercial Vehicle Information and Systems Network (CVISN) plan	$12M over 5 years (included in ITS-2)	ITS-3

Table 9.8 presents the bicycle and pedestrian recommendations formulated as part of the Louisiana Statewide Transportation Plan. These recommendations represent LDOTD's commitment to providing the planning and infrastructure necessary to make non-motorized modes a viable transportation option for Louisiana's citizens.

Table 9.8
Bicycle/Pedestrian

Funding Scenario	Recommendation	Cost (millions)	Recommendation #
1A, 1B, 2, 3	Develop a comprehensive policy for non-motorized transportation		BP-1
1A, 1B, 2, 3	Develop statewide bicycle suitability map		BP-2
1A, 1B, 2, 3	Develop statewide bicycle goals map		BP-3
1A, 1B, 2, 3	Provide for "routine accommodation" of bicycle/pedestrian needs in DOTD planning and design processes		BP-4
1A, 1B, 2, 3	Support incorporation of bicycle and pedestrian improvements in transportation planning and in highway and transit projects		BP-5 (initially SP-6)

Multimodal Recommendations

The Advisory Councils developed several recommendations that applied "across the board" in a multimodal sense. These recommendations have been extracted from the individual Advisory Councils and listed here to apply to each mode:

- Educate/inform Louisiana's Congressional Delegation concerning the status of transportation in the State, especially concerning:
  - Louisiana's transportation needs, including the extent, shortfall, and funding needed to maintain existing performance levels and improve performance.
  - Louisiana's transportation priorities – the delegation must be familiar with the results and recommendations contained in the updated Plan to guide their federal agenda for Louisiana.
  - Advance special funding requests – the delegation will be presented with numerous opportunities to pursue/secure special federal funding, both on a regular basis and as the reauthorization of federal transportation legislation is developed. The delegation must be informed concerning those high priority projects that the State believes should be advanced.
- Continue/expand the various Advisory Councils – the forum they provide is

beneficial to transportation in Louisiana.

- Identify Strategic Freight Transportation System – in recognition of the importance of freight, identify the multimodal system of greatest importance to the state's economy.

Coordination with Metropolitan Planning Organizations

This Transportation Plan focuses primarily on statewide transportation corridors, facilities, programs and initiatives. However, it should be noted that the fiscally constrained long-range metropolitan transportation plans, developed by the respective MPOs for each of the nine metropolitan areas in Louisiana, are incorporated into this Plan by reference, and without modification. As a result of the 2000 Census, a tenth metropolitan area (Mandeville-Covington) has been designated. A fiscally constrained long-range plan will be developed for this new metropolitan area and upon its completion, will be incorporated into this Plan.

LOUISIANA MEGAPROJECTS

LOUISIANA MEGAPROJECTS SPECIFIED IN THE LSTP PLAN UPDATE

Note: Project ID is for informational purposes only and does not imply priority

Project ID	Facility	Location	From	To	Improvement Type (Modeled)	From # Lanes	To # Lanes	Length (miles)	Facility Type	Modeling Group	Total Capital Cost ($m)	Unfunded Capital Cost ($m)	Estimated Total Capital Cost / Mile ($m)	Funding Priority Scenario	Scale of Modeling Impact
LSTP-001	**I-49 N. extension**	Shreveport	I-220	AR Line	BUILD	0	4	38	Freeway	2	$363	$363	$10	A	Statewide
LSTP-002a	**I-49 S. extension**	Lafayette - New Orleans	Lafayette Urban Area		UPGRADE (US 90)	4	4	9	Freeway	2	$350	$350	$39	A	Statewide
LSTP-002b			Lafayette Urban	I-310				119			$865	$865	$7	B	
LSTP-002c			I-310	Westbank Expressway				110			$750	$750	$7	C	
LSTP-003*	**I-69**	NW LA	TX Line	AR Line	BUILD	0	4	100	Freeway	3	$380	$380	$10	B	Statewide
											$600	$600		C	
LSTP-004*	**LA 1 (South)**	S. Central LA	N/A		NEW BRIDGE	0	4	51	Freeway	1	$125	$115	$13	A	Statewide
			Port Fourchon	US 90	WIDEN	2	4				$545	$545		B	
LSTP-005*	**North South Hurricane Evacuation Route & LA 3127**	S. Central LA	US 90	LA 3127	BUILD	0	2	20	Arterial	3	$150	$150	$8	A	Statewide
			US 90 LA 70	LA 3127 LA 641	Add Other 2 Lanes WIDEN (LA 3127)	2 2	4 4	21			$250	$250	$12	C	
LSTP-006*	**LA 3139 (Earhart Expressway) extension**	New Orleans	Orleans Parish Line	Hickory	UPGRADE	N/A		N/A	Freeway	2	$125	$125	N/A	B	Regional
			Hickory	I-310	BUILD	0	6	7			$300	$300	$43	C	
LSTP-007	**Florida Avenue Expressway and Bridge**	New Orleans	I-10	LA 47	BUILD	0	6	6	Freeway	2	$350	$350	$58	D	Regional
LSTP-008a	**New Bridge**	Baton Rouge	LA 1	LA 30	BUILD	0	6	14	Arterial	1	$500	$500	$107	C	Regional
LSTP-008b	***Southern Baton Rouge Bypass***		*I-10*	*I-12*		*0*	*4*	*60*	*Freeway*	*2*	*N/A*	*N/A*	*N/A*	*N/A*	*Statewide*
LSTP-009	**Zachary Taylor Parkway**	E. Central LA	I-49	I-59	WIDEN	2	4	197	Arterial	1	$970	$970	$5	D	Regional
LSTP-010*	**LA 6/US 84 (El Camino East-West Corridor)**	W. Central LA	TX Line	Archie	Prioritization Tier I Projects from the El Camino Corridor Masterplan	2	4	130	Arterial	2	$100	$100	$4	C	Regional
					Remainder						$384	$384		D	
LSTP-011	**LA 28 West**	Central LA	US 171	Alexandria	WIDEN	2	4	49	Arterial	1	$80	$40	$2	A	Statewide
LSTP-012*	**Ouachita Loop**	Monroe	Located at Northern River Crossing		NEW BRIDGE	0	2	39	Arterial	1	$50	$50	$8	B	Regional
			I-20 E	I-20 E	BUILD	0	2				$245	$245		D	
LSTP-013	**Bastrop Bypass**	NE LA	US 165	US 425	BUILD	0	4	7	Arterial	2	$20	$20	$3	B	Regional
LSTP-014	**US 371 (Bi-State Corridor)**	NW LA	LA 6	AR Line	WIDEN	2	4	116	Arterial	1	$295	$295	$3	D	Regional
LSTP-015	***Larose-Lafitte Highway***	*SE LA*	*LA 1*	*LA 3257*	*BUILD*	*0*	*2*	*21*	*Arterial*	*1*	*N/A*	*N/A*	*N/A*	*N/A*	*Regional*
LSTP-016	**US 65**	NE LA / Clayton	LA 15	AR Line	WIDEN	2	4	101	Arterial	1	$225	$225	$2	D	Regional
LSTP-017	**US 190/LA 12 (Acadiana Trail)**	SW LA	TX Line	Basile	WIDEN	2	4	73	Arterial	2	$230	$230	$3	C	Regional
LSTP-018*	**LA 117**	W. Central LA	LA 8	LA 6	WIDEN	2	4	43	Arterial	2	$20	$20	$2	C	Regional
											$130	$130	$4	D	
LSTP-019	**Highway 149 widening/ Tarbutton Road interchange improvements**	N. Central LA	LA 149	LA 167	UPGRADE INTCHG /WIDEN/BUILD	0/2	2/4	~ 1	N/A	3	$30	$30	$30	C	Local
LSTP-020a1	**I-20**	NW LA / Shreveport	TX Line	I-220 E	WIDEN	4	6	12	Freeway	3	$125	$125	$10	A	Statewide
LSTP-020a2	**Red River Bridge**														

Project ID	Facility	Location	From	To	Improvement Type (Modeled)	From # Lanes	To # Lanes	Length (miles)	Facility Type	Modeling Group	Total Capital Cost ($m)	Unfunded Capital Cost ($m)	Estimated Total Capital Cost / Mile ($m)	Funding Priority Scenario	Scale of Modeling Impact
LSTP-020b	**I-20**	Monroe	LA 546	LA 594	WIDEN	4	6	16	Freeway	3	$150	$150	$9	A	Statewide
LSTP-020c	**I-10**	SW LA	TX Line	Sulphur	WIDEN	4	6	21	Freeway	3	$80	$80	$4	A	Statewide
LSTP-020d	**I-10**	Lake Charles	I-210	Ryan St	WIDEN	4	6	6	Freeway	3	$200	$200	$33	A	Statewide
LSTP-020e	**I-10**	Lake Charles	US 171	US 165	WIDEN	4	6	11	Freeway	3	$50	$50	$5	A	Statewide
LSTP-020f	**I-10**	Lafayette	LA 93	Louisiana Ave.	WIDEN / INTCHG IMP	4	6	8	Freeway	3	$60	$60	$8	A	Statewide
LSTP-020g	**I-10**	Baton Rouge	I-110	I-12	WIDEN / INTCHG IMP	6	8	4	Freeway	3	$250	$250	$63	A	Statewide
LSTP-020h	**I-10**	E. Baton Rouge, Ascension & St. James Parishes	I-12	LA 641	WIDEN / NEW INTCHG	4	6	23	Freeway	3	$185	$145	$8	A	Statewide
LSTP-020i	**I-12**	Baton Rouge Metro	O'Neal	Denham Springs	WIDEN	4	6	3	Freeway	1	$60	$60	$20	A	Statewide
LSTP-020j	**I-10**	New Orleans Metro	Williams Blvd.	Causeway Blvd.	WIDEN	6	8	5	Freeway	3	$85	$0	$17	A	Statewide
LSTP-020k	**I-10**	New Orleans	Bullard Ave.	Elysian Fields Ave.	ADD HOV	6	7	20	Freeway	3	$185	$185	$9	A	Statewide
LSTP-020l	**I-12**	Hammond	LA 16	I-55	WIDEN	4	6	28	Freeway	3	$150	$150	$5	A	Statewide
LSTP-020m	**I-10**	Slidell	LA 21	I-10 / I-59	WIDEN	4	6	26	Freeway	3	$150	$150	$6	A	Statewide
LSTP-021	**US 165**	Monroe - Lake Charles	I-20	I-10	UPGRADE	4	4	183	Freeway	2	$1,000	$1,000	$5	D	Statewide
LSTP-022*	**LA 1 (Tri-State Corridor)**	Central LA	LA 173	AR Line	WIDEN	2	4	37	Arterial	3	$40	$40	$4	C	Regional
											$105	$88		D	
LSTP-023	**US 84**	Central LA	Archie	Ferriday	WIDEN	2	4	27	Arterial	2	$80	$55	$3	C	Regional
LSTP-024	**US 167**	S. Central LA	US 167	LA 82	BUILD	0	4	12	Arterial	1	$15	$15	$2	B	Regional
			Abbeyville	Ester	UPGRADE	2	2				$10	$10			
LSTP-025	**LA 408 (Hooper Road)**	Baton Rouge Metro	LA 37	LA 16	BUILD	0	2	1	Arterial	3	$35	$35	$35	D	Local
LSTP-026	***LA 1 (Relocated)***	*S. Central LA / White Castle*	*US 90*	*LA 1*	*BUILD*	*0*	*4*	*51*	*Arterial*	*1*	*N/A*	*N/A*	*N/A*	*N/A*	*Regional*
LSTP-027	**LA 3040 (Houma) Tunnel**	Houma Metro	N/A		BRIDGE	2	4	N/A	Arterial	3	$50	$50	N/A	C	Local
LSTP-028	**LA 23 (Belle Chase) Tunnel**	New Orleans Metro	N/A		BRIDGE	4	4	N/A	Arterial	3	$50	$50	N/A	A	Regional
LSTP-029	**Chalmette Bridge and I-510 extension**	New Orleans Metro	I-310	I-510	BUILD	0	4	43	Freeway	1	$1,000	$1,000	$23	D	Regional
LSTP-030	**LA 3234 extension (University Ave.)**	Hammond	LA 1065	Hammond Municipal Airport	BUILD	0	2	2	Arterial	3	$8	$8	$4	IMACC	Local
LSTP-031	**US 61**	SE LA	Thompson Creek	Bains	WIDEN	2	4	5	Arterial	3	$40	$20	$8	A	Regional
LSTP-032	**East Natchitoches Bypass**	Central LA	LA 1	LA 6	BUILD	0	2	5	Arterial	2	$20	$20	$4	D	Local
LSTP-033	**LA 28 East**	Central LA	Alexandria	Archie	WIDEN	2	4	32	Arterial	1	$85	$79	$3	C	Regional
LSTP-034	**US 61 (Airline Hwy.)**	Baton Rouge Metro	Gonzales	US 190	WIDEN	4	6	18	Arterial	1	$60	$40	$3	A	Regional
LSTP-035	**Almonaster Bridge**	New Orleans Metro	N/A		BRIDGE REPLCMT / WIDENING	2	4	1	Arterial	1	$45	$12	$90	IMACC	Statewide
LSTP-037	**LA 67 (Plank Rd)**	SE LA	Baker	Clinton	WIDEN	2	4	22	Arterial	1	$70	$70	$3	C	Regional

Project ID	Facility	Location	From	To	Improvement Type (Modeled)	From # Lanes	To # Lanes	Length (miles)	Facility Type	Modeling Group	Total Capital Cost ($m)	Unfunded Capital Cost ($m)	Estimated Total Capital Cost / Mile ($m)	Funding Priority Scenario	Scale of Modeling Impact
LSTP-038	**LA 511 (Jimmie Davis Bridge)**	NW LA / Shreveport	70th St.	Barksdale Blvd.	BRIDGE / WIDEN	2	4	1	Arterial	3	$50	$50	$50	B	Regional
LSTP-039	**Garrett Road (Monroe)**	Monroe	I-20	Kansas Ln.	WIDEN / INTCHG. IMP.	2	4	1	Arterial	3	$25	$25	$25	IMACC	Regional
LSTP-040	**Port of Lake Charles access road**	SW LA	Prien Lake Rd.	Marine St.	BUILD	0	4	1	Arterial	3	$25	$25	$25	IMACC	Regional
LSTP-041**	**Lake Ponchatrain Causeway & addition of transit improvements**	SE LA	US 190	I-10	WIDEN	4	6	26	Freeway	1	$425	$425	$16	B	Statewide
LSTP-042a	**Port of South Louisiana - I-10 Connector**	SE LA	LA 44	Airline Hwy.	BUILD	0	2	2	Arterial	2	$10	$10	$5	IMACC	Regional
LSTP-042b			Airline Hwy.	I-10		0	4	3			$25	$25	$8		
LSTP-043a	**LA 3017 (Peters Rd.)**	New Orleans Metro	Westbank Expressway	Engineer's Road	UPGRADE/WIDEN	2	3	6	Arterial	1	$80	$80	$13	IMACC	Statewide
LSTP-043b	**LA 3017 (Peters Rd.) extension (including bridge over ICWW)**		Engineer's Road	LA 23	NEW BRIDGE	0	2								
LSTP-044	**US 190**	St. Tammany Parish	Lake Ponchatrain Causeway	US 11	WIDENING	2	4	21	Arterial	2	$100	$75	$5	B	Regional
LSTP-045	**Lafayette Beltway**	S. Central LA	I-10	US 90	BUILD	0	4	36	Arterial	1	$300	$300	$8	C	Regional
LSTP-046	**I-10 - LA 1 Connector (including bridge over ICWW)**	W. Baton Rouge Parish	I-10	LA 1	BUILD	0	4	5	Arterial	1	$75	$75	$15	C	Regional
LSTP-047	**I-10 Twin Span Bridge**	SE LA	US 11	N. Shore - Lake Ponchatrain	WIDEN	4	6	6	Freeway	3	$100	$100	$17	A	Statewide
LSTP-048a	**Industrial Access Corridor**	Baton Rouge Metro	I-10	LA 30	BUILD	0	4	5	Arterial	1	$35	$35	$7	C	Local
LSTP-048b			LA 30	LA 942		0	4	3	Arterial		$35	$35	$12	D	
LSTP-049	**McArthur Drive**	Alexandria Metro	I-49 (South of Alexandria)	I-49 (North of Alexandria)	UPGRADE	4	4	8	Freeway	3	$60	$60	$8	C	Regional
LSTP-050	**Donner Rd.**	New Orleans Metro	Westbank Expressway	Peters Rd.	BUILD	0	4	5	Arterial	3	$80	$80	$16	D	Local
LSTP-051	**Northern Baton Rouge Bypass**	Baton Rouge Metro	I-10	I-12	Build/Upgrade to 4-Lane Interstate Standards	0 2	4 4	30	Freeway	1	$800	$800	$27	B	Statewide
LSTP-052	**LA 137 / 133**	Monroe	I-20	Bastrop	WIDEN	2	4	23	Arterial		$100	$100	$4	D	
LSTP-053	**I-49**	Shreveport	I-20	I-220	BUILD	0	6	4	Freeway		$150	$150	$38	C	
LSTP-054	**LA 8**	W. Central LA	TX	US 171	WIDEN	2	4	20	Arterial		$65	$65	$4	C	
LSTP-055	**I-12**	New Orleans	I-55	LA 21	WIDEN	4	6	21	Freeway		$125	$125	$6	C	
LSTP-056	**US 190**	W. of Baton Rouge	I-49	Baton Rouge Bypass	UPGRADE	4	4	50	Freeway		$500	$500	$10	C	
LSTP-057	**US 165 / US 190**	NW of Lafayette	I-10 US 190	US 190 I-49	UPGRADE	4	4	33	Freeway		$650	$650	$20	C	
										TOTAL COST	**$16,690**	**$16,369**			

* Magnitude of original proposed Megaproject modified, or separated into two separate funding scenarios.

** Cost of LSTP 041 not included in total cost. This project is assumed to be totally financed by Toll Authority funds.

Megaprojcts listed in red italics denote those that were dropped from the evaluation process after subjective analysis

PROJECT NEWSLETTERS

April 2001

LOUISIANA
STATEWIDE TRANSPORTATION PLAN UPDATE

Project Overview

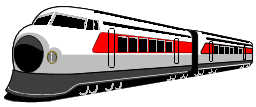
The Louisiana Department of Transportation and Development (LDOTD) is committed to maintaining a current, viable transportation plan that helps guide the investment of public resources in Louisiana. The update to the 1996 *Statewide Intermodal Transportation Plan* (SITP) confirms this commitment.

In the summer of 2000, the LDOTD and a consultant team led by Wilbur Smith Associates embarked together on the 2½-year task of updating the transportation plan. The existing SITP is multimodal in its approach, establishes measurable goals, defines objectives to achieve those goals and was developed in concert with the citizens of Louisiana. The SITP has served the LDOTD well by establishing a foundation for planning Louisiana's transportation infrastructure as it enters the 21st century.

However, as time passes, conditions affecting the transportation environment change, and even far-reaching, innovative planning documents must be updated. Since the adoption of the SITP, Congress passed the *Transportation Equity Act for the 21st Century* (TEA-21). This legislation places more emphasis on accommodating freight movements, and using technology to make transportation systems more efficient. This is particularly important in Louisiana, where the efficiency of freight transport has a large bearing on the State's overall economic well being.

The link between a state's economy and good transportation has been firmly established, and Louisiana wants to use transportation investments to improve the quality of life for its citizens. Federal funding was increased through TEA-21, but Louisiana wants to be assured that its level of infrastructure investment is sufficient to implement the goals set forth in the existing SITP and the *Louisiana Master Plan for Economic Development* (*Louisiana: Vision 2020*), a 20-year economic development and strategic plan.

The *Statewide Transportation Plan Update* will continue developing the statewide transportation policy and planning framework so that these goals may be realized, today and over the next 30 years.



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Ken Perret
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Dr. Movassaghi Addresses First Statewide Transportation Conference

Building upon the successful public involvement process implemented in developing the SITP, the LDOTD held a conference in New Orleans to initiate the *Louisiana Statewide Transportation Plan Update*. The purpose of the conference was to provide stakeholders an update / status report and give the LDOTD staff an opportunity to listen to its
tomers.

The Department wants input on major transportation issues facing Louisiana over the next 30 years, including how to use public investment to reshape the economy and improve the state's quality of life.

The conference was attended by more than 175 persons representing every transportation mode, state and local government, educators, officials, state agencies, shippers, operators, the business community, and other interest groups. The LDOTD arranged for presentations / comments from a group of speakers that provided a sound basis for discussing the future of transportation in Louisiana. *(see left sidebar)*

The audience listened respectfully to the viewpoints of the speakers and enthusiastically weighed in on how, where, why and by how much the LDOTD could improve transportation. Dr. Kam K. Movassaghi, Secretary of the LDOTD, was a major player in the conference. He presided over the conference, delivered his personal comments on the state of transportation in Louisiana, attended breakout sessions, and made himself available to answer questions offered during the conference. His personal commitment to this update process was evident throughout.

On behalf of the Department, Dr. Movassaghi sees this plan update as an opportunity to take advantage of the many economic opportunities offered by the global market and tourism so Louisiana's citizens can be the beneficiaries of sound government decisions.

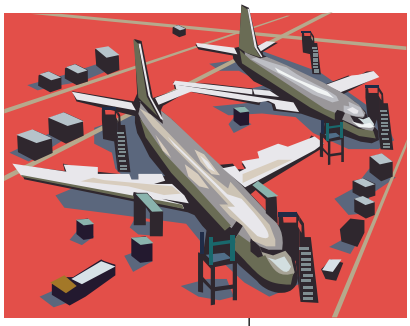
The consultant team and LDOTD staff also facilitated breakout sessions that allowed a more focused evaluation, and specialized exchange of ideas concerning Louisiana's separate modal systems. The breakout sessions were organized according to six major areas of transportation planning (Air Transportation, Freight Railroad, Ports & Waterways, Regional Planning Officials, Surface Intercity Passenger, and Trucking).

Presenters at the First Statewide Conference:

Kevin E. Cunningham, *Assistant Chief of Staff to the Governor*
Mark S. Smith, *Deputy Secretary, Louisiana Dept. of Culture, Recreation and Tourism*
Harold Price, *Assistant Secretary, Office of Commerce & Ind., Louisiana Dept. of Economic Development*
William A. Sussman, *Division Administrator, Federal Highway Administration*
James J. Murphy, *Ports & Environmental Officer, US Maritime Administration*
Eric Kalivoda, *Deputy Assistant Secretary, Office of Planning & Programming, LDOTD*
Michael R. Conwell, *Senior VP, Hibernia Bank*
Arno Hart, *Senior Economist, Wilbur Smith Associates*
Ron Brinson, *President & CEO, Port of New Orleans*
Major Mark Oxley, *Louisiana State Police*
Dale A. Janik, *Project Director, Wilbur Smith Associates*

Louisiana Airport System Plan

As part of the *Statewide Transportation Plan Update*, the *Louisiana Airport System Plan* (*LASP*) is being updated to reflect current conditions. The development of a separate airport system plan is necessary for Louisiana to receive certain federal aviation funds. The *LASP* will examine the adequacy of Louisiana's current airport system as well as consider future aviation needs throughout the State. Deficiencies in the current and anticipated system will be identified and potential improvements for meeting those deficiencies will also be addressed. This plan will assist the Aviation Division in making future development decisions.



The *Louisiana Airport System Plan* will include the following elements:

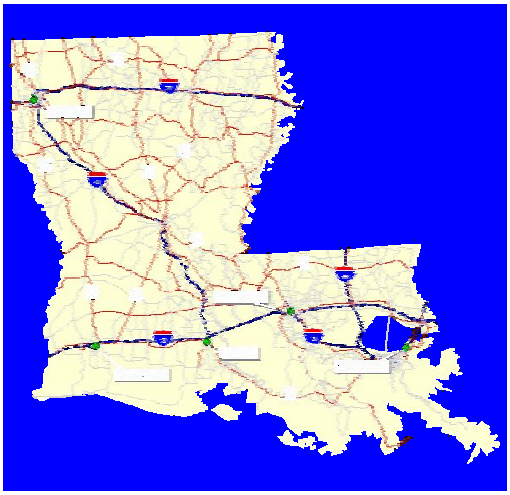
- Performance criteria and benchmarks
- Inventory
- Forecasts of demand
- Adequacy and deficiencies analysis
- Identify/review options
- Recommended plan

At the conclusion of the study, a technical report will be prepared to document the study's process and findings.

In addition to the traditional airport system plan, an examination of issues regarding the proposed regional airport between Baton Rouge and New Orleans will be conducted. This examination will not be initiated until the current studies regarding the new airport and New Orleans International are completed. The primary focus of the examination will be to provide the Aviation Division of LDOTD with an objective, independent, and factual review of the issue to help the Aviation Division create a policy stance on a major transportation investment.

A Statewide Highway Travel Demand Model for Louisiana

A major element of the *Louisiana Statewide Transportation Plan Update* focuses on development of a "Statewide Traffic Model" capable of producing reliable and timely traffic volume forecasts for Louisiana's rural intercity highways. Traffic forecasts for Louisiana's rural intercity highways are critically important information that impact many aspects of LDOTD's core business activities, including:



- Roadway planning and finance,
- Project programming, design and construction, and
- Roadway maintenance.

The new traffic model will include all major roads on the rural State Highway System, as well as other critical State and local roads.

The model will forecast both local and long distance auto and truck traffic. Future year forecasts will be developed for 2005, 2010, 2020 and 2030.

Development of a statewide traffic model is a complex and challenging undertaking. A series of three model design workshops are planned. The end result of these workshops will be a detailed blueprint for the new model. December, 2001 is the target date for completion of the model.

As part of the Statewide Traffic Model development process, the consultant team will also develop a Multimodal Commodity/Freight Database. This database will contain detailed information on existing and future commodity/freight movements to, from, within and through Louisiana. The database will include:

- Movements by truck, rail, water and air
- Information on international commodity/freight movements developed by Wilbur Smith Associates as part of the recently completed Latin American Trade & Transportation Study (LATTS), and
- Parish-level data on domestic commodity/freight movements purchased from Reebie Associates.

The LDOTD will be able to use this database to identify the types and amounts of commodity/freight movements using the State's ports, railways and highways – information the LDOTD needs to address the many issues and infrastructure needs associated with existing and future commodity/freight movement.

Louisiana State Rail Plan

Just as a well-planned system of air infrastructure is important to Louisiana's economic well being, so is a well-planned state rail system. As part of the *Statewide Transportation Plan Update*, the *Louisiana Statewide Rail System Plan* is also being updated to reflect current conditions.

The *Rail System Plan Update* will include the following elements:

- Assessment of trends affecting rail service in Louisiana;
- Inventory of the state rail system, including:

~ Railroads operating in the state;
~ Size of the system, and its various components;
~ Changes in the system from previous plans; and
~ Intermodal facilities and operations.

continued on next page

Louisiana State Rail Plan *(continued)*

• Analysis of freight traffic detailing the interstate, intrastate, and through tonnage flows
of various commodities traveling over Louisiana's rail system.

• Analysis detailing the relative use of different components making up the state rail system.

• Update of the status of Louisiana's rail program:

~ Goals and objectives;
~ Role of the public; and
~ Discussion of past, current, and future rail projects, including how these projects are to be funded, and any desired changes.

The *Statewide Rail System Plan Update* will conclude with a discussion of statewide and national issues that have bearing on rail operations in Louisiana.

As with the *Airport System Plan*, the development of a separate rail system plan is necessary for Louisiana to qualify for certain federal railroad funding.

Get Involved!

LDOTD welcomes your comments, and encourages you to follow developments of the Update to the *Statewide Transportation Plan*. Involvement of the general public, as well as public agencies, is key to the successful update of the *Plan* that defines the future of transportation in Louisiana.

• Visit our project website at **www.lastateplan.org**

• Look forward to our upcoming newsletters

• To offer comments, or be added to the project mailing list, write us at the following address:

Louisiana Department of Transportation and Development
Office of Planning and Programming
Attn: Statewide Plan Update
P.O. Box 94245
Baton Rouge, LA 70804

Louisiana Dept. Of Transportation
Office of Planning and Programming
Attn: Statewide Plan Update
P.O. Box 94245
Baton Rouge, LA 70804

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July 2002

L O U I S I A N A
STATEWIDE TRANSPORTATION PLAN UPDATE

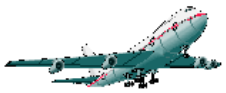
PROJECT OVERVIEW

In the summer of 2000, the Louisiana Department of Transportation and Development (LDOTD) and a consultant team led by Wilbur Smith Associates embarked together on the 3 year task of updating the state's transportation plan. The purpose of the *Statewide Transportation Plan Update* is to develop a statewide transportation policy and planning framework, which will help achieve the plan's goals and objectives and guide public investment in Louisiana over the next 30 years. The plan is addressing all modes of transportation including highways, aviation, railroads, trucking, ports and waterways, surface passenger transportation, and bicycle/pedestrian.

Numerous public outreach activities have occurred as part of the plan development process to involve the public and key agencies and stakeholders in updating the *Statewide Transportation Plan*. Public involvement activities that have occurred thus far include meetings with the various transportation Advisory Councils, which are helping guide the process of updating the *Statewide Transportation Plan*. Additionally, a Statewide Conference was held in July/August, 2000 with the purpose of introducing stakeholders to the *Plan Update* and seeking input on major transportation issues throughout the state.

VALUES, GOALS & OBJECTIVES

Values, goals and objectives were developed to guide the update of the *Statewide Transportation Plan*. The goals and objectives are modifications of those presented in the state's first long-range transportation plan adopted in 1996. Goals and objectives were revised based on input received from the Statewide Conference held in July/August 2000, the first series of plan update meetings with the Advisory Councils, the planning requirements from the Transportation Equity Act for the Twenty-First Century (TEA-21), and review by DOTD and consultant staff. Revised goals and objectives were adopted at the second Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission meeting held in March, 2002.



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Assistant Secretary

Advisory Council Chairs:

Regional Planning Officials
Mr. Kenneth A. Perret
Assistant Secretary
Office of Planning & Programming
LDOTD

Trucking
Mr. Glen Guillot
President
Louisiana Motor Transport Association

Aviation
Mr. Roy Miller
Director
Shreveport Regional Airport

Rail
Mr. Carmack M. Blackmon
General Counsel and Legislative Representative
Louisiana Railroads

Ports & Waterways
Ms. Sherri McConnell
Executive Director
Ports Association of Louisiana

Surface Passenger Transportation
Mr. Patrick Judge
President
Louisiana Public Transit Association

Intelligent Transportation Systems (ITS)
Mr. Tony Trammel
Director
Traffic and Transportation Department
Lafayette Consolidated Government

Intermodal
Mr. F. E. "Hank" Lauricella
General Partner
Lauricella Land Company

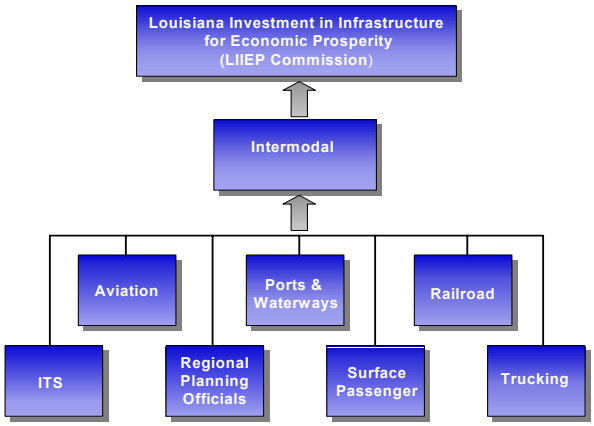
Advisory Councils

Eight transportation Advisory Councils (Intelligent Transportation Systems, Intermodal, Aviation, Ports & Waterways, Rail, Surface Passenger Transportation, Regional Planning Officials and Trucking) were reactivated for the *Statewide Transportation Plan Update* to allow a more focused evaluation of modal activities and specialized exchange of ideas. Advisory councils consist of 20 to 30 members and include major stakeholders from key agencies and the private sector. Four meetings with the Advisory Councils will be held throughout the course of this study, with the purpose of seeking input and building consensus on facilities, services, policies and regulations for the various modes of transportation. The first round of Advisory Council meetings was held in April, 2001. The purpose of these meetings was to provide Advisory Council members with an overview of the *Plan Update* and to discuss issues and suggested changes to the overall goals and objectives. The second round of Advisory Council meetings was held in March/April, 2002. The purpose of the second round of meetings was to update members on the current status of the plan and discuss issues pertinent to each mode.

LIIEP Commission

Created by the Louisiana Legislature, the Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission is serving as a policy committee for the update of the *Statewide Transportation Plan*. The role of the LIIEP Commission is to serve as the advocate for transportation infrastructure and services critical to economic growth in Louisiana and to oversee and guide the implementation of the plan. The first LIIEP Commission meeting was held on February 5, 2002 with the purpose of discussing the LIIEP Commission's role in the statewide plan and reviewing the revised goals and objectives. The second meeting was held on March 4, 2002 with the purpose of reviewing the state's budget and funding sources for infrastructure improvements.

Relationship of Advisory Councils



The seven modal Advisory Councils report to the Intermodal Advisory Council, who is responsible for the overall review of each element and for identifying financing issues related to the funding of infrastructure improvements. The Intermodal Council reports to the LIIEP Commission who will oversee and guide the implementation of the updated Plan.

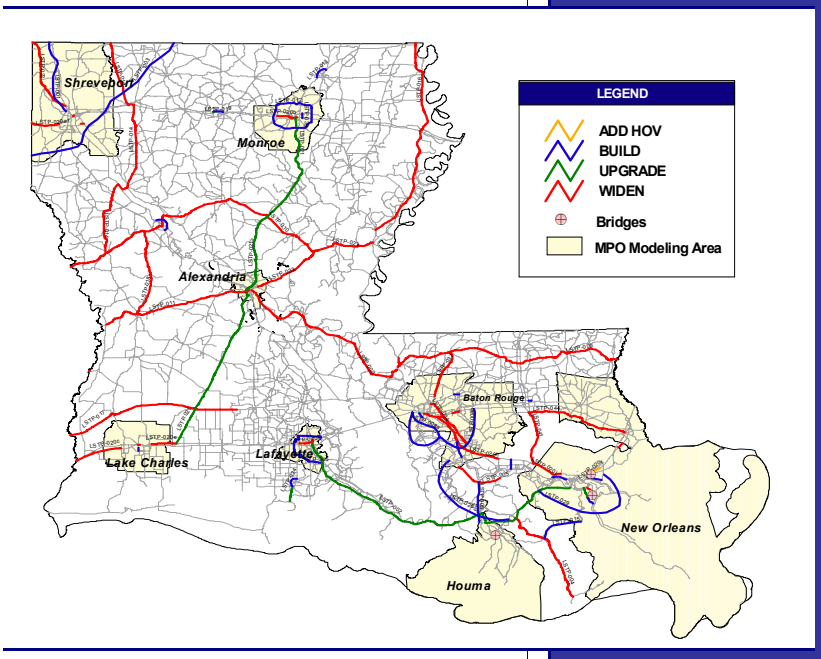
Modal Updates

Highways

Between February and April, 2002, a total of six Regional Planning Officials (RPO) Advisory Council meetings were held to allow proponents/sponsors of large scale highway improvements ("megaprojects") to present the statewide impacts and benefits of their projects, as well as justification of why they should be included in the *Statewide Transportation Plan Update*. A total of 63 such projects have been identified and include the widening of portions of Interstates 10, 20 and 12; widening of portions of US Highways 61, 65, 84 and 190; construction of I-49 and I-69; and other highway improvements throughout the state.

Traffic impacts of these highway improvements will be evaluated using the statewide travel demand model being developed as part of this *Plan Update*. Additionally, evaluation of the proposed highway improvements will consider LDOTD's highway and bridge needs programs and a qualitative evaluation being performed by the consultant team and LDOTD, which evaluated the projects based on the following major criteria: Transportation Economics, Economic Development, Environment, and Safety.

Louisiana "Megaprojects"



Statewide Highway Travel Demand Model

The Statewide Travel Demand Model element of the Statewide Transportation Plan Update is nearing completion. The development stages of this task have included three successful model design workshops in which both members of the consultant team and the LDOTD model development steering committee discussed and resolved statewide modeling issues and options. Since the workshops, the consultant team has been working to complete this complex and challenging task of developing and calibrating a statewide transportation model.

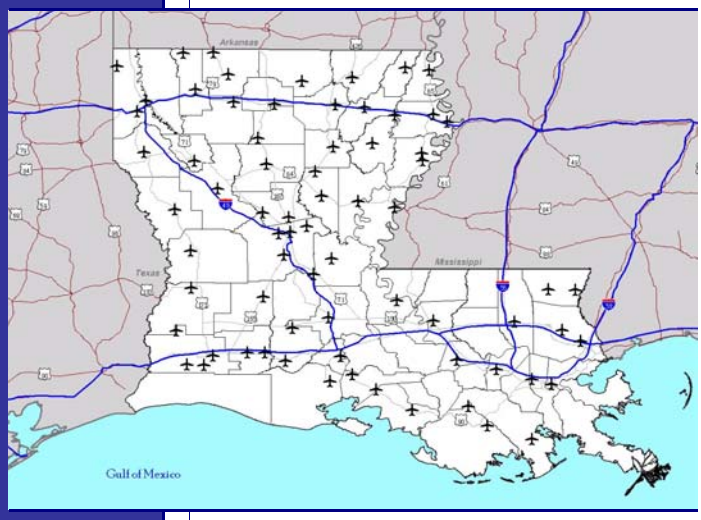
The consultant team has completed the development of the travel demand model using TransCAD transportation planning software by Caliper Corporation. An interactive system for updating roadway characteristics from the State's Surface Type Log and Highway Needs Inventory within the GIS environment has been developed for future use of the model by LDOTD planning staff. This will allow LDOTD planners to use the model to analyze transportation alternatives even after changes and improvements have been made to the existing highway network.

Aviation

The first five of the seven elements of the separate *Louisiana Airport System Plan* are in draft form and are under review by LDOTD Aviation Division staff as well as the Aviation Advisory Council. These elements include the following:

- Performance criteria and benchmarks
- Inventory
- Trends
- Forecasts
- Adequacy and deficiency analysis
- Identify/review options
- Recommended plan

Airport Locations



The next step is to identify and review options available to LDOTD Aviation Division staff to improve the airport system in the state. Deficiencies in the airport system will be addressed and ways to correct them will be presented. At the conclusion of the study, a recommended plan will provide guidelines to implementing these changes. Issues typically addressed in the recommendations include runway length, taxiway design, navigational aids, runway lighting, aircraft storage, and other airport facility issues.

Rail

The purpose of the separate *Louisiana State Rail Plan* is to describe the state's rail system, the use of that system, the key issues in rail transportation, the needs of short lines, and potential corridors for passenger rail service. The plan's survey of Louisiana short lines and terminal railroads identified unmet capital needs totaling $103 million. Shippers reported rail bottlenecks in New Orleans, Shreveport and Baton Rouge that delay their traffic. Also, the plan's analysis indicated that there is sizable personal travel occurring in several corridors across the state that could potentially become viable passenger corridors.

The draft *Rail Plan* has been completed and includes numerous recommendations. One was to staff the LDOTD Rail Division appropriately to handle the numerous tasks it is called upon to do. (At the present time the Division has one employee.) Another was to expand the Freight Rail Advisory Council to advise and guide state rail policy on a continuing basis. A third recommendation was to establish state funding to help cover the unfunded capital needs of the state's short lines and terminal railroads. Two others were to continue the study of potential passenger rail corridors, and to provide additional funding for LDOTD's Highway-Rail At-Grade Crossing Improvement Program.

Trucking

The examination of characteristics associated with the transportation of freight in Louisiana makes up a major component of the *Statewide Transportation Plan Update*. Several transport modes account for some share of the freight moved into, out of, or through the state. However, trucks traveling on Louisiana roadways are the dominant carrier of domestic and international freight, accounting for the majority (53%, or 527 million tons) of total tonnage moved. This represents almost double the tonnage carried by the next highest mode -- water transport (28% or 281 million tons).

In addition to providing an overview of the trucking environment in Louisiana (weight and size considerations, rest stop availability, designated truck route locations), state-specific trucking issues are being examined in the *Plan Update*. These include the impact of opening the U.S. border to Mexican trucks on Louisiana roadways and traveling public, as well as the effect on the state's highway network of exempting sugarcane-hauling heavy trucks from weight limit requirements.

A detailed analysis of freight movements by truck is conducted as part of the *Plan Update*. Tonnages of inbound, outbound, intrastate and through movements, by commodity type, make up part of this analysis. Additionally, the origin and destination locations for these movements are identified.

Ports & Waterways

UNO National Ports and Waterways Institute has completed evaluation of the existing maritime transportation infrastructure in Louisiana. A preliminary assessment of maritime infrastructure capacity needs to accommodate projected cargo volumes has been conducted. A variety of measures necessary to increase the competitiveness of this industry have been identified. It has been concluded that significant efforts must be initiated to increase the efficiency of the existing facilities and improve their responsiveness to customers' needs. The Institute has also completed a review of safety issues related to the Louisiana maritime industry. An assessment of the state ports and waterways related marketing efforts has been completed. An impact of federal funding and navigation projects on the Louisiana maritime sector has also been completed. Recommendations on the federal government involvement in maintaining and increasing capacities of the Louisiana waterways as a critical element of the national transportation system have been developed, and the related funding needs have been identified.

Current efforts are focused on developing final recommendations on priorities and funding necessary for further expansion and enhancement of Louisiana ports and waterways.

Remaining Schedule

Freight Analysis

An analysis of freight movement over Louisiana's transportation systems is currently being prepared. The freight evaluation will include an analysis of freight flows into, out of, and within Louisiana, including forecasts to the year 2030.

This freight flow analysis will describe:

- Louisiana's trading partners
- The types of commodities
- The preferred modes of travel
- Growth in freight traffic in Louisiana

Issues, constraints, and opportunities regarding the way freight moves in Louisiana will be documented in the Plan report, and will also include:

- An overview of Louisiana freight flows
- Geographical analysis of Louisiana freight
  - Internal freight flows (within LA)
  - External freight flows
- Modal analysis of Louisiana freight
  - Truck
  - Rail
  - Water
  - Air
- Commodity Analysis of Louisiana freight
- Freight forecasts for 2030
- Data sources

Surface Passenger Transportation

The Surface Passenger element of the *Statewide Transportation Plan Update* addresses passenger rail, local transit systems and intercity bus provided by the private sector in Louisiana. LDOTD is working both with users and providers of the existing surface passenger transportation system to develop a comprehensive and equitable transportation service delivery network that addresses this important component of the state's overall transportation infrastructure. Issues regarding the reauthorization of TEA-21 next year are also being addressed in this element.

Currently the state is served by three long distance Amtrak trains, centered around New Orleans. The funding of Amtrak is currently a hot topic; Amtrak has stated that if it does not receive a $1.2 B investment into the system it will suspend portions of, if not all of the national system effective October 2002.

Transit systems in the state include urban, rural and specialized systems. Urban systems include fixed route, bus, streetcar (Orleans Parish only), and demand response services. There are four private intercity motorcoach carriers, which operate fixed route intercity operations: Greyhound Lines Inc., Delta Bus Lines, Inc., Kerrville Bus Company, Inc. and Flag Enterprises Inc. Among these four companies service is provided to 71 terminals located throughout the state. Improvement of the connectivity between private and public providers is one of the issues which needs to be addressed in the future.

Bicycle/Pedestrian

LDOTD recognizes the importance of providing for adequate bicycle and pedestrian facilities in the statewide transportation planning process. In 1998, the *Louisiana Statewide Bicycle and Pedestrian Master Plan* was completed. The Plan provides comprehensive analysis of non-motorized travel in Louisiana through:

- Specification of goals, objectives, performance measures and critical success factors.
- Providing detailed planning and design guidelines for the bicycle and pedestrian modes.
- Development of an implementation plan that markets bicycle and pedestrian travel through promotional and public education campaigns. Certain enforcement activities are also described.

Supplementing these efforts, the *Plan Update* will make the following recommendations concerning bicycle and pedestrian infrastructure:

- LDOTD should recognize and formalize the circumstances in which bicycle and pedestrian facilities will not be required in all transportation projects.
- LDOTD should develop and adopt new typical highway and street sections that incorporate the designs presented for bicycle and pedestrian facilities in the Statewide Bicycle and Pedestrian Plan.
- Initiation of an intensive retooling of LDOTD planning functions whereby all transportation planners and engineers are made conversant with the new information required to accommodate bicyclists and pedestrians.

ITS

LDOTD has a well-established process for planning and implementing ITS improvements. Beginning with the ITS/CVO Business Plan in 1998, and then the ITS Business Plan in 2000, LDOTD has developed goals for the state ITS infrastructure that will serve as the foundation for measuring the benefits that it can provide:

- Improve overall safety of the transportation network
- Improve traffic management
- Reduce non-recurring delays
- Effectively disseminate traffic information to the public
- Improve emergency management
- Promote more efficient modal utilization
- Improve administrative efficiency, safety and productivity of commercial vehicle operations (CVO)

With this last goal in mind, LDOTD developed the Commercial Vehicle Information Systems and Networks (CVISN) plan, which was adopted in December, 2001. The plan commits LDOTD to achieve CVISN Level 1 deployment by September 30, 2003. Level 1 projects include:

- Automated safety assurance
- Automated credentialing
- Electronic screening

Post Level 1 projects will include automated oversize/overweight permitting and automated accident reporting.

It is anticipated that ITS improvements to Louisiana's transportation infrastructure will significantly improve Louisiana's competitive position as a national gateway for commerce and goods movement.

Second Statewide Conference

As part of the extensive public involvement efforts for this Plan Update, LDOTD will be holding a second statewide conference in early 2003. The purpose of this conference will be to present the draft *Statewide Transportation Plan Update* to stakeholders and gain support and consensus on its recommendations. Input and comments received at this conference will be incorporated into the final report.

Get Involved!

LDOTD welcomes your comments and encourages you to follow the development of the *Statewide Transportation Plan Update*. Involvement of the general public, as well as public agencies, is key to the successful update of the Plan that defines the future of transportation in Louisiana.

- Visit our project website at www. lastateplan.org or access it through the LDOTD's website at www.dotd.state.la.us
- Look forward to our upcoming newsletters
- To offer comments, or be added to the project mailing list, write us at the following address:

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July 2003

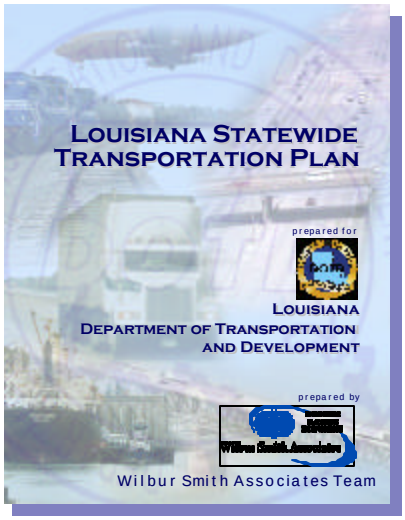
LOUISIANA STATEWIDE TRANSPORTATION PLAN

LIIEP COMMISSION ADOPTS PLAN

On March 28, 2003, the Louisiana Investment in Infrastructure for Economic Prosperity (LIIEP) Commission adopted the Louisiana Statewide Transportation Plan (LSTP) as the official transportation plan for the State. The Plan is the result of the coordinated efforts and involvement, for over the past two years of the DOTD staff, Wilbur Smith Associates Consultant Team, Advisory Councils and LIIEP Commission.

The Louisiana Statewide Transportation Plan builds upon the State's previous 1996 plan and important transportation activities, trends and issues that have taken place in recent years. The Plan identifies needed transportation improvements and will be used in determining how the state should invest in transportation through the year 2030.

The Statewide Transportation Plan identifies policies, programs and large "mega" projects needed to improve transportation facilities and services throughout Louisiana, as well as strengthen the state's economy, enhance international trade and improve the quality of life for Louisiana citizens. The Plan addresses the movement of passengers and freight across all modes of transportation and includes an overview of existing transportation conditions, an analysis of future needs, results of the statewide travel demand model for the highway network in the year 2030, recommendations for each mode of transportation, and fiscally constrained revenue scenarios with specific program elements.



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PUBLIC INVOLVEMENT

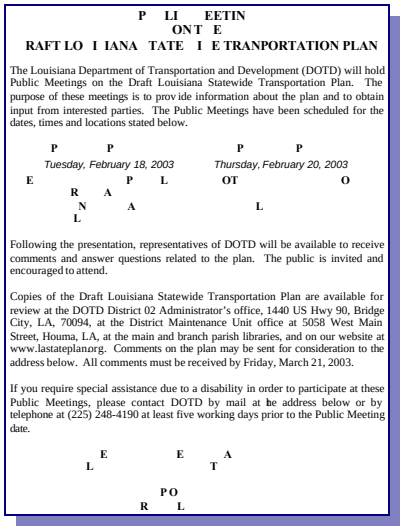
Public involvement was instrumental in the preparation of the Plan and included extensive activities to involve public agencies and stakeholders throughout the plan development process. Public involvement activities included two statewide transportation conferences, nine regional public meetings in the state's metropolitan areas, meetings with the eight transportation advisory councils, distribution of the draft Plan to public libraries throughout the state, several newsletters and a website. The LIIEP Commission served as the policy committee for the Plan and guided the overall planning process.

Second Statewide Conference

The second Statewide Conference, which was held on January 9 and 10th 2003, served as part of the extensive public outreach program with the purpose of presenting the draft Plan. The conference allowed stakeholders and key agencies to view the draft Statewide Transportation Plan and provide comments on the Plan's recommendations. The conference also served as the formal kick-off of the public comment period for the Plan.

Formal Public Review Period

The formal 45-day public review period for the Louisiana Statewide Transportation Plan began on February 3, 2003. As required by DOTD regulations, copies of the draft Plan were made available at key federal and state agencies, each DOTD District Office and at the main and branch libraries in each parish, as well as state libraries. Notices of the availability of the document were published twice in the official Parish Journal in each parish and the *Baton Rouge Advocate*, which indicated the location where the document could be reviewed, a brief description of the document, the deadline for comments and the address where comments should be sent for consideration. The DOTD received comments from elected officials, consultants, citizens, chambers of commerce and regional planning commissions during the 45-day comment period which ended on March 21, 2003.



P LI EETIN
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RAFT LO I IANA TATE I E TRANPORTATION PLAN

The Louisiana Department of Transportation and Development (DOTD) will hold Public Meetings on the Draft Louisiana Statewide Transportation Plan. The purpose of these meetings is to provide information about the plan and to obtain input from interested parties. The Public Meetings have been scheduled for the dates, times and locations stated below.

P P P P
Tuesday, February 18, 2003 *Thursday, February 20, 2003*
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Following the presentation, representatives of DOTD will be available to receive comments and answer questions related to the plan. The public is invited and encouraged to attend.

Copies of the Draft Louisiana Statewide Transportation Plan are available for review at the DOTD District 02 Administrator's office, 1440 US Hwy 90, Bridge City, LA, 70094, at the District Maintenance Unit office at 5058 West Main Street, Houma, LA, at the main and branch parish libraries, and on our website at www.lastateplan.org. Comments on the plan may be sent for consideration to the address below. All comments must be received by Friday, March 21, 2003.

If you require special assistance due to a disability in order to participate at these Public Meetings, please contact DOTD by mail at the address below or by telephone at (225) 248-4190 at least five working days prior to the Public Meeting date.

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Regional Public Meetings

Regional public meetings were also held to present the draft LSTP and to provide local and regional governmental agencies and stakeholders throughout the state an opportunity to comment on the recommendations included in the draft Plan. Regional public meetings were conducted in the state's nine metropolitan areas during the month of February 2003. The table below displays the number of attendees and comments received during the Second Statewide Conference and Regional Public Meetings.

Second Statewide Conference & Regional Public Meetings Summary

Location	Number of Attendees	Number of Comments
Second Statewide Conference	**190**	**9**
Regional Public Meetings	**343**	**42**
Lafayette	40	7
Pineville	32	9
Mandeville	26	4
Metairie	22	3
Lake Charles	30	5
Gray/Houma	40	4
Baton Rouge	78	6
Monroe	27	2
Shreveport	48	2

■PLAN RECOMMENDATIONS

Recommendations are provided for each mode of transportation. The recommendations were based on input from the public involvement process and the technical analysis conducted as part of the Plan. Based on estimated revenues and available funding, each recommendation was prioritized and grouped according to the four funding scenarios described in the table below.

Funding Scenarios

Scenario 1A	Scenario 1B	Scenario 2	Scenario 3
Baseline - do nothing Existing revenues, no inflation adjustments	Existing Revenues Inflation adjustments in Years 11 and 12	Add $250 million in Year 1 (State) Adjust for inflation in Years 11 & 21	Add $150 million (Federal Highway) plus proportionate increase in Federal Transit in Year 1 Add $250 million (state) in Year 1 Adjust for inflation in Years 11 & 21

Highway

A

- Increase pavement preservation to $235 M/yr after Year 7
- Increase bridge funding to $119 M/yr after Year 7
- Implement access management policy
- Implement statewide traffic impact policy
- Virtually no "Small Capacity" projects after Year 7
- No "Mega" Projects
- Allow local option gas tax (exempt diesel)

- Same as Scenario 1 except continue small capacity projects

- Increase pavement preservation in Year 1 to $235 M /yr.
- Increase bridge funding in Year 1 to $119 M /yr.
- Increase safety program to $75 M /yr.
- Increase Operations (+$9 M /yr.)
- Increase ITS by $7M for 10 years
- Create Intermodal Connector Program ($20 M /yr.)
- Small Capacity projects @ $90 M /yr. average
- Priority "A" Mega Projects ($2.8 Billion) - See Map Page 5
- Jurisdictional Transfer Program (5,000 miles, $35 M /year)

- Scenario 2 plus
- Priority "B" Mega Projects ($3.0 Billion) - See Map Page 5

Maritime

A

- Continue Port Priority Program - ($24.5 M/year)
- Support improvements for Federal waterways – GRF
- Continue to work through the Gulf Rivers Intermodal Partnership (GRIP) to increase utilization of the inland waterway system and of coastal shipping
- Support development of the "Millennium Port" through public / private partnership

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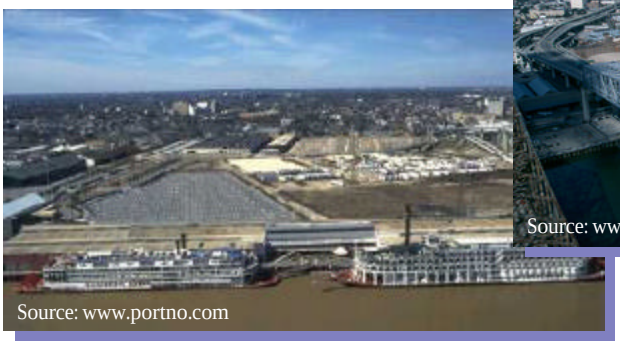
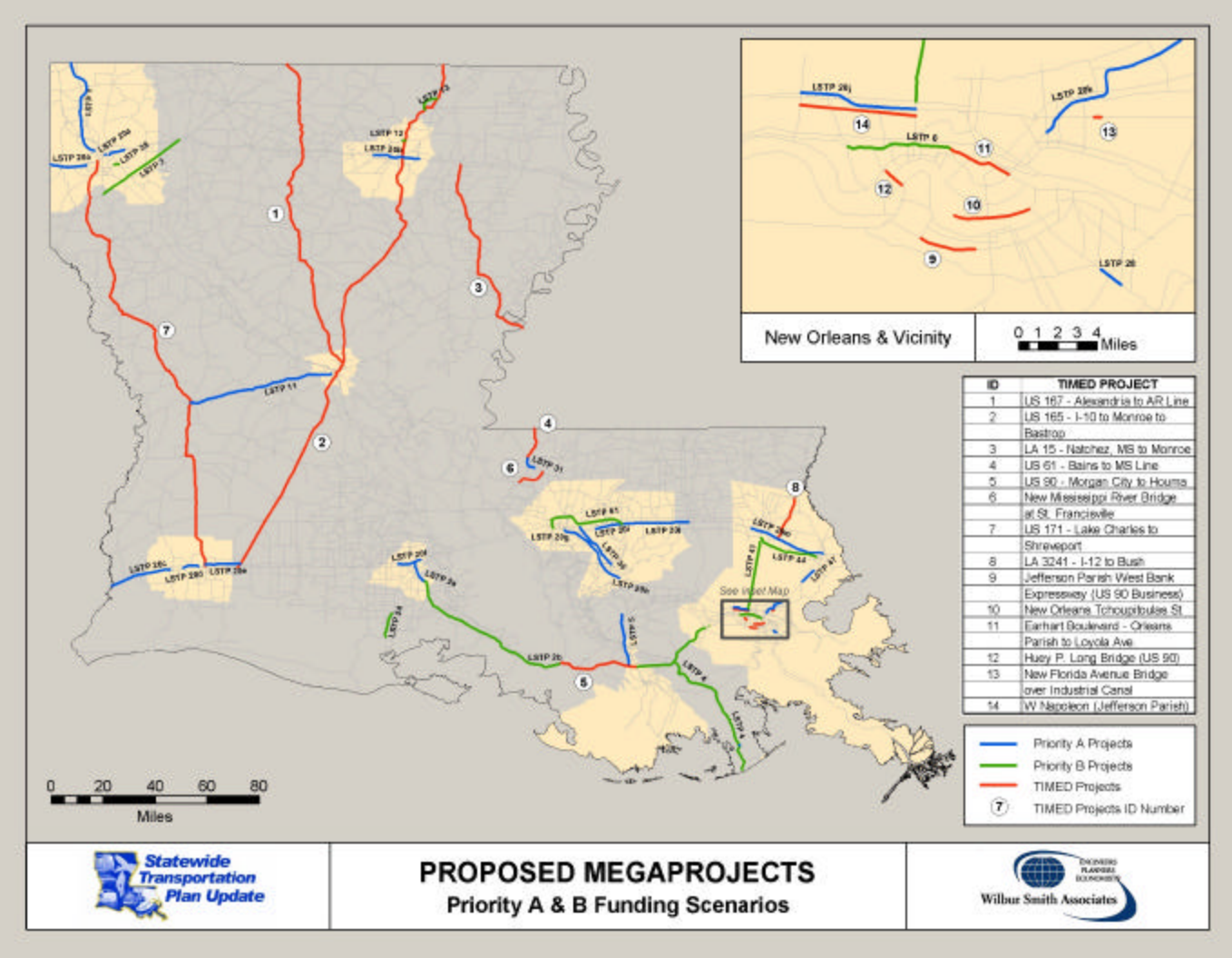
- Increase Port Priority Program
  - Gradual increase to $40M/year
  - Protect from inflation thereafter
- Statewide Maritime Marketing Program ($0.5 M/year takedown from Port Priority Program)

Source: www.portno.com



Source: www.portno.com

Proposed "Mega" Projects—Priority A&B Funding Scenarios



Priority A "mega" projects, which scored and ranked high in both the quantitative and qualitative evaluation were considered highest priority and included in funding Scenario 2. Priority B "mega" projects, which scored and ranked high in either the quantitative or qualitative evaluation were included in funding Scenario 3.

Freight Rail

A

- Support interests of shippers and small railroads
- Help railroads secure federal grants and loans
- Add staff to LDOTD Rail Division
- Research incentive programs for rail / highway crossing closures, both public and private

- Establish State funding for railroads
  - "286,000#" improvements
  - Circuitry Upgrades
  - Agricultural shipments
- Increased support for rail / highway grade crossings - $5 M/year

Trucking

A

- Establish Regional Operations Advisory Council
- Modify port zone permitting
- Automate weigh stations – Part of ITS
- Uniformity in permitting oversize/ overweight vehicles
- Create economic development incentives for extended hours at terminals
- Develop model truck access design standards

- Establish One-Stop Center in North Louisiana- $20 million

Surface Passenger

A

- Market / promote public transportation
- Enhance safety / security – through ITS
- Promote / develop regional connectivity
- Develop alternatives to rural transit systems
- Coordinate planning for Specialized Transit
- Utilize Transit-Oriented ITS Applications
- Implement Transit Oriented Development initiatives
- Promote public transit connections with centers of higher learning
- Promote National Passenger Rail System
  - Support improvements to increase passenger rail ridership and farebox recovery
  - Continue study of passenger rail corridors
- Provide continued financial support in DOTD budget for Southern Rapid Rail Transit Commission
- Create Intercity Bus Task Force
- Develop statewide intercity bus needs assessment
- Support pending federal legislation for essential bus service
- Continue to partner with USDOT (FRA) to develop Maglev technologies

- Increase availability of basic public transportation services
  - $12 M/year Federal
  - $6 M/year State
  - $6 M/year Local
- New Orleans Rail – CBD to Airport
  - $200 M Federal “New Starts” Grant
  - $25 M Local
  - $175 M State
  - Locals operate and maintain

Aviation

A

- Address infrastructure deficiencies for existing airports
- Acquire easements for obstruction removal
- Update intrastate air service study
- Study vertical take off aircraft role
- Support continued development of passenger & air cargo facilities at all existing commercial service airports
- Support the private development of a new air cargo / intermodal center in SE Louisiana
- Fund airfield & terminal capacity improvements statewide
- Support GA and Reliever Maintenance Program (GRF)
- Support reauthorization of Federal Airport Improvement Program

- Aviation Marketing Program for additional service - $2 M/year
- Fund airfield & terminal capacity improvements
- New Orleans International: New runway

  $200 M Federal
  $150 M Local
  $100 M State
  $450 M Total

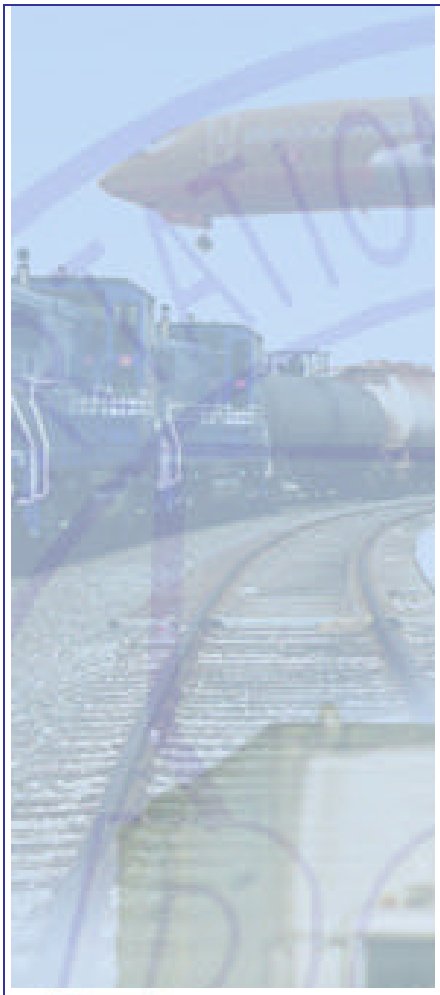
- Increase State support for aviation
  - $10 M/year increase in 2003, (from $5 M/yr to $15 M/yr)

Bicycle and Pedestrian

- Develop Statewide bike suitability map
- Develop Statewide bicycle goals map
- Provide for "routine accommodation" of bicycle / pedestrian needs in DOTD planning & design process

Multimodal

- Educate / inform Louisiana's Congressional Delegation
  - Louisiana's transportation needs
  - Louisiana's transportation priorities
  - Advance special federal funding requests
- Continue / expand the various Advisory Councils
- Identify Strategic Freight Transportation System for Louisiana



IMPLEMENTATION

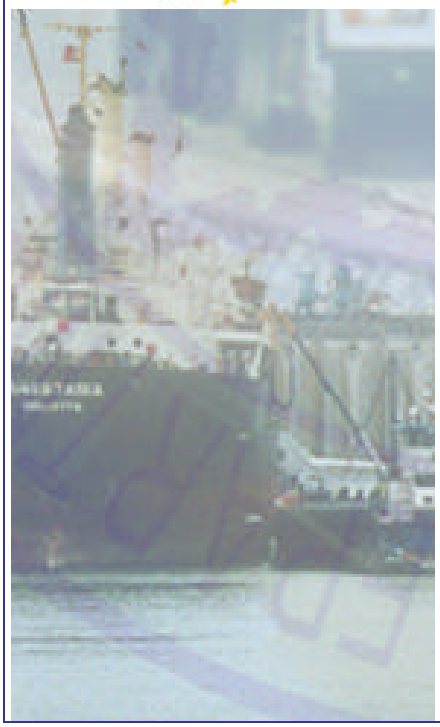
The Statewide Transportation Plan sets the framework for transportation planning and improvements in Louisiana. The Plan identifies and prioritizes improvements for each mode of transportation and directs transportation investment in the state until the Year 2030. The recommendations outlined in the Plan are intended to foster a safe, efficient and well maintained transportation system that will promote economic growth in the state and improve the quality of life of its residents. With the completion of the Plan, implementation and monitoring of the plan's recommendations and policies is the next critical step of the transportation planning process. The LIIEP Commission will serve as the body overseeing and guiding the implementation and monitoring of the plan ensuring its recommendations are realized. The eight Advisory Councils will also continue to meet, to allow for a more focused monitoring of the Plan and to ensure the Plan's recommendations and policies continue to address the transportation needs of Louisiana.

Copies of the Statewide Transportation Plan will be available at:

- LDOTD district offices
- State libraries
- Project website – www.lastateplan.org

Louisiana Department of Transportation and Development
Office of Planning and Programming
P.O. Box 94245
Baton Rouge, LA 70804

Postage
Goes
Here



SUMMARY OF WRITTEN COMMENTS

Public Review Period

The 45-day public comment period for the Louisiana Statewide Transportation Plan began on February 3, 2003. As required by DOTD regulations, copies of the draft plan were made available at key federal and state agencies, each DOTD District Office and at the main and branch libraries in each parish, as well as state libraries. Notices of the availability of the document were published twice in the official Parish Journal in each parish and the Baton Rouge Advocate, which indicated the location where the document could be reviewed, a brief description of the document, the deadline for comments and the address where comments could be sent for consideration.

Written Public Comments

The DOTD received a total of 11 letters/emails during the 45-day comment period which ended on March 21, 2003. Comments were received from elected officials, consultants, citizens, chamber of commerce and Regional Planning Commissions. Written comments received during the 45-day public review period are summarized below:

Projects related to "mega" highway improvements include:

- The four-laning of LA 137 from I-20 to LA 133, LA 133 from LA 137 to US 165, and US 165 to Bastrop should be included in the plan
- The plan should recognize the use of non-traditional funding sources for the construction of some mega projects
- Move the I-10-LA 1 Connector (LSTP-046) from Priority C to Priority A or B "mega" projects
- Move LA 408 from LA 37 to LA 16 (LSTP-025) from Priority D to Priority A or B "mega" projects
- Break out I-10 from I-110 to I-12 (LSTP 020g) to Priority A and B
  - Priority A – interchange at foot of Interstate Mississippi River Bridge
  - Priority B – widen 4 to 6 lanes
- Break out the Baton Rouge North Bypass from I-10 to I-12 (LSTP-051) to Priority A and B
  - Priority A – new Interstate I-12 from I-10 west of LA 415 to US 190 and bridge rehabilitation to Airline Highway, stop at Plank Road interchange. Move project from Priority B to Priority A "mega" projects.
  - Priority B – Plank Road interchange to I-12, build/upgrade to 4-lane interstate standards
- Recommendation for using the Comite River diversion right-of-way for the Baton Rouge Northern Loop

Other non-highway recommendations include:

- Include Baton Rouge's New Capital Area Regional Bus Rapid Transit project in Scenario 2 funding
- Include Baton Rouge's Capitol Complex Shuttle project in Scenario 2 funding
- Comments on the Transit Issues section of the Surface Passenger element of the plan included the following:
  - With ridership statistics show how local, federal and state funding levels have changed, TEA-21 projects and transit spending levels, capital expenditures for vehicles, support facilities, etc., required to maintain current level of service
  - The report highlights lack of coordination between Jefferson Transit (JeT) and the Regional Transit Authority (RTA). JeT and RTA are beginning to coordinate services
  - Add a section to identify transit needs to maintain current service levels and increase service levels
  - Add a section to identify goals with current spending levels statewide and increased spending statewide
- Recommendations for the completion of the following roadways as key strategic linkages for the military in Louisiana:
  - LA 28 (connecting Ft. Polk with Alexandria)
  - I-49 (linking New Orleans with the LA-AR state line)
  - LA 3017 (Peters Road, linking the Naval Air Station Joint Reserve Base with the West Bank Expressway, and eventually I-49)
- $5 million per year to establish a highway/rail grade separation program is inadequate, however $5 million in non-federal funds can make available an incentive program to entice local jurisdictions into closing unsafe crossings and/or building service roads to remaining crossings
- Several letters were received by the DOTD with regards to the need for further addressing pedestrian and bicycle issues in the Plan including the following:
  - Bicycle and pedestrian issues should stand-alone in a category called Non-Motorized Surface Passenger Transportation
  - State involvement should be targeted at policy development
  - DOTD should take the lead to initiate multiple partnerships to develop a comprehensive policy for cycling with the Department of Education, State Police and local Law Enforcement, Department of Motor Vehicles, Department of Health and Hospitals
  - Implement the suggestions for improving roads for cycling as identified in the current Bicycle and Pedestrian Master Plan
  - Minimum paved shoulder width should be a required standard for Louisiana roadways not a guideline
  - Address the concern of installing rumble strips on rural roads that currently have narrow paved shoulders