APPENDIX 15
SOCIOECONOMIC ANALYSIS

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A15-1 INTRODUCTION

A15-1.1 Study objective

The objective of this analysis is to provide an understanding of the potential impacts of the main stem levee of the Mississippi River and Tributaries (MR&T) project on the surrounding region. This study utilizes an updated objective analysis of relevant past and present economic conditions to develop a baseline for determining the future direction of the affected areas in terms of demographic and economic growth. It includes project impacts to the areas affected in three U.S. Army Corps of Engineer Districts--Vicksburg (MVK), Memphis (MVM), and New Orleans (MVN). The socioeconomic analysis is only one segment of a Supplemental Environmental Impact Statement prepared in response to concerns expressed by various environmental groups.

The primary purpose of this appendix is to show the significance of the project on the socioeconomic environment in the area adjacent to the Mississippi River main stem levee. It is part of a comprehensive study concerned with identifying problems, determining needs, formulating alternative water resource improvement plans, and evaluating such plans in accordance with environmental quality and social well-being.

In the comprehensive planning process, a consistent data base of socioeconomic growth and development parameters is needed to understand the socioeconomic environment of the region. This understanding is used to describe potential impacts to the region arising from proposed water resource projects. In describing these impacts, economic and demographic data for the following characteristics were among the parameters evaluated for their historical significance to the economic base area--population, labor force, employment, earnings, income, farm characteristics, industry, business and finance. Expected future conditions are expressed by projections of population, employment, and income. Data presented herein furnish an analysis of the past, present, and projected future economic development based on historical growth patterns and expected future conditions. The Mississippi River main stem levee will be referred to as Mississippi River levees (MRL) in the report.

All data in this section, unless otherwise noted, were obtained from the Bureau of Census for the year presented. Information from this source is derived primarily from census data. This allows for consistency in data sets which is necessary for evaluation of changes that have occurred over the period of analysis. All monetary values are presented in constant dollars. Projection factors were derived from projections prepared by the Bureau of Economic Analysis for each State in the MRL economic base study area. These factors were then applied to each District study area to develop future estimates of population, employment, and income. Projections should not be interpreted as being precise values for future years. Rather, they should be used as indicators of the direction and relative magnitude of economic activity that may be expected between now and year 2060.

A15-2 SOCIOECONOMIC ANALYSIS: MR&T PROJECT MISSISSIPPI RIVER MAINLINE LEVEES

A15-2.1 Introduction

This section presents the results of a socioeconomic analysis of the area affected by the MR&T main stem levee project. It covers the area impacted in three USACE Districts--MVK, MVM, and MVN. To illustrate the social and economic well-being in the area affected by the main stem levees, a database of socioeconomic growth and development parameters was created utilizing past and present economic conditions. These parameters were used to analyze the existing socioeconomic environment of the region and determine the future direction of the area's demographic and economic growth.

Section A15-3 provides a socioeconomic profile of the MRL area including demographic and economic information deemed pertinent to the implementation of the project. This section contains a general discussion of existing conditions in terms of natural, physical, and economic resources and expected future trends of various economic indicators. The socioeconomic environment prevalent in each USACE District portion of the study area is also discussed in this section.

A15-2.2 Economic base area

The MRL economic base area, shown in Figure A15-1, includes the area considered to be physically, socially, or economically impacted by the MRL. This economic base area encompasses about 50,000 square miles of total land area in seven States--Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee. To illustrate the magnitude of the numbers and specific areas affected by the project, the economic base area counties/parishes are shown by total land area in square miles in Table A15-2. This includes a numerical count and listing of the counties and parishes affected in each District by State. Further reference to counties will be inclusive of parishes unless otherwise stated.

The northernmost region of the MRL area is located within the bounds of the MVM. This area covers approximately 17,900 square miles in total land area in 31 counties of six States--12 counties in Arkansas; 1 county in Illinois; 1 county in Kentucky; 1 county in Mississippi; 8 counties in Missouri; and 8 counties in Tennessee.

With approximately 22,400 square miles of land area in three States, the MVK portion of the study area comprises almost one-half of the total land area in the economic base area. It includes 6 counties in Arkansas, 11 parishes in Louisiana, and 19 counties in Mississippi.

The MVN segment is the southernmost portion of the lower Mississippi River region. It is located entirely in the State of Louisiana and covers about 9,000 square miles of land in 18 parishes along the Mississippi River from the Red River to the Gulf.

A15-2.3 The existing socioeconomic environment

Socioeconomic impacts from the MRL project are discussed in the following paragraphs regarding the area's existing and potential natural, human and economic resources. By providing

protection against the devastation of the project design flood, the completion of this project would have a positive influence on local and regional economies in the area. Impacts from a flood event of this magnitude would directly affect population, housing, employment, per capita income (PCI), earnings, agricultural production, industrial expansion, and business volume.

A15-2.4 Natural resources

The MRL area is favored with an abundance of natural resources. Highly productive agricultural lands, wildlife and fishery resources, forested area, lakes, streams, and wetland areas are the most valuable physical resources in the region. Other features include stream tributaries, abandoned channels, oxbow lakes, back swamps, natural levees, and rolling hill land.

The Mississippi River has a significant influence on the current and future development of natural resources which lie in its vicinity. Originally, the River was just a way of life and survival. It was the basis for developing civilizations and cultures living near the River and using the land to obtain the basic needs for survival. People migrated into the region from other areas and found the Mississippi alluvial plain to be rich in water, game, and trees which provided for most of their essential needs--water, food, clothing, and shelter. They also discovered the land to be fertile and very productive for growing crops. This eventually led to the flourishing agricultural economy for which the region is most noted.

The Mississippi River and its heritage have also been a primary catalyst in attracting people, industry, and business to the region. Esthetically, the scenery is beautiful and the population is relatively sparse. The environment is filled with vast natural resources such as lakes, streams, forests, minerals, and wildlife areas which appeal to the needs of potential incoming industry. The rural atmosphere is an attraction to persons of retirement age and those hoping to escape the fast pace of the large city. With its heritage of the Civil War, steamboats, river boat gambling, and antebellum culture, the area is also a draw for gaming industries and history enthusiasts. Many communities have capitalized on the River's history to attract business, industry, and tourism. In turn, these enterprises have influenced the development of other trade, services, and commerce in the area.

A15-2.4.1 Land use

Computerized satellite surveys were used to identify existing land use distributions in the MRL area. Due to their availability and the extensive efforts and time which would have been required to survey all of the counties in the study area, these data were deemed sufficient to depict the general types of land use prevalent. Additionally, it should be noted that metropolitan areas will have varying distributions of residential, commercial, industrial, and other types of urban use in accordance with the extent of urban development which exists. For example, large metropolitan centers may have large percentages of commercial, industrial, and municipal uses, and suburban areas near large metropolitan centers may have higher percentages of residential land use. Urban land use distributions in rural towns and communities may seem small in comparison to other land types. This is because they are calculated against the total land acreage in a county.

A sample of existing land utilization determined for the MRL area is presented in Table A15-3. Total acreage delineations from the GIS surveys cover approximately 16.9 million acres, or 50 percent of the study area. According to the area depicted by the GIS surveys, cleared lands (representing agricultural land and pastures) accounted for 72 percent of the total land use, while other nonurban uses such as forest lands, water bodies, wetlands, and other lands represented 26 percent. Urban land, which comprised the remainder, included developed areas such as residential, commercial, industrial, and other built-up urban-related areas.

A15-2.4.2 Water resources

As illustrated on Figure A15-3, a major natural resource of the study area is the abundance of water. The MRL area includes several main stem tributaries. Along with underground aquifers, these provide practically limitless water supplies to the area. However, some localized problems with aquifer drawdowns are occurring. These problems are being addressed by several agencies. Also, numerous streams, lakes, ponds, and wetland areas are scattered throughout the area which provide habitat for wildlife and opportunities for outdoor recreation as well as esthetic enhancement of the communities.

The MRL area is "water rich," but water resources are not unlimited nor is the distribution of water uniform. The largest and most prolific aquifer--the Mississippi River valley alluvial aquifer--is perhaps the largest single source of fresh ground water in the Nation. This shallow source of water is underlain by a complex system of artesian aquifers in Paleozoic, Cretaceous, Tertiary, and Quaternary rocks, some of which contain fresh water at depths of more than 3,000 feet.

Numerous surface-water resources supply the area. Among these are the Mississippi River; the Arkansas, St. Francis, and White Rivers in the State of Arkansas; the Cache River in the State of Illinois; the Atchafalaya, Boeuf, Ouachita, Red, and Tensas Rivers in the State of Louisiana; the Ohio River in the State of Kentucky; the Yazoo River in the State of Mississippi; the Meramec and Missouri Rivers in the State of Missouri; the Fork Deer, Obion, and Wolf Rivers in the State of Tennessee; and many other tributaries.

A distinct characteristic of the Mississippi River and other alluvial streams is the formation of natural levees along the banks and the pattern of parallel drainage which results from these levees. When the Mississippi River overflows, it deposits a part of the sediment it has been transporting. This sediment, most of which is deposited adjacent to the River, forms low natural levees along the stream with smaller deposits of sediment away from the stream. As a result, the banks of the River are usually 10 to 15 feet above the adjacent lowlands. The formation of these levees occurred for the most part before the present levee system was built. Because of the natural levees, drainage is usually away from and parallel to the Mississippi River except where tributary streams join the river. This pattern of drainage has been a great advantage in the construction of flood control works since it permits the building of long, unbroken levee lines without interfering with drainage.

Today, the Mississippi River provides the Nation with valuable navigational potentials and plentiful water supplies. Providing waterborne access to 10 States through the central region of

the country, the River supplies a major source of inland navigation for commerce moving over 500 million tons of goods annually. Low-cost shipping rates are also a favorable attraction for large-scale industries. In addition, the River supplies a substantial portion of the region's water supply for household, industrial, and civic purposes and has been used to generate electrical energy for millions of customers throughout the Mississippi River valley. Technology is continually being developed to utilize water conductive power. Future potentials are unlimited. The Mississippi River's abundance of water will continue to influence the production of crops and accommodate the water supply demands for the region.

A15-2.4.3 Forestry resources

Forests and forestry products have historically played an important role in the development of the lower Mississippi River valley. As lands were cleared for farming, settlers realized the benefit of selling the forest products for profit and, by the 1850's, the lumbering industry emerged as an off-season adjunct for cotton production. The accessibility of forest lands, the availability of local markets, and the presence of an excellent road and river system have all contributed to the rapid development of the production of forest resources in the MRL area. Through the years as land clearing practices increased, forest acreages declined. Also, forests are becoming increasingly restricted to areas where flooding, poor drainage, and soil conditions make it unsuitable for other uses. In recent years, since the emergence of manufacturing, trade, and services industries, forestry production is not as important as it once was to the local economies.

Based on statistics reported by the Department of Agriculture and Forestry for each State, approximately 35 percent of the land area in the MRL area is forest land today as compared to 42 percent in 1950. Although most of the decline is mostly the result of intense land development practices, some of the reduction can also be attributed to commercial forestry production. In efforts to restore the environment, USACE, along with other Federal agencies and private groups, has been attempting to increase forest land acreage in the lower Mississippi River valley.

Forest land in the study area consists primarily of bottom-land hardwoods, mostly the oak- gum-cypress type. Other forest types include oak-hickory, loblolly shortleaf pine, longleaf-slash pine, and elm ash-cottonwood. The fertile lands of the Deltaic region produce some of the finest hardwood forests in the Nation, providing viable sources for the lumber, pulp, veneer, and miscellaneous forest products industries. Bottom-land hardwood areas also support outdoor recreation and valuable wildlife habitat, such as deer, turkey, small game, and nongame species.

A15-2.4.4 Mineral resources

The lower Mississippi River valley is rich in minerals, supplying approximately 20 percent of the Nation's mineral output. Major contributors to national mineral production are natural gas, petroleum, lead, bromine, salt, and sulfur. Other minerals produced in this area are natural gas liquids; metallic minerals such as copper, iron, silver, vanadium, and zinc; and nonmetallic minerals such as abrasives, barite, cement clay gemstones, gypsum, lime, sand, gravel, and stone. Sand and gravel, which are numerous and widespread throughout the area, are two of the most important mineral resources used within the region. They are used in construction as well as

glass production and molding industries. Because of their abundance, clays, which are used in making bricks, also rank among the most important resources in the economic base area. However, because of the emphasis placed on agricultural and forest production, clay is one of the most underutilized mineral resources in the MRL area.

A15-2.5 Human resources

The number of persons living in an area signifies the economic opportunities available in that area since this relates directly to the amount of economic and industrial activity present. Thus, population is used as an indicator of labor requirements in industry and commerce and of local demands for community facilities and public services. Impacts from not completing the MRL project can have detrimental impacts on the social behavior of the population and steady flow of economic activity in the area. Damages and losses from a flood event can, in turn, adversely affect the employment, industry, income, spending patterns, and general economy of an area. Human resources in the region are discussed in the following paragraphs in terms of their effect on economic growth.

A15-2.5.1 Population

Various parameters of the population can be used to determine the socioeconomic climate and viability of an area. Population is the base for the existing and future labor supply available to industry, and the quantity and quality of human capital are in turn reflected in employment and income returns to individuals. Changes in the population, composition, and distribution of an area all result from changing economic opportunities. These changes are exhibited in migration to cities and the suburbanization and urbanization of those cities. Population by age class distribution (another indicator of economic activity) reflects the availability of the population as a labor resource and indicates the existing potential demand for various goods and services.

A15-2.5.2 Population statistics

Population for the study areas exceeded 4.7 million in the year 2018. Historically, population totals for the overall region have gradually increased. However, there have been some periods of outmigration in localized rural areas where the number of persons moving out of an area was greater than the combined number of immigrating residents and the natural population growth.

Historical population data for the MRL area are displayed by USACE District in Table A15-4 for the years 1990 to 2018 growth statistics show the overall study area population has increased by over 100,000 people since 1990 or 3 percent over the 27-year period. There has been a consistent growth in the areas around major population centers (Memphis, Baton Rouge, and New Orleans) while most of the more rural areas had a decrease in population or held steady at best. Each district study area, except Vicksburg, has also experienced increases. Population in the MVN and MVM increased by over 2 and 13 percent, respectively, while the MVK experienced a loss of 13 percent. Overall, the rural Mississippi and Arkansas Delta areas suffered the greatest reduction in the total number of persons living in the area. Sharkey County Mississippi experienced the largest decrease of 61 percent while the Mississippi study area declined by 17 percent. Chicot and Desha Counties in Arkansas saw declines of 51 percent and 46 percent, respectively.

Population declines occur when the number of persons moving out of an area is greater than the combined number of immigrating residents and the natural population growth (i.e., births and deaths). Ascension Parish showed a 58 percent gain in population over this same time period.

Agrarian communities where the people live a considerable distance from large cities and the services they provide, would endure additional hardship and inconvenience in obtaining the supplies, services, and emergency relief they would need.

The total urban population of the MRL area is depicted in Table A15-5 by district. In addition to these cities, there are also five metropolitan statistical areas (MSAs) designated in the MRL region which include at least some portion of the economic base area. MSA's which are located totally within the economic base area are Baton Rouge, Monroe, and New Orleans, Louisiana, Memphis, Tennessee, and Pine Bluff, Arkansas. Population growth within the MRL region has fluctuated from area to area based on varying factors. In many cases, areas within counties in close proximity to large metropolitan centers have enjoyed substantial population growth. This is evident in reviewing the population trends of counties which encompass Baton Rouge, Monroe, and New Orleans, Louisiana, and Memphis, Tennessee. These centers offer a diversified economic base of jobs, industry, and services which provide for the basic needs of a large population--employment, income, and housing. They also contain extensive transportation networks which accommodate more people and traffic. In contrast, rural areas such as Quitman and Issaquena Counties in Mississippi are less attractive to large numbers of people. These areas are primarily used for activities which require large tracts of land or people looking for quiet, country living.

A15-2.5.3 Urbanization

Although the overall MRL region is predominantly rural, there are 55 cities within the study area that have populations of 10,000 people or greater. Additionally, there were an estimated 107 towns counted with populations between 2,500 and 10,000 people in 1990. Altogether, there are over 164 cities and towns which could be subjected to the trauma and damages incurred by a flood event without the protection afforded by the MRL project. This accounts for over 71 percent of the 1990 study area population. A significant portion of the population reside in agrarian communities where the people live a considerable distance from large cities and the services they provide. They would endure additional hardship and inconvenience in obtaining the supplies, services, and emergency relief they would need.

The MSAs serve as the major commercial, services, and industrial centers for their regional areas. In addition to their close vicinity to the Mississippi River, each of the major metropolitan centers has international air service and is accessible by multiple interstate and Federal highway systems. Interstate Highways 10, 55, 350, 510, and 610 and U.S. Highways 11, 51, 61, and 90 connect New Orleans to Baton Rouge, Hammond, Metairie, and Slidell. Also, New Orleans has close access to Interstates 12 and 59. Baton Rouge is accessible via Interstates 10, 12, and 110 and U.S. Highways 61 and 190. Memphis is traversed by Interstates 40, 55, and 240 and U.S. Highway 61, 64, 70, 72, 78, and 79. There is also a proposal underway for an interstate highway system linking the northeastern states to the mid- and southwest. Providing a direct route to

Mexico, this transportation corridor would pass through the MRL area. In addition, each of these major cities provides bridge access across the Mississippi River which links the eastern and western regions of the Nation.

Other major retail centers located in the MRL area, but inland from the River, are Monroe and Pine Bluff. They are also accessible by interstate and/or Federal highway systems. These transportation corridors provide commercial and private transit connecting various parts of the nation as well as local and regional areas. In the event of a levee failure, the transportation facilities in all of these locations could be subjected to flooding, structural damage, and/or closed for an extended period of time. Closure of these corridors due to flooding would interfere with the steady flow of trade and commerce on local, regional, and national levels. Not only would this disrupt business activity, it would also create additional expense and inconvenience induced by the rerouting of traffic.

A15-2.5.4 Density

Population density for the total MRL area was estimated to be 96 persons per square mile in 2017 (Table A15-6). Other estimates are as follows: 36 persons per square mile in the MVK study area; 95 persons in the MVM; and 219 persons in the MVN. Population density ranged from a low of 3 persons per square mile in Issaquena County, located in the rural Delta of Mississippi, to a high of 2,160 persons in Orleans--the location of New Orleans, Louisiana. Despite the large percentage of the urban population in the MRL area, the number of persons per square mile was generally less than the comparable State densities for each study area. This indicates that the rural population is dispersed over a relatively large geographical area for most of the study area counties.

A15-2.5.5 Population by Age Distribution

Population by age distribution for the MRL study area is depicted in Table A15-7. This information provides an understanding of the characteristics of people residing in an area. The largest cohort group is the 18- to 65-year-old age group indicating that the majority of the people who live in the MRL area are working-age people. These statistics parallel national distributions. Also, areas with large population centers tend to have a higher percentage of working age adults than the more rural areas, reflecting the employment opportunities in the large urban areas. The second-most populous group consists of those persons ranging in age from 5 to 17 years old. These data depict families with school-age children.

A15-2.5.6 Housing

Another component of the population which can provide insight into significant social developments that influence the economic activity of an area is housing. Data on housing units provide insight into significant aspects of social developments in an area that in turn have an impact on its economic prospects. According to Census statistics depicted in Table A15-8, the total number of households or residences in the MRL area was estimated to be 1.1 million in 2017. This results in about 2.6 persons per household. The number of persons per household has

steadily decreased over the years reflecting the same patterns which have occurred across the Nation, which is a trend toward smaller families.

The median value of a residence in the MRL area was $83,600 in 2017. This represents approximately $114 billion in total residential structure values in the overall economic base area. Median household values in 1990 estimated by study area in each USACE District were as follows--MVK, $47,500; MVM, $67,600; and MVN, $81,200. For the same year, median housing values for the United States were estimated at $98,500. Although the MVK figure seems low, it should be noted that the Vicksburg portion of the economic base area did not consist of any large urban or metropolitan statistical areas and included a greater number of rural counties.

In discussing impacts from the project, approximately 1.1 million households valued at over $92 billion could directly or indirectly be subjected to flood loss if the main stem levee project were not completed. Crevasses in the existing levee could cause tremendous damage to residences in the MRL area. Secondary damages or costs due to evacuation, reoccupation, cleanup, and other emergency expenses would also add billions of additional dollars to the cost of a major flood.

A15-2.6 Economic Resources

In the analysis of the existing economic conditions of the MRL area, various economic parameters were selected to portray the economic health of the region. Based on their impact on the existing development and future direction of economic activity, the following parameters are discussed--labor force, employment, earnings, income, agricultural activity, and industrial and business activity. An analysis of the trends of some of these indicators provides a view of the region's recent economic performance and, together, these parameters describe the existing economic environment and potential impacts from the project.

A15-2.6.1 Labor Force and Employment

The labor force consists of the working-age subset of the total population of an area. This subset includes those who are 16 years of age or older and are employed or unemployed by civilian or military status. To demonstrate the working environment of the MRL area, labor force statistics are presented in Table A15-9 by civilian labor force, employment, and unemployment rates.

A15-2.6.2 Civilian and Labor Force and Unemployment

Those persons in the working-age population who are not in the military and who are either employed or unemployed are defined as the civilian labor force. The size of the civilian labor force in the total MRL area increased from 2.1 million people in 1990 to approximately 2.7 million in 2017, an increase of over 32 percent in 27 years. Although labor force statistics show that each District study area experienced overall increases during this period, this is not indicative of individual county patterns. Labor force declines occurred in 23 of the 85 counties in the economic base area, while increases of greater than 50 percent occurred in 12 counties.

Growth in the labor force was much greater than the rate of population growth since 1990. While much of the growth can be attributed to increases in the population, a primary influence is the increases in the numbers of the working-age population and the number of women entering the

work force. Paralleling the labor force, unemployment figures have also increased over the last 17 years. Unemployment in the overall MRL area has fallen from 9.4 percent in 1990 to 6.4 percent in 2017. Compared to unemployment statistics by District study area, these rates follow closely to the MVN and Memphis numbers, whereas unemployment trends in the MVK have been somewhat higher.

In 2017, Jefferson and Issaquena Counties in Mississippi and East Carroll Parish, Louisiana had the highest unemployment. All three of these counties/parishes are in rural areas located in the MVK. In contrast, four counties in the MVM had unemployment rates below 4 percent. These are Craighead County; Arkansas (3 percent) Arkansas County; Arkansas (3.2 percent); DeSoto County, Mississippi (3.8 percent); and Cape Girardeau County, Missouri (3.5 percent). All of these counties are part of the MVM study area.

A15-2.6.3 Total Employment

Total employment in the study area represents the number of wage and salary employees and the number of proprietors. Wage and salary employees include that portion of the working-age population 16 years of age or older who are not in the military and are employed. Total employment numbers reflect the base from which one can evaluate a viable and productive working force of an area. The total number of people employed in the MRL area in 2017 was estimated to be 2.0 million. Of this number, the MVN and MVM comprised 42 and 40 percent, respectively, of the total. Much of this is attributable to the location of metropolitan centers in these areas. The MVK represented 18 percent of the total employment in 2017.

Total employment in the MRL area has increased since 1990, increasing from 1.9 million in 1990 to 2.7 million in 2017. Overall, 74 of the 85 counties have experienced employment decreases since 1990. Employment rose in only in Ouachita Parish, LA and Tunica County, MS in the MVK, 4 of 31 counties in the MVM, and 5 of 18 counties in the MVN. This indicates a fairly widespread decrease throughout the economic base area. The increases are mainly around the more populated areas (Memphis, TN; Monroe, LA; Baton Rouge, LA; and New Orleans, LA.)

A15-2.6.4 Employment by Industry

Table A15-10 shows the total earnings by all industries in 2017. Additionally the percentage of selected industries are shown. From this data the Government is the highest employing industry presented. Health care and Retail Trade are typically taking the second and third place. One exception to that is the MVN tended to have more construction than health care.

A15-2.6.5 Personal and Per Capita Income

Total personal income (PI), the principal component of gross national product, is an excellent indicator of economic activity within an area. The total personal income of the total MRL area totaled over $120.6 billion in 2017 (in constant 2017 dollars) (Table A15-11). On a per capita basis, this results in an income of approximately $21,700 per person.

By District study area, total PI estimates in 2017 were as follows: MVK, $15.5 billion; MVM, $49.9 billion; and MVN, $55.2 billion. With 22 and 11 percent, respectively, of the total PI, Shelby County in Tennessee and East Baton Rouge Parish in Louisiana led the MRL area in PI with an estimated $26.3 and $13.3 billion, respectively, in 2017.

The PCI, which is used as a measure of the relative support the economy provides for the population of an area, was estimated to be $21,700 in the total MRL area in 2017. The MVN represented the highest PCI in the area with $25,600 in 2017. This is mostly due to the growth of suburbanized areas near the New Orleans MSA in this region. For example, St. Charles Parish, located adjacent to New Orleans, represented the highest PCI reported in the MRL area ($30,000). In comparison, the PCI's for the Memphis and MVKs were estimated to be $21,500 and $18,000, respectively, in 1989. These figures correspond to an estimated PCI of $32,600 for the United States for the same year.

Large metropolitan areas have a major influence on the amount of income generated in an area. Although the large cities experience a higher cost of living, they contain and support a highly diversified base of well-paying capital intensive industries, and their wage rates provide a higher standard of living than is typical in small, southern communities. Thus, those people who live in smaller communities and areas within close proximity to the MSAs, and especially near Baton Rouge, Memphis, and New Orleans, will reap some of the benefits these cities have to offer.

With the exception of the MSAs, the PCI generated in the MRL area is slightly below the national average. Those who work and live in the areas that would be directly affected by floodwaters rely on the protection afforded by the levee project. The disruption that occurs from a flood is not only an inconvenience, but a matter of livelihood for many of them.

A15-2.6.6 Agricultural Activity

Throughout history, favorable agricultural characteristics have been significant factors in the development of land use patterns in the MRL area. The land around the Mississippi River is rich with some of the most fertile soils in the world for growing crops. Each year the region supplies substantial contributions toward the Nation's food and fiber requirements. In 2017, the economic base area contributed 17.1 million acres of land toward the production of agricultural goods used worldwide. Among the major agricultural commodities supplied by the region are cotton, soybeans, rice, and corn. General agricultural characteristics for the year 2017 are displayed in Table A15-12.

The Mississippi River has been the basis for the economies which have developed along its banks. Failure of the MRL during the time of a major flood event would allow destruction of crops and related agricultural industries in this region. Not only would this result in massive damages region wide, but would also deliver a devastating blow to people dependent on these activities for their livelihood. The economies of the region are reliant, not only on the waters of the Mississippi River itself, but on the agricultural and industrial bases which have developed as a result of the River.

Historically, agricultural resources have been important to the economy of the region. However, along with industrial expansion and the increased commercialization and mechanization of farms, farming operations have followed a national trend of consolidation. Today, there are fewer farms with larger acreages. In 1992 there were 34,249 farms in the MRL area comprising a total of 17.8 million acres. This results in an average size per farm of 518 acres. In comparison, there were 29,755 farms totaling 17.1 million acres in 2017 averaging 575 acres per farm. These numbers reflect a 15 percent decrease in the number of farms, a 4 percent decrease in the total land in farms, and a 10 percent increase in farm size. Each district study area also followed this same trend.

A15-2.6.7 Value of Agricultural Products Sold

Total sales from agricultural products (expressed in 2017 dollars) are depicted in Table A15-12 for 2017. The total value of farm products sold was valued at almost $8.7 billion in 2017, an 8 percent decrease over the $10.2 billion reported in 1992. The MVM study area represented 51 percent of the sales from farm products sold for the MRL area in 2017 followed closely by the MVK with 43 percent. The primary counties which have contributed to and benefited economically from agricultural production (as reflected by the 2017 statistics) are Arkansas, Craighead, Mississippi, and Poinsett Counties in Arkansas; St. Bernard Parish in Louisiana; Bolivar, Humphreys, Sunflower, and Washington Counties in Mississippi; and New Madrid and Stoddard Counties in Missouri. As a major contributor to the economies of many MRL counties, agricultural production, especially in the rich Delta of the Mississippi River, remains a viable industry in the region. Farm products sold reported by State and the Nation (expressed in 2017 dollars) are as follows for 2017: Arkansas, $9.7 billion; Illinois, $17 billion; Kentucky, $5.7 billion; Louisiana, $3.1 billion; Mississippi, $6.2 billion; Missouri, $10.5 billion; and Tennessee, $3.8 billion.

A15-2.6.8 Industry and Business

The "Sunbelt movement" of the 1970's helped stimulate the economy of the Mississippi River Delta regions by creating more industry and jobs, thereby increasing total employment. This era resulted in the emergence of the manufacturing, trade, and services industries as significant contributors to local economies. Discussed in the following paragraphs, these sectors represent the economic indicators for industrial and business activity in the MRL area.

Table A15-13 includes the number of establishments for construction, manufacturing, professional, and selected services for the years 2016. These figures reveal the broad industrial base and potential business volume that exists. These industries have emerged as the major contributors to many of the study area counties.

A15-2.6.9 Construction and Manufacturing

With 8,785 construction establishments reported in 2016, this activity had a significant contribution to the base in the MRL area. Of these, the MVK study area accounted for 14 percent of the manufacturing firms; MVM, 33 percent; and MVN much higher at 53 percent. The larger

metropolitan centers, Memphis, Baton Rouge and New Orleans, provided the majority of the construction activity in the MRL area.

With 4,053 manufacturing establishments reported in 2016, manufacturing activity has contributed significantly to the well-diversified industrial base in the MRL area. Of these, the MVK study area accounted for 15 percent of the manufacturing firms; MVM, 39 percent; and MVN, 46 percent. As expected, the majority of the manufacturing activity in the region hubs around the larger metropolitan centers and urbanized areas--Baton Rouge, Memphis, Monroe, New Orleans, and Pine Bluff.

A15-2.6.10 Professional Services

Professional Services represents the economic and business activity in the area based on the sales volume of merchandise. Of these, the MVK study area accounted for 11 percent of these firms; MVM, 30 percent; and MVN, 59 percent. As with manufacturing and construction sectors, the majority of the manufacturing activity in the region hubs around the larger metropolitan centers and urbanized areas.

A15-2.6.11 Selected Services

Selected services, which represent service industries such as hotels and motels; repair services; and dental, medical, and legal services, are also indicators of business activity. Of these, the MVK study area accounted for 16 percent of these firms; MVM, 38 percent; and MVN, 47 percent. As with other business activity in the economic base area, major service industries are located near the large metropolitan areas--New Orleans, Memphis, and Baton Rouge. Shelby County was the single largest contributor to sales receipts in services with 27 percent in 2016 followed by Orleans Parish with 13 percent while Orleans and Jefferson Parishes both weighed in at 11 percent.

A15-2.6.12 Financial Statistics

Statistics for local government finances and financial institutions located in the MRL area are discussed in the following paragraphs. These statistics may be seen as indicators of the financial health of the region.

A15-2.6.13 Local Government Finance

The balance sheet for State and local governments, depending on mandated expenditures, reflects the financial health of the local economy. Financial statistics for local governments in the overall MRL area are presented in Table A15-14, expressed in 2017 dollars. These statistics come from the United States Census Bureau and represent the State and local general revenue and direct general expenditures by State. A total for the United States is also included. In 2017, total general revenue was estimated to be $68.5 billion for Illinois as compared to $19.0 billion to $29.4 billion for the other States in the area. State expenditures for this same year indicates a low of $13.9 billion for the State of Mississippi and a low of $51 billion for the State of Illinois.

A15-2.6.14 Banks and Savings Institutions

Statistics for banks and savings institutions in the MRL area are presented in Table A15-15 by District. In 2017, there were a total of 1,509 bank offices and 39 savings institutions located in the economic base area. The majority of the financial institutions are located in the major retail centers of Memphis, New Orleans, and Baton Rouge. Total bank deposits, expressed in 2017 dollars, totaled $111.6 billion while savings institutions were estimated to hold $17.4 billion.

A15-2.7 Future Socioeconomic Conditions

This section discusses the future economic conditions expected to occur in the economic base area to the year 2060. Based on the current economic environment, three major economic indicators were projected to give an idea of the direction of future growth in the MRL area--population, employment, and income. Projections are presented separately for each parameter by overall and District study area.

A15-2.7.1 Methodology

Projections were made based on factors derived from the Bureau of Labor Statistics projections. Growth factors determined from national averages were applied to each District study area by State to develop future estimates of population and income. These projections should not be interpreted as being precise values for future years. Rather, they should be used as indicators of the direction and relative magnitude of economic activity that may be expected to occur between now and 2060in the MRL area.

A15-2.7.2 Projections by Economic Parameter

A15-2.7.2.1 Population

Population growth is a direct reflection of the economic growth of an area; thus, an understanding of the economic growth potential is essential in projecting population growth. Population levels are good indicators of the size of an urban area and its land use needs such as residential, commercial, and other urban uses. Population statistics are also the basis for many other economic parameters such as PCI, persons per household, population density, etc.

Population projections are presented in Table A15-16 for existing (2018) and future conditions to the year 2060 for the MRL area. Population in the overall area is projected to increase from 4.8 million people in 2018 to approximately 6.5 million by the year 2060.

A15-2.7.2.2 Income

Income forecasts, which are presented in Table A15-17 for the MRL area, show PCI to increase substantially in all areas of the economic base area. Overall, PCI is projected to increase from $21,700 in 2018 to $27,500 by 2060, or approximately 21 percent. Income values in Table A15-17 are expressed in constant 2018 dollars.

Figure A15-1
Economic base area
for the MRL project

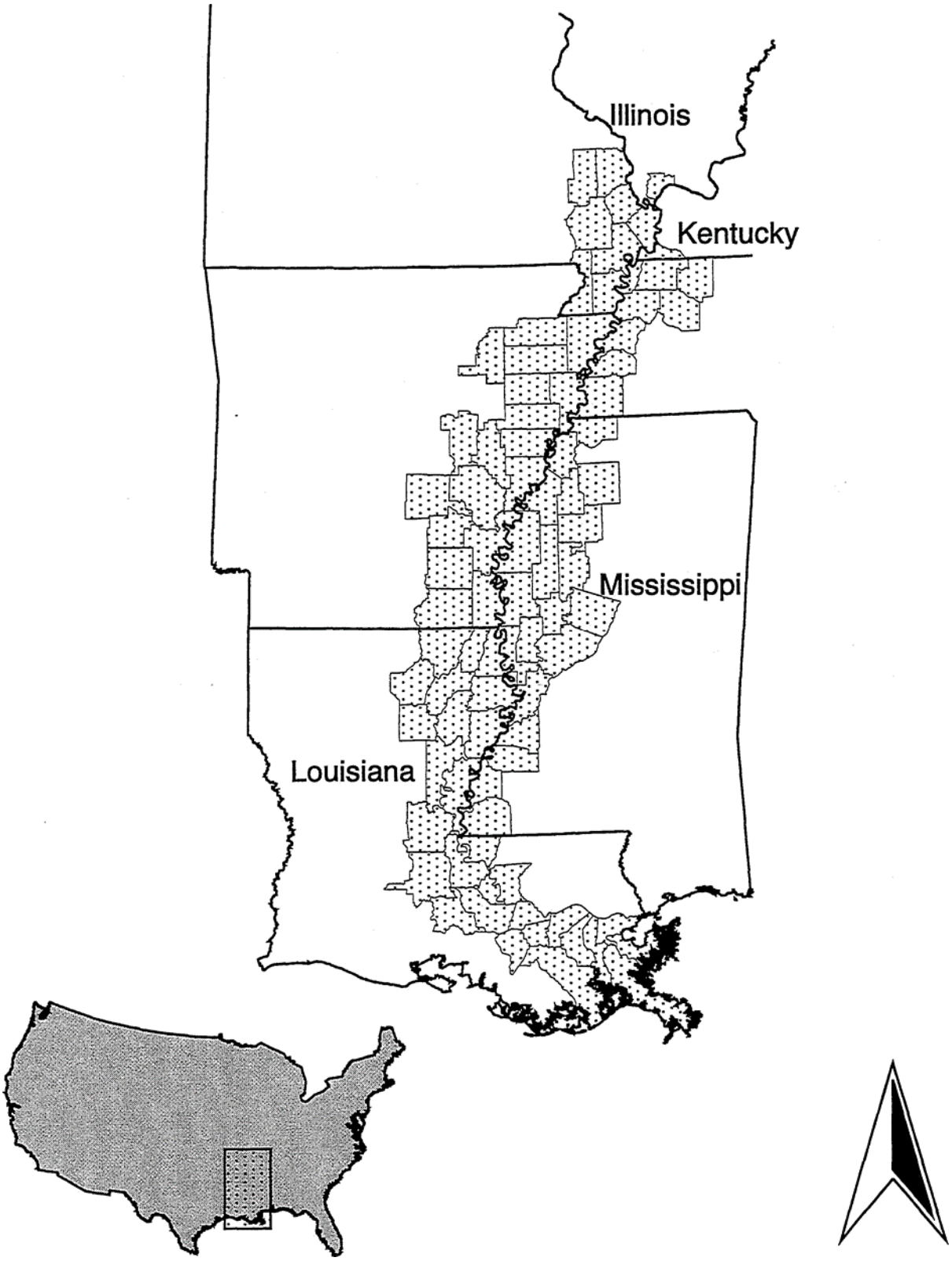

Figure A15-2
Lower Mississippi River Valley by
U.S. Army Corps of Engineer District

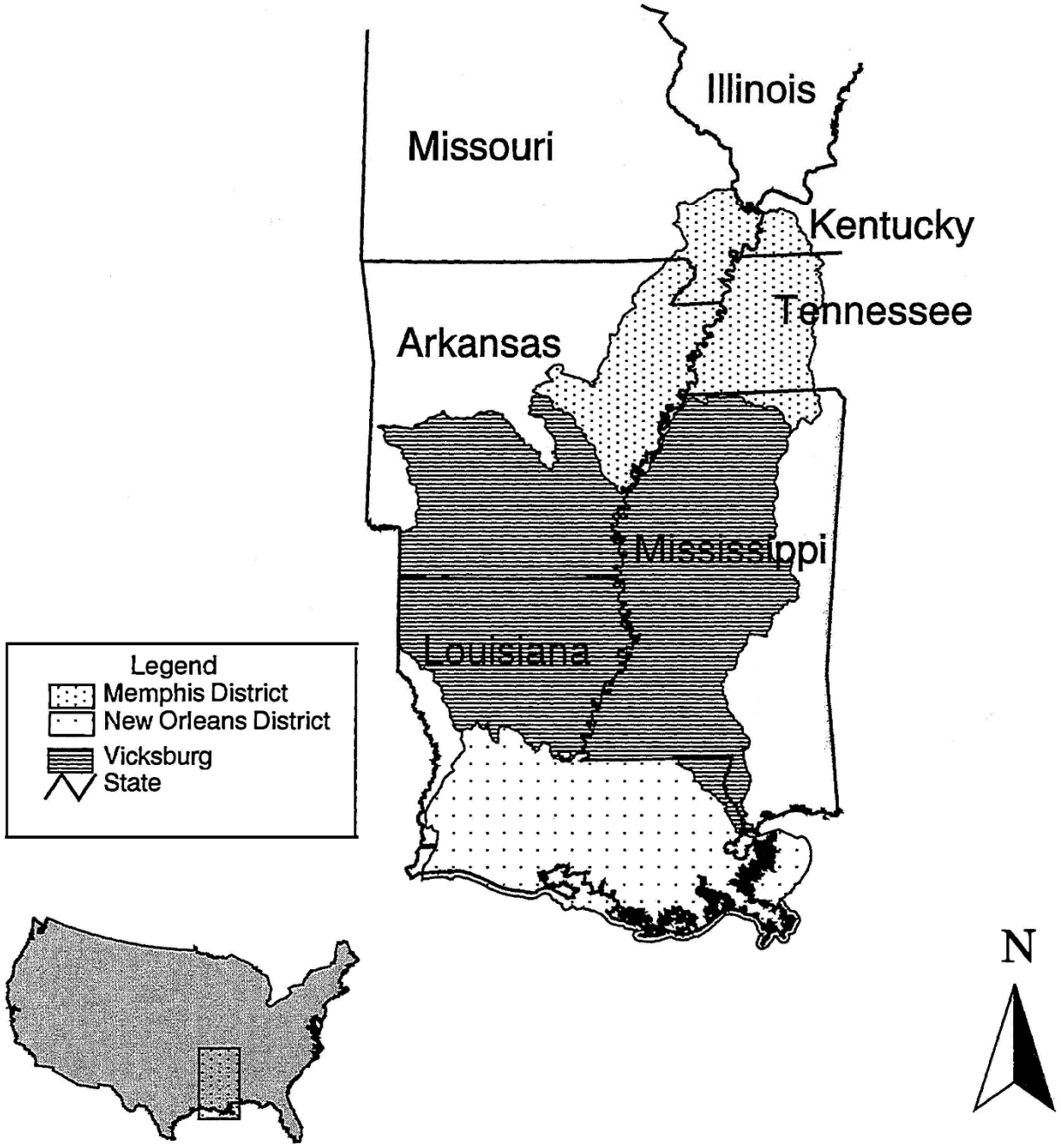

Figure A15-3
Major rivers, streams, and tributaries
in the MRL study area

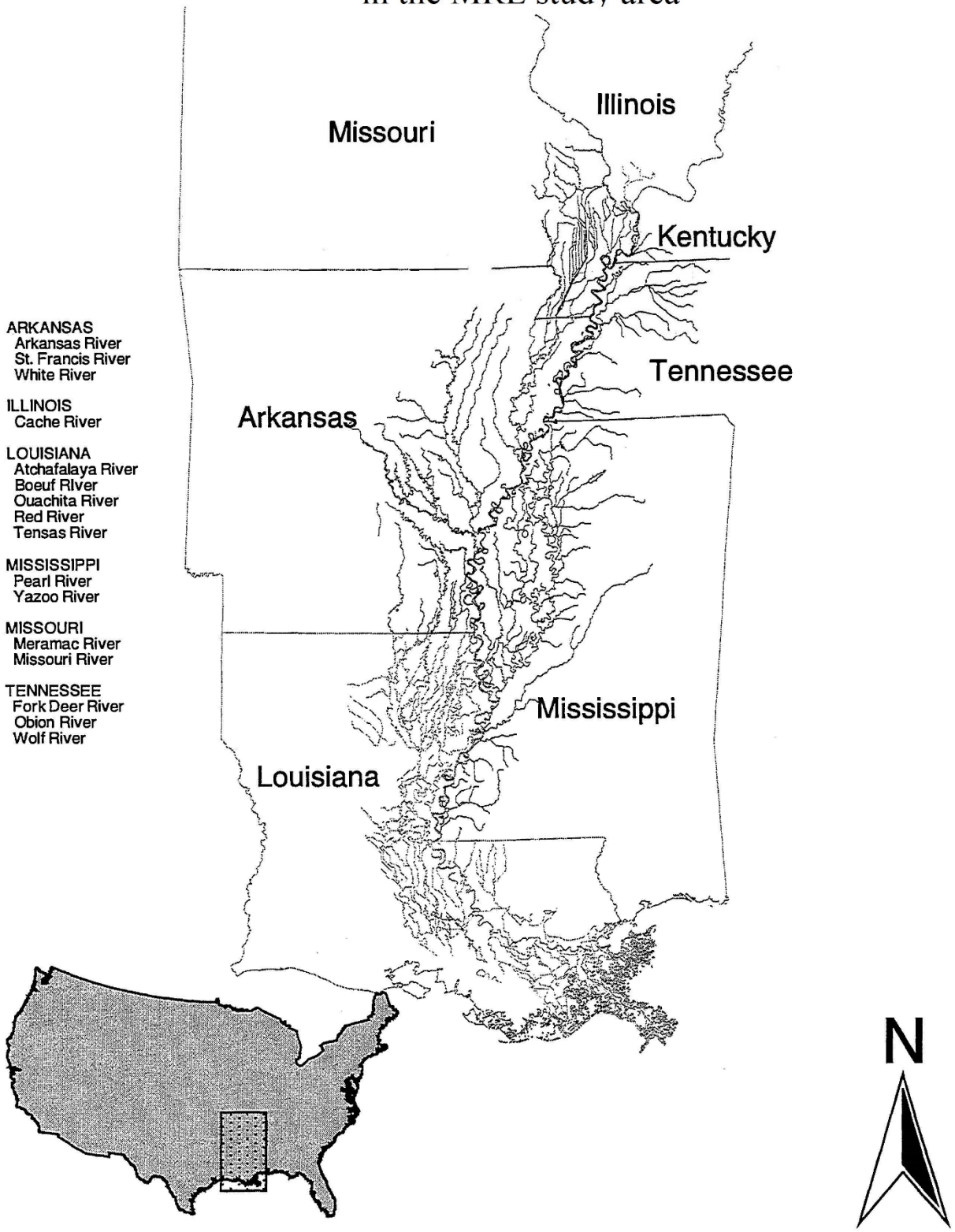

Table A15-1

2017 socioeconomic statistics for the total MRL area by district a/

Socioeconomic Category	Vicksburg District Study Area	Memphis District Study Area	New Orleans District Study Area	Total MRL Area
Number of Counties/Parishes	36	31	18	85
Land Area (Square Miles)	22,396	17,944	8,993	49,333
Total Population	815,742	1,977,824	1,971,726	4,765,292
Number of Population Centers b/	12	18	25	55
Total Number of Households	309,856	749,683	41,256	1,100,795
Median Household Value ($) c/	74,550	83,600	152,550	84,050
Total Employment	230,161	743,477	1,021,120	1,994,758
Per Capita Income	18,025	21,492	25,646	65,164
Total Earnings (millions) c/	8,105	34,800	38,956	81,861
Total Number of Farms	12,085	12,652	4,761	29,498
Total Value of Farm Land and Buildings ($million) c/	32,943	52,919	23,718	109,581
Total Value of Farm Products Sold ($million) c/	3,708	4,266	561,981	569,955

a/ Statistics presented for 2017 represents the closest year census data were available.

b/ With greater than 10,000 persons.

c/ Values expressed in constant 2017 dollars.

Table A15-2

2017 land area of the MRL economic base area

CEMVK - VICKSBURG DISTRICT						CEMVM - MEMPHIS DISTRICT						CEMVN - NEW ORLEANS DISTRICT		
Study Area by State		Sq. Mi.	Study Area by State		Sq. Mi.	Study Area by State		Sq. Mi.	Study Area by State		Sq. Mi.	Study Area by State		Sq. Mi.
ARKANSAS		**4,604**	**MISSISSIPPI**		**11,267**	**ARKANSAS**		**8,399**	**Missouri**		**4,578**	**LOUISIANA**		**8,993**
1	Ashley	921	1	Adams	449	1	Arkansas	989	1	Bollinger	621	1	Ascension	292
2	Chicot	644	2	Bolivar	876	2	Craighead	711	2	Cape Girardeau	579	2	Assumption	339
3	Desha	765	3	Claiborne	489	3	Crittenden	611	3	Dunklin	546	3	Avoyelles	833
4	Drew	828	4	Coahoma	554	4	Cross	616	4	Mississippi	413	4	East Baton Rouge	456
5	Jefferson	885	5	Holmes	756	5	Jackson	634	5	New Madrid	678	5	Iberville	619
6	Lincoln	561	6	Humphreys	418	6	Lee	602	6	Pemiscot	493	6	Jefferson	306
LOUISIANA		**6,525**	7	Issaquena	413	7	Mississippi	898	7	Scott	421	7	LaFourche	1,085
1	Caldwell	530	8	Jefferson	521	8	Monroe	607	8	Stoddard	827	8	Orleans	181
2	Catahoula	704	9	Leflore	592	9	Phillips	693	**TENNESSEE**		**4,087**	9	Plaquemines	845
3	Concordia	696	10	Panola	684	10	Poinsett	758	1	Dyer	511	10	Pointe Coupee	557
4	East Carroll	422	11	Quitman	405	11	Prairie	646	2	Gibson	603	11	St. Bernard	465
5	Franklin	623	12	Sharkey	428	12	St. Francis	634	3	Lake	163	12	St. Charles	284
6	Madison	624	13	Sunflower	684	**ILLINOIS**		**201**	4	Lauderdale	471	13	St. James	246
7	Morehouse	794	14	Tallahatchie	644	1	Pulaski	201	5	Obion	545	14	St. John the Baptist	219
8	Ouachita	611	15	Tunica	455	**KENTUCKY**		**209**	6	Shelby	755	15	St. Landry	929
9	Richland	559	16	Warren	581	1	Fulton	209	7	Tipton	459	16	St. Martin	740
10	Tensas	603	17	Washington	724	**MISSISSIPPI**		**470**	8	Weakley	580	17	West Baton Rouge	191
11	West Carroll	359	18	Wilkinson	674	1	DeSoto	470				18	West Feliciana	406
			19	Yazoo	920									
Total CEMVK Study Area		**22,396**	**Total CEMVM Study Area**								**17,944**	**Total CEMVN Study Area**		**8,993**
												TOTAL MRL STUDY AREA		**49,333**

Table A15-3

Land use distribution in the MRL study area

(%)

Study Area	Urban Use	Nonurban Use							Total Land
		Cleared Land			Other Land			Total	
		Cropland	Pasture	Total	Woodland	Water	Total		
Total	2	64	8	72	21	5	26	98	100

Table A 15-4

Historical population statistics

Study Area by District	Population by Year (#)			
	1990	2010	2018	1990 2018 Growth (%)
CEMVK - Vicksburg District	932,375	854,261	815,742	-13%
Arkansas Study Area	173,376	149,444	141,821	-18%
Louisiana Study Area	302,300	301,260	293,003	-3%
Mississippi Study Area	456,699	403,557	380,918	-17%
CEMVM - Memphis District	1,749,237	1,976,922	1,977,824	13%
Arkansas Study Area	352,148	350,597	340,796	-3%
Illinois Study Area	7,523	6,161	5,463	-27%
Kentucky Study Area	8,271	6,813	6,120	-26%
Mississippi Study Area	67,910	161,252	182,001	168%
Missouri Study Area	274,009	272,881	262,816	-4%
Tenessee Study Area	1,039,376	1,179,218	1,180,628	14%
CEMVN - New Orleans District	1,937,085	1,896,470	1,971,726	2%
Louisiana Study Area	1,937,085	1,896,470	1,971,726	2%
TOTAL MRL AREA	4,618,697	4,727,653	4,765,292	3%

Table A15-5

List of urban areas with populations of greater than 2,500 persons in 2018

CEMVK - Vicksburg District by County/Parish			
STATE OF ARKANSAS			
ASHLEY	CHICOT	DESHA	DREW
Crossett	Dermott	Dumas	Monticello
Hamburg	Eudora	McGehee	
	Lake Village		
JEFFERSON	Pine Bluff	White Hall	
STATE OF LOUISIANA			
CATAHOULA	CONCORDIA	EAST CARROLL	FRANKLIN
Jonesville	Ferriday	Lake	Winnsboro
	Vidalia	Providence	
MOREHOUSE	OUACHITA	RICHLAND	MADISON
Bastrop	Claiborne	Delhi	Tallulah
	Monroe	Rayville	
	West Monroe		
STATE OF MISSISSIPPI			
ADAMS	BOLIVAR	COAHOMA	HOLMES
Natchez	Cleveland	Clarksdale	Durant
	Rosedale		
	Shelby		
HUMPHREYS	LEFLORE	PANOLA	QUITMAN
Belzoni	Greenwood	Batesville	Marks
	Itta Bena	Sardis	
SHARKEY	SUNFLOWER	TALLAHATCHIE	WARREN
Rolling Fork	Drew	Charleston	Vicksburg
	Indianola		
WASHINGTON	YAZOO		
Greenville	Yazoo City		
Hollandale			
Leland			

CEMVM - Memphis District by County			
STATE OF ARKANSAS			
ARKANSAS	CRAIGHEAD	CRITTENDEN	CROSS
DeWitt	Jonesboro	Earle	Wynne
Stuttgart		Marion	
		West Memphis	
JACKSON	LEE	MISSISSIPPI	MONROE
Newport	Marianna	Blytheville	Brinkley
		Gosnell	
		Osceola	
PHILLIPS	POINSETT	St. FRANCIS	
Helena -	Marked Tree	Forrest City	
West Helena	Truman		
STATE OF IL	STATE OF KY	STATE OF MISSISSIPPI	
Pulaski	none	DESOTO	
		Hernando	Olive Branch
		Horn Lake	Southhaven
STATE OF MISSOURI			
CAPE GIRARDEAU	DUNKLIN	MISSISSIPPI	NEW MADRID
Cape Girardeau	Kennett	Charleston	New Madrid
	Malden	EastPrairie	Portageville
PEMISCOT	SCOTT	STODDARD	
Carutherville	Chaffee	Dexter	
Hayti	Sikeston		
STATE OF TENNESSEE			
DYER	GIBSON	OBION	SHELBY
Dyersburg	Humbolt	South Fulton	Barlett
Newbern	Milan	Union City	Collierville
	Trenton		Germantown
TIPTON	WEAKLEY		Memphis
Covington	Martin		

CEMVN - New Orleans District by Parish			
STATE OF LOUISIANA			
ASCENSION	ASSUMPTION	EAST BATON ROUGE	JEFFERSON
Donaldsonville	Pierre	Baker	Avondale
Gonzales	IBERVILLE	Baton Rouge	Bridge City
AVOYELLES	Plaquemine	Brownfields	Eselle
Bunkie	PLAQUEMINES	Gardere	Gretna
Cottonport	Belle Chase	Issiswold	Harahan
Marksville	Boothville-Venice	Merrydale	Harvey
LAFOURCHE	Empire	Monticello	Jefferson
Cut Off	Port Sulfpher	Oaks Hill Place	Kenner
Galiano	POINTE COUPEE	Old Jefferson	Marrero
Larose	New Roads	Shenandoah	Matairie
Lockport	ST. JOHN THE	Willage St. George	River Ridge
Matthews	BAPTIST	Westmister	Terry Town
Raceland	Edgard	Zachary	Timberlane
Thibodaux	Garyville	ST. BERNARD	Waggaman
ORLEANS	Laplace	Arabi	Westwego
New Orleans	Reserve	Chalmette	
ST. JAMES	WEST BATON ROUGE	Poydras	
Lutcher	Port Allen	Violet	
ST. MARTIN		ST. LANDRY	
Breaux Bridge		Eunice	
St. Martinville		Opelousas	

Table A15-6	
2017 population density	
Study Area by District	Persons per Square Mile
	(#)
CEMVK - Vicksburg District	36
Arkansas Study Area	31
Louisiana Study Area	45
Mississippi Study Area	34
CEMVM Memphis District	110
Arkansas Study Area	41
Illinois Study Area	27
Kentucky Study Area	29
Mississippi Study Area	387
Missouri Study Area	55
Tennessee Study Area	289
CEMVN - New Orleans District	219
Louisiana Study Area	219
TOTAL MRL AREA	96

Table A15-7				
Population by age statistics				
Study Area by District	Population By Years of Age Group (#)			
	Under 5	5-17	18-65	Over 65
CEMVK - Vicksburg District	52,982	194,022	434,197	134,542
Arkansas Study Area	8,379	31,107	76,900	25,434
Louisiana Study Area	19,675	71,464	152,219	49,645
Mississippi Study Area	24,928	91,450	205,077	59,463
CEMVM Memphis District	130,049	477,898	1,058,665	301,091
Arkansas Study Area	23,362	82,810	174,489	60,186
Illinois Study Area	339	1,180	2,721	1,224
Kentucky Study Area	404	1,340	3,140	1,236
Mississippi Study Area	11,102	46,774	100,647	23,478
Missouri Study Area	14,975	56,896	135,079	45,695
Tennessee Study Area	79,867	288,897	642,591	169,272
CEMVN - New Orleans District	126,791	446,795	1,100,286	297,855
Louisiana Study Area	126,791	446,795	1,100,286	297,855
TOTAL MRL AREA	309,822	1,118,714	2,593,148	733,487

Table A15-8 2017 general housing characteristics			
Study Area by District	Total Number of Households	Persons Per Households	Median Value of Household
	(#)	(#)	(#) a/
CEMVK - Vicksburg District	309,856	2.5	74,550
Arkansas Study Area	56,078	2.4	72,950
Louisiana Study Area	109,467	25	84,000
Mississippi Study Area	144,311	2.6	70,000
CEMVM Memphis District	749,683	2.5	83,600
Arkansas Study Area	134,652	2.4	74,100
Illinois Study Area	2,246	2.5	63,600
Kentucky Study Area	2,463	2.4	63,100
Mississippi Study Area	61,158	2.8	162,000
Missouri Study Area	105,614	2.5	82,600
Tennessee Study Area	443,550	2.5	95,450
CEMVN - New Orleans District	152,550	2.7	152,600
Louisiana Study Area	152,550	2.7	152,600
TOTAL MRL AREA	1,100,795	2.6	83,600

Table A15-9 2017 general employment characteristics			
Study Area by District	Civilian Labor Force	Total Employment	Unemployment Rate
	(#)	(#)	(%)
CEMVK - Vicksburg District	412,414	230,161	7.5
Arkansas Study Area	71,814	36,909	5.0
Louisiana Study Area	153,097	89,972	7.7
Mississippi Study Area	187,504	103,280	8.1
CEMVM Memphis District	1,062,332	743,477	6.3
Arkansas Study Area	194,085	113,144	4.5
Illinois Study Area	2,469	574	8
Kentucky Study Area	2,907	1,488	5.7
Mississippi Study Area	124,489	53,045	3.8
Missouri Study Area	140,086	79,608	5.3
Tennessee Study Area	793,358	495,618	5
CEMVN - New Orleans District	1,221,604	1,021,120	5.4
Louisiana Study Area	1,221,604	1,021,120	5.4
TOTAL MRL AREA	2,696,351	1,994,758	6.4

Table A15-10

2017 EMPLOYMENT BY INDUSTRY

Study Area by District	Total Earnings a/	Construction	Retail Trade	Professional & Technical	Health Care	Government
	($000)	%	%	%	%	%
CEMVK - Vicksburg District	95,933	4.4	7.3	2.8	11.7	27.2
Arkansas Study Area	80,009	5.1	6.4	2.3	12.4	27.2
Louisiana Study Area	6,663	4.5	8.6	3.7	13.7	27.2
Mississippi Study Area	9,261	3.7	7.0	2.5	8.9	27.4
CEMVM - Memphis District	65,155	6.9	7.1	3.1	10.7	22.9
Arkansas Study Area	7,546	3.9	8.0	2.3	12.4	24.7
Illinois Study Area	107	5.2	3.6	b/	b/	44.1
Kentucky Study Area	159	6.2	4.6	b/	b/	14.7
Mississippi Study Area	2,873	16.2	10.6	3.8	8.2	11.4
Missouri Study Area	5,587	4.8	8.6	2.8	13.9	19.8
Tenessee Study Area	48,882	5.4	7.3	3.4	8.2	22.9
CEMVN - New Orleans District	61,187	8.1	6.7	4.0	8.3	21.3
Louisiana Study Area	61,187	8.1	6.7	4.0	8.3	21.3
TOTAL MRL AREA	222,275	6.5	7.0	3.3	10.2	23.8

a/ Expressed in millions of constant 2017 dollars.

b/ Data are not shown to avoid disclosure of individual firms.

Table A15-11

2017 personal and per capita income statistics

Study Area by District	Total Personal Income ($Billions)	Total Per Capita Income ($)
CEMVK - Vicksburg District	15.5	18,000
Arkansas Study Area	2.8	18,900
Louisiana Study Area	6.1	18,900
Mississippi Study Area	6.6	16,300
CEMVM Memphis District	49.9	21,500
Arkansas Study Area	7.4	20,300
Illinois Study Area	0.1	32,900
Kentucky Study Area	0.1	25,900
Mississippi Study Area	5.2	22,500
Missouri Study Area	5.4	20,300
Tennessee Study Area	31.8	21,700
CEMVN - New Orleans District	55.2	25,600
Louisiana Study Area	55.2	25,600
TOTAL MRL AREA	120.6	21,700

a/ Expressed in millions of constant 2017 dollars.

b/ PCI is derived by dividing personal income by population

Table A15-12

2017 general agricultural statistics

Study Area by District	Total Number of Farms (#)	Average Size of Farms (acres)	Total Land in Farms (acres)	Total Value of Farm Products $
CEMVK - Vicksburg District	12,244	605	7,413,480	3,707,744
Arkansas Study Area	2,042	679	1,385,936	939,324
Louisiana Study Area	4,850	460	2,229,892	921,729
Mississippi Study Area	5,352	710	3,797,652	1,846,691
CEMVM Memphis District	12,750	628	8,007,102	4,387,571
Arkansas Study Area	3,908	958	3,742,441	2,013,459
Illinois Study Area	222	456	101,286	180,572
Kentucky Study Area	146	669	97,615	62,127
Mississippi Study Area	398	304	120,998	39,367
Missouri Study Area	4,025	600	2,416,455	1,388,388
Tennessee Study Area	4,051	377	1,528,307	703,658
CEMVN - New Orleans District	4,761	355	1,687,880	561,981
Louisiana Study Area	4,761	355	1,687,880	561,981
TOTAL MRL AREA	29,755	575	17,108,462	8,657,296

a/ Expressed in millions of constant 2017 dollars

Table A15-13				
2016 number of establishments by industry				
Study Area by District	Construction 1/	Manufacturing	Professional	Selected Services
	(#)	(#)	(#)	(#)
CEMVK - Vicksburg District	1,234	602	2,221	16,352
Arkansas Study Area	197	133	279	3,640
Louisiana Study Area	575	222	1,114	6,169
Mississippi Study Area	462	247	828	6,543
CEMVM Memphis District	2,868	1,599	5,952	39,481
Arkansas Study Area	534	312	846	7,526
Illinois Study Area	8	3	5	69
Kentucky Study Area	7	7	13	144
Mississippi Study Area	227	119	414	2,638
Missouri Study Area	451	233	613	7,267
Tennessee Study Area	1,641	925	4,061	21,837
CEMVN - New Orleans District	4,683	1,852	11,659	48,950
Louisiana Study Area	4,683	1,852	11,659	48,950
TOTAL MRL AREA	8,785	4,053	19,832	104,783
1/ From 2016 Bureau of Economic Analysis statistics				

Table A14-14				
2017 local and state government financial statistics				
	Revenue		Expenditures	
Area	State	Local	State	Local
	General	General	Direct General	Direct General
	$	$	$	$
Arkansas	21,088,000	9,573,00	15,293,000	9,410,000
Illinois	68,454,000	70,367,000	51,088,000	66,141,000
Kentucky	28,662,000	13,489,000	25,944,000	13,408,000
Louisiana	27,555,000	20,651,000	22,705,000	20,008,000
Mississippi	19,001,000	12,230,000	13,990,000	12,164,000
Missouri	29,582,000	24,759,000	23,033,000	24,129,000
Tennessee	29,444,000	24,488,000	22,402,000	24,011,000
United States Total	1,976,012,000	1,693,420,000	1,433,369,000	1,637,819,000

Table A15-15

2017 number of banks and savings institutions

Study Area by District	Commercial Banks (#)	Commercial Banks ($)	Savings Institution (#)	Savings Institution ($)
CEMVK - Vicksburg District	383	16,069,913	8	376,910
Arkansas Study Area	64	3,827,722	4	129,196
Louisiana Study Area	107	5,421,243	4	247,714
Mississippi Study Area	167	6,820,948	-	-
CEMVM Memphis District	662	44,615,268	-	-
Arkansas Study Area	158	6,600,124	-	-
Illinois Study Area	6	72,313	-	-
Kentucky Study Area	5	247,488	-	-
Mississippi Study Area	63	2,798,207	-	-
Missouri Study Area	116	5,211,962	-	-
Tennessee Study Area	314	29,685,174	-	-
CEMVN - New Orleans District	509	50,882,457	31	17,023,742
Louisiana Study Area	509	50,882,457	31	17,023,742
TOTAL MRL AREA	1,509	111,567,638	39	17,400,652

Table A15-16

Projected population statistics

	Population by Year					
	Existing	Projected				
Study Area by District	2018	2020	2030	2040	2050	2060
CEMVK - Vicksburg District	**815,700**	**828,200**	**892,100**	**956,800**	**1,026,200**	**1,100,700**
Arkansas Study Area	141,800	143,700	153,400	162,200	171,500	181,300
Louisiana Study Area	293,000	297,900	323,00	349,800	378,800	410,200
Mississippi Study Area	380,900	386,600	415,700	444,800	475,900	509,200
CEMVM Memphis District	**1,967,600**	**1,998,200**	**2,153,600**	**2,301,200**	**2,459,200**	**2,628,000**
Arkansas Study Area	340,800	347,900	384,200	412,600	443,100	475,800
Illinois Study Area	5,500	5,600	6,100	6,600	7,200	7,800
Kentucky Study Area	6,100	6,200	6,600	7,100	7,600	8,100
Mississippi Study Area	182,000	184,800	198,900	213,000	228,100	244,200
Missouri Study Area	252,600	257,600	283,200	308,800	336,700	367,100
Tennessee Study Area	1,180,600	1,196,600	1,247,600	1,353,100	1,436,500	1,525,000
CEMVN - New Orleans District	**1,971,700**	**2,006,600**	**2,184,000**	**2,361,400**	**2,553,200**	**2,760,600**
Louisiana Study Area	1,971,700	2,006,600	2,184,000	2,361,400	2,553,200	2,760,600
TOTAL MRL AREA	4,755,000	4,833,000	5,229,700	5,619,400	6,038,600	6,489,300

Historical data: Census Bureau; Projected data: Bureau of Labor Statistics.

Table A15-17

Per capita income statistics

	Per Capita Income by Year ($)					
	Existing	Projected				
Study Area by District	2018	2020	2030	2040	2050	2060
CEMVK - Vicksburg District	**18,000**	**18,300**	**19,700**	**21,000**	**22,500**	**24,100**
Arkansas Study Area	18,900	19,200	20,500	21,700	22,900	24,200
Louisiana Study Area	18,900	19,200	20,800	22,500	24,400	26,400
Mississippi Study Area	16,300	16,500	17,700	18,900	20,200	21,600
CEMVM Memphis District	**21,500**	**24,300**	**26,400**	**28,400**	**30,600**	**32,900**
Arkansas Study Area	20,300	20,700	22,900	24,600	26,400	28,400
Illinois Study Area	32,900	33,500	36,500	39,700	43,200	47,000
Kentucky Study Area	25,900	26,300	28,100	30,000	32,100	34,300
Mississippi Study Area	22,500	22,800	24,500	6,200	28,100	30,100
Missouri Study Area	20,300	20,700	22,800	24,900	27,200	29,700
Tennessee Study Area	21,700	22,000	23,400	24,800	26,300	27,900
CEMVN - New Orleans District	**25,600**	**25,600**	**25,600**	**25,600**	**25,600**	**25,600**
Louisiana Study Area	25,600	25,600	25,600	25,600	25,600	25,600
TOTAL MRL AREA	**21,700**	**22,700**	**23,900**	**25,000**	**26,200**	**27,500**

Historical data: Census Bureau; Projected data: Bureau of Labor Statistics