

TEXAS BUSINESS REVIEW

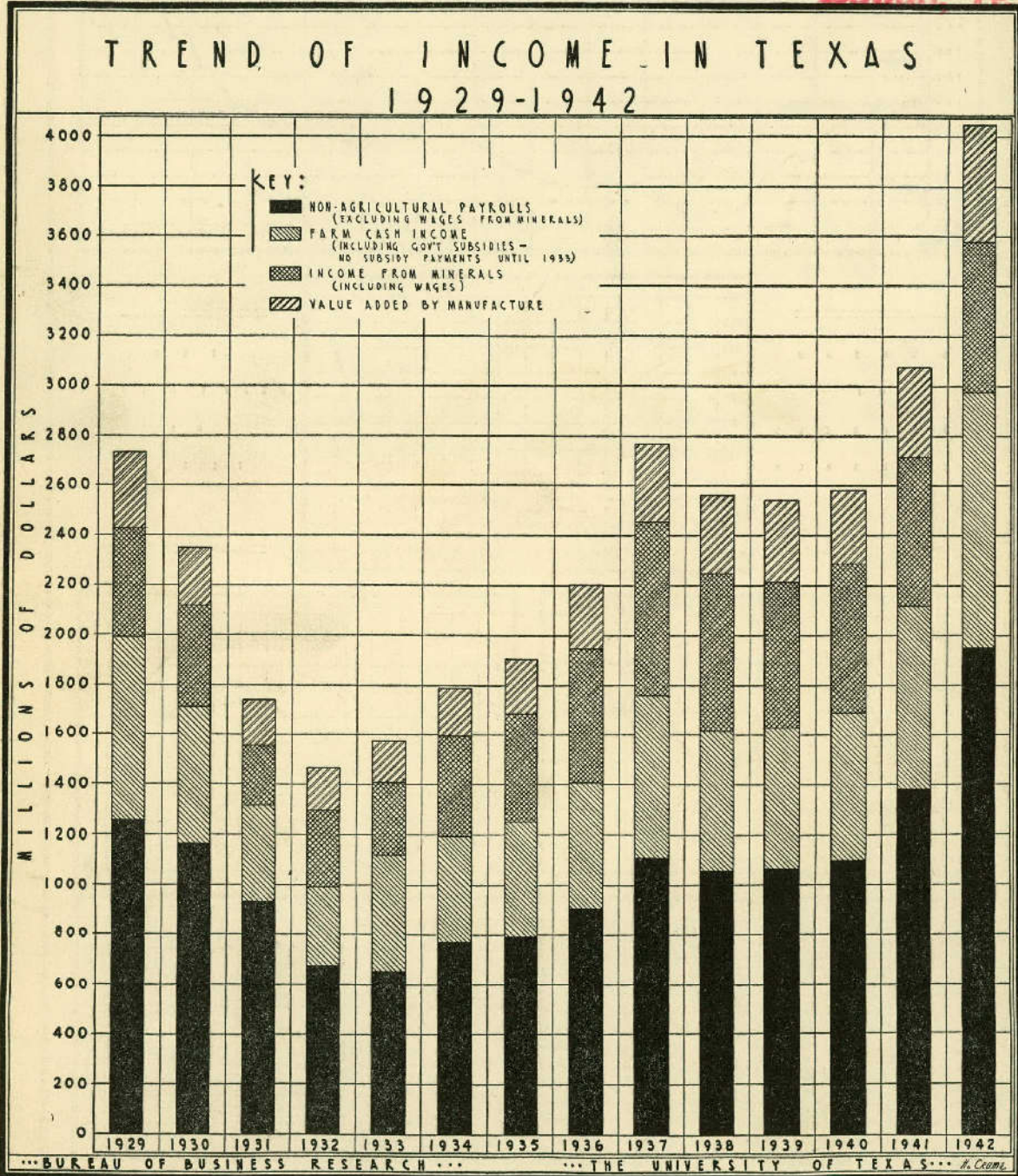
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By the Staff of the Bureau of Business Research, The University of Texas
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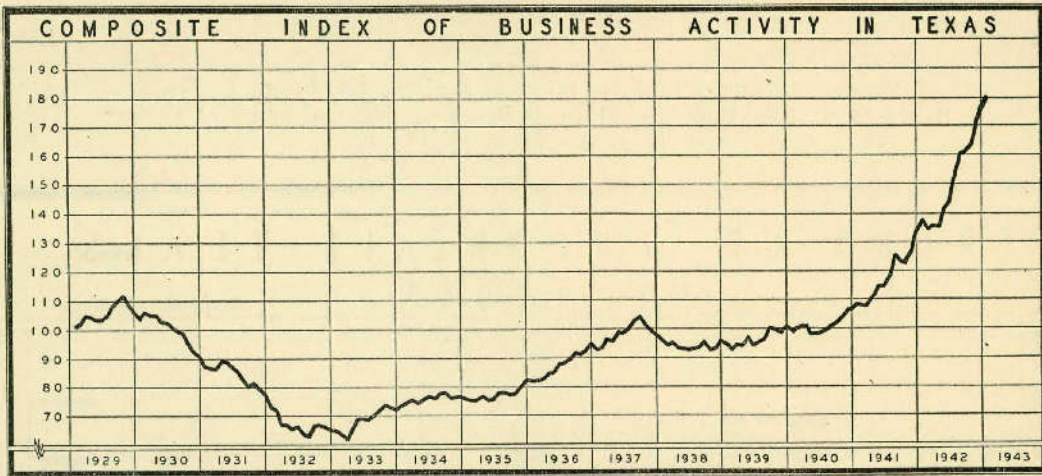
ONE DOLLAR PER YEAR

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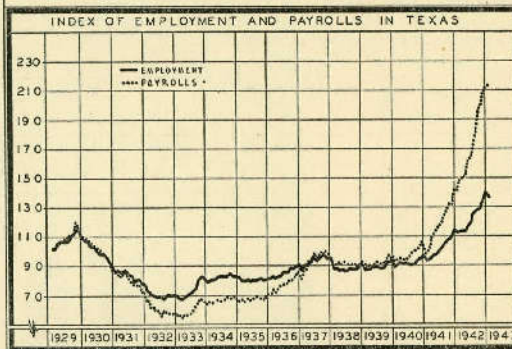
INDEXES OF BUSINESS ACTIVITY IN TEXAS

AVERAGE MONTH OF 1930 = 100%
 WEIGHT IN COMPOSITE INDEX

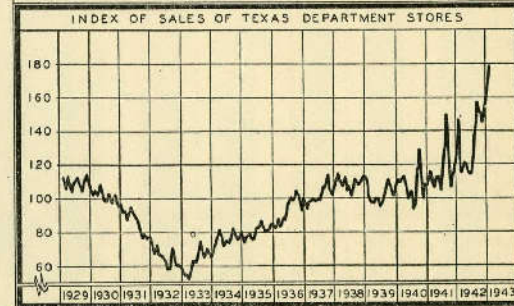
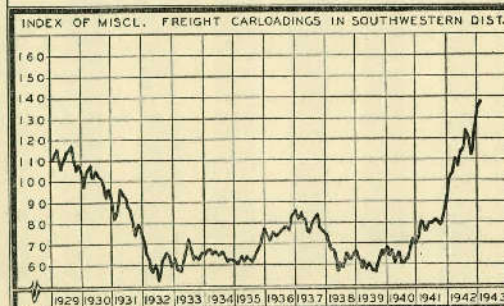
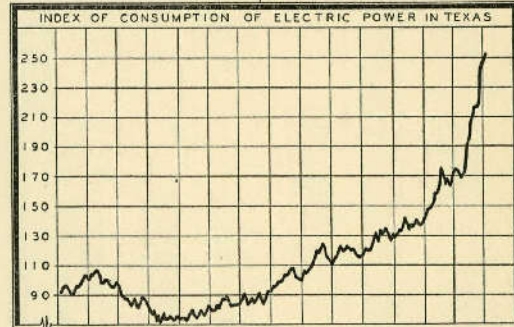
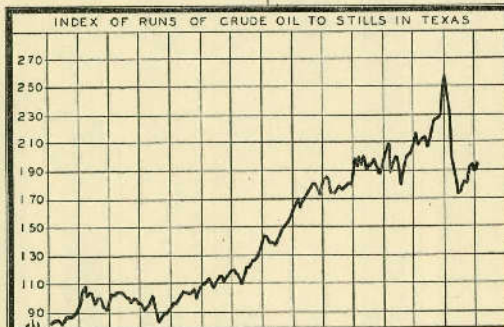
EMPLOYMENT	25%	MISCL. FREIGHT CARLOADINGS	20%
PAYROLLS	25%	CRUDE OIL RUNS	5%
DEPARTMENT STORE SALES	10%	ELECTRIC POWER CONSUMPTION	15%



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Business Review and Prospect

War production dominates the national economy and will doubtless continue to do so during the present year at least. Expenditures during January by the Treasury, the R.F.C. and its subsidiaries totalled \$6,254,000,000, an increase of \$120,000,000 over December and more than \$4,000,000,000 in excess of expenditures during January, 1942. If the rate of increase throughout the year is no greater than it was from December to January, total war expenditures will approximate \$84,000,000,000 for the current calendar year. It is more than probable however, that the rate of increase will be greater during the coming spring and summer months than it was from December to January, and that total war expenditures for the year will exceed \$90,000,000,000. In 1942, the comparable figure was approximately \$50,000,000,000, and in 1941, less than \$12,000,000,000.

These huge public expenditures and the swollen pay rolls created thereby on the one side, and the limitations imposed by war needs upon production of goods for civilian use on the other, poses a formidable task for those charged with the problem of keeping prices of consumer goods on an even keel. Price ceilings already are yielding at many points and this situation is creating a growing demand for increases in farm prices and wages of labor.

The recent change in the standard work week from 40 to 48 hours with overtime pay for the additional eight hours promises to make a further contribution to the problem of price control. It means a substantial increase in pay for a large percentage of workers engaged in the production of non-durable goods and for those in the retail, banking, insurance, and other service trades. Spendable income is thus further augmented, and it is doubtful, to say the least, if a corresponding increase in consumers good will result.

Difficult as it already has become to hold the inflationary forces in check, the problem will be greatly intensified as the year advances unless positive action is promptly taken. A few underlying facts may help to clarify the situation. In 1941, the total spendable income of the nation was approximately \$90,000,000,000. In that year, production of goods for civilian use reached unprecedented heights. In 1942, the spendable income rose to approximately \$115,000,000,000, while the total volume of goods available for civilian consumption declined. As a result of this situation we have had the pressure on price ceilings already noted. In 1943, the spendable income is expected to rise to \$135,000,000,000 while at the same time a further substantial shrinkage of goods for civilian use will inevitably occur.

To hold the prices of consumer goods at approximately the present level in the face of a rapidly mounting surplus of buying power is obviously impossible unless the surplus income is diverted to the payment of higher taxes, the purchase of more government bonds or the liquidation of private indebtedness. Post war economic

readjustment will be greatly simplified if the present surplus war incomes are used for paying war costs, thus limiting the increase in the national debt, distributing the debt broadly among all classes of citizens, and maintaining the buying power of the dollar. A more vigorous tax and bond purchasing program than the one now in effect seems imperative if the agencies which have been set up for holding prices in check are to be given a fair chance to function.

TEXAS BUSINESS

Texas began the new year with a rate of industrial activity far above that in any previous year of its history. The fact is shown graphically on the outside cover page of this issue of the Review; it also is shown numerically in the following table:

TREND OF INCOME IN TEXAS

(In Millions of Dollars)

(1929-1942)

	Value of Minerals	Farm Cash Income	Value Added by Manufacturing*	Non-Agricultural Pay Rolls	Total
1929	438	733	309	1,252	2,732
1930	404	550	237	1,164	2,355
1931	249	385	175	930	1,739
1932	307	315	169	675	1,466
1933	294	467†	164	652	1,577
1934	405	426†	185	770	1,786
1935	437	462†	210	793	1,902
1936	534	509†	255	903	2,201
1937	699	648†	307	1,113	2,767
1938	629	557†	315	1,059	2,560
1939	584	567†	325	1,063	2,539
1940	594	591†	293	1,102	2,580
1941	700†	737†	355	1,383	3,175
1942	700†	1,036†	451	1,956	4,143

*After deduction of wages.

†Estimated by Bureau of Business Research on the basis of unofficial information.

Includes Federal subsidy payments. For 1942 these were estimated at 75 million dollars on basis of available reports.

Note: To adjust for incomplete marketings ten per cent was added to the computed figure on farm cash income for all years except 1942 for which year six per cent was added.

The figures given in the table in all cases lean to the conservative. For example, the United States Bureau of Mines gives the price per thousand cubic feet of gas at the well and also gives the price per thousand cubic feet at the point of consumption. The price of natural gas at the well has been used in computing the value of minerals in the above table. Had the price of natural gas at the point of consumption instead of at the well been used, this item alone would have increased the estimated value of minerals in 1941 by approximately \$140,000,000.

In the January issue of the REVIEW some attention was given to the method of computing farm cash income. It was there stated that the cash income, as computed in this Bureau each month, is based on actual known market-

For Other Texas Data, See Statistical Tables at the End of this Publication

ings and reported prices. Further studies indicate that up until 1942 actual cash income was approximately 10 per cent greater than the computed figure. In 1942 the understatement was reduced to approximately 6 per cent. Adjustment has been made for the known understatement in the computed figures on farm cash income, and it is believed that the figures on farm cash income given in the table are approximately correct. From 1933 to 1942 inclusive farm subsidy payments by the federal government have been added to the income from marketings.

Non-agricultural payrolls give the most vivid picture of industrial activity in Texas, and the increase in total pay rolls during the past year has been phenomenal. Actually, the total pay rolls are greater than the figure given since data from several important war industries were not available when the computations were made. It will be noted that total non-agricultural pay rolls accounted for nearly one-half of the income of the state.

By the middle of 1943 full employment of able bodied men on the basis of the 48 hour week will doubtless be closely approximated although there will continue to be an over all surplus of labor. A number of the largest war industries of the state may not reach capacity employment until mid-summer or early fall, but by that time all Texas employables except women and children should be at work. The longer work week with its overtime pay in excess of 40 hours per week, plus approximate full employment on the present level of hourly wages, makes certain much higher total non-agricultural pay rolls in 1943 than the high figure reached in 1942.

CURRENT BUSINESS ACTIVITY IN TEXAS

Activity in industry and trade in Texas during January, 1943, was at a rate more than 30 per cent above that of the corresponding month a year ago, and nearly two per cent above that of December. All of the components of the composite index except runs of crude oil to stills showed a marked gain over a year ago; and all of the components except employment showed a moderate gain from December to January.

JANUARY INDEXES OF BUSINESS ACTIVITIES IN TEXAS

(Average month of 1930=100%)

	Jan., 1943	Jan., 1942	Dec., 1942
Employment	136.6	111.9	140.4
Pay Rolls	211.3	143.3	210.2
Miscellaneous Freight Carloadings (Southwest District)	137.7	102.7	135.2
Crude Runs to Stills	193.9	255.5	189.4*
Department Store Sales	179.9	146.8	158.8
Electric Power Consumption	252.1	182.7	246.2
Composite	180.0	137.9	177.1

*Revised.

FARM CASH INCOME

Cash income from agriculture in Texas during January totalled more than \$58,000,000 compared with approximately \$40,000,000 during the corresponding month of 1942, an increase of 45 per cent. The average farm cash income for the five Januarys during the base period from 1928 to 1932 inclusive was \$22,000,000.

Thus, the January, 1943, farm cash income was more than two and one-half times that of the average January income of the five-year base period. The state index of 266.2 for January compares with 251.7 for the preceding month and 185.5 for January 1942. The indexes of cash income for each of the crop reporting districts and for the state, as well as the computed dollar income for the districts and the state are given in the following table:

INDEX OF FARM CASH INCOME IN TEXAS

(Average month 1928-1932=100%)

District	Jan., 1943	Dec., 1942	Jan., 1942	Cumulative Income	
				Jan., 1943 (000 omitted)	Jan., 1942
1-N	215.3	200.1	130.8	6,832	4,150
1-S	362.9	294.8	224.6	7,712	4,773
2	244.7	155.3	167.9	6,677	4,582
3	211.7	273.1	155.7	2,278	1,675
4	190.0	189.6	184.7	6,803	6,611
5	203.7	261.0	107.3	2,499	1,316
6	283.5	417.0	246.3	3,938	3,421
7	271.4	174.3	195.1	2,907	2,089
8	285.3	220.6	196.5	4,188	2,884
9	444.0	474.4	274.5	7,180	4,438
10	334.1	520.6	184.1	1,637	902
10-A	288.7	271.3	193.5	5,658	3,793
STATE	266.2	251.7	185.5	58,309	40,634

NOTE: Farm cash income as computed by this Bureau understates actual farm cash income by from 6 to 10 per cent. This situation results from the fact that means of securing complete local marketings, especially by truck, have not yet been fully developed. In addition, means have not yet been developed for computing cash income from all agricultural specialties of local importance in scattered areas throughout the State. This situation, however, does not impair the accuracy of the indexes to any appreciable extent.

It is not likely that the year to year percentage increase in cash income shown this January over a year ago will continue throughout the year; but even if the production of farm products during the coming year were to be no greater than that of a year ago, the dollar income would be well above that of 1942. In 1942, the index of farm prices rose thirteen per cent from January through December; and since the rate of increase was considerably greater during the second half of the year than during the first half, an increase in the farm products price level at least as great as that of last year may be expected.

It is too early to express a judgment regarding the probable production of the major crops of Texas. The physical factors which affect plant and livestock growth appear to be as favorable now as they were a year ago, but the situation with respect to farm labor and the availability of farm equipment is already less favorable and promises to become more serious later in the year. Careful planning is imperative if the production goals set up by the government are to be reached.

Livestock inventories in Texas as of January 1, 1943, are in general favorable. Cattle and calves (all classes) numbered 7,518,000 compared with 7,444,000 on the corresponding date a year ago and the 1932-1941 average of \$7,270,000; sheep and lambs on January 1, 1943, totalled 10,677,000 head compared with 10,522,000 last year and a 1932-1941 average of 8,462,000; hogs on January 1, 1943, numbered 2,655,000 against 2,042,000 last year and a ten-year average of 1,836,000; and chickens, 36,975,000 compared with 31,681,000 and a ten-year average of 25,624,000. Turkeys on farms January

1, 1943, numbered only 744,000, substantially below the 875,000 on that date last year and sharply below the ten-year average of 966,000. The number of milk cows on farms January 1, was slightly above that of a year ago and well above the ten-year average.

Weather and feed conditions during the coming months will determine whether the livestock industry can main-

tain the high level of marketings and income which prevailed during 1942. At this time, the industry seems to have a little better than even chance of equaling the number of animals marketed last year; and the level of livestock prices is expected to show a still further upward tendency.

F. A. BUECHEL.

Texas in the National Picture

EDITOR'S NOTE: During the nineteenth century the economic development of Texas was characterized by the regional growth, changes, and shifts which occurred within the State in range livestock, in agriculture, and in forest activities. Since 1900 the high-lights of the State's economic developments shifted first to the oil and gas industries and during the past decade to the chemical industry. With the war a new era of economic development has begun in the State, far wider in scope and magnitude than any hitherto experienced. A brief outline of these new trends was presented in the January issue of the REVIEW. In this article Mr. Johnson summarizes some of the factors and forces which underlie these developments and foreshadow the future course of economic development in the State.

The important and, now, highly strategic place Texas occupies in the national picture is a function primarily of the large and diverse natural resources which the State contains, together with favorable geographic location. More and more it will be recognized just how important and vital is Texas' production in the war effort. The scope and diversity of Texas natural resources and the basic facts of the State's geographic orientation in the North American continent are essential features fundamental to an understanding of the regional economy of Texas, to an appreciation of the State's economic problems, and to any substantial comprehension of its economic potentialities. These features are at the same time the very ones which make it possible for Texas to contribute so substantially to war needs. And yet these basic features are the things given little attention ordinarily.

The outstanding position Texas occupies in the national picture by virtue of its extensive and varied agricultural and range and forest resources, its rich and now vitally all-important oil and natural gas reserves, its large deposits of non-metallics such as salt and sulphur—and now particularly the importance of its being a storehouse of diversified natural resources which are basic to a rapidly growing chemical industry are, of course, consequences of trends and features of economic development in their impacts upon the specific natural resources. Mention of this fact is made in order to re-emphasize the fact that *economic development* is a fundamental concept in understanding the economy of the State. Economic development in any area or region is a consequence of the impingements of economic forces upon the available natural resources of the period concerned.

But, economic development is a *dynamic* thing; it comprises activities, and activities are dynamic always. Consequently, neither the major nor the minor phases of economic development can be adequately interpreted if they are considered as merely *static* things manifested

in stacks of quantitative data, any more than when they are considered in relation to grandiose economic abstractions far removed from the realm of reality. Furthermore, economic development in any area, whether Texas or California, whether New England or the Southwest, has to be viewed not only as a function of the availability of natural resources in the State or region but also as a manifestation of certain forces operating outside the State, even in remote areas or territories. The oil industry of Texas, for instance, is forced to react to the conquest of oil reserves of the East Indies, on the one hand, and to the sinkings of tankers on the other.

The economic development of Texas in its dynamic aspects is manifested in the growth and changes and regional shifts that have taken place within the State as regards agriculture, range livestock, and forest activities during the past 100 years; in the vast enlargement and changes and shifts that have taken place in the State's oil and natural gas industries since 1900, and in the rapidly enveloping expansion that has been characteristic of the chemical industry in Texas during the past decade. So important have been these various regional shifts that they stand out as distinctive of major periods of economic development in which they occurred.

But the economic development of Texas in its dynamic features is also manifested in those major shifts or migrations of industry in the United States at large which have come to the Southwest. As a matter of fact, a large share of the economic history of this country is concerned with the shifts and migrations of important industries into and the consequent filling in of people and industries, of the various major natural regions of the United States. The sum-total of these developments is the integration of economic activities on a national scale, and it covers the integration of economic activities of the various sections of the United States.

SHIFTS AND TRENDS OF INDUSTRIES CONVERGING ON TEXAS

Economic development provides scope for viewing the full sweep of dynamic factors, and nowhere is this better illustrated than in the major geographic shifts in industry which are so fundamental to an understanding of the economic history of the United States. The fundamental factor behind these series of migrations, whether of people or enterprises, or both, was the fact that the new manufacturing industry, which was part and parcel of the Industrial Revolution, early began to manifest

features of its world-wide developments, requirements, and ramifications. The new industry operated on a stage the consequences of which were rapidly being extended to the far corners of the earth, both in the broadening requirements for raw materials and in the imperative need for markets.

The earliest large demand manifested by the new industry began to crystallize shortly after the Napoleonic Wars; this demand was for textile raw materials in bulk, particularly cotton; and this requirement necessitated a new development in long-distance trade. Because of the growing demand, in conjunction with the peculiar adaptabilities of the South for growing cotton, and with the new mechanical cotton gin available, the Cotton Belt continued to expand westward through a period of more than a century, that is, until after World War I. It was with the westerly advance of cotton growing along the Gulf Coastal Plain that the larger groups of the first Anglo-Americans moved into the eastern portions of Texas. This early colonization exemplified a subsistence economy.

This early period was characterized by the rise of marooned frontier communities, with all the limitations and crude conditions that were characteristic of primitive isolated beginnings in a new country. The only product which was in demand, cotton, was hampered by the lack of transportation facilities.

The later phases of this period of cotton development, based as it was upon overseas markets for its raw materials, was a manifestation of colonial economy. Its effects upon the growth of internal commerce in the United States were, however, of fundamental economic importance to the nation as a whole.

The second large demand of the new manufacturing industry was expressed in the greatly increased needs for foodstuffs—for wheat and livestock products; this demand, however, did not begin to be expressed in any considerable size until after the middle of the nineteenth century.

The new demand was occasioned by the acceleration of manufacturing industry in West-central Europe and Northeastern United States—an acceleration paralleling the early mass-production methods which were beginning to characterize the new steel industry and the growth in industry differentiation—in electricity, chemistry, transportation, and so on. The physical adaptabilities of the Southeast to cotton growing are referred to above; the Southeast has never been noted for its food production except for specialities and for cottonseed oil. However, as far as that is concerned, the new demands for increased surpluses in food production could not be supplied from the types of lands upon which the White Man had been dependent since time immemorial—and the consequence was that a new type of land resource of large production capacity was sorely needed.

CONQUEST OF THE GRASSLAND PLAINS AND PRAIRIES

Fortunately, a new type of land resource was available—the vast areas of dark-colored soils characterizing the continental interior grasslands, that is, the prairies and the Western Plains in the United States. And it is to

these categories of Prairies and Plains grasslands that something more than 75 per cent of the area of Texas belongs. It is now an almost forgotten fact that these grassland plains were occupied by nomadic tribesmen down until less than 75 years ago. These lands of the Prairies and Plains, however, could not be occupied by man in the same manner as had the timbered lands of Eastern United States, for the grasslands represented a type of physical environment and soil resources new to the settlers. The successful occupation of these lands depended upon two essential conditions: the extension of railway transportation together with the application of new techniques in the utilization of these dark-colored fine-textured soil resources—techniques that enabled the settler to adapt himself to a new type of physical environment and to utilize effectively new forms of natural resources. Fortunately also, the new manufacturing industry was capable of supplying the means for extended and more efficient transportation facilities, thereby giving the newly developed surplus producing regions accessibility to the rapidly growing markets. It was the cash sales of the surplus products which made possible the buying of the needed mechanical equipment which in turn made possible an increased production from these new lands; this equipment, it must be kept in mind, was supplied by the new manufacturing industry.

Without going into the details, these grassland plains were settled relatively rapidly, by the farmer in the prairies and by the cattleman in the Great Plains, and later the arable sub-humid lands of the Great Plains came to be occupied by the farmer. This relatively rapid occupation of these grasslands was made possible because of the new and expanding manufacturing industry characteristic of the spread of the Industrial Revolution. This new industry had increased the demands, first for surplus textile raw materials and later for foodstuffs; and in conjunction with the occurrence of these undeveloped plains areas in the interior of the continent, together with the provision of mechanical equipment necessary to the conquest of these vast plains there had been set in motion a series of economic movements which comprise what has been so aptly designated as the Westward Movement in America.

The new manufacturing industry which was responsible for the growing markets also supplied the railways which rendered these interior grassland plains of the United States accessible to the world's markets. In time, these grassland plains became differentiated into the well known agricultural regions, the Wheat Belt, the Western Grazing or Range Livestock Belt, and the western portion of the Cotton Belt—the New Cotton Belt, it can be appropriately designated. The new industry also supplied such essentials as power agricultural machinery, deep-well drilling machinery, windmills, and wire fencing, all of which came to be so important in the White Man's conquest of these interior plains lands.

It is generally agreed that the Westward Movement as a dominant economic and social force in the building of the United States had come to an end by the turn of the century. What is not recognized is that by 1900 the major economic regions of the United States had been fairly well differentiated by economic developments

which had been growing up during the nineteenth century and that as a consequence the pattern of internal commerce which characterizes the domestic market of the United States had become fairly well outlined. The economic and social significance of the large domestic market in the United States has never been adequately treated.

It was the agricultural conquest of these dark-colored grassland soils of the continental interior plains after 1870 that comprised the most significant part of the Westward Movement. The markets for the surpluses of these regions, as well as the engines of transportation, the machines and equipment used in production were all supplied by the new and rapidly expanding manufacturing industries.

With the westward extension of important phases of cotton growing, wheat production, and livestock there grew up concomitantly certain types of market-supplying industries, particularly those favored by the local conditions. Until after the turn of the century, however, these industries in Texas were mainly local ones, a function of the local needs of small market areas.

During the latter part of the nineteenth century the expanding needs of the new industry came to include more than merely a vastly increased surplus production of textile raw materials and foodstuffs; these needs, marked by diversification as well as by increased size were reflected by practically every industry, and they affected the production of practically all the raw materials of the time. Not only were agricultural surpluses called for but forests and mineral deposits came in for rapid utilization.

One form of these new demands was reflected in the growing needs for lumber, especially to meet the growing markets brought into being by the settling up of the extensive interior grasslands of the United States, the Mid-west and Southern Prairies and the treeless Western Plains. The lumber industry had migrated from the far Northeastern United States, and especially from New York and Pennsylvania, to the Lake States in the latter quarter of the century and after the merchantable timber had been exhausted in the Lake States, one part of the lumber industry migrated to the Southern forests, which include those of East Texas, while the other sector of the industry migrated to the far Northwest. In the South, the hey-day of the lumber industry was exemplified in cutting off the luxuriant forests of longleaf pine; other pines were utilized, but inasmuch as the cut-over longleaf forests seldom reproduce a full forest growth, the cut-over lands of these forests now exemplify in a spectacular manner the exploitation which denuded these areas of stately longleaf pines characteristic of these the most distinctive of the Southern forests.

Summing up, cotton and livestock and lumber had been the Big Three in Texas economic life down to 1900. Each of these groups had come into large production in Texas at different periods and because of different circumstances. Prior to 1900 whatever industry there was in Texas was local in character, as to both raw materials and markets, and was therefore of comparatively small proportions.

In 1900 Texas had a population of some 3,000,000 people and the majority of that population was rural;

no city in the State at the turn of the century had a population of as much as 60,000! The first railways of any considerable importance came into Texas in the early 1870's and although the extension of railways into and across Texas had wrought a veritable economic revolution, the total railway mileage in the State in 1900 was but 9,791—as compared with 17,569 miles in 1930. In 1900 the oil industry had touched Texas only very locally at only a few points; and at that time there was no pipe line system and the natural gas industry had perhaps not been dreamed of.

Regional shifts into Texas prior to 1900 were concerned with the production of cotton, livestock, and lumber; Texas economy was predominantly a colonial one, engaged in the production of export surpluses of raw materials. Since the turn of the century, however, Texas economy has been subject to new sets of factors and forces which also are manifestations of expanding new manufacturing industry, which also is part and parcel of later phases of the Industrial Revolution.

AFTER 1900

Two outstanding sets of factors which have been revolutionary in an economic sense in Texas development include the large production and the rendering available of electric energy throughout practically the entire extent of the State and the oil (and gas) industry which has risen to such large proportions in the State since 1900.

It is but natural, considering the conditions involved, that the growth and extension of the electric light and power industry and the expansion of the oil and gas industry have been, and continue to be, basic factors in the growth of manufacturing industry in Texas. Industry in the State prior to 1900 had been almost entirely local in character; after 1900 Texas industry began, slowly but surely, to produce for a national market. Manufactured products made in Texas, as exemplified in the oil industry, came to be sold far and wide outside the State; this development represented a quite different sort of economy from that concerned with the production of raw cotton, which went mainly to overseas industrial centers.

Concomitant with the shift of industry into Texas, the increase in population, together with greater buying power of this population, the domestic market grew accordingly and numerous population-following industries manufacturing consumer's goods for this market took on increased activity; among such industries were meat packing and flour milling which represented shifts into the Southwest from Mid-west centers and sugar refining which represent still another type of market-following industry. These developments in meat packing and flour milling were built on the surplus production of newly occupied lands, associated with the shift of wheat growing into the Southwest and the reorganization that was taking place in the Range Livestock industry.

The geographic dispersion of the light and power industry in Texas and the rapid growth of the oil and gas industries were both important as manifestations of the accelerated industrial activity which characterized the economy of the United States in the decades around

the turn of the century; both of these enterprises were also very important features of decentralization of industry and even more so of geographic dispersion of industry—that is, of the development of centers of manufacturing industry in new regions. In brief, what was going on in Texas industry development was a broadening of the bases of production and a corresponding widening of markets, as exemplified particularly in electric light and power and in the oil and gas industries.

The growth of the oil and gas industry in Texas is obviously an enormous and highly important study in itself: What is intended here is to re-emphasize in a brief manner the significant relation of this highly important industry to the economic development and well being of the State; and especially to stress the fact that other phases of Texas manufacturing industry are dependent to a very large degree upon the oil and gas resources of the State. Not only are manufacturing enterprises in Texas vitally dependent upon oil and gas, but the dependence will be greatly accentuated in the immediate future.

As is well known, the American oil industry prior to 1900 had been dominantly a kerosene industry and it had existed until then very largely in states east of the Mississippi River.

The rise of the automobile came after 1900; but its development during the first decade of its history was slow and it was not until about 1914 that kerosene production in the United States was exceeded in volume by that of gasoline production! It was the sharply increased demands brought into being by World War I that realistically crystallized the vital significance of oil and its products, and as a consequence the importance of the then large oil production which was being opened up west of the Mississippi River. Oil production in Kansas had worked southward into Oklahoma and thence had shifted into north Texas. Another type of shift, stemming from historic Spindletop, advanced northward across the State, merging into the movement that had been advancing southwestward from Kansas. It was in the decade after World War I that Texas oil production, and with it the development of refineries in the State, came into national prominence. And, too, it was during this decade that inter-connection of regional systems of electric power became a reality in Texas.

During the decade of the 1930's two new groups of significant enterprises were added to the lists of Texas industry: these embraced a heavy chemicals industry based primarily upon the utilization of common salt, and the rise of an important pulp and paper industry in the State. The heavy chemicals industry developed originally in West-central Europe and from there spread to the Great Lakes section of the Mid-west where, with a few exceptions, it remained until after World War I when it began to spread and grow rapidly. It was not until the middle 1930's that the first shift of the heavy alkalies industry came to the Southwest.

The shift of the heavy alkalies industry into Texas and the Southwest came in part because of the growing markets for these chemicals and in part to the unexampled advantages of Texas and Louisiana for producing them. In part, the growing markets for chemicals was associated with the growing industrialization of the

Southeast and the Southwest—of the rise to national proportions of pulp and paper production, of alumina, of oil refining, and of the newer textiles in these sections of the country.

With the growth of the vast and diversified domestic market a substantial portion of the pulp and paper industry shifted into the South just as previously meat packing, flour milling, glass manufacturing and oil production had moved into the Southwest—and, it may be emphasized, all of these industries migrated into these regions because of specific reasons. All of these illustrate over and over again the dynamic features so characteristic of modern industry.

After Southern lumber production had passed its peak there began to develop in the South following World War I a new industry based upon the rich timber resources of that region; this was the pulp and paper industry. Marked by slow stages of development at the beginning, the earliest attempts at pulp and paper manufacture in the South were characterized by the application of pulping techniques worked out elsewhere to Southern woods.

By 1911, however, the sulphate pulp technique had been successfully applied to the pulping of Southern woods by Ed Mayo at the little paper mill at Orange, Texas, and as a consequence of this discovery the Kraft paper industry spread throughout the Southern forests in the two decades following World War I.

New techniques widened greatly not only the types of pulps that can be made successfully from Southern woods but also the types of woods that can be successfully pulped and today, besides Kraft pulp, newsprint or ground-wood, bleached pulps and fine papers and even sulphite rayon pulp are being made from the forests of the South. Furthermore, as the pulp and paper industry has grown in the Southern forests, this industry at the same time has resulted in a growing market for various chemicals necessary to the manufacture of pulp and paper from Southern woods; one of the most important chemicals used in making Kraft pulp is salt cake, made from natural brines in Texas and manufactured as a synthetic product in Louisiana. The Southern forests extend well into East Texas and this portion of the State is well adapted to forest growth as is abundantly manifested in the vigorous and rapid growth of these forest trees. These forests in East Texas are capable of supporting an expanded pulp industry, and through the use of proper forestry methods applied to forest reproduction, fire protection and so on, their capacity can be greatly increased over what it now is.

The dynamics of industry are revealed in these shifts of the various industries into Texas where they are able to utilize Texas natural resources advantageously and profitably. The success attained by these industries in Texas can be measured in part by the history of their expansion.

Besides these aspects of the dynamics of industry which are revealed in industry migrations, the dynamics consequent upon certain scientific and technologic achievements have to be given discriminating consideration. And nowhere is this more important than in Texas with the scope and diversity of its natural resources providing advantageous conditions for the growth of

* new industries, particularly those concerned with the manufacture of synthetic organic chemicals.

THE ATOMIC REVOLUTION

Currently a new revolution in industry is in the making. The chemical industry had achieved a nation-wide prominence in Germany as early as the 1870's; in the United States, however, it was not until in the two decades after World War I that our chemical industry took on a national importance. The current aspects of chemical development, sometimes termed the Chemical Age, have been aptly designated the "atomic" revolution.

No precise date need be set for the beginnings of this phase of chemical industry development. Three early aspects, however, are sufficiently important to deserve more than passing notice. The first of these was the revolutionary work of Sabatier near the turn of the century, on the use of catalysts in furthering and speeding up certain chemical reactions—a conquest on the frontiers of science whose vital importance to the modern world of chemistry is being more clearly manifested daily by the rapid developments taking place in the newer phases of hydrocarbon chemistry. It need hardly be re-emphasized that these new phases of hydrocarbon chemistry are vital to the supplying of war requirements. Another one of these far-reaching developments was the use of high-pressure synthesis used by Haber in synthesizing nitrogen and hydrogen to form ammonia; and a third was that of thermal cracking of petroleum fractions worked out in the United States by Burton and others. Peculiarly, these processes were brought to a practical conclusion and put into commercial production at about the same time—just prior to the outbreak of World War I.

Out of the research advances of the decades following World War I there has risen in the past few years the foundation for the "atomic" revolution which bids fair to have as revolutionary effects upon our life and work in the next few years as did the steam engine upon the life and work of peoples in the Western World during the first half of the nineteenth century. These revolutionary developments which have already reached a high level in World War II will be compressed into a few years—instead of being extended over a few decades as characterized the slower tempo of the steam engine. Insofar as Texas industry is concerned the new Chemical Age or the "atomic" revolution represents the most revolutionary factor as regards potentialities that has ever affected the State's industry and commerce. For the atomic revolution is concerned with hydrocarbons and particularly with the hydrocarbons characteristic of petroleum and natural gas. Current features include of course the large production of such new materials as synthetic rubber intermediates, toluene, 100-octane gasoline, industrial plastics, and so on. But the history of this phase of hydrocarbon chemistry, it may be said, belongs to the future.

One technologic aspect of the "atomic" revolution includes the spectacular accomplishment of the brilliant Carothers in the discovery of Nylon. Synthetic fibers produced before Nylon were adaptations by chemical

process of such organic materials as were available in nature, such as cellulose or casein. Nylon is truly a synthetic fiber stemming from hydrocarbons.

Closely akin to the truly great technical achievements represented in the discovery of Nylon are the recent developments in plastics, in synthetic rubber, and in synthetic motor fuels—all of which are phases of a new synthetic organic chemical industry which is already developing on a stage of vast proportions. Along with these spectacular developments in the field of organic chemistry, achievements in other lines (such as developments in the winning of the light metals, in the making of new steel alloys, and in powder metallurgy) are also highly important in setting the stage of industry accomplishments for tomorrow.

The economics of the new industry embraced in the atomic revolution in part accentuates features of many of the principles of industrial organization that have been developing during the past half century; in part, however, the economics of this new industry embraces features that are new. This latter feature of the introduction of things new to industry applies particularly to aspects which are part and parcel of the chemical industry as it is now developing.

INDUSTRY CONSEQUENCES

Outstanding industry consequences attendant upon the new and revolutionary developments of the chemical industry include the following features:

(a) Chemical products are no longer limited to simply facilitating the use of long-known processes or to the manufacture of finishes for well-known materials; that is, chemicals are no longer used only as process materials;

(b) Chemical products are now being used on a large scale to make new materials for industry. These products are exemplified thoroughly if not abundantly as yet in the synthetic rubber program, the whole field of plastics, and the new synthetics such as Nylon, Vinyon, Saran, and so on. We are entering a period of mass production in synthetics.

(c) The use of the new types of raw materials in large amounts means inevitably the displacement in many cases of the older mechanical manufacturing processes and the introduction of entirely new methods in the industrial working of these materials, such, for example, as are illustrated by the making of objects from thermosetting plastics. The new chemical industry is not only supplying new raw materials in large scale volume for today's industry, but it is also rendering obsolete many older mechanical methods formerly used in the working up of materials. At the same time it is making feasible the introduction on a large scale of new methods applied to the industrial working of these materials.

(d) And, as a final proposition, the capacity of science constantly to improve the new chemical substances, usually designated as synthetics, may be considered as the predominant factor in rendering dynamic the economics of the chemical industry.

Reactions of the new industry upon forms of economic organization are obvious, and they are exemplified particularly in the rapid growth of vertical industrial combinations on a vast scale. In brief, these huge combinations have the following characteristics:

a. They possess or closely control their own sources of primary raw materials.

b. Their activities are not limited to a single industry, but include several more or less related industries. Of primary importance is the fact that their industrial activities are of a broad multiple nature.

c. Their by-products industries are carried on a huge scale, and as such, these by-products are highly profitable to the organization.

d. Using a highly developed mass-production technique, these industries operate with a high degree of mechanization. Automatic machinery and control are characteristic.

e. Technologic advances and scientific discoveries, whether made within the organization or not, are applied on more than one front within the organization. The essential feature to note is that a scientific application on one front of one of the groups of industries included in one of these vast organizations is likely to be, and generally is, applied on other fronts within the organization, thereby stimulating production throughout the various units making up the larger organization.

f. The wide inclusiveness of these gigantic combinations is illustrated by the fact that they are characterized not only by an ever widening range of productions—for instance, of chemicals *per se* (coal-tar products, petroleum, cellulose, etc.); plastics and synthetic fibers;

heavy alkalis, fertilizers, etc.; of the light metals, alloy steels and other alloys; and also by their dependence upon such source materials as coal, brine wells, natural gas, petroleum, etc.—upon raw materials available in large amounts and at low unit costs.

The successful working out of all of these things come down to the practical conclusion—that the widely-applied, ever advancing technical equipment (provided by huge research staffs and facilities) upon which these huge industries are vitally dependent, can be justified economically *only if a large active market exists for the products of the industries included within these huge organizations*. In a large sense, it is eminently true that industrial progress and technologic change are governed by the size and kind of the market.

These are some of the factors that set the stage and provide the activating forces for developments in Texas industry in the immediate future. It is obvious that no longer can Texas industries be considered local. Those people with provincial concepts as to Texas economic development are sitting on the sidelines watching the procession go by. The promise of Texas industry potentialities, based upon the State's natural resources, quickened by the best that science and technology have to offer, has of necessity to set its sights upon national markets. Its store house of raw materials, its economic accomplishments to date, and its substantial possibilities rendered available by advancing science insure for Texas a prominent place in the national picture.

ELMER H. JOHNSON.

DAIRY PRODUCTS MANUFACTURED IN PLANTS IN TEXAS

Products and Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
CREAMERY BUTTER (1000 lb.)													
1943*	3,012												
1942*	2,341	2,076	2,131	3,311	4,396	4,353	3,740	3,735	3,640	3,343	2,659	2,341	38,066
1930-39 average	2,074	2,109	2,392	3,138	3,556	3,166	4,113	2,867	2,513	2,608	2,301	2,211	32,048
ICE CREAM (1000 gal.)													
1943*	1,554												
1942*	745	700	1,014	1,312	1,812	2,305	2,294	2,190	1,838	1,585	1,323	1,046	16,089
1930-39 average	215	262	434	570	752	893	904	846	686	460	259	205	6,486
AMERICAN CHEESE (1000 lb.)													
1943*	874												
1942*	1,308	1,302	1,644	2,204	2,756	2,674	2,559	1,989	1,649	1,184	713	735	20,717
1930-39 average	554	590	737	1,050	1,215	1,129	1,119	1,025	866	852	718	641	10,496
MILK EQUIVALENT OF DAIRY PRODUCTS† (1000 lb.)													
1943*	92,377												
1942*	75,484	69,224	79,334	114,250	149,694	153,437	139,512	131,332	120,369	103,370	81,233	71,104	1,288,712
1930-39 average	54,675	57,139	67,456	89,641	104,323	97,562	97,075	89,185	76,165	73,444	60,119	55,872	922,656

*Estimates of production made by the Bureau of Business Research.

†Milk equivalent of dairy products was calculated from production data by the Bureau of Business Research.

NOTE: 10-Year Average production of creamery butter, ice cream and American Cheese based on data from the Agricultural Marketing Service, U.S.D.A.

The Cotton Surplus, A Fact or Fancy

Cotton is a world commodity. Its two major products are cotton lint and cottonseed. Much is being said about a surplus of lint cotton. What are the facts? On December 31, available data indicate there was on hand in the United States about 17,500,000 bales of lint cotton. Consumption, exports, destroyed, etc., from January 1 to July 31 will approximate 7,800,000 bales, and that will leave a carryover of about 9,700,000 bales in the United States.

As a lump sum, that is a lot of cotton, but cotton is not consumed in lump sums, and the new crop will not be available for use in quantity for nearly two months after August 1. At the rate of present consumption in the United States and export, there is need, therefore, for a total carryover in mills and channels of trade on August 1 of from 5 to 6 million bales of cotton supply of the qualities being consumed and exported in the interim.

Estimates based on government statistics and sales by merchants indicate that on December 31 there were about 1,600,000 bales of cotton in the country shorter than 7/8 inch. It is possible that 1,500,000 bales of this cotton will be in the carryover July 31, and a large part of it may be considered as surplus in terms of United States consumption, though the bedding industry may take much more than indicated and some of it may have to be used in explosives.

The total supply of 7/8 and 29/32 inch in the United States on December 31 was about 4,200,000 bales, and consumption is now at the rate of about 140,000 bales per month. If sufficient supplies of other staples of proper grades were available, there would probably be a carryover of this cotton of over 3,000,000 bales, some of this can and probably will be substituted for 15/16 inch.

The total supply of 15/16 and 31/32 inch staple cotton on December 31 was about 2,000,000 bales. Should takings for these staples for the remainder of this year continue at the rate of the previous five months of about 330,000 bales per month, the supply of them would be exhausted.

On December 31 the total supply of 1 inch and 1 1/32 inch cotton was about 6,300,000 bales. The disappearance of these staples is at the rate of about 320,000 bales per month, and the indicated carryover July 31 is about 3,000,000 bales.

On December 31, the supply of cotton of 1 1/16 inch and over amounted to about 3,400,000 bales. Disappearance of this cotton is at the rate of about 285,000 bales per month and the indicated carryover July 31 is about 2,200,000 bales.

Viewed from the standpoint of staple lengths only, there seems to be an ample supply of all qualities except 15/16 and 31/32 inch and a possible surplus

of cotton 7/8 and under and possibly some of the staples 1 1/8 inch and over.

The cotton supply is even tighter than indicated above due to grade distribution. The great majority of American mills installed their equipment to manufacturing medium grade and staple lengths. The indicated carryover of cotton by grades July 31, 1943, is as follows: strict middling and above, about 2,400,000 bales; middling, 1,500,000 bales; strict low middling, 3,400,000 bales; and low middling and below, 2,200,000. The monthly rate of disappearance by grades is about as follows: strict middling and above, 110,000 bales; middling, 490,000 bales; strict low middling, 350,000 bales; and low middling and below 120,000 bales. The surplus grades are apparently low middling and below and strict middling and above.

The excess supply of cotton in the United States, July 31, when measured in terms of United States consumption and an additional disappearance for the year of 1,500,000 bales, will not exceed 4,000,000 bales, and the bulk of that is low grade short staple cotton in the hands of the government.

Experience after the last war, when we had a similar accumulation of low grade cotton, showed there was a tremendous demand in Europe for that cotton immediately after the war closed, for they wanted the cheapest cotton they could buy. Advices indicate that so far not many cotton spindles in Europe have been destroyed.

If we take into account the whole world demand for lint cotton including the first year after the war, we really have a deficit of some 4 to 5 million bales instead of a surplus.

Those who know the peace time demands of Europe and the warring countries like Japan for cotton know that a supply of 8 to 10 million bales of cotton above our requirements could not only be disposed of but that it could be made one of the most powerful forces at our command in shaping the peace.

The shortages of cottonseed products is becoming alarming. Big bonuses are being paid for the production of vegetable oils from other crops not nearly so good as cottonseed oil. The dairy industry in Texas is suffering from an acute shortage of feed, especially high proteins, such as is supplied from cottonseed meal. The government has taken all linters for munitions, and that is not enough to supply the demand.

Would it not be wiser to do something about the shortages in important qualities of lint cotton and of cottonseed products, rather than worry too much about a little low grade short staple cotton which can be disposed of readily to great advantage to us when the war ends?

A. B. Cox.

EMPLOYMENT AND PAY ROLLS IN TEXAS

January, 1943

	Estimated Number of Workers Employed*		Percentage Change from		Estimated Amount of Weekly Pay Roll		Percentage Change from	
	Dec., 1942 ⁽¹⁾	Jan., 1943 ⁽²⁾	Dec., 1942	Jan., 1943	Dec., 1942 ⁽³⁾	Jan., 1943 ⁽³⁾	Dec., 1942	Jan., 1943
MANUFACTURING								
All Manufacturing Industries	161,932	163,568	+ 1.0	+ 5.8	4,473,298	4,468,364	- 0.1	+ 27.9
<i>Food Products</i>								
Baking	7,731	7,746	+ 0.2	+ 11.9	215,213	213,973	+ 0.6	+ 32.4
Carbonated Beverages.....	2,985	3,024	+ 1.3	+ 7.5	82,824	84,217	- 1.7	+ 19.9
Confectionery	1,310	1,371	+ 4.7	+ 30.4	17,717	18,437	+ 4.1	+ 42.1
Flour Milling	2,123	2,165	+ 2.0	+ 7.6	47,935	52,672	+ 9.9	+ 34.3
Ice Cream	1,215	1,170	- 3.7	+ 17.5	28,895	27,818	- 3.1	+ 38.0
Meat Packing	6,817	6,762	- 8.0	+ 19.6	200,150	190,774	- 4.7	+ 35.2
<i>Textiles</i>								
Cotton Textile Mills.....	6,848	6,746	- 1.5	- 2.4	138,603	142,651	+ 2.9	+ 15.2
Men's Work Clothing	5,251	4,946	- 5.8	+ 22.9	81,735	71,693	- 12.3	+ 31.6
<i>Forest Products</i>								
Furniture	1,594	1,660	+ 4.2	- 27.2	29,198	30,593	+ 4.8	- 24.1
Planing Mills	2,191	2,140	- 2.3	+ 0.7	59,625	56,984	- 4.4	+ 16.5
Saw Mills	16,403	16,354	- 0.3	- 6.6	256,895	242,712	- 5.5	+ 10.3
Paper Boxes	845	819	- 3.1	+ 21.7	18,152	16,389	- 9.7	+ 22.4
<i>Printing and Publishing</i>								
Commercial Printing	2,368	2,337	- 1.3	- 1.4	70,983	72,450	+ 2.1	+ 34.9
Newspaper Publishing.....	4,447	4,265	- 4.1	- 11.5	118,505	111,496	- 5.9	- 5.3
<i>Chemical Products</i>								
Cotton Oil Mills.....	4,202	3,812	- 9.3	- 1.2	59,274	51,455	- 13.2	+ 30.5
Petroleum Refining	22,096	22,563	+ 2.1	+ 2.7	1,022,194	1,008,026	- 1.4	+ 19.4
<i>Stone and Clay Products</i>								
Brick and Tile.....	1,874	1,779	- 5.0	+ 15.5	31,187	28,925	- 7.2	+ 9.6
Cement	1,251	1,214	- 3.0	- 2.2	45,156	43,523	- 3.6	+ 11.0
<i>Iron and Steel Products</i>								
Structural and Ornamental Iron...	2,859	2,829	- 1.0	+ 10.2	73,157	73,006	- 0.2	+ 27.9
NONMANUFACTURING								
Crude Petroleum Production.....	25,588	24,954	- 1.4	- 19.5	1,061,688	1,042,399	- 1.7	- 7.9
Quarrying	(4)	(4)	- 2.4	- 4.6	(4)	(4)	- 2.4	+ 17.5
Public Utilities.....	(4)	(4)	- 0.4	+ 8.6	(4)	(4)	+ 0.9	+ 13.5
Retail Trade	257,383	201,762	- 21.6	+ 7.5	5,020,872	4,030,841	- 19.7	+ 12.6
Wholesale Trade	64,533	61,097	- 5.3	- 4.2	2,222,939	1,960,954	- 11.8	+ 0.5
Dyeing and Cleaning.....	2,630	2,579	- 2.0	+ 1.1	50,034	48,435	- 3.2	+ 20.7
Hotels	17,012	17,218	+ 1.2	+ 8.9	227,196	232,666	+ 2.4	+ 21.8
Power Laundries	14,275	14,548	+ 1.9	+ 21.9	211,256	216,959	+ 2.7	+ 39.3

CHANGES IN EMPLOYMENT AND PAY ROLLS IN SELECTED CITIES⁽⁵⁾

	Employment		Pay Rolls		Employment		Pay Rolls	
	Percentage Change		Percentage Change		Percentage Change		Percentage Change	
	Dec., 1942 to Jan., 1943	Jan., 1942 to Jan., 1943	Dec., 1942 to Jan., 1943	Jan., 1942 to Jan., 1943	Dec., 1942 to Jan., 1943	Jan., 1942 to Jan., 1943	Dec., 1942 to Jan., 1943	Jan., 1942 to Jan., 1943
Abilene	+ 6.1	+ 62.8	+ 1.6	+ 35.9	- 4.1	+ 104.2	- 10.5	+ 108.8
Amarillo	- 6.7	- 8.6	- 0.6	+ 14.2	- 3.1	+ 8.3	- 1.6	+ 15.9
Austin	- 8.2	+ 30.5	- 9.1	+ 43.2	+ 4.8	- 1.0	+ 3.6	+ 30.1
Beaumont	- 1.5	+ 74.9	- 9.0	+ 141.2	- 4.4	+ 9.8	- 3.1	+ 18.4
Dallas	- 7.6	+ 10.5	- 7.3	+ 31.5	+ 8.4	+ 34.9	- 3.3	+ 58.1
El Paso	- 2.8	- 5.8	- 2.5	+ 8.0	- 8.4	+ 21.8	- 14.1	+ 41.4
Fort Worth	+ 7.0	+ 28.3	+ 4.8	+ 56.7	+ 1.3	+ 18.0	+ 4.3	+ 18.3
Galveston	- 4.1	+ 104.2	- 10.5	+ 108.8	- 2.7	+ 19.2	+ 0.5	+ 47.7
Houston	- 3.1	+ 8.3	- 1.6	+ 15.9				
Port Arthur	+ 4.8	- 1.0	+ 3.6	+ 30.1				
San Antonio.....	- 4.4	+ 9.8	- 3.1	+ 18.4				
Sherman	+ 8.4	+ 34.9	- 3.3	+ 58.1				
Waco	- 8.4	+ 21.8	- 14.1	+ 41.4				
Wichita Falls..	+ 1.3	+ 18.0	+ 4.3	+ 18.3				
STATE	- 2.7	+ 19.2	+ 0.5	+ 47.7				

ESTIMATED NUMBER OF EMPLOYEES IN NONAGRICULTURAL BUSINESS AND GOVERNMENT ESTABLISHMENTS⁽⁶⁾

	1940 ⁽¹⁾	1941 ⁽¹⁾	1942 ⁽¹⁾	1940 ⁽¹⁾	1941 ⁽¹⁾	1942
January	1,004,000	1,094,000	1,170,000	July	1,024,000	1,156,000
February	1,006,000	1,120,000	1,199,000	August	1,030,000	1,176,000
March	1,030,000	1,120,000	1,226,000	September	1,053,000	1,203,000
April	1,021,000	1,114,000	1,222,000	October	1,065,000	1,219,000
May	1,031,000	1,120,000	1,251,000	November	1,088,000	1,219,000
June	1,026,000	1,134,000	1,291,000	December	1,115,000	1,222,000
						1,410,000 ⁽²⁾

*Does not include proprietors, firm members, officers of corporations, or other principal executives. Factory employment excludes also office, sales, technical and professional personnel.

(1) Revised.

(2) Subject to revision.

(3) Not available.

(4) Based on unweighted figures.

(5) Not including self-employed persons, casual workers, or domestic servants, and exclusive of military and maritime personnel. These figures are furnished by the Bureau of Labor Statistics, U.S. Department of Labor.

Prepared from reports from representative Texas establishments to the Bureau of Business Research cooperating with the Bureau of Labor Statistics. Due to the national emergency, publication of data for certain industries is being withheld until further notice.

COTTON BALANCE SHEET FOR THE UNITED STATES AS OF FEBRUARY 1

(In Thousands of Running Bales Except as Noted)

Year	Carryover Aug. 1	Imports to Feb. 1*	Government Estimate as of Dec. 1	Total	Consump- tion to Feb. 1	Exports to Feb. 1*	Total	Balance Feb. 1
1933-1934	8,176	68	13,177	21,421	2,923	4,919	7,842	13,579
1934-1935	7,746	56	9,731	17,533	2,685	2,865	5,550	11,983
1935-1936	7,138	56	10,734	17,928	3,014	4,004	7,018	10,910
1936-1937	5,397	72	12,407	17,876	3,435	3,848	7,283	10,593
1937-1938	4,498	46	18,746	23,290	3,078	3,832	6,910	16,380
1938-1939	11,533	77	12,008	23,618	3,397	2,192	5,589	18,029
1939-1940	13,033	66	11,792	24,891	4,042	4,170	8,212	16,679
1940-1941	10,596	58	12,636	23,340	4,423	654	5,077	18,263
1941-1942	12,367	†	10,976	23,343	5,391	793‡	6,184	17,159
1942-1943	10,590	†	12,982	23,572	5,628	†	5,628	17,944

The cotton year begins August 1.

*Figures are in 500-pound bales.

†Not available.

‡Estimate.

COMMODITY PRICES

POSTAL RECEIPTS

	Jan., 1943	Jan., 1942	Dec., 1942
Wholesale Prices:			
U.S. Bureau of Labor Statistics (1926=100%)	101.9	96.0	101.0
Farm Prices:			
U.S. Department of Agriculture (1910-1914=100%)	*	149.0	178.0
U.S. Bureau of Labor Statistics (1926=100%)	117.0	100.8	113.8
Retail Prices:			
Food (U.S. Bureau of Labor Statis- tics 1935-1939=100%)	133.0	116.2	132.7
Department Stores (Fairchild's Publications Jan. 1931=100%)	113.1	110.2	113.1

	Jan., 1943	Jan., 1942	Dec., 1942
Abilene	\$ 47,614	\$ 30,263	\$ 63,282
Amarillo	50,229	34,478	74,765
Austin	81,629	78,871	130,510
Beaumont	38,127	32,360	58,195
Big Spring	9,759	7,523	14,675
Brenham	5,077	4,043	5,898
Brownsville	9,473	7,874	12,761
Brownwood	27,082	16,323	38,178
Childress	3,535	3,392	7,090
Cleburne	4,655	3,882	6,590
Coleman	3,955	2,997	5,420
Corpus Christi	47,050	43,564	80,845
Corsicana	8,278	6,936	14,028
Dallas	420,690	400,610	622,451
Del Rio	5,057	3,837	6,937
Denison	8,086	7,111	14,999
Denton	10,328	9,506	13,124
Edinburg	3,971	3,516	4,696
El Paso	91,402	65,164	119,428
Fort Worth	188,071	156,483	285,000
Galveston	47,046	35,934	68,521
Gladewater	4,616	3,616	4,846
Graham	2,539	2,627	10,080
Harlingen	10,443	5,705	34,154
Houston	300,833	288,264	460,513
Kenedy	2,019	1,687	2,499
Kerrville	3,113	3,205	5,430
Longview	11,603	11,730	16,292
Lubbock	27,917	25,161	43,500
Lufkin	6,759	6,071	8,896
McAllen	6,199	6,497	9,254
Marshall	8,653	7,557	15,667
Palestine	7,655	6,628	9,317
Paris	18,999	6,669	22,647
Plainview	5,191	4,946	8,157
Port Arthur	21,319	16,878	36,283
San Angelo	18,414	15,536	30,459
San Antonio	222,870	164,287	333,959
Sherman	11,180	9,359	16,632
Snyder	2,386	2,122	3,086
Sweetwater	7,622	6,657	8,555
Texarkana	21,701	23,719	31,704
Tyler	22,852	17,410	27,524
Waco	43,222	36,732	61,033
Wichita Falls	36,817	48,944	57,238
TOTAL	\$1,936,046	\$1,676,674	\$2,905,121

*Not available.

PERCENTAGE CHANGES IN CONSUMPTION
OF ELECTRIC POWER

	Jan., 1943 from Jan., 1942	Jan., 1943 from Dec., 1942
Commercial	+ 12.4	+ 7.5
Industrial	+ 9.6	- 6.3
Residential	+ 4.3	+ 6.2
All Others	+ 24.3	- 2.8
TOTAL	+ 11.3	- 0.6

Prepared from reports of 9 electric power companies to the Bureau of Business Research.

LUMBER
(In Board Feet)

	Jan., 1943	Jan., 1942	Dec., 1942
Southern Pine Mills:			
Average Weekly Production per unit	248,451	304,951	239,786
Average Weekly Shipments per unit	271,920	349,842	263,526
Average Unfilled Orders per unit, end of month	1,728,597	1,625,979	1,587,722

Notes: From Southern Pine Association.

Notes: Compiled from reports from Texas Chambers of Commerce to the Bureau of Business Research.

JANUARY RETAIL SALES OF INDEPENDENT STORES IN TEXAS

	Number of Firms Reporting	Percentage Change in Dollar Sales	
		Jan., 1943 from Jan., 1942	Jan., 1943 from Dec., 1942
TOTAL TEXAS	973	+ 17	- 37
STORES GROUPED BY LINE OF GOODS CARRIED:			
APPAREL	109	+ 36	- 38
Family Clothing Stores	27	+ 49	- 45
Men's and Boys' Clothing Stores	36	+ 19	- 43
Shoe Stores	14	+ 72	- 25
Women's Specialty Shops	32	+ 45	- 33
AUTOMOTIVE*	67	- 18	+ 1
Motor Vehicle Dealers	65	- 17	+ 7
COUNTRY GENERAL	94	+ 15	- 21
DEPARTMENT STORES	59	+ 23	- 48
DRUG STORES	117	+ 23	- 27
DRY GOODS AND GENERAL MERCHANDISE	23	+ 54	- 47
FILLING STATIONS	28	+ 5	+ 18
FLORISTS	23	+ 19	- 39
FOOD*	144	+ 16	- 3
Grocery Stores	46	+ 19	- 8
Grocery and Meat Stores	90	+ 14	- 1
FURNITURE AND HOUSEHOLD*	69	+ 19	- 39
Furniture Stores	62	+ 20	- 38
JEWELRY	25	+ 24	- 72
LUMBER, BUILDING, AND HARDWARE*	187	- 13	- 10
Farm Implement Dealers	9	- 13	- 4
Hardware Stores	64	- 16	- 25
Lumber and Building Material Dealers	111	- 10	- 2
RESTAURANTS	18	+ 64	- 2
ALL OTHER STORES	10	+ 18	- 8
TEXAS STORES GROUPED ACCORDING TO POPULATION OF CITY:			
All Stores in Cities of—			
Over 100,000 Population	156	+ 16	- 40
50,000-100,000 Population	116	+ 19	- 38
2,500-50,000 Population	464	+ 25	- 34
Less than 2,500 Population	237	+ [Ⓞ]	- 13

*Group total includes kinds of business other than the classifications listed.

[Ⓞ]Change of less than .5%.

Prepared from reports of independent retail stores to the Bureau of Business Research, cooperating with the U.S. Bureau of the Census.

TEXAS CHARTERS

	Jan., 1943	Jan., 1942	Dec., 1942
Domestic Corporations:			
Capitalization*	\$308	\$1,781	\$56,721
Number	28	104	32
Classification of new corporations:			
Banking-Finance	1	1	1
Manufacturing	3	10	3
Merchandising	2	9	5
Oil	4	11	6
Public Service	1	1	0
Real Estate Building	10	51	7
Transportation	2	5	3
All Others	5	16	7
Number capitalized at less than \$5,000	12	53	6
Number capitalized at \$100,000 or more	0	3	4
Foreign Corporations (Number)	18	15	14

*In thousands.

NOTE: Compiled from records of the Secretary of State.

ANNUAL CARLOAD SHIPMENTS OF TEXAS POULTRY AND EGGS, 1942

	Shipments from Texas Stations					
	Cars of Poultry			Cars of Eggs		
	Chickens	Turkeys	Shell	Frozen	Dried	Shell Equivalent*
TOTAL	246.5	646.5	223	860	1,295.5	12,307
Intrastate	40.0	46.0	164	396	175.5	2,360
Interstate	206.5	600.5	59	464	1,120.0	9,947
Annual Carload Receipts of Texas Poultry and Eggs, 1942						
TOTAL	53.5	30.5	418	365	195	2,708
Intrastate	29.5	15.5	138	274	186	2,174
Interstate	24.0	15.0	280	91	9	534

*Powdered eggs and canned frozen eggs are converted to a shell-egg equivalent.
NOTE: These data are furnished the United States Department of Agriculture by railroad officials through agents at all stations which originate and receive carload shipments of poultry and eggs. The data are compiled by the Bureau of Business Research.

JANUARY RETAIL SALES OF INDEPENDENT STORES
IN TEXAS

	Number of Firms Reporting	Percentage Changes	
		Jan., 1943 from Jan., 1942	Jan., 1943 from Dec., 1942
TOTAL TEXAS	973	+17	-37
TEXAS STORES GROUPED BY PRODUCING AREAS:			
District 1-N	76	+20	-24
Amarillo	24	+35	-28
Pampa	11	+8	-20
Plainview	15	+11	-37
All Others	26	+8	-12
District 1-S	31	+18	-26
Lubbock	15	+16	-20
All Others	16	+22	-39
District 2	82	+16	-32
Abilene	16	+46	-32
Wichita Falls	13	∞	-36
All Others	53	-3	-29
District 3	33	+9	-32
District 4	203	+28	-38
Dallas	38	+26	-41
Ft. Worth	25	+24	-38
Sherman	12	+16	-25
Waco	19	+44	-43
All Others	109	+35	-30
District 5	96	+6	-42
District 6	45	+17	-32
El Paso	24	+14	-34
All Others	21	+41	-11
District 7	55	+9	-34
San Angelo	11	+16	-38
All Others	44	+2	-28
District 8	159	+13	-38
Austin	17	+7	-49
San Antonio	45	+16	-39
All Others	97	+7	-22
District 9	120	+8	-41
Beaumont	15	+31	-45
Houston	48	+1	-42
All Others	57	+18	-30
District 10	28	+25	-29
District 10-A	45	+9	-18
Brownsville	12	+15	-22
All Others	33	+7	-16

BUILDING PERMITS

	Jan., 1943	Jan., 1942	Dec., 1942
Abilene	\$ 4,005	\$ 98,375	\$ 3,380
Amarillo	83,010	46,775	43,795
Austin	13,372	249,221	33,748
Beaumont	18,827	167,642	30,935
Brownsville	8,233	11,472	8,182
Brownwood	1,525	15,895	49,350
Corpus Christi	133,509	36,164	1,048,692
Corsicana	970	4,250	2,300
Dallas	160,391	2,433,784	277,172
Denton	600	4,900	150
Edinburg	5,120	15,185	1,010
El Paso	40,639	122,627	62,355
Fort Worth	183,961	493,207	775,545
Galveston	15,421	189,287	11,355
Graham	900	240	0
Harlingen	350	3,875	950
Houston	125,565	1,480,535	61,890
Jacksonville	500	300	500
Kerrville	445	12,650	725
Longview	1,000	8,350	2,650
Lubbock	12,695	184,684	7,862
McAllen	2,478	15,955	2,895
Marshall	2,175	22,861	3,784
Midland	535	78,290	0
New Braunfels	1,754	8,950	485
Palestine	9,199	3,364	125
Paris	9,180	29,968	4,125
Plainview	975	4,000	0
Port Arthur	5,646	64,555	11,670
San Angelo	13,453	55,097	4,720
San Antonio	126,404	576,144	419,693
Sherman	9,417	21,057	4,031
Snyder	500	4,625	0
Sweetwater	4,540	15,085	1,405
Tyler	3,255	35,910	9,074
Waco	45,550	77,463	66,300
Wichita Falls	6,054	24,757	2,539
TOTAL	\$1,057,153	\$6,617,499	\$2,953,392

Note: Compiled from reports from Texas Chambers of Commerce to the Bureau of Business Research.

TEXAS COMMERCIAL FAILURES

	Jan., 1943	Jan., 1942	Dec., 1942*
Number	3	10	2
Liabilities†	\$28	\$93	\$31
Assets†	16	96	8
Average Liabilities per failure†	9	9	16

*Revised.

†In thousands.

Source: From Dun and Bradstreet, Inc.

JANUARY SHIPMENTS OF LIVE STOCK CONVERTED TO A RAIL-CAR BASIS*

	Cattle		Calves		Hogs		Sheep		Total	
	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942
Total Interstate Plus Fort Worth	3,216	3,558	551	937	1,259	937	665	408	5,691	5,840
Total Intrastate Omitting Fort Worth	844	379	138	147	115	22	116	23	1,213	571
TOTAL SHIPMENTS	4,060	3,937	689	1,084	1,374	959	781	431	6,904	6,411

*Rail-car Basis: Cattle, 30 head per car; calves, 60; hogs, 80; and sheep, 250.

Fort Worth shipments are combined with interstate forwardings in order that the bulk of market disappearance for the month may be shown.

Note: These data are furnished the United States Bureau of Agricultural Economics by railway officials through more than 1,500 station agents, representing every live stock shipping point in the State. The data are compiled by the Bureau of Business Research.

JANUARY, 1943, CARLOAD MOVEMENTS OF POULTRY AND EGGS

Shipments from Texas Stations

	Cars of Poultry						Cars of Eggs					
	Chickens		Turkeys		Shell		Frozen		Dried		Shell	
	1943	1942	1943	1942	1943	1942	1943	1942	1943	1942	Equivalent*	
TOTAL	31	24	8	6	63	1	9	26	34	81	353	701
Intrastate	4	0	3	0	24	0	0	1	19	13	176	106
Interstate	27	24	5	6	39	1	9	25	15	68	177	595

Receipts at Texas Stations

TOTAL	6	2	0	1	29	32	4	2	18	16	181	164
Intrastate	6	0	0	0	16	0	2	0	18	11	164	88
Interstate	0	2	0	1	13	32	2	2	0	5	17	76

*Dried eggs and frozen eggs are converted to a shell-egg equivalent on the following basis: 1 rail carload of dried eggs=8 carloads of shell eggs, and 1 carload of frozen eggs=2 carloads of shell eggs.

NOTE: These data furnished to the Division of Agricultural Statistics, B.A.E., by railroad officials through agents at all stations which originate and receive carload shipments of poultry and eggs. The data are compiled by the Bureau of Business Research.

PETROLEUM

Daily Average Production

(In Barrels)

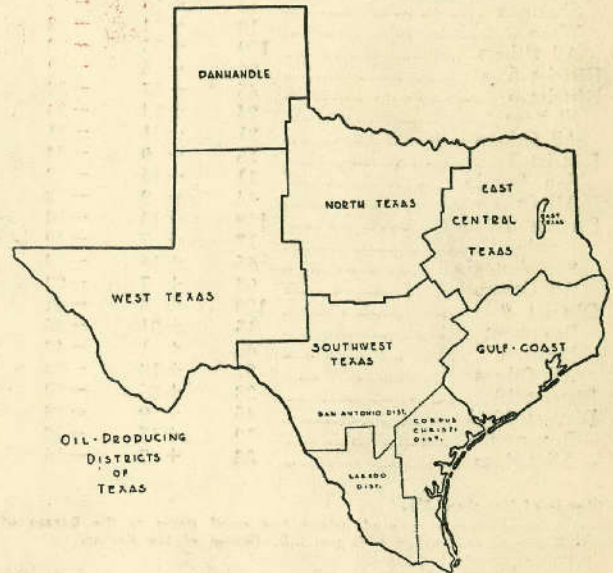
	Jan., 1943	Jan., 1942	Dec., 1942
Coastal Texas*	308,650	309,850	312,900
East Central Texas	101,600	88,800	101,040
East Texas	327,600	384,500	347,780
North Texas	136,450	145,800	137,950
Panhandle	88,350	86,500	92,460
Southwest Texas	166,500	230,100	174,910
West Texas	200,700	307,300	208,510
STATE	1,329,850	1,552,850	1,384,550
UNITED STATES	3,826,500	4,114,350	3,871,640

*Includes Conroe.

NOTE: From American Petroleum Institute.

See accompanying map showing the oil producing districts of Texas.

Gasoline sales as indicated by taxes collected by the state comptroller were: December, 1942, 66,281,000 gallons; December, 1941, 133,606,000 gallons; November, 1942, 145,768,000 gallons.



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