

*Port of Pine Bluff Initiative:
Domestic and International
Shipping Study*

February 2003



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February 2003

Prepared By

**Planning and Research Division
Arkansas State Highway and Transportation Department**

In Cooperation With

**The Economic Development Alliance of Jefferson County
Arkansas River Regional Intermodal Facilities Authority
Federal Highway Administration, U.S. Department of Transportation**

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Section I Introduction

A dependable, cost-effective regional freight transportation system is vital to manufacturers, distributors, agri-businesses and forestry-based companies in south central Arkansas so that their products can be competitive in the domestic and global marketplaces. Key components of a regional freight transportation system that allow shippers to be more competitive are shipping choices with support services, a centralized location for cargo interchanges between freight modes, and dedicated facilities for import/export shipments.

Study Objective and Authorization

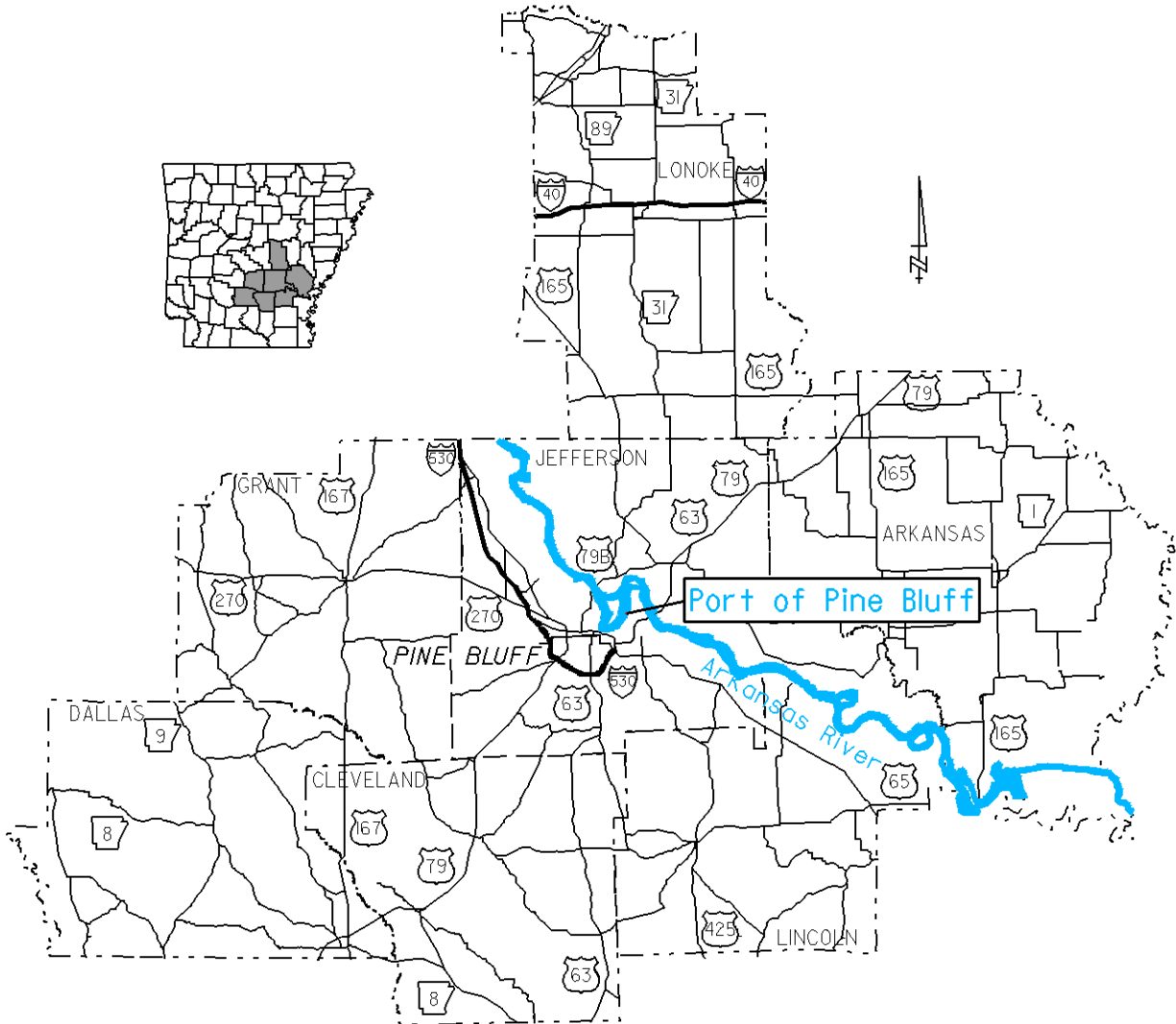
The objective of this study was to provide freight data to the Arkansas River Regional Intermodal Facilities Authority and the Economic Development Alliance of Jefferson County for their use in determining methods to enhance the Port of Pine Bluff as a regional center for domestic freight shipments and for planning further development of the Port as an import/export transportation center. The analysis included: (1) defining Pine Bluff's location advantage in relation to national marketplaces for domestic shipments and its proximity to international gateway cities like New Orleans, Louisiana for international trade; (2) conducting a shippers' survey to determine existing and future freight transportation needs; (3) providing data on current domestic and international shipping patterns; and (4) offering strategies for increasing domestic shipments and regional exports from the Port. The assessment also involved an examination of present operations at the Port and the existing landside access.

The study was prepared under the authority of Arkansas Highway Commission Minute Order 2002-093.

Study Area

The study area includes the City of Pine Bluff, Jefferson County, and the surrounding region consisting of Arkansas, Cleveland, Dallas, Grant, Lincoln and Lonoke counties. These six counties are within a 60-mile radius of the Port of Pine Bluff. Figure 1-1 shows the study area.

**Figure 1-1
Study Area**



Study Method

Information presented in this document represents a variety of sources. They include: (1) the recently completed Latin American Trade and Transportation Study (LATTS); (2) the results of a regional shippers' survey; and (3) the Department's Freight Goods Movement Database.

The LATTS study was used to determine trade patterns with Mexico and other Latin American countries. The shippers' survey, which was sent to existing users of the Port of Pine Bluff and to other potential port users, provided data specific to local freight transportation needs and desires. The Freight Goods Movement Database provided lists of commodities that enter or leave the study area and the means by which goods are moved. The origin or destination of the moves (Domestic – within the U.S. or International – outside of the U.S.) was evaluated.

Study Findings

✓ Transportation Location Advantage

Pine Bluff could become a significant center for freight consolidation and distribution, with its favorable geographic location in relation to domestic marketplaces and international gateway cities.

✓ Shipper Responses

- Dry bulk cargo (i.e., grains and paper products) is the region's principal type of freight. Dry bulk material represents 62% of inbound shipments and 85% of outbound shipments.
- Truck transportation was cited as the most likely choice for future freight shipments.
- Future transportation needs include truck scales and warehouses, heavy lift equipment and cranes, and rail/barge intermodal and container pool service.

✓ Commodities

- For domestic shipments (within the U.S.), field crops represent the major cargo shipped into the study region; forest products are the leading outbound commodity.
- The leading international exports include fabricated metal products, industrial/commercial machinery, food and kindred products, and paper products.

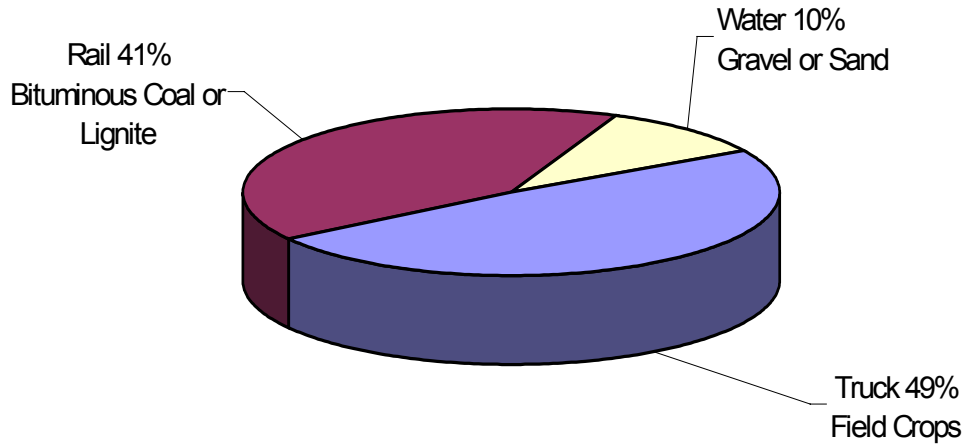
✓ Freight Mode Usage

- Trucks are used for most freight shipments in the United States.
- Rail and truck transportation are the major freight modes utilized for shipments with Canada or Mexico.

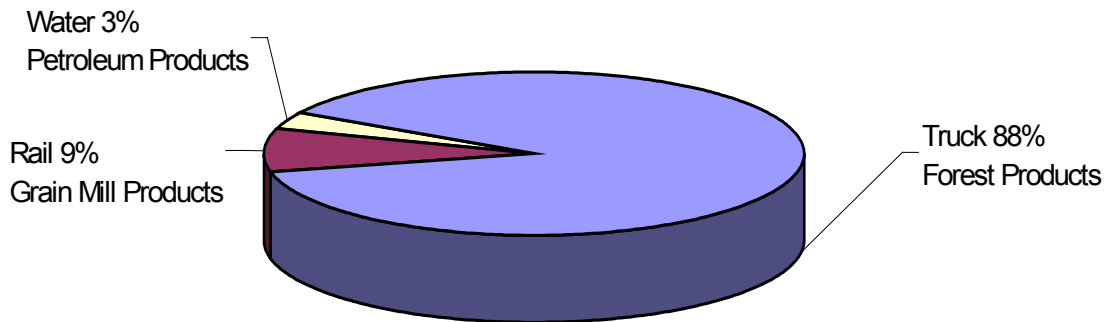
The freight mode choice (truck, rail, or water) for commodities transported into or out of the study area is shown in Figure 1-2. Also shown is the leading commodity shipped by each mode.

Figure 1-2
Shipments by Freight Mode and Top Commodity

Inbound



Outbound



✓ Origins and Destinations

Domestic shipment patterns are shown in Figures 1-3, 1-4, and 1-5.

- The Mountain States region provides the greatest amount of inbound commodities, while the Deep South region receives the most products from the study area.
- Louisiana is the top state for inbound shipments. Tennessee receives the most outbound shipments.
- The New Orleans Business Economic Area (BEA) is the top BEA for inbound shipments to the study area. The Dallas/Fort Worth BEA, followed closely by the Houston BEA, receives the most goods from the study area.
- The primary destinations for international exports from the study area are the countries of Canada, Mexico, the United Kingdom, Japan, and Germany.

Figure 1-3
Annual Freight Tonnage – U.S. Regions

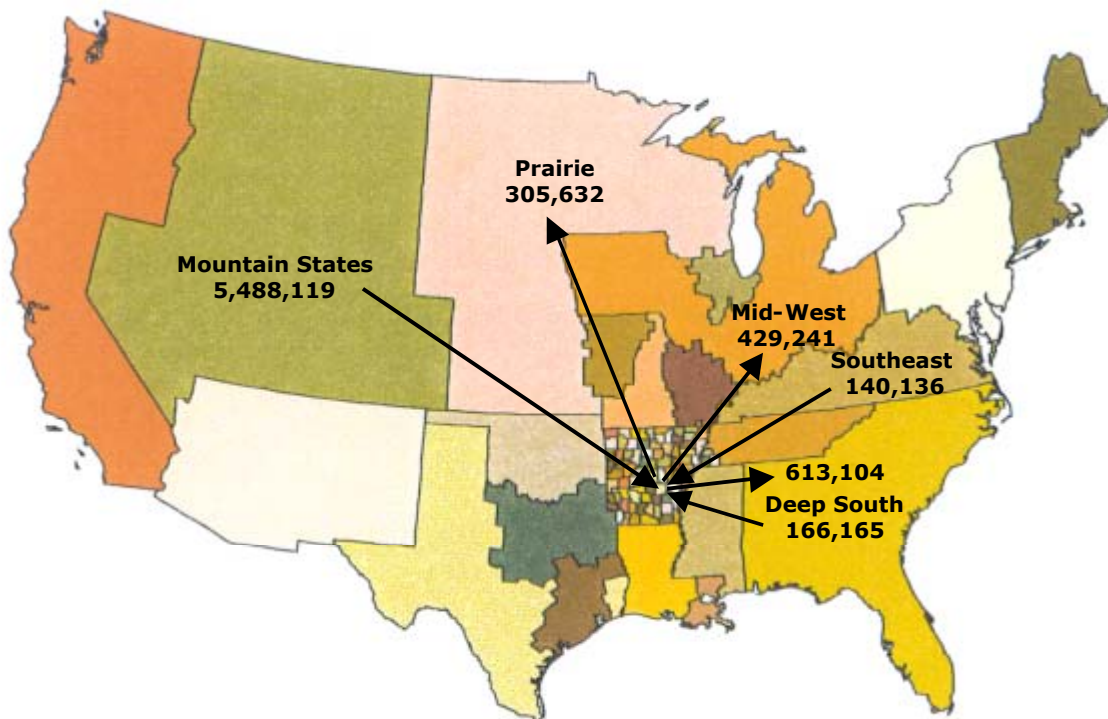


Figure 1-4
Annual Freight Tonnage – Surrounding States

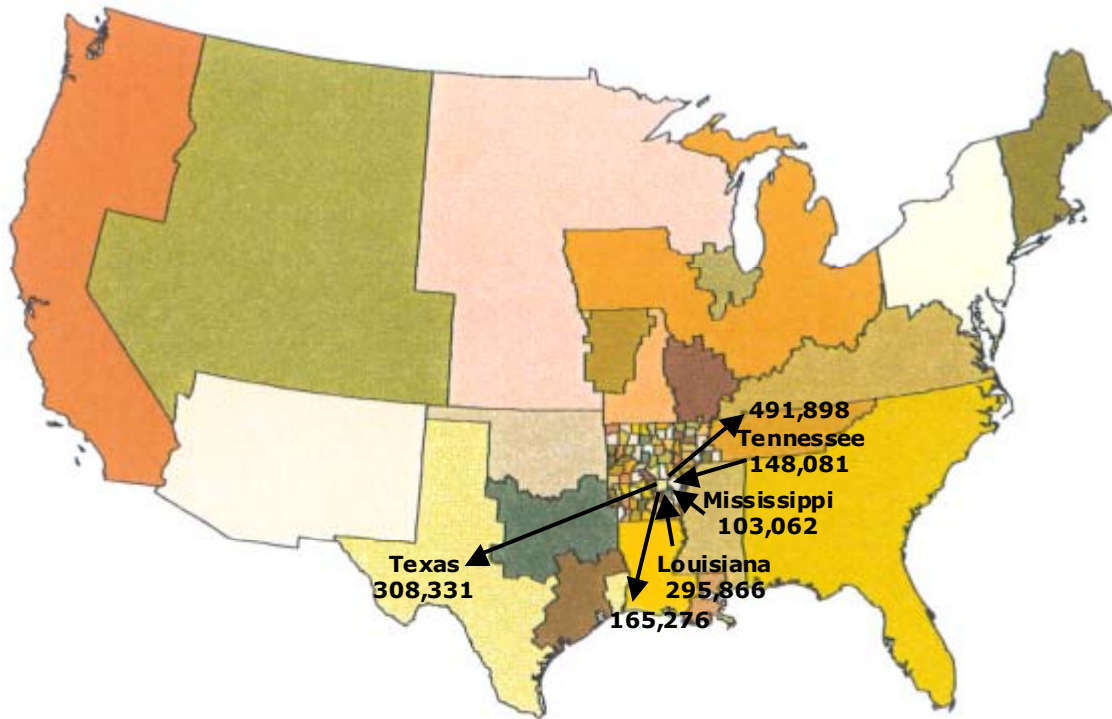
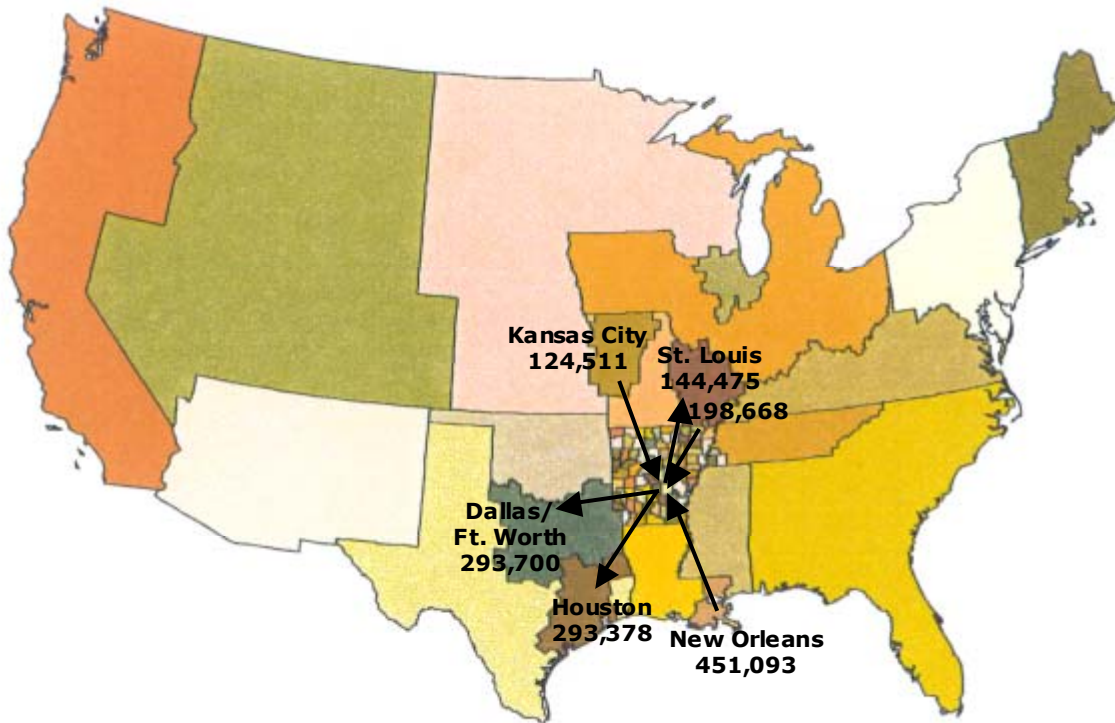


Figure 1-5
Annual Freight Tonnage - BEAs



- ✓ Development Strategies
Strategies were developed to increase and enhance domestic freight shipments and exports.

Key Domestic Shipment Strategies

- ✓ Acquisition of Additional Property for New Facilities and Services, with Developable Waterfront Property
 - ✓ Landside Access Improvements
- ✓ Enhanced Warehousing and Freight Distribution Capabilities

Key International Shipment Strategies

- ✓ Foreign Trade Sub-Zone
- ✓ Packaging Facilities for Overseas Shipments
- ✓ Management Services for International Shipments

Exports are anticipated to be the strongest source of cargo growth for the Port of Pine Bluff.

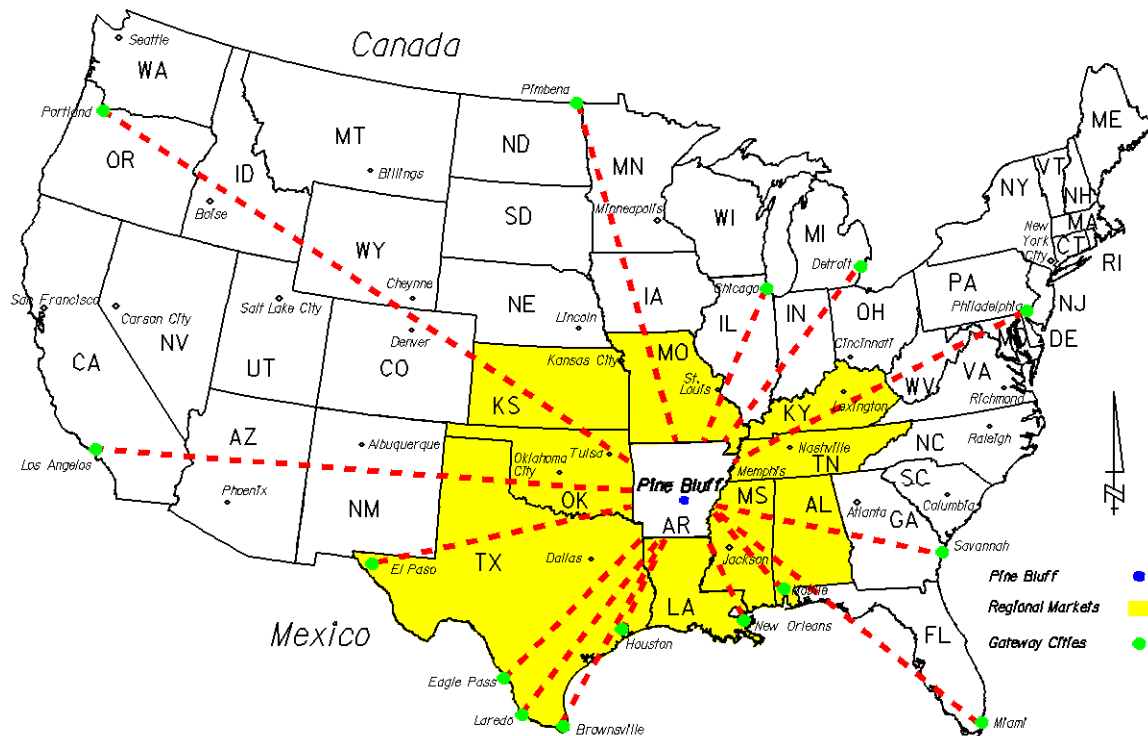
Section II Study Area Profile

In this section, the study area's transportation location advantage and regional transportation system are described. Also included are an overview of current conditions at the Port of Pine Bluff and an examination of selected socio-economic data for the study area.

Geographic Location

The Pine Bluff area is favorably located to major regional U.S. market areas and gateway cities¹, creating a potential advantage for domestic and international shipments. Figure 2-1 illustrates this strategic location, which offers possible savings in freight transit costs and time.

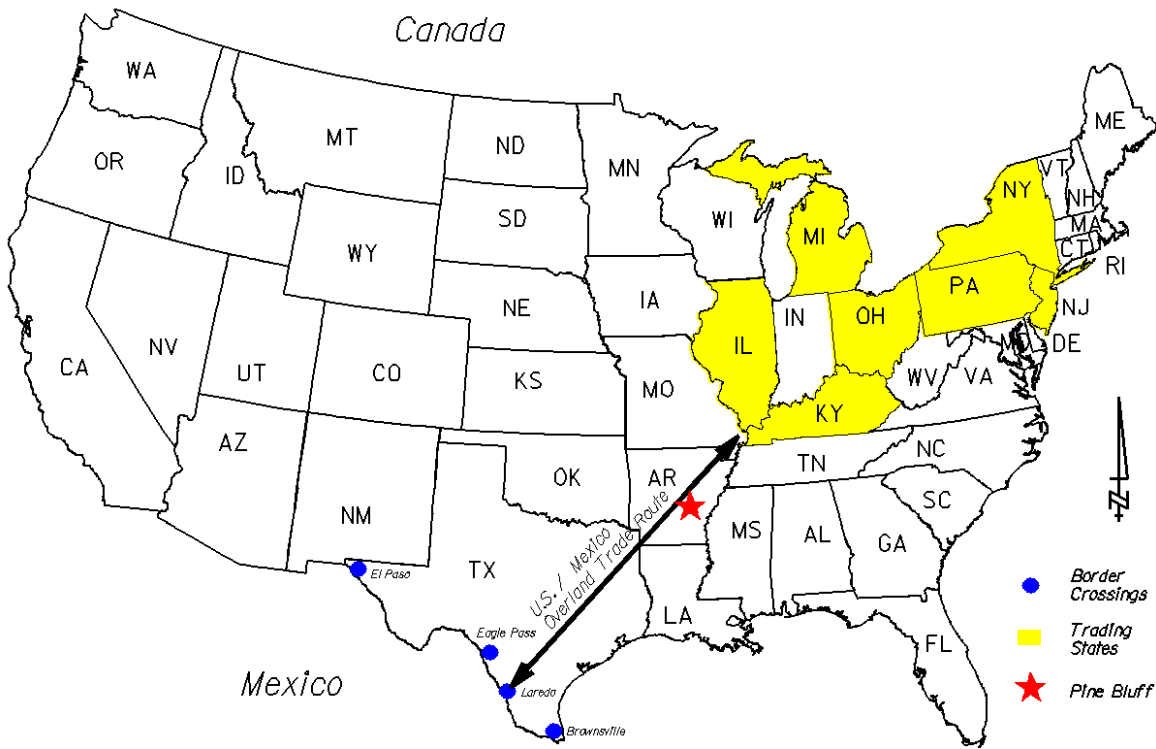
**Figure 2-1
Location Advantage to
Regional Markets/Gateway Cities**



¹ Gateway cities are locations that serve as staging areas for imported and exported goods. Examples are the Mexican border crossing towns of Eagle Pass and Laredo, Texas and the deep-water gulf port of New Orleans, Louisiana.

The Pine Bluff area is also well positioned in relation to the overland trade route for seven of the thirteen largest trading states with Mexico (Figure 2-2). Possible freight transportation opportunities include warehousing and distribution activities such as product sorting, reloading and shipping.

**Figure 2-2
Overland Trade Corridor
With Mexico**



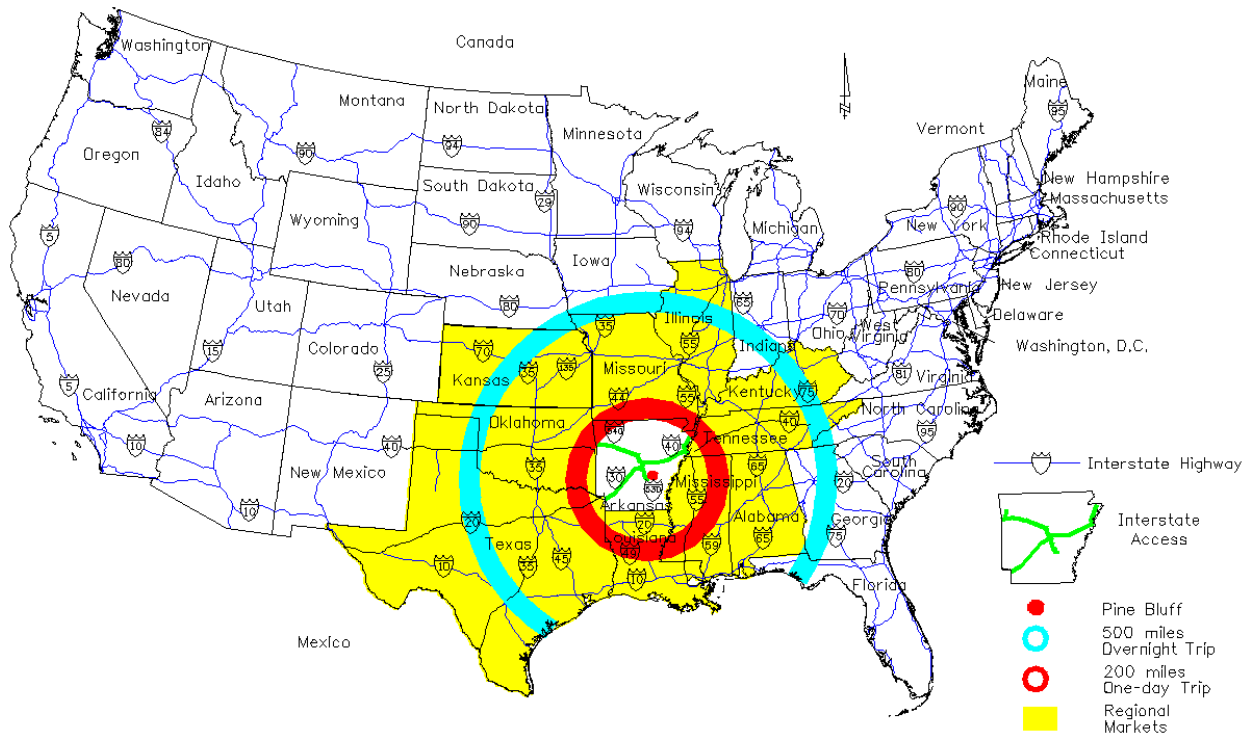
Transportation System

Highway Access

The Pine Bluff area has good highway access to regional and national markets for truck freight deliveries via Interstate 530 and regional truck routes. The Port of Pine Bluff has a National Highway System (NHS) freight intermodal connector route. Figure 2-3 provides examples of major cities that can be reached from Pine Bluff during a typical one-day truck delivery (200 miles) and an overnight truck trip (500 miles).

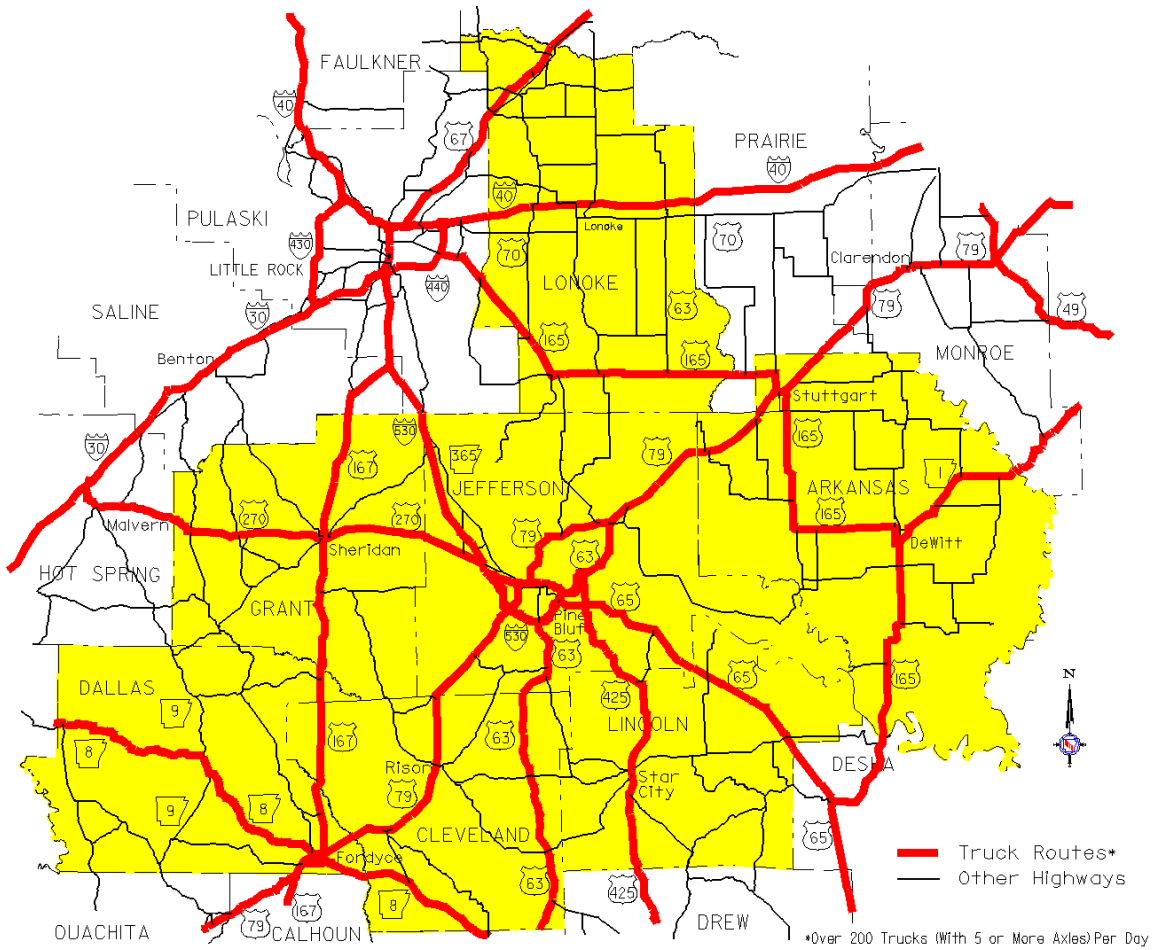
Interstate 530 links Pine Bluff with Interstates 30 and 40, providing access to many of the primary cities in the surrounding states including Dallas, Texas; Memphis, Tennessee; and Oklahoma City, Oklahoma.

Figure 2-3
Interstate Highway Access
Truck Freight Transit Time



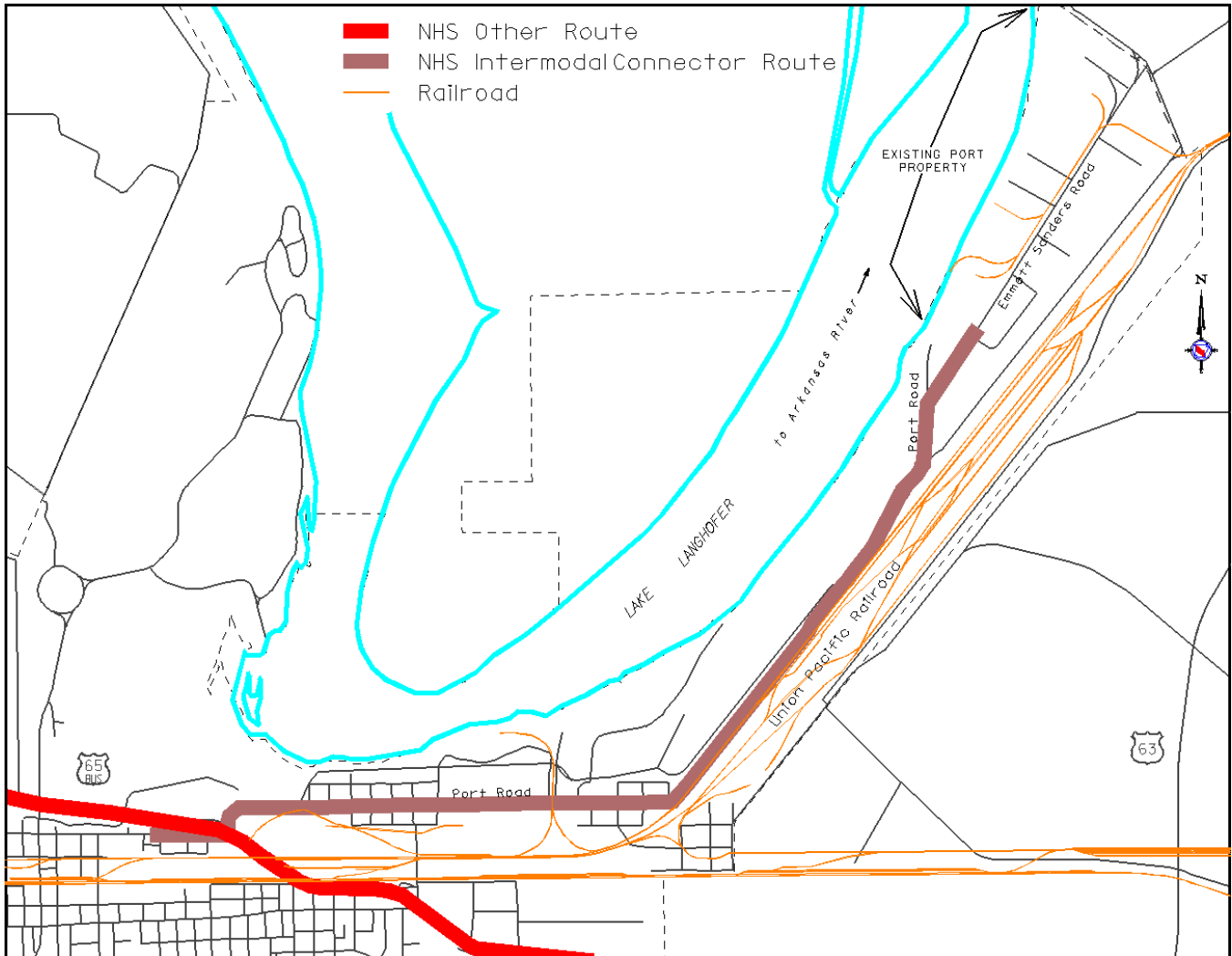
National and regional truck freight service and local drayage is readily available in the study area. Trucking service is provided by private carriers, motor carriers specializing in certain products (petroleum tankers), and truckload (TL) and less-than-truckload (LTL) companies that haul general freight. Figure 2-4 exhibits the highway routes with more than 200 heavy trucks (5-or-more axles) per day.

**Figure 2-4
Regional Truck Routes**



In addition to the regional highway network, the Port of Pine Bluff has a National Highway System (NHS) freight intermodal connector. NHS intermodal connector routes are the roads leading to major intermodal terminals, as defined by the Federal Highway Administration. The NHS route for the Port of Pine Bluff is shown in Figure 2-5.

**Figure 2-5
NHS Freight Intermodal Connector Route**

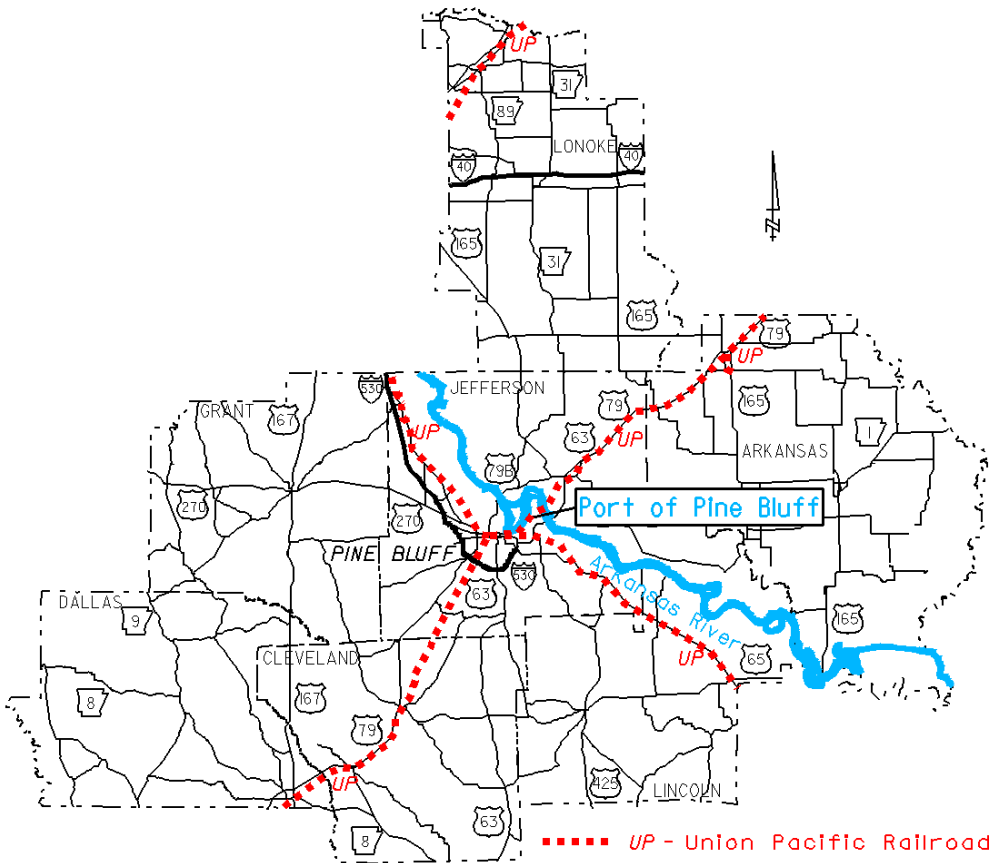


Railroad Access

Pine Bluff is located at the intersection of two mainlines of the Union Pacific (UP) Railroad. UP can arrange for overseas shipments and transportation of goods between Canada, Mexico and the United States. The Burlington Northern and Santa Fe (BNSF) Railway, a Class I railroad with major activity in northern Arkansas, has trackage rights

over UP lines through the study area. Table 2-1 lists typical transit times for rail shipments between Pine Bluff and selected cities.

**Figure 2-6
Regional Railroads**



**Table 2-1
Rail Transit Time
From / To Pine Bluff**

Pittsburgh, PA	9 days
Cincinnati, OH	6 days
Evansville, IN	6 days
Tulsa, OK	4 days
Van Buren, AR	2 days
Baton Rouge, LA	4 days
New Orleans, LA	3 days
St. Louis, MO	6 days
Minneapolis, MN	9 days
Memphis, TN	2-3 days
Chicago, IL	6 days
Houston, TX	4 days

Note: Rail transit time between two cities is generally the same, regardless of the direction of travel.

Waterway Access

The nation's inland waterways provide a viable system for transporting bulk commodities within the United States and for accessing deepwater ports for overseas shipments. The Port of Pine Bluff is linked to the inland waterway system via the McClellan-Kerr Arkansas River Navigation System. Figure 2-7 illustrates potential market areas for waterborne commerce from the Pine Bluff area and typical river barge transit times.

**Figure 2-7
Inland Waterway System**



Note: River transit time between two cities varies, based on the direction of travel. Upriver travel is slower than travel down river due to resistance from the water current.

Port of Pine Bluff – Overview

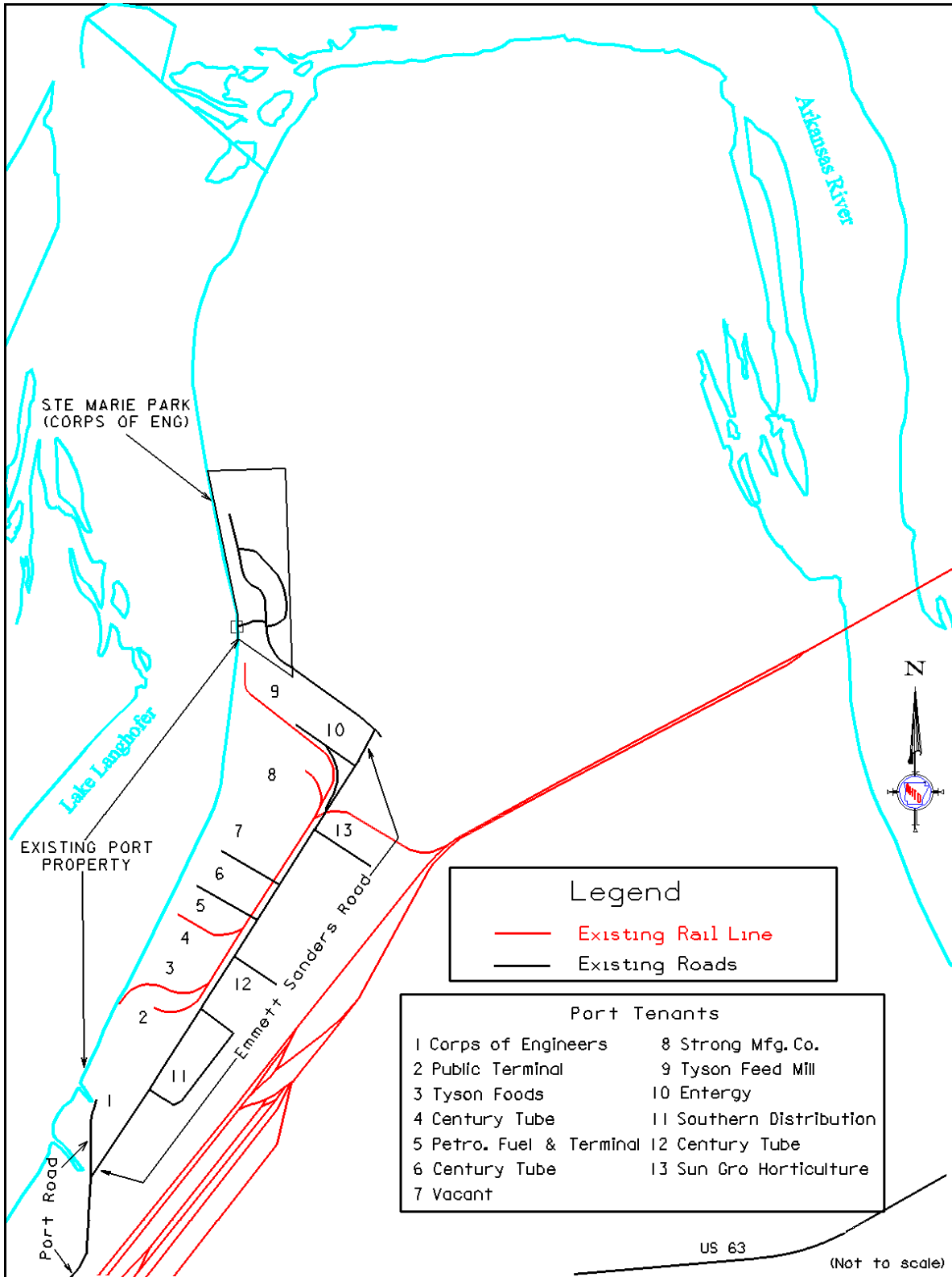
Public Terminal and Tenants

The Port of Pine Bluff is an important part of the freight transportation system in south central Arkansas, offering a cost-effective method for shipping many of the region's bulk commodities. It is located just off the Arkansas River on Lake Langhofer, a natural slackwater harbor, located at RM (river mile) 71.2 on the Arkansas River. The public portion comprises approximately 22 acres. The port's public terminal operation is presently leased to a private stevedore company, Global Materials Services, and primarily serves agricultural operations within the region. Both the Arkansas River Regional Intermodal Facilities Authority, which was organized to aid in the regional development of intermodal properties and facilities, and the Jefferson County Port Authority are involved with developing the port as a regional intermodal facility. A layout of the port is presented in Figure 2-8. Port tenants are listed below.

Current Port Occupants

- U.S. Army Corps of Engineers/U.S. Coast Guard
- Public Terminal – Global Materials Services
- Century Tube Corporation (3 locations)
- Petroleum Fuel & Terminal
- Southern Distribution
- Strong Manufacturing Company
- Tyson Foods (2 locations)
- Sun Gro Horticulture
- Entergy

**Figure 2-8
Port of Pine Bluff (Existing Layout)**





Pine Bluff Public Terminal
Existing Facilities/Equipment/Services

(Hours of operation 8:00 am to 5:30 pm Monday through Friday)

Facilities

- 160-foot public terminal wharf
- 7.5-million gallon storage capacity
- 10,000-bushel capacity grain bin
- 98,000-square foot in-transit warehouse
- 44,000-square foot warehouse for dry bulk storage
- 250,000 square feet of additional warehouse space near the port

Equipment

- Crawler cranes (50 & 70 tons)
- 20-ton covered overhead gantry crane
- Forklifts with a capacity of up to 50,000 pounds
- Pipeline and conveyor systems for loading/unloading
- Rail/truck dump pits
- Hydraulic truck lift
- Pneumatic grain probe and grading station
- Railroad switch engine

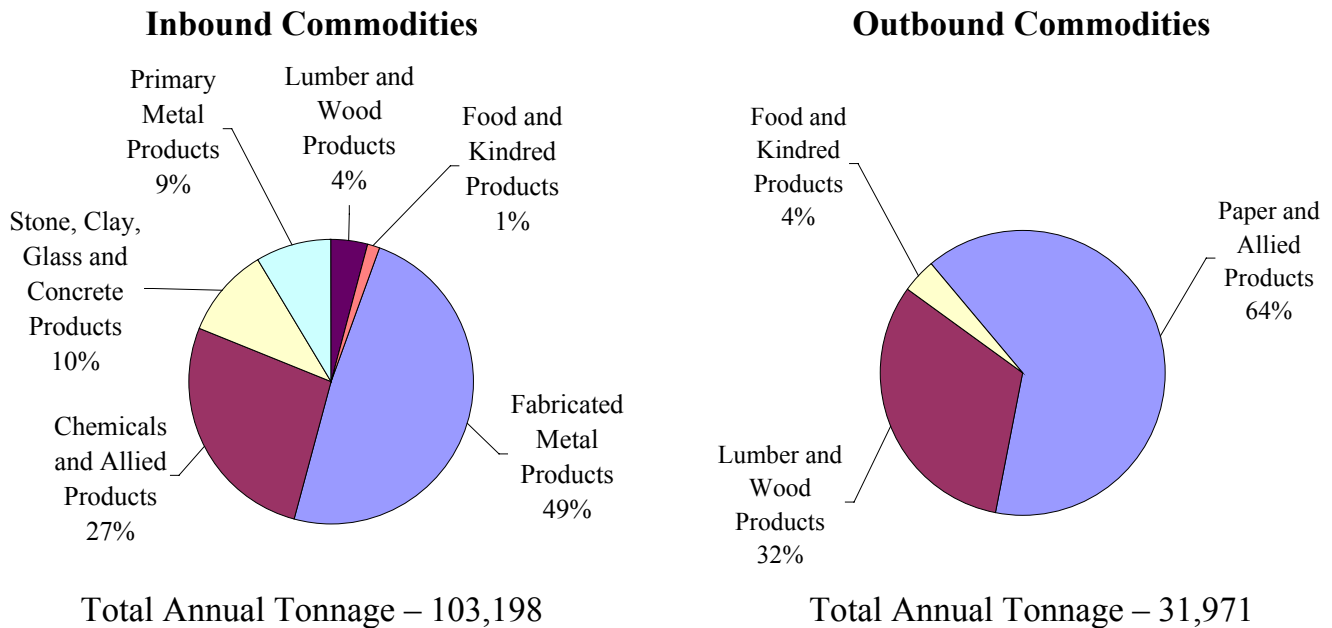
Services

- Crane service
- Direct water, rail, and truck transfers
- Public scales
- Field crop grading and testing

Existing Port Commodities

Figure 2-9 shows the types of commodities that are shipped to and from the Port of Pine Bluff. Fabricated metal products are the top inbound commodity and paper products are the chief outbound commodity. Total annual tonnage handled at the port in 2001 was 135,169 tons.

Figure 2-9
Existing Port Commodities (2001)



Following are photos of the existing facilities and equipment at the Port of Pine Bluff.

Port of Pine Bluff Terminal Photographs



Water tower and main entryway for the port
Crane offloading wire spools from barge



Port of Pine Bluff Terminal Photographs--continued



Rail entrance through the levee

Interior conveyor transfers product to the covered loading dock



Port of Pine Bluff Terminal Photographs--continued



Covered overhead crane moves material from barge to train or warehouse

Full view of covered overhead crane area



Port of Pine Bluff Terminal Photographs--continued



Liquid storage tanks located near the main warehouse

Railcar dumping station for conveyor transfers to barge



Port of Pine Bluff Terminal Photographs--continued



Conveyor used to offload barges

Chemical/fertilizer warehouse. Scale house shown on right



Port of Pine Bluff Terminal Photographs--continued



Hydraulic truck lift, railcar dump, and grain elevator

Conveyor for loading barges



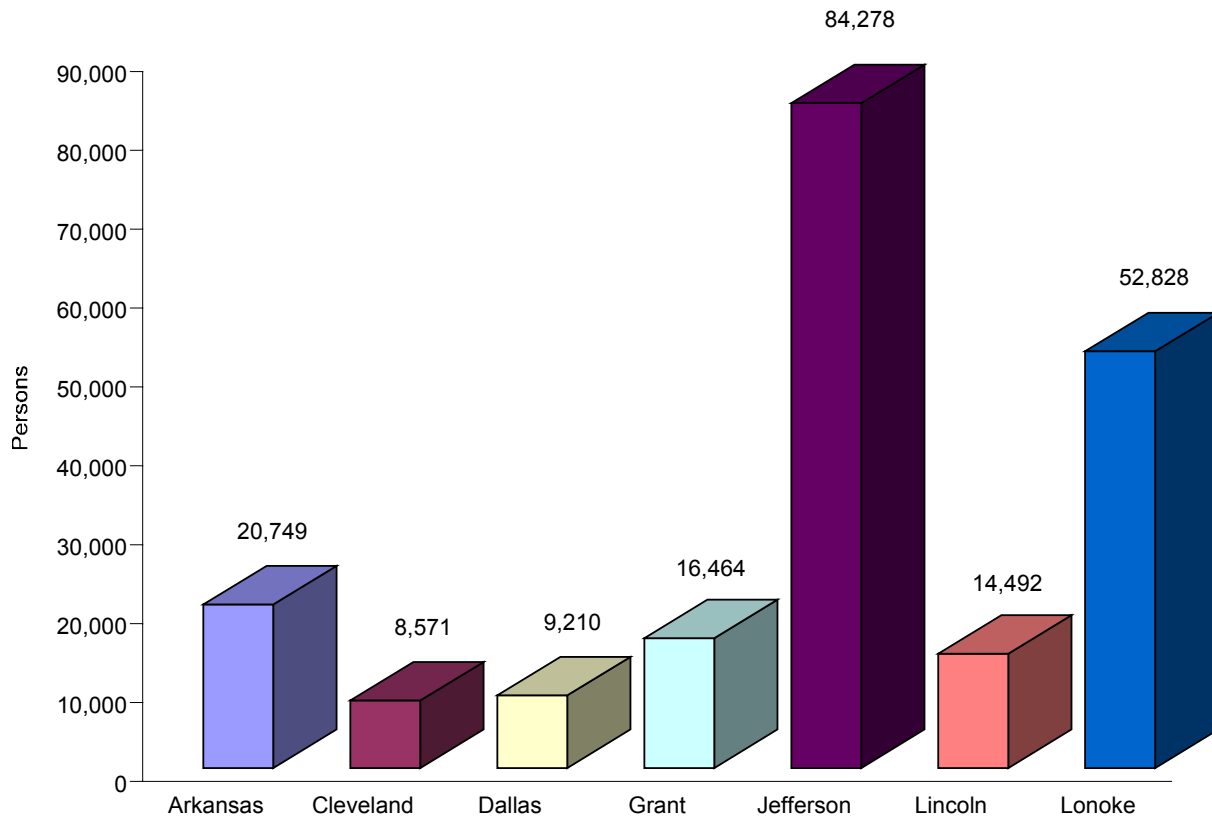
Socio-Economic Data

The counties of the study area share similar socio-economic characteristics. The region is predominately rural with small to medium size towns that are economically linked to farming and forestry activities.

Population

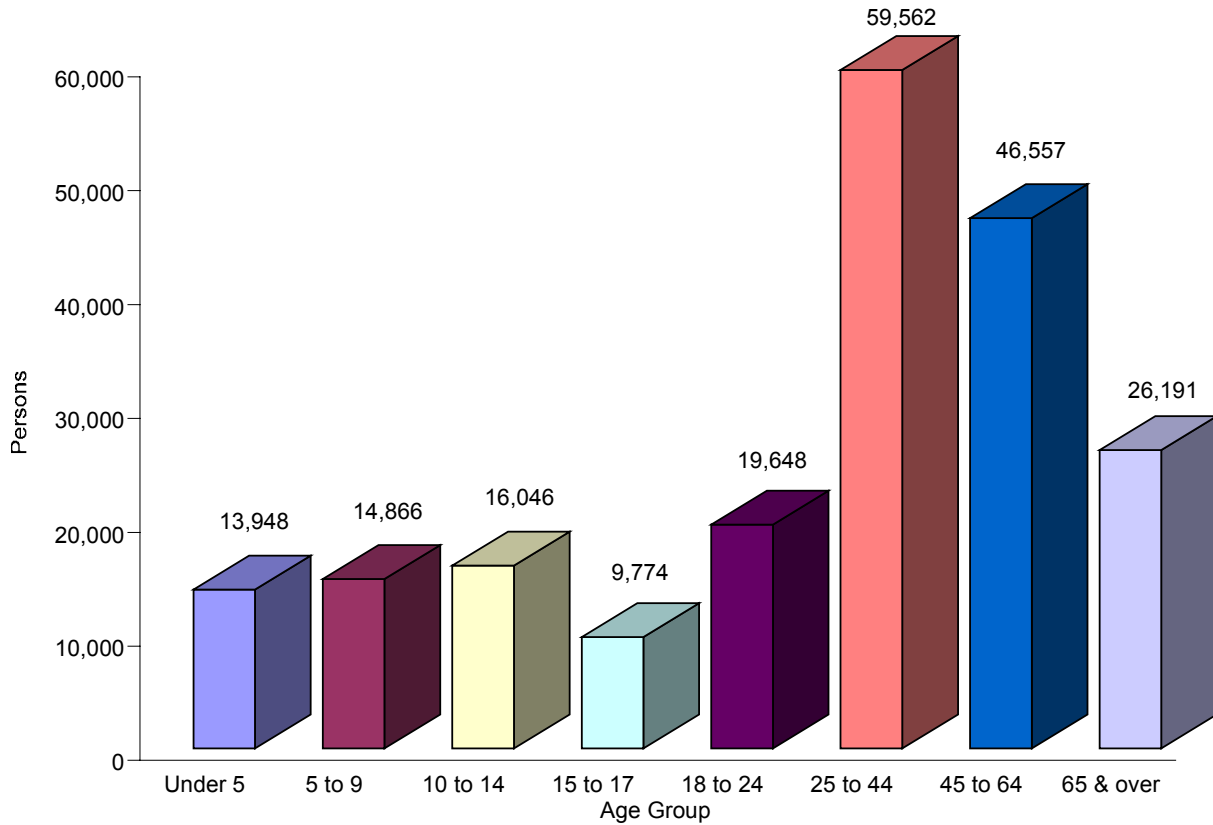
The population of the seven-county study area in year 2000 was 206,592. The largest population group is between the ages of 25 and 44, an indication of a viable work force. Figure 2-10 shows population by county and Figure 2-11 shows the distribution of the region's population by age group.

Figure 2-10
Regional Population by County (2000)



Source: U.S. Census of Population and Housing

**Figure 2-11
Regional Population by Age Group (2000)**



Source: U.S. Census of Population and Housing

Education

As a region, 74 percent of the population over 25 years of age has a high school education or higher. Six institutions of higher education are located in the study region.

**Table 2-2
Regional Education Levels**

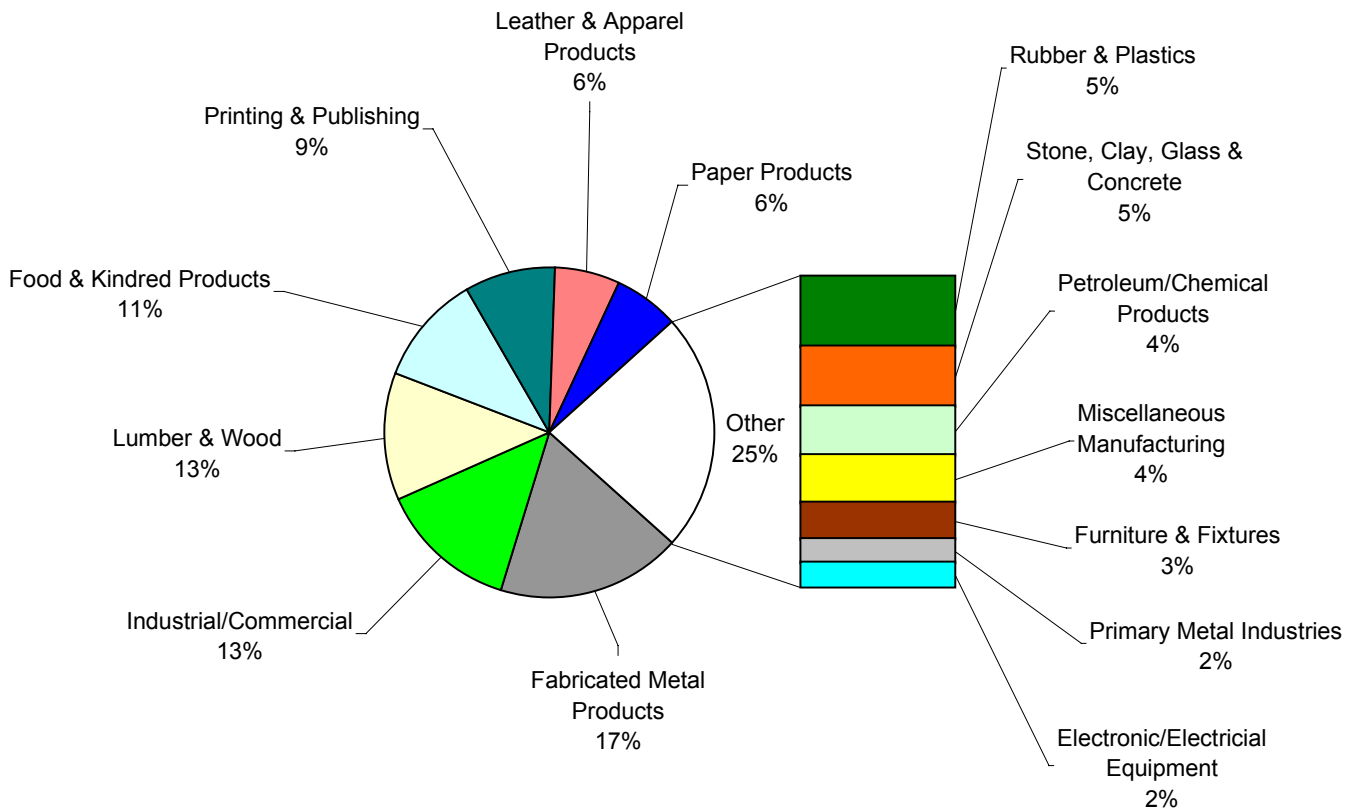
Education Level Completed	Percentage
High School	37
Some College	24
Bachelor Degree or Higher	13

Source: U.S. Bureau of the Census

Manufacturing and Processing

Many of the manufacturing and processing activities in the study area are closely linked with the forestry and agricultural sectors. Figure 2-12 shows the types of products that are manufactured in the region. The top three products, fabricated metal products, lumber and wood, and industrial-commercial equipment, account for 43% of the area's goods.

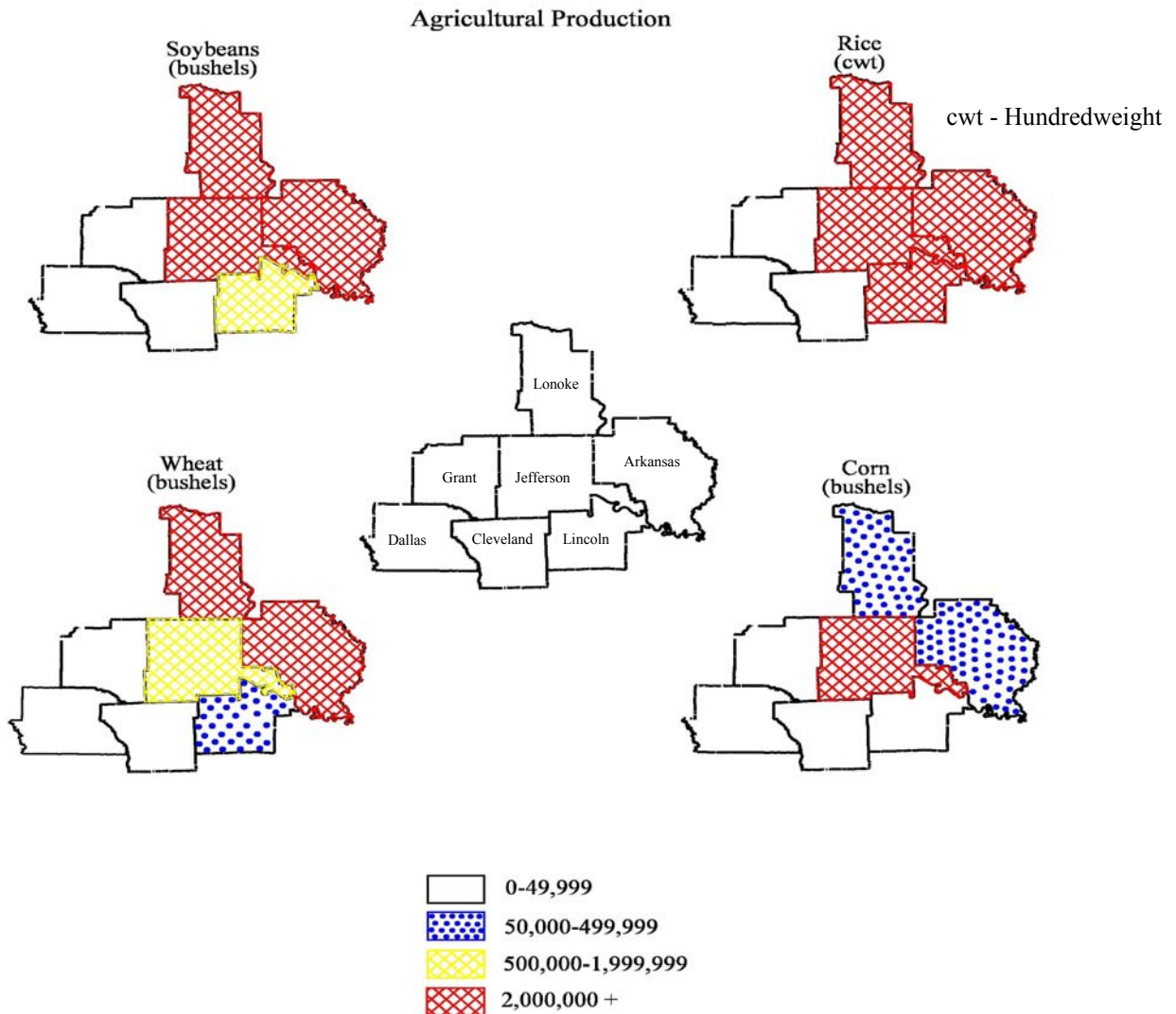
Figure 2-12
Products Manufactured in the Study Area



Agricultural Production

The rich, fertile soil and mild climate establishes this region as a natural agricultural area. Figure 2-13 shows the production levels for the principal field crops grown in the region.

Figure 2-13
Principal Field Crops



Source: Arkansas Agricultural Statistics - 1998

Forestry Activities

Arkansas' forests are among the most productive in the south, consisting of hardwoods, mostly red and white oaks, and softwoods such as loblolly pine. This natural resource is a major component of the study area's economy, providing jobs in logging, sawmill and paper mill operations, and finished and treated wood products. The listing below illustrates the wide range of forestry-based products made in the study area.

Primary Forest Products and By-Products

- ✓ Railroad Ties
- ✓ Poles and Posts
- ✓ Hardwood Flooring
- ✓ Wood Frames
- ✓ Paper board
- ✓ Coated Paper
- ✓ Cartons and Boxes
- ✓ Wooden Pallets

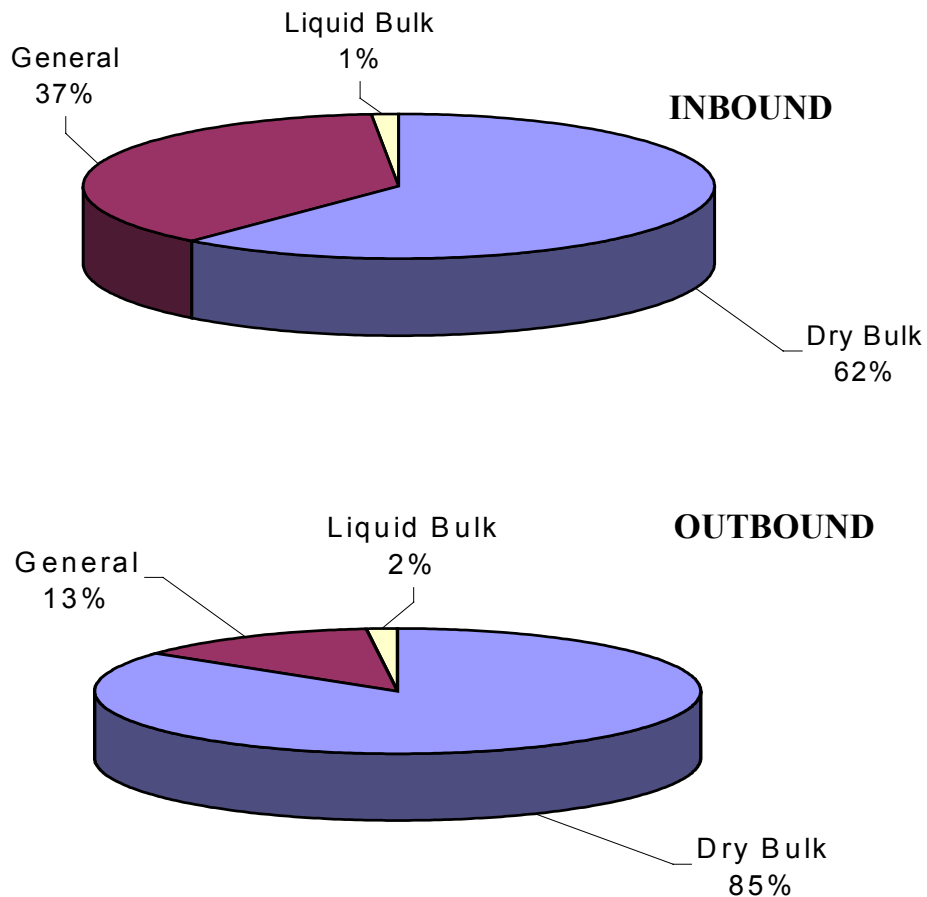
Section III Shippers' Survey

Regional manufacturers, processors, agriculture-based operations and forestry-related companies were surveyed to determine their present freight shipments, anticipated use of freight modes, and future transportation needs. The following summarizes the findings. A copy of the questionnaire is included as Appendix B.

Freight Shipment Types

Figure 3-1 exhibits the current inbound and outbound shipments by freight type, as reported through the survey. Dry bulk cargo, representing 62% of inbound shipments and 85% of outbound shipments, is the region's leading shipment type.

**Figure 3-1
Inbound/Outbound
Shipments by Freight Type**



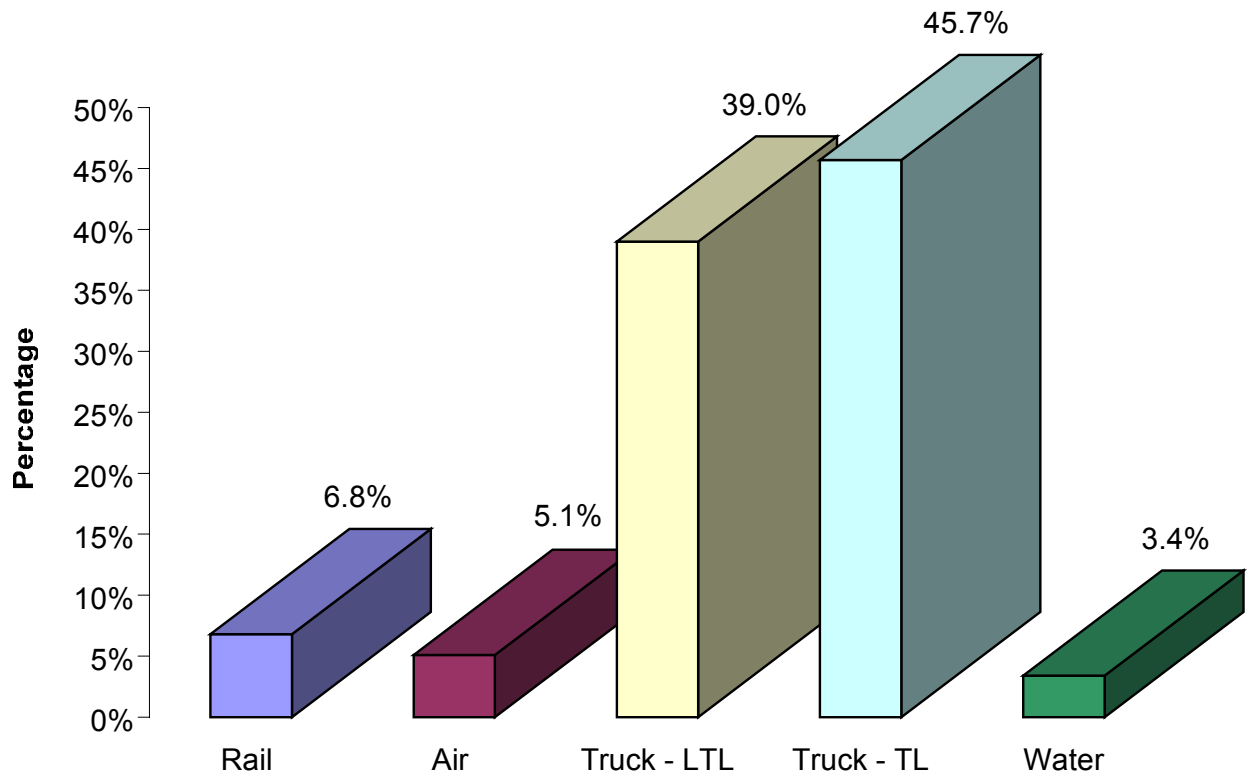
Bulk Cargo is composed of basic commodities that are generally in an unpackaged condition (grains, chemicals or other materials that are voluminous or loose) shipped in bulk equipment (railcars, river barges and chemical trucks).

General Freight consists of semi-manufactured products, packaged (boxes and drums) manufactured goods, and self packaged items (boats and cars). General freight is the type of cargo that is most often containerized.

Anticipated Freight Mode Use

Survey respondents indicated that truck transportation would probably be their first choice.

**Figure 3-2
Future Usage of Freight Modes**



LTL – Less-than-Truckload
TL – Truckload

Future Transportation Needs

Based on survey responses, future facilities, equipment and service needs are listed below. Facility needs include truck scales and warehouses; equipment requirements such as heavy lift equipment and cranes; and service needs are rail/barge intermodal, container pool service, and assistance with international shipments. It is recommended that additional studies of facility, equipment and service needs for the region be conducted by local authorities.

Facility, Equipment and Service Needs

Facilities

- ✓ Truck Scales
- ✓ Warehouses
- ✓ Fuel Depot
- ✓ Liquid Bulk Tanks
- ✓ Blast Freezer

Equipment

- ✓ Heavy Lift Equipment and Fittings
- ✓ Cranes

Services

- ✓ Rail/Barge Intermodal
- ✓ Rail/Truck Intermodal
- ✓ Container Pool
- ✓ Transloading
- ✓ Freight Consolidation
- ✓ International Shipping Service¹

Transportation infrastructure is the engine that powers our economy. Improvements in transportation efficiency and productivity are essential to a competitive economy.

¹ Nearly 30 percent of the respondents indicated that assistance with international shipment would be beneficial.

Section IV Freight Movements

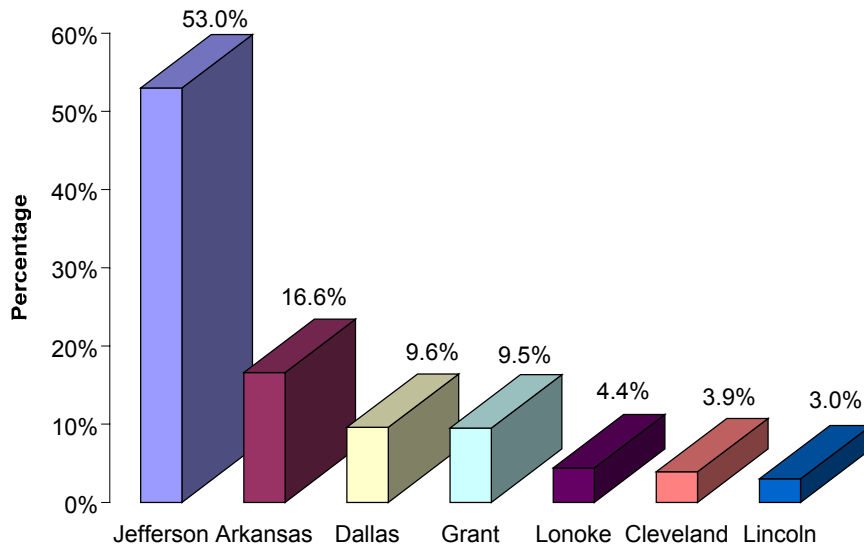
Shipping patterns for the study area are described in this section. The presentation includes data on the general composition of shipments, freight modes used and origin and destination of commodities. The Department's Freight Goods Movement Database, as described in Appendix C, was the source of information. Domestic shipments refer to goods and commodities that are transported within the United States. International shipments are those that travel from or to another country, such as Mexico, Canada, or Japan.

Domestic Movements

Total Inbound/Outbound Shipments

Total annual freight tonnages moved into and out of the study area are represented in Figure 4-1. Jefferson County and Arkansas County provide almost 70% of all shipments. (*Freight movements between counties or within the same county are not included.*)

**Figure 4-1
Annual Tonnage by County**

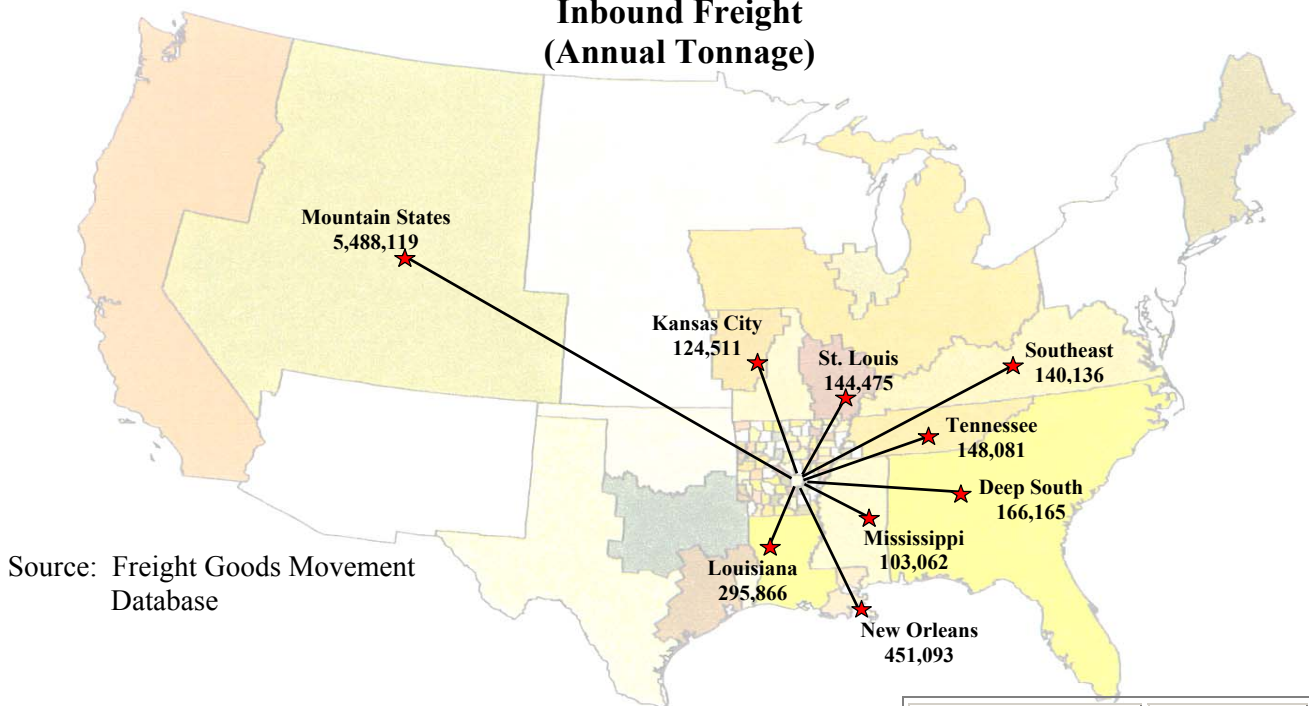


Source: Freight Goods Movement Database

Jefferson County's importance as the center for economic activity in the region is illustrated by its share (53%) of the total cargo moved. This high proportion reflects Jefferson County's position as the county with the fifth largest manufacturing employment in the State. Arkansas County's volume is attributed to its agricultural operations. It is the State's largest producer of rice, soybeans, oats, and wheat.

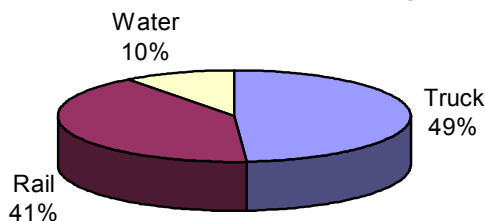
Figures 4-2 and 4-3 show the modes of transportation and percentage that each is used for all freight entering and exiting the region by truck, water, or rail. The leading factor impacting the choice of transportation mode is the ease of use – the accessibility to Interstate Highway routes, the availability of local waterways, and the presence of railroad service. Other contributing factors are the trip distance, shipment volume, and type of commodity shipped. These figures also depict the leading originations and destinations for study area freight. The high inbound rail volume is attributed to coal that is delivered to the coal-powered energy plant located near Pine Bluff. Louisiana, represented here as the New Orleans BEA and the rest of Louisiana, provides the next highest source of freight for the study area. Much of the New Orleans BEA tonnage is actually international freight that enters the country there.

**Figure 4-2
Inbound Freight
(Annual Tonnage)**



Source: Freight Goods Movement Database

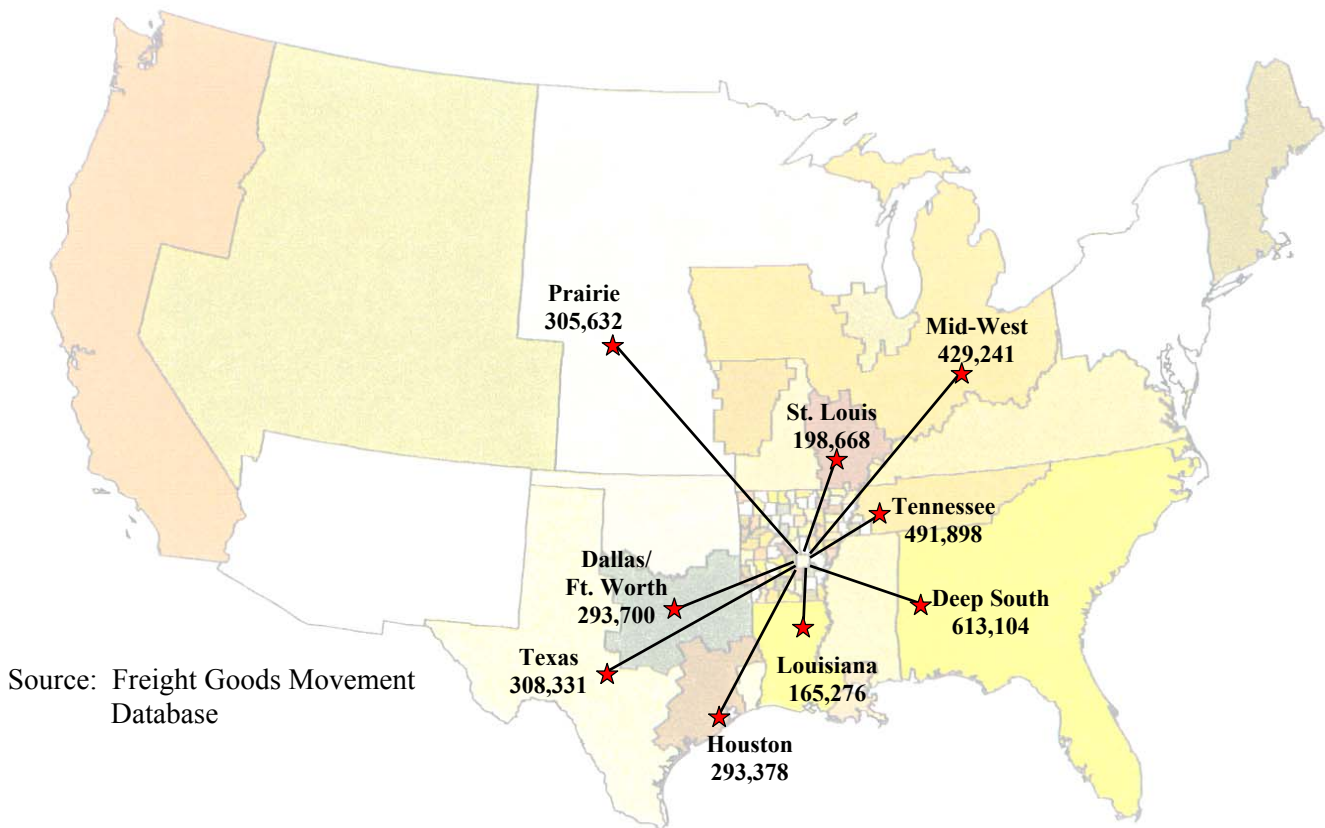
Inbound Freight by Mode to Pine Bluff Area (Annual Tonnage)



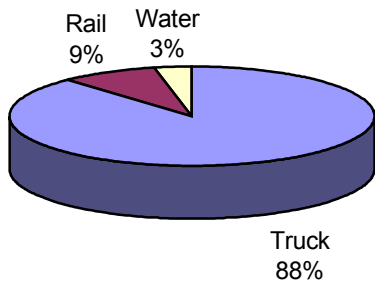
Origination	Annual Tonnage
Mountain States	5,488,119
New Orleans BEA	451,093
Louisiana	295,866
Deep South	166,165
Tennessee	148,081
St. Louis BEA	144,475
Southeast	140,136
Kansas City BEA	124,511
Mississippi	103,062

Texas, consisting of the Dallas-Fort Worth BEA, the Houston BEA and the rest of Texas, receives the largest proportion of freight that originates in the study area. Much of the freight for the Houston BEA and the rest of Texas are international movements. The Deep South region is also a leading destination for cargo from the study area.

**Figure 4-3
Outbound Freight
(Annual Tonnage)**



**Outbound Freight by Mode
from Pine Bluff Area (Annual Tonnage)**



Destination	Annual Tonnage
Deep South	613,104
Tennessee	491,898
Mid-West	429,241
Texas	308,331
Prairie	305,632
Dallas-Fort Worth BEA	293,700
Houston BEA	293,378
St. Louis BEA	198,668
Louisiana	165,276

Commodities Shipped

Table 4-1, based on total annual tonnages handled, shows the top five inbound and outbound commodities or activities by freight mode (truck-rail-water) for the study region.

**Table 4-1
Top Commodities or Activity**

Inbound Shipments		
Truck	Rail	Water
1. FIELD CROPS	1. BITUMINOUS COAL OR LIGNITE	1. GRAVEL OR SAND
2. PRIMARY FOREST MATERIALS	2. PRIMARY FOREST MATERIALS	2. STEEL MILL PRODUCTS
3. REDISTRIBUTION	3. FIELD CROPS	3. BROKEN STONE OR RIPRAP
4. FOREST PRODUCTS	4. INDUSTRIAL CHEMICALS	4. IRON ORES
5. POULTRY OR POULTRY PRODUCTS	5. ABRASIVES, ASBESTOS PRODUCTS, ETC.	5. WASTE OR SCRAPS
Outbound Shipments		
Truck	Rail	Water
1. FOREST PRODUCTS	1. GRAIN MILL PRODUCTS	1. PETROLEUM PRODUCTS
2. REDISTRIBUTION	2. FIBER, PAPER, OR PULPBOARD	2. GRAVEL OR SAND
3. FIELD CROPS	3. PAPER	3. BROKEN STONE OR RIPRAP
4. PRIMARY FOREST MATERIALS	4. MISC FOOD PREPARATIONS	4. GRAIN MILL PRODUCTS
5. GRAIN MILL PRODUCTS	5. MILLWORK OR PREFAB WOOD PRODUCTS	5. AGRICULTURAL CHEMICALS

The major commodities shipped by truck are field crops (rice, soybeans, corn, sorghum, and cotton), primary forest materials (pulpwood, sawdust, wood chips, bark, and shavings), and forest products (lumber, crossties, and plywood). Redistribution of freight shipments to and from warehouses and drayage between modes is a significant trucking activity. The foremost inbound commodity moved by rail is bituminous coal or lignite, which can be attributed to coal shipments to the Entergy White Bluff power plant. Primary outbound commodities shipped by rail are grain mill products and fiber, paper, or pulpboard. Chief inbound commodities transported by water are gravel and sand and

steel mill products. Major outbound waterborne commodities are the products of petroleum refining, followed by gravel or sand.

Detailed commodity movements are provided in Appendix C. This information includes the top twenty inbound and outbound commodity shipments or activity.



Historically, transportation has been the most important factor considered in industrial location decisions. Transportation access is critical to the overall manufacturing process as it facilitates the bringing together of the various inputs for processing and the shipment of finished products to consumers.

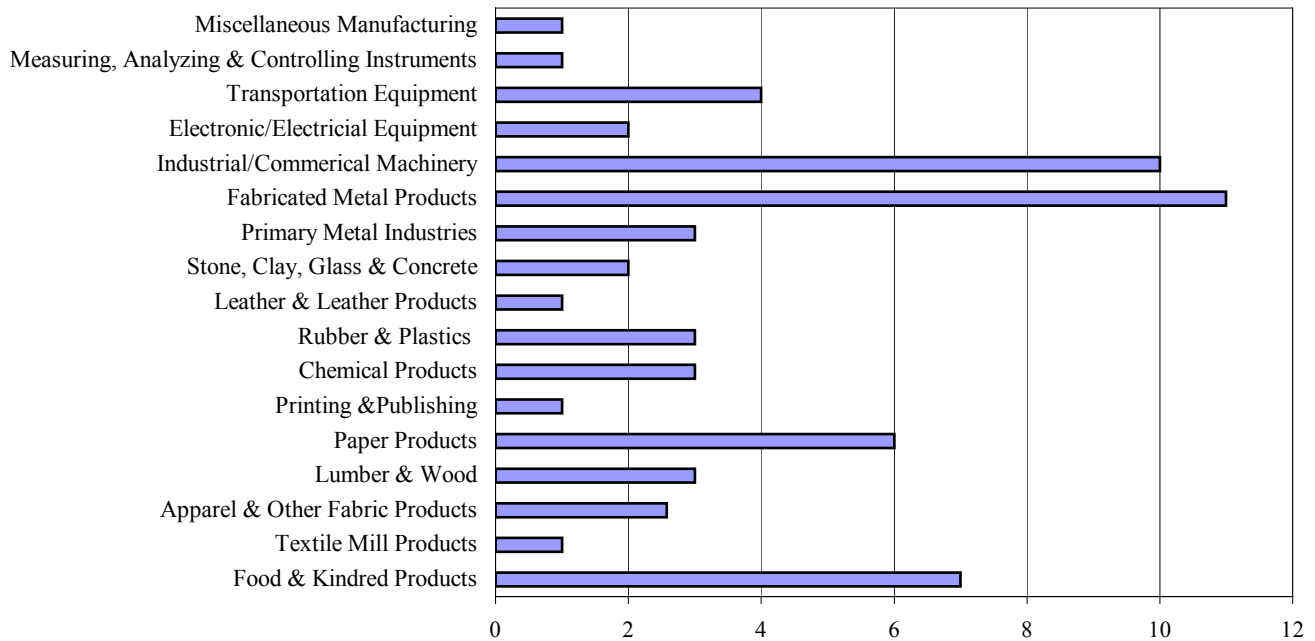
International Movements

Exporting is now an important component of the Pine Bluff area's economy and could become a catalyst for future economic development. Current import and export activities comprise: (1) regional exports by product types and major trading countries; (2) imports and exports between Canada and the study area; (3) freight shipments to and from Mexico; and (4) exports to selected gateway cities and likely overseas destinations.

Regional Exports/Trading

Figure 4-4 exhibits the number of exports by major product type. Manufacturers that export more than one type of product are counted in each category. For instance, a manufacturer may export both fabricated metal products and transportation equipment and is counted twice.

Figure 4-4
Regional Exporters by Product Type



Source: Arkansas Directory of Manufacturers

The major exports, based on the number of products exported, are fabricated metal products, industrial/commercial machinery and food and kindred products. The primary destinations for these products are the countries of Canada, Mexico, United Kingdom, Japan and Germany.

**Table 4-2
Major Export Countries**

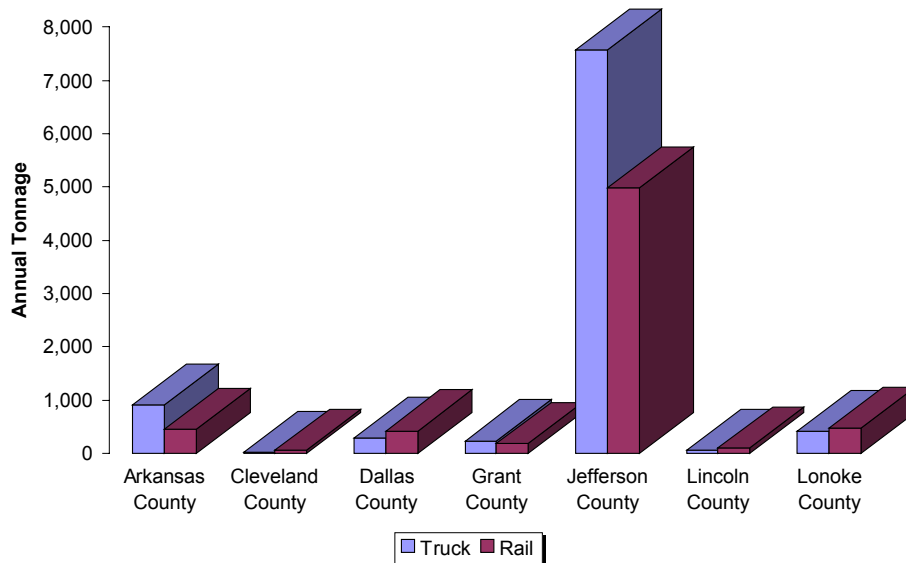
1. Canada
2. Mexico
3. United Kingdom
4. Japan
5. Germany

Source: Arkansas Economic Development Commission

Trade with Canada

Figure 4-5 illustrates the freight mode and amount of annual freight tonnage that the study region receives from Canada. Jefferson County receives the greatest amount of imported goods, followed by Arkansas County.

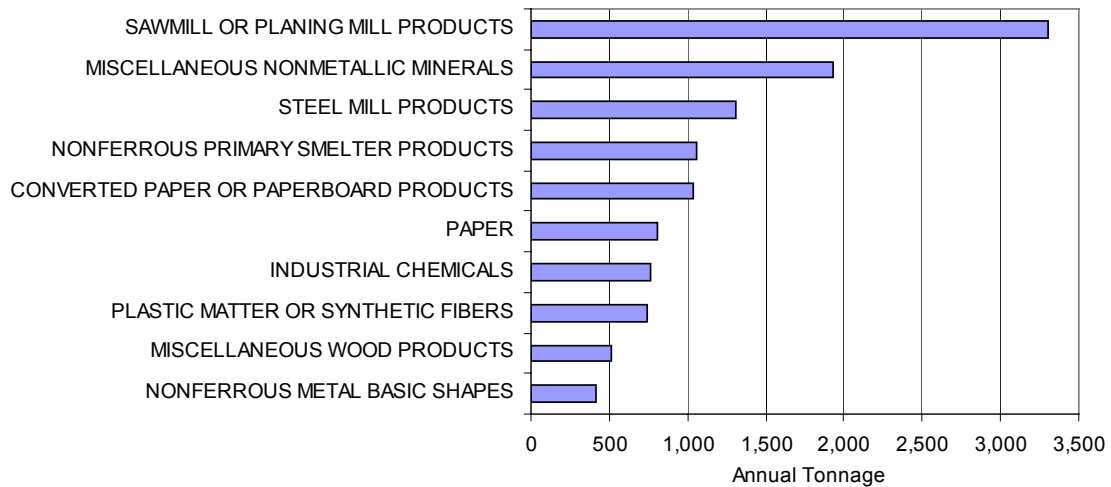
**Figure 4-5
Regional Imports from Canada
by Tonnage and Freight Mode**



Source: Freight Goods Movement Database

The top ten Canadian products imported into the region are shown in Figure 4-6. Sawmill or planing mill products are the largest commodity imported and miscellaneous nonmetallic minerals are the next highest.

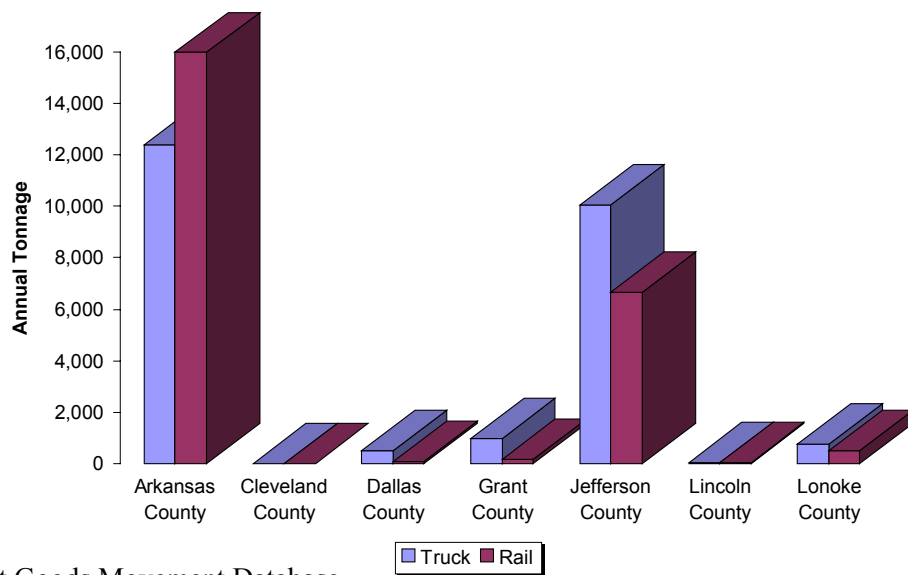
Figure 4-6
Top 10 Regional Import Products from Canada



Source: Freight Goods Movement Database

Figure 4-7 shows the freight mode and amount of freight shipped to Canada. Rail transportation is the chief mode of transportation, followed by truck. Arkansas County ships the largest amount of commodities to Canada, with Jefferson County next.

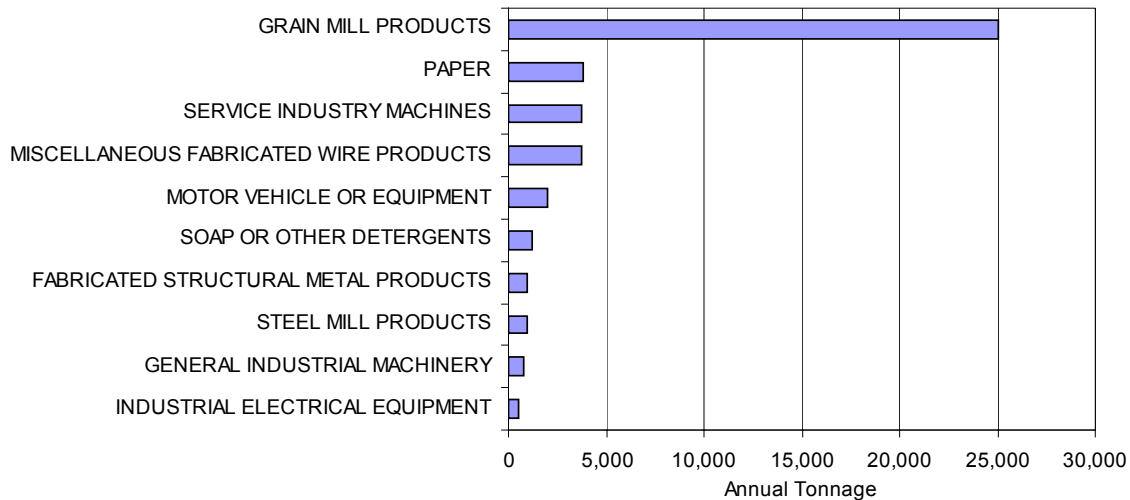
Figure 4-7
Regional Exports to Canada
by Tonnage and Freight Mode



Source: Freight Goods Movement Database

The top ten products exported from the study area to Canada are shown in Figure 4-8. Grain mill products, followed by paper, service industry machines, and miscellaneous fabricated wire products are the leading commodities.

Figure 4-8
Top 10 Regional Export Products to Canada



Source: Freight Goods Movement Database

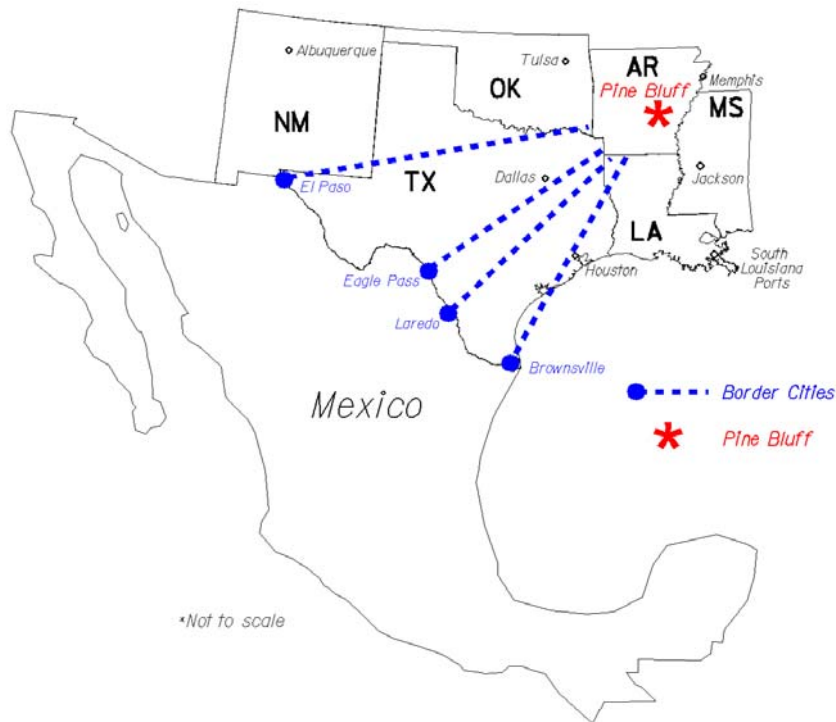
Trade with Mexico

A study entitled *The Latin American Trade and Transportation Study (LATTS)* was recently completed. It revealed important freight flow patterns for Arkansas regarding trade with Mexico. The major findings, as they relate to the study area, are summarized in Table 4-3.

**Table 4-3
Cross-Border Trade with Mexico**

- Primary U.S./Mexico crossing sites are located in south Texas (see Figure 4-9).
 - ✓ Eagle Pass, Texas
 - ✓ Laredo, Texas
 - ✓ Brownsville, Texas
 - ✓ El Paso, Texas
- More goods are exported to Mexico than are imported.
 - ✓ 92 percent exports
 - ✓ 8 percent imports
- Shipments are almost evenly split between truck and rail.
 - ✓ 55 percent truck
 - ✓ 45 percent rail
- Two commodity groups account for 80 percent of export shipments.
 - ✓ Non-metallic minerals
 - ✓ Farm products
- Three commodity groups dominate imports.
 - ✓ Food and kindred products
 - ✓ Lumber and wood
 - ✓ Stone, clay, glass, and concrete

**Figure 4-9
Cross-Border Sites**



International Trade via Gateway BEAs

The LATTS study also disclosed that the majority of Arkansas’ imports and exports are handled at the Gulf of Mexico ports in Texas and Louisiana. These gateways and their primary deep-water ports are:

- ✓ Houston-Galveston-Brazoria, TX BEA
(Port of Houston-Port of Galveston-Port of Texas City)
- ✓ New Orleans, LA-MS BEA
(Port of New Orleans)

Table 4-4 shows the inbound and outbound annual tonnage for the study area by freight mode to the above BEAs. The New Orleans BEA is the chief site for international trade, based on tonnage, and water transportation the principal freight mode for import and export shipments.

**Table 4-4
Imports and Exports via BEAs**

PINE BLUFF AREA (Annual Tonnage)				
INBOUND	RAIL	TRUCK	WATER	*TOTAL
Houston-Galveston-Brazoria, TX	6,052	97,937	13,286	117,275
New Orleans, LA-MS	49,610	55,466	346,017	451,093
OUTBOUND	RAIL	TRUCK	WATER	*TOTAL
Houston-Galveston-Brazoria, TX	62,807	230,068	503	293,378
New Orleans, LA-MS	42,114	88,141	45,274	175,529

Source: Freight Goods Movement Database.

*Total of truck, rail, and water.

Based on statistics from the Bureau of Transportation, the likely destination for exports from the study area, other than Canada and Mexico, are Pacific Rim countries (Japan-Philippines), European Union countries (United Kingdom-Germany-France), East European countries (former Soviet Union countries-Poland), and South American countries (Colombia-Venezuela-Chile).

Figure 4-10
World Market Areas



Section V

Development Strategies

The following strategies are suggested to increase and enhance domestic freight shipments and regional exports at the Port of Pine Bluff. Included for consideration is a conceptual development plan. As a preface, a general discussion of freight shipping trends that may affect delivery of freight transportation service in the study area is provided.

Freight Shipping Trends

Arkansas' manufacturers and processors operate in a very competitive business environment. Freight transportation fees and product handling, packaging and storage costs have a direct impact on the prices of their goods at the marketplace. Trends in warehousing, distribution and freight consolidation that could impact future shipping and receiving cost are shown below.

Freight Shipping Trends

- Increased use of containers and trailers as in-transit warehouses.
- Greater tendency to outsource product handling to third party specialists.
- Businesses heavily involved with the electronic marketplace (e-commerce) are changing their warehouse from a location for keeping inventory to a distribution center.
- Warehouses are becoming product assembly points that include activities like adding parts to semi-finished goods, sorting, wrapping, reloading and shipping products.
- Distributors are seeking centralized locations in relation to national marketplaces because of the greater demand for next day or two-day deliveries.

Domestic Shipments

If the Port of Pine Bluff is to effectively compete for current regional domestic shipments and to handle future cargo volumes, additional port capacity will be required as well as enhanced flexibility through land expansion, additional truck, rail and water transportation facilities, support services, equipment and technology, and landside access improvements. Also, a public image enhancement program should be established to market port improvement projects as they are completed. Following is a list of strategies for attracting more domestic shipments to the Port of Pine Bluff. Enactment of these activities could create jobs, additional port revenue, and new business ventures.

Domestic Shipping Strategies

General

- Acquisition of Additional Property
- Landside Access Improvements
 - Public Image Program

Truck Transportation

- On-site Trucking Company (ies)
- Public Truck Scales/Facilities for Refueling
 - Truck Staging Area

Rail Transportation

- Team Track/Tramp Loading
 - Container Pool Area

Water Transportation

- Slackwater Harbor
- General Purpose Cargo Dock and Overhead Bridge Crane
 - Rail to Barge to Truck Transfer Facility

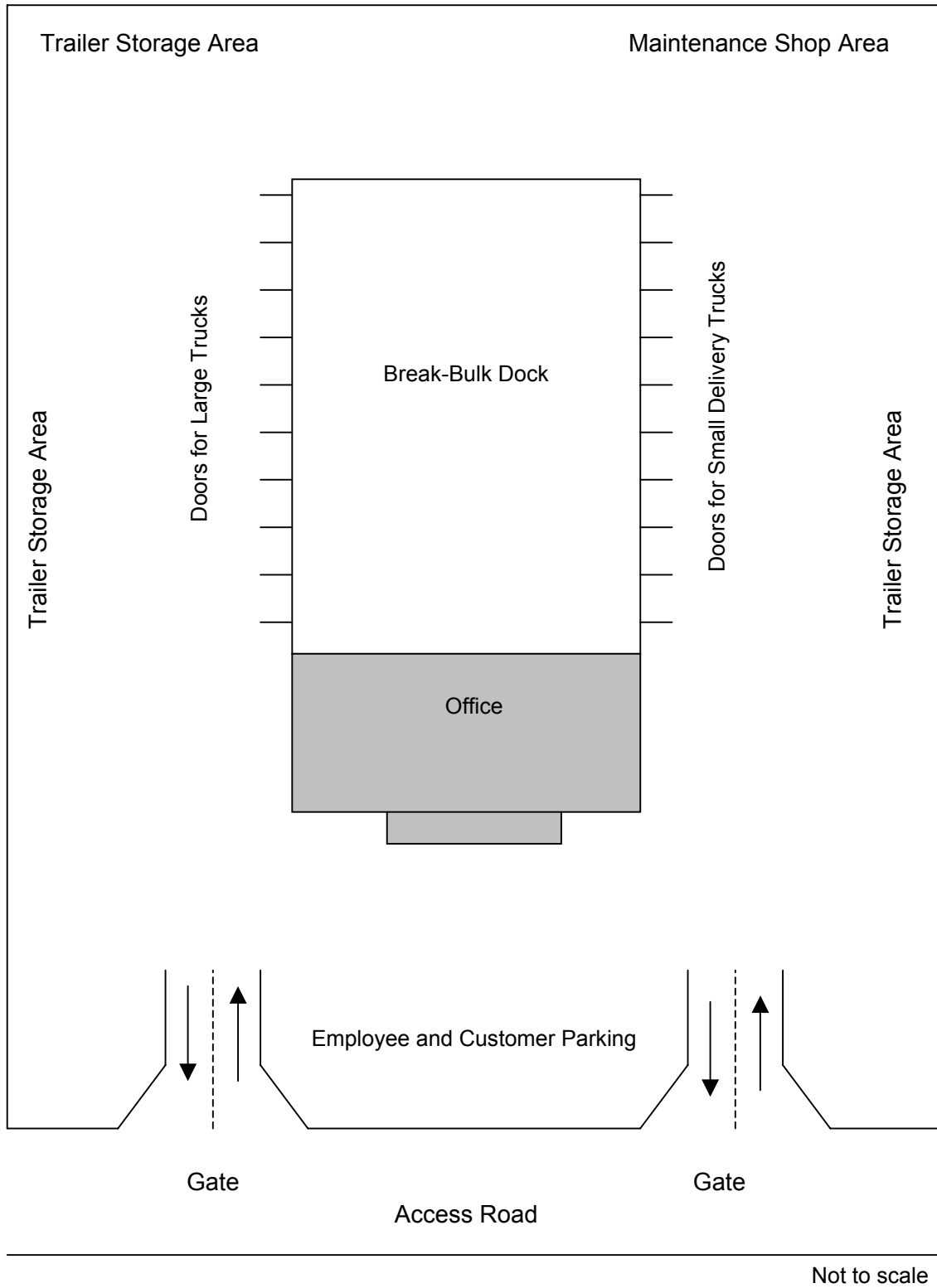
Facilities, Services, Technology

- Traditional and Specialized Warehouses
 - Bulk Facilities, Dry and Liquid
 - On-site Administration Building
- Labeling, Bagging and Repackaging Service
 - Fiber Optics Terminal

Additional land for new facilities and services with developable waterfront property will be needed. A possible site is a parcel of land located northeast from the present port property. New rail and highway access will be required to optimize throughput capacity along with improvement to existing access routes. A proactive public image program should be established that promotes the port as an efficient, cost-effective and easy-to-use freight terminal.

One or more trucking companies should be recruited to have a terminal on-site for local drayage service. A public cross-dock facility (break-bulk terminal) designed to transfer cargo between trucks or between railcars and trucks warrants consideration. A typical layout for a cross-dock facility is shown in Figure 5-1.

Figure 5-1
Typical Layout of a Cross-Dock Terminal



International Shipments

To fully develop the Port of Pine Bluff as a regional location for importing and exporting, new facilities and services will be required. Facilities to consider include a Foreign Trade Sub-Zone building, a container storage area, an exhibit hall displaying area products available for exports, a site for handling large inbound and outbound rail and water shipments with supporting trucking operations, and facilities for packing goods for overseas shipment. Services could include assistance with Customs documents, providing information on foreign markets (i.e., tax structure and monetary exchange rate), and management of databases on foreign customers and status of international shipments.

A rail/truck bulk freight terminal (Figure 5-2), where large volumes of inbound and outbound freight could be handled and customers' orders could be assembled, might be needed. Common types of facilities include:

- ✓ Team Track – a rail track on which rail cars are placed for the common public use in loading and unloading freight;
- ✓ Tramp Loading Site – a loading site for transfers of bulk commodities between trucks and trains and/or containers;
- ✓ Distribution Warehouse – a warehouse for storing finished or semi-finished goods and from which customer orders are assembled; and
- ✓ Parking Area – for truck trailers and containers.

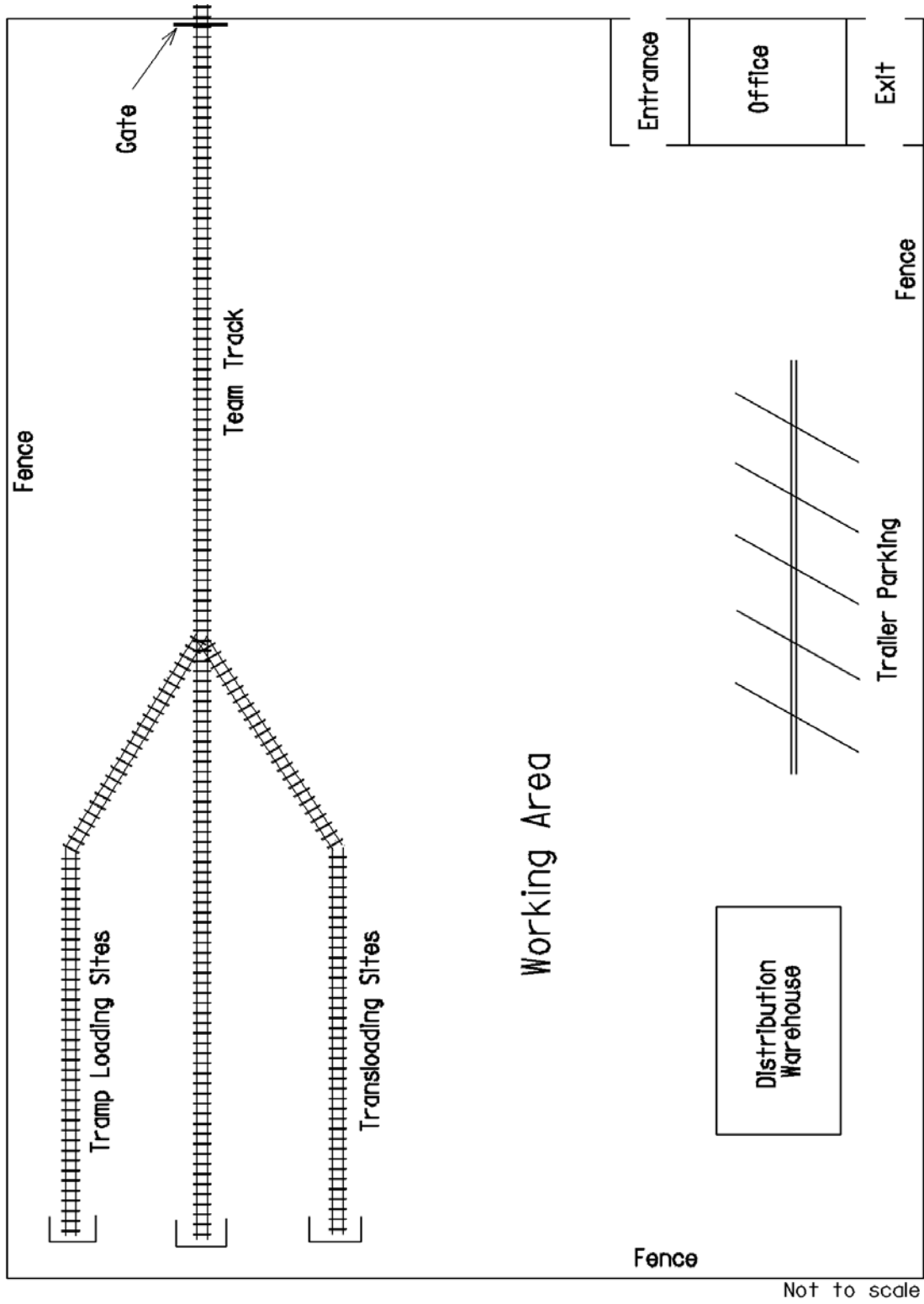
A general-purpose slackwater harbor, designed especially to move freight between modes (rail to barge transfer center), could complement any plan to enhance regional exports. A location near the water port terminal for both short- and long-term storage of goods and parking for containers and truck trailers could be advantageous in securing freight business, especially during peak freight periods.

Quality warehouses and distribution services are important to shippers in rural areas like south central Arkansas. Suggested warehousing amenities include high ceilings with an overhead crane for better stacking of products and climate controlled areas for product storage that require temperature and moisture control. A growing segment of warehouse business is product labeling, bagging and repackaging.

Import/Export Strategies

- Customs Clearance Assistance
 - Information Center
 - Database Management
 - Foreign Trade Sub-Zone
 - Exhibit Hall
- Cargo Handling and Distribution Services
 - Packaging Facilities

**Figure 5-2
Typical Layout of a Rail/Truck Bulk Freight Terminal**



A discussion of the pros and cons of exporting, some of the potential advantages of a Foreign Trade Sub-Zone and factors involved in transporting products overseas follows.

Exporting – Pros and Cons

There are recognized pros and cons in conducting business overseas. The primary benefit usually cited is increased sales and the main disadvantage, the terms of sale (i.e., monetary exchange rate, tax and tariff and product warranty). Listed below are other potential advantages and disadvantages.

Pros

- ✓ Better cash flow through improved business cycles
 - ✓ Tax advantages through trading agreements
 - ✓ Added product life
 - ✓ Reduction in unit cost

Cons

- ✓ Possible cost to modify product for new customers (i.e., local preference for size and color)
- ✓ General lack of knowledge about overseas markets could negatively affect business decisions

Potential Advantages of a Foreign Trade Sub-Zone

A Foreign Trade Sub-Zone is a U.S. stateside site that is considered outside U.S. Customs territory and is available for activities that might otherwise be carried on overseas. The activities within a Sub-Zone are protected from U.S. Customs issues. For export operations, a Sub-Zone provides accelerated export status for purposes of excise tax rebates and customs drawback. For import and re-export activities, no customs duties, federal excise taxes, or state or local ad valorem taxes are charged on foreign goods moved into a zone unless and until the goods, or products made from them, are moved into Customs territory. This means that the use of a Sub-Zone can be profitable for operations involving foreign dutiable materials and components being assembled or produced here for re-export. Also, no quota restrictions ordinarily apply. Other possible advantages of a Foreign Trade Sub-Zone are listed on the following page.

Foreign Trade Sub-Zone Benefits

- ✓ Foreign and domestic merchandise can be brought into a Sub-Zone for storage, exhibition, assembly, processing and manufacturing.
- ✓ Imports may be stored in a Sub-Zone without full Customs formalities. U.S. quota restrictions, duty and bonding are not applicable in a Sub-Zone.
- ✓ A company's cash flow could be improved because the duties on goods are not paid until they leave the Sub-Zone. If goods are exported, U.S. Customs duty payments are not required. Goods may be withdrawn in less than case lots or in other partial amounts.
- ✓ Insurance on goods in storage can be limited to value plus ocean freight, rather than value plus freight plus duty plus taxes paid.
- ✓ Buyers may inspect and sample goods displayed in a showroom before purchase and payment of duty.
- ✓ Order for goods may be accepted before payment of duty or excise tax.
- ✓ Goods may be processed to qualify for the lowest duties or freight charges. Duty payment may be avoided on damaged or substandard items.
- ✓ Goods may be altered, re-labeled or re-marked to meet federal or local requirements or to avoid fines for improperly marked merchandise. Samples of goods may be withdrawn to submit to Customs for proper classification.
- ✓ For products manufactured in a Sub-Zone, the rate of duty or quota limitation on the finished product entering U.S. markets may be applied to the finished product (the percentage of which is of foreign origin) or to the foreign materials in the finished product.
- ✓ Goods in excess of U.S. import quotas may be imported and held until the next quota period.
- ✓ Salvage or repair of damaged goods may be carried out to maximum market advantage, duty and quota free.
- ✓ Certain bonded merchandise may be transferred to a Sub-Zone for export, canceling the bond or time limit applicable to bonded warehouses, and making possible immediate recovery of taxes already paid.
- ✓ On goods destined for export, recovery of U.S. Customs duty or of certain state taxes can be made upon entry into a Sub-Zone.
- ✓ Merchandise stored has an added protection against theft because the facility is under Customs security supervision.
- ✓ Posting of bond for missing documents can be avoided because goods can be held until the documents are found.

Transporting Products Overseas

Overseas shipping involves the selection of the transportation mode(s) that best fits the product. For example, computer parts will most likely require quick delivery by air, while heavy construction equipment would probably be shipped by ocean carrier. There are five primary types of overseas freight shipments. They range from a dedicated transportation service to freight forwarding.

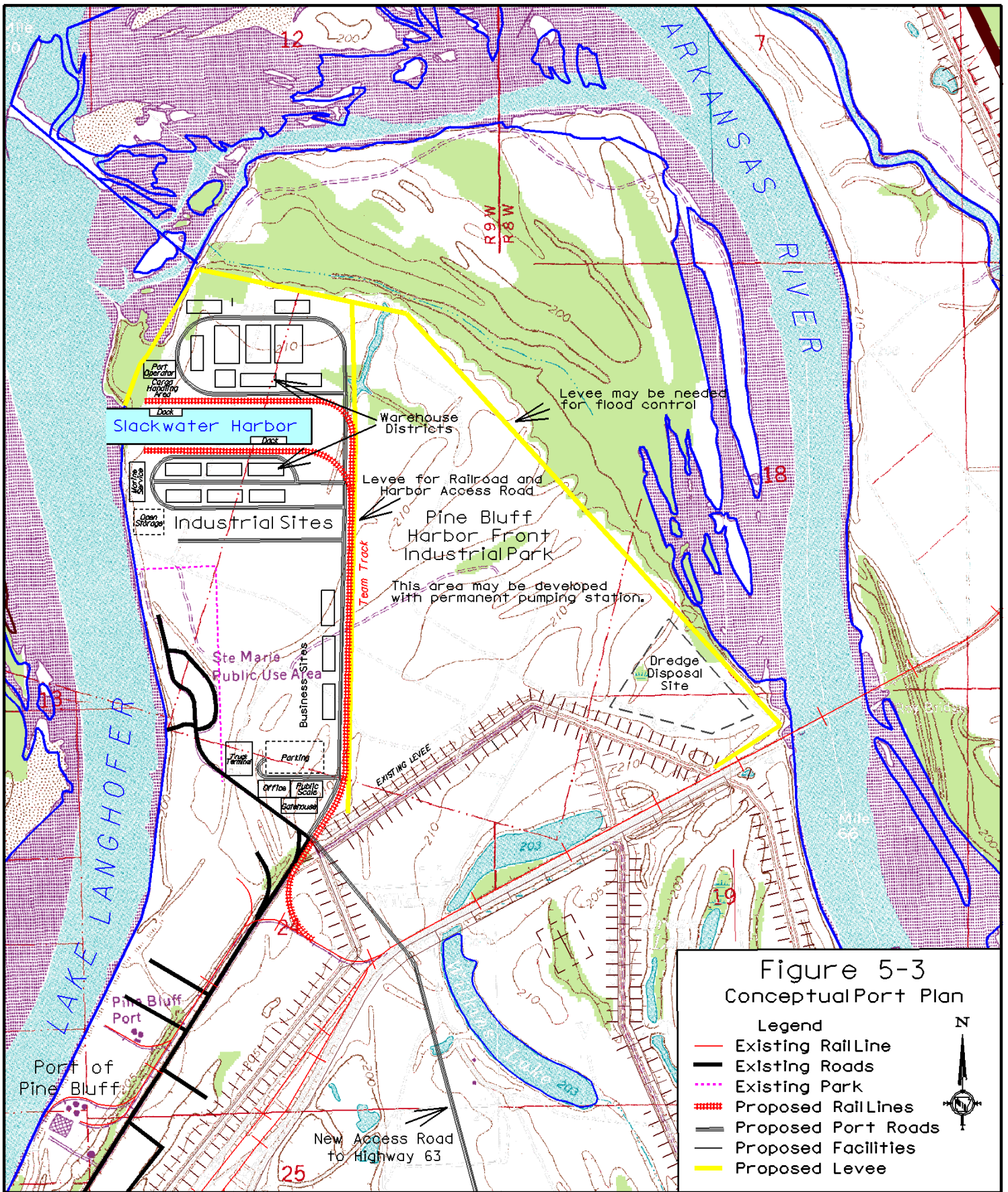
Types of Overseas Freight Shipments

- ✓ ***Air Charter*** (dedicated transportation service)
Product shipped to international domestic airport for shipment to foreign customer or distributor.
- ✓ ***Ocean Charter*** (dedicated transportation service)
Product shipped to domestic seaport for shipment to foreign gateway seaport, customer or distributor.
- ✓ ***Direct Air Express***
Product shipped to international domestic airport for shipment to foreign express carrier, customer or distributor.
- ✓ ***Air Freight Forwarding***
Product shipped to international domestic airport for shipment to foreign gateway airport, to freight forwarder, to customer or distributor.
- ✓ ***Ocean Freight Forwarding***
Product shipped to domestic seaport for shipment to foreign gateway seaport, to freight forwarder, customer or distributor.

Proper product packaging is an important consideration. Whatever method of transportation is selected, the product must be well packed for protection from harsh conditions of overseas shipping and handling.

Port Development Plan

A conceptual port improvement plan is shown in Figure 5-3. Features include facilities to enhance domestic and international freight shipments, sites for industrial development and landside access improvements.



Elevation/Flood Protection

Elevations are shown on the conceptual port plan. This information is useful for facility planning, design, and operations. For example, when commodities are unloaded from a barge using a crane, most of the cycle time (operating cost) depends on the vertical lift. Therefore, when considering a new crane, a trade-off is necessary between flood protection (high elevation) and the least cycle time (low elevation) and the likelihood that it could be underwater during high water events.

The base flood elevation is the 100 year flood and all major structures such as warehouses and railroad lines should be above this mark. For the proposed site that elevation is 209.8 feet. This means that there is a one percent chance of a flood of that magnitude occurring in any given year. A review of the contour elevations revealed that some areas of the proposed site are subject to possible flooding (below 209.8 feet), especially the northwest area. These tracts will probably need to be protected by a levee or raised above the 100 year flood level.

Slackwater Harbor

The Vicksburg District of the Corps of Engineers released a study in 1985 that recommended a slackwater harbor in the general area shown on the conceptual plan. The proposed new slackwater harbor follows the preferred Corps southern alignment to minimize any possible impact to the Saint Marie Park. Other factors taken into consideration were: (1) sufficient outlet to the river channel; (2) proximity to the existing Port of Pine Bluff; (3) access to railroad lines and highways; (4) developable waterfront property; and (5) the presence of adequate land for industrial development.

As proposed, the harbor would be 2,450 feet long, with a channel width of 500 feet and a channel depth of 15 feet. The harbor would feature two working docks, a cargo handling area, warehouses, open storage, marine service center, industrial sites, rail spurs, a rail to barge transfer facility, and a harbor access road. One of the docks would be a general-purpose dock and the other would be equipped with an overhead bridge crane.

Excavation of the harbor could provide enough material to raise the area south of the harbor above the 100 year flood level to a height of 210 feet. The area north of the harbor is at or near 210 feet and will require some fill material. A levee to protect the harbor basin will be needed. The levee would serve a dual purpose by protecting flood-prone land and by serving as the bed for a railroad line and road. The area due west of the harbor should be developable with a system of drainage ditches and pumping stations. To the far west an area has been designated as a potential dredged material disposal site. Material deposited would be used to raise elevation levels. A second levee north of the harbor may be needed to protect possible wetlands and for flood protection of land south and southwest.

It is recommended that further studies be conducted to determine, in more detail, elevation levels, soil conditions, and potential wetlands.

APPENDIX A
ADVISORY COMMITTEE

Advisory Committee

Arkansas River Regional Intermodal Facilities Authority

Mr. Chuck Morgan

Mr. David R. Bridgforth

Mr. Danny W. Brown

Mr. Booker T. Clemons

Mr. Jeffery H. Dixon

Ms. Rosalind M. Mouser

Mr. Gary C. Reynolds

Mr. J. William Sanders

Mr. Dee E. Webb

The Alliance Board of Jefferson County

Honorable Jay T. Bradford

Mr. James Crider

Mr. John P. Garrison

Mr. Eugene Hunt

Mr. George Makris, Jr.

Mr. J. Thomas May

Mr. Jack A. McNulty

Mr. Louis L. Ramsay, Jr.

Mr. J. William Sanders

Mr. Thomas W. Spillyards

Ms. Phyllis Thomas

Mr. Ted Drake

Ms. Cindy Gaither

APPENDIX B

SHIPPERS' SURVEY

Shippers' Survey

Surveys were sent to two different groups: Pine Bluff Port users and non-port users. The surveys were the same except for one question. Existing port users were asked, "What facilities, equipment and services would you like to see at the Port?" Non-port users were asked, "What facilities, equipment and services would you like to see in this area of the state?" A copy of the questionnaire for non-port users follows.

Company Name _____
 Contact Person _____
 Phone # _____
 Location (City/County) _____ (optional)

South Central Arkansas Freight Transportation Survey

A. Present Inbound/Outbound Commodities (finished, semi-finished or bulk products)

Inbound Product(s)	Type of Freight (General, Dry Bulk, Liquid Bulk, Refrigerated)	Total Average Annual Volume*	Freight Mode Used (Rail, Water, Pipeline, TL, LTL, Air Freight)	Product Origin States/Countries (e.g. OK, TX, Canada, Japan)
1.				
2.				
3.				
4.				
5.				
Outbound Product(s)	Type of Freight (General, Dry Bulk, Liquid Bulk, Refrigerated)	Total Average Annual Volume*	Freight Mode Used (Rail, Water, Pipeline, TL, LTL, Air Freight)	Product Destination States/Countries (e.g. OK, TX, Canada, Japan)
1.				
2.				
3.				
4.				
5.				

TL (Truckload), LTL (Less-than-Truckload) *indicate amounts and units (tonnages, gallons, bushels, etc.)

B. Anticipated Inbound/Outbound Shipments by Freight Mode (use percentages)

Freight Mode	Present		Future (5-Year Planning Horizon)	
	(Number of Annual Shipments)		(Number of Annual Shipments)	
	Inbound	Outbound	Inbound	Outbound
Rail	%	%	%	%
Water	%	%	%	%
Pipeline	%	%	%	%
Truck-TL	%	%	%	%
Truck-LTL	%	%	%	%
Air Freight	%	%	%	%
Column Total	100%	100%	100%	100%

C. What facilities, equipment and services would you like to see in this area of the state?

1. Facilities (e.g., warehouse, grain elevators, fuel depot, truck scale, dry/liquid bulk tanks).

2. Equipment (e.g., cranes, conveyors, heavy lifting equipment).

3. Services (e.g., Rail/Barge intermodal, container pool, packaging and labeling).

D. Would local access to a Foreign Trade Zone and assistance with international shipments, such as information on foreign markets (i.e., foreign tax rates and points of entry) be beneficial?

Yes _____ No _____

Thank you for taking the time to complete this survey. Your participation and responses will enable us to better understand current freight shipping patterns and future shipping needs of South Central Arkansas.

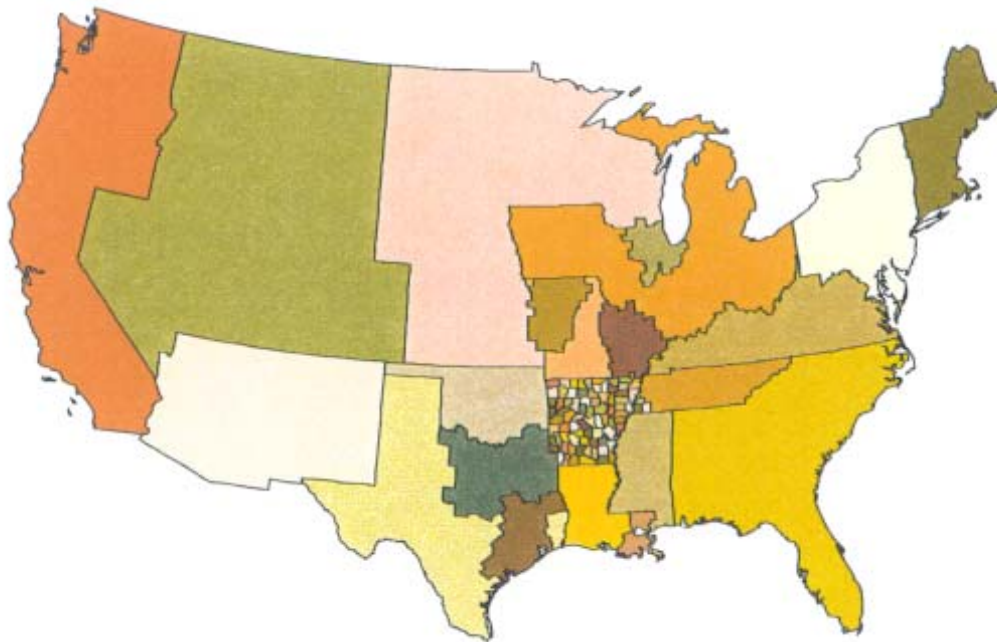
Return Address: **Cliff McKinney**
Planning and Research Division
Arkansas State Highway and Transportation Department
P.O. Box 2261
Little Rock, AR 72203-2261
Phone: (501)569-2115 Fax: (501)569-2597

APPENDIX C
REGIONAL FREIGHT MOVEMENTS

Freight Goods Movement Database

The geographic areas for the Department’s Freight Goods Movement Database are shown below. Annual tonnage information is provided by freight mode for each of these areas, which include nine regions, selected Business Economic Areas (BEAs), the states surrounding Arkansas, three counties in Tennessee (Shelby, Tipton, and Fayette), and all counties in Arkansas. A BEA is a group of counties or parishes that share similar economic characteristics as defined by the U.S. Department of Commerce. Commodities and activities are identified at the three-digit Standard Transportation Commodity Code (STCC) level.

Geographic Areas



COUNTIES:	ARKANSAS – ALL TENNESSEE – SHELBY, TIPTON, FAYETTE			
BEA:	NEW ORLEANS, HOUSTON, KANSAS CITY, DALLAS/FT WORTH ST LOUIS, CHICAGO			
STATES:	LOUISIANA, MISSOURI, OKLAHOMA, TENNESSEE, TEXAS MISSISSIPPI			
REGIONS:	<u>NEW ENGLAND</u>	<u>MID-ATLANTIC</u>	<u>SOUTHEAST</u>	<u>PRAIRIE</u>
	ME. NH. VT.	NY. NJ. DE.	VA. WV. KY.	WI. MN. ND.
	MA. RI. CT.	PA. MD. DC		SD. NE. KS.
	<u>DEEP SOUTH</u>	<u>PACIFIC</u>	<u>MID-WEST</u>	<u>MOUNTAIN</u>
	FL. GA. NC.	CA. WA. OR.	IA. IL. IN.	MT. ID. WY.
	SC. AL.		OH. MI.	CO. UT. NV.
	<u>SOUTHWEST</u>			
	AZ. NM.			

The following tables provide additional information about freight movements into and out of the study area. Table C-1 lists the top twenty commodities or activities that originate in, or move from, the study area. For each commodity, the total tonnage is listed and the five leading destinations are identified. Table C-2 lists the top twenty commodities or activities for freight with a destination in the study area. Total volume for each commodity or activity is listed and the five leading origination locations are shown. Additional detail is available on request.

Table C-1
Top Twenty Commodities Originating in the Pine Bluff Study Area

Commodity or Activity	Total Freight Volume (Annual Tonnage)	Five Leading Destinations
1. Forest Products	3,838,991	Stone County Searcy County Fulton County Boone County Phillips County
2. Redistribution	2,707,297	Deep South Region Pulaski County Dallas-Fort Worth, TX-OK BEA Mid-West Region Union County
3. Field Crops	2,030,234	Craighead County Poinsett County Cross County Jackson County Woodruff County
4. Primary Forest Materials	1,549,960	Pulaski County Sebastian County Washington County Benton County Faulkner County

Table C-1 – continued
Top Twenty Commodities Originating in the Pine Bluff Study Area

Commodity or Activity	Total Freight Volume (Annual Tonnage)	Five Leading Destinations
5. Grain Mill Products	946,859	Mid-Atlantic Region Louisiana Deep South Region St. Louis, MO-IL BEA Pulaski County
6. Fiber, Paper or Pulp board	462,453	Deep South Region Mid-West Region Pacific Region New Orleans, LA-MS BEA New England Region
7. Sawmill or Planing Mill Products	306,979	Pulaski County Mid-West Region Sebastian County Mississippi County Washington County
8. Paper	282,978	Prairie Region Mid-West Region Chicago-Gary-Kenosha, IL-IN-WI BEA Mid-Atlantic Region Southeast Region
9. Miscellaneous Food Preparations	252,628	Texas Houston-Galveston-Brazoria, TX BEA Shelby County, TN Pulaski County New Orleans, LA-MS BEA
10. Containers or Boxes, Paper	215,234	Prairie Region Pulaski County Houston-Galveston-Brazoria, TX BEA Dallas-Fort Worth, TX-OK BEA Mid-West Region

Table C-1 – continued
Top Twenty Commodities Originating in the Pine Bluff Study Area

Commodity or Activity	Total Freight Volume (Annual Tonnage)	Five Leading Destinations
11. Poultry or Poultry Products	173,722	Independence County Arkansas County Howard County Washington County Carroll County
12. Petroleum Product	159,030	Shelby County, TN Phillips County Tennessee Pulaski County Deep South Region
13. Miscellaneous Wood Products	158,199	Pulaski County St. Louis, MO-IL BEA Prairie Region Mid-West Region Chicago-Gary-Kenosha, IL-IN-WI BEA
14. Meat or Poultry, Fresh or Chill	138,711	Pulaski County Pacific Region Chicago-Gary-Kenosha, IL-IN-WI BEA Dallas-Fort Worth, TX-OK BEA Southwest Region
15. Nonferrous Metal Basic Shapes	134,205	Texas Southeast Region Deep South Region Mountain States Region Prairie Region
16. Millwork or Prefabricated Wood Products	126,591	Pacific Region Chicago-Gary-Kenosha, IL-IN-WI BEA Shelby County, TN St. Louis, MO-IL BEA Pulaski County

Table C-1 – continued
Top Twenty Commodities Originating in the Pine Bluff Study Area

Commodity or Activity	Total Freight Volume (Annual Tonnage)	Five Leading Destinations
17. Converted Paper or Paperboard Products	122,673	Mid-West Region St. Louis, MO-IL BEA Deep South Region Prairie Region Dallas-Fort Worth, TX-OK BEA
18. Gravel or Sand	120,491	Faulkner County Pulaski County Sebastian County Crawford County Phillips County
19. Concrete, Gypsum, or Plaster	118,233	Pulaski County Houston-Galveston-Brazoria, TX BEA New Orleans, LA-MS BEA Sebastian County Mississippi
20. Rail Intermodal Drayage	86,958	Shelby County, TN Crittenden County Louisiana Pulaski County Oklahoma

Source: Freight Goods Movement Database

**Table C-2
Top Twenty Commodities with Destinations in the Pine Bluff Study Area**

Commodity or Activity	Total Freight Volume (Annual Tonnage)	Five Leading Originations
1. Bituminous Coal or Lignite	5,488,255	Mountain States Region New Orleans, LA-MS BEA Oklahoma Phillips County Louisiana
2. Field Crops	2,373,570	Poinsett County Jackson County Crittenden County Mississippi County Craighead County
3. Primary Forest Materials	1,486,927	Garland County Clark County Pulaski County Union County Columbia County
4. Redistribution	1,038,929	Pulaski County Sebastian County Phillips County Mississippi County St. Francis County
5. Forest Products	945,725	Union County Ashley County Columbia County Clark County Pike County
6. Poultry or Poultry Products	572,329	Benton County Washington County Howard County Hempstead County Sevier County
7. Grain Mill Products	429,743	Benton County Independence County Pulaski County Washington County Carroll County

Table C-2 – continued
Top Twenty Commodities with Destinations in the Pine Bluff Study Area

Commodity or Activity	Total Freight Volume (Annual Tonnage)	Five Leading Originations
8. Steel Mill Products	407,750	New Orleans, LA-MS BEA Southeast Region Deep South Region Phillips County Mid-West Region
9. Gravel or Sand	390,241	Pulaski County Phillips County Monroe County Pope County Faulkner County
10. Concrete, Gypsum, or Plaster	353,530	Pulaski County Columbia County Craighead County Garland County Howard County
11. Broken Stone or Riprap	248,561	Pulaski County Phillips County Monroe County Faulkner County Pope County
12. Iron Ores	232,896	Louisiana Phillips County Mid-West Region Chicago-Gary-Kenosha, IL-IN-WI BEA Prairie Region
13. Industrial Chemicals	171,449	New Orleans, LA-MS BEA Mississippi Houston-Galveston-Brazoria, TX BEA Texas Dallas-Fort Worth, TX-OK BEA
14. Agricultural Chemicals	168,816	New Orleans, LA-MS BEA Louisiana Houston-Galveston-Brazoria, TX BEA Texas Dallas-Fort Worth, TX-OK BEA

Table C-2 – continued
Top Twenty Commodities with Destinations in the Pine Bluff Study Area

Commodity or Activity	Total Freight Volume (Annual Tonnage)	Five Leading Originations
15. Sawmill or Planing Mill Products	131,195	Pulaski County Clark County Garland County Union County Mountain States Region
16. Miscellaneous Food Preparations	130,816	Oklahoma Shelby County, TN Independence County Benton County Pulaski County
17. Waste or Scrap	128,007	St. Louis, MO-IL BEA Oklahoma Mid-West Region Shelby County, TN Phillips County
18. Meat or Poultry, Fresh or Chilled	110,283	Prairie Region Benton County Independence County Pulaski County Washington County
19. Beverages or Flavor Extracts	93,533	Tennessee New Orleans, LA-MS BEA Independence County Benton County Louisiana
20. Abrasives, Asbestos Products, Etc.	82,268	Deep South Region New England Region Pulaski County Columbia County Crittenden County

Source: Freight Goods Movement Database

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Port of Pine Bluff Initiative:
Domestic and International Shipping Study



Arkansas State Highway and
Transportation Department