

# BUSINESS REVIEW

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# SEASONALLY ADJUSTED INDEXES OF PETROLEUM ACTIVITY

Policy makers use statistical data as a beginning point to determine future action. A substantial amount of statistical information is collected and distributed regularly, varying in scope from balance sheets of individual firms to aggregate measures of economic activity. Although raw data are helpful for scientific analysis, data which have been adjusted to eliminate known recurring developments and, hence, reveal only basic trends are more useful.

One basic statistical method used to determine changes in economic behavior is time-series analysis. The four measures included in time-series analysis are secular trends, cyclical fluctuations, seasonal changes, and irregular movements. Secular trends are the result of underlying forces that continue over an extended time and cause a long-term upward or downward movement. For example, total energy consumption has trended upward as a result of growth in industrialization and other factors.

Cyclical fluctuations cover a shorter time span than secular trends and reflect more or less regularly recurring increases and decreases in the activity measured. In the post-World War II period, there have been four identifiable business cycles.

Seasonal changes are the variations that occur within a year, and the magnitude of the changes usually is fairly consistent from one year to the next. The seasonal pattern remains unaltered as long as the determinants of the variation do not change. A marked rise in heating oil demand occurs each winter season.

## FEDERAL RESERVE BANK OF DALLAS

DALLAS, TEXAS

#### EXPECTED SEASONAL PERCENTAGE CHANGES IN NATIONAL PETROLEUM ACTIVITY INDICATORS, BY MONTHS

Indicator	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
CRUDE OIL RUNS TO REFINERY STILLS (daily average)	2.3	-2.9	-0.1	-3.4	0.7	1.6	-0.5	3.0	-2.3	-2.4	2.5	1.7
DEMAND (daily average) Gasoline Kerosene Distillate fuel oil Residual fuel oil Four refined products	-6.1 7.3 5.1 2.1 .3	-2.9 -9.1 -5.1 -1.1 -3.4	5.5 31.9 23.5 13.3 9.8	9.6 -41.0 -24.9 -9.6 -6.5	5 -33.0 -21.8 -13.7 -8.4	5.6 5.3 6.4 2.5 2.0	.5 24.9 -3.9 -2.8 -3	-2.9 -14.6 -5.0 -1.3 -3.6	7 47.6 26.9 3.5 4.6	6.5 22.2 11.9 6.7 2.0	-3.9 30.2 34.6 16.7 8.5	3.7 44.2 36.3 15.7 17.0
	6.8 -21.3 -25.3 -5.1 -6.3	4.9 -12.7 -17.2 -3.3 -4.3	2.7 -4.4 -8.5 2	-4.5 12.5 4.1 2.0 -1.5	-3.8 16.0 17.7 4.3 3.3	-4.2 12.3 17.9 4.9 4.1	-4.5 5.2 15.0 1.7 2.6	-1.3 11.9 17.1 5.0 6.4	-2.9 5.0 8.3 2.8 2.5	6 2.3 5.0 4 1.7	4.5 -2.8 -4.5 -1.3 6	3.7 -15.5 -16.3 -9.4 -7.0

SOURCES: American Petroleum Institute. United States Bureau of Mines. Federal Reserve Bank of Dallas.

Finally, irregular movements in data are caused by unexpected or unforeseen influences. Strikes or abnormal weather conditions could cause irregular movements. Thus, an exceptionally cold winter would accentuate the seasonal increase in heating oil demand.

#### Adjustment for Seasonality

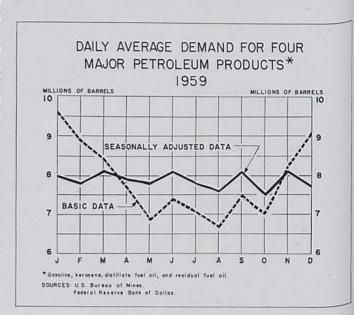
Knowledge of secular trends and cyclical fluctuations is particularly valuable for intermediate- and long-term prediction, and comprehension of seasonal changes is most useful for month-to-month forecasting. In addition, an understanding of probable seasonal influences aids businessmen in making prudent decisions concerning production, storage, and pricing. Seasonal patterns may vary among firms in an industry, but seasonally adjusted data on an industry-wide basis permit performance comparisons for each firm relative to the entire industry.

Two major elements of seasonality are developed in an analysis intended to remove seasonal influences from raw data. One of the elements is the measure of seasonality - that is, seasonal adjustment factors, and the other is the seasonally adjusted series derived from the adjustment factors. To illustrate the effect of seasonal adjustment, both adjusted and unadjusted demand data for the four major petroleum products (gasoline, kerosene, distillate fuel oil, and residual fuel oil) are shown in the accompanying chart. If only seasonal factors had been affecting the month-to-month demand for the four major products, the line portraying the adjusted series would be a smooth one. Since seasonal changes were removed from the data in the computation process, it is apparent that petroleum demand was influenced by the other time-series components. As a consequence of these influences, supraseasonal change occurred in certain months and subseasonal deviation, in other months.

Seasonal adjustment factors, therefore, indicate the magnitude and direction of variations that would occur normally if other influences were nonexistent. Expected monthly changes for the major indicators of petroleum activity have been derived from the adjustment factors and are presented in the above table. Daily average demand for the four major refined products, as an example, should increase 2 percent during June, based on the seasonal pattern established by the industry between 1950 and 1959.

#### Petroleum Activity Indicators

Seasonal adjustment factors for barometers indicating petroleum activity were developed from data assembled by the Federal Reserve Bank of Dallas for processing by a computer at the Board of Governors of the Federal Reserve System. Seasonally adjusted indexes of major petroleum series were then calculated by using these adjustment factors. The indexes for



#### NATIONAL PETROLEUM ACTIVITY INDICATORS

(Seasonally adjusted indexes, 1957-59 = 100)

Indicator	April	March	February	January	April	
	1961 p	1961 p	1961	1961	1960	
CRUDE OIL RUNS TO REFINERY STILLS (daily average) DEMAND (daily average)	102	102	107	103	104	
Gasoline Kerosene. Distillate fuel oil. Residual fuel oil. Four refined products	102	103	106	101	105	
	164	104	104	102	122	
	112	96	95	105	95	
	97	107	98	97	103	
	105	102	100	102	103	
STOCKS (end of month) Gasoline Kerosene. Distillate fuel oil Residual fuel oil Four refined products	106	105	105	105	105	
	128	143	128	125	100	
	102	113	113	103	99	
	81	85	85	83	77	
	103	105	105	102	99	

P — Preliminary.
SOURCES: American Petroleum Institute.
United States Bureau of Mines.
Federal Reserve Bank of Dallas.

January through April 1961 and for April 1960 are given in the accompanying table; and current, monthearlier, and year-earlier index numbers for the indicators will appear regularly in the Business Review.

The seasonal adjustment factors were computed from the raw data for the 10 years 1950-59. In developing the indexes, the base period 1957-59 has been used. The unadjusted data for current and monthearlier index numbers have been estimated from weekly American Petroleum Institute statistics. As monthly data become available from the United States Bureau of Mines, the preliminary indexes are revised. This method is necessary because of the lag in Bureau of Mines statistics.

Current and month-earlier estimates of daily average demand have been based on weekly production, inventory, and import data. In addition to this type of information, the Bureau of Mines statistics reflect the inclusion of data on fuel oils transferred from gasoline plants, as well as various other items. Because of the somewhat broader coverage of the Bureau of Mines monthly data, year-to-year comparisons tend to understate actual demand by about 2 or 3 percent. Interpretations of year-to-year changes in demand, therefore, should be made with caution.

The refinement of the statistics related to these measures of petroleum activity should provide the reader with a better estimate and more realistic evaluation of changing conditions in the industry. Moreover, seasonally adjusted data should be an aid to more accurate monthly forecasting of petroleum activity.

> SANFORD R. SINGER General Economist

Seasonally adjusted monthly indexes for January 1950 through December 1960 have been computed for the indicators of petroleum activity. A technical note concerning the method of calculation and the scope and limitations of the data is also available. This material may be obtained by addressing a request to:

Research Department Federal Reserve Bank of Dallas 400 South Akard Street, Dallas 2, Texas

#### UNEMPLOYMENT IN THE SOUTHWEST DURING THE EARLY 1960's

Unemployment is presently recognized as one of the principal domestic economic issues of the day and one for which the solutions are complex and highly debatable. The rate of unemployment, seasonally adjusted, stayed near 6.8 percent of the labor force throughout the first quarter of 1961. Even in April, those persons in the labor force who were not working but were employable and seeking work numbered 5.0 million, or 6.8 percent of the labor force — compared with 5.2 percent in the spring of 1960.

Although civilian employment has been increasing on a month-to-month basis and amounted to 65.7 million in April, there were 500,000 fewer people at work than a year earlier. The year-to-year changes in employment and unemployment for April partly reflected the addition of 900,000 new workers to the civilian labor force. Since employment opportunities have not been expanding fast enough to absorb this growth, unemployment has risen.

The Nation's labor force, employment, and unemployment trends are at least partly reflected in the Southwest. However, in this younger section of the Nation, with its more rapid growth rate, some of the characteristics and tendencies of the unemployment problem which are evident in older areas have not yet appeared. Nevertheless, the Southwest has shown an increase in unemployment, and this study of the recent changes in employment and unemployment may provide a fuller appreciation of southwestern economic strengths and weaknesses.

Before recent southwestern unemployment shifts are reviewed, some explanation of the types of unemployment is necessary. Unemployment can take many forms; it may be seasonal, frictional, cyclical, or structural. At times, there is no clear distinction between these various forms of unemployment, although the duration is usually a differentiating factor. Seasonal unemployment is short-term, resulting from variations in economic activities that normally take place at certain times of the year. Frictional unemployment is also short-term unemployment, occasioned by workers changing jobs, occupations, industries, or areas of employment. Cyclical unemployment is related to the periodic, widespread swings in economic activities. Thus, much of the unemployment which developed over the past 9 months in the steel industry could be called cyclical, as it was caused by the recession in the economy.

Structural, or chronic, unemployment is of fairly long duration and results from shifts in consumer demands, industries, plant location, and technology; foreign competition; or other factors. Chronic unemployment may occur and persist in an otherwise prosperous economy if other employment possibilities are limited for the displaced worker because of his lack of the skills, education, or training required in expanding activities. Total unemployment during any given period usually consists of a combination of these different kinds of unemployment, although the proportion of each kind of unemployment may vary substantially from place to place and from time to time.

A great deal of information about the current features of the labor force is collected on a direct and recurring basis. Other data, such as insured unemployment information, are indirect by nature, being a byproduct of the process of administering the separate state and Federal unemployment insurance laws. Both direct and indirect data reveal some aspects of the incidence and significance of unemployment in the Southwest during the fourth post-World War II recession.

#### Southwestern Unemployment

The postwar peak in the amount and rate of total unemployment in the five Eleventh District states of Arizona, Louisiana, New Mexico, Oklahoma, and Texas occurred during February 1961, when an estimated 448,000 persons were unemployed. The coincidence of highs in seasonal and cyclical unemployment and a small amount of chronic unemployment pushed the unadjusted unemployment rate to around 6.8 percent of the total southwestern civilian labor force, compared with 8.1 percent at the national level. Southwestern nonfarm wage and salary employment in February 1961 was slightly above a year earlier and was down only seasonally from the all-time peak of 4.5 million in December 1960. During the first quarter of 1961, such employment averaged 4,395,700, or 0.5 percent above the average in the first quarter of 1960. National employment declined in this period.

Regional insured unemployment also rose to a postwar high in mid-February to reach 187,100, which is about 5.3 percent of the total insured labor force in the five states — compared with an 8.4-percent rate for the Nation. Although the workers covered by unemployment insurance constitute only one-third to onehalf of the civilian labor force and about two-thirds of

#### RATES OF INSURED UNEMPLOYMENT IN SELECTED NONAGRICULTURAL INDUSTRIES FEBRUARY, 1961 AND 1960

Four Southwestern States and United States

(Insured unemployment as percentage of insured employment)

	Four :	outhwestern	states1	United States			
Industry	February			Feb			
	1961	1960	<ul> <li>Percent - increase</li> </ul>	1961	1960	<ul> <li>Percent increase</li> </ul>	
Manufacturing Construction	6.3 19.2 3.6 5.0	4.4 14.6 2.4 3.5	43 32 50 43	9.7 27.5 4.6 5.5	5.4 21.5 3.3 4.2	80 28 39 31	
Total	6.5	4.7	38	9.1	5.9	54	

Arizona, Louisiana, Oklahoma, and Texas.
 SOURCES: State employment agencies.
 United States Department of Labor.

the nonfarm wage and salary workers in any southwestern state, information on the industrial and occupational background of such workers and the duration and other characteristics of their unemployment yields a fairly comprehensive picture of recent labor market developments in the Southwest and permits valid comparisons with the Nation.

Insured unemployment in the Southwest reached a cyclical low of 97,400 in March-April 1960 to account for 6.2 percent of the Nation's total insured unemployment. About 40 percent of these workers in the Southwest had been out of work for less than 1 month, nearly 45 percent had been unemployed for 5 to 14 weeks, and approximately 15 percent had not worked in 15 Weeks or more. By February 1961, the Southwest's insured unemployment had increased sharply to a peak of 187,100; but the Nation had experienced a considerably faster rise in insured unemployment, owing Partly to the higher percentage of workers covered and partly to the higher proportion of durables manufacturing employment, which was particularly affected in this recession. The Southwest's share of total national insured unemployment, therefore, declined from 6.2 percent to 5.5 percent.

Of considerable importance to the Southwest were the shifts in duration of unemployment at the February 1961 peak as compared with the previous cyclical low. From March 1960 to February 1961, the largest increase in insured unemployment in the Southwest occurred in the 5- to 14-week category. In three of the states, the rise in 15-week unemployment was less than 60 percent, while the rise in Arizona was sharply higher, partly because of the smaller number involved. Proportionately, Texas had the lowest rate of insured unemployment advance and accounted for only 45 percent of the Southwest's total insured unemployment

in February 1961, compared with 49 percent in March 1960. Such comparisons must be made with caution because of the variations in coverage among states, the length of time the insured worker draws compensation, and reporting procedures.

For the Southwest as a whole, though, the changes between March 1960 and February 1961 provide valid comparisons. In inspecting these changes, it is clear that the principal forces in the rise in southwestern unemployment have been seasonal and cyclical. In percentage terms, more of the Southwest's insured unemployed had been out of work for a generally shorter period of time than the Nation's unemployed. There were considerable differences in the impact of the recession on various southwestern industrial activities.

Eighty percent of the February peak in southwestern insured unemployment was distributed among the construction, manufacturing, trade, and service industries, with one-third of the total in each of the first two. Other nonfarm employment sectors accounted for the remaining 20 percent of insured unemployment. There was very little difference between the Southwest and the Nation as to the extent to which workers in these selected industries were covered by unemployment insurance. The accompanying table reflects the rates of unemployment in these industries in both the Nation and the four southwestern states which report the industrial breakdown of insured unemployment. A broader picture of quarter-to-quarter changes in all major southwestern and national nonfarm wage and salary employment sectors is also provided in tabular form. Together, these tables point up important differences in recent patterns of employment and unemployment.

#### NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT FIRST-QUARTER AVERAGES, 1961 AND 1960

Five Southwestern States and United States

(In thousands of persons)

	Five s	outhwestern :	tates1	United States			
	First-quart	er average		First-quart	er average		
Type of - employment	1961	1960	Percent change	1961	1960	Percent	
Manufacturing	760.3 242.1	778.6 238.1	-2.4 1.7	15,503.2 624.7	16,486.8 663.3	-6.0 -5.8	
Construction Transportation and public	288.6	289.4	3	2,368.3	2,371.6	1	
utilities	392.7	404.5	-2.9	3,756.0	3,890.0	-3.5	
Trade	1,081.4	1,084.9	3	11,368.9	11,338.9	.3	
Finance	208.5	199.8	4.4	2,499.3	2,435.6	2.6	
Service	562.8	544.2	3.4	6,539.3	6,483.6	3.2	
Government	859.3	832.2	3.3	8,668.2	8,398.9	3.2	
Total	4,395.7	4,371.7	,5	51,327.9	52,068.7	-1.4	

<sup>1</sup> Arizona, Louisiana, New Mexico, Oklahoma, and Texas. SOURCES: State employment agencies. United States Department of Labor.

The principal fact indicated in these two tables is that, on balance, the levels of activity in the major nonfarm wage and salary employment sectors have been considerably better maintained in the Southwest than in the Nation. On a quarterly basis, southwestern employment increases have been greater and declines smaller than nationally, with the exception of construction and trade. Even in these cases, however, the rates of unemployment among insured workers have been lower in the Southwest than in the Nation.

Although 51,000 of the Southwest's insured unemployed in February had formerly worked in regional manufacturing, factory employment was considerably steadier than in the Nation, partly as a result of different seasonal patterns and variations in the composition of manufacturing activities. The net regional performance in terms of lower rates of unemployment in basic industries (especially manufacturing and construction), plus employment growth in other nonfarm sectors, reflects strength in comparison to the Nation.

Other data on the occupational impact of insured unemployment seem to indicate that insured semiskilled workers in the Southwest have fared as well as those in the Nation. However, there is some evidence that the region's skilled occupations have experienced a somewhat greater amount of employment variation than similar covered occupations in the Nation, probably as a result of cutbacks in the Southwest's oil field equipment industry, the decline in mining employment, and the cutbacks in the aircraft industry.

The location of the unemployed may be deduced from a brief inspection of recent changes in employment and unemployment trends in the 20 major District labor markets. The 10 largest of these markets are Austin, Beaumont-Port Arthur-Orange, Corpus Christi, Dallas, El Paso, Fort Worth, Houston-Baytown, and San Antonio, Texas; Shreveport, Louisiana; and Tucson, Arizona. The eight major Texas markets accounted for an average of 48 percent of total unemployment in the State, 55 percent of the Texas total insured unemployment, and 70 percent of the State's total nonfarm employment during the March 1960-February 1961 period. The District's major labor markets, while experiencing large year-to-year increases in unemployment, also experienced rather marked declines in unemployment between February and March.

Of the District's major markets, only Beaumont-Port Arthur-Orange, Corpus Christi, and the two smaller markets of Laredo and Texarkana, Texas, had rates of unemployment in excess of 5.9 percent during the downturn. Although their unemployment rates were above 6.0 percent, these four markets accounted for less than one-tenth of the recent peak level of total Texas unemployment.

#### Labor Force Growth and Outlook

It is important that a short-run analysis be related to the longer-run trends being experienced in the region and in the Nation. There is ample evidence that the creation of adequate employment opportunities for the large number of World War II babies now coming of age and entering the labor force will be one of the major domestic tasks of the 1960's. The United States Department of Labor estimates that, by 1970, there will be a net increase of 13.5 million workers in the Nation's labor force. This increase would be the largest for any 10-year period in the country's history — 50 percent greater than during the 1950's. It is estimated that the 1970 labor force will reach around 86.6 million, compared with 73.1 million in 1960.

If the capital investment and productive capabilities these workers represent can be economically employed on a sustained basis, the real growth of the Nation should easily surpass that in any previous comparable period. Not all regions of the Nation, however, are likely to participate equally in this growth. Many states and areas may continue to experience substantial and chronic unemployment, while other regions are likely to grow rapidly, providing increasing employment opportunities for local inhabitants and in-migrating workers.

Recent capital expenditure trends indicate that the Southwest will continue on the forefront of regions which are growing rapidly. The Southwest is making large additions to its productive capacity, especially in petrochemicals, electrical machinery, and energy sources. Industrial building expenditures in the five southwestern states increased to a record figure of over \$500 million to account for one-fifth of the national amount spent for new industrial building during 1960. First-quarter 1961 data indicate that this trend is continuing. To the extent that the demand for regional products and services increases and the possibilities for even greater capital commitments in basic southwestern economic activities expand, employment opportunities should improve, and unemployment should decrease.

> BERNARD GOSS Industrial Economist

# BUSINESS REVIEW

### BUSINESS, AGRICULTURAL, AND FINANCIAL CONDITIONS



The Texas industrial production index in April showed no change from a month earlier, as increases in manufacturing activities offset a decline in

mining. Nonfarm employment in the Eleventh District states increased during April in all sectors except mining and transportation and public utilities. Unemployment in Texas during the month declined 8 percent from the March level.

Total construction contracts in the District states during March rose from both a month earlier and a Year ago. Increases in residential building and public Works and utilities offset a month-to-month decline in nonresidential building.

Department store sales in the District in April declined 5 percent from the previous month and 11 percent from April 1960. The declines reflected both the earlier date of Easter this year and the fewer number of business days. The dollar volume of March and April sales combined was 2 percent under a year ago. However, when adjusted for seasonal variations and for differences in the number of trading days, March-April sales were fractionally above the comparable period in both 1959 and 1960.

New car registrations in the four major Texas markets in April decreased 14 percent from March and were 27 percent below April 1960.

In the 4 weeks ended May 17, loans, investments, and demand deposits at the weekly reporting member banks in the District decreased. Time deposits, on the other hand, moved moderately higher. Reserve positions of the District member banks showed little change during April and remained comfortable.

Daily average crude oil production in the District declined moderately in April and early May, but drilling activity advanced. In the Nation, both crude oil production and crude oil runs to refinery stills were reduced. The demand for the four major refined products declined less than seasonally; however, product markets were generally weak.

Dry soils over a major portion of the District have delayed crop seedings and retarded plant growth. Wheat output in the Southwest is estimated to be below both a month earlier and a year ago. Although livestock remain in good condition, supplemental feeding has been stepped up in some areas; and pastures throughout many sections of the District are suffering from lack of moisture.



Eleventh District department store sales in April declined 5 percent from March and 11 percent from April 1960. The declines were due partly to the

early date of Easter this year and partly to the fact that April had two less business days than March and one less business day than April 1960. Spanning the Easter period, combined sales for March and April, with one less business day this year, were 2 percent less than in the same 2 months in 1960. Sales during the first 4 months of 1961, which had two less business days than in 1960, also trailed January-April last year by 2 percent. However, when adjusted for seasonal variations and for differences in the number

of trading days, sales for the first 4 months of 1961, as well as for March-April, were fractionally above the comparable period in both 1959 and 1960.

#### DEPARTMENT STORE SALES

(Percentage change in retail value)

	April 1		
Area	March 1961	April 1960	- 4 months, 1961 from 1960
Total Eleventh District	-5	-11	-2
Corpus Christi	-10	-17	
Dallas	-2	-10	_2
El Paso	6	-13	_ê
Fort Worth	2	-13	-3
Houston	-7	-10	0
San Antonio	-18	-10	1
Shreveport, La	5	-12	0
Waco	-7	-16	-3
Other cities	0	-10	-1

BUSINESS REVIEW

#### INDEXES OF DEPARTMENT STORE SALES AND STOCKS

Eleventh Federal Reserve District

(1947-49 = 100)

	SALES (Dai	ly average)	STOCKS (End of month)		
Date	Unadjusted	Seasonally adjusted	Unadjusted	Seasonally adjusted	
1960: April	172	181	189	182r	
1961: February	127 155 159	170 168 177	172 183 186p	178 174 179p	

r — Revised.

In 1960, District department store sales declined below the year-earlier level in May and remained under the 1959 figures until December, when sales rallied to reach a new peak for that month. This year, unadjusted sales in the first 2 weeks of May were 3 percent above the corresponding weeks in 1960, and sales for all of May will benefit in the year-to-year comparison as a result of one more business day.

Seasonally adjusted department store inventories in the District in the first 3 months of 1961 averaged 3 percent less than in the same period in 1960 but 6 percent more than in 1959. At the end of April, the adjusted index of stocks was 179 percent of the 1947-49 average, compared with 174 for March and 182 for April 1960.

New car registrations in the four major Texas markets in April decreased 14 percent from March and were 27 percent below April 1960. Declines from both a month ago and a year ago occurred in each of the major markets. The March-April registration declines ranged from 8 percent in Houston to 29 percent in Fort Worth; the decreases in Dallas and San Antonio were 14 percent and 11 percent, respectively. Compared with a year ago, registrations in April were down 22 percent in Dallas, 24 percent in San Antonio, 26 percent in Houston, and 42 percent in Fort Worth. In the first 4 months of 1961, total new car registrations in the four major markets were 24 percent less than in the comparable period in 1960.



Strong winds, warmer daytime temperatures, and cool nights were characteristic of the District's weather conditions during May. Hail in some western

sections resulted in crop damage. General rains are needed throughout much of the District in order to replenish seedbed moisture and promote plant growth. Precipitation during the last half of May was particularly beneficial in portions of central and western Texas and eastern New Mexico.

Seedings of the major crops in the Southwest are about on schedule with those of a year ago. Cotton planting has made rapid progress in Arizona, Louisiana, and New Mexico, as well as in the Blacklands, along the upper coast, and in irrigated fields of the Texas High Plains. Lack of moisture has delayed seedings in some areas of Texas. Cotton in the Lower Valley is fruiting and is making good development. The crop is well advanced as far north as Austin.

Sorghum drilling has been slowed in the High Plains to wait for rain, equipment being used for cotton planting, and final decisions on participation in the 1961 feed grain program. Most sorghums in the Lower Valley of Texas are fully headed, and the crop is in the boot stage as far north as about San Antonio. In southcentral and south Texas, sorghums need rain.

Dry, hot weather during May rapidly matured the developing wheat. The irrigated crop in the High Plains has been given the final watering for the season. Prospects for dry-land wheat were boosted in late May, and above-average yields are expected. Winter wheat output in the District states, as of May 1, is placed at 208 million bushels, or 3 percent below the month-earlier estimate and 2 percent less than the 1960 crop. April-May decreases were reported for all of the District states except New Mexico, which showed a 7-percent gain. Texas production is now estimated at 85.3 million bushels. A crop of this size would be 6 percent below the outturn indicated a month ago but would be exceeded only by the bumper wheat harvests of 1947 and 1949.

Baling and combining of oats are under way, with most of the crop being baled. The bulk of the Louisiana and Texas rice crop has been planted, and corn seeding is virtually complete. Harvesting of south Texas flax is well advanced.

#### WINTER WHEAT PRODUCTION

(In thousands of bushels)

Area	1961, indicated May 1	1960	Average 1950-59
Arizona . Louisiana	952 1,272 5,187 115,296 85,250	858 1,218 4,480 121,278 84,645	1,522 1858 1,525 67,192 33,752
Total	207,957	212,479	104,849

Short-time average.
SOURCE: United States Department of Agriculture.

Spring vegetable harvest is active in south Texas. Carrots, sweet corn, cucumbers, onions, potatoes, and tomatoes are moving in good volume from the Lower Valley. Gathering of honeydew melons, cantaloupes, and watermelons is under way in the Lower Valley and the Falfurrias-Hebbronville area. Onions are making favorable progress in north Texas and the Panhandle. In the latter area, potatoes are making good growth; and planting of carrots, tomatoes, and cucumbers continues active.

Rain is needed to start summer grasses over most of the District except along the Red River and in eastern and coastal areas. Livestock remain in good condition; however, in the Edwards Plateau and in parts of south Texas, supplemental feeding has been necessary to curb weight losses. Sheep shearing is virtually complete in the District.



Loans, investments, and demand deposits decreased at the District's weekly reporting member banks during the 4 weeks ended May 17. Time deposits moved

moderately higher, while cash accounts and total assets declined.

Gross loans (excluding interbank loans) fell \$58.6 million, largely as a result of a \$34.8 million reduction in commercial and industrial loans and a \$26.9 million decline in consumer-type loans. Loans to "other financial institutions" rose \$4.6 million, and real-estate loans advanced \$1.0 million. In the corresponding period of 1960, gross loans declined \$5.6 million.

Total investments at the weekly reporting banks declined \$3.2 million in the 4 weeks ended May 17, as an increase in Government security holdings failed to compensate for a reduction in non-Government investments. Government security holdings rose \$13.2 million, with decreases of \$25.4 million in Treasury bills, \$17.7 million in Treasury notes and Government bonds maturing after 5 years, and \$3.1 million in Treasury notes and Government bonds due within 1 year being more than offset by increases of \$42.5 million in Treasury certificates and \$16.9 million in Treasury notes and Government bonds maturing in 1 to 5 years. A large part of the expansion in holdings of Treasury certificates and of Treasury notes and Government bonds due in 1 to 5 years reflects the partici-Pation of District banks in the recent Treasury cash financing. In the comparable period last year, total

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

#### Eleventh Federal Reserve District

(In thousands of dollars)

İtem	May 17, 1961	April 19, 1961	May 18 1960
ASSETS			930000
Commercial and industrial loans	1,505,036 37,146	1,539,829 36,379	1,468,64
or carrying: U. S. Government securities Other securities	16,169 36,381	22,274 32,305	286 18,69
Other loans for purchasing or carrying: U. S. Government securities	6,069 203,730	7,190 203,870	. 010
Other securities. Loans to domestic commercial banks. Loans to foreign banks. Loans to other financial institutions:	10	36,182 25	9,40 180,69 11,67 45
Sales finance, personal finance, etc	89,242 139,914 218,755 784,522	84,927 139,632 217,712 811,456	127,503 122,853 208,616 754,657
Gross loans	3,098,650 56,806	3,131,781 57,724	2,935,508 54,427
Net loans	3,041,844	3,074,057	2,881,081
Treasury bills	110,751 72,152	136,125 29,666	36,043 21,590
Within T year After 1 but within 5 years After 5 years Other securities	197,030 632,309 480,467 398,250	200,108 615,446 498,154 414,646	70,251 819,433 295,503 346,017
Total investments	1,890,959	1,894,145	1,588,837
Cash items in process of collection	524,612 483,705 2,239 55,522 525,591 183,919	549,062 541,742 2,197 53,324 572,162 186,496	467,826 481,896 2,016 49,952 536,726 184,728
TOTAL ASSETS	6,708,391	6,873,185	6,193,062
ABILITIES AND CAPITAL ACCOUNTS Demand deposits			
Individuals, partnerships, and corporations Foreign governments and official institutions, central banks, and international institutions.	2,869,481	2,995,924	2,799,817
United States Government	9,235 136,375 247,014	52,468 259,343	160,058 252,101
savings banks	1,008,443 11,776 46,160	1,109,503 15,632 61,233	824,507 19,224 44,762
Total demand deposits	4,328,484	4,494,103	4,100,469
Time and savings deposits Individuals, partnerships, and corporations Savings deposits Other time deposits Foreign governments and official institutions, central banks, and international institutions.	766,397 538,437	1,316,431	1,025,558
U. S. Government, including postal savings States and political subdivisions Banks in the United States, including mutual	7,162 308,622	14,907 284,249	12,649 242,340
savings banks	8,499	9,560	3,893
Total time and savings deposits	1,630,023	1,625,147	1,284,440
Total deposits	5,958,507	6,119,250	5,384,909
Bills payable, rediscounts, etc	60,600 105,597 583,687	79,350 96,416 578,169	147,197 109,293 551,663
TOTAL LIABILITIES AND CAPITAL ACCOUNTS.	6.708.301	6,873,185	6,193,062

NOTE. — As a result of changes in call report instructions, additional information is available, effective April 26, 1961, on the deposit structure of member banks. Comparable year-earlier figures will be shown when they become available.

investments declined \$34.8 million, as holdings of both Government and non-Government securities moved to lower levels.

Between April 19 and May 17, demand deposits at the District weekly reporting member banks fell \$165.6 million. An \$83.9 million expansion in demand deposits of the United States Government was more than offset by decreases of \$117.2 million in deposits of individuals, partnerships, and corporations; \$101.1 million in deposits of domestic banks; \$15.1 million in deposits of certified and officers' checks, etc.; \$12.3 million in deposits of states and political subdivisions; and \$3.9 million in deposits of banks in foreign countries. On the other hand, time deposits rose \$4.9 million, as a \$24.4 million increase in deposits of states and political subdivisions more than offset reductions of \$11.6 million in deposits of individuals, partnerships, and corporations and \$7.7 million in deposits of the United States Government.

Total reserves of the District member banks declined moderately in the 4 weeks ended May 3. Borrowings rose somewhat at country banks but were reduced at reserve city banks. Excess reserves fell slightly at both reserve city banks and country banks. These changes left free reserves at both types of banks virtually unchanged from the comfortable levels which prevailed in the 5 weeks ended April 5.

From April 19 to May 17, total earning assets of the Federal Reserve Bank of Dallas rose \$23.6 million. United States Government security holdings expanded, as did discounts and advances for member banks. Federal Reserve notes in circulation increased \$6.0 million

# RESERVE POSITIONS OF MEMBER BANKS Eleventh Federal Reserve District

(Averages of daily figures. In thousands of dollars)

Item	4 weeks ended May 3, 1961	5 weeks ended April 5, 1961	4 weeks ended May 4, 1960
RESERVE CITY BANKS		500000000	50-2101/0252
Total reserves held	566,102	568,412	524,678
With Federal Reserve Bank	528,252	529,945	522,423
Currency and coin	37,850	38,467	2,255
Required reserves	558,829	560,667	519,809
Excess reserves	7,273	7,745	4,869
Borrowings	259	543	14,389
Free reserves	7,014	7,202	-9,520
COUNTRY BANKS			
Total reserves held	517,748	516,437	448,779
With Federal Reserve Bank	419,013	420,388	441,759
Currency and coin	98,735	96,049	7,020
Required reserves	449,006	447,576	406,938
Excess reserves	68,742	68,861	41,841
Borrowings	244	173	8,469
Free reserves	68,498	68,688	33,372
ALL MEMBER BANKS			
Total reserves held	1,083,850	1,084,849	973,457
With Federal Reserve Bank	947,265	950,333	964,182
Currency and coin	136,585	134,516	9,275
Required reserves	1,007,835	1,008,243	926,747
Excess reserves	76,015	76,606	46,710
Borrowings	503	716	22,858
Free reserves	75,512	75,890	23,852

NOTE. — Beginning November 24, 1960, all currency and coin held by member banks allowed as reserves; during the period December 1, 1959-November 23, 1960, only part of such holdings was allowed.

to a level \$43.3 million higher than a year earlier Gold certificate reserves declined \$34.8 million during the period and were \$37.4 million below a year ago



Trends in petroleum activity in the Eleventh Federal Reserve District were mixed during April and early May. District drilling operations continued to ad-

vance, but crude oil production and crude runs to refinery stills declined. The average number of rotary rigs active in the District rose moderately during the period, and both total well completions and total footage drilled increased significantly.

After several consecutive monthly advances, District crude oil production, averaging 3,011,200 barrels daily, decreased 4 percent in April; and the decline continued in early May. Texas and New Mexico have retained their May allowables for June; however, daily average output in the District is expected to increase slightly during the month.

In the Nation, new supplies of both domestic and foreign crude oil were smaller during April and early May. Well-sustained production outside the District helped moderate the decline in national output, but crude oil imports decreased substantially. The demand for crude oil also declined in April, resulting in a moderate increase in crude oil inventories. Crude oil runs to refinery stills during the month declined about 3 percent on an unadjusted basis, but the seasonally adjusted index showed no change. In early May, refinery activity increased, with refineries in the Nation operating at approximately 80 percent of rated capacity.

Although total demand for the four major refined products in April declined less than had been anticipated, product markets were generally weak. Gasoline consumption rose less than seasonally during the month, and demand during the first 2 weeks of May was below a month earlier as subnormal temperatures and heavy rains reduced motoring in certain areas of the country. Gasoline stocks, seasonally adjusted, rose in April, and wholesale motor fuel prices failed to increase as expected. Retail price cutting was widespread, especially in the Middle West.

On a seasonally adjusted basis, the demand for light heating oils advanced in April, and stocks declined. Nevertheless, prices in interior markets were easy, partially because of the relatively heavy inventory positions. Kerosene stocks were about one-third higher than a year ago, and distillate fuel oil inventories were moderately higher. On the other hand, residual fuel oil prices firmed somewhat on the East and Gulf Coasts, but interior markets failed to improve materially. The adjusted index of residual fuel oil demand declined significantly in April, and this trend appears to have continued in early May.



The seasonally adjusted Texas industrial production index held steady at 175 in April but was 1 point above a year earlier. A marked gain in durables out-

put and a small rise in nondurables production offset a decline in mining during the month. In durable goods manufacturing, output of primary metals, fabricated metals, machinery, lumber, furniture, transportation equipment, and cement products increased, but production of electrical machinery declined slightly. In nondurables manufacturing, a sharp output advance in chemicals and small production increases in textiles and apparel, together with steadiness in the outturn of petroleum products, counterbalanced declines in several other nondurable activities.

Nonfarm employment in the District states increased 27,500 during April to reach 4,429,100, as employment rose in all sectors except mining and transportation and public utilities. Compared with a year earlier, employment was lower in all sectors except finance, services, and government. In Texas the number of workers making initial claims for unemployment insurance benefits continued to decline through April. However, the number of persons exhausting their unemployment benefits increased, and there was a gain in the number of claims filed for temporary extended

#### INDUSTRIAL PRODUCTION

(Seasonally adjusted indexes, 1947-49 = 100)

Area and type of index	April	March	February	April
	1961 p	1961	1961	1960
EXAS				
Total industrial production. Total manufactures. Durable manufactures. Nondurable manufactures. Mining. NITED STATES	175	175	170	174
	220	217	213	220
	258	252	248	252
	202	201	196	206
	132	135	129	129
Total industrial production.  Total manufactures  Durable manufactures  Nondurable manufactures.  Mining  Utilities.	159	155	155	165
	157	153	152	164
	160	154	153	172
	159	156	156r	159
	127	126	127r	129r
	298	293	291r	287r

Preliminary.

#### NONAGRICULTURAL EMPLOYMENT

Five Southwestern States1

	И	Percent chang April 1961 fro			
Type of employment	April 1961e	March 1961	April 1960r	March 1961	April 1960
Total nonagricultural	10 1 10 10 10 10 10 10 10 10 10 10 10 10				
wage and salary workers	4,429,100	4,401,600	4,438,400	0.6	-0.2
Manufacturing	764,500	761,900	785,900	.3	-2.7
Nonmanufacturing Mining Construction Transportation and	3,664,600 241,000 298,900	3,639,700 241,800 293,900	3,652,500 249,300 304,500		-3.3 -1.8
public utilities. Trade. Finance. Service. Government.	389,600 1,089,900 210,500 571,900 862,800	390,800 1,079,600 209,000 564,100 860,500	405,400 1,096,500 200,700 547,500 848,600	3 1.0 .7 1.4	-3.9 6 4.9 4.5 1.7

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

unemployment compensation. Texas total unemployment decreased 8 percent from the March level to 196,000, which is 5.4 percent of the State's civilian labor force. In April 1960, unemployment in Texas totaled 160,700, or 4.4 percent of the civilian labor force.

The value of March construction contracts in the District states was \$357 million, or 22 percent above a month earlier and 8 percent larger than in March 1960. Residential contracts amounted to \$149 million, which is one-fourth above the preceding month and is the highest level in 12 months. Public works and utilities contracts advanced sharply over February, but nonresidential building declined one-fifth. The total value of construction contracts in the District states during the first quarter of 1961 was 16 percent greater than in the first quarter of 1960, reflecting a 30-percent increase in public works and utilities and a 28-percent rise in nonresidential building. Residential building contracts were 1 percent below the comparable quarter in 1960.

#### VALUE OF CONSTRUCTION CONTRACTS

(In millions of dollars)

Area and type	March	February	March	January-March	
	1961p	1961	1960	1961p	1960
FIVE SOUTHWESTERN STATES¹	357	292	330	997	862
	149	119	157	392	395
	92	115	89	298	232
	116	58	84	307	236
UNITED STATES  Residential building  Nonresidential building  Public works and utilities	3,166	2,235	3,046	7,871	7,458
	1,371	870	1,294	3,208	3,200
	1,027	804	1,067	2,639	2,558
	768	561	685	2,024	1,700

Arizona, Louisiana, New Mexico, Oklahoma, and Texas.

SOURCE: F. W. Dodge Corporation.

r Revised.
SOURCES: Board of Governors of the Federal Reserve System.
Federal Reserve Bank of Dallas.

e - Estimated.

SOURCES: State employment agencies. Federal Reserve Bank of Dallas.

Preliminary.
 NOTE. — Details may not add to totals because of rounding.

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

(Dollar amounts in thousands)

		o demar account		Den	Demand deposits <sup>1</sup>		
Area		Percent change from			Annual rate of turnover		
	April 1961	Mar. 1961	Apr. 1960	April 30, 1961	Apr. 1961	Mar. 1961	Apr. 1960
ARIZONA	NE WISCONSTRU	250	UNI			2202	100000
Tucson	\$ 236,758	-9	3	\$ 138,692	20.8	22.9	20.5
LOUISIANA							
Monroe	76,244	-10	-7	51,509	17.8	19.1 22.7	18.8
Shreveport	300,012	-14	15	188,024	19.6	22.7	22.3
NEW MEXICO				051/5	101		1402020
Roswell	45,221	-7	10	35,165	15.6	16.1	16.6
TEXAS				// 710	170	107	10.5
Abilene	96,391	-8	5	66,712 113,255	17.0 21.1	18.7	18.5
Amarillo	202,520 209,892	-11	-9	158,898	15.8	18.4	19.2
Austin	153,903	-12	_ <sub>3</sub>	99,345	18.5	20.6	19.4
Beaumont	190,524	-2	-2	107,013	21.5	22.0	21.6
Corsicana	15,428	_3	-11	18,792	9.7	9.7	10.7
Dallas	2,850,231	-12	7	1,231,084	28.3	34.2	28.9
El Paso	307,384	-21	-8	182,514	20.6	25.2	24.1
Fort Worth	701,651	-14	-5	370,170	22.9	26.4	24.5
Galveston	84,976	-13	-4	63,865	16.2	18.6	16.6
Houston	2,468,563	-13	-1	1,324,003	22.6	26.0	24.1
Laredo	29,833	-2	-1	20,888	16.8	16.6	16.2
Lubbock	175,484	-16	-11	111,574	18.6	21.6	20.4
Port Arthur	62,336	-10	-5	41,964	17.9	19.6	18.8
San Angelo	47,527	—7 —8	-10 -1	45,786 377,676	19.2	21.0	20.0
San Antonio	606,970	°	-12	17,218	14.8	15.0	17.4
Texarkana <sup>2</sup>	80,041	_9 _9	-12	61,595	15.8	17.5	17.3
Tyler Waco	110,315	=4	5	74,099	18.5	20.0	18.8
Wichita Falls	114,691	-5	ĭ	94,942	14.4	15.0	13.9
Total—24 cities	\$9,188,194	-12	0	\$4,994,783	22.3	25.6	23.5

Deposits of individuals, partnerships, and corporations and of states and political subdivisions.

#### CONDITION OF THE FEDERAL RESERVE BANK OF DALLAS

(In thousands of dollars)

ltem	May 17,	April 19,	May 18,
	1961	1961	1960
Total gold certificate reserves	641,872	676,697	679,235
	23,309	2,125	30,533
	580	406	0
	1,075,962	1,073,764	1,033,886
	1,099,851	1,076,295	1,064,419
	897,459	937,042	922,798
	818,604	812,569	775,262

#### DAILY AVERAGE PRODUCTION OF CRUDE OIL

(In thousands of barrels)

				Percent change from		
Area	April 1961 p	March 1961p	April 1960	March 1961	April 1960	
ELEVENTH DISTRICT	3,011.2	3,131.6	2,964.4	-3.8	1.6	
Texas	2,629.6	2,753.1	2,596.8	-4.5	1.3	
Gulf Coast	470.0	493.8	472.7	-4.8	6	
West Texas	1,191.3	1,263.9	1,173.7	-5.7	1.5	
East Texas (proper)	135.5	141.4	132.8	-4.2	2.0	
Panhandle	106.3	108.3	106.8	-1.9	5	
Rest of State	726.5	745.7	710.8	-2.6	2.2	
Southeastern New Mexico	272.6	269.4	243.6	1.2	11.9	
Northern Louisiana	109.0	109.1	124.0	1	-12.1	
OUTSIDE ELEVENTH DISTRICT.	4,244.1	4,213.1	4,073.3	.7	4.2	
UNITED STATES	7,235.3	7,344.7	7,037.7	-1.5	2.8	

p — Preliminary.
SOURCES: American Petroleum Institute.
United States Bureau of Mines.
Federal Reserve Bank of Dallas.

#### CONDITION STATISTICS OF ALL MEMBER BANKS

**Eleventh Federal Reserve District** 

(In millions of dollars)

Item	April 26, 1961	March 29, 1961	April 27, 1960
ASSETS			
Loans and discounts. United States Government obligations. Other securities. Reserves with Federal Reserve Bank. Cash in vaulte.	5,059 2,695 929 918 156	5,098 2,629 917 916 156	4,816 2,472 850 925 149 893
Balances with banks in the United States Balances with banks in foreign countriese Cash items in process of collection Other assetse	1,138 3 650 237	1,094 2 524 270	566 273
TOTAL ASSETSe	11,785	11,606	10,946
LIABILITIES AND CAPITAL ACCOUNTS Demand deposits of banks Other demand deposits	1,226 6,646 2,727	1,222 6,530 2,723	971 6,511 2,180
Total deposits Borrowingse Other liabilitiese Total capital accountse	10,599 86 118 982	10,475 48 107 976	9,662 177 182 925
TOTAL LIABILITIES AND CAPITAL ACCOUNTS*	11,785	11,606	10,946

e - Estimated.

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

**Eleventh Federal Reserve District** 

(Averages of daily figures. In millions of dollars)

Date	GROSS	DEMAND D	EPOSITS	TIME DEPOSITS			
	Total	Reserve city banks	Country banks	Total	Reserve city banks	Country	
1959: April	7,800	3,797	4,003	2,151	1,133	1,018	
1960: April December	7,503 8,044	3,640 4,030	3,863 4,014	2,190 2,482	1,105	1,085	
1961: January February March April	8,135 7,828 7,846 7,888	4,032 3,805 3,877 3,903	4,103 4,023 3,969 3,985	2,564 2,670 2,700 2,723	1,308 1,366 1,376 1,379	1,256 1,304 1,324 1,344	

#### **BUILDING PERMITS**

VALUATION (Dollar amounts in thousands)

					Percent change			
	NUMBER				April 1961		ending o	
					from		4 months,	
Area	Apr. 1961	4 mos. 1961	Apr. 1961	4 mos. 1961	Mar. 1961	Apr. 1960	1961 from 1960	
ARIZONA						===		
Tucson	971	3,428	\$ 3,796	\$ 16,950	9	51	33	
LOUISIANA		111111111111111	THE STATE OF THE S	CONTRACTOR OF THE PARTY OF THE				
Shreveport	2,411	3,483	3,129	15,759	-17	56	87	
TEXAS	- 22	- Prince L		Hestons				
Abilene	141	476	1,504	5,011	24	-26	-25	
Amarillo	268	1,159	2,933	11,160	1	2	-13	
Austin	335	1,325	6,492	19,658	36	40	29	
Beaumont	375	1,210	1,203	4,783	-27	13	9	
Corpus Christi	303	1,220	1,623	7,024	-38	58	63	
Dallas	2,352	7,857	13,589	72,144	-42	6	52	
El Paso	532	2,240	3,563	25,087	-29	-16	62	
Fort Worth	713	2,340	8,137	18,131	68	51	5	
Galveston	148	482	296	2,483	81	5	208	
Houston	1,459	5,209	15,809	68,563	-34	12	-3	
Lubbock	243	887	3,121	17,355	55	-29	- 6	
Port Arthur	218	717	630	2,633	-11	16	-36 -14	
San Antonio	1,206	4,659	3,354	16,400	-31	-38	-14	
Waco	262	989	1,392	6,852	60	70	-5	
Wichita Falls	130	645	1,135	7,999	-42	-64	2	
Total—17 cities	12,067	38,326	\$71,706	\$317,992	-26	6	17	

subdivisions.

2 These figures include only two banks in Texarkana, Texas. Total debits for all banks in Texarkana, Texas-Arkansas, including one bank located in the Eighth District, amounted to \$47,592,000 for the month of April 1961.