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## AMARILLO

*This is the sixth of a series of articles on leading cities of the Eleventh Federal Reserve District. Articles on other cities will appear in the **Monthly Business Review** from time to time. Additional copies of this article may be obtained by addressing a request to:*

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Amarillo, the trade and transportation center of the Panhandle, is located in northwest Texas high on the Plains which lead to the foothills of the Rockies. The elevation is 3,676 feet above sea level—higher than any other major Texas city except El Paso—yet the topography of the surrounding countryside is virtually level, except where rivers and streams cut across the Plains on their way to the Gulf of Mexico.

The city takes its name from the yellow clay found in the beds of creeks and streams in the area. The original name probably was Amarilla, the Spanish word for yellow, and no doubt was used first by the Spanish explorer Coronado, who visited the Panhandle in 1541.

Many different groups have played a part in the development of Amarillo, but the cattlemen, and later the oil men, have contributed most to the city's characteristics. Thousands of cattle are grazed each year on the ranges and on the wheat fields surrounding the city. Oil and gas play a prominent role in the economic life of Amarillo and the Panhandle area. Carbon black, gasoline, butadiene, synthetic rubber, helium, and other petroleum products are produced from the ample resources of natural gas and oil found northeast of the city. Within the trade area of Amarillo, three-fourths of the Texas wheat crop is grown and a large proportion of the State's sorghum crop is harvested.

Today, Amarillo is a city of many interests and activities. It is a friendly city where cattlemen mingle with oil men, and everyone takes a personal pride in boosting his town. Trading and manufacturing and assembling occupy important places in the town's activities; transportation men move large quan-

tities of goods in and out of Amarillo; and atomic energy plant workers and air force personnel contribute to the city's activities.

A relatively low humidity averaging 55 percent, the high elevation, and sunshine 77 percent of the time moderate the occasional extremes of temperature in Amarillo. During the winter months the storms which sweep out of the Rockies and across the Great Plains and Midwest make their entry into Texas through the Panhandle. These "northers" frequently strike suddenly, causing sharp drops in temperature and blizzard-like winds. However, they usually are of short duration and often are followed by mild, clear days.

Annual average rainfall is about 21 inches, with more than 8 inches occurring during the summer months. Daytime temperatures rarely exceed 100 degrees, and nights are always cool. During January and February, temperatures are frequently below freezing and sometimes approach zero. The drier winter months are sometimes accompanied by dust storms. The first killing frost normally occurs early in November. The growing season is 205 days. Prevailing winds are southerly, but the wind shifts quickly to northwesterly when a cold front moves in from the northern plains.

### Growth and Development of the City

Water—so important to the life of the city today—played an important role in its early location. In pioneer days a source of water soon became a meeting place, and the buffalo-hide huts that were the forerunner of Amarillo were built beside Wild Horse Lake, located in the northwestern part of



the present city. Here, wagon trails across the prairies intersected, and buffalo hunters, and later cattlemen, camped.

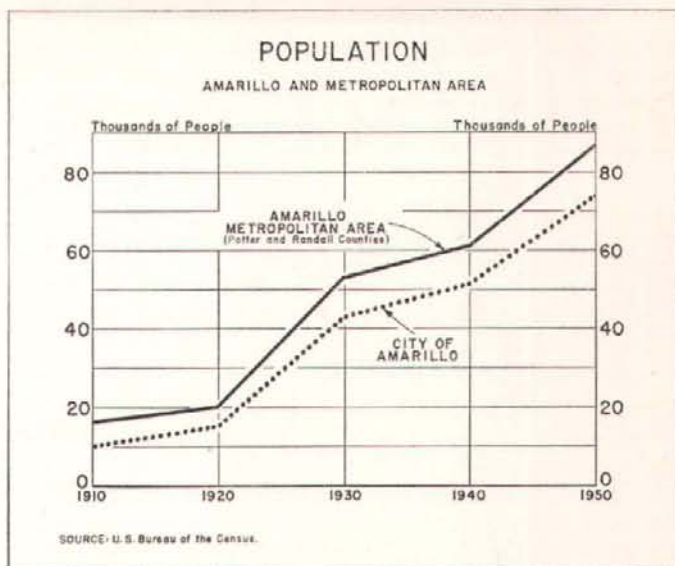
Following the era of the buffalo hunters and bone gatherers, which ended about 1875, the Plains were dominated by cattlemen. Amarillo and the surrounding country are rich in folklore and adventure stories of the cattle era in the Panhandle. Names such as "XIT," "Frying Pan Ranch," the "J. A. Ranch," "Col. Goodnight," and many others prominent in the history of the cattle industry played a vital role in developing the Plains and Amarillo. The location of the county seat of Potter County at Amarillo was largely the result of votes of the cowhands of the LX Ranch.

As the West grew, farmers invaded the Panhandle and broke thousands of acres of prairie land for the production of wheat and cotton. In 1887, the Fort Worth and Denver Railroad reached the site of the city, linking Amarillo with the East. Later, two other railroads—the Santa Fe and the Rock Island—were built into the city, making it the major rail center of the Panhandle. Supported by a growing agriculture characterized by increasing numbers of cattle and expanding acreages of cotton and wheat, Amarillo had become an important center of activity in trade, distribution, and transportation by the early part of the century.

The decade of the 1920's was an eventful one for Amarillo, for during this period the value of the natural gas production in the Panhandle field was first recognized. Prior to that time the gas—discovered in 1918—had been considered largely an economic waste. With the movement of the carbon black industry into the area in 1925 and the increased use of gas for heating, the region experienced a boom that resulted in a nearly threefold increase in the population of Amarillo. Although most of the gas and oil production was concentrated in an area from 50 to 75 miles northeast of Amarillo, the fact that Amarillo had already become established as the transportation and trading center for the Panhandle enabled it to draw most of the increased business activity accruing from the establishment of new industries in the gas and oil fields. The city served as headquarters for the exploration and production activity in the area.

During the period from 1930 to 1936 the depression, coupled with the severe drought in 1934 and 1935, slowed the growth of Amarillo virtually to a standstill. However, with the resumption of more nearly normal business activity throughout the Nation and a more adequate moisture supply during the late 1930's, the growth of the city was resumed. Despite the hardships of the 1930's, people continued to migrate into the area to seek jobs in the relatively new city or to find new land for the production of crops and livestock.

The steady growth of the city, evident during the 4 or 5 years immediately prior to the outbreak of World War II, was given a substantial boost by developments associated with the war effort. In addition to the increased activity in trade, manufacturing, and agriculture, the location of the Pantex Ordnance Plant and the Amarillo Air Base a few miles east of the city provided another stimulus. More than 7,000 persons were employed at the peak of operations at the ordnance plant, while thousands of air force personnel were



stationed at the Air Base. The city's transportation facilities were called upon to carry unusually heavy loads during the war period. The development of the oil and gas resources in the Panhandle increased substantially as virtually all types of petroleum products became vital to the success of the World War effort.

Closing of the ordnance plant and the Air Base following the end of World War II removed two of the larger payrolls that had been important to Amarillo. However, a substantial postwar growth in construction, an expanding industrial production in the area, and the general inflationary stimulus to business and agriculture more than offset the loss of these wartime sources of income. In other words, Amarillo—like so many other cities in the Southwest and in other parts of the country—was able to make the transition from war to peace without losing its growth impetus. By 1950, the population of the city had risen to 74,246 and of the metropolitan area—Potter and Randall counties—to 87,140, increases of almost 45 percent since 1940.

Since 1950, the stimulus of the defense program, which has led to the reactivation of the Air Base, opening of the atomic energy plant, expansion of manufacturing, and a growing need for services to the city and outlying communities, has given further impetus to the growth of the city. While current figures are not available, it is evident that a substantial increase in population has occurred.

#### Economic Activities Supporting the City

A majority of the people in Amarillo make their living in a trade, service, or transportation business. Two out of every three persons in the labor force are employed in one or another of these activities. The unusually prominent role played by these functions stems from the fact that the city serves as the dominant trade and transportation center for an area covering more than 30 counties and with a population of nearly half a million persons. Throughout this trade territory, a productive agriculture and a substantial oil and gas



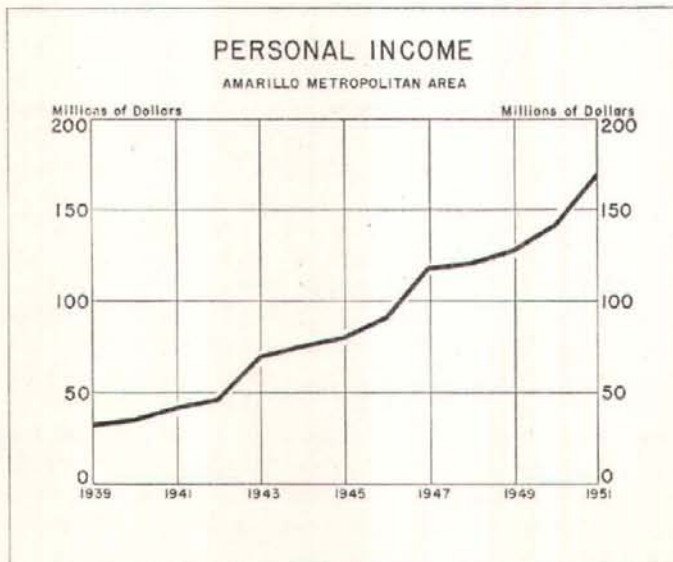
industry, together with manufacturing firms and expenditures of Government, provide a flow of income that gives support to the trade and transportation business of Amarillo. Without this stimulus from outside the city, the demand for such economic activities would be much less.

#### Income Payments to Individuals

The level of income payments to the citizens of Amarillo has followed closely the growth of the city and the general pattern of business activity and income for the Nation. However, the total of such payments has increased more rapidly than in either the State or the Nation. During the period 1939 to 1951, income payments to individuals in the Amarillo metropolitan area increased 422 percent, compared with 340 percent for Texas and 250 percent for the Nation. The estimate of \$169,470,000 for 1951 gives the city a per capita income substantially above that for Texas or the Nation.

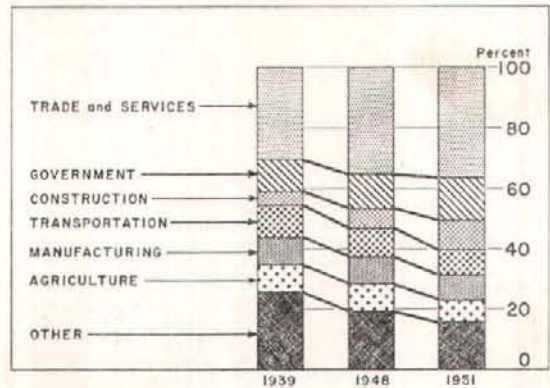
Payrolls and proprietary income (income of unincorporated enterprises) of the retail, wholesale, and service businesses within the city contributed a major portion—36 percent—of this 1951 total income. Government payrolls and transfer payments ranked second, contributing 14 percent. Included in this category are items such as payrolls of local, state, and federal government agencies; veterans' subsistence payments; state and county welfare payments; and social security payments. One of the largest items is the government payroll for civilian and military personnel at the Air Base.

Construction, transportation, and manufacturing accounted for 10, 9, and 8 percent, respectively, while agricultural payrolls and proprietary income contributed 7 percent. The remaining 16 percent of income payments was from the payrolls and proprietary income of communication and utility companies, finance and real estate firms, businesses engaged in mining activities—primarily gas and oil, and income from rents and royalties.



#### PERSONAL INCOME, BY MAJOR SOURCE

AMARILLO METROPOLITAN AREA



Several changes in the relative importance of the various sources of income payments have occurred during the past 12 years. As the city has grown as a trading center, payrolls and profits from trade and services have increased from 32 percent to 36 percent of total income to individuals. In 1939, construction accounted for only 4 percent, as compared with 10 percent in 1951. Government contributed 10 percent in 1939 but 14 percent in 1951. Transportation, which accounted for 12 percent of income payments to Amarillo's citizens in 1939, declined in relative importance to 9 percent in 1951. There also was a sharp decline in other miscellaneous sources of income payments as a percent of the total.

#### Trade

Trade and services occupy a unique position in the economic life of Amarillo. As mentioned earlier, 36 percent of personal income is derived from payrolls and proprietary incomes from trade and service organizations. More than one-half of the labor force of the city is engaged in some trade or service function. These figures are substantially higher than for most other cities of the Southwest and emphasize the importance of trade and services as a source of income and employment for the city.

Estimated per capita retail sales in Amarillo in 1948 were sharply higher than in any other city in the Southwest and more than 60 percent higher than the average for Texas. Sales of food were 24 percent higher than the state average, while per capita sales of apparel were nearly three times as high as those recorded for the State and 74 percent higher than comparable sales for Houston and Dallas, which ranked second and third, respectively. Retail trade in Amarillo in 1951 has been estimated at about \$144,000,000, or 21 percent higher than in 1948. This rate of increase has enabled Amarillo to maintain its relatively favorable position as a trading center.

The trade territory of Amarillo blankets the entire Texas Panhandle and adjoining counties in Oklahoma and New Mexico. This area has a relatively high per capita income as



## RETAIL SALES

AMARILLO METROPOLITAN AREA



of these firms are estimated at \$15,000,000 and represent a much higher proportion of total income than is usually found in cities the size of Amarillo.

In addition to the direct contribution of transportation firms to the income of the city, they are vital to the operation of most other phases of business. The wholesale trade is based largely on the fact that the city has main-line rail and truck services from the East, Midwest, Gulf Coast, and West Coast, plus excellent rail, truck, and air connections to the surrounding trade centers. These facilities also are vitally important to manufacturers in the city who must move raw materials to their plants and finished goods to all parts of the Nation. Moreover, the transcontinental rail, bus, and air lines and the national highways serving the city bring many tourists and visitors to Amarillo each year. Fine hotels and more than 60 motels and tourist courts cater to these visitors who contribute substantially to the business of Amarillo.

a result of the extensive oil and gas operations and profitable wheat, cotton, and cattle production.

Amarillo continues to serve as a major wholesale center for much of the territory that was served in the early days of the city's growth and development. The volume of sales in wholesale trade in the city in 1948 was \$239,124,000. On a per capita basis, this is second only to Dallas among the cities of the Southwest and is two and one-half times higher than the average for the State of Texas. By 1951, wholesale trade was in excess of \$275,000,000. In addition to the large volume of wholesale trade handled by merchants, manufacturers' sales branches and agents and brokers also make a major contribution. Assemblers of goods, particularly agricultural commodities, represent an important phase of the wholesale trade in the city.

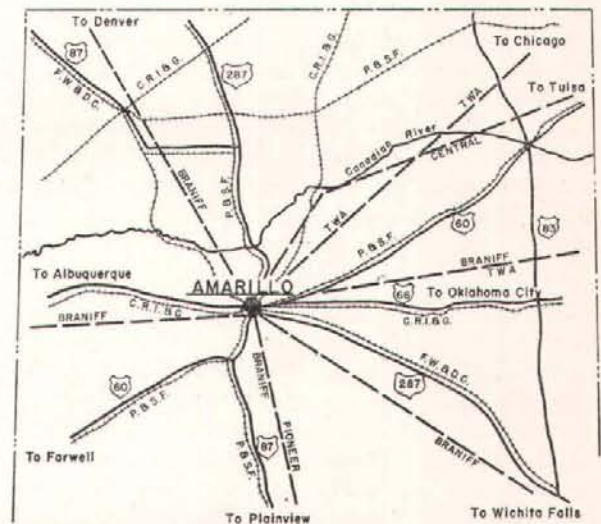
One factor that is tremendously important in the trade picture of the city is its geographical location and its relationship to major transportation facilities. It is near the geographical center of the Panhandle region, and the network of railroads, highways, and airlines radiating from the city makes it easy for people to come to Amarillo. Moreover, in the Plains country, distances mean much less to travelers than they do in more congested areas. People of the Panhandle are accustomed to driving long distances, and 50, 75, or 100 miles is no deterrent to the shopper seeking a particular type of merchandise.

### Transportation

The large volume of goods handled by Amarillo's retail and wholesale merchants and the heavy volume transferred from trunk-line routes to smaller lines for distribution in the Panhandle, plus the fact that the Santa Fe Railroad maintains headquarters in Amarillo for its western lines, make this segment of the economy of special significance to the city.

Nearly 4,000 persons are employed by the railroads, trucking firms, bus companies, and airlines in Amarillo. Payrolls

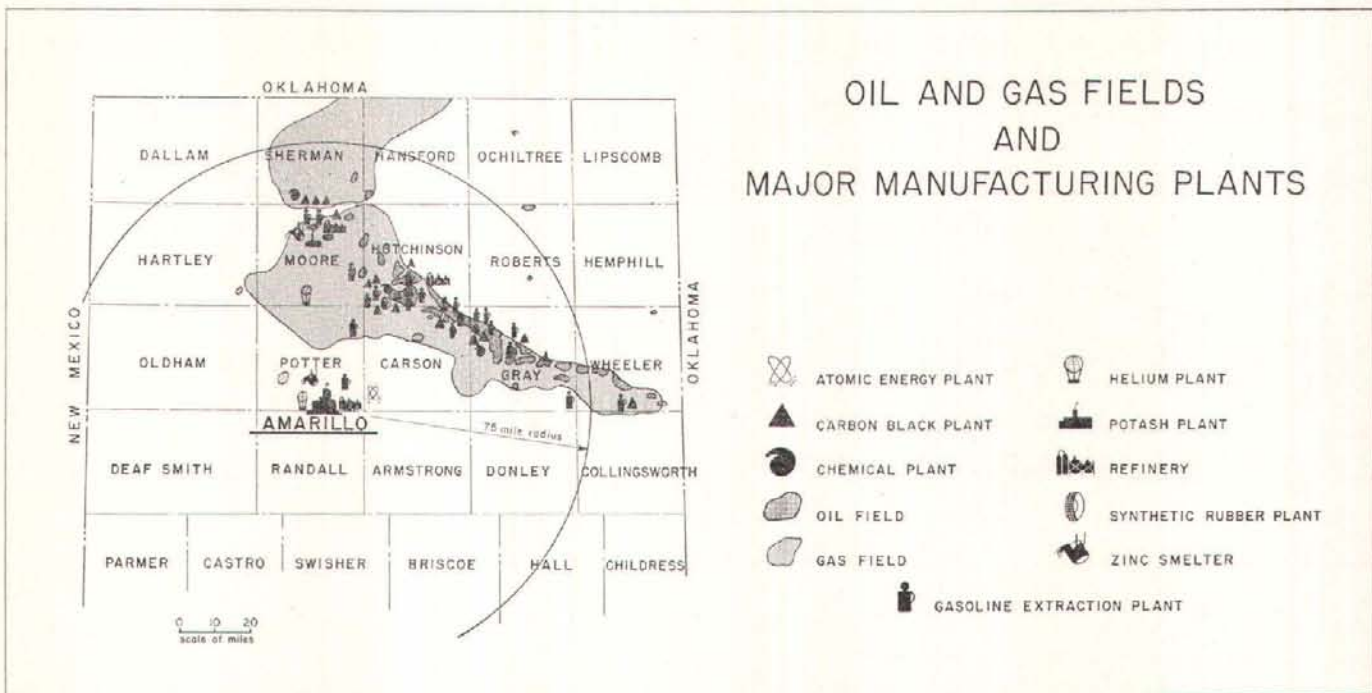
## TRANSPORTATION



### Agriculture

Agriculture, including production of both livestock and crops, is probably the most important single economic activity supporting trade and transportation in Amarillo, although as a direct source of income payments to residents of metropolitan Amarillo, it ranks relatively low. Within the city's trading area, cash income from the sale of crops and livestock in 1951 is estimated in excess of \$350,000,000. The task of transporting, assembling, marketing, and processing the agricultural products of the area centers in Amarillo, and these activities provide additional employment and payrolls for the city. According to the 1950 Census of Agriculture, farmers and ranchers in the area spent \$157,000,000 for labor, feed and seed, fuel, machinery repair, and purchase of livestock. Finally, farmers, ranchers, and their families are substantial purchasers of retail goods and services in Amarillo.





Cattle have been an important part of the agriculture of the Plains since the days of the early pioneers, and they remain the most important single source of income to the farmers and ranchers in the Panhandle. Large areas of uncultivated land are used for grazing, and, in addition, during the fall and winter months thousands of head are grazed on the wheat pastures. In recent years, Amarillo has become a major livestock market, ranking sixteenth among the markets of the Nation. In 1951, more than 368,000 head of cattle, valued at more than \$60,000,000, were sold through the Amarillo market. The city has the world's largest cattle auction, which handled most of the cattle sold on the Amarillo market in 1951.

Wheat, cotton, sorghums, and special crops such as sugar beets, potatoes, and other vegetables are the principal crops grown in the area. For many years wheat was virtually the only crop produced, and a failure of this crop had serious repercussions throughout the area. During the past 15 years the area's agriculture has become more diversified. Moreover, a substantial acreage in the southern part of the trade territory has been placed under irrigation, thus removing one of the major hazards to crop production in the area. With irrigation has come an increased acreage of cotton and vegetables.

#### Oil and Gas

The production of oil and gas and the manufacturing and transportation activities associated with these materials are virtually on a par with agriculture as a supporting factor in the economy of Amarillo. In 1951, residents of metropolitan Amarillo received about \$3,000,000 to \$4,000,000 from payrolls and income of unincorporated enterprises engaged in the production of oil and gas; rents and royalties based on oil and gas probably exceeded \$5,000,000. However, these

figures greatly understate the importance of oil and gas to Amarillo, for it is estimated that the total value of oil and gas and related products produced in the Panhandle exceeded \$300,000,000 in 1951. As trade and transportation center for the Panhandle, Amarillo benefits directly from this economic activity.

The Panhandle natural gas field, northeast of Amarillo, is the world's largest, with reserves estimated at between 34 and 39 trillion cubic feet. Current production is approximately 900 billion cubic feet annually. The field was first discovered in 1918 but was of little interest at the time, inasmuch as there was no ready market for the gas. Like most gas fields, the discovery was accidental as the well had been drilled for the purpose of locating oil.

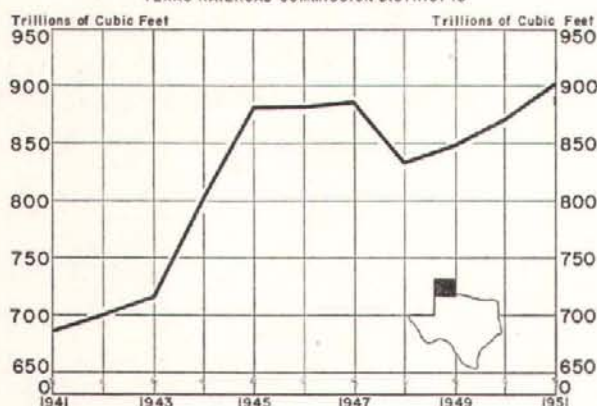
Oil was discovered in commercial quantities in 1921. By 1926 the field was well established, and additional wells were being drilled. With the increase in crude oil production, the flow of natural gas rose substantially, resulting in the establishment of carbon black plants in the area and, later, in the construction of pipelines to the Midwest. Exploration and drilling activities associated with the development of the Panhandle oil field gave Amarillo a substantial boom in the late 1920's.

Crude oil production reached a peak of 37,410,000 barrels in 1927. Since that date, production has fluctuated between 16,000,000 barrels and 33,900,000 and is currently about 31,000,000. Most of the oil wells in the Panhandle field are relatively shallow, but some deep drilling is being done northeast of the field. The fields are located in the Anadarko Basin, which extends from the buried Amarillo mountain range northeastward into Oklahoma and Kansas. The geological formations in the Panhandle have proved difficult to map accurately with seismograph operations. As a result, operators have relied heavily on core analysis and deep drilling.



## NATURAL GAS PRODUCTION

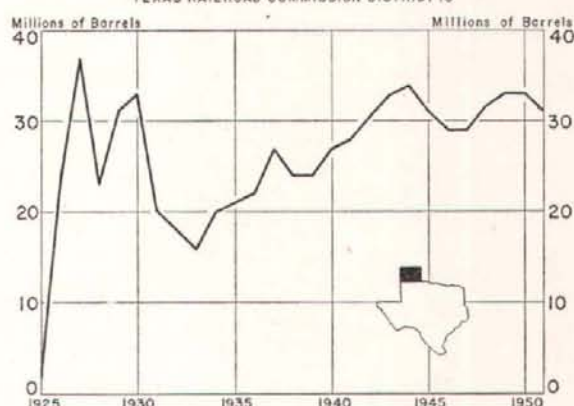
TEXAS RAILROAD COMMISSION DISTRICT 10



SOURCE: AIME.

## CRUDE PETROLEUM PRODUCTION

TEXAS RAILROAD COMMISSION DISTRICT 10



SOURCE: Compiled from Annual Reports of the Comptroller of Public Accounts of the State of Texas, 1925-1951.

which is a slower and more expensive method. Proved oil reserves have been estimated at 250,000,000 barrels, based upon primary recovery methods, with an additional 150,000,000 barrels based upon the use of secondary recovery techniques. Additional wells are being completed each year, and prospects for further discoveries are considered favorable.

## Manufacturing

Manufacturing firms in the Amarillo metropolitan area employ about 4,000 persons — 10 percent of the labor force. Approximately one-fourth of these workers are employed in plants which handle food and kindred products. A substantial portion is employed in printing and publishing businesses, while machinery manufacturing and assembling also occupies an important position. Among the larger plants are a zinc smelter, an oil refinery, two helium plants, a farm machinery plant, an atomic energy plant, and a publishing firm.

In addition to these firms located in the metropolitan area, there are several major industrial plants located in the Pampa-Borger-Dumas region about 60 miles northeast of Amarillo. These include two oil refineries, one synthetic rubber plant, a potash plant, a zinc smelter, 18 carbon black plants, three petrochemical plants, and 20 gasoline plants. The manufacturing employment in the area is about 7,000 persons, with payrolls estimated in excess of \$25,000,000 annually.

The oil and gas production in the Panhandle field provides the basis for virtually all of the manufacturing in the Panhandle. For many years, the cost of gas in the field was relatively low, and this inexpensive source of raw material and fuel encouraged the location of plants in the area. The carbon black plants were among the first to be built and continue to be an important part of the area's manufacturing, although the industry has declined somewhat in recent years.

Some carbon black plants have been closed because techniques have been perfected for making carbon black from the by-products of refinery operations. This "oil black" is

superior in some respects to the black produced from natural gas. Moreover, the raw material from the refinery is relatively inexpensive, while the increased competition for natural gas has resulted in price increases ranging from 200 to 300 percent. Thus, some operators of carbon black plants have closed their gas plants in favor of oil black operations located near large oil refineries and are selling their gas rights to other users. The principal competitors for natural gas in this field are companies which ship or pipe their gas to eastern and midwestern areas for heating and industrial uses. It is generally agreed that some carbon black plants will remain in the Panhandle field for many years, inasmuch as the gas carbon black possesses certain characteristics that are superior to the oil blacks, but estimates are that the industry will decline in relative importance.

The location of helium plants near Amarillo is based upon the fact that the natural gas in that area has a higher helium content than that of most other fields in the Nation. It is the major helium-producing area in the world. Production in the area began in 1929 at a plant west of Amarillo. During World War II, three new plants were constructed — one north of Amarillo, one at Otis, Kansas, and one at Shiprock, New Mexico. At the end of the war, production was discontinued at all except one plant near Amarillo, with the other plants being placed on a stand-by basis. However, recent announcements by the Bureau of Mines, which controls all helium production, indicate that these plants may be reopened in the near future.

The uses of helium have expanded greatly in recent years. In addition to its use in lighter-than-air craft, it is used in the welding of metals such as magnesium, aluminum, and copper; in the preparation of anesthetics; and in other civilian operations. It is one of the few gases that will neither burn, explode, nor combine chemically with any substance.

The two zinc smelters in the area also were established near Amarillo because of the abundant supply of natural gas available for operation of the furnaces. Moreover, Amarillo's location between the zinc ore mines in New Mexico, Arizona,



and Colorado and the markets of the East, and on a major rail line between the two points, makes it possible to take advantage of through freight rates from the mines to the market.

The three chemical plants in the area are located there primarily because of an abundant supply of natural gas, although other considerations, such as water supply, transportation, and living conditions, were important in the decision to locate these plants in the Panhandle. It is possible that additional plants will be built in the area in the future, although the absence of adequate water for some types of operations will tend to be a deterring factor. Another deterrent to the expansion of industry in the Panhandle is the fact that much of the present and potential production of gas is under contract for "life of the field." This tends to limit the volume of gas available to new plants. However, as some of the carbon black plants cease operations, additional supplies of gas may be released for other uses. Moreover, the presence of the oil fields and tremendous reserves of gas continues to attract industry to the area, and some firms already operating in the region are planning further expansion.

#### Government

Government payrolls, outlays for construction on government projects, and other government expenditures have played an important role in the growth of Amarillo since 1940. Early in the World War II period, about \$51,000,000 was spent in the area for construction of the Pantex Ordnance Plant and the Amarillo Air Base located east of the city. In addition, the payrolls of both military and civilian personnel during the war period provided a strong stimulus to business.

In 1951, the largest item of direct income from government to individuals living in Amarillo was the payroll of the Air Base, which amounted to about \$5,000,000. Payments to veterans, including pensions, subsistence payments, and others, were in the neighborhood of \$1,000,000 to \$1,500,000. Payrolls of federal employees, excluding air base personnel, amounted to more than \$3,500,000, while the city and the Amarillo School System each had payrolls of about \$2,000,000. Other local and state government payrolls totaled approximately \$2,000,000, with the balance of direct government income to individuals arising from welfare, social security, and other miscellaneous payments.

In addition to direct payments such as these, other activities of federal, state, and local governments have had a very stimulating effect upon business in Amarillo. While complete data are not available on the amount spent by local, state, and federal governments for construction and for goods and services in the area, expenditures have been significant and have been reflected in virtually every phase of economic activity in the city. Reactivation of the Air Base and opening of the atomic energy plant required sizable outlays for construction. Moreover, the State's road building program in the Panhandle has amounted to millions of dollars in recent years, and the expansion of Amarillo's public school facilities has been in excess of \$3,500,000.

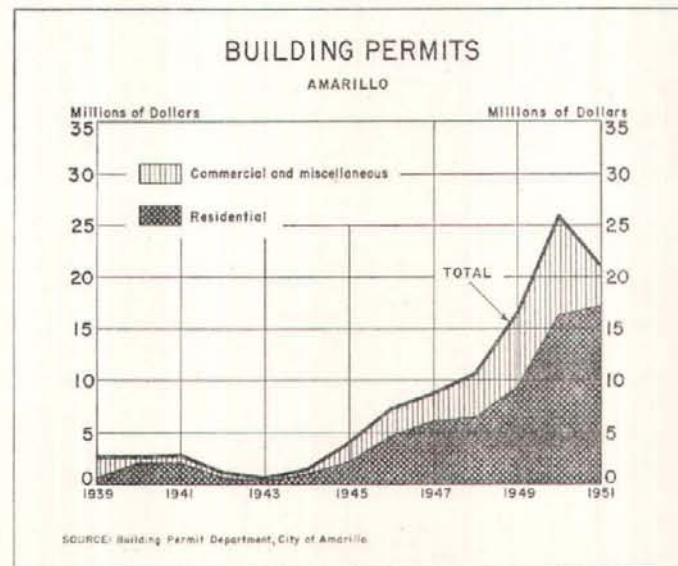
Another facet of government's contribution to the economy of Amarillo is through its direct and indirect financial support of civilian-operated projects, such as construction and operation of defense and defense-related plants, agricultural price supports, and others.

In the immediate future, the operation of the Amarillo Air Base probably will be the most important single item in the Federal Government's contribution to business in Amarillo. The present payroll amounts to about \$3,000,000 monthly; and if plans for expansion from about 11,000 students to as many as 18,000 are carried out, this figure will increase substantially. The Air Base, which began training of air force personnel in September 1951, has been designated as a major training field for aircraft mechanics and preflight training on jet engines and air frames for aviation cadets. The influence of military personnel spending is less noticeable to the casual observer today, since most of the men wear civilian clothes when they are off duty. However, the fact that military personnel are permitted to wear civilian clothes results in increased purchases of different goods and services by these men from Amarillo merchants.

#### Construction

The impact of construction activity on the economy of the city is felt by almost every businessman. In addition to the payrolls of the firms engaged in construction, the need for substantial quantities of building materials, additional utility services, new streets, and many other items adds a further stimulus to business activity and, in turn, increases the payrolls of these trade and service organizations. Moreover, the construction of new homes increases the demand for stoves, refrigerators, and other household goods.

More than \$90,000,000 has been spent on residential and commercial construction in Amarillo since 1945. This is one of the highest rates of construction experienced by any city of comparable size in Texas. On the basis of number of new dwelling units constructed per thousand population, Amarillo has been the leader for the Southwest in recent years. New





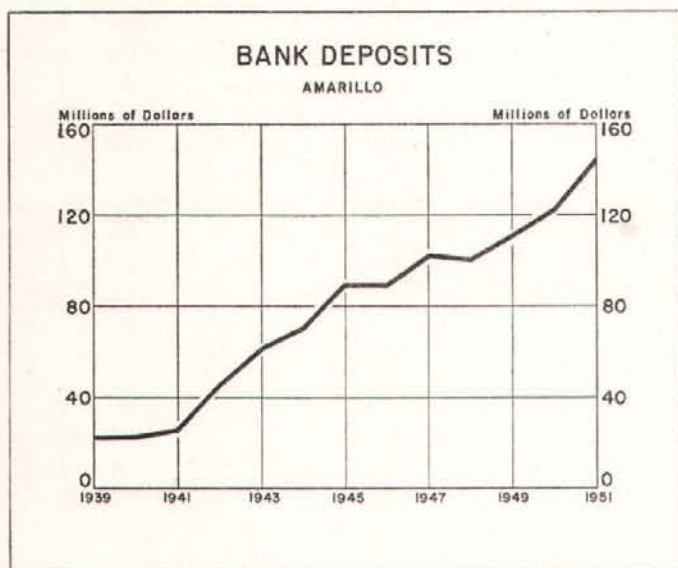
schools, business houses, and churches also have been an important part of the postwar construction program.

In contrast to the prewar years when construction employed less than 7 percent of the labor force in the city, it now employs nearly 13 percent. There are many small construction firms engaged in building homes, as well as several large firms specializing in housing projects, commercial buildings, and other large contracts.

In addition to the civilian construction reflected in the building permit figures, the city has benefited from a substantial amount of construction performed under government contracts. Activity in this field during World War II has been mentioned. In addition, the reactivation of the Air Base in 1951 required a substantial amount of construction, and this work more than offset the slump in civilian construction brought about by the restrictions on building materials. While these government contracts for construction usually attract a substantial number of transient employees to the area, a large number of local people also are employed.

Reports for the first 7 months of 1952 indicate another record year of building for the city. Permits through July totaled \$15,240,000—\$11,000,000 of which was for residential building. If this rate continues through the remaining months of the year, a new high in building permits appears certain.

#### Banking



The financial institutions of the city, including the commercial banks, savings and loan associations, and others, have played an important part in its growth. The ability and willingness of these institutions to serve in a broad financial capacity and to provide credit to meet the needs of a growing economy have played a vital role in the expansion of business, industry, and agriculture.

Some measure of the growth, the importance, and the expanding place of financial institutions in the economy of

Amarillo is obtained from commercial banking figures. For instance, in 1939, total deposits of the three commercial banks were \$21,000,000, as compared with \$144,000,000 in 1951—an increase of 586 percent. During the same period, total loans increased from \$9,346,000 to slightly more than \$56,000,000—a gain of 500 percent.

Moreover, the influence of Amarillo banks and other financial institutions extends beyond the city. In a sense, they serve as a financial center for the entire Panhandle. It is reported that a substantial proportion of the loan demand that is met by Amarillo commercial banks originates outside of the city limits. Further evidence of this lies in the fact that a large proportion of the loans of these banks is for the purpose of facilitating the production of livestock and crops.

#### The Water Situation

Much has been written about the water situation in the High Plains, and several comprehensive studies have been directed toward the problem of obtaining accurate information about the sources of water and the current and potential requirements for water in the area. Much remains unknown, but certain conclusions appear to be rather well established.

At present, the only source of water for the area is the underground supply found in the water-bearing sands known as the "Ogallala Formation." These water-bearing strata underlie more than 45,000,000 acres of the High Plains of Texas, eastern New Mexico, and the Panhandle of Oklahoma. The sands are relatively close to the surface, with outcroppings in several areas. Thickness of the formation ranges from about 800 feet to only a few feet. Calculations of the water in storage, based upon limited data, are in the neighborhood of 300,000,000 to 400,000,000 acre-feet. These figures are subject to many limitations but indicate the general magnitude and quantity of water in the underground reservoir.

Geologists agree that this underground reservoir is recharged only by infiltration of rainfall on the area. While average annual rainfall is about 20 inches (equivalent to more than 75,000,000 acre-feet), it is known that most of this moisture is lost through evaporation and transpiration. Only a few hundredths of an inch of rainfall is believed to be added to the reservoir each year except in years of excessive rainfall, when the recharge is higher. Total withdrawal for all purposes in 1951 is estimated at about 2,500,000 acre-feet. Of this total, approximately 32,000 acre-feet was for municipal use for cities on the High Plains, 30,000 acre-feet for industrial purposes, and the remainder for irrigation.

A potential source of additional water is the planned Canadian River reservoir, which is scheduled to be built about 30 miles northeast of Amarillo at Sanford. Plans have been completed and approved for the dam and the necessary facilities for distributing the water, but money for construction has not been appropriated. Cost is currently estimated at about \$85,000,000. Construction is to be financed by the Federal Government, with more than 90 percent of the cost to be repaid over a period of 50 years by the water users. Upon



completion, this reservoir is expected to provide an annual supply of about 134,000 acre-feet. The water may be used for municipal and industrial purposes in the cities of Borger, Pampa, Amarillo, Plainview, Lubbock, Tahoka, O'Donnell, Lamesa, Slaton, Levelland, and Littlefield. Amarillo's share is to be a daily minimum of 22,000,000 gallons, which is equivalent to 24,638 acre-feet annually. It is not contemplated that the water will be used for irrigation except through secondary utilization, largely sewage effluent. Engineers state that a second reservoir could be constructed above the Sanford site if additional quantities of water are needed.

Amarillo obtains its present water supply from wells located southwest of the city. The current pumping capacity is about 37,000,000 gallons daily. Completion of additional facilities will raise this to about 50,000,000 gallons by January 1, 1953. Storage capacity also will be boosted from the present 18,000,000 gallons to about 23,500,000. In addition, water rights are being purchased to provide sites for more wells. The long-range plan for the city contemplates a capacity of 100,000,000 gallons daily.

### Cultural and Recreational Activities

Good schools, churches, and adequate recreational and entertainment facilities provide the basis for a pleasant atmosphere in which to live. In recent years, these facilities have become increasingly important to cities of the Southwest, as industries seeking a new location frequently have made their decision on the basis of living conditions in a metropolitan area. When such moves involve transfer of key personnel and their families, the cultural and civic activities of the new location become of paramount importance.

Amarillo's school system has expanded greatly during the postwar period, with nearly \$6,000,000 in buildings being added to the system. These include 117 classrooms, five cafeteria-auditoriums, one cafeteria, and one gymnasium. For the most part, the schools have been able to expand rapidly enough to accommodate the growing population, and plans are under way to make further additions to the facilities in anticipation of still higher enrollments. In addition to the public schools, there are six schools operated by Catholic, Lutheran, and Episcopal church groups.

Amarillo Junior College provides facilities for post-high school work, offering a wide curriculum of college courses. West Texas State Teachers College, located at Canyon, Texas, 17 miles south of Amarillo, offers a complete curriculum of college work and also conducts evening classes in Amarillo. In addition, the Music Arts Conservatory of Amarillo offers degrees and graduate work in music. St. Anthony's Hospital offers a complete course in medical records library work, while both St. Anthony's and Northwest Texas Hospital offer state-approved nurses' training.

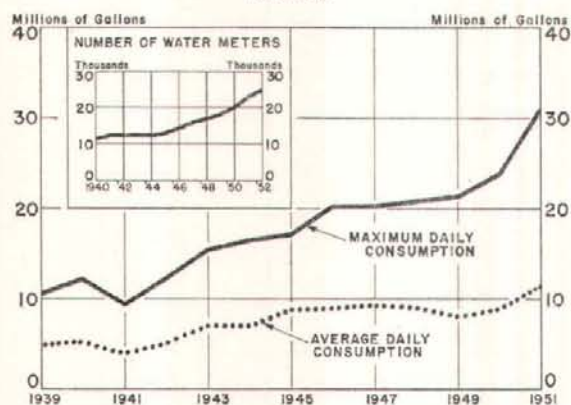
The recently redecorated municipal auditorium, which seats 2,545 persons, is located in downtown Amarillo and provides facilities for plays, concerts, and other entertainment. The city has approximately 100 churches, with virtually all denominations represented. There are eight modern hospitals, with more than 750 beds, and excellent medical service.

In the city there are 28 municipal parks, while one of the outstanding attractions in the vicinity of Amarillo is the Palo Duro Canyon, located 25 miles south of the city. The Canyon drops 1,250 feet from the level of the Plains and reveals strata of rock 300,000,000 years old. The beautiful colors, the unusual formations, and span of geological history exhibited in the Canyon make it a favorite spot of both pleasure-seekers and scientists. The park is operated by the Texas State Park Board and is open year-round. In the year ended May 1952, more than 35,000 cars and 130,000 persons visited the park. Attendance to date indicates that a new record will be set in the year ending May 1953.

Another point of interest near Amarillo is the Boys' Ranch for homeless and unwanted boys, located 40 miles northwest of the city on the site that formerly was the wild-west town of Tascosa. The ranch, which was founded by Cal Farley in 1939 and is supported by business and professional men and others, now is home for nearly 200 boys. During their stay at the ranch the boys are trained in a profession or trade and given an opportunity to become citizens who can take their rightful places in the community.

### WATER METERS AND WATER CONSUMPTION

AMARILLO



SOURCE: Water Department, City of Amarillo.

These figures and estimates suggest that there is no danger of Amarillo running out of water in the near future. Growth of the city may temporarily outrun the pumping and storage facilities in operation, but more wells can be drilled and larger pipelines laid. If the estimate of the volume of water in the underground storage is reasonable, the wells will continue to yield water for many years. Moreover, water from the Canadian River reservoir eventually should supplement the underground supply.

Although it appears that there is an adequate supply of water to meet immediate and foreseeable needs, Amarillo cannot afford to waste what is in reality a scarce economic resource; in this respect, the situation is not significantly different from that in other southwestern cities. Water is a basic resource upon which the very life of a city and its trade territory depends. Used carefully, the supply in Amarillo should be adequate for many years, even with a substantial growth in the population of the city; used carelessly, it could become a major limitation to the city's expansion.



## REVIEW OF BUSINESS, INDUSTRIAL, AGRICULTURAL, AND FINANCIAL CONDITIONS

DISTRICT  
SUMMARY

Department store sales in the Eleventh Federal Reserve District rose in August to a level 10 percent above July and 6 percent above the same month last year;

sales in early September continued the upward trend at above year-earlier levels. August sales reflect some shift in consumer buying from hard goods to wearing apparel and other back-to-school needs. End-of-month inventories were 4 percent above July but below a year earlier; orders outstanding were down 12 percent from July but were 42 percent above a year ago. Furniture store sales rose 1 percent in August, after 2 months of decline, and were 7 percent above August 1951.

Agricultural conditions in the District improved slightly during September as a result of light to heavy rains in many areas. However, rains are still needed over most of the District to break the drought. District farmers and ranchers are expected to produce about the same volume of farm commodities this year as in 1951; production in Texas may be down 5 percent. Cotton production will fall sharply below early season forecasts but will still be above average. Corn and sorghum grain crops are off sharply, due to smaller acreages and lower yields per acre. Rice production in Texas is a record high. Marketings of livestock declined in September, as liquidation of breeding stock was stopped in most areas receiving rain. Farm commodity prices are holding relatively steady on the average at a level slightly below a year ago.

Nonagricultural employment in the district states in each of the first 7 months of 1952 was above that in corresponding months of 1951, with the July total showing a year-to-year gain of 3 percent; manufacturing employment in July was up 5 percent.

Daily average production of crude oil in the District reached record levels in the second week in September; August production was up from July but lower than in the same month last year. Stocks of crude oil continue to decline, although they are still higher than a year ago. Refinery activity in the District during the first half of September was at a level slightly under the record established in August.

Total value of construction contracts awarded in the District in August was off 9 percent from July but 15 percent above August 1951; the January-August total was down 5 percent from a year earlier. Nonresidential construction contract awards declined in August for the fifth consecutive month, while residential awards rose to a level 49 percent above August 1951.

Loans at weekly reporting member banks in the District rose 3 percent between August 20 and September 17, compared with a rise of less than 1 percent in the comparable period last year. Investments declined 3 percent during this period. Demand deposits increased 4 percent, while time deposits gained 2 percent. Gross demand deposits at all member banks in the District in August were 10 percent higher than in the same month last year.

## BUSINESS

Retail sales at department stores in the Eleventh Federal Reserve District rose seasonally during August, reflecting partly the early buying of back-to-school requirements. The total dollar volume of sales for the month was 10 percent above July and, although handicapped by one less business day, 6 percent above August 1951.

Information received from weekly reporting department stores indicates that sales during the 2-week period ended September 13 were at a level 4 percent above the comparable period in 1951 and at a monthly rate approximately 8 percent above August.

## RETAIL TRADE STATISTICS

(Percentage change)

Line of trade by area	NET SALES			STOCKS <sup>1</sup>	
	Aug. 1952 from		8 mo. 1952 comp. with 8 mo. 1951	Aug. 1952 from	
	Aug. 1951	July 1952		Aug. 1951	July 1952
<b>DEPARTMENT STORES</b>					
Total Eleventh District.....	6	10	6	-9	4
Corpus Christi.....	41	30	24	5	9
Dallas.....	2	6	2	-11	6
El Paso.....	12	13	6	-15	8
Fort Worth.....	6	11	3	-5	2
Houston.....	8	6	9	-7	3
San Antonio.....	1	18	7	-13	4
Shreveport, La.....	12	12	11	-5	10
Waco.....	8	9	16	-15	1
Other cities.....	4	12	1	-9	3
<b>FURNITURE STORES</b>					
Total Eleventh District.....	7	1	—	-11	#
Austin.....	9	1	—	-1	-4
Dallas.....	21	7	—	-24	2
Houston.....	6	-6	—	—	—
Port Arthur.....	1	-20	—	-34	2
San Antonio.....	16	-6	—	—	—
Shreveport, La.....	-8	8	—	-12	2
Wichita Falls.....	9	-22	—	-6	-1
<b>HOUSEHOLD APPLIANCE STORES</b>					
Total Eleventh District.....	-27	-11	—	—	—
Dallas.....	-33	-9	—	—	—

<sup>1</sup> Stocks at end of month.

# Indicates change of less than one-half of 1 percent.

Although the August rise in sales volume from the seasonally low point in July was due mainly to heavier purchases of wearing apparel and piece goods and household textiles, demand for hard goods in the home furnishings departments remained strong, particularly when compared with a year ago. Sales of furniture and bedding and domestic floor coverings showed little change from year-ago totals, while sales of major household appliances rose 21 percent, and sales of radios and television sets gained 28 percent.

At department stores doing both charge account and installment account business, the month-to-month shift in emphasis from hard goods to soft goods is noted particularly in the classification of store sales according to terms of sale. Charge account sales, chiefly sales of soft goods, rose from 45 percent of total store sales in July to 47 percent during August. Installment account sales, mainly hard goods, declined as a percentage of total sales from 20 percent during July to 18 percent in August. Cash sales represented 35 percent of total sales during both July and August.



WHOLESALE TRADE STATISTICS  
Eleventh Federal Reserve District  
(Percentage change)

Line of trade	NET SALES <sup>p</sup>			STOCKS <sup>1</sup> <sup>p</sup>	
	August 1952 from		8 mo. 1952 comp. with 8 mo. 1951	August 1952 from	
	August 1951	July 1952		August 1951	July 1952
Automotive supplies.....	-12	-10	—	34	0
Drugs and sundries.....	-5	12	-6	9	-4
Dry goods.....	-1	36	—	-22	6
Grocery (full-line wholesalers not sponsoring groups)....	13	8	8	-3	-1
Hardware.....	— <sup>‡</sup>	6	-7	-14	-3
Industrial supplies.....	-10	-2	6	-4	-2
Machinery equipment and supplies except electrical...	-39	33	—	45	8
Metals.....	-12	-25	—	3	-2
Refrigeration equipment, parts (Commercial).....	20	-14	—	—	—
Tobacco products.....	-8	-8	3	9	12
Wiring supplies, construction materials distributors.....	7	-23	‡	21	-17

<sup>1</sup> Stocks at end of month.

<sup>p</sup>—Preliminary.

<sup>‡</sup> Indicates change of less than one-half of 1 percent.

SOURCE: United States Bureau of the Census.

Due to the higher level of sales and partly to easier credit terms, accounts receivable at the end of August were moderately above those outstanding at the end of July and were substantially higher than a year earlier. Charge accounts receivable on August 31 were up slightly from the close of July and were 5 percent above last year, while instalment accounts receivable increased 5 percent during August to a total 21 percent above a year ago. Collection ratios were about the same as during July, and the average pay-out period on instalment accounts remained at approximately 13 months.

End-of-August inventories, while seasonally 4 percent higher than at the close of July, remained substantially lower than a year ago. In general, the lower level of inventories was less pronounced in the soft goods lines than in hard goods. The run-off of inventories was particularly heavy in major household appliances, which showed a decline of 41 percent from August 1951. Department store merchandise on order at the end of August was 12 percent lower than at the close of the preceding month but was 42 percent higher than a year earlier.

INDEXES OF DEPARTMENT STORE SALES AND STOCKS

(1947-49 = 100)

Area	UNADJUSTED				ADJUSTED <sup>1</sup>			
	Aug. 1952	July 1952	June 1952	Aug. 1951	Aug. 1952	July 1952	June 1952	Aug. 1951
SALES—Daily average								
Eleventh District.....	114	104	116	104	127	123	132	115
Dallas.....	101	95	103	96	113	119	128	107
Houston.....	127	120	132	114	141	138	145	127 <sup>r</sup>
STOCKS—End of month								
Eleventh District.....	125 <sup>p</sup>	120	114	137	127 <sup>p</sup>	130	123	140

<sup>1</sup> Adjusted for seasonal variation.

<sup>r</sup> Revised.

<sup>p</sup> Preliminary.

Furniture store sales in the District during August reversed the month-to-month declines which had occurred during June and July and showed a seasonal rise of 1 percent. Sales during August were 7 percent above the same month a year ago; this was the seventh consecutive month to register sub-

stantial gains over last year. Accounts receivable rose 3 percent during August to a total 21 percent above the year-ago level, while collections declined 2 percent. End-of-month inventories showed no net change from July and were 11 percent lower than at the same time last year.



Agricultural conditions in the District showed slight improvement during September. Showers in many scattered areas brought some relief to parched crops and grazing lands, although general rains still are needed to break the drought over the District as a whole. The drought in Texas and parts of adjoining states this year has taken a heavy toll of crops, such as cotton, peanuts, and sorghum grain; despite these losses, it appears that the five states of the Eleventh District—Arizona, Louisiana, New Mexico, Oklahoma, and Texas—will produce about the same volume of agricultural commodities in 1952 as in 1951, or 12 percent more than the average of 1935-39. Agricultural production in Texas probably will be down some 5 percent from last year, as a slight increase in production of livestock and livestock products will be more than offset by a substantial curtailment in output of crops.

Dry-land cotton in the later areas of the District deteriorated further during September as hot, dry weather continued in most sections. Irrigated cotton in the High Plains and west Texas has made fair to good progress. Cotton harvest is making satisfactory progress except where interrupted by showers. The five states of the District expect to harvest an estimated 5,770,000 bales, compared with 6,372,000 in 1951. The estimate of the 1952 crop in the 5-state area has been lowered more than 800,000 bales since August 1, because of losses resulting from high temperatures and drought. The estimate of the Texas cotton crop has been lowered 700,000 bales, or to 3,500,000, which is still almost 500,000 bales above the average of the past 10 years.

Feed grain production in the District has been reduced sharply by drought, although acreages also are smaller than last year. Corn production in the 5-state area is now estimated at about 62,000,000 bushels, as compared with a 1941-50 average of over 100,000,000. The Texas corn crop estimate is placed at about 37,000,000 bushels, which, with the exception of 1925, is the smallest since 1896. Sorghum grain production in the District is forecast at about 49,000,000 bushels, or slightly more than half last year's crop.

The Texas rice crop—estimated at 13,128,000 bags—is the largest ever produced and compares with last year's harvest of 12,408,000 bags. This is the third consecutive year in which Texas rice growers have established a production record. Harvest of the rice crop was interrupted by rains during September, but losses were relatively light.

Prospects for peanut production in the District were reduced sharply by the droughty conditions prevailing in August. Production is now estimated at about 169,000,000 pounds, or 37,000,000 pounds less than was forecast August 1. Yields in Texas average only 300 pounds per acre—the lowest for any of the important peanut producing states—and compare with a 1941-50 Texas average of 482 pounds.



**CROP PRODUCTION**  
Texas and Five Southwestern States  
(In thousands of bushels)

Crop	Texas			Five southwestern states <sup>1</sup>		
	Average 1941-50	1951	1952 Indicated Sept. 1	Average 1941-50	1951	1952 Indicated Sept. 1
Cotton <sup>2</sup> .....	3,020	4,074	3,500	4,406	6,372	5,770
Corn.....	56,861	42,143	36,816	101,839	81,042	61,735
Rice <sup>3</sup> .....	8,668	12,408	13,128	18,916	23,732	24,748
Sorghum grain... <sup>4</sup>	79,096	71,085	40,964	94,930	92,371	48,749
Hay <sup>5</sup> .....	1,550	1,456	1,516	4,729	4,649	4,527
Peanuts <sup>6</sup> .....	317,066	118,300	108,600	434,851	239,695	168,800
Irish potatoes... <sup>7</sup>	4,402	2,204	2,040	9,365	5,005	4,840
Sweet potatoes... <sup>8</sup>	4,855	1,365	1,885	14,850	7,990	10,477

<sup>1</sup> Arizona, Louisiana, New Mexico, Oklahoma, and Texas.

<sup>2</sup> In thousands of bales.

<sup>3</sup> In thousands of bags, 100 pounds each.

<sup>4</sup> In thousands of tons.

<sup>5</sup> In thousands of pounds.

SOURCE: United States Department of Agriculture.

Fall-crop tender vegetables and prospects for early winter crops in south Texas have improved materially in recent weeks. Moisture reserves generally are good in most areas, except part of the Lower Valley. Tomatoes began blooming in early September, while cucumbers, eggplant, peppers, and squash made very good progress. Carrots made good growth, early lettuce plantings were up to good stands by midmonth, and transplanting of broccoli, cabbage, and cauliflower was well advanced. Harvest of the Panhandle lettuce crop is under way.

Dry range and pasture feed supplies continue short over much of the District; however, heavy rains in northeastern plateau, south central, and coastal counties of Texas, as well as showers in other scattered sections, have revived prospects for fall and winter feed in those favored areas. It is expected that farmers will plant a large acreage of oats in these areas for pasture this winter.

**LIVESTOCK RECEIPTS**

(Number)

Class	FORT WORTH MARKET			SAN ANTONIO MARKET		
	August 1952	August 1951	July 1952	August 1952	August 1951	July 1952
Cattle.....	80,109	79,732	77,153	25,351	35,999	20,162
Calves.....	31,577	65,466	27,633	16,059	45,558	11,089
Hogs.....	30,232	43,145	44,133	5,839	8,361	5,806
Sheep.....	123,731	73,298	96,479	135,066	136,782	120,860

<sup>1</sup> Includes goats.

Marketing of livestock declined during September, as liquidation of breeding herds was stopped abruptly in the areas which received rain. The heavy movement of livestock to markets in the District in earlier months this year is reflected both in reports on receipts at such markets as San Antonio and Fort Worth and in reports on livestock slaughter; commercial meat production in Texas in the first 7 months of this year totals 14 percent more than during the corresponding period a year ago.

The drought in the District this year has caused a sharp contraction in output of dairy products. This is reflected in reports which show August 1952 milk production in Texas

at 265,000,000 pounds, compared with 300,000,000 pounds in August 1951. Monthly production in most months this year has fallen below that of the corresponding months last year. Much of the reduction in output of milk is due to the smaller production per cow. Egg production, on the other hand, is running substantially above a year ago. Estimates for Texas for the first 8 months of 1952 show an increase of about 10 percent over the same period last year.

**FARM COMMODITY PRICES**

Top Prices Paid in Local Southwest Markets

Commodity and market	Unit	Week ended	Comparable	Comparable
		Sept. 22, 1952	last month	last year
COTTON, Middling 15/16-inch, Dallas.....	lb.	\$ .3820	\$ .3835	\$ .3580
WHEAT, No. 1 hard, Fort Worth.....	bu.	2.66¼	2.60¼	2.62
OATS, No. 2 white, Fort Worth.....	bu.	1.14¾	1.11	1.08½
CORN, No. 2 yellow, Fort Worth.....	bu.	2.07½	2.11½	2.01¾
SORGHUMS, No. 2 yellow milo, Fort Worth.....	cwt.	3.55	3.54	2.60
HOGS, Choice, Fort Worth.....	cwt.	20.25	22.50	21.25
SLAUGHTER STEERS, Choice, Fort Worth... <sup>1</sup>	cwt.	32.50	32.00	36.00
SLAUGHTER CALVES, Choice, Fort Worth... <sup>2</sup>	cwt.	28.50	28.00	35.00
STOCKER STEERS, Choice, Fort Worth... <sup>3</sup>	cwt.	26.00	27.00	36.00
SLAUGHTER LAMBS, Choice, Fort Worth... <sup>4</sup>	cwt.	27.00	28.00	31.50
HENS, 3-4 pounds, Fort Worth.....	lb.	.22	.21	—
FRYERS, Commercial, Fort Worth.....	lb.	.33	.33	—
BROILERS, South Texas.....	lb.	.34	.33	—
TURKEYS, No. 1 hens, Fort Worth.....	lb.	.35	.28	—

Farm commodity prices in the District are holding relatively steady on the average. In the past month there has been some increase in prices of grains and poultry, which has been offset by declines in cotton, cottonseed, and livestock. The index of farm commodity prices in Texas at mid-August was 333 (1910-14 = 100) — the same as the July index but 10 points below that of August 15, 1951.

**CASH RECEIPTS FROM FARM MARKETINGS**

(In thousands of dollars)

State	May		June		Cumulative receipts January—June	
	1951	1952	1951	1952	1951	1952
Arizona.....	\$ 18,277	\$ 18,880	\$ 19,240	\$ 29,534	\$ 133,140	\$ 196,649
Louisiana.....	12,076	15,079	13,641	15,603	103,929	111,946
New Mexico.....	17,668	10,629	12,564	8,883	76,365	78,902
Oklahoma.....	26,473	30,037	61,137	103,890	224,062	270,316
Texas.....	141,944	126,738	107,846	148,620	717,602	775,035
Total.....	\$216,438	\$201,363	\$214,428	\$306,530	\$1,255,098	\$1,432,848

SOURCE: United States Department of Agriculture.

Despite the heavy losses sustained by farmers in many parts of the District this year as a result of the drought, it appears likely that cash receipts from farm marketings in the 5-state area in 1952 may not differ greatly from the \$3,784,000,000 received in 1951. Cash receipts in the first 6 months of 1952 totaled \$1,433,000,000, or 14 percent more than in the same period last year. Larger crops of wheat, oats, barley, and flaxseed and larger marketings of poultry and livestock favored an increase in cash receipts in the first half of the year; however, this increase probably will be offset in the last 6 months because of smaller crops of cotton, cottonseed, grain sorghums, and peanuts. Cash receipts from farm marketings in Texas in the first half of 1952 were up 8 percent from a year earlier, but it is still doubtful that the 1952 total will equal the \$2,187,000,000 received last year.





The principal changes in the condition of the weekly reporting member banks in the Eleventh District between August 20 and September 17 include increases in

loans, cash assets, and deposits and a reduction of investments. Reflecting the net effect of these changes during the 4 weeks, total resources rose \$142,463,000, or 3 percent, to a total of \$4,551,444,000 on September 17.

Loans of the weekly reporting member banks rose \$42,071,000, or 3 percent, during the 4 weeks ended September 17, reflecting increases in practically all of the major loan categories. The expansion this year compares with an increase of somewhat less than 1 percent during the comparable weeks in 1951. Commercial, industrial, and agricultural loans rose \$32,333,000, or 3 percent, and accounted for most of the loan increase. Commodity dealers increased their bank borrowings in most weeks, with this demand reflecting the seasonal need for bank credit which normally develops at this time of the year. Grain and milling concerns, food and liquor establishments, and sales finance companies also increased the amount of their outstanding bank indebtedness, while construction companies liquidated a moderate amount of their borrowings. Changes in other major types of loans included increases in real estate loans, loans for purchasing or carrying securities, and the category which includes consumer-type loans and a reduction in loans to banks.

#### CONDITION STATISTICS OF WEEKLY REPORTING MEMBER BANKS IN LEADING CITIES

Eleventh Federal Reserve District

(In thousands of dollars)

Item	Sept. 17, 1952	Sept. 19, 1951	Aug. 20, 1952
Total loans (gross) and investments.....	\$3,049,738	\$2,738,183	\$3,049,375
Total loans—Net <sup>1</sup> .....	1,628,733	1,441,885	1,586,680
Total loans—Gross.....	1,645,162	1,458,087	1,603,091
Commercial, industrial, and agricultural loans.....	1,103,546	987,556	1,071,213
Loans to brokers and dealers in securities..	12,498	7,872	12,143
Other loans for purchasing or carrying securities.....	66,941	60,614	63,557
Real estate loans.....	121,449	123,316	119,036
Loans to banks.....	5,158	2,599	9,688
All other loans.....	335,570	276,130	327,454
Total investments.....	1,404,576	1,280,096	1,446,284
U. S. Treasury bills.....	169,888	199,978	212,945
U. S. Treasury certificates of indebtedness..	167,373	120,814	173,438
U. S. Treasury notes.....	182,479	216,711	180,335
U. S. Government bonds (incl. gtd. obligations).....	714,311	571,783	707,868
Other securities.....	170,525	170,810	171,698
Reserves with Federal Reserve Bank.....	606,161	560,652	596,130
Balances with domestic banks.....	489,987	425,880	391,039
Demand deposits—adjusted <sup>2</sup> .....	2,430,114	2,255,432	2,376,494
Time deposits except Government.....	481,688	432,161	472,803
United States Government deposits.....	126,917	82,540	155,598
Interbank demand deposits.....	866,008	757,504	770,508
Borrowings from Federal Reserve Bank.....	20,500	6,750	39,760

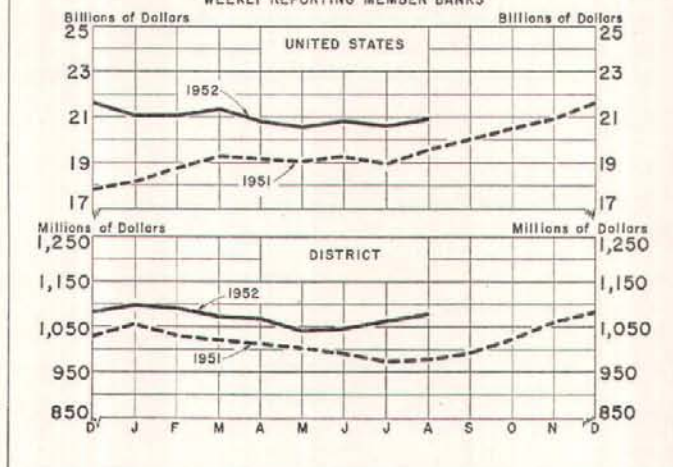
<sup>1</sup> After deductions for reserves and unallocated charge-offs.

<sup>2</sup> Includes all demand deposits other than interbank and United States Government, less cash items reported as on hand or in process of collection.

Total investments of the weekly reporting member banks amounted to \$1,404,576,000 on September 17, a decrease of 3 percent during the month. Substantial sales or redemptions of Treasury bills were made by these banks, since the decrease in holdings of these securities accounted for slightly more than the reduction in investment portfolios. Increases in holdings of Treasury bonds and notes more than offset a reduction of investments in certificates of indebtedness. Holdings of municipals and other non-Government securities declined slightly.

#### COMMERCIAL, INDUSTRIAL, AND AGRICULTURAL LOANS

WEEKLY REPORTING MEMBER BANKS



The expansion of deposits at these banks during the 4 weeks amounted to \$161,991,000, or 4 percent, as compared with an increase of slightly more than 3 percent during the comparable weeks in 1951. Demand deposits rose \$153,106,000, or 4 percent, reflecting principally increases in deposits of individuals and businesses and in interbank deposits. The increases in these deposit categories amounted to \$87,392,000, or 4 percent, and \$95,500,000, or 12 percent, respectively. Treasury net expenditures in the District and the expansion of loans were major factors contributing to the rise in private demand deposits. Demand deposits of the United States Government and of states and political subdivisions declined. Time deposits rose \$8,885,000, or 2 percent, during the 4 weeks, reflecting increases in deposits of individuals and businesses and of states and local subdivisions.

#### GROSS DEMAND AND TIME DEPOSITS OF MEMBER BANKS

Eleventh Federal Reserve District

(Averages of daily figures. In thousands of dollars)

Date	COMBINED TOTAL		RESERVE CITY BANKS		COUNTRY BANKS	
	Gross demand	Time	Gross demand	Time	Gross demand	Time
August 1950.....	\$5,685,570	\$655,792	\$2,779,305	\$409,987	\$2,906,265	\$245,805
August 1951.....	5,966,447	672,892	2,807,435	373,116	3,159,012	299,776
April 1952.....	6,451,803	734,170	3,021,143	401,280	3,430,660	332,890
May 1952.....	6,329,241	736,861	2,959,228	403,137	3,370,013	333,724
June 1952.....	6,416,878	741,154	3,035,241	405,007	3,381,637	336,147
July 1952.....	6,566,056	744,250	3,147,075	408,616	3,418,981	335,634
August 1952.....	6,546,078	758,238	3,123,616	414,837	3,422,462	343,401

Gross demand deposits of all member banks in the District averaged \$6,546,078,000 during August, reflecting a slight decrease from the total for July but an increase of approximately 10 percent over August 1951. Reserve city banks more than accounted for the reduction during August, since country member banks reported a slight increase. Time deposits rose \$13,988,000, or about 2 percent, during August, marking a continuation of the upward trend that had prevailed in most months since March 1951. Country banks accounted for 56 percent of the increase in time deposits during August.

Debits to deposit accounts reported by banks in 24 cities of the District declined 6 percent during August from the total



reported for July. The reduction in the flow of spending which these figures reflect was general over the District, since the reporting banks in most cities showed decreases. At this lower level, however, charges to customer deposit accounts were 3 percent above the total for August 1951. The annual rate of turnover of deposits, or the annual rate of use of deposit accounts, was 13.8 in August, as compared with 14.5 in July and 14.9 in August 1951.

**BANK DEBITS, END-OF-MONTH DEPOSITS  
AND ANNUAL RATE OF TURNOVER OF DEPOSITS**

(Amounts in thousands of dollars)

City	DEBITS <sup>1</sup>			DEPOSITS <sup>2</sup>			
	August 1952	Percentage change from		August 31, 1952	Annual rate of turnover		
		Aug. 1951	July 1952		Aug. 1952	Aug. 1951	July 1952
<b>ARIZONA</b>							
Tucson.....	\$ 88,795	21	-5	\$ 107,801	9.8	9.5	10.4
<b>LOUISIANA</b>							
Monroe.....	43,223	4	-7	47,141	11.0	10.9	11.8
Shreveport.....	178,524	6	-13	201,540	10.7	10.8	12.2
<b>NEW MEXICO</b>							
Roswell.....	20,496	-j	-2	27,382	9.1	10.1	9.5
<b>TEXAS</b>							
Abilene.....	50,923	1	-3	56,821	10.7	11.6	10.9
Amarillo.....	128,376	-2	-11	116,699	13.4	13.6	14.9
Austin.....	135,700	j	-7	119,173	13.3	14.9	13.8
Beaumont.....	122,397	1	-2	94,361	15.2	16.3	15.1
Corpus Christi.....	154,601	21	9	112,814	16.8	16.4	15.8
Corleona.....	12,537	-6	5	21,860	7.0	7.4	6.6
Dallas.....	1,401,839	1	-6	1,058,770	15.7	17.8	16.7
El Paso.....	165,672	9	-7	153,025	13.1	14.0	14.0
Fort Worth.....	506,785	6	-4	405,866	14.9	16.2	15.6
Galveston.....	81,191	8	1	102,403	9.4	9.2	9.2
Houston.....	1,544,095	4	-6	1,171,148	15.7	16.8	16.7
Laredo.....	20,459	-3	-2	25,074	9.8	12.0	10.0
Lubbock.....	93,731	13	-12	98,720	11.3	11.2	12.5
Port Arthur.....	44,465	5	-1	43,245	12.6	11.8	12.7
San Angelo.....	36,256	-9	-2	51,358	8.5	9.4	8.9
San Antonio.....	353,796	-4	-5	396,847	10.7	11.8	11.4
Texarkana <sup>3</sup> .....	20,913	6	-1	28,503	8.9	9.8	9.4
Tyler.....	52,082	5	-4	54,719	10.9	11.6	11.2
Waco.....	71,085	11	1	89,479	9.6	9.8	9.5
Wichita Falls.....	81,721	4	-12	105,932	9.2	9.2	10.4
<b>Total—24 cities.....</b>	<b>\$5,409,662</b>	<b>3</b>	<b>-6</b>	<b>\$4,690,681</b>	<b>13.8</b>	<b>14.9</b>	<b>14.5</b>

<sup>1</sup> Debits to deposit accounts except interbank accounts.

<sup>2</sup> Demand and time deposits, including certified and officers' checks outstanding but excluding deposits to the credit of banks.

<sup>3</sup> These figures include only one bank in Texarkana, Texas. Total debits for all banks in Texarkana, Texas-Arkansas, including two banks located in the Eighth District, amounted to \$38,897,000 for the month of August 1952.

j indicates change of less than one-half of 1 percent.

Between August 15 and September 15, total earning assets of the Federal Reserve Bank of Dallas declined \$5,210,000, reflecting principally the net result of a reduction of \$13,800,000 in discounts for member banks and an increase of \$8,571,000 in holdings of United States Government securities. Other changes indicated in the condition statements include decreases of \$11,706,000 in gold certificate reserves and \$1,358,000 in member bank reserve deposits. On September 15, notes of this bank in actual circulation amounted to \$737,317,000, an increase of \$16,283,000 during the preceding month.

**CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS**

(In thousands of dollars)

Item	Sept. 15, 1952	Sept. 15, 1951	Aug. 15, 1952
Total gold certificate reserves.....	\$ 704,874	\$ 614,394	\$ 716,580
Discounts for member banks.....	18,300	2,131	32,100
Industrial advances.....	0	75	0
Foreign loans on gold.....	1,406	0	1,387
U. S. Government securities.....	1,064,271	1,105,791	1,055,700
Total earning assets.....	1,083,977	1,107,997	1,089,187
Member bank reserve deposits.....	1,037,296	982,408	1,038,654
Federal Reserve notes in actual circulation.....	737,317	668,525	721,034

The Acting Secretary of the Treasury announced on September 12 the offering of a new 14-month 2 1/8-percent Treasury note to holders of the 1 7/8-percent certificates of indebtedness maturing October 1 and outstanding in the amount of \$10,861,027,000. Subscription books for the new offering were opened on the day of the announcement and remained open until the close of business on September 18.

The money market was generally tight during the first half of September, marking a continuation of the tightness that had prevailed virtually without interruption during the preceding 5 months. Between September 2 and September 12, rates on Federal funds and loans to Government securities dealers were generally 1 11/16 percent and 2 to 2 1/4 percent, respectively, while prices of the short- and near-term intermediate taxable Treasury bonds were unchanged to slightly lower. Decreases in prices of restricted issues were within the range of 17/32 to 20/32. During the two statement weeks ended September 10, excess reserves of member banks rose an estimated \$667,000,000, reflecting principally the net effect of an increase in Reserve bank credit, decreases in Treasury and other deposits at the Reserve banks, an increase in money in circulation, and a reduction of required reserves. Despite the easing of member bank reserve positions, however, the money market continued tight during the period.

A somewhat easier tone developed in the money market between September 15 and September 18. Bids for Federal funds declined to 1/4 percent on the latter date, while rates on loans to Government securities dealers declined to 1 3/4 to 2 percent. Reflecting the easier tone, prices of Government securities in the short-term area tended to firm.

The Secretary of the Treasury announced on September 24 that tenders of bids to an issue of 161-day Treasury bills in the amount of \$2,500,000,000 will be accepted on October 3. The bills, designated Tax Anticipation Series, will be dated October 8 and will mature March 13, 1953. The Secretary announced that these bills are being issued to meet anticipated cash requirements of the Treasury and will be acceptable at face value in payment of income and profits taxes due on March 15, 1953. Any qualified depository may make payment for bills allotted to it for itself and its customers by credit to Treasury Tax and Loan account, up to any amount for which it shall be qualified in excess of existing deposits. Bills which are not presented in payment of income and profits taxes due on March 15, 1953, will be paid in cash at maturity.



Nonagricultural employment in the five states lying wholly or partly within the Eleventh District was larger in each of the first 7 months of 1952 than in the corresponding months last year, with July showing a year-to-year gain of 3 percent; manufacturing employment in July was up 5 percent. The July total of 3,711,000 nonagricultural workers is higher than any previous July on record and reflects a seasonal increase over earlier months this year. It is expected that reports on nonagricultural employment for the remaining months of 1952 will show further gains in the District, although the effects of the steel strike upon employment in the steel fabricating and nondefense industries prob-



## NONAGRICULTURAL EMPLOYMENT

Five Southwestern States<sup>1</sup>

Type of employment	Number of persons			Percent change July 1952 from	
	July 1952	July 1951	June 1952	July 1951	June 1952
Total nonagricultural wage and salary workers.....	3,710,700	3,595,300	3,702,500	3.2	.2
Manufacturing.....	684,100	652,400	681,400	4.9	.4
Nonmanufacturing.....	3,026,600	2,942,900	3,021,100	2.8	.2
Mining.....	223,100	212,800	222,300	4.8	.4
Construction.....	288,800	297,000	284,700	-2.8	1.4
Transportation and public utilities.....	408,600	396,800	409,300	3.0	-2
Trade.....	934,200	907,900	934,200	2.9	—
Finance.....	143,400	131,300	142,300	9.2	.8
Service.....	427,900	416,200	426,300	2.8	-.4
Government.....	600,600	580,900	602,000	3.4	-2

<sup>1</sup> Arizona, Louisiana, New Mexico, Oklahoma, and Texas.  
SOURCE: State employment agencies.

ably will be felt for some time. Unemployment in the District continues at a low level relative to employment. The July estimate for Texas unemployment was 96,500 workers; this figure is the equivalent of 4 percent of the total nonagricultural employment — the same ratio as in July 1951.

The most recent estimates by the Department of Labor reveal that in July the labor supply moderately exceeded labor requirements in all but one of the 17 labor market areas in the District. Only in the Dallas area was the labor supply approximately in balance with demand.

Daily average production of crude oil in the Eleventh District reached a record level in the second week of September, amounting to 3,249,000 barrels, or 4,700 barrels higher than the previous weekly record of the second week of March. This high level of production reflects the sharp boost in September allowables in Texas and followed the substantial increase in production in August. Daily average production in the District in August was 3,059,000 barrels, or 167,000 barrels greater than in the previous month but 24,000 barrels less than in August a year ago. Cumulative production in the

District during the first 8 months of this year was fractionally larger than in the corresponding period last year.

Another new high in the daily average crude oil production of the District is expected for October. The Texas Railroad Commission raised the number of producing days permitted on a state-wide basis from 22 in September to 23 for October but cut back the number of producing days of the East Texas field from 19 to 18. This action has the effect of raising October allowables by 4,344 barrels daily.

Crude oil production in the Nation has followed the pattern set in the District, attaining a record level of 6,461,000 barrels per day in the second week of September. August production averaged 6,274,000 barrels daily and was 185,000 barrels more than in July and 47,000 barrels more than in August a year ago. Total production in the first 8 months of the year was less than 1 percent greater than during the same period of last year.

## CRUDE OIL PRODUCTION

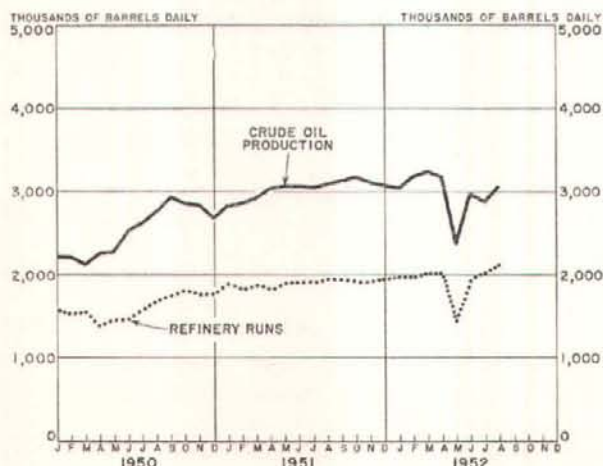
(Barrels)

Area	August 1952		Increase or decrease in daily average production from	
	Total production	Daily avg. production	Aug. 1951	July 1952
<b>ELEVENTH DISTRICT</b>				
Texas R. R. Com. Districts				
1 South Central.....	1,031,750	33,282	-429	1,398
2 Middle Gulf.....	4,792,950	154,611	-9,886	14,421
3 Upper Gulf.....	14,535,300	468,881	-26,780	32,636
4 Lower Gulf.....	7,723,950	249,159	-12,228	19,853
5 East Central.....	1,420,000	45,806	-10,075	-4,470
6 Northeast.....	11,925,100	384,681	-5,521	4,362
East Texas.....	8,163,200	263,329	-8,136	-1,808
Other fields.....	3,761,900	121,352	2,615	6,170
7b North Central.....	3,034,700	97,874	15,846	6,889
7c West Central.....	4,758,200	153,490	42,946	12,592
8 West.....	29,072,800	937,832	-33,444	75,790
9 North.....	5,520,250	178,073	18,199	15,713
10 Panhandle.....	2,544,100	82,068	-3,977	855
Total Texas.....	86,359,100	2,785,777	-25,349	180,039
New Mexico.....	4,889,900	157,739	12,488	-5,397
North Louisiana.....	3,594,900	115,965	-11,040	-8,125
Total Eleventh District.....	94,843,900	3,059,481	-23,901	166,517
OUTSIDE ELEVENTH DISTRICT.....	99,638,950	3,214,159	70,436	18,648
UNITED STATES.....	194,482,850	6,273,640	46,535	185,164

SOURCE: Estimated from American Petroleum Institute weekly reports.

## CRUDE OIL PRODUCTION AND REFINERY RUNS TO STILL

ELEVENTH FEDERAL RESERVE DISTRICT



SOURCE: American Petroleum Institute.

Despite the increase in crude oil production to record levels, stocks of crude oil in the Nation have continued to decline, at least through the first part of September. Stocks on September 13 amounted to 264,000,000 barrels, which is 24,000,000 barrels lower than the post-strike high but 14,000,000 barrels higher than a year earlier. District stocks on September 13 stood at 136,000,000 barrels, which is down 17,000,000 barrels from the June 21 peak following the oil strike. Crude oil stocks in the District, however, were still 8,000,000 barrels higher than a year ago.

Refining activity in both the District and the Nation during the first half of September continued at very high levels but was down a little from the all-time highs reached in August. Crude runs to stills in the District in August averaged 2,100,000 barrels daily, which is 77,000 barrels higher than in July and 145,000 barrels higher than in August a year ago. In the Nation, daily average crude runs to stills in August amounted to 7,088,000 barrels, or 136,000 more than in July and 543,000 more than in the same month last year.



The small decrease in refinery activity in the first part of September may reflect a tightening in refiners' storage facilities, particularly for distillate fuel oils. Refineries have made substantial progress in correcting the depressed condition of refined stocks which occurred during the oil strike in May. National stocks of the four major refined products increased 82,500,000 barrels from May 31, at the end of the strike, to September 13, as compared with an increase of only 47,350,000 barrels during the same period of last year. While stocks of gasoline and kerosene at mid-September were down 6 percent and 4 percent, respectively, from a year earlier, stocks of both distillate and residual fuel oils were 9 percent higher.

zuela will apply to all other nations with which the United States has "the most favored nation" agreements.

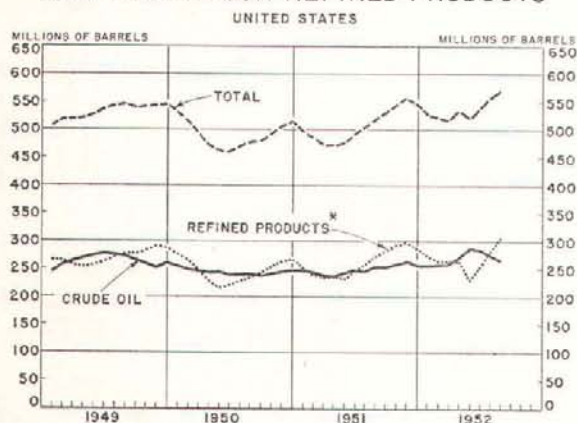
#### VALUE OF CONSTRUCTION CONTRACTS AWARDED

(In thousands of dollars)

Area and type	August	August	July	January—August	
	1952p	1951	1952p	1952p	1951
ELEVENTH DISTRICT..	\$ 105,964	\$ 92,142	\$ 116,064	\$ 961,311	\$ 1,014,902
Residential.....	47,843	32,217	45,193	391,904	429,013
All other.....	58,121	59,925	70,871	569,407	585,889
UNITED STATES <sup>1</sup> ....	1,438,725	1,265,811	1,511,285	10,708,588	11,532,580
Residential.....	627,596	567,566	608,078	4,579,711	4,439,437
All other.....	811,129	698,245	903,207	6,128,877	7,093,143

<sup>1</sup> 37 states east of the Rocky Mountains.  
p—Preliminary  
SOURCE: F. W. Dodge Corporation.

#### STOCKS OF CRUDE OIL AND FOUR MAJOR REFINED PRODUCTS



\* Gasoline, kerosene, gas and distillate fuel oil, and residual fuel oil.  
SOURCE: American Petroleum Institute, U. S. Bureau of Mines.

Total construction contracts awarded in the District in August were valued at almost \$106,000,000, which is 9 percent below the July total but 15 percent above August 1951; the cumulative total for the first 8 months of 1952 was down only 5 percent, compared with a decline of 7 percent for the United States. The total value of nonresidential construction contracts awarded in the District declined in August for the fifth consecutive month, falling to about \$58,000,000. This is 34 percent below the March peak but only 3 percent lower than in August 1951; the January-August total was 3 percent below a year earlier. On the other hand, the value of residential construction contract awards rose in August to about \$48,000,000—6 percent above July and 49 percent above the same month last year; however, the cumulative total for the year through August was down 9 percent from 1951.

#### BUILDING PERMITS

City	August 1952		Percentage change in valuation from		8 months 1952		Percentage change in valuation from 8 months 1951
	Number	Valuation	Aug. 1951	July 1952	Number	Valuation	
LOUISIANA							
Shreveport....	353	\$ 1,032,246	-1	-46	2,947	\$ 14,665,310	34
TEXAS							
Abilene.....	71	328,223	8	-33	1,029	6,121,272	20
Amarillo.....	566	2,619,827	99	11	3,275	17,859,877	30
Austin.....	288	1,978,512	-47	-18	2,116	19,382,497	-2
Beaumont.....	257	365,665	34	-6	1,932	6,075,002	51
Corpus Christi..	409	1,577,468	35	39	3,089	15,583,444	6
Dallas.....	1,788	8,634,298	-7	-51	14,718	74,300,218	7
El Paso.....	289	627,200	15	-35	2,490	10,806,740	-11
Fort Worth....	758	2,721,680	2	-24	7,623	32,315,161	-5
Galveston.....	136	183,222	135	-32	985	3,420,085	-50
Houston.....	882	8,630,934	-26	-16	7,738	72,422,746	-26
Lubbock.....	312	1,225,626	-27	-53	2,224	12,730,406	8
Port Arthur....	192	400,663	-64	-8	1,520	2,835,423	-32
San Antonio....	1,463	3,131,400	-56	24	11,412	30,855,749	-8
Waco.....	221	537,824	-77	-71	2,376	9,957,964	-9
Wichita Falls..	134	792,780	114	-56	957	17,010,192	177
Total.....	8,119	\$34,787,568	-22	-31	66,431	\$346,342,086	-3

The Board of Governors of the Federal Reserve System suspended Regulation X—Real Estate Credit—effective September 16, 1952. The suspension applies to credit terms on both residential and nonresidential properties. Conventional mortgage loans are still subject to basic state and federal statutes governing real estate loans by financial institutions. The Board's action relates only to real estate credit not insured or guaranteed by the Government. A statement on terms that will apply to government-aided real estate credit has been issued separately by the Housing and Home Finance Administrator.

Drilling activity continues to be curtailed by the shortage of oil field tubular goods caused by the steel strike, although a moderate increase in drilling was evident during the first half of September. The number of active rotary rigs in the Nation in the week ended September 15 totaled 3,297, according to Hughes Tool Company reports. This is 84 higher than the low point for the year reached in late August but 351 less than in the corresponding week of September last year.

In contrast to the moderate increase in drilling activity in recent weeks, the number of wells completed has been declining. *Oil and Gas Journal* data show the number of well completions in the Nation in the week ended September 13 at 799, which is 198 below the high for the year reported in early August. This decrease in well completions reflects the earlier curtailment in drilling activity.

The tariff on oil imports of this country will be lowered by a trade agreement signed by the United States and Venezuela on August 28. This agreement, which becomes effective October 11, drops the quota system on oil imports and sets the duty on imports at 5.25 cents per barrel on oil under 25 degrees A.P.I. gravity and 10.5 cents per barrel on oil of 25 degrees gravity or higher. The current rate is 10.5 cents per barrel on imports of a yearly quantity equal to 5 percent of the petroleum refined in the United States during the preceding year, with all imports in excess of this amount bearing a tariff of 21 cents per barrel. The trade agreement with Vene-