

School Atlas of Texas

Southwest Texas State University
Department of Geography

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ABOUT THE ATLAS AND LEARNING MATERIALS

The School Atlas of Texas, the first effort of its kind, is aimed at filling an important educational need for the school children of Texas, particularly at the seventh-grade level, by providing a wealth of geographical and historical information about our wonderful state in the form of colorful maps. In order to provide further information and teaching materials, including a set of classroom outline maps that can be used with the atlas, the Department of Geography at Southwest Texas State University (SWT) invites you to visit its Web site at www.geo.swt.edu and download these materials free of charge. Also, within the SWT Geography Department is its Grosvenor Center for Geographic Education that likewise has many educational materials that may be useful to both students and teachers. We hope you and your students will enjoy and value the School Atlas of Texas. Please let us hear from you about how to make the next edition even better!



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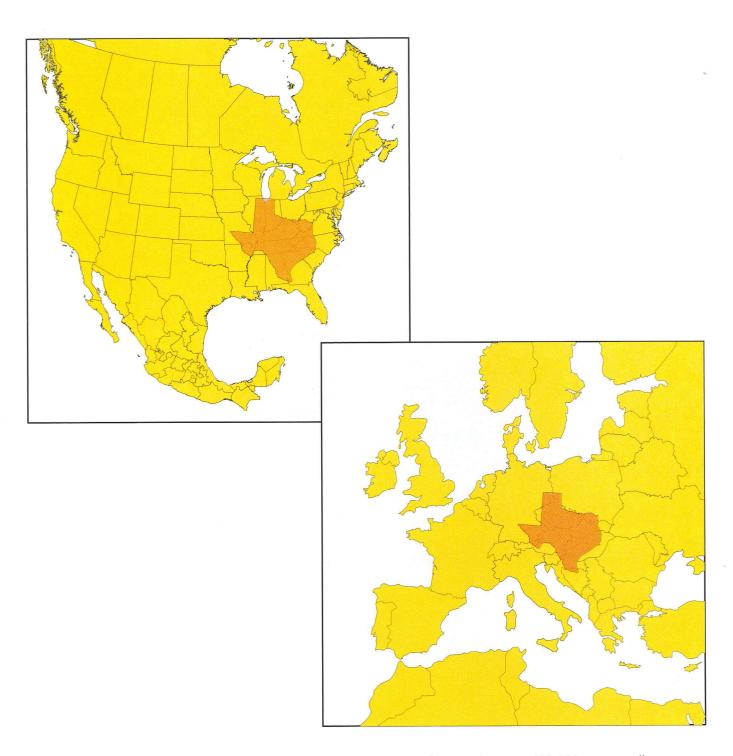
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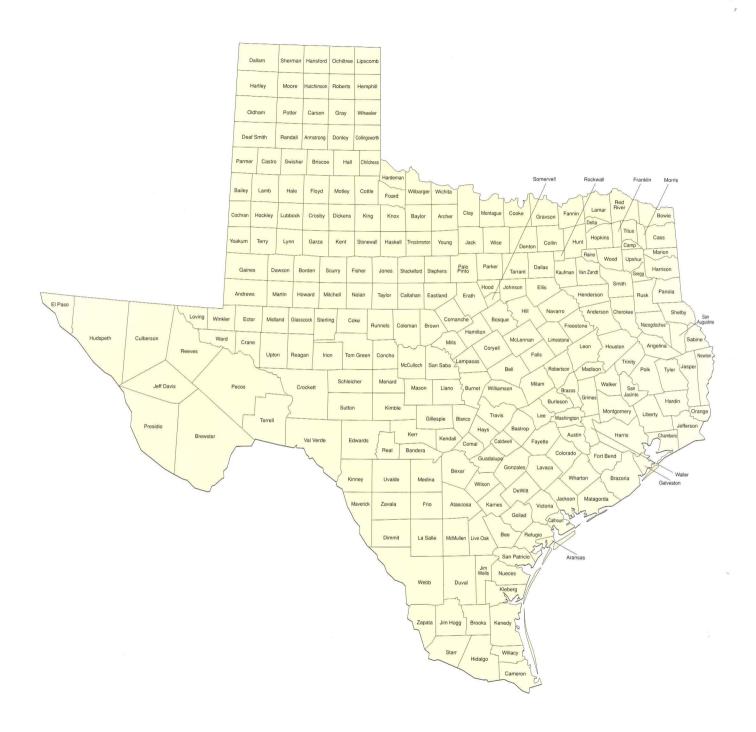
| and tting | Just How Big is Texas? |
|----------------------------------|---|
| Location and Physical Setting | Counties |
| | Major Cities |
| Physical | Physiography |
| | Surface Geology |
| | Precipitation |
| | Climate |
| | Reservoirs and Drainage Basins |
| | Major Aquifers |
| | Physical |
| | Earthquakes and Fault Lines |
| | Native Animals |
| Environmental | Exotic Animals |
| | Endangered Birds and Mammals |
| | Endangered Reptiles, Amphibians, and Fish |
| | Endangered Plants and Cacti |
| | Parks and Public Lands |
| | Major Archaeological Sites |
| Historical | Native Cultures, 1500 A.D |
| | Spanish Missions, Presidios, and Roads |
| | Major Mexican Land Grants: 1824-1832 |

JUST HOW BIG IS TEXAS?



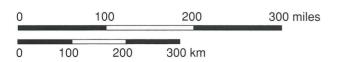
Texas is the second largest state, behind Alaska, in the country, and it contains over 100,000 square miles more space than the third largest state, California. From the northwest panhandle to just south of Brownsville, Texas is over 800 miles long. The above example illustrates how Texas relates in size to other states and countries in the world. Texas covers much of the eastern portion of the United States and a sizable area of Europe.

COUNTIES

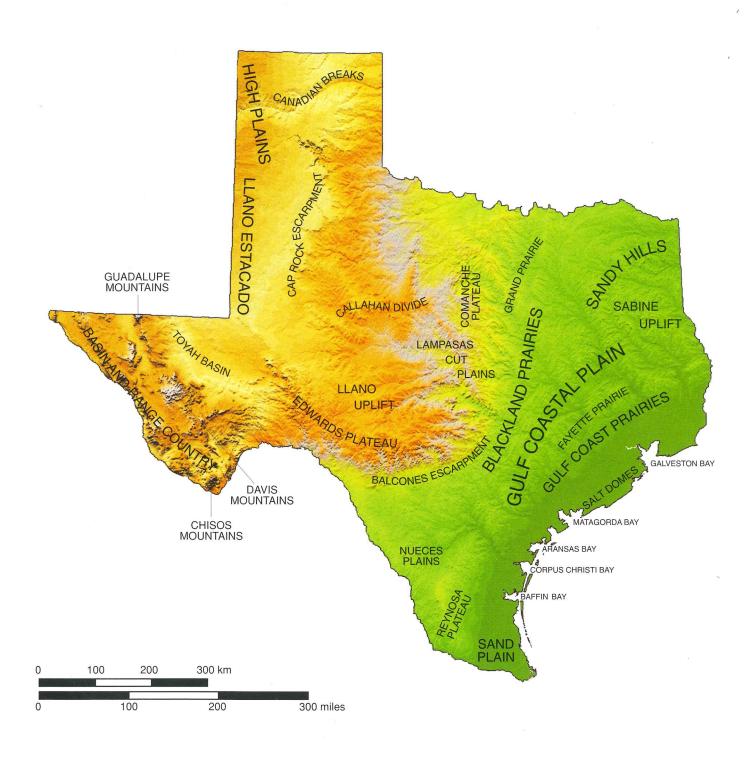


MAJOR CITIES





PHYSIOGRAPHY

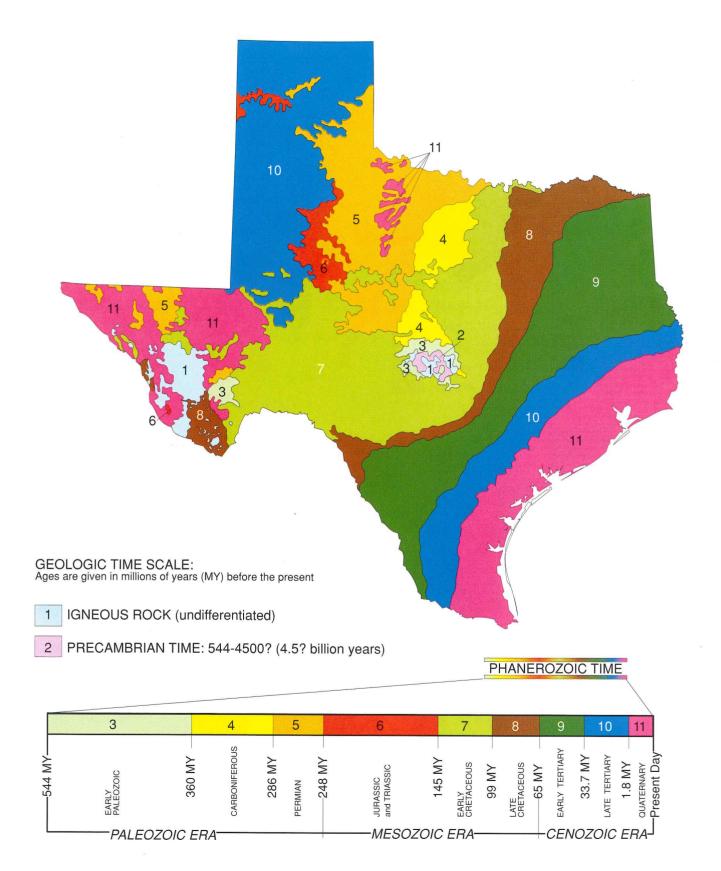


SCALE OF RELIEF

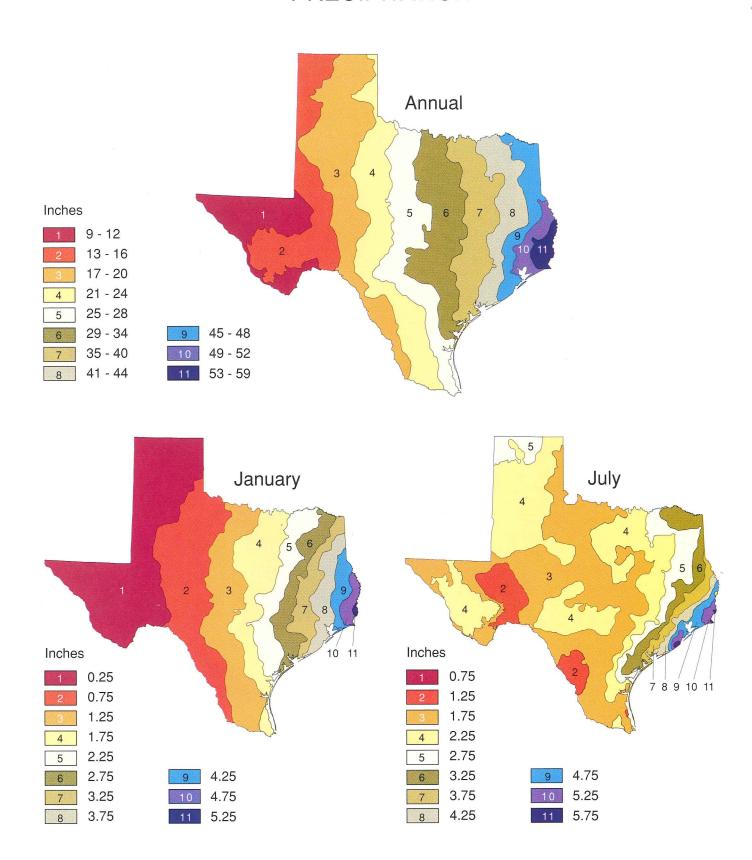


Data Source: Adapted from Landforms of the United States by Erwin Raisz, 1957

SURFACE GEOLOGY

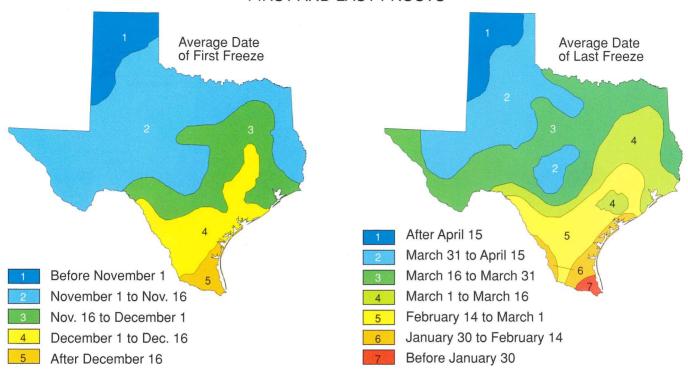


PRECIPITATION

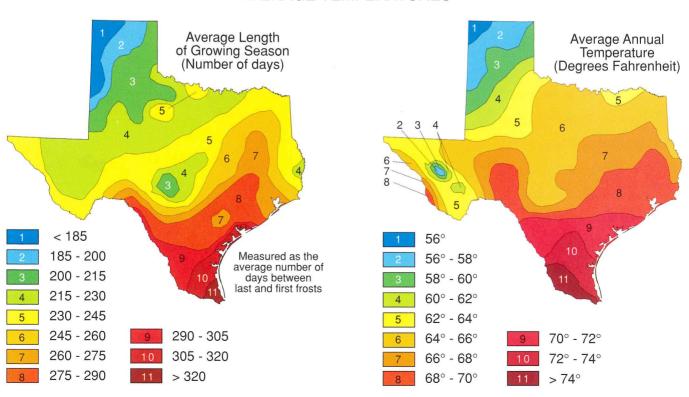


CLIMATE

FIRST AND LAST FROSTS

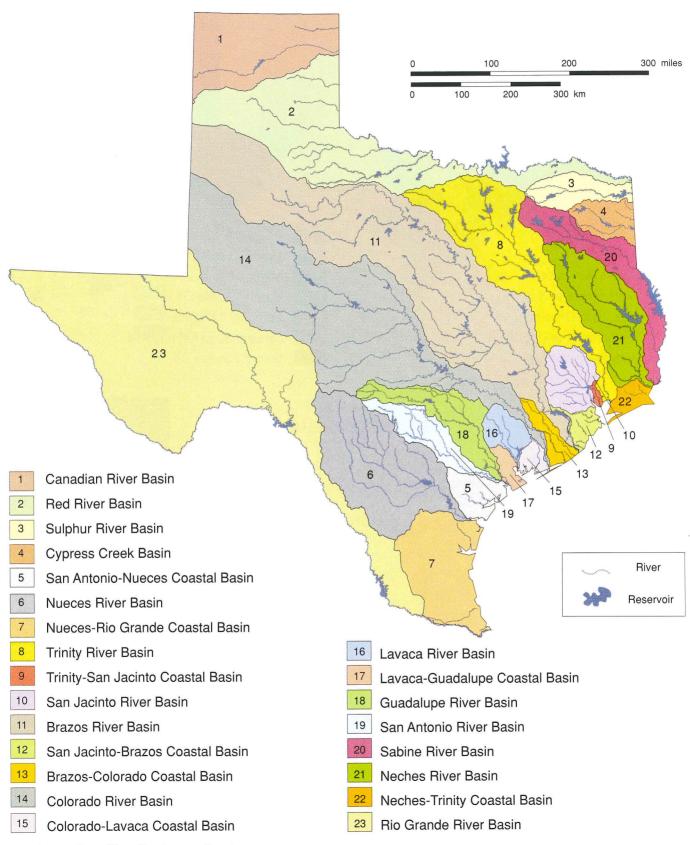


AVERAGE TEMPERATURES



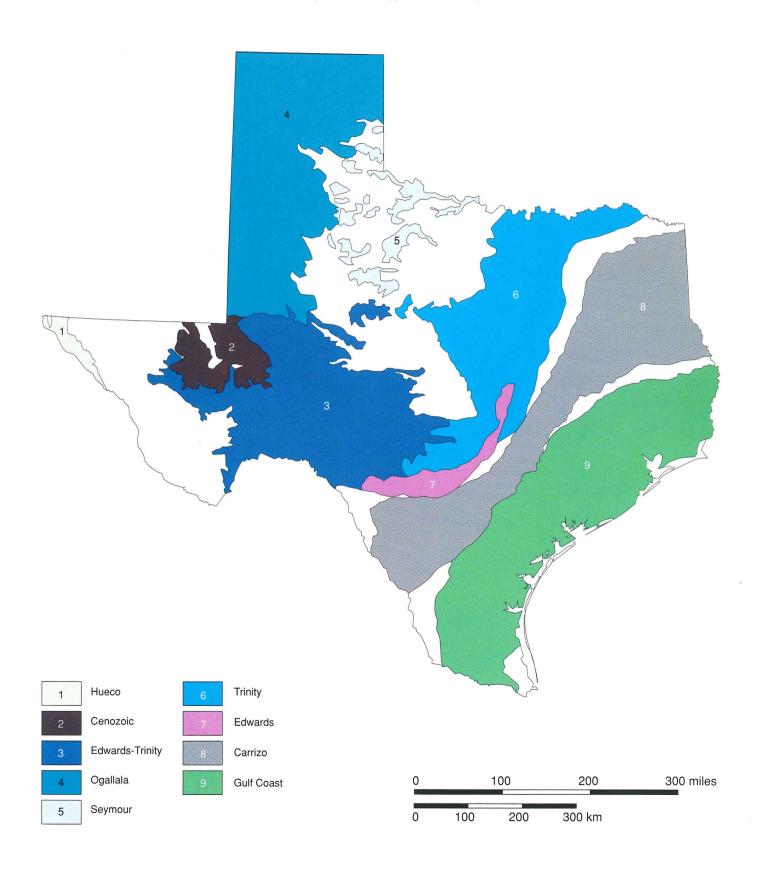
Data Source: Adapted from Atlas of Texas, 1976

RESERVOIRS AND DRAINAGE BASINS

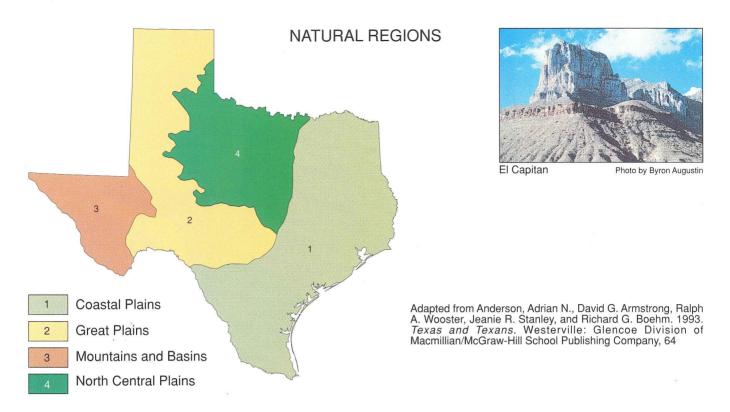


Data Source: Texas Water Development Board

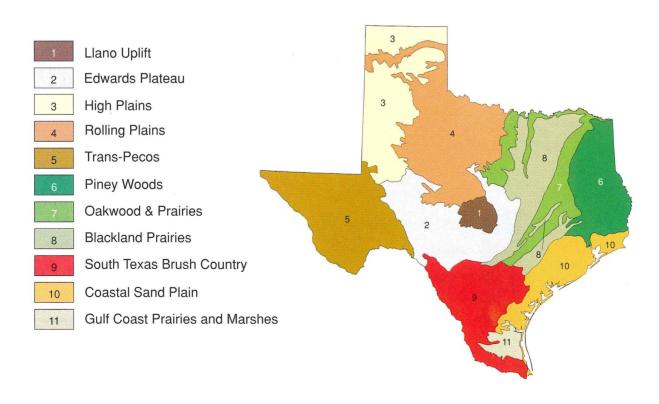
MAJOR AQUIFERS



PHYSICAL

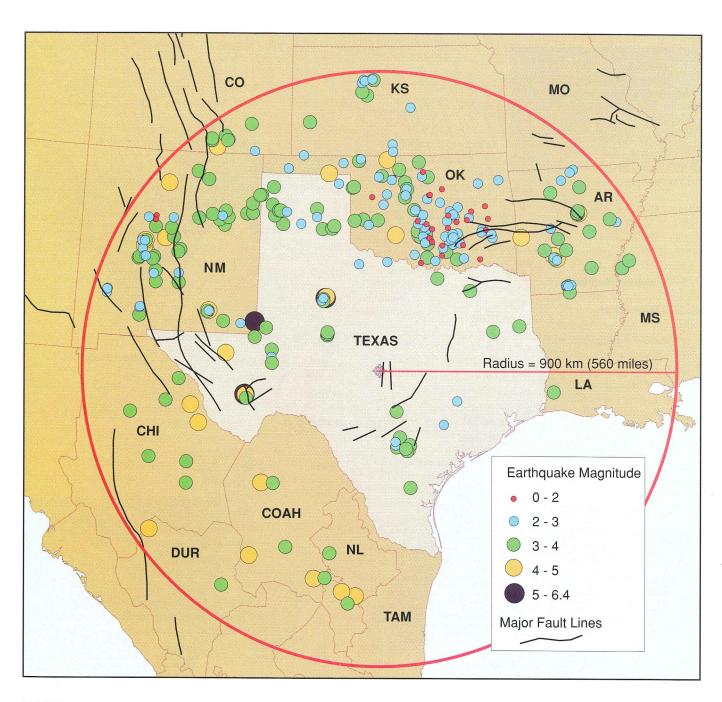


ECOLOGICAL REGIONS



Data Source: Texas Parks and Wildlife Department

EARTHQUAKES AND FAULT LINES



EARTHQUAKES

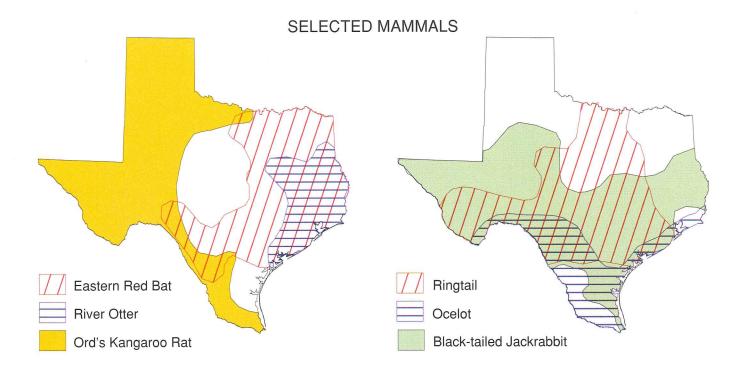
Tectonic processes involve the bending or fracturing of rock masses in response to the movements of crustal plates. When the movement of the crust occurs along a fracture plane, the fracture is called a fault. An earthquake is a shaking generated by a sudden movement in the Earth's crust along a fault.

The Richter scale represents the magnitude of an earthquake based on seismograph records that record the amount of energy released during an earthquake. Every increase of one number on the scale means that the ground motion is 10 times greater. For instance, a magnitude of 2 is 10 times greater than a magnitude of one.

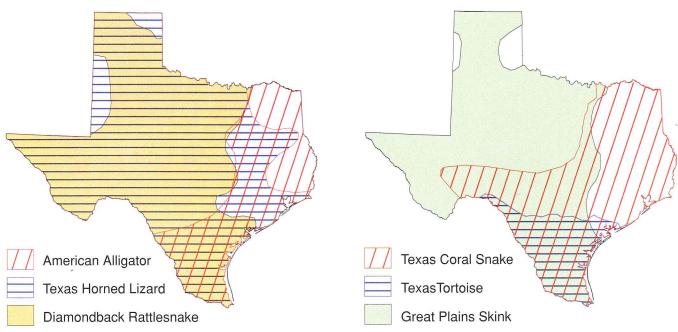
This map depicts all earthquakes recorded from January 1973 to February 2000 within a radius of 900 km. The largest earthquake ever recorded in Texas occurred on August 6, 1931 in the basin and range country west of Fort Davis. This quake had a recorded magnitude of 6.4.

Data Source: USGS National Earthquake Information Center; Text adapted from a variety of sources

NATIVE ANIMALS

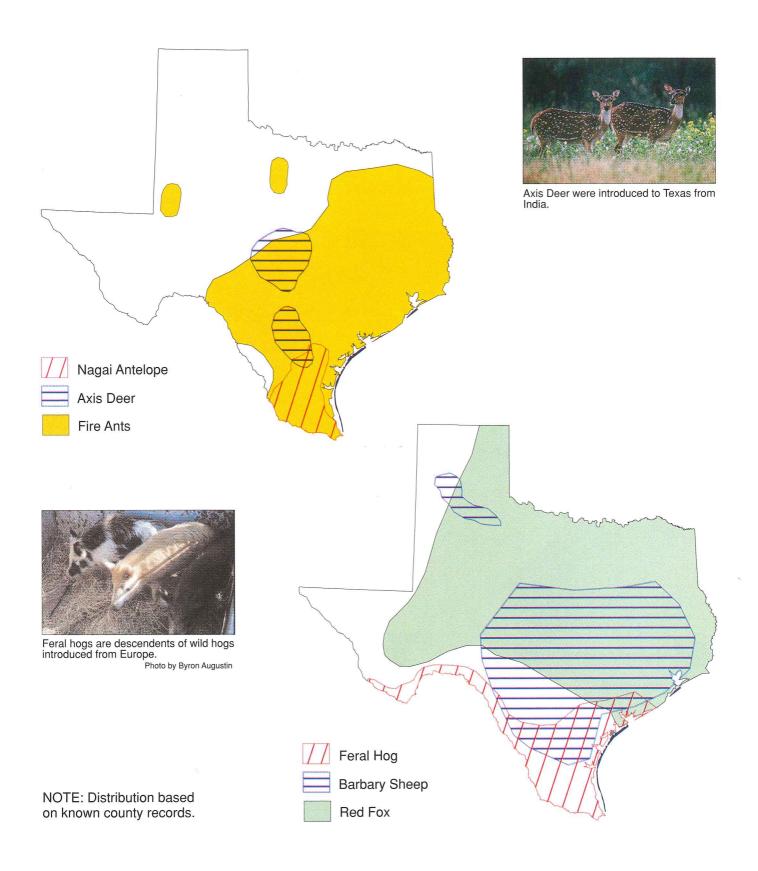


SELECTED REPTILES

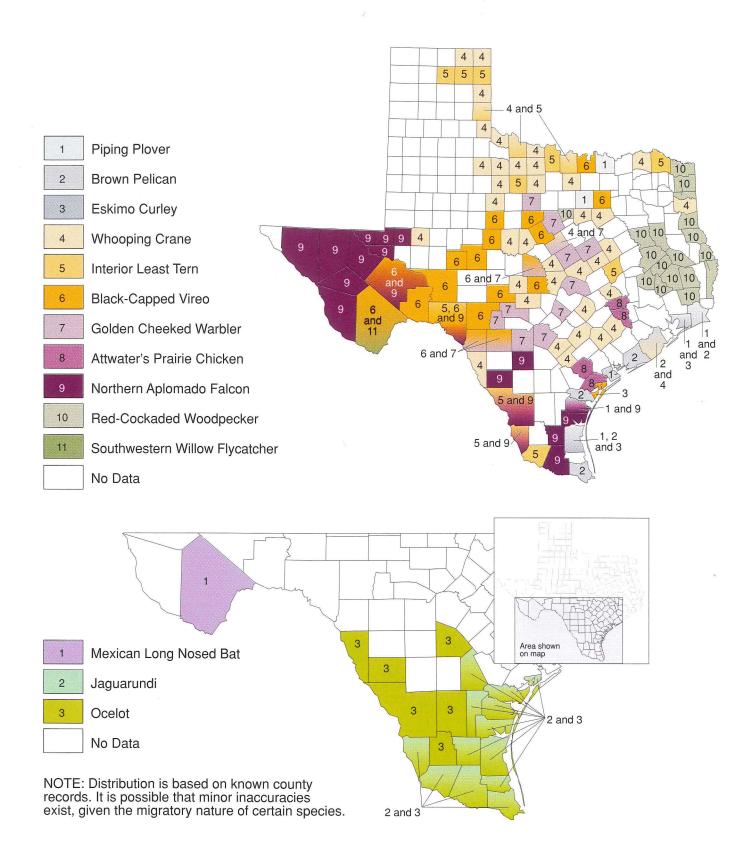


NOTE: Distribution based on known county records.

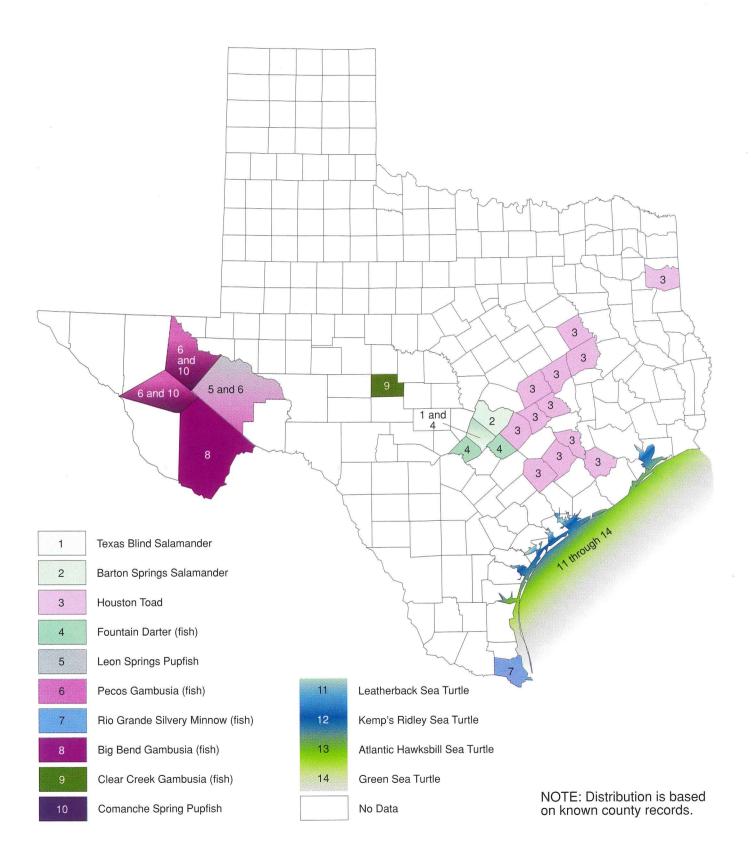
EXOTIC ANIMALS



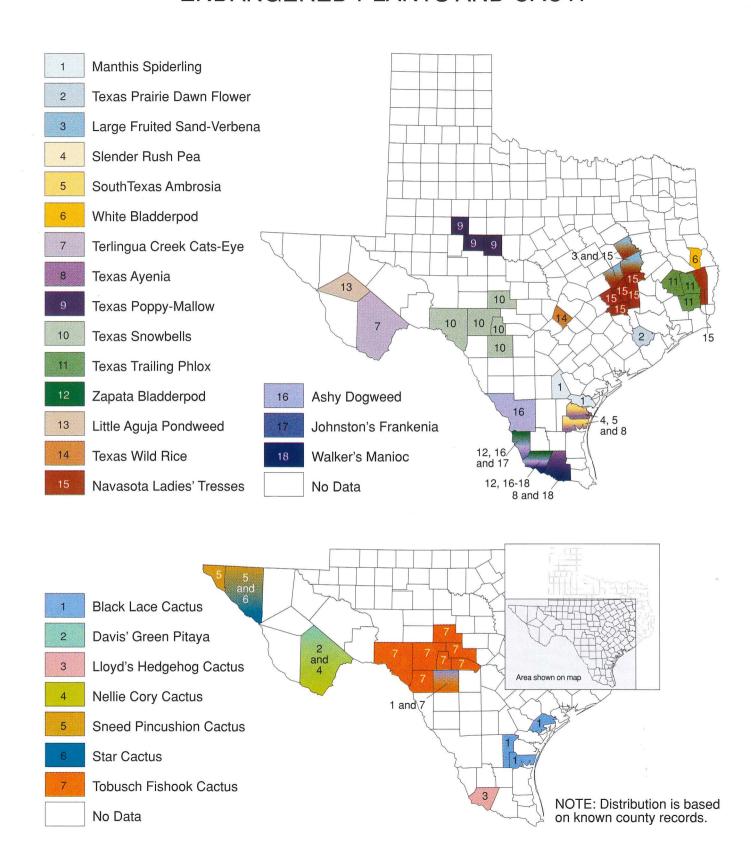
ENDANGERED BIRDS AND MAMMALS



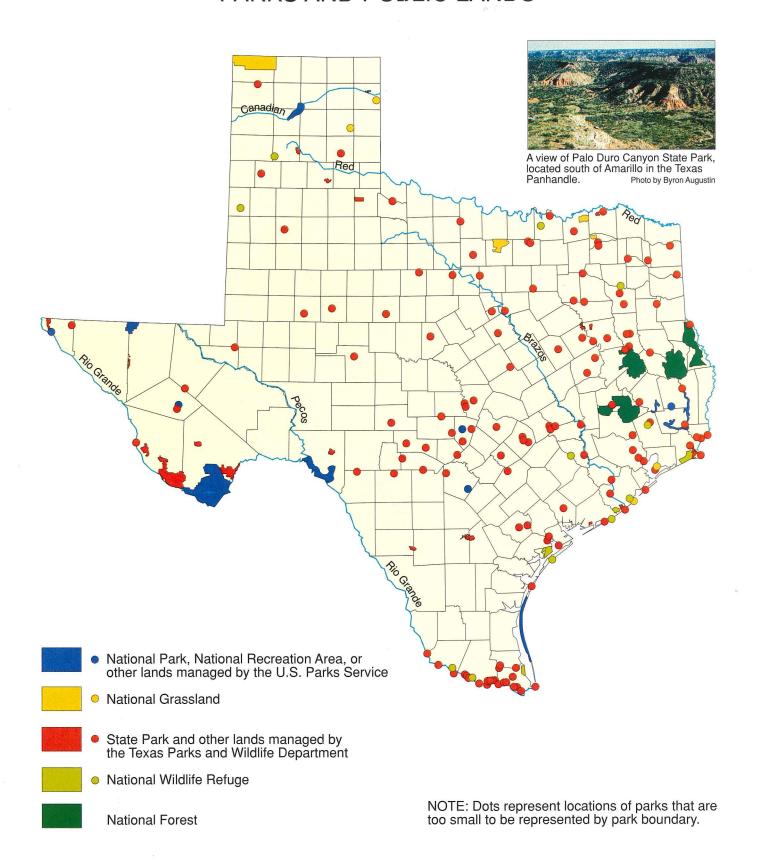
ENDANGERED REPTILES, AMPHIBIANS, AND FISH



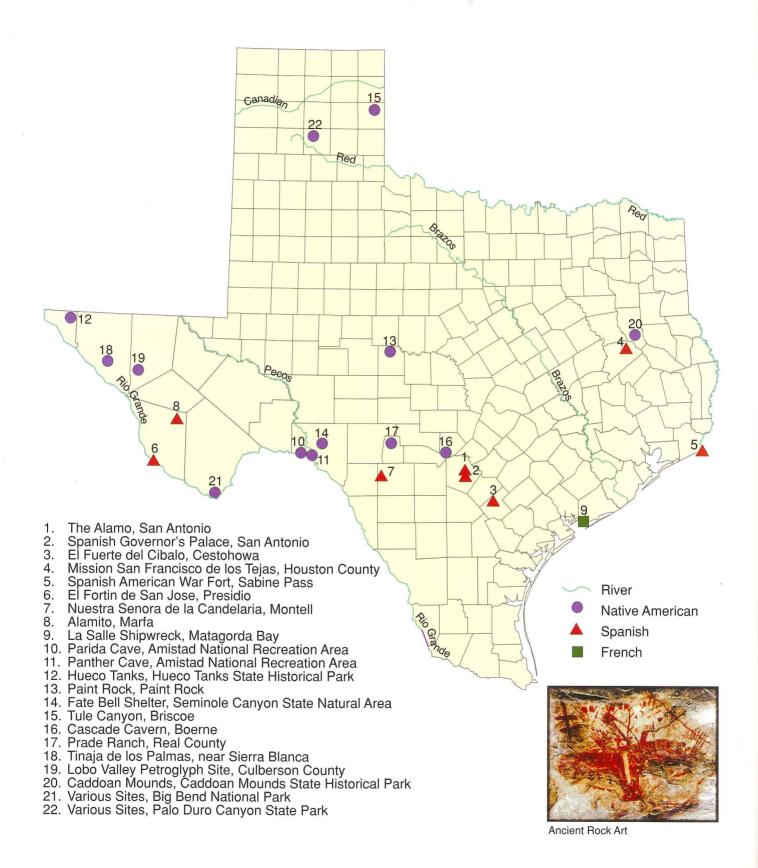
ENDANGERED PLANTS AND CACTI



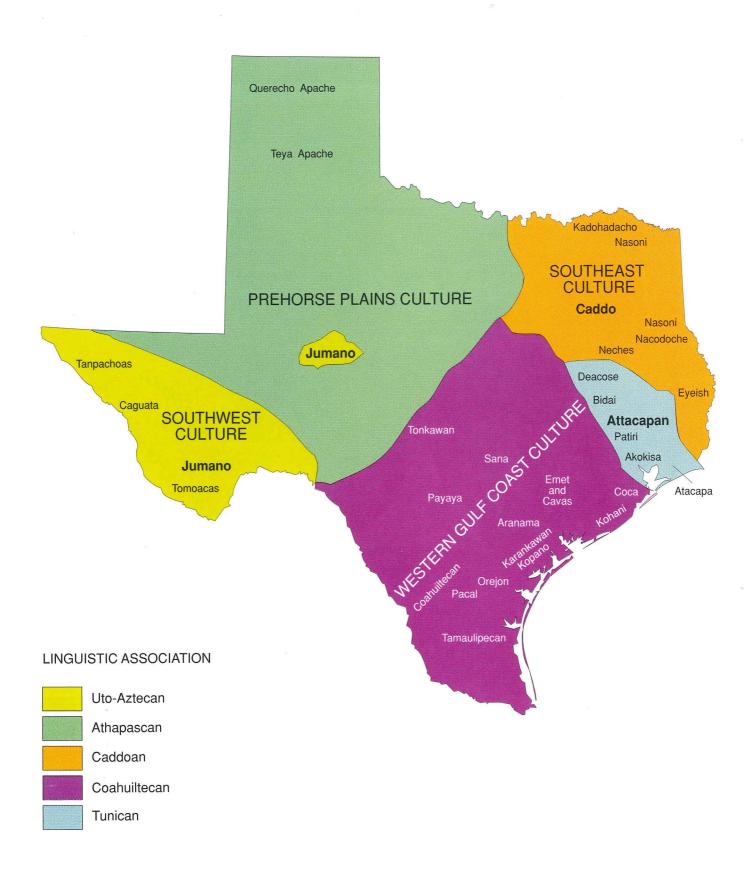
PARKS AND PUBLIC LANDS



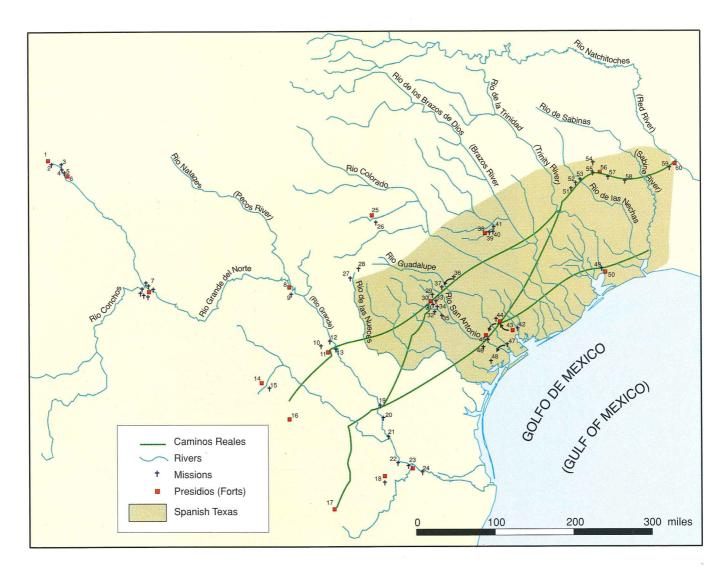
MAJOR ARCHAEOLOGICAL SITES



NATIVE CULTURES, 1500 A.D.



SPANISH MISSIONS, PRESIDIOS, AND ROADS

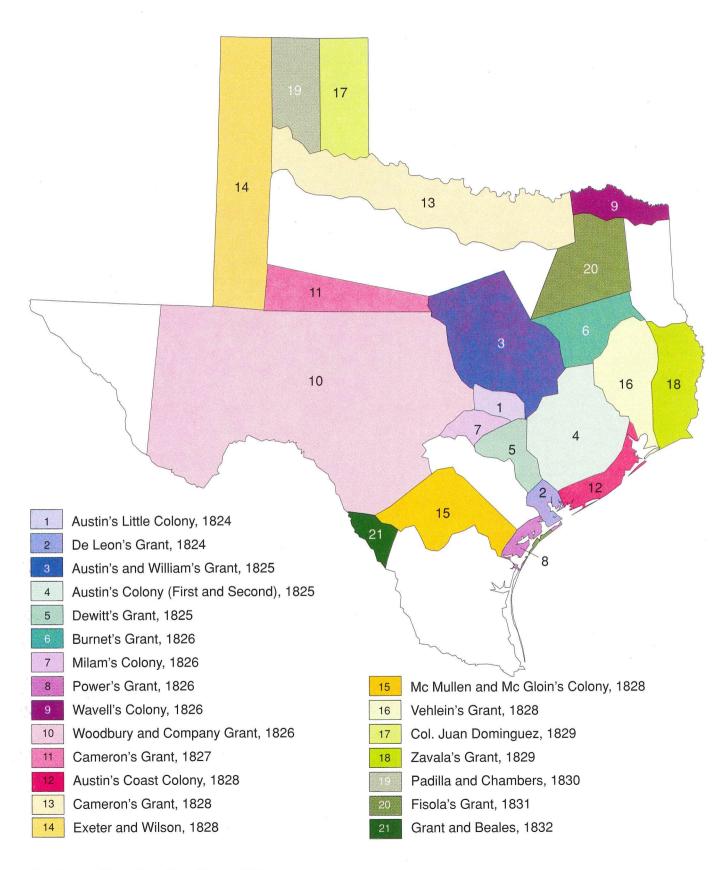


- 1. Presidio Nuestra Sra. del Pilar, 1683
- 2. Nuestra Sra. de Guadalupe, 1659
- 3. San Antonio do Senecu, 1682
- 4. Corpus Christi de la Isleta, 1682
- 5. Nuestra Sra. del Socorro, 1682
- 6. Presidio San Elizario, 1772
- 7. La Junta, 1684
- 8. San Saba after 1772
- 9. San Vicente
- 10. San Francisco Solano, 1700
- 11. Presidio del Rio Grande, 1703
- 12. San Bernardo, 1702
- 13. San Juan Bautista, 1699
- 14. Santa Rosa
- 15. Dolores
- 16. Monclova
- 17. Monterrey
- 18. Cerralvo, by 1583
- 19. Laredo, 1755
- 20. Nuestra Sra. de Dolores, 1750

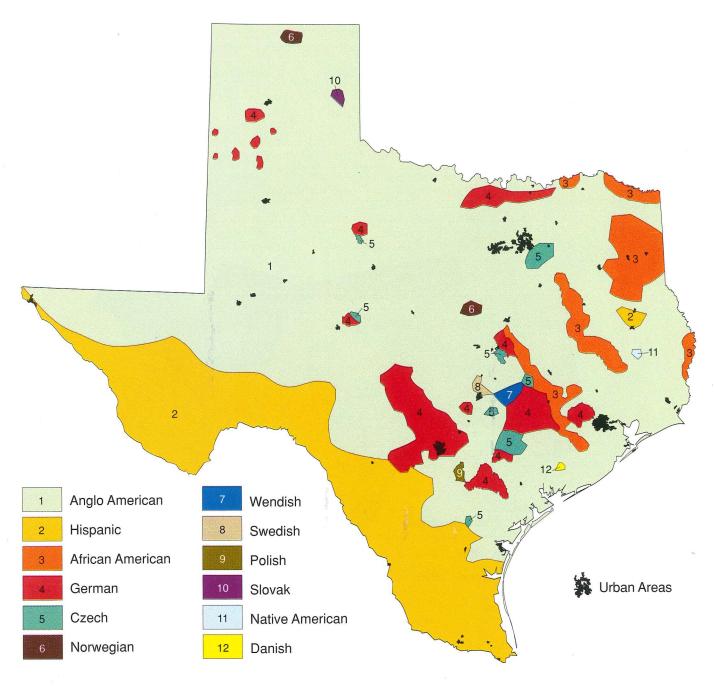
- 21. Revilla, 1750
- 22. Mier, 1753
- 23. Camargo, 1749
- 24. Reynosa, 1749
- 25. San Luis de las Amarillas, 1757-1768
- 26. San Saba, 1757-1758
- 27. Candelaria, 1762-1766
- 28. San Lorenzo, 1762-1769
- 29. San Antonio de Valero (Alamo), 1718-1793
- 30. San Antonio de Bexar, 1718
- 31. San Francisco Xavier de Naxera, 1722-1726
- 32. San Jose, 1720-1794
- 33. Concepcion, 1731-1794
- 34. San Juan Capistrano, 1731-1794
- 35. San Francisco de la Espada, 1731-1794
- 36. Nuestra Sra. de Guadalupe, 1755-1757
- 37. San Xavier, 1757-1758
- 38. San Francisco Xavier, 1751-1755
- 39. Nuestra Sra. de la Candelaria, 1749-1755
- 40. San Xavier, 1746-1755

- 41. San Ildefonso, 1749-1755
- 42. Espiritu Santo de Zuniga, 1722-1726 (Bahia)
- 43. Nuestra Sra. de Loreto, 1722-1726
- 44. Location of (42) and (43), 1726-1749
- 45. Location of (42) and (43) after 1749
- 46. Nuestra Sra. del Rosario de los Cujanes, 1754-1831
- 47. Refugio, 1790-1791
- 48. Refugio after 1791
- 49. Nuestra Sra. de la Luz, 1756-1771
- 50. San Agustin, 1756-1771
- 51. San Francisco, 1690-1693
- 52. Nuestra Sra. de Maria, 1691-1693
- 53. San Francisco, 1716-1730
- 54. San Jose, 1716-1730
- 55. Concepcion, 1716-1730
- 56. Nuestra Sra. de los Dolores, 1716
- 57. Guadalupe, 1716-1773
- 58. Dolores, 1716
- 59. San Miguel, 1716-1773
- 60. Nuestra Sra. de Pilar, 1721-1773

MAJOR MEXICAN LAND GRANTS, 1824-1832



HISTORICAL-CULTURAL REGIONS



Historically, Texans have been of varied cultures and ethnicities, from Norwegian to Native American. Europeans immigrated to Texas because they were told farmland was cheap and plentiful. In Texas they found new lives with religious and economic freedom. Often, entire communities of Europeans immigrated because their relatives and friends were already established in Texas. Movements of this kind are called chain migrations. Chain migration has left cultural imprints on the landscape of Texas, which is evident in the pockets of German, Czech, and Swedish communities located throughout the state.

South Texas is alive with Spanish and Mexican cultures, as the state once belonged to both countries. For many Texans, the Spanish language is used as fluently as English. African Americans make up many communities in East Texas. After emancipation, many African Americans decided to remain near the plantations on which they were enslaved to form thriving communities of their own.

BORDERS THROUGH TIME



1. SPANISH TEXAS

In the 18th and early 19th centuries, Spain controlled its territory north of the Rio Grande by building missions and presidios. These were supposed to counter the influence of American settlers who came for the wide-open lands of Texas. Because the Louisiana Territory, purchased by the United States in 1803, was interpreted by many in the U.S. to include all lands crossed by rivers flowing into the Mississippi River, much of the land that Spain claimed as its own was claimed by the settlers, as well.

The Adams-Onis treaty of 1819, that set the Spanish border at the Sabine River, resolved an 1806 boundary dispute between Spain and the United States. It also resulted in the establishment of the Neutral Ground between the Sabine River on the west and the Calcasieu River (present-day Louisiana) on the east. However, the arrival of settlers from America continued to be a problem for Spain. Texas was a part of New Spain until the revolution established Mexican independence in 1821.

2. MEXICAN TEXAS

After the Mexican Revolution ended in 1821, all of the territory that had been controlled by Spain became a part of Mexico. During the 1820s and early 1830s, the Mexican government issued land grants to *empresarios* to encourage colonization of the lands north of the Rio Grande. The most successful of these empresarios was Stephen F. Austin, an Anglo-American settler, who brought a number of colonists to the territory.

However, the growing number of American settlers created conflict when Mexico began to try to assert more control over the territory. To better govern Texas, in 1824 the Mexican government combined the territory of Texas with the Mexican state of Coahuila to form a single state called *Coahuila y Texas*. This angered the Anglo-American settlers a great deal, and was a contributing factor to the feelings of unrest and discontent that eventually led to the Texas revolution in 1836.



Data Source: Compiled from various sources

BORDERS THROUGH TIME (Continued)



3. IMPERIAL TEXAS

The Republic of Texas was established in 1836, after the army of free Texas fought to a decisive victory over Mexican General Santa Anna in the Battle of San Jacinto. The Republic was immediately recognized by the United States, and a government similar to that of the U.S. was installed with General Sam Houston as the first president. The Republic of Texas was characterized by legalized slavery and by large amounts of land that were open for settlement by farmers and plantation owners from the Deep South. Facing financial difficulties, the government of the Texas Republic voted to approve annexation by the United States in 1845. At this time, Texas laid claim to all lands as far west as the Rio Grande and to all lands as far north as the Arkansas River, and to a piece of old Mexico that extended to the 42nd parallel in present day Colorado and Wyoming. The Compromise of 1850 resolved this claim in which the United States government exerted its authority over the newly admitted state.

4. CIVIL WAR TO THE PRESENT

The last bit of territory lost by Texas was Greer County. When Texas entered the Union, it claimed all the territories up to the Red River, including Greer County. In 1896, the United States government sued Texas for rights to Greer County, claiming that it was north of the South Fork of the Red River and was therefore in Indian Territory (Oklahoma) instead of Texas. The Supreme Court found in favor of the United States, and Greer County, Texas is now Greer County, Oklahoma.

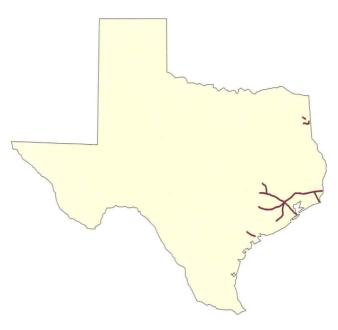
Despite the gradual diminishment of its land claims, Texas was the largest of the United States until the state of Alaska was admitted to the Union. With the development of the cattle industry in the 19th century and the oil industry in the 20th century, Texas' population steadily rose to its current total of over 20 million people.



Data Source: Compiled from various sources

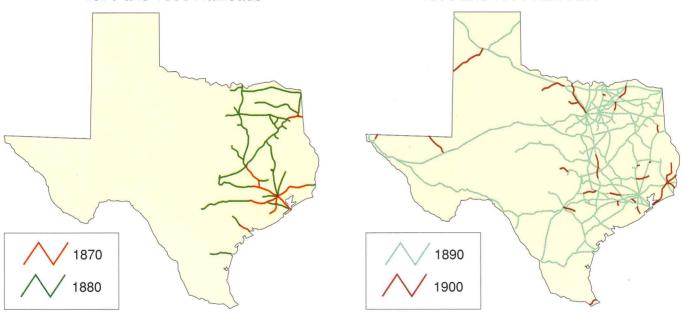
RAILROAD DEVELOPMENT IN THE 19TH CENTURY

1860 Railroads

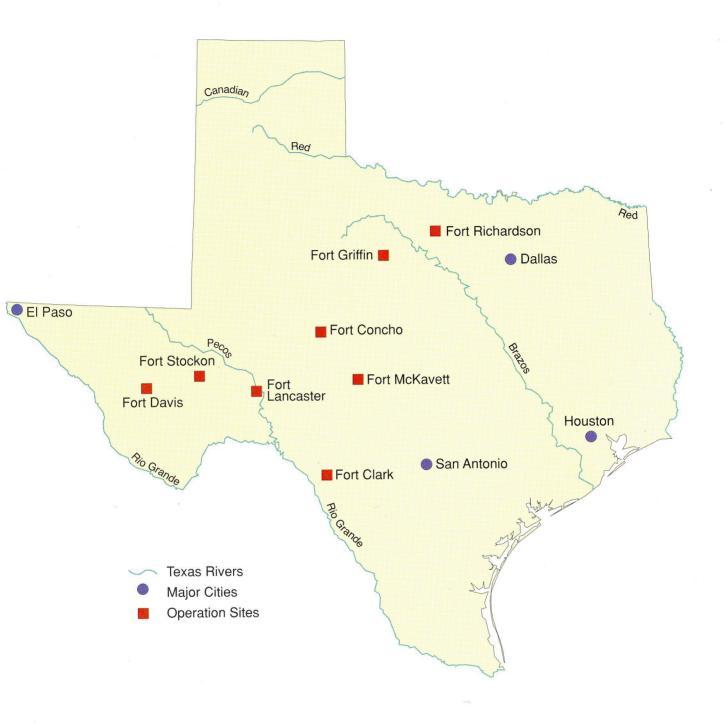


1870 and 1880 Railroads

1890 and 1900 Railroads

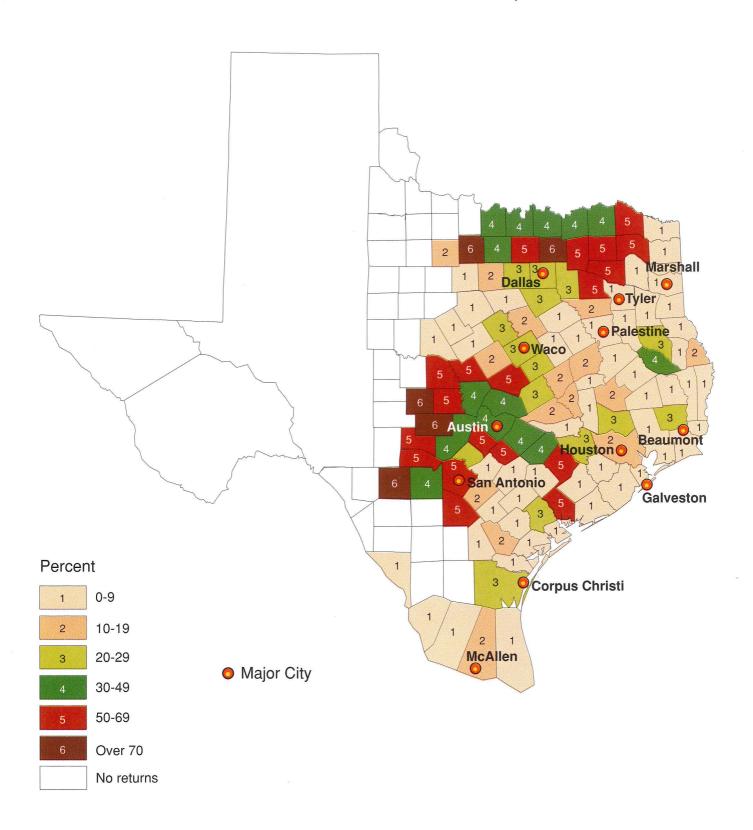


BUFFALO SOLDIERS: OPERATION SITES

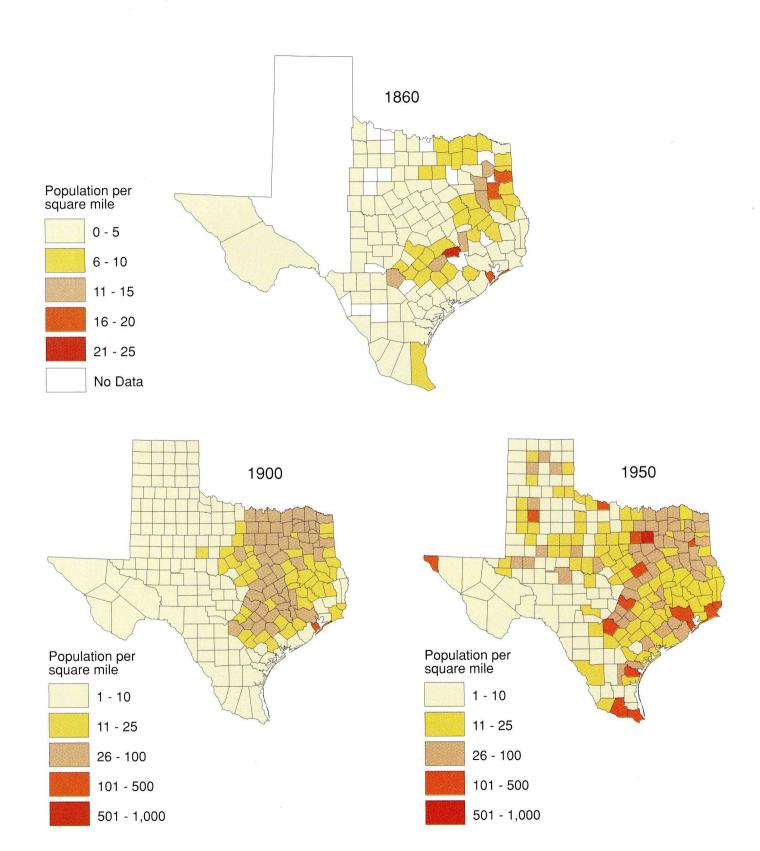


African-American soldiers who fought in the Indian Wars from 1866 to 1892 were called Buffalo Soldiers by Native Americans. Buffalo Soldiers played an important role in shaping the American West as part of the 9th and 10th U.S. Calvary and the 24th and 25th U.S. Infantry Regiments for duty against the Indian Nations. Many Buffalo Soldiers were stationed at frontier forts from Texas to North Dakota. First Sergeant Emanuel Stance of the 9th Calvary, stationed in Fort McKavett, Texas, was the first African American to receive a Medal of Honor in the Indian Wars.

VOTES AGAINST SECESSION, 1861

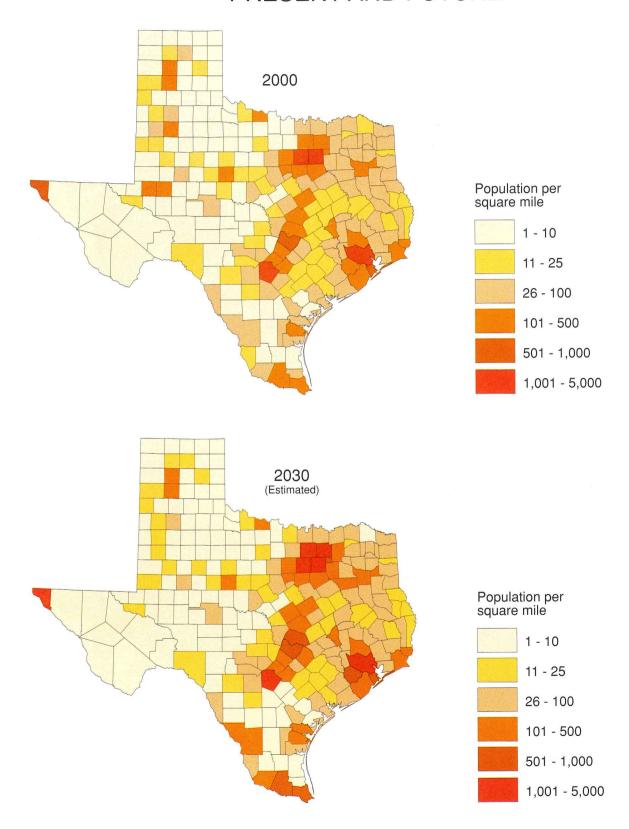


POPULATION DENSITY BY COUNTY: PAST

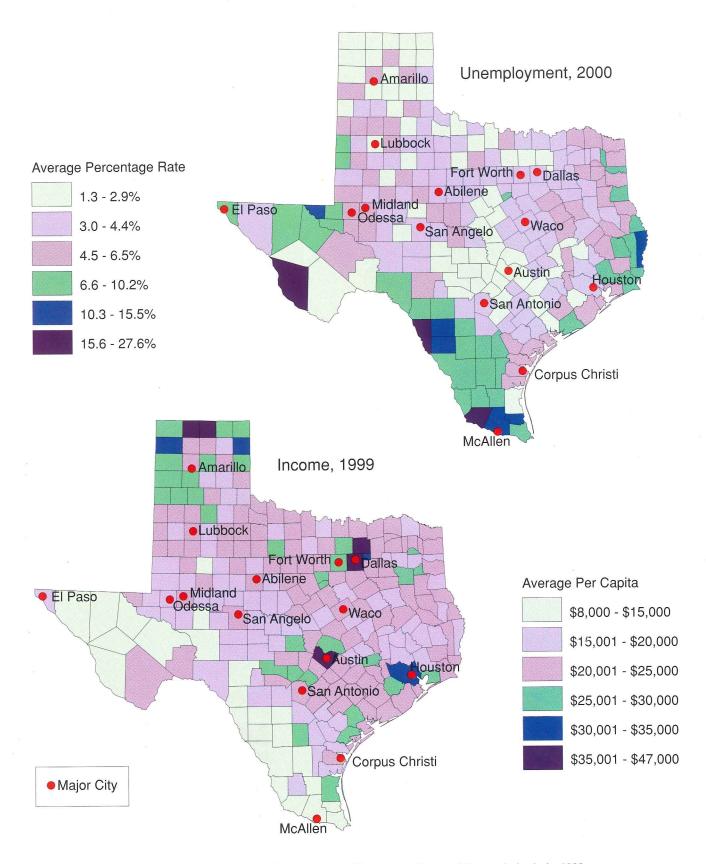


Data Source: U.S. Census Bureau

POPULATION DENSITY BY COUNTY: PRESENT AND FUTURE

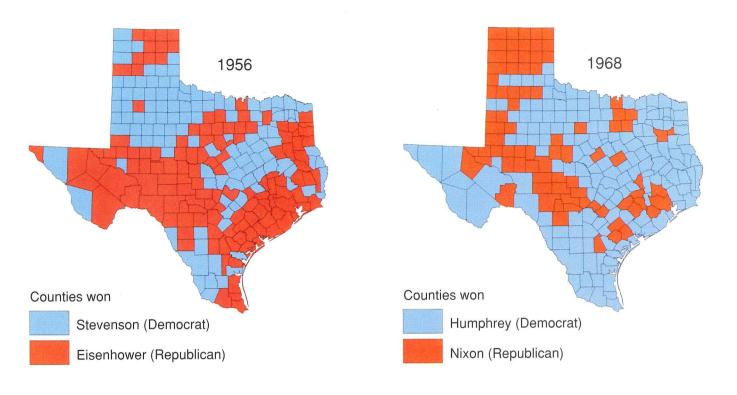


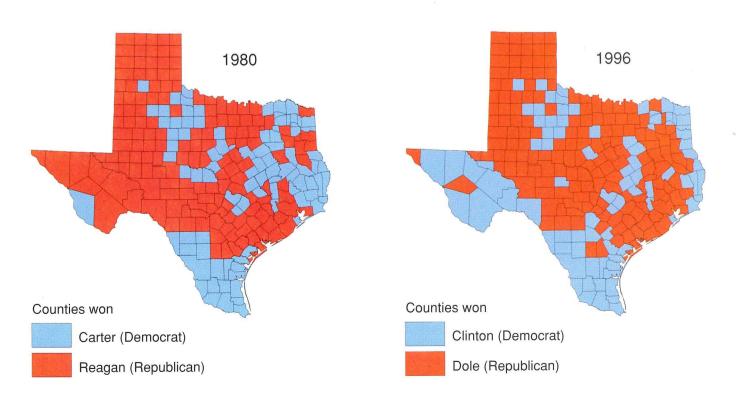
UNEMPLOYMENT AND INCOME



Data Source: Texas Workforce Network, 2000; U.S. Department of Commerce, Bureau of Economic Analysis, 1999

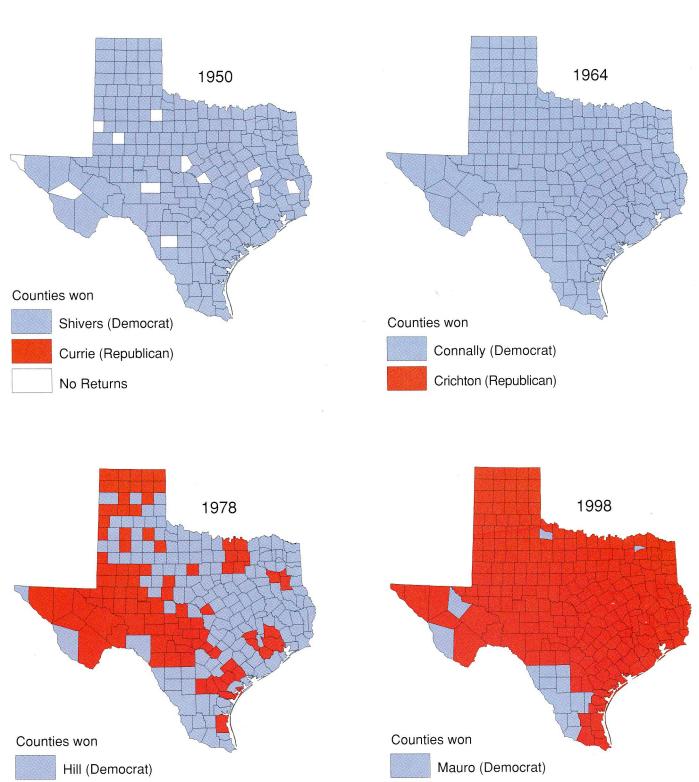
PRESIDENTIAL ELECTION VOTES





Data Source: Texas Almanac 1958-59; 1970-71; 1982-83; 1998-99

GUBERNATORIAL ELECTION VOTES

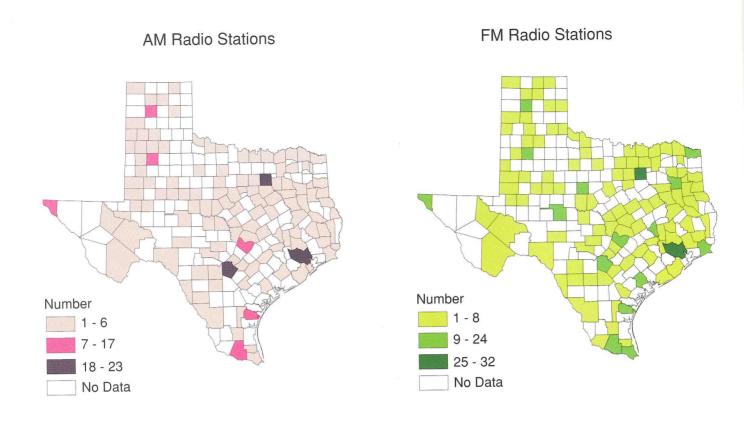


Data Source: Texas Almanac 1952-53, 1966-67, 1980-81; 2000-01

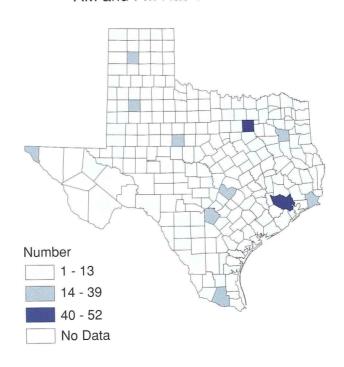
Clements (Republican)

Bush (Republican)

RADIO STATIONS, 2000

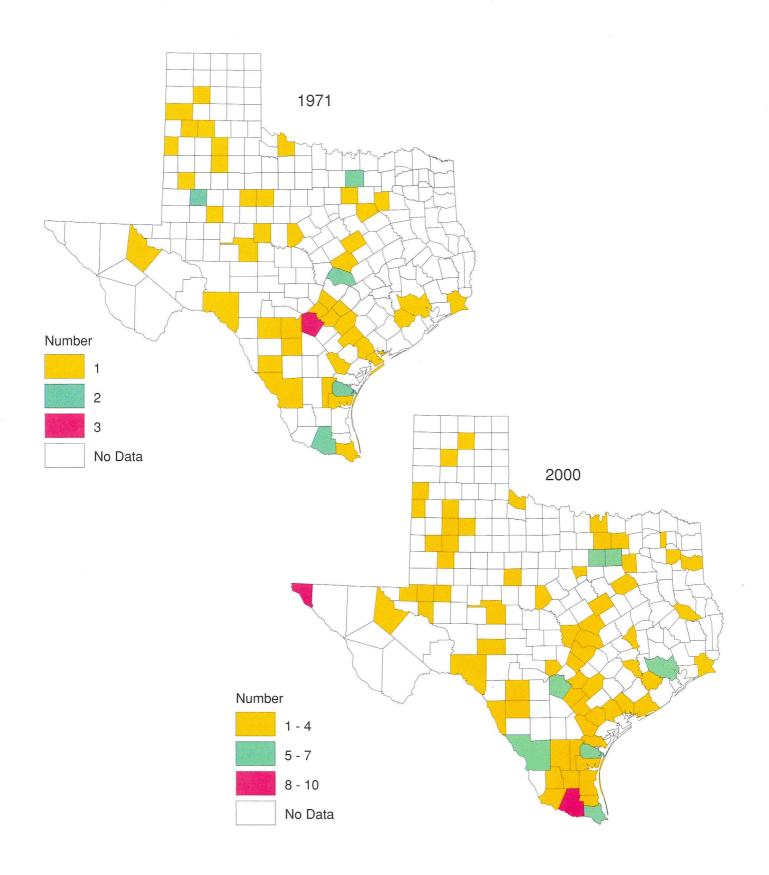


AM and FM Radio Stations



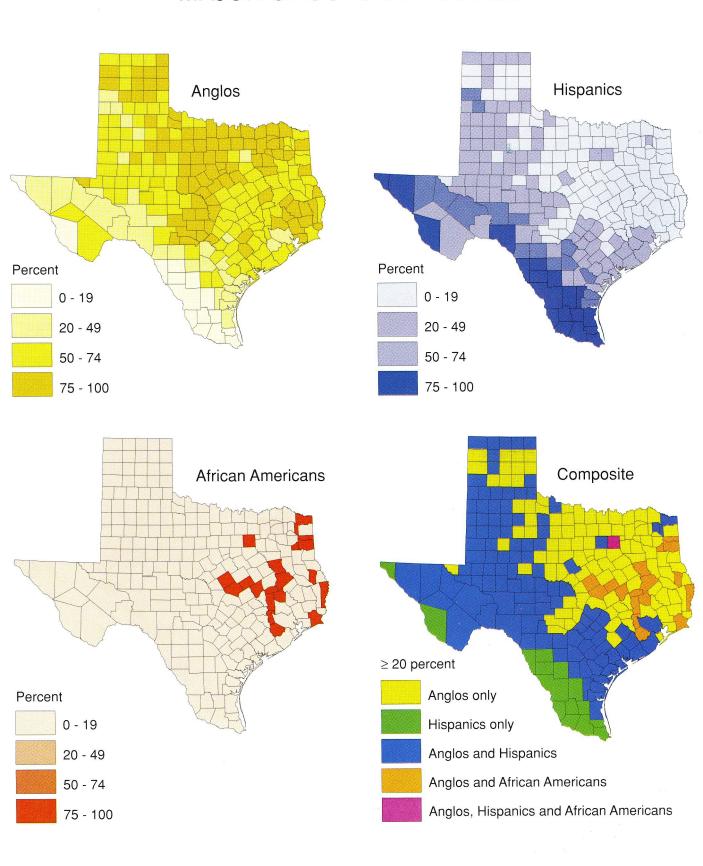
Data Source: Texas Radio Directory, 2000

SPANISH LANGUAGE RADIO STATIONS

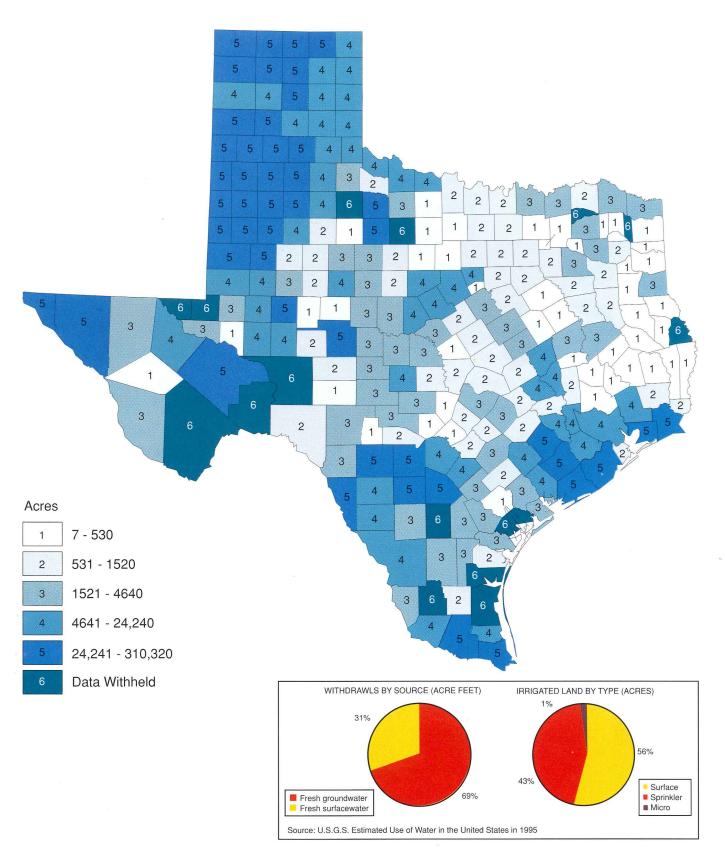


TOP: Data Source: Broadcasting Yearbook, 1971 BOTTOM: Data Source: Texas Radio Directory, 2000

MAJOR GROUPS OF PEOPLE

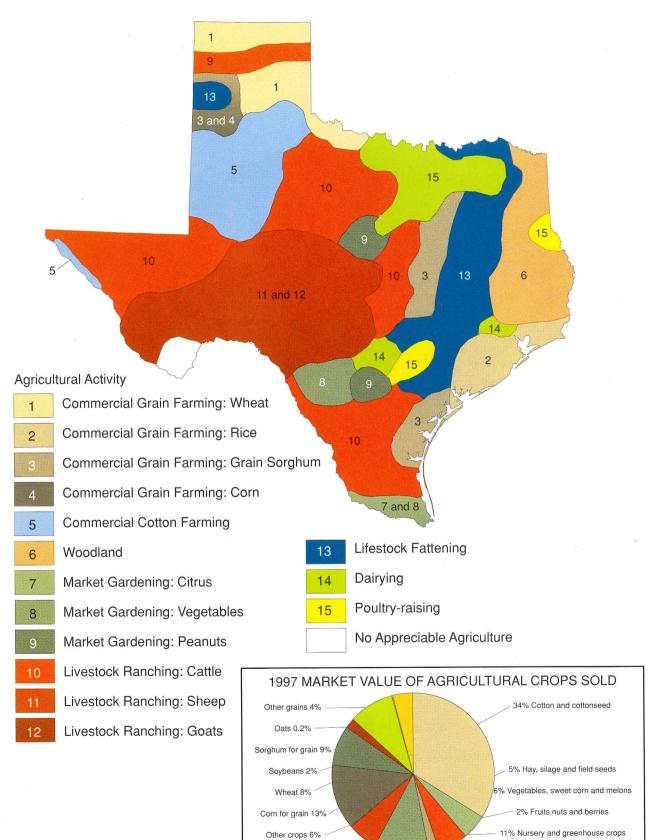


IRRIGATED ACREAGE



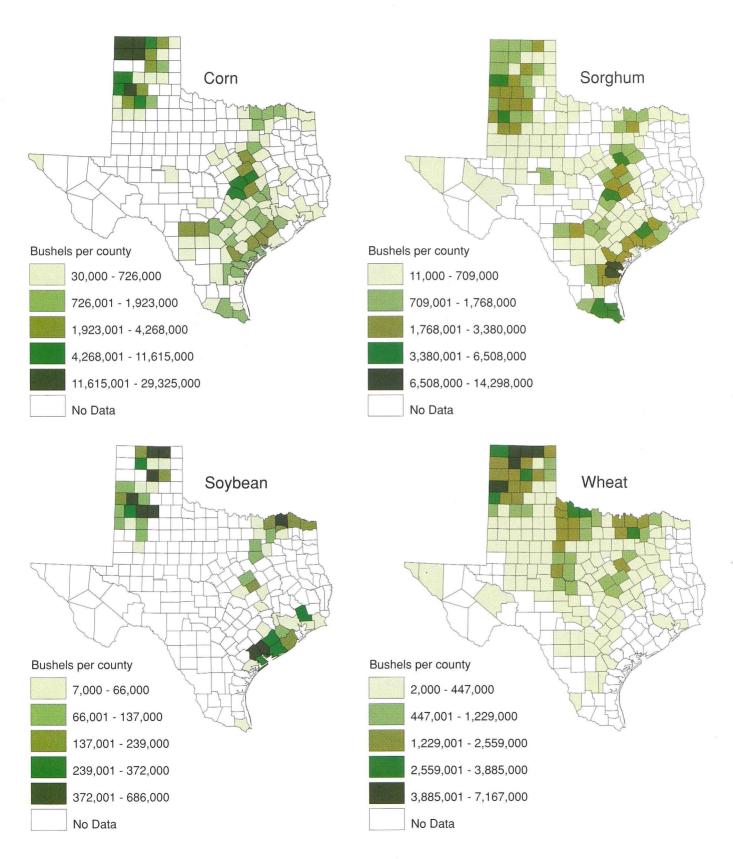
Data Source: National Agricultural Statistics Service, 1997

AGRICULTURAL REGIONS



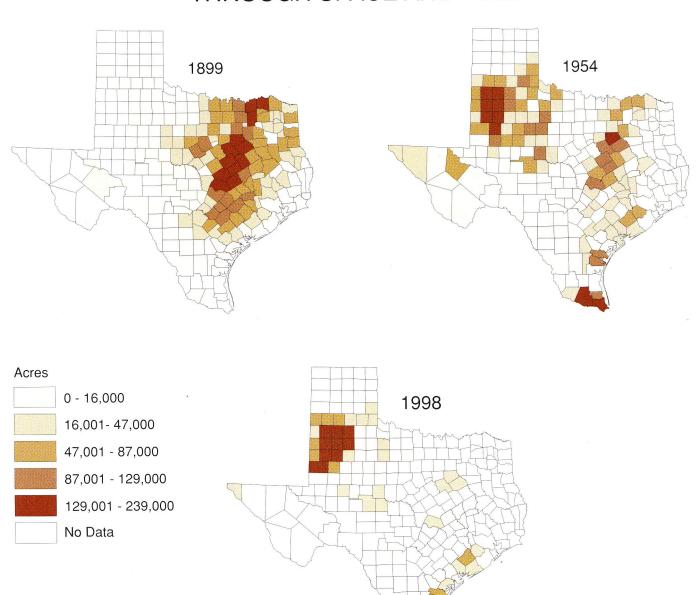
Data Source: Adapted from *Texas, A Geography*, by Terry G. Jordan, 155

CROP PRODUCTION, 1999



Data Source: Texas Agricultural Statistics Service

CHANGES IN COTTON PRODUCTION THROUGH SPACE AND TIME

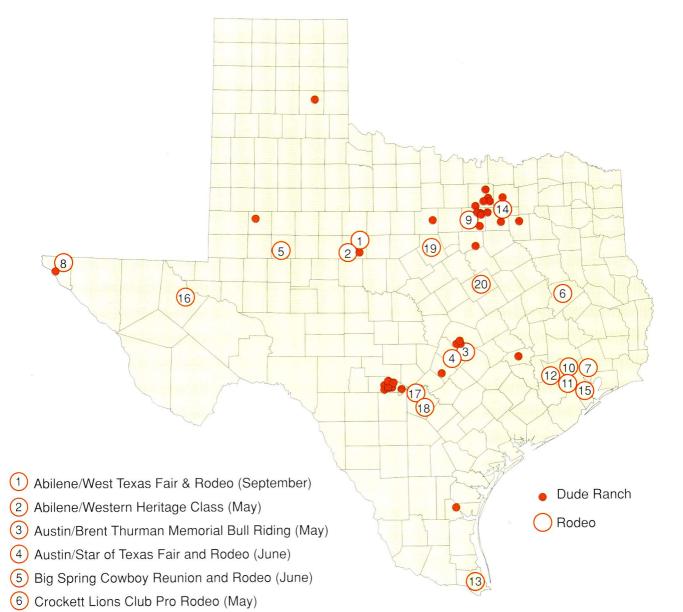


Anglo settlers began cultivating cotton in Texas in 1821. Production was heaviest in east and central Texas because the soil was fertile, but farming techniques soon spread cotton west. By the mid-1900's, cotton farmers blanketed the state as innovations in irrigation and fertilization made poor quality soils more productive. By 1998, Texas cotton production had declined in all areas except the High Plains because of factors such as an increased use of synthetic fibers, less demand from foriegn countries, soil depletion, and fewer farms.

Source: Handbook of Texas Outline

Data Source: National Agricultural Statistics Service

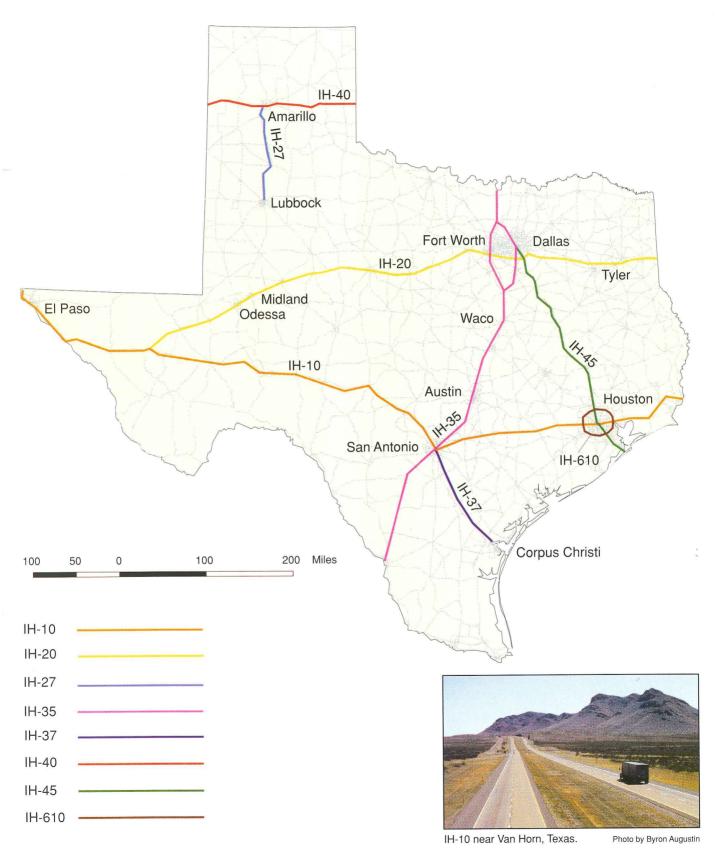
COWBOYS TODAY: SELECTED RODEOS AND DUDE RANCHES



- 7 Crosby Fair and Rodeo (May)
- 8 El Paso/Southwestern International Livestock Show and Rodeo (February)
- (9) Fort Worth Stock Show and Rodeo (Jan. Feb.)
- (10) Houston/Cypress Fairbank Rodeo (June-July)
- (11) Houston Livestock Show and Rodeo (Feb. March)
- (12) Katy ISD Rodeo (March)
- (13) Los Fresnos PRCA Rodeo (February)

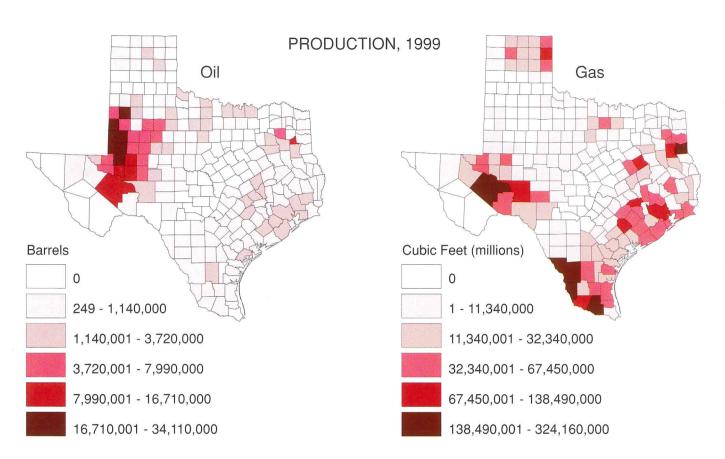
- (14) Mesquite Championship Rodeo (April Sept.)
- 15) Pasadena Livestock Show and Rodeo
- 16) Pecos/West of the Pecos Rodeo (May)
- (17) San Antonio/Far West Rodeo
- (18) San Antonio Stock Show and Rodeo (Feb.)
- 19 Stephenville PRCA Rodeo (May)
- Waco/Heart O' Texas Rodeo (October)

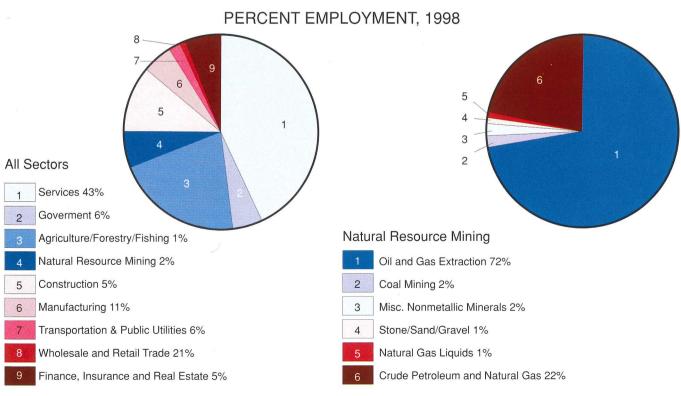
MAJOR ROADS



Data Source: Texas Natural Resources Information System

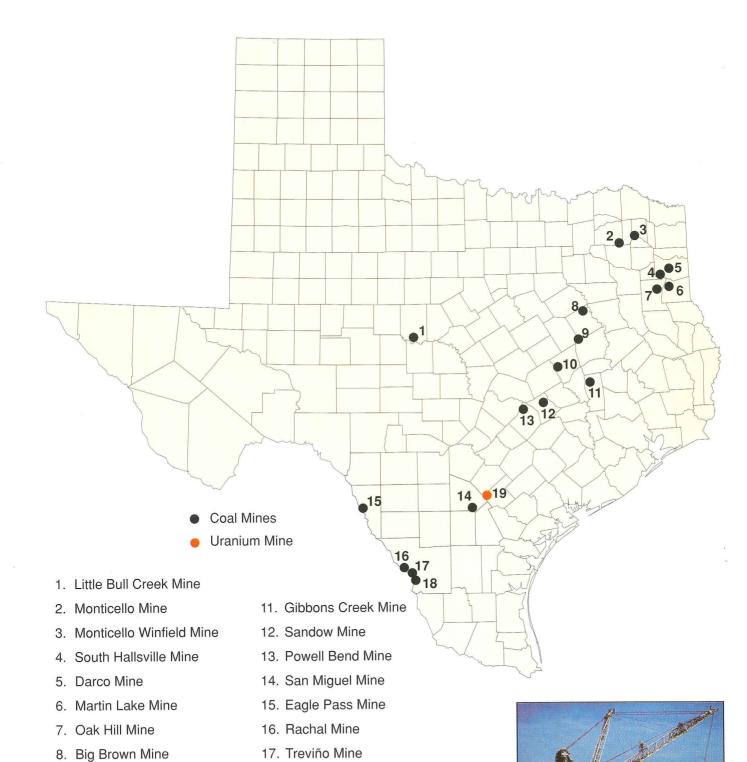
OIL AND GAS





Data Source: Texas Railroad Commission

ENERGY MINING



Dragline at Gibbons Creek; Lignite Strip
Mine. Photo by Byron Augustin

Data Source: Texas Railroad Commission

9. Jewette Mine

10. Calvert Mine

18. Palafox Mine

19. Panna Maria Project

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