

The Economic Effects of Drought and Depression Upon Custer County, 1929-1942

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Article Summary: Depression and drought brought ruin to Great Plains farmers in the 1930s. The boom of the forties salvaged some owner-operated farms, but other families lost their land, which disrupted the patterns of community life.

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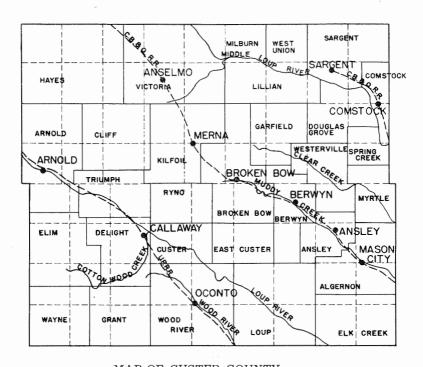
Nebraska Place Names: Dry Valley (Custer County)

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Photographs / Images: map of Custer County

Plate I. Rainfall and cereal production, Custer County, 1928-1942; Plate II. Age composition of Custer County population, 1930 and 1940; Plate III. Changing motive-power, Custer County farms; Plate IV. Three indices of Broken Bow nonfarm business, 1929-1942

Table I. Migration from Custer County by age groups, 1930-1940; Table II. Population trends in Custer County, 1920-1950



MAP OF CUSTER COUNTY

THE ECONOMIC EFFECTS OF DROUTH AND DEPRESSION UPON CUSTER

COUNTY, 1929-1942

BY MAURICE C. LATTA

(Based upon a Thesis by Loyd Glover, Jr.)

'N 1929 there began a decade in which it appeared as though "the Fates" had undertaken "after great deliberation, to shake the confidence of the American people in their economy." National income fell by more than one-half in four years and remained depressed for six more; not until 1941 did it exceed the 1929 figures.2 For the first time a decade passed without significant additions to the stock of our national wealth.3

For the agricultural sector the situation was worse than for the nation as a whole, while for the farmers of the Great Plains there was added the ordeal by drouth, as though to make men doubt the very land which was their home. But "Great Plains" is a collective noun which names a most

4 National Income, 1951 ed., pp. 158-159.

¹ John K. Galbraith, American Capitalism (Boston, 1952), p. 68. ² U.S. Department of Commerce, National Income: A Supplement to the Survey of Current Business. 1951 edition. (Washington,

^{1951),} pp. 158-159.

3 Simon S. Kuznets, National Income: A Summary of Findings (New York, National Bureau of Economic Research, 1946), p. 53, quoted in Arthur D. Gayer, C. Lowell Harriss, and Milton H. Spencer, Basic Economics (New York, 1951), p. 396.

4 National Income. 1951 ed. pp. 158-159

varied area; within its limits there are great differences, both in experience and in response. We need to know not only the overall experience of the nation and of the large region but also the detailed experience of the locality. To provide this detailed information was the task to which Loyd Glover set himself in his Master's thesis, upon which this article is based.⁵ In this article, as in its predecessor,⁶ most of the facts will be drawn from the student thesis, with acknowledgement both general and specific, the interpretation may be regarded as my own, unless there is specific attribution. It is proper to note here that some of the difference of opinion from Mr. Glover, which will appear later, is due to research findings subsequent to the completion of his thesis. Some, however, is due to differences of opinion which should be recorded and made clear. Mr. Glover, for example, accepts the principle stated in the first article of the essential instability of the Custer County economy in 1929, but regards that primarily as the result of an historic mistake in land policy, the attempt to apply the 160-acre family-farm pattern of settlement to an area where it did not "fit." Beyond this, however, as a result of my own recent studies in Iowa farm adjustment⁷ as well as those of Mr. Smith and of Clinton Warne, 8 I pointed to the financial pressures upon the farmers consequent upon the great land boom, the adoption of the automobile, and the parallel rise in the level of living evidenced by better schools, good roads, and new housing facilities such as running water, electricity, and radios.

For the farmers of the nation as a whole the depression was initiated by a dismaying drop in income, in three years, to a level that was only forty percent of the 1929 level.9 Even the 1929 level had not been a favorable one, for the

⁵ Loyd Glover, Jr., "The Economic Effects of Drouth and Depression on Custer County" (Ms M.A. Thesis, University of Nebraska, 1950).

⁶ Maurice C. Latta, "The Economic Effect of World War I and the New Era upon Custer County, 1914-1929," Nebraska History, XXXIII (September, 1952), 139-153. 7 Maurice C. Latta, "Some Aspects of the Adjustment of Iowa Agriculture to the Soil," Land Economics, XXVIII (May, 1952),

^{171-177.}

⁸ Ph.D. thesis in progress, University of Nebraska.

⁹ Computed from Table 13, p. 158, of National Income, 1951 ed.

parity figure for that year, the ratio, that is, between prices received by farmers and prices paid, interest, and taxes (1910-1914 being 100) had been only eighty-seven. (It was fifty-three in 1932 and did not get above one hundred until 1942.) 10 For Custer County at any rate the general price declines were aggravated by the fact that the corn crop of 1930 was held for higher prices and that live stock inventories were built up to an exceptionally high level for the same reason during the years 1931 to 1934, so that realized prices were undoubtedly lower for them than the recorded prices.11 An immediate effect of the depression was the closing of banks, three in 1930, seven in 1931, five in 1932, one in 1934. In January, 1930, there had been twenty banks in the county, by 1935 there were only eleven operating.12

The depression had dealt the first blow, drouth administered the next, while the depression continued also in the land. No single measure of a drouth is wholly satisfactory but the rainfall records at Broken Bow will serve as one fairly good measure. These show that for the ten years 1931 to 1940 that there was no single year in which the normal rainfall was received, only two years in which the deficiency was less than one inch and one (1934) in which it was almost eleven inches. The accumulated deficit in ten years was almost forty-five inches, 13 very nearly two years normal rainfall.

The effect of the drouth upon production is vividly shown in Plate I, in which Mr. Glover has plotted Broken Bow rainfall against the production figures for corn and spring grain for the county. The showing in this plate would appear even more drastic had he chosen an earlier year than 1932 for the base, while the plate itself reveals another measure of drouth than rainfall alone. The graph shows that corn production began its precipitous decline in 1931, a year in which

¹⁰ Glover, op. cit., p. 7, citing "The Agricultural Situation," Bureau of Agricultural Economics, U.S. Dept. of Agriculture, February, 1942, p. 24. 11 *Ibid.*, pp. 8, 46.

¹² Ibid., p. 10.

¹³ Figures from Glover's Supplementary Table 2, p. 86, a compilation from Climatological Data, 1920-1944, a publication of the Nebraska Section, United States Weather Bureau.

the rainfall deficit was only moderate but in which there was a protracted period of intensely hot weather during July and August.14

Another measure of the crushing impact of the drouth is afforded by the figures for aggregate corn production in the county for three successive four-year periods. Of these the first, 1930 to 1933, was marked by fairly good growing conditions and an aggregate yield of twenty-five millions of bushels of corn, valued at something over ten million dollars. The next four years, however, 1934 to 1937, saw total production of less than five million bushels of corn, valued at less than four million dollars, while the somewhat better guartette, 1938 through 1941, still saw produced less corn in the four years (7,000,000 bushels) than had been grown in the single year 1933.15

The first year of the drouth, 1934, was the worst and its effect upon Custer County agriculture was the more telling because the number of cattle and hogs in the county was exceptionally large. One hundred forty-six thousand cattle, estimated as on farms in the county on January 1st, 1934, made a number larger than for any other year of the period 1920-1942, and there were besides the cattle over 156,000 hogs reported as well. The nearly complete failure of crops forced a rapid contraction, so that one year later, at the beginning of 1935, three-quarters of the hogs and forty-five percent of the cattle had disappeared.18 Government emergency purchases had accounted for 45,166 head of cattle,17 many more of course were marketed through ordinary channels; for the maintenance of the remainder some were driven to Sandhills pastures outside the county, while quantities of feed were shipped in for sale. In addition to the sums received on this forced sale of livestock compliance payments under the original AAA brought in over a million dollars in 1934 and nearly eight hundred and fifty thousand the following year. Nearly normal sales were enjoyed by a Broken Bow clothing

Personal recollections. I spent the summer at Wayne.
 Computed from Glover's Supplementary Table No. 3, p. 87.
 January 1st livestock estimates, Nebraska Agricultural Statistics, compiled in Glover, op. cit., p. 47. 17 Glover, op. cit., p. 48.

store whose proprietor supplied Mr. Glover with information as to his volume during the depression years. 18

But the drouth continued; there were to be no more good corn crops in the thirties, stands of alfalfa were lost and could not be re-established, small grains were almost as poor as the corn. Radical readjustment in farming methods appeared to be called for. The introduction of Spartan, an early-maturing, drouth-resistant variety of barley, encouraged a shift to barley from oats. Corn acreage shrank by nearly a third, oats acreage by more than half, but barley acreage tripled. Sorghum rose spectacularly. This crop, favored for its ability to produce forage under the most adverse conditions, had been sown on some eight thousand acres each year in the first quadrennium of our study, 1930-1933, producing a total of fifty-seven thousand tons of forage in the four years. In the next four years, those of the most severe drouth, acreage was nearly doubled, although the increase in total output of forage was not much more than a third. Then, for the less adverse years, 1938 through 1941, an average of over 67,000 acres was devoted to sorghum, with forage output zooming up to more than three hundred thousand tons. 19 A greater acreage, although a less impressive percentage change, is represented by the shift to permanent pasture. Here, however, there was only the continuance of a trend that had set in as early as 1925 and which had by 1945 added over a quarter of a million acres to the pasture lands of the county.20

Drouth, with these changes in cropping practice, meant relatively more forage and less grain, and this in turn meant fewer hogs in relation to cattle. Through the 1920's swine numbers had run generally above cattle numbers, even in

where data is drawn from the Census Reports.

¹⁸ County Extension Service, Custer County, Reports, in Ibid., p. 73, also p. 57. 19 See Glover's Supplementary Tables, pp. 87-91.

²⁰ This had the apparent nonsense result of showing "land in of this had the apparent nonsense result of snowing hand in farms" as an acreage in excess of the county area. The Bureau of the Census reckons a farm location as its headquarters and credits to the civil subdivision in which the headquarters is located the entire acreage of the farm. Since many Custer County farms included Sandhills pasture land in adjacent counties this land was counted as "land in farms" for Custer County. See Glover, p. 45, where data is drawn from the County Parents.

1928 outnumbering cattle by more than two to one, and there had been no year from 1920 to 1934 in which there had not been more than one hundred thousand hogs on Custer county farms.²¹ But the drouth brought an immediate and sweeping change. For the eight years from 1935 through 1942 swine never numbered over sixty thousand, while cattle numbers recovered promptly from their low of eighty thousand in 1935 to remain steadily above one hundred thousand head throughout the period.²²

The drouth challenged the wisdom and effectiveness of the farmers' adjustment to Custer county soils and climate. Was the Corn Belt complex the best system for this region? The shift to sorghum, the acquisition of sandhill pastures, the slashing of the hog enterprise, all represented tentative readjustments. That the Federal Government stood ready to subsidize such shifts was a fortunate circumstance and undoubtedly made it easier for the farmers to try out the new arrangements. Nonetheless many farmer owners could not or would not hold on. The number of farms actually increased from 1930 to 1935, while the average size rose by only two percent,23 but the percentage of tenancy increased by nearly four points.²⁴ In the next five years, however, over four hundred farms disappeared, average size jumped by more than seventy acres (an increase of seventeen percent),25 and the percentage of tenancy climbed another four points to crest at 55.9%.26

The farm population had remained nearly constant for fifteen years, through the New Era and the first phase of the depression, but in the first years from 1935 to 1940 it declined

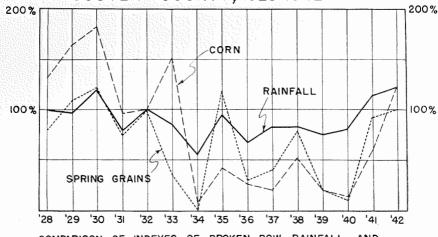
²¹ Wayne M. Smith, "The Effects of World War I and the New Era on Custer County, Nebraska" (Ms. M.A. Thesis, University of Nebraska, May, 1951), p. 42. Based upon Nebraska Agricultural Statistics.

 ²² Glover, op. cit., p. 47.
 ²³ 15th Census of the U.S., 1930, Agriculture, II, Part 1, 1201;
 16th Census, 1940, Agriculture, I, Part 2, 578.

²⁴ The percentage of tenancy, as reported by the Census for the respective years, was as follows: 1910, 35.7%; 1920, 40.2%; 1930, 48.2%; 1935, 52.6%.

 ^{25 16}th Census, 1940, Agriculture, I, Part 2, 578.
 26 U.S. Census of Agriculture, 1945, I, Part 12, 142.

PLATE I
RAINFALL AND CEREAL PRODUCTION,
CUSTER COUNTY, 1928-1942



COMPARISON OF INDEXES OF BROKEN BOW RAINFALL AND CUSTER COUNTY PRODUCTION OF CORN AND SPRING GRAINS.

(1930 = 100 %)

PLATE II

AGE COMPOSITION OF CUSTER COUNTY
POPULATION, 1930 AND 1940

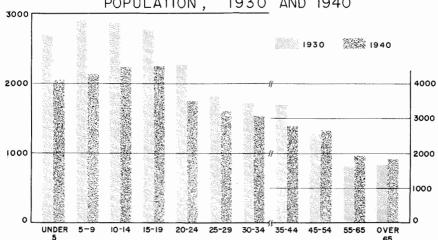


PLATE III

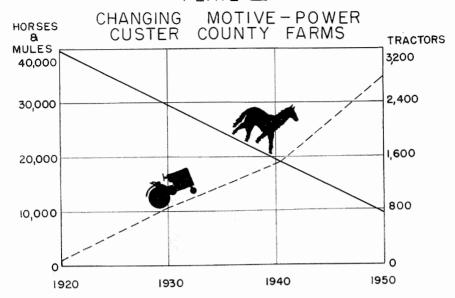
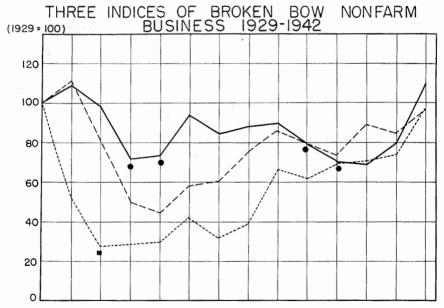


PLATE IV



1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942

- _ CLOTHING STORE SALES VOLUME
 - YEARS OF NET LOSS
- __ ADVERTISING REVENUE, CUSTER COUNTY CHIEF
- SUBSCRIPTION REVENUE, CUSTER COUNTY CHIEF

 SUBSCRIPTION RATE CUT TO 1.00, 1931 ONLY
- (PLOTTED FROM TABLE 13, GLOVER, P59)

by fifteen percent.²⁷ For the drouth and depression decade as a whole the loss of the entire county was only fourteen percent (3,598 persons), but of this total the ten-year decline in farm population accounted for all but 453 persons.28 We noted that, at the end of the twenties, the evidence indicated that the farms of Custer County were being hard-driven to meet the cash demands of motorization and of higher living standards.²⁰ Under the pressures of drouth and depression combined the farms could no longer yield an income sufficient to hold their people, even though migration was into the forbidding society of the great depression. For the nation as a whole the depression decade saw very little change in the number employed in agriculture, 30 but in the nation as a whole the depression was not reinforced by a protracted drouth as was the case generally in the Great Plains region and its borders.

The simple difference in population totals does not, however, measure the county's full loss. The nature of this loss will be more evident with a little study of the table below, prepared by Mr. Glover. In this table a comparison is made of the age groups of the 1930 population with the corresponding, ten-year-older, age groups of the 1940 population. The assumption is made that if the estimated deaths are added to the 1940 population and this total subtracted from the corresponding group in 1930 that the differences will show the amount of migration either into or out of the county. A very hasty glance at the table will show that three-quarters of the migrants were under twenty-five in 1930. Of the upperteen-age group in 1930 forty percent left the county. Of the survivors of the 1930 population as a whole 23% migrated, with the percentage of the farm population which joined the trek standing even higher.31

²⁷ Glover, op. cit., p. 25. Data from respective Census reports. ²⁸ Ibid., pp. 23, 25. ²⁹ Latta, "World War I and the New Era," Nebraska History, XXIII (September, 1952), p. 129. ³⁰ U.S. Department of Agriculture Agricultural Statistics (1946), p. 533, in W. Nelson, Pageb, and Welton Krause, Pageb, Data of the

p. 533, in W. Nelson Peach and Walter Krause, Basic Data of the American Economy (Chicago, 1948), p. 30. 31 Glover, op. cit., pp. 27-29.

TABLE I MIGRATION FROM CUSTER COUNTY By Age Groups* 1930 to 1940

Age 1930	Population 1930	Age 1940	Population 1940	Deaths to 1930 Population**	Total Migration
Under 5 5 - 9 10 - 14 15 - 19 20 - 24 25 - 29 30 - 35 35 - 44 45 - 54 55 - 64 65 & Over	2681 2908 2850 2771 2263 1803 1694 3379 2552 1626 1647	10 - 14 15 - 19 20 - 24 25 - 29 30 - 34 35 - 39 40 - 44 45 - 54 55 - 64 65 - 74 75 & Over	2238 2240 1738 1604 1523 1373 1338 2622 1924 1145 673	67 36 50 65 74 71 77 237 324 453 1154	$\begin{array}{c} -376 \\ -632 \\ -1062 \\ -1102 \\ -666 \\ -359 \\ -279 \\ -520 \\ -304 \\ -28 \\ +180 \end{array}$
Totals	a casa ana ang			2608	5148

^{*}Children born during the decade to parents who subsequently migrated are not included.

are not included.

**Mortality rates approximated from tables in Length of Life, by Louis I.

Dublin, and Alfred J. Lotka.

Source: Fifteenth Census of the United States: 1930, Population, Volume III,
Part 2, page 64; and Sixteenth Census of the United States: 1940,
Population, Volume II, Part 4, 618.

The population of the county naturally showed a higher proportion of aged and a lower proportion of children and young people as a result of these shifts. If we can for a moment consider the county as a social unit, a terrific capital loss was suffered in the departure of so many young people whose birth and early rearing had been charges upon county income and who now departed just as they were entering upon the productive years of life. In the 1940 population alignment children and young adolescents under fifteen years of age comprised only 28% of the total as against 32% for the same age group in 1930. Those sixty-five and over were half again as prominent in 1940 as they had been in 1930, having increased percentage-wise from six to nine. In spite of these changes, and the heavy losses of young people, the working potential of the county population was slightly increased, since those from fifteen to sixty-five, who had been only 61.5% of the total in 1930, were 63.4% in 1940. (But it was a smaller total and the 15-64 group was older on the average, with fewer working years in prospect, than in 1930.)

The facts as to the changed age distribution of the population are shown graphically in Mr. Glover's Plate II.³²

Without a careful comparison of the age distribution within the county with that for the state and the nation it would be improper to claim that the depression and the drouth were alone responsible for these changes. We do know that the depression years were years in which the low birth rates of the twenties were continued, in which the favorable trend in death rates, in evidence for a long time, had continued, and the effect of these two changes must be to increase the average age of any population. (By the end of the depression decade Nebraskans had the highest life expectancy in the nation.) 33 The depression and the drouth brought an outmigration from Custer County and from Nebraska as well which was in part a correction of an unstable adjustment to resources, but which also reinforced the demographic forces mentioned above in promoting that "general, gradual and unspectacular" process of aging the population which had been going on for a long time.34

Custer County people had had a briefer, less severe bout with drouth and depression combined in the 1890's, but the return of good times and good weather after 1900 had seen the trends existing prior to the drouth resumed. Not so in the 1940's. From 1940 to 1950 the number of farms in the county fell by more than twenty percent, the average size went up another 120 acres, the farm population went down by another twenty-four percent. The corn acreage recovered, somewhat—in 1949 it was only 236,900 acres, almost exactly that of 1919. With the larger acreage in farms, however, this meant that the 1949 corn intensity (percentage of land in farms which was planted to corn) was only 13.9%

34 Ibid. p. 5. 35 17th Census, 1950, Agriculture, I, Part 12, 41; 1950 farm population in a preliminary report from Custer County Chief (Broken Bow), June 12, 1950.

³² Ibid., p. 21.
³³ John P. Johansen, "The People of Nebraska: A Mid-Century Summary," Mimeograph, Department of Agricultural Economics, College of Agriculture, Lincoln, Nebraska, pp. 5-6 citing, Federal Security Agency, State and Regional Life Tables, 1939-1941.

as compared with 23.9% in 1924.36 This is almost the same as that for the lowest Iowa county in 1949,37 and, if the Custer County figure is corrected for the excess land in farms credited to Custer but actually lying outside of the county in the Sandhills, the corn intensity figure for the county would be nearer fifteen than fourteen. Custer County is still, then, to be counted as a corn belt area, although a transitional

But it is a corn belt landscape that is radically different from that of the 1920's. Outstanding is the size of farm which in 1950 was 611 acres, an increase of two hundred acres in twenty years.38 This increase does not represent the spread of landlordism and rural poverty as it would were drouth and depression the only factors operative. But the depression should be viewed as a purgative experience, of which the very violence was in some degree the measure of the readiustments which had been delayed too long.39 On the margin of the Great Plains there was an initial error in land use and farm size. Attempts were made to spread tillage agriculture over lands that were so rough, so dry, or otherwise so ill-adapted that their use for crop production exposed the land to destruction by erosion and the farmers to poverty and insecurity. Then the steep rise in the level of living in the tens and twenties led to more intensive cropping, but on farms that were too small, in the marginal zone of twentytwo to twenty-four inches of annual rainfall,40 for efficient use of labor.

A new technological element not only provided pressure for change but also supplied means for beneficial readjustment. This was the internal combustion engine in its varied mountings—automobile, motor truck, tractor, and the like. We noted the appearance of the automobile as an element

³⁶ My own computations, from Census data.

³⁷ My computations, from 17th Census, Agriculture, 1950, I, Part 9, 38-81.

^{38 15}th Census, 1930, Agriculture, II, Part 1, p. 1201; 17th Census, 1950, Agriculture, I, Part 12, p. 41.
39 Joseph A. Schumpeter, Business Cycles (New York, 1939),

⁴⁰ "Normal" rainfall at Broken Bow is about twenty-four inches. Cf. Glover, op. cit., p. 86, and Climatological Data.

in the level of living and a cost item to the farms in the twenties.⁴¹ The automobile raised family costs without greatly influencing farm productivity but the tractor and motortruck, especially when supplemented by the new race of implements designed for tractor power—combine, haybaler, corn-picker, etc.—increased productivity per worker so making possible the income required to support the increased level of living, if the worker could have access to the greater acreage of land which he could tend with motor power.

The inter-censal period from 1930 to 1950 included two radically different decades, the first that in which the dominant influences appear to be those of drouth and depression, the second that in which good weather and boom (war and post-war) conditions are uppermost. Yet the trends developed in the first decade persist in the second. The shift in ratio between cattle and hogs or the number of horses in relation to automobiles, tractors, and motor trucks will serve. In 1930, for example, there were more hogs than cattle on farms in the county, with only eighty-nine cattle for every hundred hogs. In 1940, after ten years of drouth, the ratio was sweepingly reversed, with four cattle to every hog. Better corn crops after 1940 brought only a very limited recovery on the part of the swine enterprise with thirtyseven cattle in 1950 for every ten hogs. Hogs require corn and labor; cattle, if beef cattle, use forage and proportionately less labor. In 1930 one-sixth of the cattle in the country were classified as milk cows, in 1940 the proportion had risen to one-fifth; in 1950 milk cows were only oneeleventh of the cattle population. 42 The figures are not wholly comparable but they point the direction of evolution, away from the intensive corn belt type of farming with heavy emphasis upon corn, hogs, milk cows and human labor, toward a more extensive type involving beef cattle, forage crops, and scanty human population.

In this transition the tractor was a vital element, for it

⁴¹ Latta, op. cit., p. 129.

⁴² My own computations from Census Data. Glover and Smith worked from assessors' reports, which are not strictly comparable.

placed the man in control of more horse power than he could handle when the horse power was provided by real horses. Horse numbers in Custer County for the period 1920 to 1950 provide a statistical freak in the form of a "curve" that forms a straight line in a simple arithmetic plotting. (cf. Plate III.) A glance at the curve will show that the horse and mule population of the county fell at the rate of ten thousand every ten years. The corresponding rise in tractor numbers does not make as smooth a line for the depression made difficult the acquisition of so costly a capital item while the persistence of the drouth reduced power needs and purses alike. But the tractor, especially when equipped with rubber tires and a high-speed road gear, not only made it possible for one man to till more acres but also made it easier for him to increase the size of his "farm" since it was no longer as important as it had once been to make his holdings compact and contiguous.48 Mr. Glover gave detailed attention to one tract in the county known as the Dry Valley community. This area of Holdrege-Colby soils is fairly median in the county being neither as rich and level as some of the bottom land nor as rough, eroded, and poor as some of the rougher hill land. Of the twenty sections in the area he found that in 1930 only one half section was farmed by operators residing outside the area, but that in 1942 the equivalent of three sections were so farmed.44

The economic trend of the county for the past twenty years has then been toward larger farms, beef cattle, motor power, and fewer people. That these trends have meant misery and loss for many is demonstrated by the depression decade trends in land ownership. At the end of the New Era 1,209 Custer County farms were operated by their owners,

⁴³ "Farm" is used here in the Census meaning as that area of land operated as a unit under one management. It has now become commonplace in many farm communities both inside and outside of Custer County for farmers to go miles with their tractors to tend crops on isolated tracts, which are, from the Census point of view, portions of their "farms." Such scattered tracts, however much they may form portions of an economic unit, are very far indeed from the American traditional concept of a farm as a contiguous tract of land which is at once the field of work and the home of a family.

⁴⁴ Glover, op. cit., pp. 39-43.

707 farms were operated by men who owned a portion of the land they farmed, the remainder, approximately 48% of the total, were operated by tenants. Of the owner-operated farms of both classes over sixty percent were mortgaged, with the ratio of debt to estimated value for the mortgaged farms very nearly 42%. The position of the owners was precarious, but detailed study by Mr. Glover of land transfers for the Dry Valley community showed that land transfers for the preceding decade (including the tail end of the great land boom), although affecting nearly thirty percent of the area, included transfers by foreclosure for only 2.7% of the total area.

The depression decade showed a drastic difference. For the twenty square miles of the Dry Valley community, 4,000 acres (34.7%) were transferred in the ten years, of which nearly one-half was by foreclosure. (Foreclosures continued at a high rate for the first four years of the next decade, with 960 acres foreclosed in the period 1940 through 1943, with which year Mr. Glover ended his study.) 47 Comparable data for the entire county are not available, but the census report of 1940 showed that farms operated by full owners had lost over a quarter of their number in ten years, there being only 877 of them in 1940, compared with 602 part owners and 1,907 tenants. True, the percentage of owner-operated farms which were mortgaged had declined slightly to 56.9%, but the ratio of mortgage debt to estimated value of the farms mortgaged had risen sharply, to 65.9%.47 Farmers will need no diagnosis of these figures. They indicate that for many the mortgage on owner-operated farms had been eliminated by eliminating the ownership and that for the remainder who still preserved their deeds "ownership" was a term implying little security.

Happily for the farmers and for the "American" nature of the county society, the war and post-war boom with its bumper crops brought a reversal of this trend. By the end

^{45 15}th Census, 1930, Agriculture, I, Part 1, 1274.

⁴⁶ Glover, op. cit., pp. 51-53. 47 16th Census, 1940, Agriculture, I, Part 2, 632.

of the war, 1945, the number of owners and part-owners had increased by fifty while the number of farms operated by tenants had fallen by 464, so bringing the percentage of tenancy down to 48.5%, almost that of 1930. By 1950 the census enumerated 1,095 farms operated by full owners and 699 by part owners, with tenants operating 980 to give a percentage of tenancy of only 35.2%, the same proportion as in 1910.48 If one were to make a snap judgment it might well be this, that what the automobile had imperilled the tractor had restored so far, at any rate, as farm equities were concerned.

But farm and village societies were not so easily restored as were farm finances and operating conditions. If we look at the non-farm component of the Custer County society we find a different picture. In the absence of adequate income figures for the county unit, the best indicator of status and achievement is that of population. In Table II, below, population totals and sub-totals for the county, the county-seat, the villages, and the farms, are given for the census years 1920, 1930, 1940, and 1950. In 1920 the population of the county was at its maximum so that trends can be readily shown by recording beneath the absolute figure for each year as an index the percentage which that figure is for the same item in 1920.49

We have neither the space nor the information for an extensive discussion of the nonfarm sector of the county, but the data above and some very interesting figures gathered by Mr. Glover on two Broken Bow enterprises may be utilized for some very general comments. The figures, plotted on a simple time-quantity graph in Plate IV, are indices of volume of sales for a clothing store, of advertising revenues and subscription revenues, respectively of the Custer County Chief. Crosses, marking the years in which the clothing store experienced net loss, indicate the importance of volume, but

 ^{48 17}th Census, 1950, Agriculture, I, Part 12, 53.
 49 Compiled from Glover, p. 23. Census figures are drawn from Population volumes for the respective years, except 1950, which are preliminary figures from *Custer County Chief*, June 12, 1950.

TABLE II

Population Trends in Custer County, 1920-1950 with index number, 1920::100

Albert Land	1920	1930	1940	1950
Custer County	26,407	26,189	22,591	19,207
Index	100	99	85	73
Broken Bow	2,567	2,715	2,968	3,415
Index	100	105	115	133
10 villages	6,043	5,630	5,280	4,919
Index	100	93	88	82
Farm Population	17,500*	17,468	14,343	10,874
Index	100	100	82	62

^{*}Estimate

the proprietor reported that volume of sales alone was not the sole criterion, since adverse price trends experienced within each year were at least as important.⁵⁰

Railroads and public services aside, the nonfarm sector of the county economy was composed almost wholly of mercantile and service agencies whose fixed capital investment was not heavy and for whom the proportion of fixed costs was not as high as it was for the farm sector. It was thus possible for these firms to adjust their volume of operations more easily and promptly than the farmers were able to do. The relatively smooth trend of population totals for Broken Bow and the ten villages in the county indicate this smooth readjustment. The farms were slower and experienced drastically hurried changes with the onset of the depression. These changes were almost all in one direction, a direction which represented an apparently sounder adjustment to the soil under the conditions of current technology. The boom of the forties made it possible to salvage the family-unit, owner-operated farm as the dominant type, but this was effected through such a thinning out of the rural population as to disrupt established community life pat-

⁵⁰ Glover, op. cit., pp. 56-60.

terns⁵¹ and to confront the people of the county with a new series of problems, essentially those of mastering space in the development of adequate social organization.⁵² There is still pioneering to be done in Custer County.

XXII (August, 1950), 411-430.



⁵¹ Ibid., pp. 75-79. As one illustration, Dry Valley had a 13-grade school in 1930, with 35 high school pupils; in 1950 it had an 8-grade school with 15 pupils.

52 Cf. A. H. Anderson, "Space as a Social Cost," Farm Economics,