

Providing Louisiana's Goods and Services

As you read, look for:

- the types of goods and services produced in Louisiana,
- Louisiana's place in the global economy, and
- vocabulary terms **private goods and services**, **public goods and services**, **interdependent**, **Superport**, **tariff**, **economic indicators**, **gross domestic product**, **consumer price index**, **inflation**, and **unemployment rate**.

Below: Petroleum refining and related chemical plants provide a large segment of the state's economic base.



An economic system uses human, natural, and capital resources to produce goods and to provide services. Louisiana's economy produces a wide variety of goods and services.

Louisiana's Goods and Services

Most goods and services are produced in Louisiana's free market economy. These are called **private goods and services**. Sellers offer goods and services to buyers. Private goods and services have clear owners and are not available to everyone. The benefits of private goods and services are limited to the owners. If you buy and eat a hamburger, no one else can have it.

Some goods and services are provided by the government because they are unlikely to be provided by private businesses. These are **public goods and services** and are usually available to everyone. Public goods and services meet the needs and wants of society instead of individuals. Some examples are highways, police protection, public education, and public libraries.

Manufacturing

Goods made in Louisiana include ships, trucks, electrical equipment, glass products, automobile batteries, and mobile homes, as well as several hundred other products. These Louisiana products are sold throughout the world.

The chemical industry is a major part of Louisiana's economy. Louisiana ranks second in the United States in the production of *petrochemicals*, chemicals made from petroleum (oil). More than one hundred chemical plants in Louisiana produce a long list of products, including fertilizers and plastics.



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Louisiana produces 60 million wooden matches each day, one-half of the country's entire production.

The petroleum refineries in Louisiana produce billions of gallons of gasoline each year. These refineries also produce more than six hundred other products.

Another major manufacturing industry is shipbuilding. Some of the largest ships built in Louisiana are giant transport ships designed to carry liquified natural gas. These shipbuilders

also design and build merchant vessels, Coast Guard cutters, barges, tugs, supply boats, fishing vessels, and pleasure craft.

Aerospace and Aviation

The United States space program includes Louisiana workers. Fuel tanks for the space shuttles have been built at an assembly facility in New Orleans. At a Lake Charles plant, aircraft are prepared for military use.

Biotechnology

Scientists are taking Louisiana's economy in a new direction. *Biotechnology* combines biological research with engineering. The Pennington Biomedical Research Center is a leader in this research.

Above: Geismar, on the Mississippi, is home to this Occidental Chemicals plant.

Spotlight

Pennington Biomedical Research Center

The mission of the Pennington Biomedical Research Center is to promote healthier lives through nutritional research and preventive medicine. Researchers at the Center study the effects of nutrition on such chronic illnesses as heart disease, diabetes, obesity, hypertension, and cancer. More than 1,500 human volunteers assist the researchers each year. The Center shares its research results with such universities as Harvard, Johns Hopkins, Duke, and Columbia.

In 1980, philanthropist Claude B. (Doc) Pennington donated \$125 million to Louisiana State University for the establishment of the Center. At the time, this donation represented the largest private gift given to a university by an individual. “Doc” Pennington, a former optometrist and oil man, had been interested in nutrition and health.

The Research Center complex, which opened in 1988, is located in Baton Rouge and covers an area the size of five football fields. The Center contains forty research laboratories and millions of dollars in equipment.

The National Institutes of Health selected Pennington Center to study diabetes and heart disease. The Center has also studied bone and muscle loss during space flight for NASA.



Top: The Pennington Biomedical Research Center complex covers an area the size of five football fields.

Above: More than 1,500 human volunteers assist the researchers each year. **Opposite:** Researchers at the Center study the effects of nutrition on such illnesses as heart disease, obesity, diabetes, and cancer.





Above: Tourists bring billions of dollars each year into the Louisiana economy. This photograph was taken at at Jean Lafitte National Park.

Service Industries

Tourism is a major service industry in the state. Tourists visit Louisiana to enjoy the culture that makes us special. While here, they sightsee, eat, shop, fish, hunt, and join the crowds at Mardi Gras. These travelers add billions of dollars to our economy.

Another service industry that attracts money and people to Louisiana is movie-making. The first movie made in Louisiana was a 1908 silent movie, and the first Tarzan movie was filmed in St. Mary Parish in 1917. More recent films include *Steel Magnolias*, *The Pelican Brief*, *Double Jeopardy*, and *Ray*.

Economic Institutions

In a market economy, people join together to produce and sell goods and services. These groups are referred to as *economic institutions*. They include businesses large and small, corporations owned by many investors, banks, and labor unions.

Louisiana has large corporations with worldwide operations as well as small family-owned businesses. All of these businesses have the same economic goal of making a profit while producing goods and services.

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Over 5,000 ocean-going ships arrive at Louisiana ports each year.

Banks are also important economic institutions. They make it possible for producers and consumers to trade, borrow, save, and invest.

Labor unions are organizations of workers who provide the human capital in the economy.

Louisiana in the U.S. and Global Economies

The first economic systems were simple barter economies involving basic items. Today's economic systems overlap and are **interdependent**. Producers and consumers rely on each other and on other economies to succeed.

Advances in communication and transportation have resulted in worldwide trade. For example, oil refined in Louisiana becomes a chemical, which becomes plastic used to make a toy in China. The toy is shipped to Germany, where it becomes a gift for a child. Today Louisiana is part of a global economy.

An expanded market brings economic growth. Shipping from Louisiana's major ports totals about 400 million tons of cargo a year. More than 40 percent of all the grain exported from the United States passes through those ports.

Louisiana's offshore port, the **Superport**, is the only facility in the United States capable of handling extremely deep ships. The Superport was constructed to serve the offshore oil industry and Louisiana's oil refineries. Tankers from around the world dock at this port in the Gulf of Mexico.

Below: Louisiana's busy ports handle barges, ocean-going ships, and cruise ships from around the world.



Figure 5
U.S. Annual Gross Domestic Product

Year	Annual GDP (In billions)
1995	\$7,398
1996	\$7,817
1997	\$8,304
1998	\$8,747
1999	\$9,268
2000	\$9,817
2001	\$10,128
2002	\$10,487
2003	\$11,004

Trade policies

The United States has developed new trade policies and agreements as part of the global economy. The North American Free Trade Agreement (NAFTA) removed trade restrictions between the United States, Canada, and Mexico. Some U.S. companies moved to Mexico because the cost of labor is cheaper there. Fruit of the Loom closed several Louisiana factories employing thousands of workers. The economic impact was felt throughout the affected communities.

These changes show that U.S. trade policies have shifted from protective tariffs toward a free trade economy. **Tariffs** are taxes on imported goods. The purpose of a tariff is to protect U.S. producers from the competition of cheap imported goods. While these policies have brought cheaper imported goods to Louisiana consumers, some producers have been hurt by the loss of tariffs. Louisiana sugar farm-

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Prices for the goods and services used to calculate the CPI are collected in 87 urban areas throughout the country and from about 23,000 retail and service establishments.

Figure 6
U.S. Annual Consumer Price Index

Year	Annual CPI	Percentage Change (Rate of Inflation)
1995	152.4	2.8
1996	156.9	2.9
1997	160.5	2.3
1998	163.0	1.6
1999	166.6	2.2
2000	172.2	3.4
2001	177.1	2.8
2002	179.9	1.6
2003	183.8	2.2

ers cannot meet the low prices of imported sugar without tariffs. Rice farmers also face competition from imports.

Measuring the Economy

Economists gather information about the economy to determine its success. Several **economic indicators** are used to measure the economy. The government uses this information to make policy decisions.

The amount of goods and services produced in the United States is measured by the GDP, the **gross domestic product**. This is the total market value of all goods and services produced in the United States in a certain time period. Figure 5 shows the annual gross domestic product for recent years.

Prices are measured by the CPI, the **consumer price index**. A monthly price survey for a list of goods and services checks for increases or decreases. These goods and services include everything from the price of diapers and milk to funeral expenses. The U.S. Bureau of Labor Statistics reports the CPI monthly, but Figure 6 shows the annual consumer price index for recent years. The “base year” for the CPI is 1982-1984.

A steady increase in the consumer price index shows **inflation**. The buyer gets less for her or his money because prices have increased. People whose income does not increase with inflation would not be able to buy as much. This group might include people who do not receive a raise in their wages. People whose income does increase with inflation would not lose their buying power. This group might include people who own rental property and can charge higher rent if inflation develops.

Unemployment rates are another important indicator about the U.S. economy. The unemployment rate reports the percentage of people who are out of work and are looking for jobs. If jobs are hard to find, workers are more likely to take jobs at lower pay. If unemployment rates are low, the demand for workers is higher and producers have to pay more for this human resource. Figure 7 shows the annual unemployment rate for recent years. This economic indicator is also issued monthly.

Figure 7 U.S. Annual Unemployment Rate

Year	Rate
1995	5.6
1996	5.4
1997	4.9
1998	4.5
1999	4.2
2000	4.0
2001	4.7
2002	5.8
2003	6.0

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Louisiana's labor force is
over 205,000 people.

Check for Understanding ✓

1. Name four goods manufactured in Louisiana.
2. What is biotechnology?
3. Name two ways tourists help the economy.
4. What is an interdependent economy?
5. What are economic indicators used for?
6. What is likely to happen to pay when the demand for workers is high?

Meeting Expectations

Economics in Troy's World

Troy just moved to a new neighborhood. He learned that many of the elderly residents had no one to mow their lawns. He saw an opportunity to earn some money.

Troy borrowed a lawn mower and \$50 from his father. He needed to get the mower serviced, buy gas, and make flyers to advertise. Troy set a price that was worth his time but was not so high that the neigh-

bors might not hire him. By the end of the summer, Troy had made \$1,000, even after he repaid his dad and paid for his gas. He could have made even more if he had mowed more than one lawn a day.

Now all he had to do was decide what to do with the money. He could save the money until he had enough to buy a used car, or he could buy a computer now.

1. Apply what you learned about economic concepts to answer these questions.
 - a. How did Troy answer the four economic questions?
 - b. Was Troy part of a free market economy? Explain your answer.
 - c. What kind of economy would it be if the city set the price for mowing lawns?
 - d. Was Troy supplying a good or a service?
 - e. How did Troy benefit from scarcity?
 - f. What kind of scarcity was a cost to Troy?
 - g. Explain supply and demand in terms of the price Troy charged for mowing.
 - h. What is the human resource Troy used?
 - i. What capital resource did Troy use?
 - j. What Louisiana natural resource did Troy use?
 - k. What will Troy's opportunity cost be if he chooses saving for a car instead of buying the computer?
 - l. How will Troy's decision change if his dad says he must buy his own lawn mower with the money he earned?
- m. Is there any way Troy can make a trade-off and still buy the lawnmower?
- n. Why didn't Troy charge a higher price?
- o. Why did Troy make flyers?
2. Troy did not consider another choice he could make. He could use his money to buy a larger, faster lawn tractor. With this improved equipment, he could mow two lawns a day instead of just one. What should he consider when he makes this choice?
3. Write a paragraph explaining the choice you think Troy should make and why.
4. Write a description of your own economic activity when you have produced a good or a service. What were your benefits and what was your opportunity cost?
5. Troy used a flyer to advertise his lawn-mowing service. Design a flyer to advertise a good or service you could provide.