

CHAPTER I

NEW ENGLAND AND OTHER GEOGRAPHIC DIVISIONS

All farm real-estate values: 1850 to 1930.—Data showing the average value of all farm real estate (land and buildings) per acre, 1850 to 1930, together with index numbers of the averages for the United States and the several geographic divisions, are presented in Table 2. Charts showing trends of these average values are presented in Figure 1. The measurement of changes in these averages over the same period as shown by percentages of the average, with the United States taken as a base, appear in Table 3. A brief historical study from census reports of the average value per acre of all farm real estate for the United States as whole, indicates a rather steady, and sometimes even a rapid increase in these values from 1850 to 1890. Only one important decline, that from 1860 to 1870, is noted during this 40-year period, and this recession is obvious only when the reported values are expressed in terms of dollars of uniform purchasing power (deflated values). The reported values show that farm real estate for the country as a whole advanced from \$11.14 per acre in 1850 to \$21.31 in 1890, an increase of over 90 per cent.

Rapid increases in farm-land values in the Middle Atlantic, East North Central, West North Central, Mountain, and Pacific divisions, together with more moderate increases in all other geographic divisions of the country, comprise the outstanding changes from 1850 to 1890. The increases as shown for the United States as a whole were chiefly influenced by the steady increase in the utilization and improvement of land for agricultural purposes in these regions. More than one-fifth, or 21 per cent, of the acreage of all land in farms in the United States was located in the East and West North Central divisions, and more than 6 per cent in the New England States, in 1850. By 1890 the total farm acreage had more than doubled in the former region and comprised more than two-fifths, or 41 per cent, of all land in farms in the United States; while the percentage for the New England States declined to about 3 per cent. In 1850 more than one-fifth, or 23 per cent, of the total value of all farm real estate in the United States was located in the two North Central divisions, and by 1890 more than one-half, or 53 per cent, of such value was located within this same area. The total value of all farm real estate in the New England States comprised 11 per cent of the total for the United States in 1850 and had decreased to about 4 per cent by 1890. The average value of all farm real estate per acre of all land in farms was \$13.38 for the East North Central division, and \$6.40 for the West North Central division in 1850; as compared with \$38.77 for the former division and \$19.68 in the latter in 1890. Average farm real-estate values for the New England States increased from \$20.27 per acre to only \$24.78 during the period. Table 3 shows the average values of all farm real estate per acre as percentages of the total for the United States, the Middle Atlantic States were highest in 1850 with 264 per cent and the Pacific States lowest, with 14 per cent; the percentage for the New England States being 182. In 1890, the average value per acre for the Middle Atlantic States was 224 per cent of the average for the United States, the West South Central group was lowest with 37 per cent, while the percentage for the New England States was 116.

The effect of the important economic events of the period 1850 to 1890 may be traced in Table 2. Before 1850, farming operations were conducted on a

relatively small scale in comparison with later periods, except in the cotton areas. Due chiefly to inadequate railroad facilities and the lack of other means of rapid transportation, agricultural operations were generally limited to supplying the needs of the producer, the demand of local markets within easy wagon-haul distance and those general markets accessible by means of water.

In 1850, near the accessible markets located in the New England and Middle Atlantic division, higher average values prevailed than in any other section of the country. The average value of all farm real estate per acre for New England in 1850 was \$20.27, and for the Middle Atlantic States was \$29.42, whereas values in other geographic divisions were much lower, and ranged from \$13.38 per acre for the East North Central division to as low as \$1.55 per acre for the Pacific division. The New England and Middle Atlantic divisions had more mileage of railroads and canals in operation than any other section of the country in 1850.

Farm land in these two divisions together comprised 18.8 per cent of the total farm acreage of the United States and represented 44.5 per cent of the total value of all farm real estate in 1850; 6.3 per cent of the farm land and 11.4 per cent of the total value of all farm real estate being located in the New England States. The fact should not be overlooked, however, that farm real-estate values within the New England and Middle Atlantic divisions present a considerable range of values due chiefly to the location of farm lands with reference to the distance from cities and industrial areas of comparatively greater density of population and the great diversity of topographical soil and climatic conditions. The range in average values within the New England States is more clearly shown by reference to Table 8. The highest average values of all farm real estate per acre of farm land in the United States, except for the District of Columbia, were found in the State averages for Massachusetts with an average value per acre of \$32.50, Rhode Island with \$30.82, Connecticut, \$30.51, New York, \$29, New Jersey, \$43.68 and Pennsylvania with \$27.33. In these States a relatively larger proportion of farm lands were located near the more densely populated cities and industrial areas, as compared with farm lands in Maine, New Hampshire, and Vermont, where farm real-estate values were much lower, being \$12.04, \$16.29, and \$15.36, respectively, for the three States.

Some of the outstanding historical events which took place during the 40-year period, 1850 to 1890, and which undoubtedly contributed to the steady increase in farm real-estate values during these years should be briefly mentioned. During the decade 1850 to 1860 horse-driven machinery for cutting and threshing grain was introduced, revolutionizing the methods of work on grain-producing farms throughout the country. Railroad and water transportation from the Central West to the seaboard and intervening markets brought to the farmers of this section the markets of the world, as well as a wider market in the United States. Assisted by congressional land grants the total railroad mileage for the United States increased from 9,021 in 1850 to 30,626 in 1860, a gain of 239 per cent.¹ These factors stimulated the more rapid settlement of the North Central States, as did the repeal of the corn laws of Great Britain and the rapid development of manufacturing, particularly of cotton cloth, in that country. The discovery of gold in California and Australia, and the attendant increase in the production of that metal contributed to the rise in the whole scale of prices, which, together with the increased influx of immigrants to the United States, gave a great impetus to American agriculture. Relatively cheaper and better agricultural land in the Middle West and Southwest caused large numbers of people, particularly immigrants and New England farmers, to move westward and take up land. West-

¹ Railroad construction data presented here and in the following pages were obtained from Principles of Railway Transportation, by Elliot Jones, 1931.

ward migration was also stimulated by the discovery of gold on the Pacific coast. The decade 1850 to 1860 may be generally described as a period of general business prosperity, marked by only a minor recession in 1853 and 1854.

Great changes in agriculture marked the next decade, 1860 to 1870. Farm real-estate values advanced at a much slower rate than during the 10-year period immediately preceding, as shown by the data presented in Table 2, in which the index of farm real-estate values advanced 5 points from 41 to 46 per cent of the 1910 average for the United States as a whole, in comparison with an advance of 13 points during the decade immediately preceding. The outstanding factor which influenced farm real-estate values, both directly and indirectly, during the decade 1860 to 1870 was the Civil War. There was an increased market demand for food in the North for the armies. The supply of labor was diminished at the beginning of the decade, but was later increased by the continuance of the immigration movement, begun in the preceding decade. Agricultural production was further extended in the North, being encouraged chiefly by further extension of the railway net. Railroad mileage for the country as a whole increased from 30,626 in 1860 to 52,922 in 1870, an increase of 73 per cent. The Union Pacific Railroad was completed in 1869, opening a new means of transporting western farm produce to the markets of the East and to eastern ports for shipment to European markets. Congressional acts in 1862 and 1864 provided additional land grants to railroads and served to attract the required capital for their construction. In 1862 the homestead law facilitated the acquirement of farm lands by settlers coming chiefly from the East, particularly soldiers of the northern armies. Farm-land values, as indicated by the average values and index numbers in Table 2, advanced most rapidly in the Middle Atlantic, East North Central, West North Central, Mountain, and Pacific divisions, while decreases occurred in each of the southern divisions. Average farm real-estate values for New England as a whole remained practically stationary, although some sections, notably those for New Hampshire, Massachusetts, and Rhode Island even showed slight decreases. The situation with respect to New England was influenced by the westward migration of its young farmers, who in many instances abandoned many less productive, rocky, New England farms for the better agricultural lands to the westward, and by the increased competition of the cheaper and more fertile grain lands of the West. The growing demand for American agricultural products in European markets and the ability of American agriculture to supply this demand checked further decreases of farm-land values in the New England States, by maintaining relatively high prices for agricultural products throughout the country.

The decline in farm real-estate values in the South during the period 1860 to 1870 was directly due to the results of fortunes of war. The destruction of the markets of the South, loss of investments in slaves, the deterioration and abandonment of large areas of farm land, bankruptcy of planters and the destruction of their credit, the lack of working capital, and the general paralysis of business throughout the South, all contributed toward the general decline in that region.

Attention should be called to the inflation of the currency during the period 1862 to 1873, for when the currency of that period is expressed in terms of paper money, advances and declines in values are misleading. The values shown in all accompanying tables for the year 1870 have, therefore, been converted to the gold basis for the purpose of obtaining better comparability of the data.

From 1870 to 1880 the program of railroad construction of the latter part of the preceding decade was continued. Total number of miles of railroad increased from 52,922 to 93,262, an increase of 76 per cent for the country as a whole. Most of the railroad construction took place in the Northern and Western States. Immigration was stimulated by the new land which became available for settlement in the West, and by the fact that produce for that region could reach the

markets of the world by means of more rapid transportation by railroad. A large proportion of the immigrants also settled in the North Central States. The opening of new markets for agricultural produce abroad served to increase the total value of agricultural exports.

The development in the early seventies of an improved process for milling wheat, particularly the hard winter wheat of the Northwest, was another factor which exerted an influence upon the price of all wheat, consequently increasing farm profits and the demand for farm land in Minnesota and the Dakotas. By the close of the decade 1870 to 1880 readjustments had taken place in the South, particularly in the cotton areas, following the devastations of the Civil War. The renewed demand for cotton for the textile mills at home and abroad increased the demand for the new cotton lands of the South and Southwest, particularly in Texas. The rapid development of the beef-cattle industry in the West and Southwest, aided by the use of the public domain for grazing purposes, together with better means of transporting cattle and beef to the East coast and increased European demand for American meat products, also served to accelerate the rise in farm real-estate values in Texas and other western cattle-raising regions. The depression of 1873, with its attendant industrial unemployment sent many workers back to the land as a means of gaining a livelihood. Railroads were reorganized and rates lowered, so that farmers in western producing areas were enabled to more successfully compete with eastern farmers in eastern markets.

Excluding the Mountain States, which showed the most rapid increase in the average value of all farm real estate per acre during the decade 1870 to 1880, the greatest advances occurred in the South Atlantic, New England, West South Central, East North Central, and Pacific divisions. The rise in the index numbers of all farm real-estate values for these divisions ranged from 9 points in the case of the South Atlantic group to 6 points for the East North Central States. The changes for the remaining divisions were of less significance.

General business conditions of the period 1870 to 1880 were characterized by a minor recession, followed by a mild revival, during the early part of the decade. Then came the panic of 1873, followed by nearly five years of business depression, from which there was little or no recovery until 1879.

During the next 10-year period, 1880 to 1890, the forces which tended to influence farm real-estate values in the West and South during the preceding decade continued to operate. The total railroad mileage for the country as a whole increased from 93,262 to 163,597, an increase of over 70,000 miles, or 75 per cent, for the decade, making the total mileage more than three times that in operation in 1870. The larger proportion of railroad mileage was constructed in the West and South, and transportation rates were further lowered. The refrigerator car, which had been introduced in 1869, began to be more extensively used during the later seventies. The wider use of improved farm machinery further aided in reducing production costs in the West. The increased competition from the West, as a result of the influence of these factors, including the effect of the entry of dairy products from the North Central and Western States into the dairy markets of the East, tended to lower the value of farm lands, which were formerly in greater demand as wheat lands or grazing lands for dairy herds in the New England and Middle Atlantic divisions. The reported average value of all farm real estate for the New England States, as a whole, declined from \$27.03 per acre in 1880 to \$24.78 in 1890. All New England States except Maine show decreases in farm real-estate values during the period 1880 to 1890, indicating the extent to which refrigeration, lower freight rates, and better transportation facilities had brought the West into more powerful competition, not only for eastern markets, but for European as well. The decline for the Middle Atlantic division was not of sufficient magnitude to be significant.

The same factors which operated adversely to the farm real-estate values in the New England and Middle Atlantic States during the 1880 to 1890 period proved a force in increasing those of all other sections of the country, except in the Mountain States. The Pacific division, which showed the most rapid increase, advanced from \$14.98 to \$22.57 per acre, or more than 50 per cent. The period 1880 to 1890 was one of general business recession from 1881 to the early part of 1885, business recovery from 1885 to 1887, followed by a slight recession in 1888, and recovery in 1889. General business conditions reached a higher point in 1890 than in 1880.

Farm real-estate values during the decade 1890 to 1900 were influenced by the panic of 1893 and by the period of industrial depression during the years which followed. During the latter part of 1890, business conditions receded somewhat from the high point attained during the early part of that year, and the recession continued into the early part of 1891. A revival of business occurred during the latter half of 1891 and throughout the year 1892. The period 1893 to 1900 was one of depression followed by slow revival from the low point reached in 1893, so that by the close of the decade business conditions were much lower than in 1890. The depression period was characterized by exceptionally low prices for staple agricultural products. The effect of low prices are reflected in the decline in the trend of the average value of all farm real estate per acre for the United States as a whole, and for the Middle Atlantic, West South Central, Mountain, and Pacific States, and the slightly retarded upward trends in the North Central, South Atlantic, and East South Central States, as compared with those of the preceding decade.

The westward movement of agriculture continued during the decade 1890 to 1900. The total acreage of land in farms in the East and West North Central States, considered as one area, comprised 41 per cent of the acreage of all land in farms in the United States at the beginning of the decade, but declined to 38 per cent by 1900. Similar data for the New England States show a decline from 3.2 per cent in 1890 to 2.5 per cent in 1900. The farm acreage in the West South Central, Mountain, and Pacific States, considered as one area, comprised only 20 per cent of the acreage of all land in farms in 1890, but this figure increased to 32 per cent by 1900. The two North Central divisions continued in the lead with reference to the total value of all farm real estate, and the ratio of total value of all farm real estate for that region to the total for the country increased from 53 per cent to 58 per cent during the decade. It should be noted that in 1870 and 1880 the East North Central group reached its highest point of 36 per cent of the total value of all farm real estate of the United States and began a decline from that percentage in 1890, which has continued gradually with each succeeding census. The total value of all farm real estate for New England as a whole showed a further decline from 3.69 per cent to 3.18 per cent of the total for the United States from 1890 to 1900.

The New England States alone show a positive upward trend in the average values of all farm real estate, as compared with the decline which took place in this region during the period 1890 to 1900. A part of the decline in the average values of farm real estate per acre in the West South Central, Mountain, and Pacific States may be attributed to the inclusion as farm land in the reports for the census of 1900 land which, prior to that time, formed a part of the public domain and which was of comparatively low value.

During the decade 1890 to 1900 there was considerable development of parts of Florida and California for fruit growing, as well as normal expansion of urban areas around the large cities of the country for market garden purposes, which tended to advance farm real-estate values in these sections. Outside of these areas, however, there was a general downward tendency of farm real-estate values,

which would probably have reached a still lower level had not the depression of 1893 discouraged the movement of farm population to the cities, where the demand for labor was lowered by the slackening of industrial activity. The increase in railroad construction between 1890 and 1900 from 163,597 to 193,346 miles,² was less than that from 1870 to 1880 and less than even half that of the decade 1880 to 1890, partly due to the fact that the main lines of railroad had been provided by the rapid development of the preceding 20 years and partly to industrial depression following the panic of 1893. Of equal importance, probably, with the railroad construction of this decade was the further decline in freight rates, improved carrying facilities, and beginning of the regulation of railroads by Federal authority.

The next 20 years witnessed the most rapid rise of farm real-estate values this country has ever known. The index of the reported average values of farm real estate per acre, for the United States as a whole, advanced 50 points during the first half of this period and rose 75 points from 1910 to 1920, or from \$19.81 to \$39.60 per acre from 1900 to 1910, and from \$39.60 in 1910 to \$69.38 in 1920. The year 1920 marks the peak of farm real-estate values per acre for the country as a whole, for the entire period 1850 to 1930. New England farm real-estate values increased at a slower rate than those for the United States as a whole, gaining 29 points from 1900 to 1910 and 48 points from 1910 to 1920, an increase in the reported average values from \$25.71 to \$36.45 for the earlier period and from \$36.45 to \$54 for the latter. All geographic divisions, except the West North Central States, reported increased average farm real-estate values per acre with each succeeding census during the 20-year period, the South Atlantic, East South Central, and West South Central States taking the lead in the rapidity of increase. When the reported average values are expressed in terms of dollars of uniform purchasing power in comparison with the year 1910 for this period, however, farm real-estate average values indicate a much more modified rate of increase than is shown by the reported values. These deflated values show a decrease of 1 point in the index of the average value for the Middle Atlantic States and an increase of only 7 points for the New England States. Other geographic divisions show upward movements of the index which ranged from 26 in the East North Central States to as high as 57 in the Mountain States. When similar allowance is made for the fluctuation in the value of the dollar between 1910 and 1920, all divisions, except the South Atlantic and East South Central States, show decreases in the average value of all farm real estate per acre.

Expressed in percentages of the average value of all farm real estate per acre for the United States as a whole, New England declined from 130 per cent in 1900 to 92 per cent in 1910, and by 1920 had declined to 78 per cent. The East North Central States had the highest average values relative to the average value for the United States, at both the 1910 and 1920 censuses, with 190 per cent in 1910 and 183 per cent in 1920. The West South Central group was lowest in 1910 with 47 per cent, and the Mountain division was lowest in 1920 with 39 per cent. The three last-mentioned divisions occupied the same relative positions among the geographic divisions of the country at each census during this 20-year period in respect to the reported average values. In 1910 and 1920 the East North Central group ranked highest with \$75.25 per acre in 1910 and \$126.87 in 1920. The West South Central group reported the lowest average value per acre, \$18.50, of any division in 1910, and in 1920 the Mountain division was lowest at \$26.96 per acre.

General business conditions were only slightly better in 1910 than in 1900, the upward trend from the latter part of the preceding decade being retarded by the

² These figures are for the fiscal year ending June 30.

mild depression of 1904 and panic of 1907. Business recovery began during the latter part of 1908 and reached a new peak during the first part of 1910. The general trend of business from 1910 to 1914 was that of a gradual recession, followed by a sudden decline during the latter part of 1914. The World War activity brought about a rapid revival of business and higher commodity prices during the years 1915 and 1916, so that, by the time the 1920 census was enumerated, business had reached an inflated level higher than either that of 1910 or 1900, and was at about the same level as that of the early part of 1890.

The trends in business during the 20-year period 1900 to 1920 are reflected in the trends in wholesale prices of agricultural and nonagricultural commodities. By converting the index numbers of wholesale prices of all commodities, as published by the United States Bureau of Labor Statistics,³ to 1910 as the base year (100 per cent) the price index was 76 in 1900. By 1920, however, this index had risen to 211, the highest point of any of the census years under consideration. Comparisons with indices of prices of agricultural and nonagricultural commodities published by the same bureau show the similarity in trends between these prices and the trends in the index of the average value of all farm real estate. The price index of agricultural products, computed from census data as presented in Table 30, shows the upward trend in farm prices for the New England States as a whole and for each of the New England States during the period 1909 to 1919. Taking 1909 as the base year (equal to 100 per cent) the farm price index for 1919 was 217, for New England as a whole, when 39 principal crops and 9 principal livestock products are used in the computations.

During the period 1900 to 1920 new railroad construction proceeded at a slower rate than during the 20-year period immediately preceding. From 1900 to 1922 the total railroad mileage for the country increased from 193,346 to 250,480 miles, an increase of slightly over 57,000 miles as compared with the increase of more than 100,000 miles from 1880 to 1900. In fact, between the years 1916 to 1922 more mileage was abandoned than constructed. The decline in railway construction may be attributed in part to the unfavorable economic conditions operating against the advisability of undertaking new construction during the war and postwar periods and in part to the construction of better highways and the competition for the railroads which came through the ever-widening use of automobiles and trucks as a means of transporting farm produce to markets. The latter two factors have been important in enabling producers to reduce marketing costs, and which, in turn, have undoubtedly exerted no small influence upon farm real-estate values.

From 1920 to 1930 there was a downward trend in farm real-estate values for the country as a whole. As compared with an average value of all farm real estate of \$69.38 per acre for the United States in 1920, the average value was \$53.52 in 1925, and \$48.52 in 1930. As compared with the base year, 1910, the index for this value stood at 135 in 1925, and 123 in 1930; whereas in 1920 it was 175 per cent. Average values of farm real estate continued to advance during this same period in the New England and Middle Atlantic divisions.

For New England the average value increased from \$54 to \$57.11, or 9 points in the index, from 1920 to 1925; and rose to \$65.86, or 24 points in the index, during the latter half of the decade. In the Middle Atlantic division the rate of increase was less rapid, but average values increased from \$73.99 per acre in 1920 to \$74.68 in 1925, and reached \$80.40 in 1930, a rise of 11 points in the index during the entire decade. These two divisions alone show increased average values of farm real estate from 1920 to 1925, and from 1925 to 1930 increases occurred in the two South Central divisions, as well as in the New England and

³ Bureau of Labor Statistics Bulletin No. 543, September, 1931.

Middle Atlantic States, when the values as reported are considered. Expressed in terms of dollars of uniform purchasing power (deflated values), average farm real-estate values show increases for all geographic divisions, except the Mountain States, from 1920 to 1925, and increases in all geographic divisions, except the two North Central divisions, from 1925 to 1930. The greatest decline in the values as reported took place in the West North Central group in the decade 1920 to 1930. This group of States includes Iowa, where the tremendously inflated farm real-estate values of 1920 suffered greater loss than did other sections during the depression of 1921 and the years of reconstruction which followed.

In 1930 the highest average value per acre for any group of States relative to its 1910 average was found in the South Atlantic division, with an index of 186, and lowest in the Mountain States, with an index of 70. The index for the New England States was 181.

When viewed as a percentage of the average value of all farm real estate per acre for the United States, New England increased from its lowest point, 78, reached in 1920, to 107 in 1925 and 136 in 1930. The percentage for the Middle Atlantic division also increased from the lowest point, 107 per cent reached in 1920, to 140 in 1925, and 166 in 1930.

The rate of increase in the number of acres of all land in farms for the United States had rather abruptly retarded between 1900 and 1910, coincident with the almost complete utilization of all of the good agricultural land available in the public domain. From 1920 to 1930 the increase in all land in farms, 3.2 per cent, for the United States as a whole, was the lowest rate of increase noted in census reports since the 1860-1870 decade. Decreases in farm land were reported in five geographic divisions as follows: New England, 15.9 per cent; Middle Atlantic, 13.6 per cent; East North Central, 5.8 per cent; South Atlantic, 11.7 per cent; and East South Central, 7.7 per cent. Increases occurred in the remaining divisions as follows: West North Central, 3.3 per cent; West South Central, 6 per cent; Mountain, 34.2 per cent; and Pacific, 7.8 per cent. At the same time, the westward movement of agriculture continued, as indicated by the fact that farm land in the combined East and West North Central States comprised 39.1 per cent of all farm land in the United States in 1920, and formed but 38.1 per cent of the total in 1930; whereas, the farm land located in the West South Central, Mountain, and Pacific divisions, considered as one area, comprised 36.3 per cent of all farm land in the country in 1920, and 40.7 per cent in 1930. For the first time during decades 1850 to 1930, a larger proportion of all farm land in the country was located in the three Western divisions than in the East and West North Central groups of States. All land in farms in New England comprised but 1.8 per cent of the total for the United States in 1920, and by 1930 this percentage had been lowered to 1.5.

With regard to the total value of all farm real estate (land and buildings), the continued westward movement of agriculture is noted for the decade 1920 to 1930. In 1920 about 59 per cent of the total value of all farm real estate in the United States was located in the area comprising the East and West North Central States. By 1930, this percentage had declined to 51.2; while, notwithstanding the lowered purchasing power of currency, the group of States comprising the West South Central, Mountain, and Pacific divisions increased its proportion of the total value of all farm real estate in the United States during the decade from 21.3 to 27.3 per cent. For the New England States a slight gain is observed in the per cent which the total value of all farm real estate formed of the total value for the entire country. In 1920, total farm real-estate values in New England formed 1.38 per cent of the total value for the United States. In 1930 this percentage had increased to 1.96. The 10-year

period, from 1920 to 1930, one of readjustment and lower prices for farm products, was particularly marked by the loss in value to all farm real estate for the United States as a whole, partly due to the deflation of monetary values. The total value of all farm real estate for the United States as a whole declined \$18,436,164,244, or 27.8 per cent. Most of this loss in value occurred during the first half of the decade, even though the total number of acres of all land in farms increased. The New England and Pacific divisions were the only two groups of States in the country, as shown in Table 1, where actual increases in the total value of all farm real estate occurred.

The prosperous condition of business with its attendant inflated values and prices of agricultural products; and the high purchasing power of the dollar which, prevailing in 1919 and during the early part of 1920, suddenly declined with the major depression of 1921. This business depression was followed by a slow upward trend, retarded by a mild recession in 1923 and 1924, until the middle of 1929, when another recession began, which has terminated in the present severe economic depression. While the farm prices of agricultural products began to decline in August, 1929, the fact that farm real-estate values lag considerably behind changes in the trends of farm prices, prevents the full disclosure of the effect of the lower 1929 farm prices upon farm real-estate values

TABLE 2.—AVERAGE VALUE AND INDEX NUMBER OF ALL FARM REAL ESTATE (LAND AND BUILDINGS) PER ACRE, BY GEOGRAPHIC DIVISIONS: 1850 TO 1930

[For index numbers 1910 base=100 per cent]

YEAR	UNITED STATES		NEW ENGLAND		MIDDLE ATLANTIC		EAST NORTH CENTRAL		WEST NORTH CENTRAL	
	Average value per acre	Index number								
1930.....	\$48.52	123	\$65.86	181	\$80.40	142	\$84.20	112	\$57.10	114
1925.....	53.52	135	57.11	157	74.68	132	97.77	130	66.64	133
1920.....	69.38	175	54.00	148	73.99	131	126.87	169	95.22	191
1910.....	39.60	100	36.45	100	56.56	100	75.25	100	49.92	100
1900.....	19.81	50	25.71	71	43.45	77	42.23	56	23.14	46
1890.....	21.31	54	24.78	68	47.68	84	38.77	52	19.68	39
1880.....	19.02	48	27.03	74	47.80	85	34.31	46	14.83	30
1870.....	18.26	46	23.92	66	47.69	84	30.27	40	15.55	31
1860.....	16.32	41	23.68	65	40.17	71	23.88	32	11.20	22
1850.....	11.14	28	20.27	56	29.42	52	13.38	18	6.40	13

YEAR	SOUTH ATLANTIC		EAST SOUTH CENTRAL		WEST SOUTH CENTRAL		MOUNTAIN		PACIFIC	
	Average value per acre	Index number								
1930.....	\$44.60	186	\$36.88	173	\$31.57	171	\$15.61	70	\$79.70	165
1925.....	46.28	193	35.14	165	30.05	162	16.50	74	82.85	172
1920.....	53.20	222	46.44	218	36.27	196	26.96	122	83.16	172
1910.....	23.96	100	21.32	100	18.50	100	22.16	100	48.28	100
1900.....	11.57	48	11.49	54	6.45	35	7.30	33	20.17	42
1890.....	11.34	47	10.47	49	7.91	43	13.45	61	27.57	57
1880.....	8.79	37	8.82	41	5.36	29	14.61	66	14.98	31
1870.....	6.77	28	8.20	38	4.08	22	5.11	23	11.58	24
1860.....	9.47	40	12.43	58	8.70	47	2.78	13	5.93	12
1850.....	6.17	26	6.35	30	5.64	30	5.83	26	1.55	3

as shown by the Census of 1930. The United States wholesale price index of all commodities⁴ declined from 211 points in 1920 to 140 in 1925, and by 1930 it had dropped to 124. For the New England States, using 1909 as the base year (equal to 100 per cent) the farm price index in 1919 was 217, and by 1929 it had declined to 166. (See Table 30.)

There was a further decline in railroad construction during the decade 1920 to 1930. The decline in railroad construction resulted in a deficiency of transportation facilities which has been offset by more extensive use of automobiles and trucks, together with the increase in construction of hard surface roads, and further improvements in railroad carrying equipment has somewhat revolutionized the methods of marketing farm produce. Considerable Federal legislation also was enacted during this period which was designed to place agriculture on an economic basis more nearly equivalent to other industries. All of these factors have exerted some influence upon farm real-estate values.

TABLE 3.—MEASUREMENT OF THE CHANGES IN THE AVERAGE VALUE OF FARM REAL ESTATE (LAND AND BUILDINGS) PER ACRE, IN PERCENTAGES OF THE AVERAGE WITH THE UNITED STATES AS BASE (100), BY GEOGRAPHIC DIVISIONS: 1850 TO 1930

YEAR	United States	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per cent</i>	<i>Per ct.</i>
1930.....	100	136	166	174	118	92	76	65	32	164
1925.....	100	107	140	183	125	86	66	56	31	155
1920.....	100	78	107	183	137	77	67	52	39	120
1910.....	100	92	143	190	126	61	54	47	56	122
1900.....	100	130	219	213	117	58	58	33	37	102
1890.....	100	116	224	182	92	53	49	37	63	129
1880.....	100	142	251	180	78	46	46	28	77	79
1870.....	100	131	261	166	85	37	45	22	28	63
1860.....	100	145	246	146	69	58	76	53	17	36
1850.....	100	182	264	120	57	55	57	51	52	14

Value of all farm buildings and farm land: 1900 to 1930.—Beginning with the year 1900, statistics pertaining to the value of all farm buildings have been collected at each subsequent agricultural census. The total value of farm land (excluding buildings) was obtained by deducting the value of all farm buildings from the total value of all farm real estate (land and buildings combined), and this result was divided by the total number of acres of all land in farms, to obtain the average value of land alone per acre. The changes and trends in the average value of all farm buildings per acre for the United States as a whole, and for each geographic division are presented in Table 4, and in Figure 2. Data pertaining to the average value of land alone per acre are shown in Table 5, and in Figure 3. In Figure 2 are plotted the trends (in percentages of the 1910 average) of the average value of all farm real estate per acre, together with similar trends for the average value of farm buildings. In Figure 3 are plotted the trends (in percentages) of the average value of all farm real estate per acre and of farm land alone. These charts serve to illustrate the relationships between the trend of each factor and the trend of the combined value of all farm real estate.

Some of the important factors which affected farm real-estate values during the period 1900 to 1930 were mentioned previously in this chapter. Changes and trends in the average values per acre of the two items, all farm buildings and farm land (excluding buildings) will, therefore, be only briefly pointed out here.

⁴ Bureau of Labor Statistics all commodity index of wholesale prices converted to 1910 base=100.

From 1900 to 1910 the average value of all farm buildings as reported for the United States, as a whole, increased from \$4.24 per acre to \$7.20, an increase of 41 points in the index when 1910 is used as the base year (equal to 100 per cent).

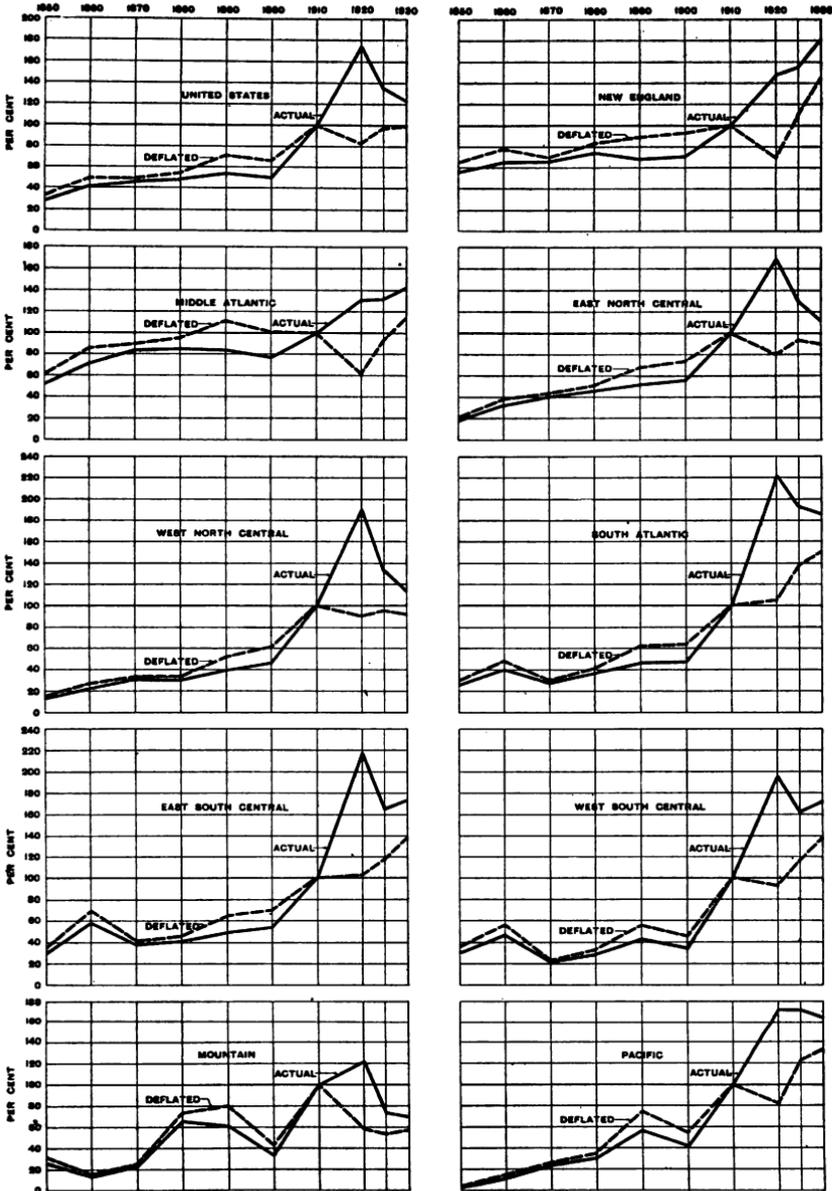


FIGURE 1.—TREND IN THE AVERAGE VALUE OF FARM REAL ESTATE (LAND AND BUILDINGS) PER ACRE, IN PER CENTS (1930=100), FOR THE UNITED STATES, AND THE GEOGRAPHIC DIVISIONS: 1850-1930

The average value of all farm buildings for the New England States was \$11.91 per acre in 1900, and increased to \$17.06 in 1910, or 30 points as shown by the index. The most rapid increase in the average value of all farm buildings per acre

occurred in the West South Central division, where the average value of \$1.05 per acre in 1900 was the lowest recorded for any other section of the country. For this division the index for the average value of land and buildings per acre rose 57 points from 1900 to 1910. The lowest rates of increase in the average value of land and buildings per acre took place in the Middle Atlantic and New England groups, with rises of 28 and 30 points of the index, respectively. In these two divisions the average values were higher in 1900 than other sections of the country. Expressed in percentages of the average value for the United States equal to 100 per cent, the Middle Atlantic and New England groups show decreases during the decade from 383 to 315 per cent for the former, and from 281 to 237 per cent for the latter division. The averages for all other geographic divisions increased in relation to the United States average. Comparing the index numbers in Table 2 with those in Table 4 it will be observed that the rise in the average values of all farm real estate per acre for the United States as a whole was at a more rapid rate during the decade 1900 to 1910, than the rise in the average value of farm buildings. This observation is also noted in the case of all geographic divisions except the New England and Middle Atlantic groups, (see fig. 2) where the rates of increase in the average values of all farm buildings exceeded those for the average values of all farm real estate. Attention is also called to the fact that the rates of increase in the average values of all farm buildings were more moderate for the New England and Middle Atlantic groups than for the United States as a whole, while the opposite observation holds true in comparing the 10-year trends of all other geographic divisions with the rate of increase for the United States as a whole. These facts are illustrated in Figure 2, with reference to comparisons between the trends in the average values for the New England States and the United States as a whole.

During this same decade, 1900 to 1910, the average value of all farm land (excluding buildings), for the United States as a whole, as computed from reported values, increased from \$15.57 per acre to \$32.40, an increase of 52 points in the index. This increase may be compared with the more moderate increase of 41 points in the average value of all farm buildings, and 50 points in the average value of all farm real estate (land and buildings combined) for the United States. An examination of the data pertaining to the total amounts of increase in values show that during this period, for the United States as a whole, the increase in the value of farm land (excluding buildings) was a much more powerful factor toward influencing the rise in all farm real estate than was the rise in the value of farm buildings. This fact is not so evident with regard to conditions found in the New England States, where the value added to the land by improvements upon it constituted a factor nearly equal in importance to the increase in the value of land, exclusive of improvements, during this period; while for the Middle Atlantic States the increase in value of farm buildings exceeded the increase in the value of farm land alone. The average value of farm land (excluding buildings) for the New England States was \$13.79 per acre in 1900 and increased to \$19.38 in 1910, a rise in the index of 29 points, or only 1 point less than the corresponding increase in the index for the average values of all farm buildings, and identical with the rate of increase in the average values of all farm real estate per acre. The most rapid increase in the average value of farm land (excluding buildings) was found in the Mountain States, where the average was \$6.12 in 1900 and \$19.73 in 1910, a rise of 69 points in the index as compared with a more moderate rate of increase in the average value of farm buildings. The lowest rates of increase in the average value of land alone, as in the case of the average value of all farm buildings and all farm real estate, occurred in the New England and Middle Atlantic groups with rises of 29 and 20 points in the index respectively. Expressing the average values of farm land (excluding buildings.

in percentages of the average for the United States equal to 100 per cent, decreases in such an index are noted for the period 1900 to 1910 in the New England, Middle Atlantic, East North Central, and East South Central divisions; while increases occurred in all other sections of the country. It is significant that, whereas, the average value of all farm buildings per acre for the New England States was considerably above the average for the United States in 1900 and in 1910, the average value of farm land alone was below the average value for the country as a whole at these two census years. The index numbers in Tables 2 and 4, compared with those in Table 5, show that the rise in the average values of all farm land (excluding buildings) for the United States as a whole was at a slightly more rapid rate than the average value of all farm real estate, and was considerably in excess of the rate of increase in the average value of farm buildings. The rates of increase in the average value per acre of farm land alone were also greater than the rates of increase in the average value of all farm buildings per acre in all geographic divisions, except the New England and Middle Atlantic groups, where the average values of farm buildings per acre increased more rapidly than did the average values of farm land alone. As was found in the comparison of rates of increase of the average values of farm buildings, the rise in the average value of farm land alone was less rapid for the New England and Middle Atlantic States than for the United States as a whole. This statement applies, as well, to the rates of increase found in the East North Central and East South Central divisions. Figure 3 presents geographically the comparisons noted above for the country as a whole and for the New England States.

Attention is invited to the fact that when the average values of all farm real estate, farm buildings and farm land (excluding buildings) are deflated by the all-commodity index of wholesale prices,⁵ the upward straight-line trend in these values for the period 1850 to 1930 are more moderate than indicated by the currency values. (Figs. 1, 2, and 3.)

One of the most significant facts disclosed by the average values of farm real estate for the census years 1925 and 1930 is the moderate increase at each census in the average value of all farm buildings per acre for the United States as a whole, while the average value of farm land alone declined rapidly from 1920 to 1925, and continued to decline at a somewhat more moderate rate from 1925 to 1930.

The average value of farm buildings increased from \$12.02 per acre in 1920 to \$12.70 in 1925, and advanced to \$13.12 in 1930. At the same time land values declined from \$57.36 per acre in 1920 to \$40.81, or 51 points in the index, for the first half of the decade; and dropped another 17 points, or \$35.40 per acre, during the latter half. Thus, in 1930 the average value of farm land per acre (excluding buildings) was only 9 points above the 1910 level, the average value of all farm real estate was 23 points above, and the average value of farm buildings per acre was 82 points above. During the decade the index of the average value of farm buildings per acre for the New England States advanced a total of 57 points, or from \$25.27 per acre in 1920 to \$34.99 in 1930. This increase constituted the most rapid advance shown for any geographic division except the Pacific group, which increased 71 points, or from \$8.95 in 1920 to \$12.18 in 1930. The Mountain division was the only group of States which did not show an increase in the average value of farm buildings for the decade, although its 1930 average was slightly above that for 1925. Average values for farm buildings declined in the East South Central, West South Central, and Mountain divisions from 1920 to 1925, but all divisions recovered with the return of more prosperous times during the latter half of the decade, with increases in average values for 1930 over the 1925 values. In 1930 the three highest average values were found in the Middle Atlantic, New England, and East North Central divisions, in the order named,

⁵ Bureau of Labor Statistics all-commodity wholesale price index converted to 1910 base.

and the three lowest in the Mountain, West South Central, and East South Central groups.

Expressed in percentages of the average value of farm buildings per acre for the United States as a whole, the averages for the New England and Middle Atlantic States showed decided recovery, and rose from 210 to 267 per cent in New England, and from 275 to 334 per cent in the Middle Atlantic States between the census years, 1920 and 1930. The East North Central, West North Central, and South Atlantic divisions were the only other groups for which the average values of farm buildings per acre were above that for the United States.

Figure 2 illustrates the divergence in the trends in the average value of all farm real estate and the average value of farm buildings for the United States and for New England during the period 1920 to 1930. For the United States as a whole, the average value of all farm real estate receded from 1920 to 1930 nearly as rapidly as it had increased during the preceding decade; while the trend of the average value of farm buildings continued upward during this period at a more modified rate than during the period 1910 to 1920. In New England, however, the situation was different in that both, the trend for the average value of all farm real estate as well as farm buildings was upward, due to the dominance for the first time, in 1925, of the total value of farm buildings over the total value of farm land alone, in that group of States.

The rapid advances in the average value of farm land alone per acre for the decade 1910 to 1920 were abruptly halted by the business depression and low prices during the early part of the 10-year period following. The New England States, alone, among the nine geographic divisions, showed a higher average value of farm land per acre in 1930 than in 1920, and even that division suffered a decline in 1925 along with all other groups. The average value of farm land per acre for the New England States decreased from \$28.73 in 1920 to \$26.10 in 1925, but advanced to \$30.87 at the 1930 census, an increase of 11 points in the index for the decade. The East North Central States, which had maintained the position with the highest average values of farm land (excluding buildings) among all other divisions of the country during the two preceding decades, was forced into second place by the Pacific division in 1925 with an average value of \$71.47 per acre. In 1930 the Pacific division still ranked first according to the average value of farm land, with an average of \$67.52 per acre. In the East North Central and Mountain divisions the average values of farm land alone were below their respective averages for 1910.

The average values of farm land alone per acre for the Middle Atlantic, East North Central, West North Central, and Pacific divisions were higher in 1930, than the average for the United States. For New England, the average value of farm land (excluding buildings) per acre was only one-half that for the United States in 1920, but in 1930, it was 87 per cent of the average for the country as a whole.

The trends in the average values of all farm real estate per acre and of farm land alone as presented in Figure 3, show the more rapidly declining value of farm land for the United States from 1920 to 1930. For the New England States, the divergence in the two values from 1920 to 1925, and the recovery from 1925 to 1930 is adequately illustrated by this same chart. Only when the trends represent deflated values do the averages for the United States and for the New England States show increases from 1920 to 1930.

TABLE 4.—AVERAGE VALUE AND INDEX NUMBER OF ALL FARM BUILDINGS PER ACRE, BY GEOGRAPHIC DIVISIONS: 1900 TO 1930

[For index numbers 1910 base=100 per cent]

YEAR	UNITED STATES		NEW ENGLAND		MIDDLE ATLANTIC		EAST NORTH CENTRAL		WEST NORTH CENTRAL	
	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number
	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent
1930.....	\$13.12	182	\$34.99	205	\$43.51	193	\$28.56	205	\$13.24	197
1925.....	12.70	176	31.01	182	39.14	172	27.09	194	13.01	194
1920.....	12.02	167	25.27	148	33.04	146	24.56	176	12.18	182
1910.....	7.20	100	17.06	100	22.70	100	13.93	100	6.71	100
1900.....	4.24	59	11.91	70	16.25	72	8.08	58	3.77	56

YEAR	SOUTH ATLANTIC		EAST SOUTH CENTRAL		WEST SOUTH CENTRAL		MOUNTAIN		PACIFIC	
	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number
	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent
1930.....	\$14.75	254	\$11.12	220	\$5.39	221	\$2.67	109	\$12.18	269
1925.....	12.62	217	9.25	183	4.74	194	2.54	104	11.38	252
1920.....	12.28	211	9.47	188	5.09	209	3.08	126	8.95	198
1910.....	5.81	100	5.05	100	2.44	100	2.44	100	4.52	100
1900.....	2.94	51	2.78	55	1.05	43	1.18	48	2.38	53

TABLE 5.—AVERAGE VALUE AND INDEX NUMBER OF FARM LAND (EXCLUDING BUILDINGS) PER ACRE, BY GEOGRAPHIC DIVISIONS: 1900 TO 1930

[For index numbers 1910 base=100 per cent]

YEAR	UNITED STATES		NEW ENGLAND		MIDDLE ATLANTIC		EAST NORTH CENTRAL		WEST NORTH CENTRAL	
	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number
	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent
1930.....	\$35.40	109	\$30.87	159	\$36.59	108	\$55.64	91	\$43.86	102
1925.....	40.81	126	26.10	135	35.54	105	70.68	115	53.62	124
1920.....	57.36	177	28.73	148	40.96	121	102.31	167	83.04	192
1910.....	32.40	100	19.38	100	33.86	100	61.32	100	43.21	100
1900.....	15.57	48	13.79	71	27.19	80	34.15	56	19.37	45

YEAR	SOUTH ATLANTIC		EAST SOUTH CENTRAL		WEST SOUTH CENTRAL		MOUNTAIN		PACIFIC	
	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number	Average value	Index number
	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent	Per acre	Per cent
1930.....	\$29.85	164	\$25.75	158	\$26.19	163	\$12.95	66	\$67.52	154
1925.....	33.65	185	25.99	159	25.31	158	13.96	71	71.47	163
1920.....	40.92	225	36.96	227	31.18	194	23.88	121	74.21	170
1910.....	18.15	100	16.28	100	16.06	100	19.73	100	43.76	100
1900.....	8.63	48	8.72	54	5.40	34	6.12	31	17.78	41

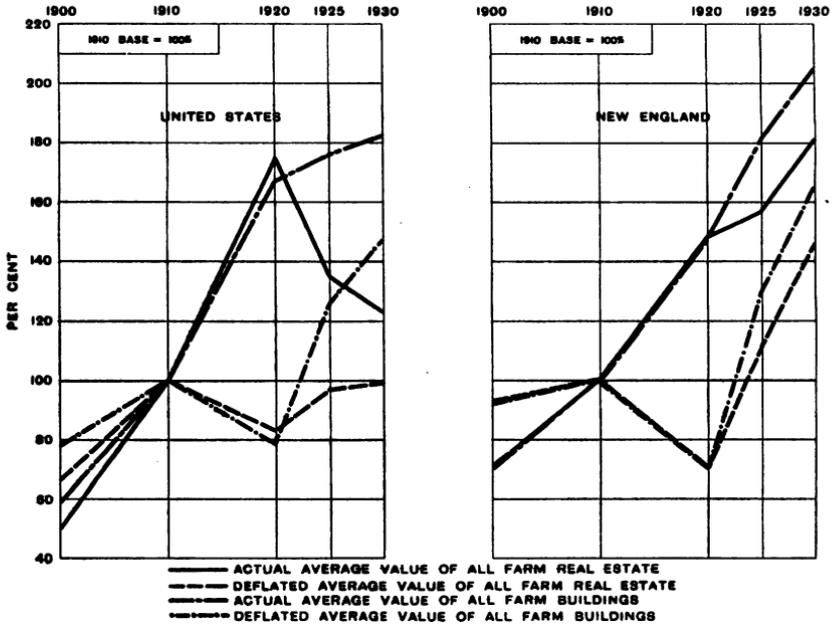


FIGURE 2.—TREND IN THE AVERAGE VALUE OF ALL FARM BUILDINGS PER ACRE AND THE AVERAGE VALUE OF ALL FARM REAL ESTATE (LAND AND BUILDINGS) PER ACRE, IN PER CENTS (1910=100), FOR THE UNITED STATES AND THE NEW ENGLAND STATES: 1900-1930

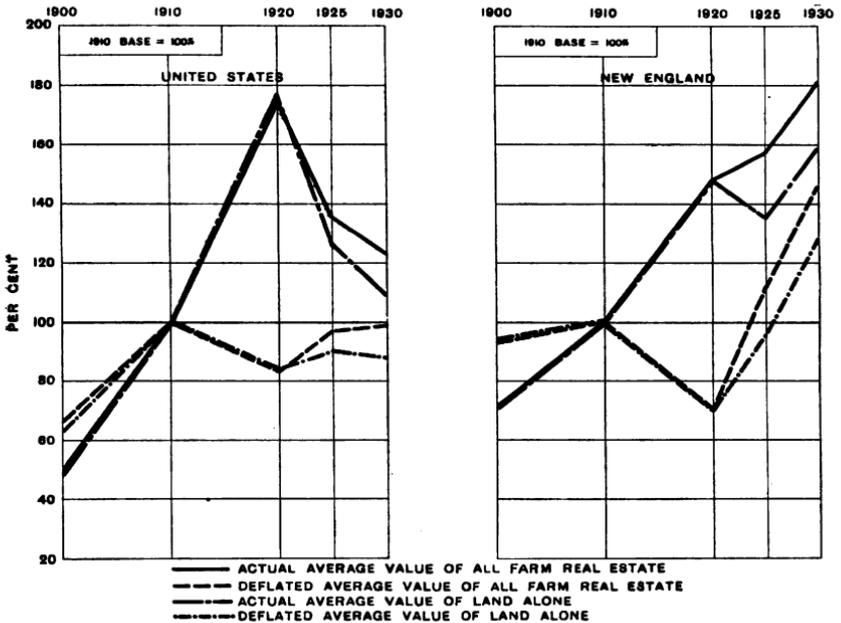


FIGURE 3.—TREND IN THE AVERAGE VALUE OF ALL LAND IN FARMS (EXCLUDING BUILDINGS) PER ACRE AND THE AVERAGE VALUE OF ALL FARM REAL ESTATE (LAND AND BUILDINGS) PER ACRE, IN PER CENTS (1910=100), FOR THE UNITED STATES AND THE NEW ENGLAND STATES: 1900-1930

Average value of dwellings of farm operators, 1930.—The value of the dwellings of farm operators appeared on the census general farm schedule for the first time in 1930. Comparative data pertaining to this item for earlier years are, therefore, not available. In Table 6 are presented the average values of dwellings of farm operators for the United States as a whole and for each of the geographic divisions, when computed both on the basis of the total number of farms and on the basis of the actual number of farms reporting value of dwellings. The ratios which the averages for each geographic division bear to the average for the United States, 100 per cent, are also shown.

It was found that the average value of dwellings of farm operators was naturally somewhat higher when computed on the basis of only those farms which reported. Since it can not be definitely determined whether the number of farms reporting value of dwellings of farm operators represent all of the farms on which there actually were dwellings, or whether some enumerators failed to make complete reports for this item, it may be assumed that the actual average value is somewhat higher than the average value per farm reporting as shown, but not as high as the average based upon the total number of all farms.

In Table 6, as in the tables showing the average value of all farm real estate, of all farm buildings, and of farm land (excluding buildings), the highest averages were found in the New England and Middle Atlantic States with \$2,218 for the former and \$2,237 for the latter, when computed on the basis of all farms, and \$2,325 and \$2,338 per farm, respectively, on the basis of farms reporting. The relative positions of the several geographic divisions, from the standpoint of the average value of farm-operators' dwellings, does not change materially whether computed on the basis of all farms or on the basis of farms reporting. The only changes in relative positions noted are that the East North Central division had the third highest average value when computed on the basis of all farms and fourth when computed on the basis of farms reporting, being displaced by the Pacific group.

There can be little doubt from close examination of many individual reports that the values of operators' dwellings reported for a considerable number of farms in the New England and Middle Atlantic States are actually the suburban residences of retired business men, or homes on country estates where no operator other than the wealthy owner resides. Such conditions differ from the reports found on schedules in the North Central, Southern and other sections of the country where very few reports appeared to represent the values of homes of "gentlemen farmers." On the whole, however, the averages represent a fair index of the variation in the standard of living and of farm-home conditions which prevail in the several sections of the country.

TABLE 6.—AVERAGE VALUE OF DWELLINGS OF FARM OPERATORS PER FARM, BY GEOGRAPHIC DIVISIONS, 1930

ITEMS	United States	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Average value per farm (all farms).....	\$1, 126	\$2, 218	\$2, 237	\$1, 657	\$1, 559	\$783	\$503	\$584	\$989	\$1, 617
Ratio to United States average (per cent).....	100.0	197.0	198.7	147.2	138.5	69.5	44.7	51.9	87.8	143.6
Average value per farm reporting.....	\$1, 207	\$2, 325	\$2, 338	\$1, 724	\$1, 633	\$846	\$549	\$644	\$1, 089	\$1, 752
Ratio to United States average (per cent).....	100.0	192.6	193.7	142.8	135.3	70.1	45.5	53.4	90.2	145.2