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Graphic Summary of the Relief Situation in South Dakota (1930-1935)

W. F. Kumlien

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Table of Contents

	Page
I. Introduction	5-6
II. Backgrounds of the Relief Situation	6-16
III. Forms of Relief Distributed in South Dakota	17-22
IV. Manner of Relief Distribution	23-26
V. Comparative Characteristics of Relief and Non-Relief Populations	27-29
VI. Why Relief Has Been Necessary	30-53
VII. Summary and Conclusions	54-55
VIII. Appendix	56-63

List of Figures

	Page
Cover page Total Per Capita Relief by Counties July, 1933-December, 1935	1
Fig. 1. Agricultural Regions of the United States	8
Fig. 2. Average Annual Precipitation in the United States	9
Fig. 3. Native Vegetation in the United States	9
Fig. 4. Inches of Rainfall in South Dakota, by Years, 1890-1935	10
Fig. 5. An Index of Crop Yields for South Dakota (1916-1927)	10
Fig. 6. Percentage of Population on Farms in the United States, 1930	11
Fig. 7. Per Cent of the Gainfully Employed Engaged in Agricultural Pursuits in 1930	11
Fig. 8. Years in Which Various States Were Admitted to the Union	12
Fig. 9. Density of Population in South Dakota, by Counties	12
Fig. 10. Value of Farm Land and Buildings Per Acre in South Dakota, by Counties ..	13
Fig. 11. Native White Migrants Into South Dakota by State of Birth	13
Fig. 12. Increase in Acreage of All Harvested Crops, 1909-1924	14
Fig. 13. Changes in Value Per Acre of Farm Real Estate, 1920-1930	14
Fig. 14. Prices Received and Prices Paid by South Dakota Farmers from 1915-1935 ..	15
Fig. 15. Decrease in the Number of Banks in South Dakota, 1920-1935	15
Fig. 16. Tax Status of Land in South Dakota as of January 1, 1935	16
Fig. 17. Ratio of Total Acreage Involved in Foreclosure During 1921-1934 to Total Acreage Assessed in 1934	16
Fig. 18. Per Capita County Commissioner Expenditures for Relief, 1930-1935	19
Fig. 19. Per Capita Value of Commodities Distributed by the American Red Cross in South Dakota During 1931-1932	19
Fig. 20. Reconstruction Finance Corporation Expenditures Per Capita, by Counties ..	20
Fig. 21. FERA Expenditures Per Capita, by Counties (1933-1935)	20
Fig. 22. Per Capita Expenditures of the Civil Works Administration, by Counties ..	21
Fig. 23. Per Capita Farm Population Resettlement Subsistence Grants, by Counties ..	21
Fig. 24. Per Farm Cattle Purchase Expenditures, by Counties	22
Fig. 25. Per Capita Expenditures for Aid to Distressed Schools to December, 31, 1935 ..	22
Fig. 26. Comparison of Number of Families on Work and Direct Relief in South Dakota June, 1933-Feb. 1936, by Months	24
Fig. 27. Per Cent of Total Families on Relief as of June, 1935 by Counties	24
Fig. 28. Sources of Public Emergency Relief Funds Expended by States and Local Administrations in South Dakota, by Quarters, During the Period January, 1933, to December, 1935	25
Fig. 29. Per Cent of South Dakota's Total Population Receiving Federal Emergency Relief Compared with the Per Cent of Persons on Relief in the United States, July, 1933-December, 1935, by Months	25
Fig. 30. Intensity of Relief in the United States, July, 1933-June, 1935	26
Fig. 31. Per Capita Expenditures in South Dakota by the Reconstruction Finance Corporation, the Civil Works Administration, the State Emergency Relief Administration, and the Works Progress Administration, by Months, as of February, 1936	26
Fig. 32. Value of Farm Products, Sold, Traded or Used by Operators Family, 1929	33

Fig. 33A. Seasonal Distribution of Precipitation in South Dakota (1930-1935) Compared With the Normal Seasonal Distribution	34
Fig. 33B. Seasonal distribution of Precipitation in South Dakota during 1931 compared with normal seasonal distribution	35
Fig. 33C. Seasonal distribution of Precipitation in South Dakota during 1932 compared with the normal seasonal distribution	35
Fig. 33D. Seasonal distribution of Precipitation in South Dakota during 1933 compared with the normal seasonal distribution	35
Fig. 33E. Seasonal distribution of Precipitation in South Dakota during 1934 compared with the normal seasonal distribution	36
Fig. 33F. Seasonal distribution of Precipitation in South Dakota during 1935 compared with the normal seasonal distribution	36
Fig. 34. Average Annual Precipitation During the 1931-1935 Period Compared with the Annual Average Precipitation from 1890-1935	37
Fig. 35A. Ratio of crop value (1930-1935) to normal crop value	37
Fig. 35B. Ratio of crop value in 1931 to normal value	38
Fig. 35C. Ratio of crop value in 1932 to normal value	38
Fig. 35D. Ratio of crop value in 1933 to normal value	39
Fig. 35E. Ratio of crop value in 1934 to normal value	39
Fig. 35F. Ratio of crop value in 1935 to normal value	40
Fig. 36A. Grasshopper infestation in South Dakota, 1930	40
Fig. 36B. Grasshopper infestation in South Dakota, 1931	41
Fig. 36C. Grasshopper infestation in South Dakota, 1932	41
Fig. 36D. Grasshopper infestation in South Dakota, 1933	42
Fig. 36E. Grasshopper infestation in South Dakota, 1934	42
Fig. 36F. Grasshopper infestation in South Dakota, 1935	43
Fig. 37. Ratio of Mortgage Debt to Value on Full Owner Farms Reporting Mortgage Indebtedness as of April 1, 1930	43
Fig. 38. Average Rate of Interest on Mortgage Debt, by Counties, 1930	44
Fig. 39. Ratio of Commissioner Loans to Value of Farm Land as of December 31, 1935	44
Fig. 40. Frequency of Seed Loan Appropriations in the United States, 1921-1934	45
Fig. 41. Percentage of All Farms Reporting Total Value of Products Under \$1,000 in 1929, by Counties	45
Fig. 42. Per Cent of All South Dakota Farms Operated by Tenants in Each Census Year, 1900-1935	46
Fig. 43. Number of Persons Unemployed in South Dakota Counties as of April 1, 1930	46
Fig. 44. Total Number of Relief Families, by Counties as of October, 1933	47
Fig. 45. Land Classification of Western South Dakota	47
Fig. 46. Areas in Which A Considerable Proportion of the Arable Farms Should be Replaced by Grazing	48
Fig. 47. Principal Wind Erosion Areas in South Dakota, 1935	48
Fig. 48. Types of Farming Areas in South Dakota	49
Fig. 49A. Percentage of Farms Under 50 Acres in 18 Types of Farming Areas in South Dakota as of 1930, by Counties	50
Fig. 49B. Percentage of Farms 50-99 Acres in 18 Types of Farming Areas in South Dakota as of 1930, by Counties	50
Fig. 49C. Percentage of Farms 100-174 Acres in 18 Types of Farming Areas in South Dakota as of 1930, by Counties	51
Fig. 49D. Percentage of Farms 175-499 Acres in 18 Types of Farming Areas in South Dakota as of 1930, by Counties	51
Fig. 49E. Percentage of Farms 500-999 Acres in 18 Types of Farming Areas in South Dakota as of 1930, by Counties	52
Fig. 49F. Percentage of Farms 1000 Acres and over in 18 Types of Farming Areas in South Dakota as of 1930, by Counties	52
Fig. 50 Increase or Decrease in Percentage of Land Area in Crop, by Counties, 1929-35	53
Fig. 51 Increase or Decrease in Population in South Dakota Counties, 1930-1935	53

List of Tables (APPENDIX)

1. Changes in Value of Farm Land and Buildings in South Dakota by Specified Periods, 1900-1935.
2. Annual Relief Expenditures by County Commissioners, 1930-1935.
3. Amounts Spent in South Dakota by Relief Agencies from 1930-1935.
4. Average Annual Relief Benefits Per Family for South Dakota and United States.

5. Age Distribution of the Non-relief and Relief Population in Six Selected Counties of South Dakota.
6. Age Distribution of the Total Population in 1930 and the Relief Population of June, 1934 in Three Counties of South Dakota.
7. Age Distribution of the Total Population in 1930 and the Relief Population of October, 1934 in Four Counties of South Dakota.
8. Age Distribution of the Total Population in 1930 and the Relief Population of June, 1935, and October, 1935.
9. Age of Male Heads of Families in the Non-Relief and Relief Population of Six Selected Counties of South Dakota.
10. Age of Male Heads of Families in the Non-Relief and Relief Population of June, 1934 in Three Counties of South Dakota.
11. Age of Male Heads of Families in the Non-Relief and Relief Population in Nine Counties of South Dakota.
12. Age at First Marriage of the Heads of Non-Relief and Relief Households in Six Selected Counties of South Dakota.
13. Sex Distribution of the Non-Relief and Relief Population in June, 1934, in Six Counties of South Dakota.
14. Sex Distribution of the Total Population in 1930 and the Relief Population in June, 1934 in Three Counties of South Dakota.
15. Sex Distribution of the Total Population in 1930 and the Relief Population in June, 1935 and October, 1935 in Nine Counties of South Dakota.
16. Sex and Marital Status of the Heads of Non-Relief and Relief Households in Six Selected Counties of South Dakota.
17. Education of the Heads of Non-Relief and Relief Households in Six Selected Counties of South Dakota.
18. Race and Nativity of Heads of Non-Relief and Relief Households in Six Selected Counties of South Dakota.
19. Length of Residence in the County of Heads of Non-Relief and Relief Households in Six Selected Counties of South Dakota.
20. Occupations of the Male Heads of Non-Relief and Relief Households in Six Selected Counties of South Dakota.
21. Size of Non-Relief and Relief Households in Six Selected Counties in South Dakota.
22. Types of Families in the Non-Relief and Relief Population in Six Selected Counties of South Dakota.
23. Reasons for Opening and Reopening Relief Cases of February-June, 1935, as Compared with the Reasons for Opening and Reopening Relief Cases of July-October, 1935.
24. Percentage of Open Country Relief Cases Who Went on Relief Because of Crop Failure or Loss of Livestock.
25. Reasons for Closing Relief Cases of February-June, 1935, as Compared With the Reasons For Closing Relief Cases of July-October, 1935.
26. Rural Relief Households, February-June, 1935, In Nine South Dakota Counties, Classified by County, Number of Months on Relief Since March 1, 1934, and the Break in the Relief Period.
27. Percentage of Relief and Non-Relief Operators on Below Average, Average and Above Average Size Farms in Four South Dakota Counties.

A Graphic Summary of The Relief Situation in South Dakota (1930-1935)

by W. F. Kumlien*

I. Introduction

The Problem.—It is now a matter of historical record that a varying but considerable portion of South Dakota's population has had to subsist largely or in part on some form of public relief assistance during the depression and prolonged drought period from 1930-1935. Although from its earlier settlements following the Civil War, South Dakota, first as a territory and later as a state, passed through some extremely trying periods** with floods, droughts, insect devastations, hail, dust and wind storms and financial panics, it has never before experienced a state-wide calamity of such scope. Such an "upset" in the usual routine of affairs, therefore, would seem to call for a careful analysis and explanation if such are possible.

Much valuable information has been published by various federal, state, and local institutional agencies regarding certain aspects of the depression, problems of relief, and the agricultural resources of the state. This is the first published bulletin suggesting a direct relationship existing between the incidence, distribution and intensity of relief and the various gradient economic income areas of the state for the years covered by this study.***

Some of the more significant questions which have naturally arisen out of such a statewide study are:

1. What is meant specifically by "the relief situation"?
2. What conditions have disposed the state to such acute relief needs?
3. What amounts of relief have been expended per capita by counties for comparable periods?
4. Under what auspices have relief expenditures been made?
5. In what manner has relief been administered—as direct grants in cash or commodities, or as work relief?
6. What groups within the general population have been most subject to relief?
7. How can the wide variations in relief in different parts of the state during the same period be explained adequately?
8. What steps, if any, should be taken to remedy the present economic plight and possibly prevent a recurrence of a similar situation in the future?

It is the purpose of this bulletin to suggest answers to these questions, in whole or in part.

*The author gratefully acknowledges the assistance of the following social research staff in preparing the materials for this bulletin: R. L. McNamara, assistant supervisor; Zetta Bankert, analyst; Vera Pethram, assistant analyst; Ethel Albee and O. Cudley Scandrette, editors.

**Kingsbury, G. W., "History of Dakota Territory."

***Since this manuscript was written a research bulletin entitled "Areas of Intense Drought Distress, 1930-1936," by F. D. Cronin and H. W. Beers has been published by the W. P. A.

Method of Study.—While the findings and justification for this bulletin have originated largely out of the cooperative "Current Relief Trends" project, (DRS—109), selected relief data have also been freely used from other South Dakota rural research studies being conducted by this department. In addition to these, a number of state and federal administrative agencies have furnished us with selected bits of information and have given us permission to publish them. In every case we have tried to give due credit to the source of such information.

Because the volume of pertinent relief information is extremely large and because little of it has been published as yet, we have ventured to present the material as a graphic summary with a minimum of textual narration.

Throughout the discussion we have sought:

1. To arrange the material historically and chronologically in order to bring out both the present emergency and the long time aspects of the problem.
2. Wherever practicable, to compare South Dakota relief norms with those of other states or with the standard of the United States as a whole.
3. To show, wherever possible, the distribution of relief expenditures by counties on a per capita basis in order to bring out comparative differences in economic distress.
4. To relate the relief situation by counties with their respective physical and economic background data so as to show cause and effect relationship.

II. Backgrounds of the Relief Situation

The Background.—For practically half a century, certain broad but well established scientific facts have been available to the public concerning the relative agricultural possibilities of the various regions of South Dakota*. Reference is made particularly to differences in the natural bases of agriculture such as climate, soils, and types of native vegetation. Since the '80's of the last century detailed experimental data have accumulated gradually, largely confirming earlier generalizations. Evidence has also become available concerning differences in crop and livestock production between the various counties. The following paragraphs suggest some of the basic physical and economic factors showing either cause or effect of those variations.

Physical Factors.—South Dakota is bisected east and west by the hundredth meridian which, roughly speaking, is generally conceded by geographers and economists to be the dividing line in the agricultural regions between the intensive farming east and the semi-arid, extensive farming west.** (Fig. 1) A marked decrease in the average annual precipitation (Fig. 2) and a transition in native vegetation (Fig. 3) from tall grass to short occurs in the approximate vicinity of the hundredth meridian.***

*Although climatological data had been recorded by various agencies of the United States government previous to 1890, in that year the Weather Bureau was created and placed under the supervision of the Department of Agriculture. Consequently, from that time on, climatological data have been directly related to agricultural problems. Soil analysis under the Division of Chemistry of the Department of Agriculture was carried on as early as 1865. Weist, Edward, "Agricultural Organization of the United States."

**Hibbard, Benjamin, "History of Public Land Policies"; Chase, Stuart, "Rich Land, Poor Land"; Schafer, Joseph, "The Social History of American Agriculture."

***Baker, Dr. O. E., "A Graphic Summary of American Agriculture Based Largely on

It will be noted in Fig. 2 that most of South Dakota lies in the area which receives on an average less than 20 inches of rainfall. From 1890-1935, however, precipitation was below average during more than half of the years. (Fig. 4). Accentuating the effect of low annual precipitation is erratic seasonal distribution. The effect of limited and uncertain annual and seasonal precipitation in these areas of the state is apparent in Fig 5, page 10, which shows an index of crop yields during the generally favorable years from 1916-1927.

Predominance of Agriculture.—South Dakota's percentage of population engaged in agriculture is fourth largest in the Union. In addition, it is characterized by a lack of other natural resources such as timber, coal, oil and waterpower. Due to the absence of natural resources and consequent lack of industries, other than agriculture, in periods of crop failure there is little to which farmers may turn for employment. Fig. 7, page 11, shows the percentage of the gainfully employed engaged in agricultural pursuits in each county of the state in 1930. If this map be compared with cover page it will be found that, in general, counties which ranked highest with respect to the per cent of the gainfully employed in agriculture also ranked high with respect to total federal relief expenditures.

Settlement History.—The region in which South Dakota is located was one of the last to be homesteaded. This fact is reflected in the comparatively late date at which the states in this region were admitted to the Union. (Fig. 8, page 12.) As the frontier was pushed westward, beyond the Mississippi River, the region in which South Dakota is located was passed by to a great extent until the more productive land to the east, west and south had been homesteaded.

A definite relationship is apparent in South Dakota between areas of high population density and those areas where soil and rainfall are most favorable to crop production. (Fig. 9, page 12.) In counties where crop production possibilities are comparatively low, farm income and real estate values tend to be correspondingly low. (Fig. 10, page 13.)

One of the factors which has contributed to widespread agricultural distress in South Dakota is the fact that the greater number of the early settlers, coming in as they did from the eastern and more humid states (Fig. 11, page 13) brought with them the intensive small-size farm pattern. This farming pattern was encouraged by the government in its early homestead policy. In order to prevent wholesale abandonment of homesteads in drought years, the government was forced to grant a number of concessions to settlers in the form of an extension of time on fees and commission payments.* The size of homesteads was increased in 1909 to 320 acres and in 1916 to 640 acres.

War Influence.—From a long term standpoint the World War adversely affected South Dakota and brought about the necessity for drastic land use readjustments. It so happened that the war

the Census," United States Department of Agriculture, Miscellaneous Publications, No. 105, Washington, D. C., 1931. Dr. Baker places the line of demarcation between the intensive cropping east and the semi-arid grazing west at 103 rather than the 100th meridian. Dr. Baker's apparent basis for this division is "prevalent land use" rather than suitability of the land for agricultural purposes and consequently includes considerable land where maladjustments in land use have been made. Although the hundredth meridian is cited by most authorities as the approximate line beyond which cropping should not be undertaken, it must be remembered that the land immediately east (extending probably as far as the ninety-seventh meridian) is marginal with respect to the territory further east.

*Hibbard, Benjamin J., "History of Public Land Policies"

period coincided with a good rainfall cycle which gave the area west of the hundredth meridian an unwarranted reputation for crop production. Consequently thousands of acres of land previously utilized for grazing were put under cultivation. (Fig. 12, page 14.) By 1919 the war stimulus had become reflected in a spectacular land boom which by 1920 had increased land values to 85 per cent over 1910. From 1920 to 1930 following the collapse of agricultural prices, real estate values declined over 58 per cent. (Table 1, page 56 of appendix.) Only one other state in the United States (Wyoming) suffered as great a decline in the value of farm real estate during that period. (Fig. 13, page 14.)

The collapse of agricultural prices in 1921 (Fig. 14, page 15) and the subsequent cycle of poor cropping years soon upset the credit structure of the state. An epidemic of bank failures started in 1925 and by 1935 over two-thirds of all the banks in South Dakota had failed. (Fig. 15, page 15.) Acute agricultural distress also became evident in the large amount of land which became tax delinquent (Fig. 16, page 16) and subject to mortgage foreclosure (Fig. 17, page 16).

The foregoing background facts are brought to the reader's attention to indicate that even before the depression and the present drought cycle began, the agricultural resources of the state had been heavily depleted and were consequently at low ebb at the beginning of the 1931-1935 drought period. As will be pointed out later, it was the more unproductive cropping areas which were least able to survive the current drought period and which consequently were subject to the most intensive relief.

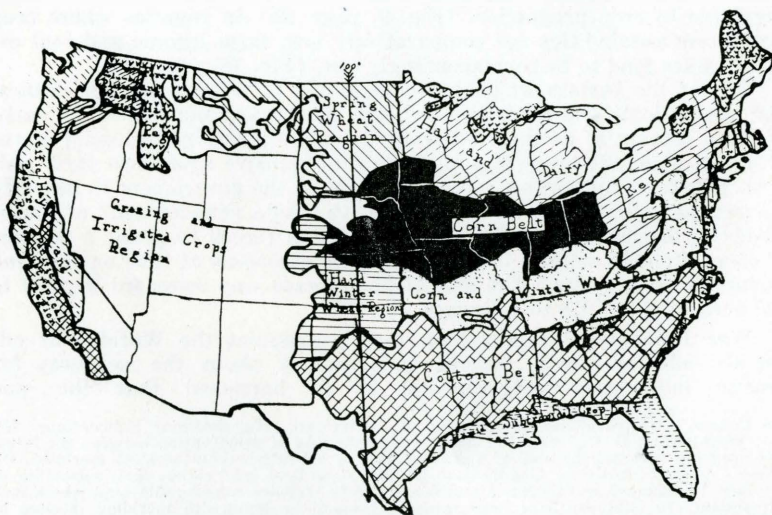


Fig. 1.—Agricultural Regions of the United States—The Spring Wheat Region, in which most of South Dakota is located, has been characterized by a prominent economic geographer as the farmer's center of "troubles." It is a land of climatic extremes, hot summer, cold winter, and of swift change.

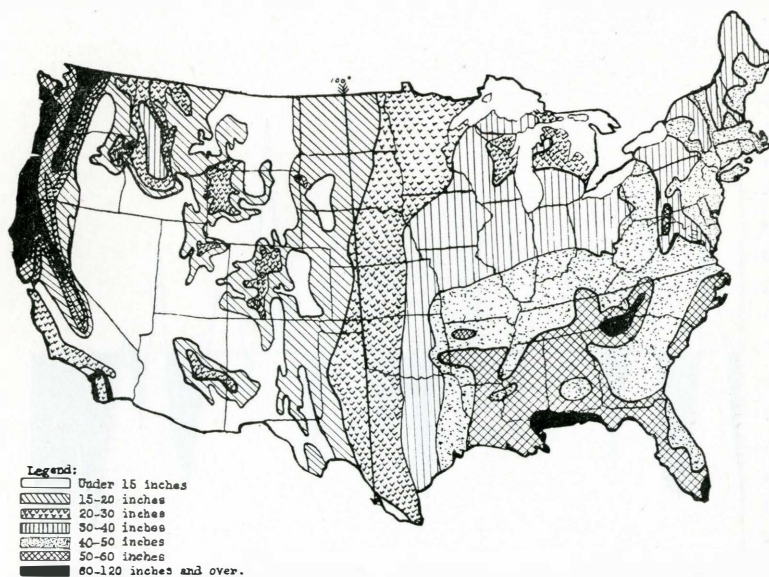


Fig. 2.—Average Annual Precipitation in the United States—This map shows the reason for the transition in native vegetation from forests to tall grass, from tall to short grass and from short grass to sage brush and cactus. Almost the entire Great Plains Region normally receives less than 20 inches of rainfall per year. It is generally conceded that intensive farming in areas where average annual rainfall is less than 20 inches, is not only a hazardous enterprise over a period of years, but usually is detrimental to the land.

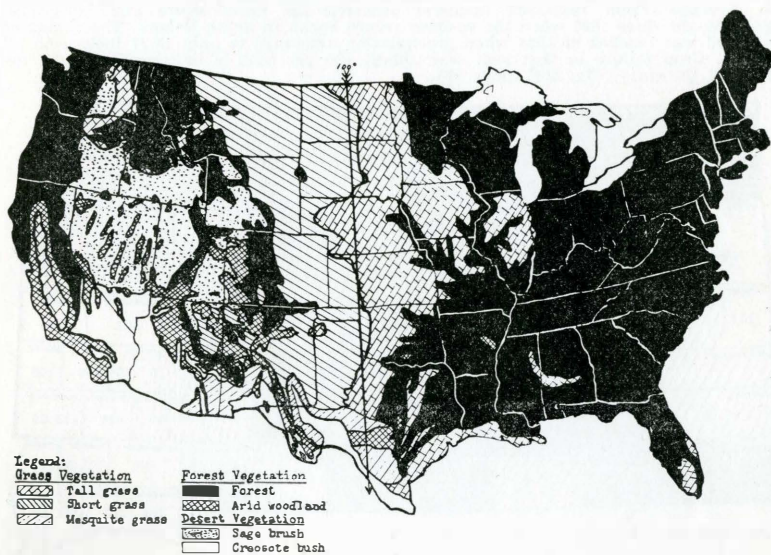
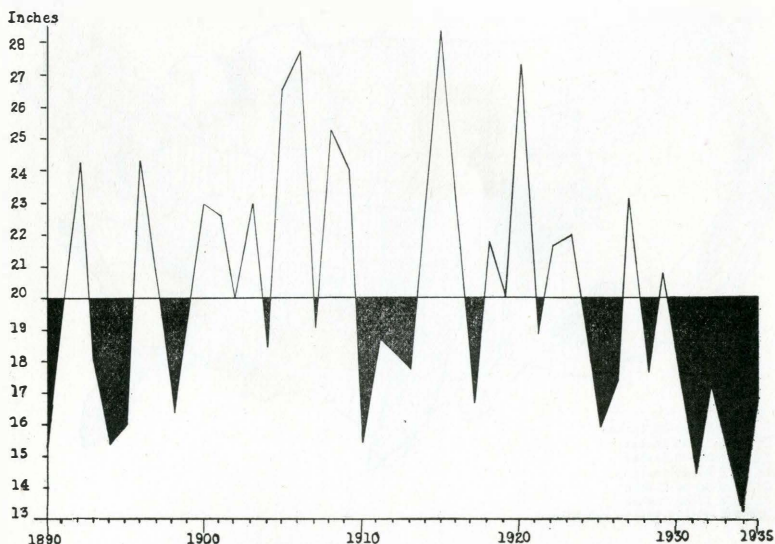
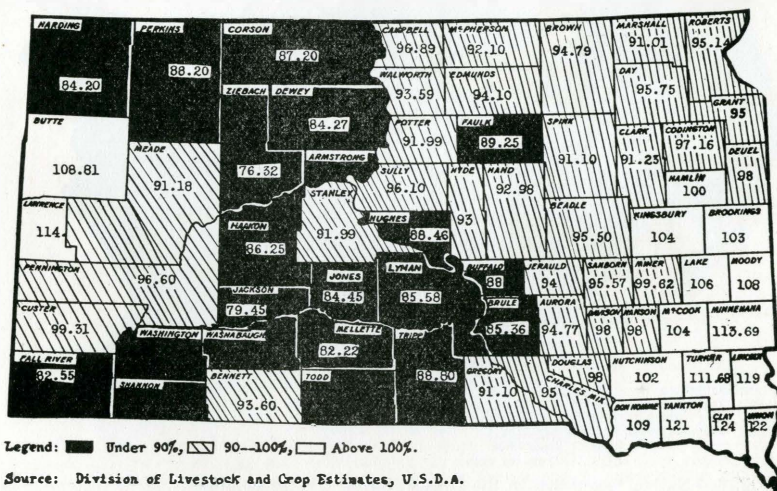


Fig. 3.—Native Vegetation in the United States—The predominant native vegetation of the Great Plains Region was short grass. The entire area was covered with a thick carpet of grama, galleta, buffalo, wire and other grasses, sturdily protecting the soil from the ravages of wind and water. Cultivation and over-grazing of a large part of this area has resulted in soil erosion and in a relatively low average farm income.



Source: Compiled from "Climatological Data", Volume 40, Number 13, issued by the United States Weather Bureau, South Dakota Section.

Fig. 4.—Inches of Rainfall in South Dakota, by Years, 1890-1935, Showing Deviations from Average—From 1931-1935 inclusive occurred the most severe and most prolonged drought since 1890 when the weather record began in South Dakota. The climax of this period was reached in 1934 when precipitation amounted to only 13.27 inches, an all time low. Crop failure in that year was almost 100 per cent in over two-thirds of the counties of the state (Fig. 35E, page 39).



Legend: ■ Under 90%, ▨ 90-100%, □ Above 100%.

Source: Division of Livestock and Crop Estimates, U.S.D.A.

Fig. 5.—An Index of Crop Yields For South Dakota (1916-1927)—All wheat, corn, oats, barley, flax and tame hay are included, and each figure is the county percentage of the weighted state yield which equals one hundred. In the southeastern quarter of the state, where production factors are most favorable, the index figures were over one hundred per cent. Towards the north and west, the county indices were smaller. The high indices of Lawrence and Butte counties are explained by the high yields from irrigated areas which constitute a larger proportion of the crop land.

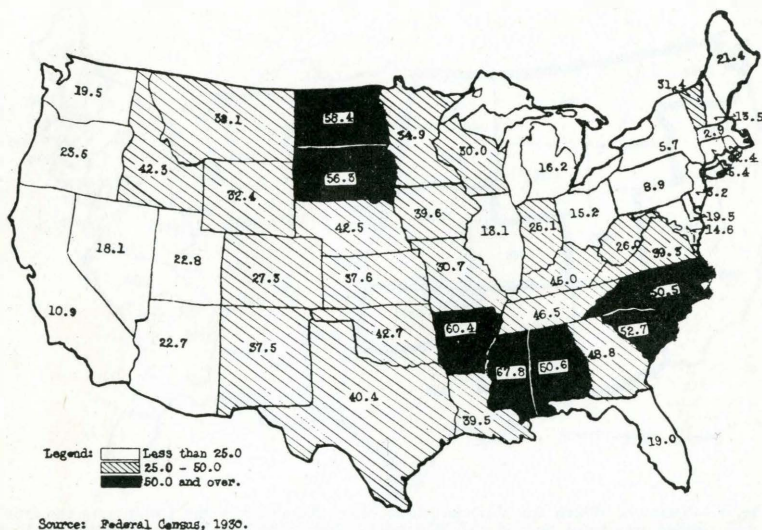


Fig. 6.—Percentage of Population on Farms in the United States, 1930—A comparison with the map showing relative relief intensity (Fig. 29, page 25) reveals that it is the most rural states which have had the largest percentages of their populations on relief rolls. This fact suggests that where there has been the greatest agricultural distress, the relief situation has been most acute.

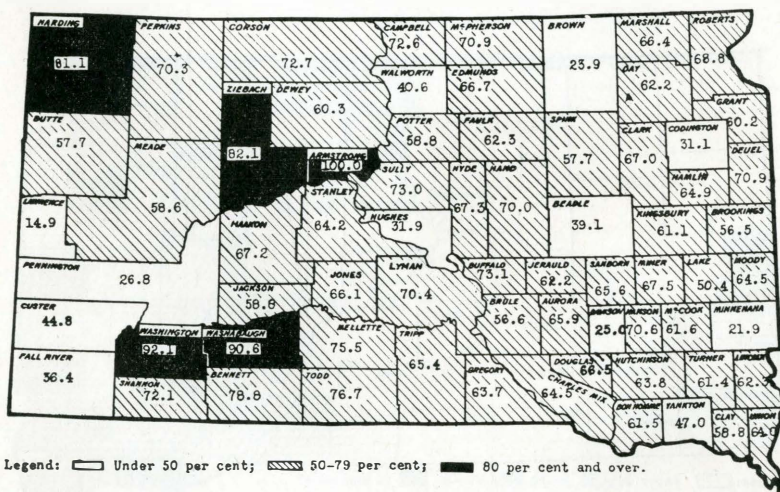


Fig. 7.—Per Cent of the Gainfully Employed Engaged in Agricultural Pursuits in 1930—South Dakota is marked by an absence of natural resources such as forests, commercial coal, oil or waterpower. When agriculture fails there is practically no other industry to which people can turn for a livelihood. In general there seems to be a relationship between the parts of the state with the highest proportion of the population engaged in agriculture, and the areas showing the greatest intensity of relief.

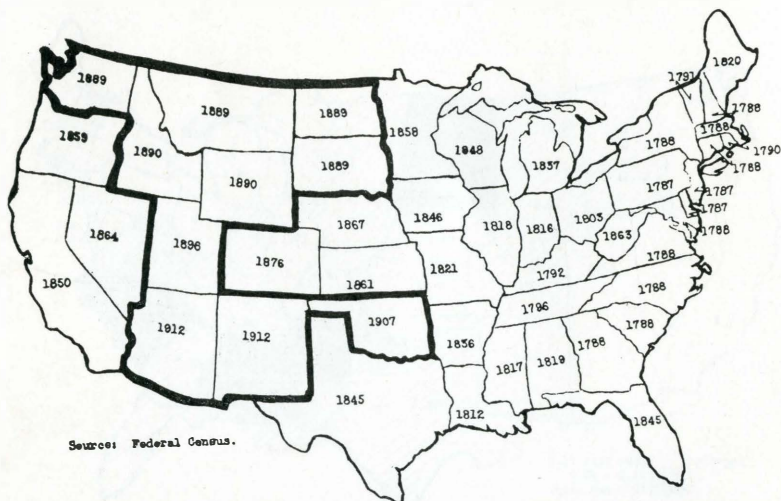


Fig. 8.—Years in Which the Various States Were Admitted to the Union—As the frontier was pushed westward beyond the Mississippi River, the Dakotas were passed by to a great extent until land which was considered more desirable had been homesteaded to the east, west and south. States which were admitted to the Union at the time and subsequent to the admission of South Dakota form a solid block, all of them being located in the Great Plains and Mountain areas. From the standpoint of native vegetation, most of these states are located in the short grass or grazing regions (Fig. 5) which are characterized by a general unsuitability for intensive farming operations.

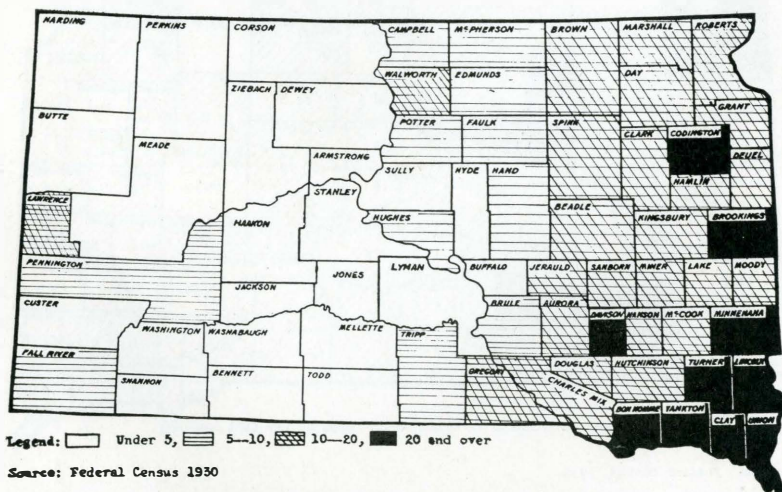
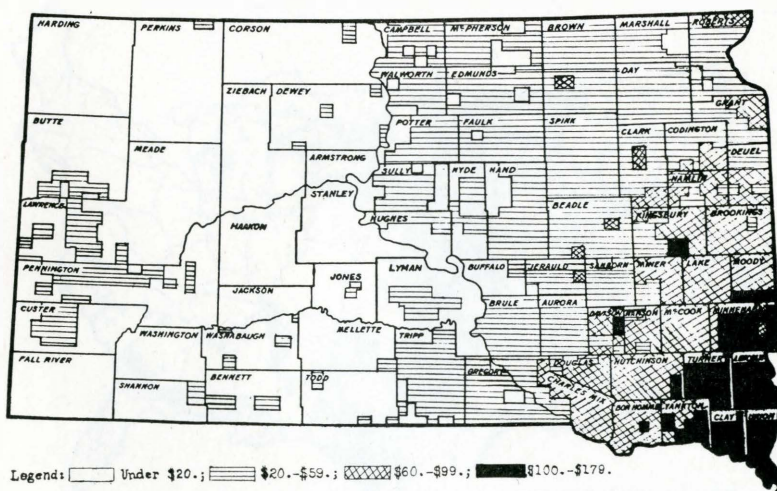


Fig. 9.—Density of Population in South Dakota, By Counties—In South Dakota a definite relationship exists between population density (average number of people per square mile) and those regions with the natural advantages of good soil and abundant rainfall. The combination of adequate rainfall and good soil results in high crop yields, comparatively high incomes, and high real estate values. (Figs. 35, 32 and 10.)



Source: Federal Census, 1930.

Fig. 10.—Value of Farm Land and Buildings per Acre in South Dakota, By Counties—Farm real estate values are highest in those areas where soil and rainfall are most favorable to crop production. In areas of high farm real estate value, populations have a greater degree of economic security. A comparatively small percentage of the total population was on relief rolls in the area where farm real estate values were highest. (Cover page.)

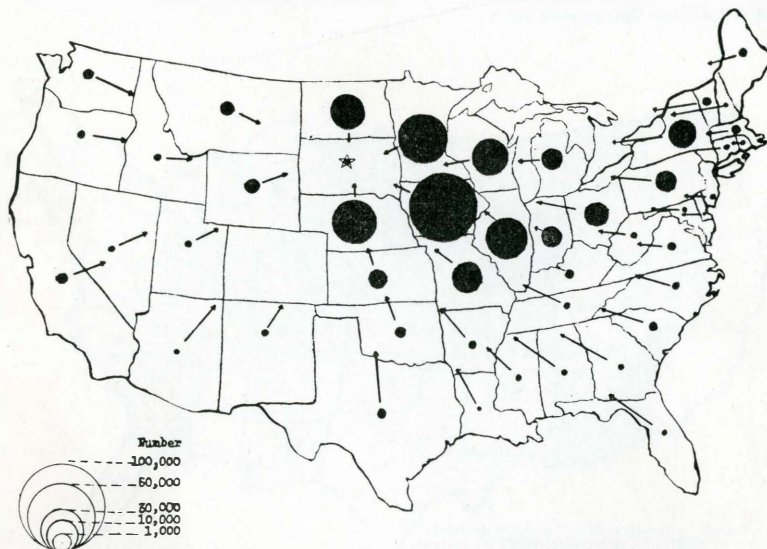
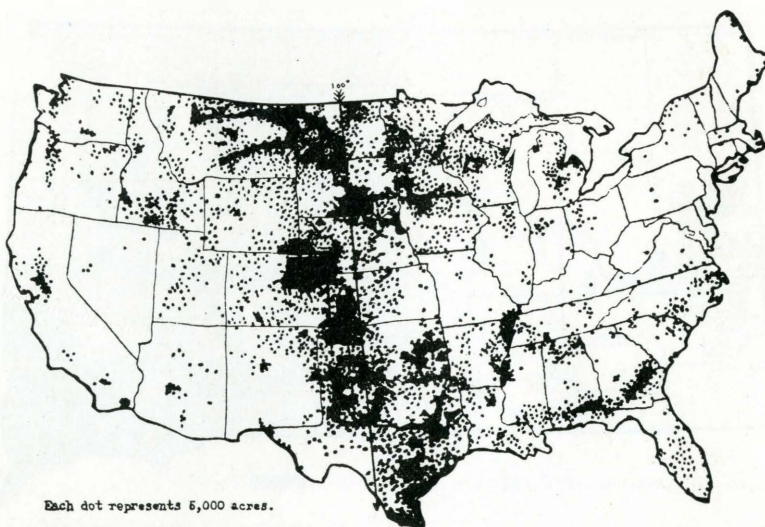
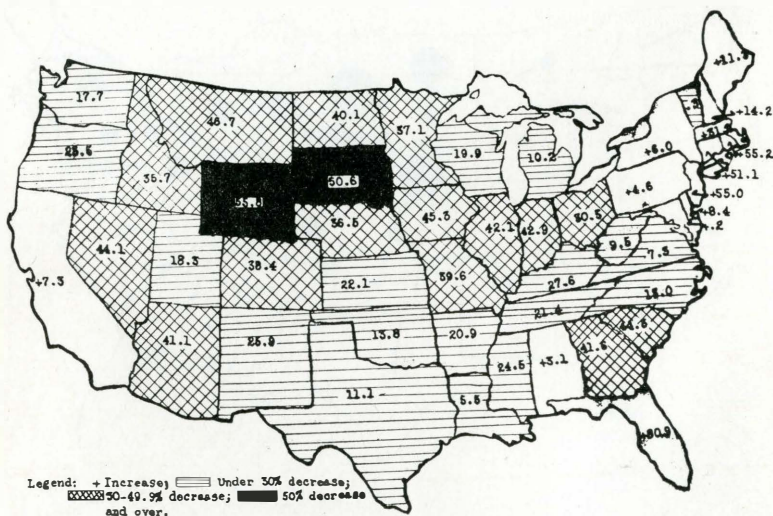


Fig. 11.—Native White Migrants Into South Dakota by State of Birth—The largest number of South Dakota's original settlers came from northeastern nearby states such as Iowa, Minnesota, Illinois and Wisconsin where precipitation, soil and topography had made farms of a quarter section or less the prevailing family-sized farm. Settlers from these states came to South Dakota without realizing that natural conditions in the state made farms of that size impracticable. Farms too small in size constitute one of the main maladjustments in land use in the state. (Fig. 49.)



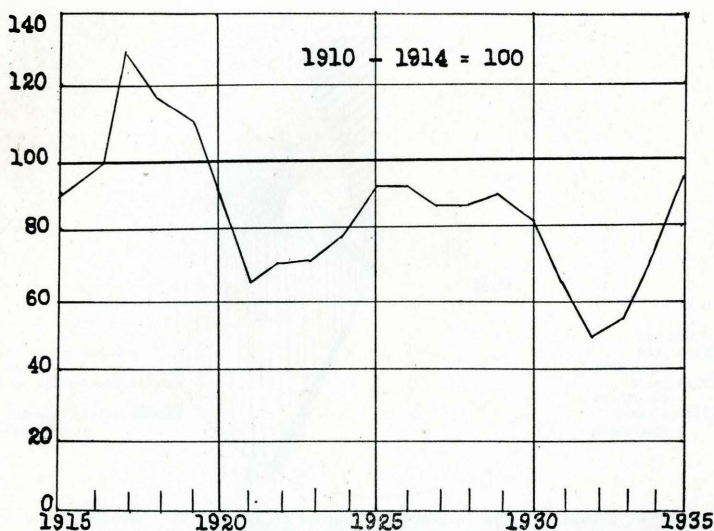
Courtesy O. B. Baker, "A Graphic Summary of American Agriculture Based Largely on the Census",
page 20, figure 13.

Fig. 12.—Increase in Acreage of All Harvested Crops 1909-1924—The stimulus of abnormally high prices during the World War period coupled with an unusually favorable rainfall cycle caused thousands of acres of land to be cultivated which were formerly considered suitable for grazing only.



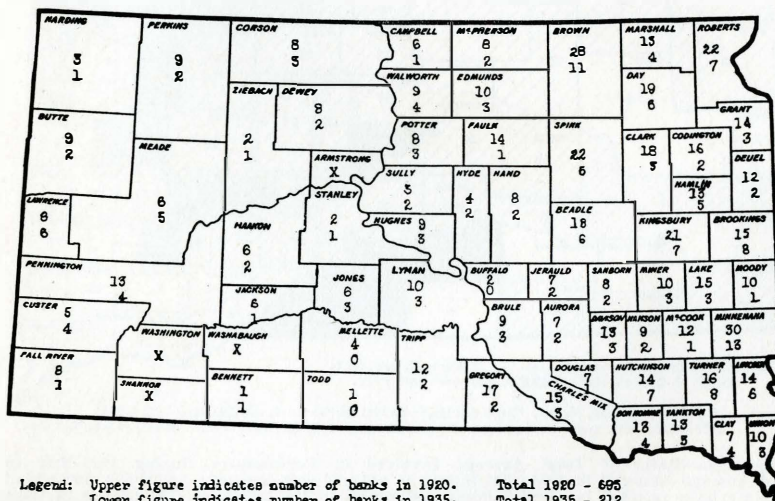
Source: Yearbook of Agriculture, 1932.

Fig. 13.—Changes in Value Per Acre of Farm Real Estate, 1920-1930—The war stimulus was followed by a land boom which boosted land prices far above their former values. After the close of the war, agricultural prices collapsed and land values dropped. (Table 1 page 56)



Source: Bureau of Agricultural Economics, United States Department of Agriculture; and Department of Agricultural Economics, South Dakota State College.

Fig. 14—Prices Received and Prices Paid by South Dakota Farmers from 1915-1935—During this period the purchasing power of the South Dakota farmer's products has been above 100 per cent during only the years 1917-1919 inclusive. The purchasing power of the South Dakota farmers is determined on the basis of the ratio between the prices received for agricultural products and prices paid for purchased commodities.



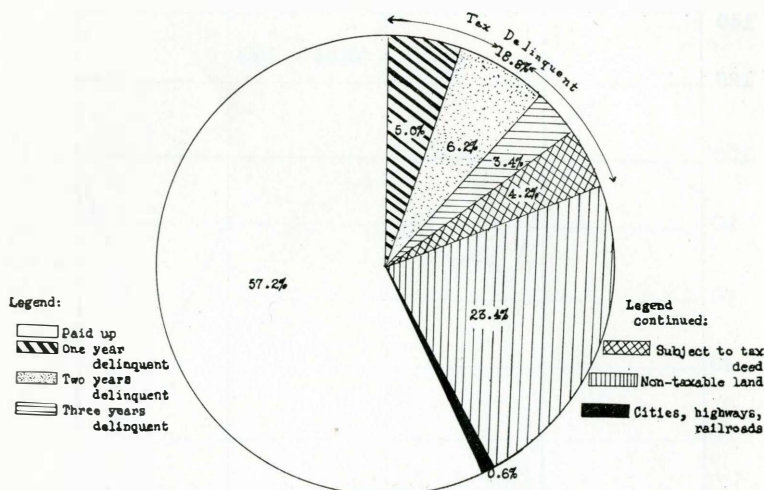
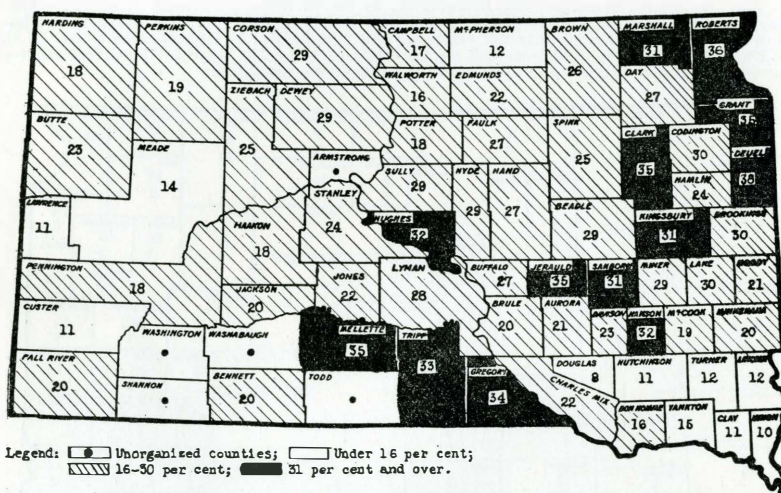


Fig. 16.—Tax Status of Land in South Dakota as of January 1, 1935.—When land becomes tax delinquent and is no longer effectively on the tax roll, there is a tendency for tax rates to increase unless a reduction is made in total levies. As land becomes delinquent, an increase in tax rates causes more land to become delinquent. Thus a vicious circle is started which can be broken only by an increase in agricultural income or a reduction in tax levies. As shown on the above chart 18.8 per cent of the land in South Dakota was tax delinquent one year or more as of January 1, 1935.



Sources: 1921-1932, Steele, H. A., "Farm Mortgage Foreclosures in South Dakota, 1921-1932". 1953-1954, Data secured from Agricultural Economics Department, South Dakota State College.

Fig. 17.—Ratio of Total Acreage Involved in Foreclosures During 1921-1934 to Total Acreage Assessed in 1934.—Variations in natural and economic conditions throughout the state have resulted in corresponding differences in the extent of foreclosures in these same areas. The ratio of mortgage foreclosures to total acreage has been comparatively low in the southeastern and in several of the extreme western counties of the state, while the ratios in most of the counties in the remainder of the state are considerably higher.

III. Forms of Relief Distributed in South Dakota

Because South Dakota is predominantly an agricultural state, the national industrial depression beginning in the latter months of 1929 did not at once cause widespread economic distress. Although county commissioner poor relief expenditures (Table 2) reveal a definite upturn over previous years, economic distress did not become general until the severe drought of 1931 had practically ruined crops for that year in most sections of the state. (Fig. 35, page 38.) Following 1930 economic distress became so general and so acute that the counties were incapable of bearing all of the relief burden.

In 1931-1932 the American Red Cross came to the assistance of farmers in the most distressed drought areas, distributing food, clothing and livestock feed. From the beginning of the Red Cross drought program to its termination, a total of approximately two-thirds of a million dollars was spent in providing for human needs in the drought areas of the state. Fig. 19, page 19 shows the per capita Red Cross expenditures by counties.

Although crop yields were considerably better in most parts of South Dakota in 1932, prices for farm products were extremely low and as reserves had quite generally been exhausted in the previous year, it became evident that public assistance on even a larger scale than that supplied by the American Red Cross would be necessary. Much the same situation existed in many of the other states of the Great Plains Area.

In 1932 Congress recognized the necessity of providing a work relief program for the industrially unemployed and for drought victims and accordingly authorized the newly created Reconstruction Finance Corporation to allocate money to states and political subdivisions for the purpose of conducting public works programs to give employment to needy citizens. Work programs financed with Reconstruction Finance Corporation funds began in South Dakota in September, 1932 and continued throughout June, 1933. During that period approximately \$1,804,000 was spent. Fig. 20, page 20 shows the per capita expenditures, by counties, throughout the duration of this program.

By the middle of 1933 the federal government had become convinced that economic distress occasioned by drought and unemployment could not be satisfactorily alleviated by private aid and the RFC program alone. Accordingly, the Federal Emergency Relief Administration was created in May, 1933, to allocate and supervise distribution of relief funds in each of the several states. In South Dakota the severe drought of 1933 made it necessary for many families to seek assistance from the FERA. The unprecedented drought of 1934 forced as high as 39.1 per cent of the population to depend upon relief aid for subsistence. During the active operation of the FERA program in South Dakota, (May, 1933-December, 1935) over \$40,000,000 was paid in relief benefits. (Table 3, page 56.) The per capita amount of FERA expenditures, by counties, throughout the duration of the program is shown in Fig. 21, page 20.

The Civil Works Administration program was begun in South Dakota in November, 1933, and was practically terminated by April, 1934. Instead of working out relief "allotments" based on budgetary deficiency, CWA workers received a straight weekly wage of \$15. Wages were later reduced to \$7.50 for rural workers, hours being cut in proportion. Most of the CWA workers were recruited from relief rolls and consequently

the number cared for by the FERA was materially decreased during its duration. Per capita expenditures under the CWA program, by counties, are shown in Fig. 22, page 21.

During November and December, 1935, the FERA was largely supplanted in South Dakota by the Works Progress Administration.* The essential difference between the Works Progress Administration and the agency it displaced was in wage and hour policies. Rather than working out a predetermined allotment based on budgetary deficiency, WPA workers received a fixed security wage. Other Federal relief activities carried on in South Dakota from 1933-1935 inclusive embrace direct subsistence grants to distressed farm families, benefit payments for unmarketable cattle, aid to distressed schools and the CCC program.** See Figures 23, 24, 25, pages 21 and 22.

In addition to these strictly relief grants there have been a number of federal subsidies such as the AAA, and the cattle purchase program. Loans of various kinds such as feed and seed loans, rehabilitation loans, housing loans etc.*** have also been extended to distressed farmers and others.

Despite the vast amount of federal relief, subsidies and loans, county commissioners consistently increased the amounts spent for poor relief throughout the 1930-1935 period with the exception of 1935. County commissioner poor relief expenditures amounted to \$1,859,362.00 in 1934, the year when relief activities were at their height in South Dakota, as compared to \$997,506.00 in 1930. See Table 2, page 56. Per capita county commissioner poor relief expenditures, by years and by counties are shown in Fig. 18, page 19. Actual total amounts spent by various relief agencies in South Dakota from 1930-35 are shown in Table 3, page 56.

*The WPA is essentially a work relief program operated by the government to furnish employment for certified employables. In this program, mothers' pension cases, the dependent aged, and other special groups receiving public assistance are considered as unemployables.

**The CCC distribution by counties is not available.

***The non-relief subsidies, loans, etc., are not considered to be within the scope of this particular study.

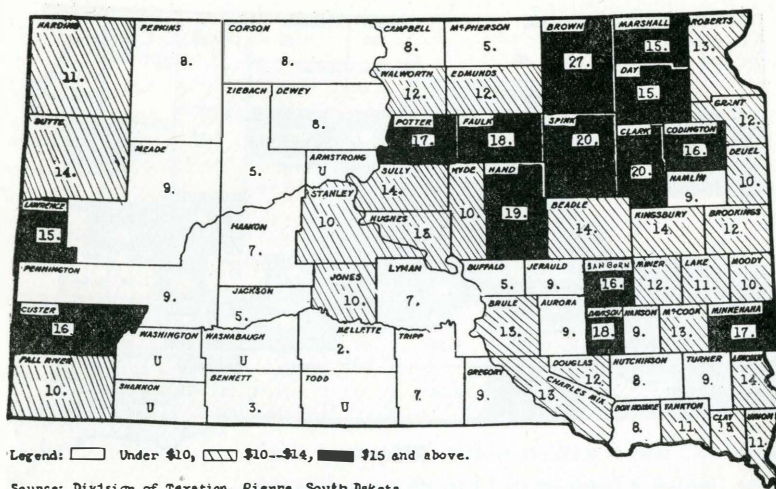


Fig. 18.—Per Capita County Commissioner Expenditures For Relief, 1930-1935—A year-by-year increase in the per capita amounts spent for relief by county commissioners took place in practically every county of the state. Increases were much less pronounced in the southeastern and extreme western counties than in the remainder of the state. In 1930 county relief expenditures were highest in counties having cities of 5,000 or more inhabitants. During the extreme drought years it was the predominantly agricultural counties which received the highest per capita county aid. In general, counties which received the highest per capita county aid also received the highest per capita FERA relief during the period of federal assistance. Notable exceptions were certain counties in the extreme western and southeastern portions of the state.

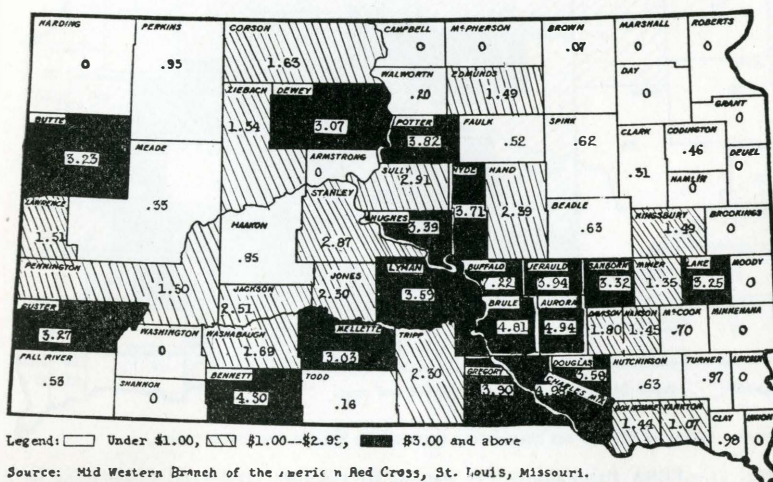


Fig. 19.—Per Capita Value of Commodities Distributed by the American Red Cross in South Dakota During 1931-1932—Except for a few counties in the extreme western part of the state, counties in which the highest per capita Red Cross drought relief aid was extended were the ones in which crop yields were the lowest in 1931.

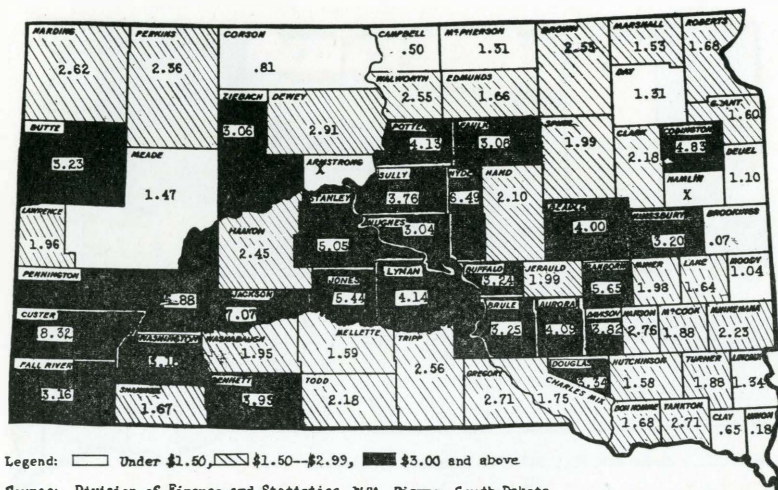


Fig. 20.—Reconstruction Finance Corporation Expenditures Per Capita, By Counties—Except for a number of counties in the extreme western part of the state the counties in which Reconstruction Finance Corporation work relief expenditures were highest per capita were the same counties which ranked high with respect to other forms of Federal relief throughout the 1930-1935 period. Exceptions probably can be explained by the fact that RFC allocations to the various counties were made purely on the estimates of local need given by county relief directors.

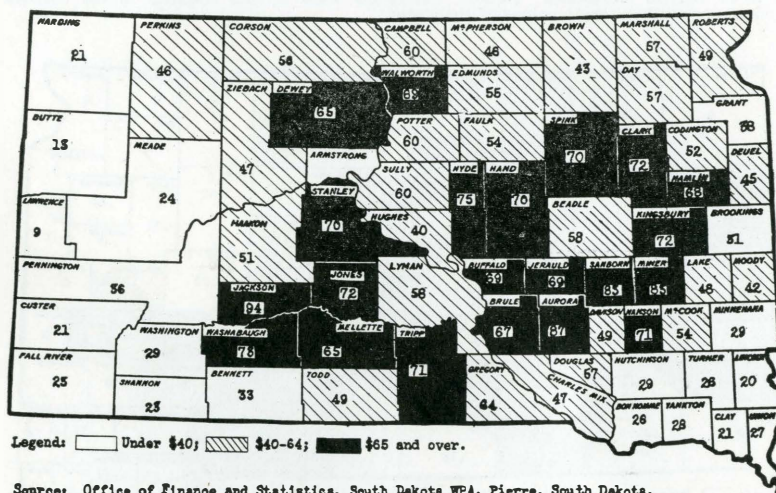


Fig. 21.—FERA Expenditures Per Capita, By Counties (1933-1935)—Presenting as it does the expenditures of the federal agency which had charge of both direct and work relief for over two and one half years (May, 1933—December, 1935) this map shows clearly those counties which were the most dependent upon public assistance. With the exception of the Reconstruction Finance Corporation, maps showing the relative per capita distribution of other forms of federal relief show substantially the same pattern.

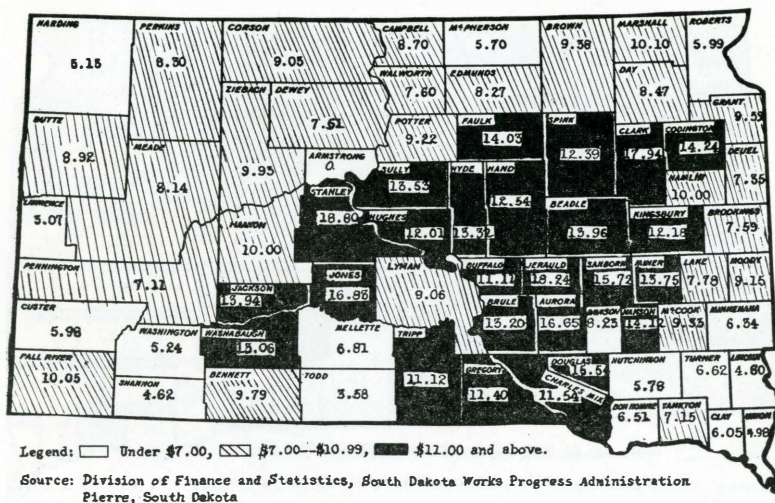


Fig. 22.—Per Capita Expenditures of the Civil Works Administration, By Counties—As with the other forms of federal relief, per capita Civil Works Administration expenditures were, generally speaking, highest in that area where crop production was lowest in the preceding year.

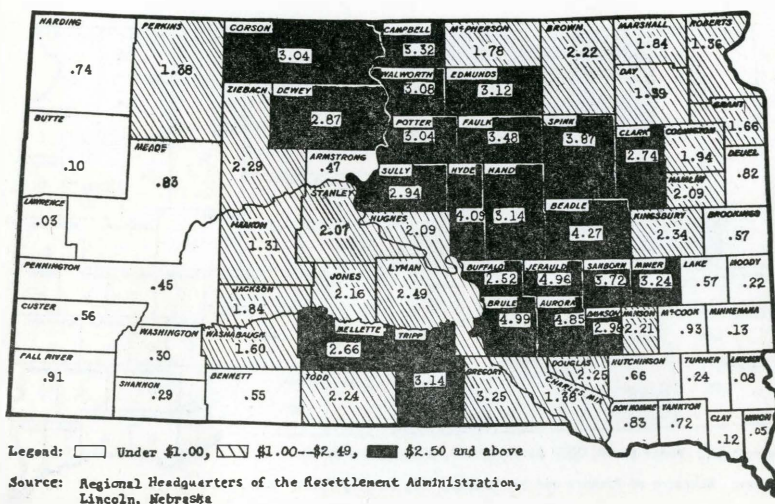


Fig. 23.—Per Capita Farm Population Resettlement Subsistence Grants, By Counties—Counties having the greatest agricultural distress are brought sharply into focus by this map which shows subsistence grants to needy farmers on the basis of per capita amount for the farm population. In the main, counties in which subsistence grants have been most extensive are the counties which have ranked highest with respect to the per capita expenditures for all forms of federal relief during the period, May, 1933—December, 1935.

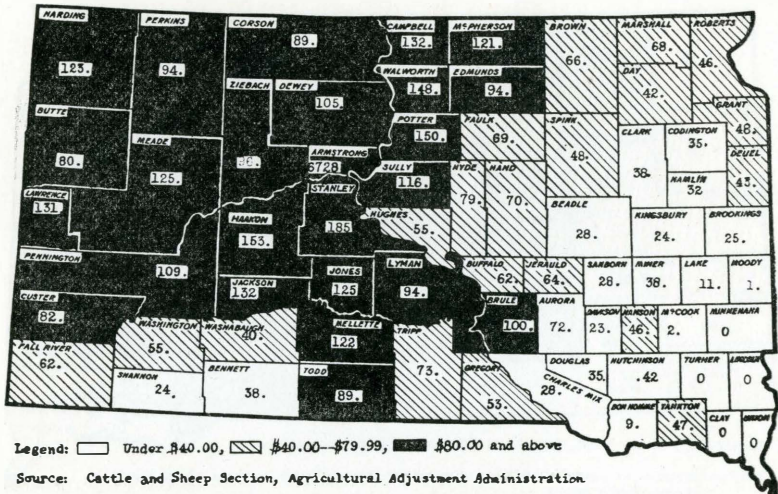


Fig. 24.—Per Farm Cattle Purchase Expenditures, By Counties—Two factors determined the cattle benefit purchase expenditures. One was the existence of an unduly large cattle population and the other an abnormal shortage of feed due to the drought. Per farm expenditures given on this map include only the amounts paid to farmers for cattle condemned and slaughtered on the farm. Much larger expenditures were made by the government for cattle purchased from farmers at a fixed rate and sold on the market at a loss.

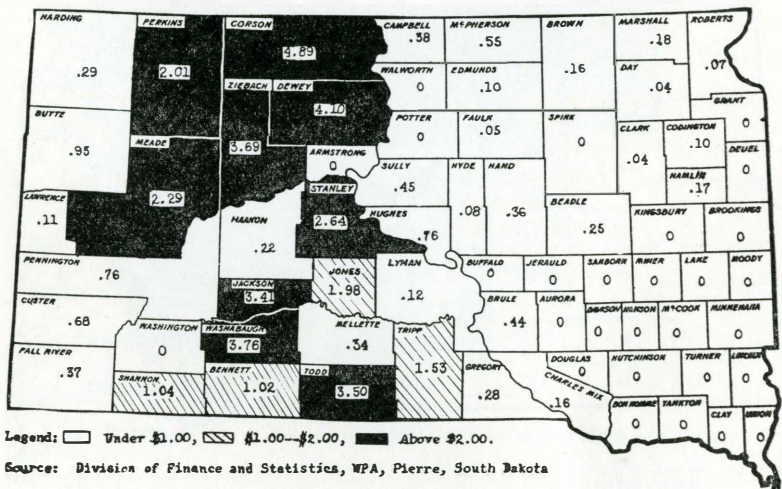


Fig. 25.—Per Capita Expenditures For Aid to Distressed Schools to December 31, 1935
—The area in which the most aid to distressed schools has been distributed lies somewhat further westward than is true in the distribution of other forms of relief. One important explanation of this fact is that many west river counties have suffered a considerable decrease in population within the past few years with the result that there are now a smaller number of taxpayers to bear the burden of maintaining the schools.

IV. Manner of Relief Distribution

Prior to the inception of Red Cross drought relief activities in 1931-1932, poor relief funds in South Dakota had been administered primarily by commissioners of the various counties, supplemented by a limited amount of aid from churches and local charitable organizations. Except for public aid dispensed through poor farms in about half of the counties of the state, relief to the indigent was usually distributed by the county commissioners in the form of food, clothing or medical assistance. Red Cross drought relief was distributed largely in the form of commodities, including foodstuffs, clothing and livestock feed.

When the program of the Reconstruction Finance Corporation work relief began in September, 1932, federal relief assistance for the first time was made available to the needy unemployed and to drought-stricken farmers. Work relief under the RFC was administered in the form of a fixed weekly wage, workers being chosen on the basis of the need of their families for assistance.

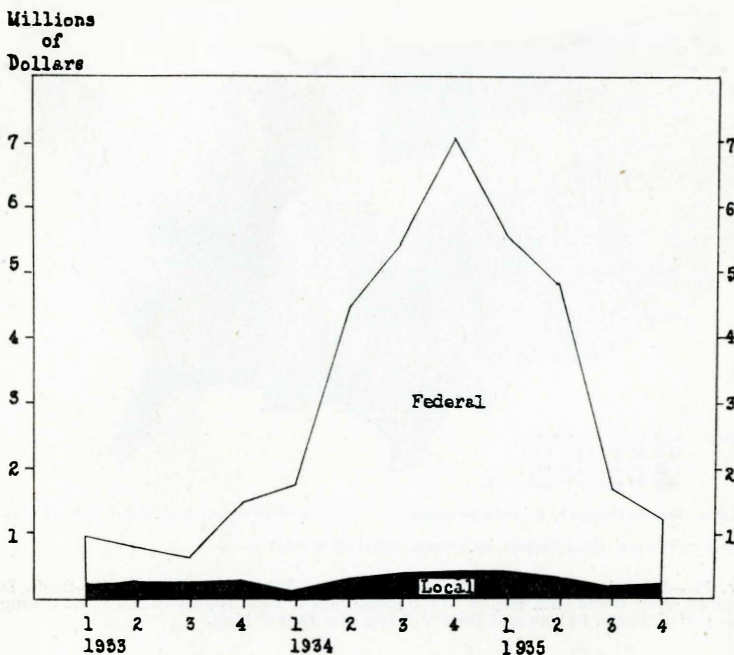
Direct aid as well as work relief was provided by the Federal Emergency Relief Administration which started in May, 1933. All relief allotments were based upon budgetary deficiency as determined by thorough investigation of a social case worker. Able-bodied heads of needy families were required to work out their allotments at a fixed hourly rate. Families without able-bodied heads were given their allotments in direct grants. When FERA clients were certified for Works Progress Administration projects in November, 1935, however, unemployables were refused certification and were made the responsibility of the county welfare commissions. Fig. 26, page 24 reflects the policy of the South Dakota relief administration with regard to the distribution of relief funds. Throughout most of the period of public assistance in South Dakota a comparatively small number of families received direct relief aid.

Fig. 28, page 24 graphically reflects South Dakota's financial inability to pay but a very small percentage of the amount necessary to care for its drought stricken citizens.

Except for two months at the beginning of federal relief assistance and six months at the close of the FERA program, South Dakota consistently had a larger percentage of its population on relief rolls than did the United States as a whole. (Fig. 30, page 26.) At the height of the relief load, almost 40 per cent (39.1) of the persons in South Dakota were on relief rolls whereas 13 per cent was the highest percentage ever on relief rolls for the United States as a whole.

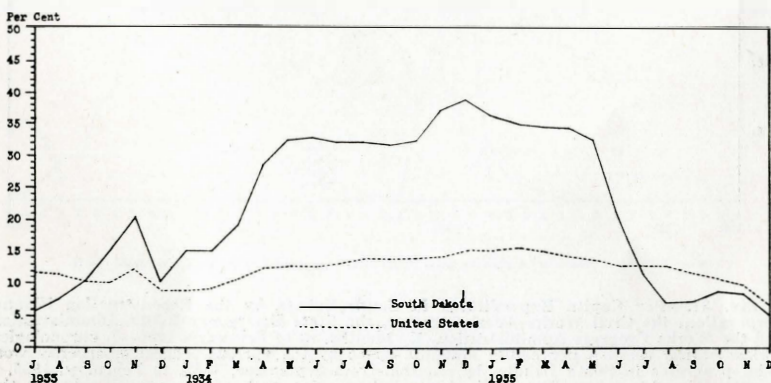
Although South Dakota quite consistently had a larger proportion of its population on relief rolls than did the United States as a whole, the average amount of monthly benefits received by families in the former was somewhat lower than the average monthly benefits received by the latter. Due to the widespread economic distress in South Dakota, the state relief administration felt justified in lowering the amount paid per family to a minimum so that more families could be aided. (Table 4, page 56.)

Fig. 31, page 26 shows graphically the relative per capita amounts of money spent by months during the duration of the various work relief programs in South Dakota.



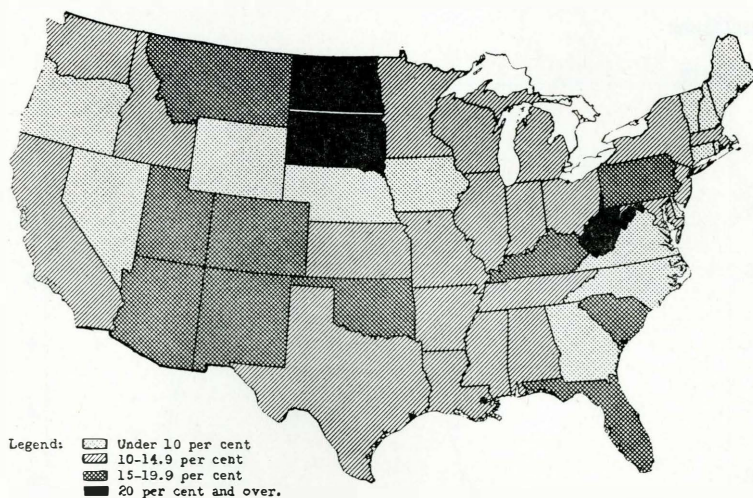
Source: Division of Social Research, Works Progress Administration, Washington, D. C.

Fig. 28.—Sources of Public Emergency Relief Funds Expended by State and Local Administrations in South Dakota, By Quarters, During the Period January, 1933 to December, 1935.—During the three years from 1933-1935 inclusive only a small proportion of the relief funds spent in South Dakota was classified as local funds. By local funds are meant funds raised by means of county and state taxes and distributed by county commissioners and county welfare commissions.



Source: Monthly reports of the Federal Emergency Relief Administration.

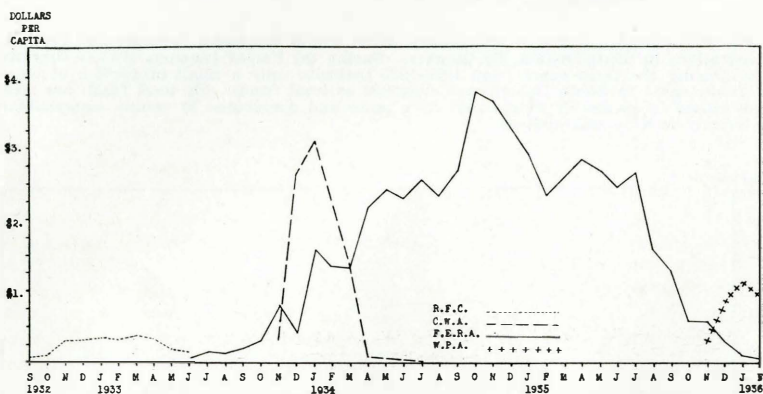
Fig. 29.—Per Cent of South Dakota's Total Population Receiving Federal Emergency Relief Compared With the Per Cent of Persons on Relief in the United States, July, 1933—Dec., 1935, by Months.



Source: Federal Emergency Relief Administration, Division of Research, Statistics, and Finance.

*Based on average relief figures and average estimated population.

Fig. 30.—Intensity of Relief in the United States, July, 1933—June, 1935—South Dakota led all other states with respect to the percentage of total population on relief throughout this period. North Dakota and West Virginia also ranked high.



Source: Division of Finance and Statistics, South Dakota Works Progress Administration, Pierre, South Dakota.

Fig. 31.—Per Capita Expenditures in South Dakota by the Reconstruction Finance Corporation, the Civil Works Administration, the State Emergency Relief Administration, and the Works Progress Administration, By Months, as of February, 1936—A chronological review of the relative per capita amounts spent by the various federal emergency work relief programs in South Dakota, by months, from September, 1932, to February, 1936, is presented in this chart. The peak of expenditures for each of the agencies during this period occurred on the following dates: RFC, March, 1933; CWA, January, 1934; FERA October, 1934; and WPA, January, 1936.

V. Comparative Characteristics of Relief and Non-Relief Populations

Age.—When the age distribution of the relief population is compared with the age distribution of the non-relief population it shows a predominance of persons under 16 years of age whereas a larger proportion of persons over sixteen years of age is found in the non-relief population (Table 5.). This is substantiated by data secured in four different surveys covering a sample of the relief population of 1933, 1934, and 1935 in 15 South Dakota counties. (Tables 6, 7, 8, and 9).

A greater proportion of the heads of relief households are in the younger age groups than are the heads of non-relief households and heads of households in the general population as shown by the 1930 census. (Table 10). The older heads of households are not as heavily represented in the relief group as in the non-relief. (Table 11). Several factors may explain the predominance of young heads in the relief population. A large proportion of the relief heads are farm tenants and it is known that tenants in South Dakota are as a group younger than owners.* The fact that a large proportion of the relief group was married at an early age may also be a determining factor as it is known that the younger heads also have a larger number of dependents. (Table 12). It is quite probable that in addition to having more dependents, the younger heads have not had enough time to accumulate reserves.

Sex.—In two surveys there seemed to be a tendency for the ratio of males per one hundred females in the relief population to be lower than it was in the total population of 1930. In a third survey it was found that there was a tendency for the same ratio to be lower in the non-relief group than in the relief group. It is possible that differences in the techniques employed in these three surveys as well as a different basis of comparison may account for these differences. (Tables 13, 14, 15.)

It is possible that the sex factor is not a characteristic influencing relief status, but simply pictures sex distribution by residence.

Marital Status.—The proportion of single persons and of females heads who are widowed, divorced, or separated is greater in the non-relief group than in the relief group, but married heads are over-represented in the relief group. The proportion of male heads who are widowed, divorced or separated is practically the same in both relief and non-relief groups. (Table 16).

This over-representation of the married heads of households in the relief group is due probably to the fact that they have more dependents and to the fact that it was against the general policy of the FERA to grant aid to single persons, especially those in the younger age groups.

Education.—Generally speaking, heads of non-relief households have completed more grades in school than have heads of relief families. The proportion of heads completing more than eight grades is much higher for the non-relief households, whereas the proportion of those completing less than eight grades is much higher for the relief group. The proportion of the relief group which has had college training is extremely small as compared with that of the non-relief group. (Table 17).

*Kumlien, W. F., "What Farmers Think of Farming," Experiment Station Bulletin, No. 223, South Dakota Experiment Station, Brookings, S. D. 1927.

When the relative ages of those in the relief and non-relief groups are considered, the contrast between educational attainments is especially significant. The heads of relief households are younger on the average than the heads of non-relief households. Theoretically younger heads would seem to have had more education as in the general population the older persons have less education than those in the younger age groups. This, however, is not the case, the presumption being that the relief population as a group is, to a certain extent, educationally under-privileged.

Race and Nativity of the Head of the Household.—There seems to be no significant difference between the relief and non-relief groups as far as the native-white and foreign white groups are concerned, the proportions being practically the same. In the case of other races the proportion in the relief group is about two times as large as the proportion in the non-relief group. The number of households concerned is so small, however, that no definite conclusions can be drawn. (Table 18).

Length of Residence.—A much larger proportion of the non-relief group than of the relief group had lived continuously in the county of survey from 10 to 35 years. A larger proportion of the non-relief group had also lived in the county over 35 years. The shorter term of residence of the relief group may be explained quite largely by the fact that the heads of relief households are a much younger group than the heads of non-relief households. (Table 19).

Occupation and Tenure.—As compared with the non-relief group, the agricultural occupations were greatly over-represented in the relief group. In the total population studied, the proportion of farm owners did not vary greatly between the two groups, but the proportion of farm tenants was much greater in the relief group (41.3 per cent relief and 14.5 non-relief). The proportion of farm laborers was practically the same in both groups. All non-agricultural pursuits were much less represented on relief than they were in the non-relief group. This is especially true of the professional group, proprietors and clerks. The relief group had a larger proportion of persons not gainfully employed and of persons who had never been gainful workers. (Table 20.)

Size of Household.—In the non-relief group over fifty per cent of the households were composed of one to three persons, while in the relief group there were only about 39 per cent of the households containing this few persons. The households with a larger number of persons predominated in the relief group, 44.1 per cent of the non-relief households containing four to six persons while only 37.4 per cent of the non-relief households contained this many people. Almost twice as many relief as non-relief households had from seven to nine persons. There were approximately three times as many households containing ten or more persons in the relief group. (Table 21).

Types of Families.—In a comparison of relief and non-relief families in six South Dakota counties it was found that there was a larger proportion of normal families in the relief group while the non-relief group contained a larger proportion of single person or non-family households. The percentage of normal families with other persons and other families and of broken families was slightly less for the relief than

for the non-relief group. The larger proportion of normal families in the relief group may be due to the fact that the normal type families had the most dependents, therefore the greatest need for relief. (Table 22.).

Reasons For Opening and Reopening Relief Cases of the Periods, February—June, 1935 and July—October, 1935.—Those cases which went on ERA relief rolls shortly after the closing of CWA were not included in this study as the primary reason for their dependency was not known.

Crop failures accounted for the largest proportion of each group's going on relief, 54.7 per cent of the February—June group and 36.6 per cent of the July—October group. (Table 23) When only the open country cases are considered this percentage rises to 70.9 per cent for the first group and 56.0 per cent for the second group. (Table 24).

There was an increase in the July—October group over the February—June group in the percentage of cases opened or reopened because of loss of private employment probably due largely to the fact that many cases were closed because of short time employment in the harvest fields during July and August. These cases were in need of aid again almost as soon as the work was finished.

Practically the same proportion of cases in both periods was opened or reopened for all other reasons.

Reasons for Closing Relief Cases of the Periods, February—June, 1935 and July—October, of 1935.—The largest proportion of the cases closed during both periods (40.5 per cent and 37.2 per cent respectively) were closed because of administrative policies. (Table 25). The next largest group of cases closed during the first period were closed because clients moved from the county or failed to report for work, while transfer to the Resettlement Administration was responsible for the second largest group of closings in the period of July—October.

The securing of private employment or an increase in wages was the third most important reason for the removal of cases from the relief rolls in both periods. Much of this employment was only temporary, however. All other reasons accounted for 25.7 per cent of the closings in the February—June group, while they accounted for only 12.0 per cent of the July—October group.

Length of Time on Relief.—Over 50 per cent of the households receiving emergency aid during one of the months of February—June, had received aid from 13 to 16 months. (Table 26). Seventy-one per cent had no break in their relief period after the period started during or after March, 1934. The regions of greatest need in the state were also shown by the length of time on relief in the sample counties. The far eastern counties, Brookings and Grant, had less than 40 per cent of their cases on relief from 13 to 16 months. The counties in the central part of the state: Edmunds, Hand, and Jackson, had from 57 to 67 per cent of their relief households receiving aid from 13 to 16 months. Hutchinson in the southeast and Meade in the far west were in the 40 per cent group. Custer and Corson had smaller percentages receiving relief for this same number of months.

VI. Why Relief Has Been Necessary

Intensity Factors.—Throughout this section of the bulletin an attempt has been made to point out the close relationship existing between variations in net income in different counties of the state with the intensity of relief during the 1930—1935 period. Due to the absence of adequate data on farm incomes, crop values produced during these years have been used as a measure of the relative farm income. An attempt has also been made to explain the variation in farm income due to differences in crop values. Areas of lowest crop values correspond closely with areas of highest relief intensity.

It has been assumed that the average crop value for the 10 year period, 1923-1932, provided at least a subsistence standard of living for all parts of the state. It is well known, however, that crop production and crop value have not been uniform throughout the state. Figure 5, page 10, shows that normal crop production is highest in the southeastern counties and declines to the north and west. A similar pattern, with some exceptions, is reflected in Figure 32, page 33 which shows the average gross farm income for each county of the state in 1929.

Over 70 per cent of several thousand families included in a survey taken in nine rural counties in South Dakota in 1935 gave "crop failure" as the predisposing cause of their relief status. (Table 24). The second largest number reported depleted resources and the third largest number cited unemployment as the factor causing them to accept federal aid.

As South Dakota is predominantly an agricultural state, both depleted resources and unemployment were undoubtedly a direct result of crop failure. Maladjustment in land use, especially in certain parts of the state (Figure 46) is also responsible for low farm incomes and consequent inability to accumulate sufficient reserves to withstand drought. Each phase of the problem will be discussed separately.

Crop Failure.—Figure 35, page 37 shows the per cent of normal crop value (production plus price) received by each county during each year of the 1930-1935 period. In arriving at a norm for each county the 10 years from 1923-1932 were used as a base period. If crop values for the severe drought years from 1933 and 1934 are compared with Figure 27, page 24, showing intensity of relief it will be noted that, almost without exception counties in which crop value was most below normal were the ones which ranked highest with respect to the per cent of total families on relief rolls. A close relationship is also apparent between counties in which crop values were below normal and the counties which ranked highest with respect to total federal expenditures for all types of relief aid during the 1933-1935 period. (Cover page.)

Although crop failure may be the result of a number of factors including drought, hail, flood, insect infestation, and rust, the most potent factor during the period under consideration was undoubtedly drought. During the period 1930-1935 precipitation for the state as a whole was below normal every year. (Fig. 4, page 10.) The climax of the unprecedented drought period was reached in 1934 when the annual precipitation reached the all time low of 13.27 inches. Fig. 34, page 37 shows the average annual departure from normal, by counties during the 1931-1935 period. Because precipitation in the central and western counties of South Dakota is normally little more than the absolute minimum re-

quired for crop production, a departure from normal in those areas of two or three inches is more fatal to crop production than a six-inch departure is in the southeastern part of the state. Crop production is as dependent upon seasonal distribution of precipitation as it is upon annual amount. Fig. 33, page 34 shows that in 1931, 1933 and 1935, the three years when annual precipitation was lowest, the seasonal distribution was also extremely unfavorable for crop production, the bulk of the moisture coming outside of the growing season.

While it is impossible to determine the amount of failure caused by grasshopper infestations, due to the fact that infestation usually accompanies drought, it is known that grasshopper affected areas have suffered a more complete crop failure than they would have from drought alone. Fig. 36, page 40 shows the extent of grasshopper infestation in each of the years during the period 1930-1935. A number of counties was also afflicted by hail and black rust during this period.

Depleted resources.—Widespread depleted resources in most cases reflect insufficient farm income. While caused directly by low crop yields and unfavorable agricultural prices, low farm income is fundamentally a result of improper land use.

In addition to bank failure, mortgage foreclosure and tax delinquency, which were discussed in the introductory section, depleted resources in South Dakota is attested to by a high ratio of mortgage indebtedness to value, by a large number of Federal Land Bank Commissioner loans, by the alarming number of seed and feed loans made in South Dakota from 1914 to the present, by the increase in tenancy and by the large proportion of farms which have gross incomes of less than \$1,000.

Fig. 37, page 43 reveals that the ratio of indebtedness to value on farm real estate has grown to an average of about 50 per cent. The rate of interest on mortgages is extremely high in South Dakota, being highest in the marginal areas of the state. (Fig. 38).

Fig. 39, page 44 shows the extend of Land Bank Commissioner loans made in various counties of South Dakota. These loans are especially significant when it is considered that they were made primarily during the drought period on property on which private mortgage companies did not care to make loans.

That the cumulative depletion of the resources of South Dakota farmers commenced even prior to the current drought period is shown conclusively in Fig. 40, page 45, which shows the number of years in which farmers took out seed loans from 1914 to 1933. It will be noted that the Dakotas and the other states in the Spring Wheat region ranked high with respect to most of the other states.

Excessive tenancy frequently indicates a period of economic insecurity. During the period of federal assistance in South Dakota (1932-1935) a larger percentage of the tenants than of the owners were on relief rolls. Fig. 42, page 46 shows that tenancy has increased steadily in South Dakota since 1900. Forced liquidation of mortgages on owner-operated farms has been the major cause of increased tenancy in recent years.

Perhaps the best evidence of the inability of South Dakota farmers to accumulate sufficient reserves to tide them over drought periods is Fig. 41, page 45 which shows by counties the percentage of farms having gross incomes of less than \$1,000. If this map is compared with cover

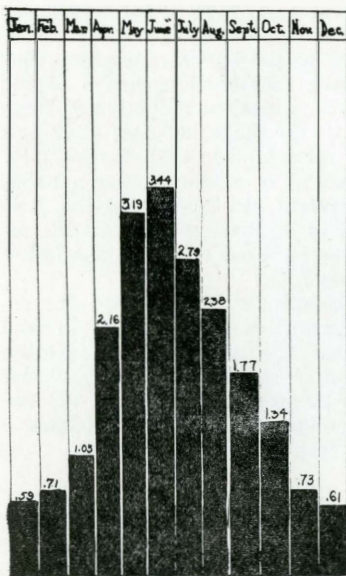
page it will be noted that areas in which gross income was highest are the areas in which relief intensity was lowest.

Unemployment.—Agricultural distress in South Dakota is either directly or indirectly responsible for unemployment as indicated in the introductory note. Those who are not directly engaged in agricultural pursuits are engaged in occupations which are directly dependent upon agricultural well-being. Since agriculture is the one major industry in South Dakota, there is little else that farm families can turn to in periods of crop failure. This fact is undoubtedly a partial explanation of the fact that throughout the period of FERA assistance, South Dakota led all other states with respect to the percentage of total population on relief rolls, Fig. 30, page 26. Comparison of this figure with Fig. 6, page 11 discloses that, in general, relief intensity was highest in states which are most agricultural. Fig. 43, page 46 shows the status of unemployment in 1930 during the first year of the industrial depression. The relatively small number of unemployed, by counties, is due to the fact that those out of work were principally in the villages, towns, and cities of the state. This was particularly noticeable in the urban counties of Minnehaha, Brown, Beadle, Codington, etc. The unemployment relief census taken by the Federal Relief Administration in October, 1933, after two severe drought years, shows an entirely different situation. (Fig. 44, page 47.)

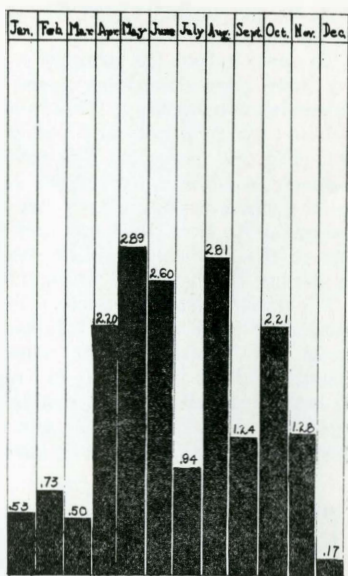
Maladjustments in Land Use.—Back of the large proportion of South Dakotans on relief during the period of public assistance lies a story of inadequate farm income. Low farm income during the period of federal assistance may readily be explained by drought, but farm income insufficient to make possible the accumulation of reserves in normal times is largely a story of improper land use. Because farm operating expenses usually constitute one half or more of the gross farm income, if the latter is less than \$1,000 or even \$1,500 it means a mere subsistence for an average family even in normal times. (Fig. 41.)

One of the early attempts to appraise the more marginal western half of South Dakota was made by the United States Geological Survey in a land classification of the northern great plains. Fig. 45, page 47, shows the areas which, in normal years, were found to be desirable for crop production, for a combination of grazing and cropping and for grazing only. On the basis of this map and other data a map has been prepared by the land consultant of the South Dakota State Planning Board showing areas in which a considerable portion of the land used for cropping should be replaced by grazing. (Fig. 46, page 48.) Comparison of this map with the map showing total per capita expenditures for all forms of federal relief during the period 1932-1935 inclusive, reveals that the areas suggested for readjustments in land use are the very areas in which relief expenditures have been the highest.

From the standpoint of the size of the farm, it is evident that areas of the state which have limited rainfall and which, therefore, are more adapted to grazing than to cropping have many farms too small in size to provide an adequate standard of living or to make possible the accumulation of reserves in normal times. A recent study of the relief and non-relief farm operators in four South Dakota counties reveals the fact that a considerably larger proportion of the relief than of the non-relief operators had below average size farms. (Table 27, page 63.) Fig. 49, page 49

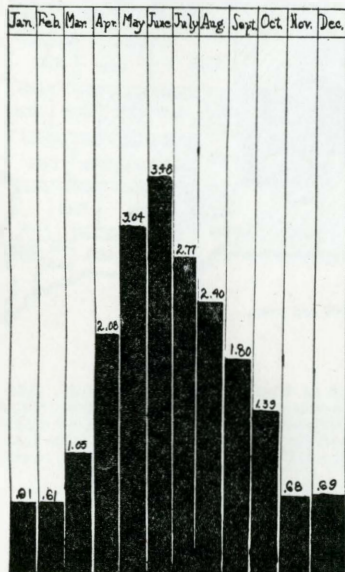


NORMAL SEASONAL DISTRIBUTION

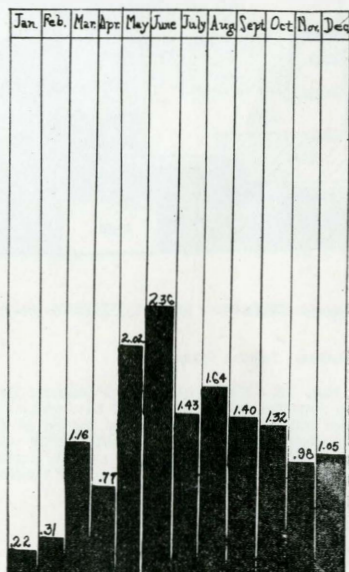


1930 SEASONAL DISTRIBUTION

Fig. 33A.—Seasonal Distribution of Precipitation in South Dakota (1930-1935) Compared With the Normal Seasonal Distribution—Source: Table 28.

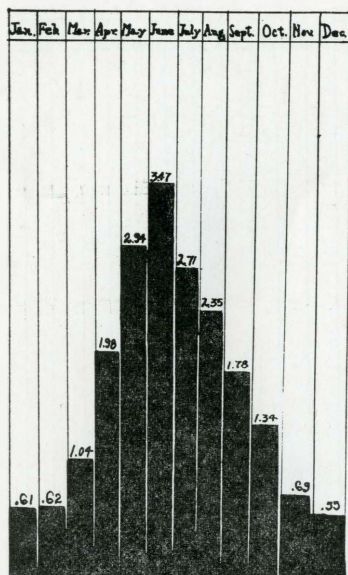


NORMAL SEASONAL DISTRIBUTION

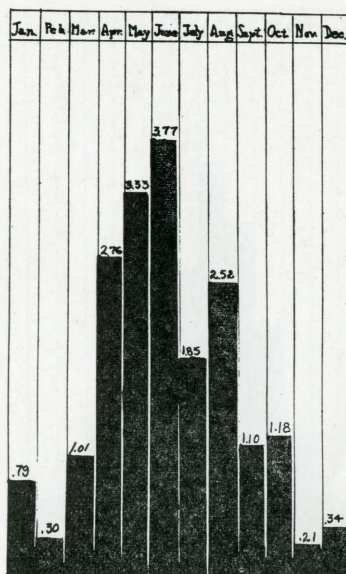


1931 SEASONAL DISTRIBUTION

Fig. 33B.—Seasonal distribution of precipitation in South Dakota during 1931 compared with the normal seasonal distribution. Source: Table 28.

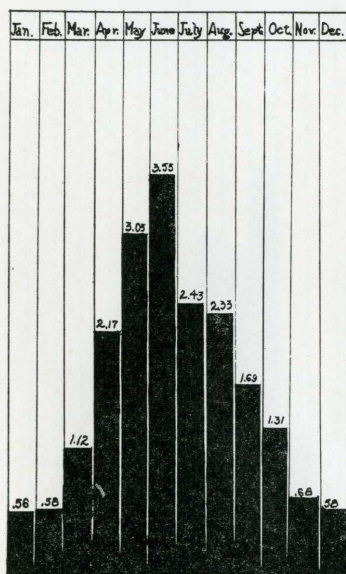


NORMAL SEASONAL DISTRIBUTION

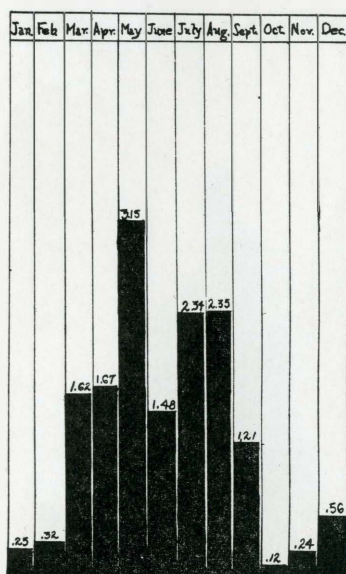


1932 SEASONAL DISTRIBUTION

Fig. 33C.—Seasonal distribution of precipitation in South Dakota during 1932 compared with the normal seasonal distribution. Source: Table 28.

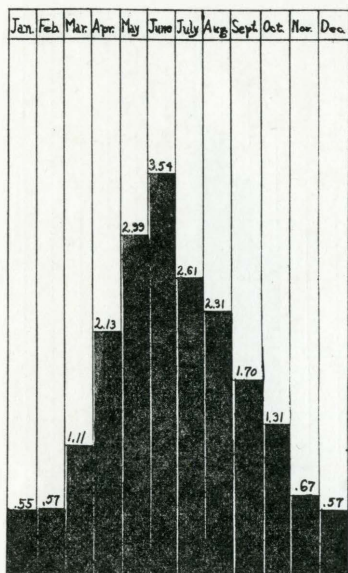


NORMAL SEASONAL DISTRIBUTION

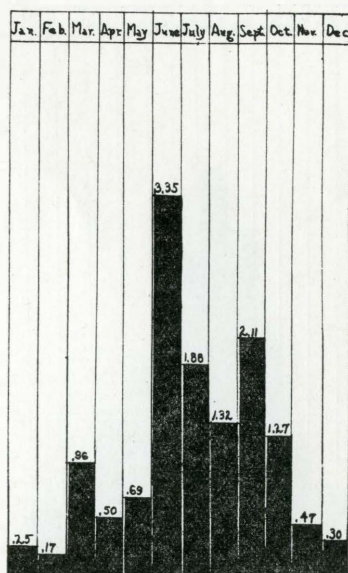


1933 SEASONAL DISTRIBUTION

Fig. 33D.—Seasonal distribution of precipitation in South Dakota during 1933 compared with the normal seasonal distribution. Source: Table 28.

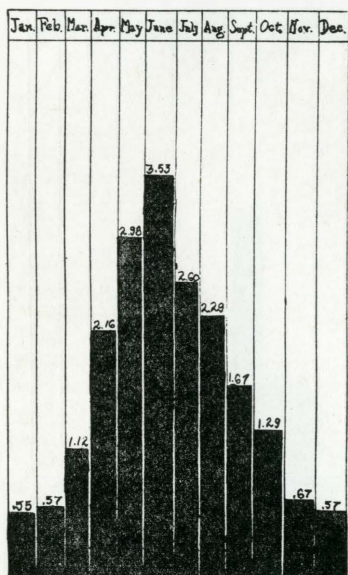


NORMAL SEASONAL DISTRIBUTION

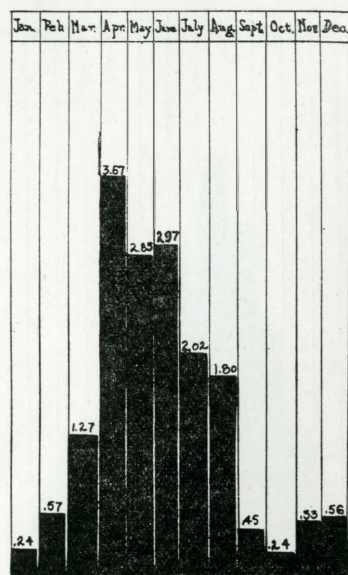


1934 SEASONAL DISTRIBUTION

Fig. 33E.—Seasonal distribution of precipitation in South Dakota during 1934 compared with the normal seasonal distribution. Source: Table 28.



NORMAL SEASONAL DISTRIBUTION



1935 SEASONAL DISTRIBUTION

Fig. 33F.—Seasonal distribution of precipitation in South Dakota during 1935 compared with the normal seasonal distribution. Source: Table 28.

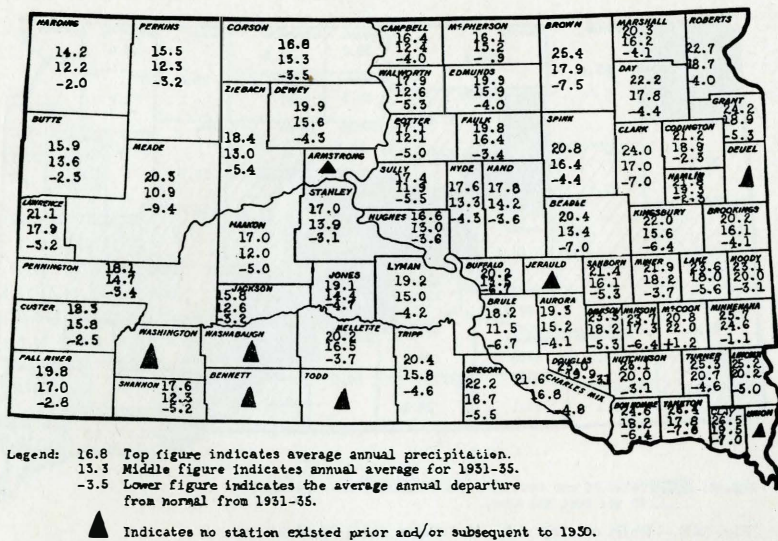


Fig. 34.—Average Annual Precipitation During the 1931-1935 Period Compared With the Annual Average Precipitation from 1890-1935—Because precipitation in the central and western counties of South Dakota on an average is little more than the absolute minimum required for crop production a departure from normal there of two or three inches is more fatal to crop production than a six inch departure in the southeastern portion of the state.

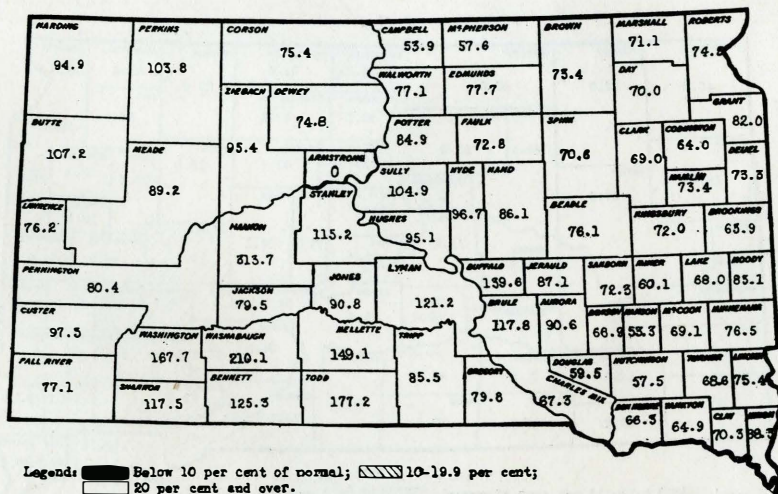


Fig. 35A.—Ratio of Crop Value (1930-1935) to Normal Crop Value*—In most of the drought years the southeastern and extreme western tier of counties had a higher per cent of normal crop value than the remainder of the state. As might be expected, on the basis of this data a much lower percentage of the population in the southeastern and western tier of counties were on relief rolls during the period of federal assistance.

Source: Division of Livestock and Crop Estimates, United States Department of Agriculture

*The base period from which the norm was computed embraces the years 1923-32 inclusive. Crops considered in arriving at the norm include corn, wheat, oats, barley, rye, flax and potatoes.

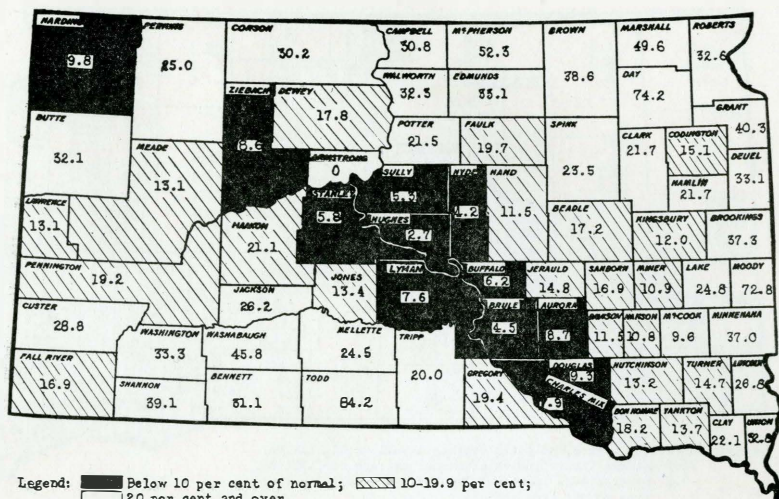


Fig. 35B.—Ratio of crop value in 1931 to normal value*
 Source: Division of Livestock and Crop Estimates, United States Department of Agriculture
 *The base period from which the norm was computed embraces the years 1923-1932 inclusive. Crops considered in arriving at the norm include corn, wheat, oats, barley, rye, flax and potatoes.

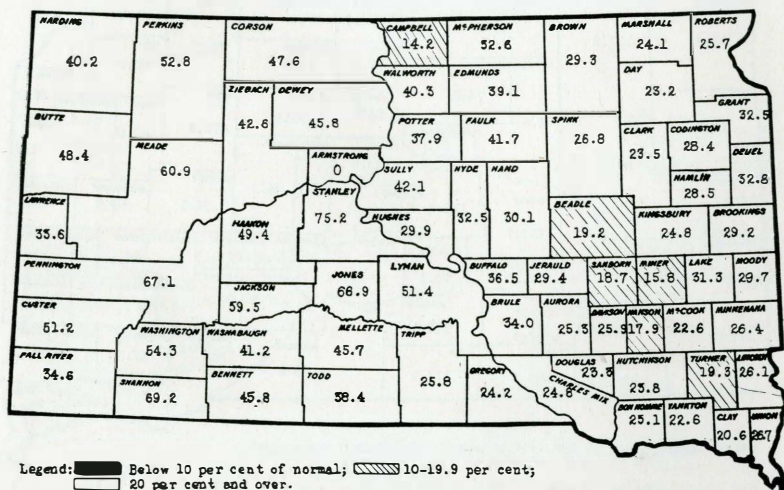


Fig. 35C.—Ratio of Crop Value in 1932 to Normal Value*
 Source: Division of Livestock and Crop Estimates, United States Department of Agriculture
 *The base period from which the norm was computed embraces the years 1923-1932 inclusive. Crops considered in arriving at the norm include corn, wheat, oats, barley, rye, flax and potatoes.

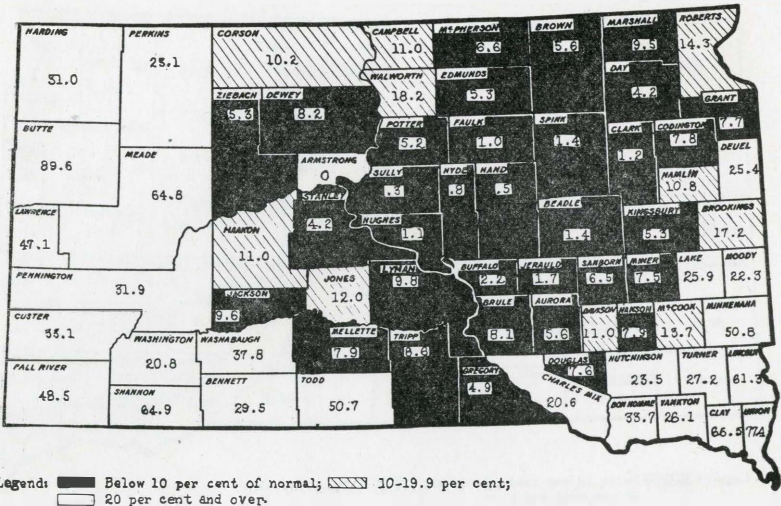


Fig. 35D.—Ratio of Crop Value in 1933 to Normal*
Source: Division of Livestock and Crop Estimates, United States Department of Agriculture
*The base period from which the norm was computed embraces the years 1923-1932 inclusive. Crops considered in arriving at the norm include corn, wheat, oats, barley, rye, flax and potatoes.

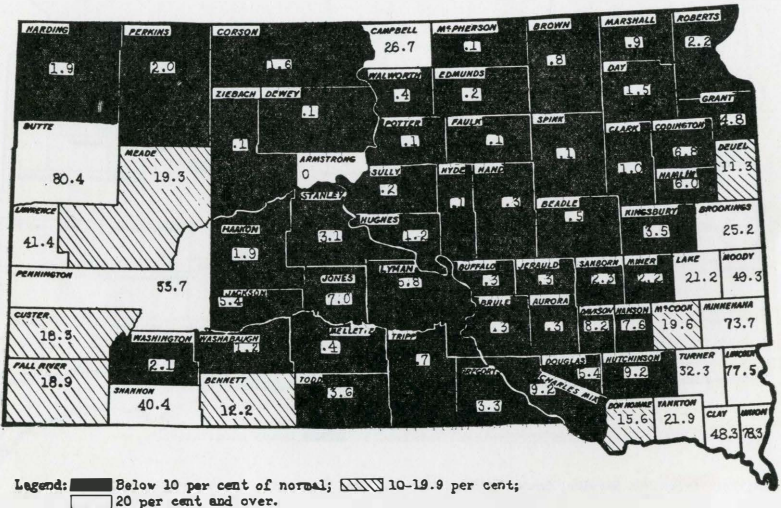
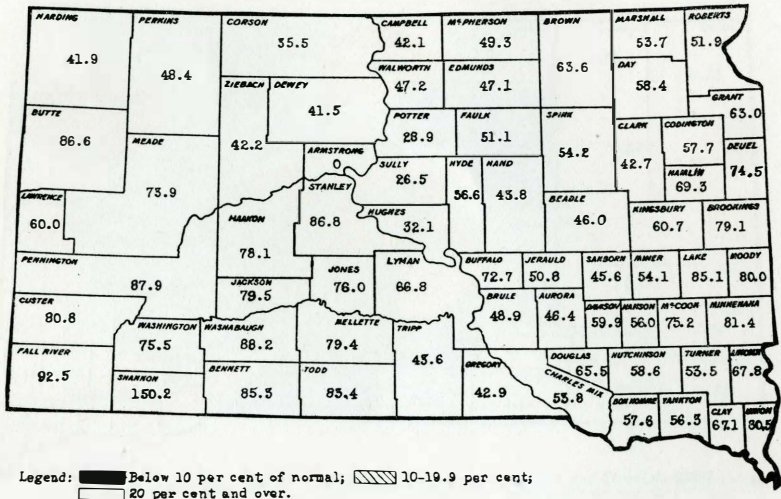
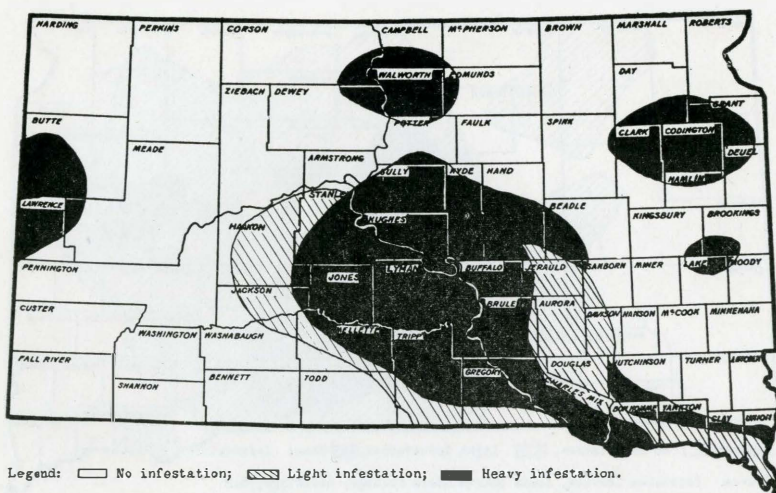


Fig. 35E.—Ratio of Crop Value in 1934 to Normal Value*
Source: Division of Livestock and Crop Estimates, United States Department of Agriculture
*The base period from which the norm was computed embraces the years 1923-1932 inclusive. Crops considered in arriving at the norm include corn, wheat, oats, barley, rye, flax and potatoes.



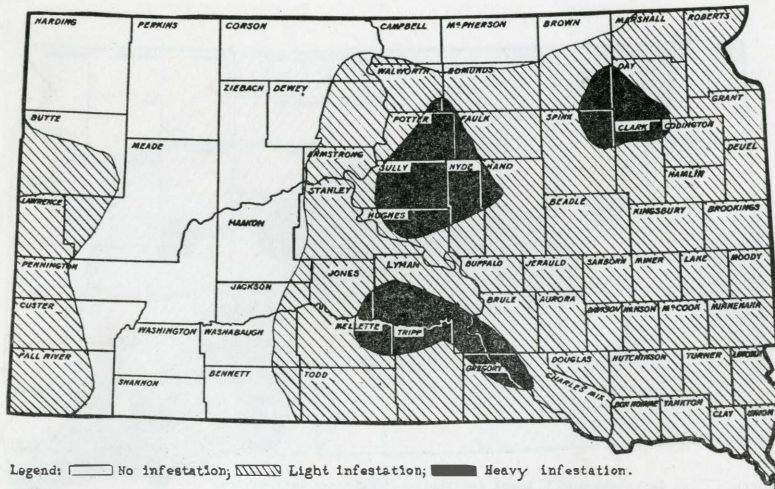
Source: Division of Livestock and Crop Estimates, United States Department of Agriculture
*The base period from which the norm was computed embraces the years 1923-1932 inclusive. Crops considered in arriving at the norm include corn, wheat, oats, barley, rye, flax and potatoes.

Fig. 36A.—Grasshopper Infestation in South Dakota, 1930—Areas of heavy grasshopper infestation have undoubtedly suffered a greater crop loss than they would have from drought alone. Although the grasshopper infestation pattern varied from year to year, covering practically the entire state in 1934 and 1935, the heaviest infestation throughout the entire period was in the central portion of South Dakota where relief intensity was the highest.



Source: Extension Service, South Dakota State College, Brookings, South Dakota.

Fig. 36B.—Grasshopper infestation in South Dakota, 1931



Source: Extension Service, South Dakota State College, Brookings, South Dakota.

Fig. 36C.—Grasshopper infestation in South Dakota, 1932

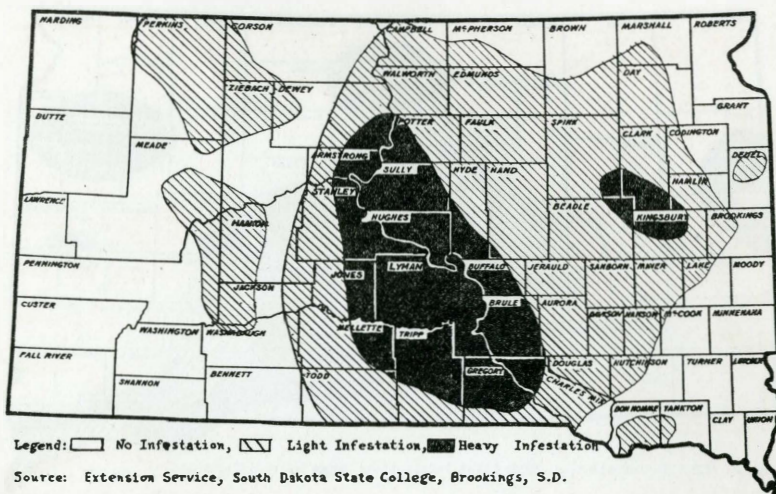


Fig. 36D.—Grasshopper infestation in South Dakota, 1933

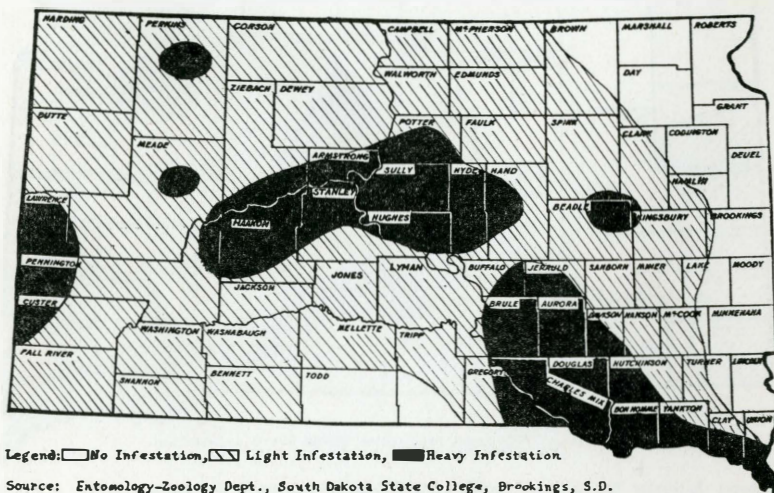
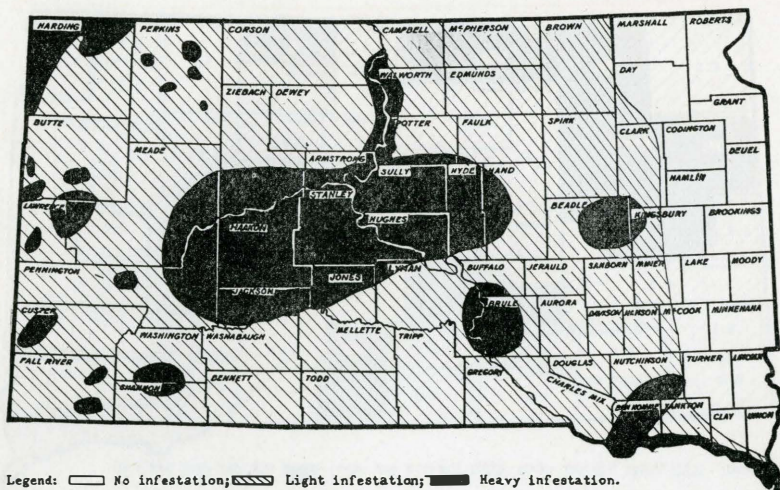
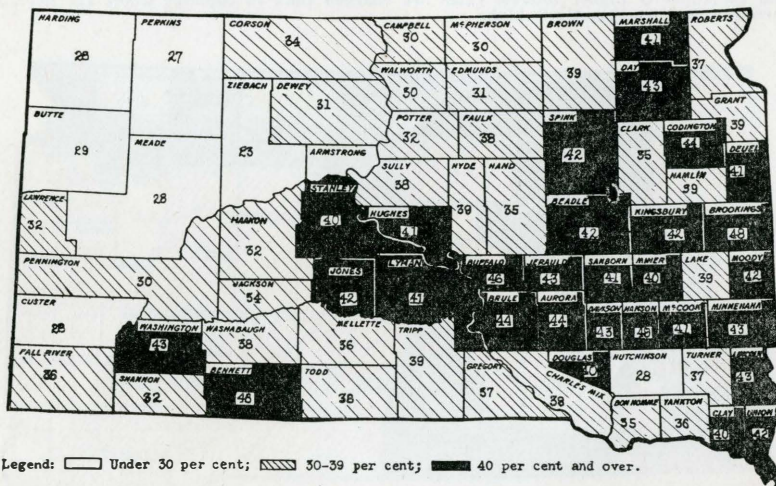


Fig. 36E.—Grasshopper infestation in South Dakota, 1934



Source: Entomology-Zoology Department, South Dakota State College, Brookings, South Dakota.

Fig. 36F.—Grasshopper infestation in South Dakota, 1935



Source: Federal Census, 1930.

Fig. 37.—Ratio of Mortgage Debt to Value on Full Owner Farms Reporting Mortgage Indebtedness as of April 1, 1930.—In the counties with a high ratio of mortgage debt to value the debt burden may be high, but such a condition also doubtless reflects a higher credit rating with loaning agencies, than in some of the western and central counties. Twenty-four counties east of the Missouri River had a mortgage indebtedness amounting to over 40 per cent, while only five counties west of the river had such a high rate. The high ratio of foreclosures west of the river (Fig. 18) indicates that the debt burden, though not so high, has been fully as difficult to carry as in the eastern counties.

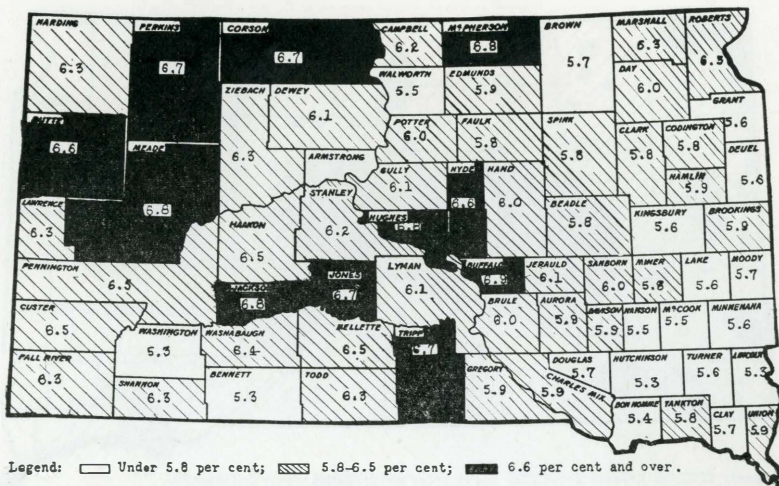


Fig. 38.—Average Rate of Interest on Mortgage Debt, by Counties, 1930—The main factor governing interest rates is the element of risk involved for the mortgagor. Farms located in counties where the average gross farm income is small are poorer mortgage risks and consequently higher interest rates are charged than in counties where the average farm income is comparatively high.

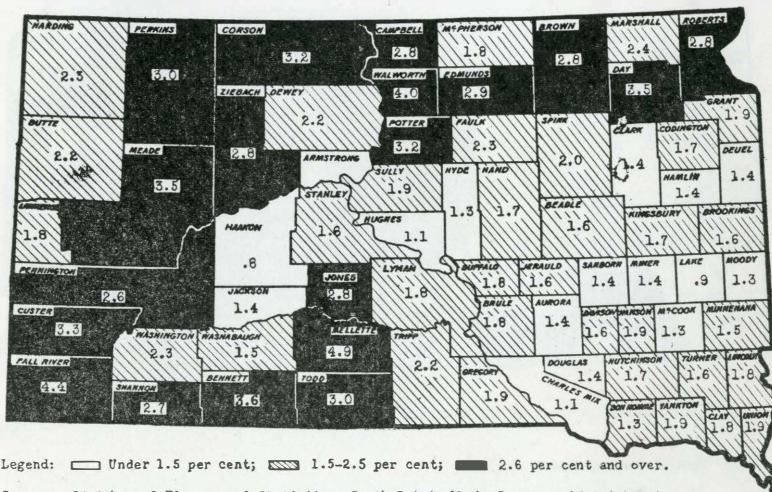
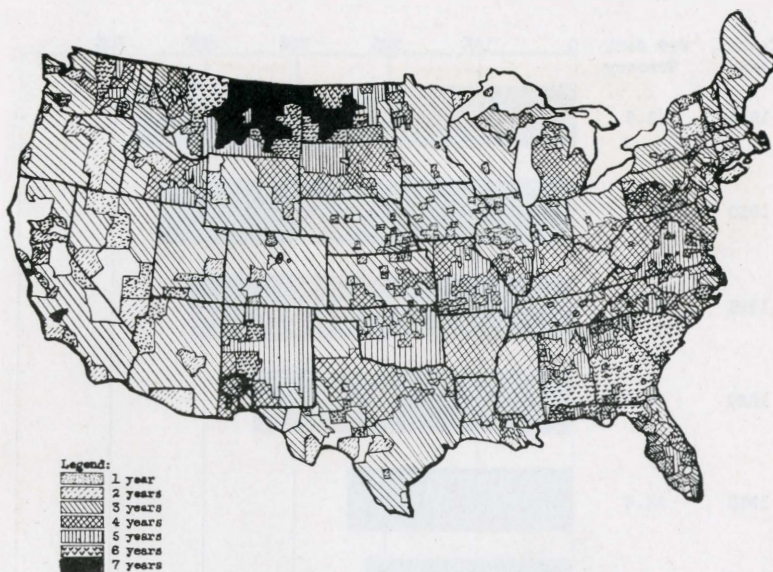
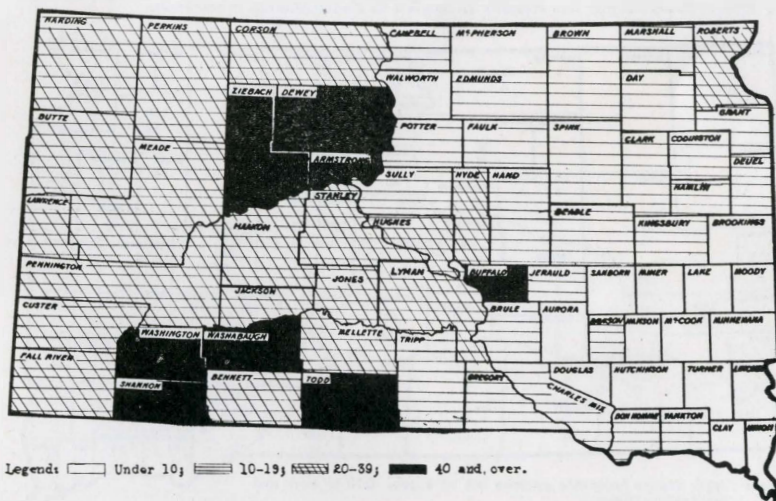


Fig. 39.—Ratio of Commissioner Loans to Value of Farm Land as of December 31, 1935—The loans were made by the Farm Credit Administration in counties where regular private loaning agencies had acquired their statutory limit of land holdings through mortgage foreclosures and who consequently were prohibited from making further loans. Note that in the counties where the ratio of mortgage debt to value is highest, the ratio of commissioner loans to value is relatively low. Although the ratio of mortgage debt to value is highest in counties having the highest land values, the rate of foreclosure has not been as high as in counties where the land value is low.



Source: National Resources Board Report, Part VI, 1935, "Readjustments in Land Use in the United States", figure 4, page 54.

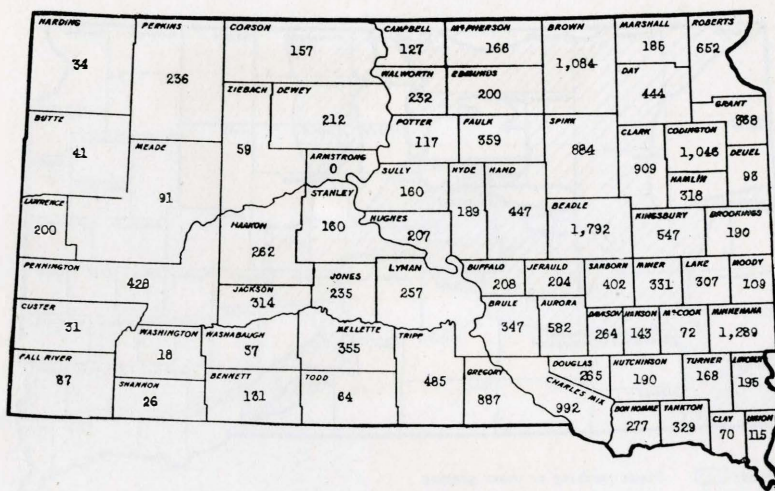
Fig. 40.—Frequency of Seed Loan Appropriations in the United States, 1921-1934—In the northwestern part of South Dakota seed loans were necessary in five out of the 14 years, in the northeastern and southeastern counties loans were necessary in four of the 14 while in the southeastern counties loans were necessary only three of the 14 years.



Legends: Under 10; 10-19; 20-39; 40 and over.

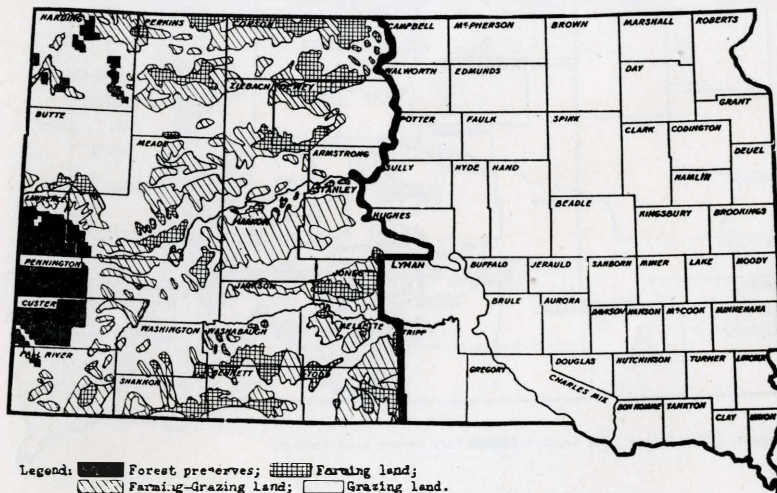
Source: Federal Census, 1930.

Fig. 41.—Percentage of All Farms Reporting Total Value of Products Under \$1,000, in 1929, By Counties—The fact that over 10 per cent of the farms in a number of east river counties had gross incomes of less than \$1,000 is an indication that even in our best farming areas intensive farming is being practiced on farms too small in size to yield an adequate income.



Source: Unemployment Relief Census, October 1933.

Fig. 44.—Total Number of Relief Families, By Counties, as of October, 1933.—In October, 1933 when the Unemployment Relief Census was conducted it was found that as high as 13.9 per cent of all families in the state were dependent upon relief aid. The large increase in the number of unemployed between April, 1930, and October, 1933, can largely be accounted for by the severe droughts of 1931 and 1933.



Legend: ■ Forest preserves; ▨ Farming land;
▤ Farming-grazing land; □ Grazing land.

Source: Geological Survey; the Department of the Interior cooperating with the United States Department of Agriculture.

Fig. 45.—Land Classification of Western South Dakota—Only a small proportion of the land in western South Dakota is suitable for crop production, according to the classification made by the United States Geological Survey. While it is true that a relatively small proportion of the poorer lands are farmed, there is a constant tendency for cultivation to be pushed beyond the margin of good crop land onto the poorer areas. Production possibilities in this section of the state are often over-estimated with resulting misuse of land and consequent waste of human effort.

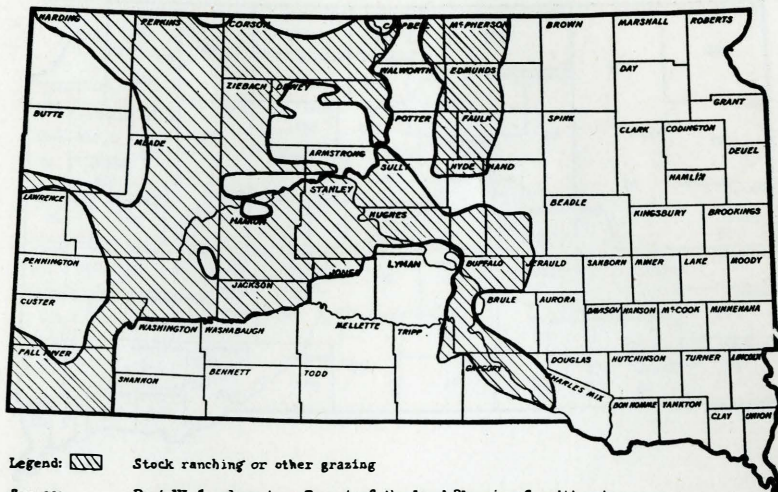


Fig. 46.—Areas in Which A Considerable Proportion of the Arable Farms Should Be Replaced by Grazing—Experience has demonstrated that much of the land is too poor to provide through crop farming an adequate family living and support for the public institutions and services that are required by farm communities.

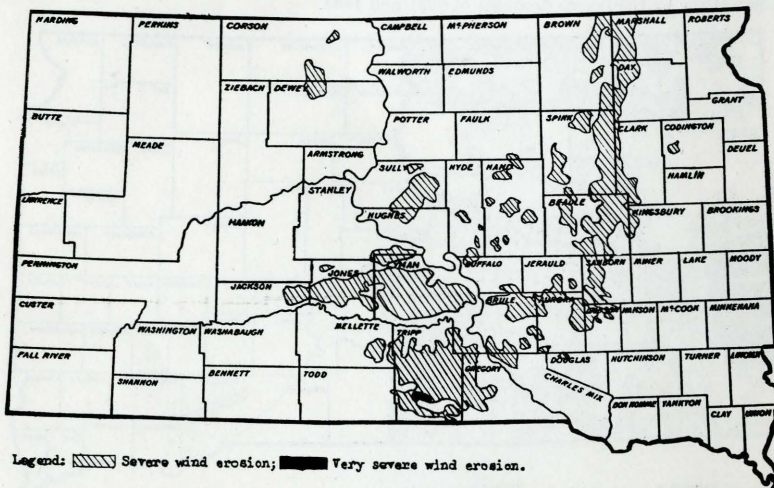


Fig. 47.—Principal Wind Erosion Areas in South Dakota, 1935—Although there is some wind erosion in practically the entire state this map shows that the areas of severe wind erosion in South Dakota are in those counties which have suffered worst from drought. Wind erosion in the marginal rainfall belt of South Dakota has been accelerated by prevailing cropping practices which are much the same as in the more humid states of Iowa Wisconsin and Minnesota. Soils in the James River Valley are especially susceptible to wind erosion as they are low in clay content and high in silt and very fine sand. When it is considered that most of the humus is in a few inches of topsoil, wind erosion becomes an important problem with which to contend.

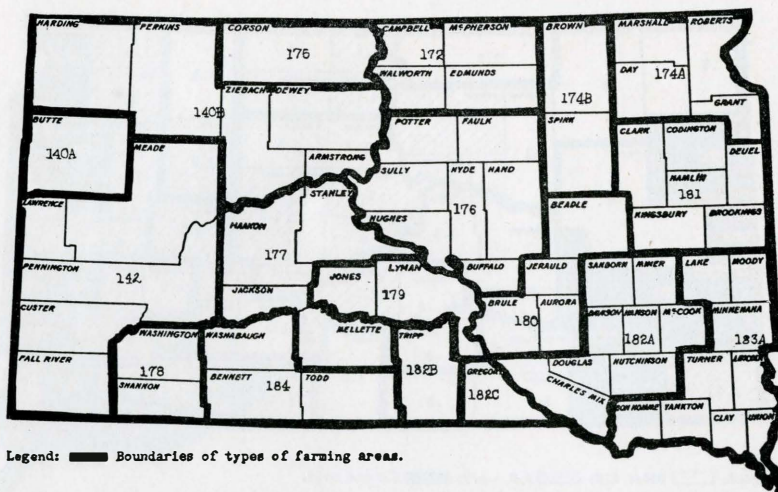


Fig. 48.—Types of Farming Areas in South Dakota—Natural and economic factors have made one part of the state a livestock feeding section, another a wheat area, and others cattle and sheep grazing areas. In this map 19 distinct areas are outlined on the basis of the type of farming followed by the majority of farmers within the respective areas.

- Legend:
- 140B, range livestock, cash-grain.
 - 140C, range livestock.
 - 142A, Black Hills, range livestock, cash-grain, hay, some dairy.
 - 142B, similar to (A) with truck farming, more dairy, less cash-grain.
 - 171, cash-grain, some range livestock.
 - 173, Missouri plateau, cash-grain, range livestock.
 - 174A, cash-grain, livestock, general farming.
 - 174B, cash-grain, livestock.
 - 175, Pierre Hills and Plains, cash-grain, range livestock, self-sufficing.
 - 176, Missouri Plateau, livestock, cash-grain, general farms (Indian Reservation).
 - 177, Pierre Plains, range livestock, some cash-grain.
 - 178, Northern Great Plains Roughland, range livestock, cash-grain, self-sufficing (Indian Reservation).
 - 179, range livestock, cash-grain.
 - 180, South Dakota Black Prairie, livestock, cash-grain, general farming, potatoes.
 - 181, livestock, cash-grain, general farming, potatoes.
 - 182A, South Dakota Black Prairie, livestock, cash-grain.
 - 182B, Pierre Plains, similar to (A) less livestock, more cash-grain.
 - 183A, intensive livestock production (beef cattle and hogs).
 - 184, Rosebud Plains, cash-grain, livestock.

Fig. 49A-49F.—Note: The reader's attention is especially directed to a precarious interpretation of the data in Figures 49A, 49B, 49C, 49D, 49E, and 49F.

A cursory examination of the distribution of the different sized farms in the different types of farming areas, would seem to indicate that in the main a substantial number of farmers and ranchers are operating economically sized units for their respective conditions. During the recent drought and depression period under discussion, however, (1930 to 1935), the operators of "below average" size units in most of the counties seem to contain a considerably larger proportion of relief clients than among the operators of "average" or "above average" sized units. This tendency has been substantiated in a number of relief studies. This type of county analysis has been used for four South Dakota counties as shown in Table 27 of the Appendix.

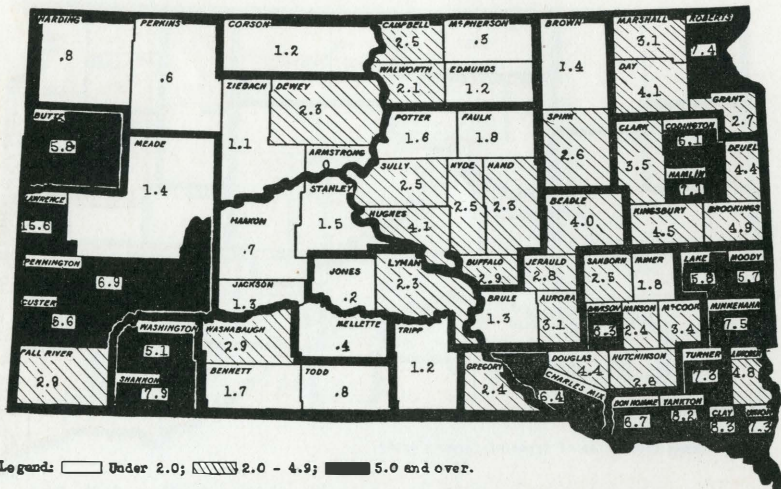


Fig. 49A.—Percentage of farms under 50 acres in 18 types of farming areas in South Dakota as of 1930, by counties—The relief situation has brought into focus the fact that many farms in South Dakota are too small to produce enough income to make possible the accumulation of reserves. In years of crop failure and economic stress operators of small farms are forced to seek public assistance much sooner and to a much greater extent than are operators of the larger farms. Taking into consideration the predominant type of farming that is followed, an abnormally large proportion of small-sized farms is found in those counties in which the relief load has been highest during the period of federal assistance. Types of farming areas are superimposed upon this series of maps. (See Fig. 48 for key)

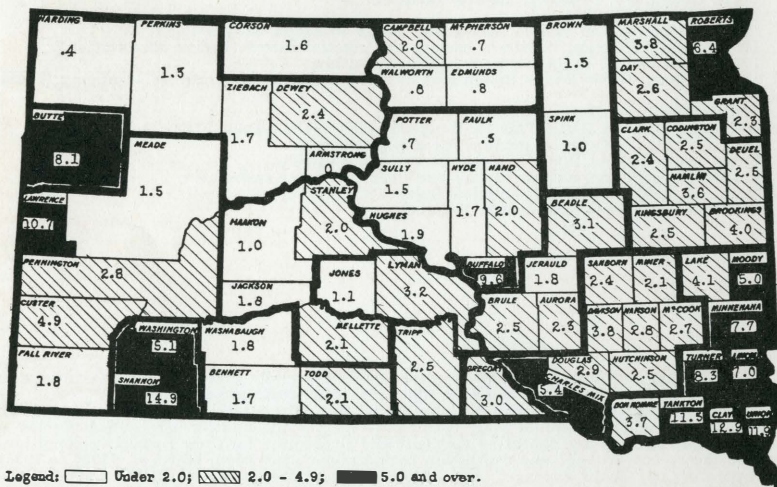


Fig. 49B.—Percentage of farms 50-99 acres in 18 types of farming areas in South Dakota as of 1930, by counties.

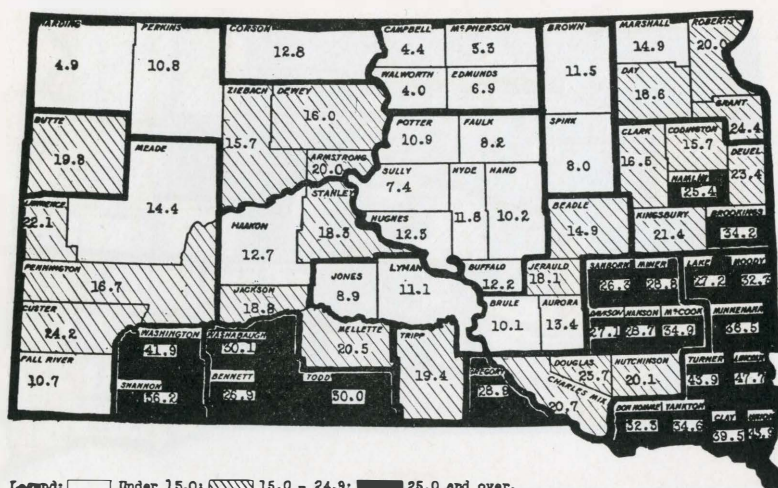


Fig. 49C.—Percentage of farms 100-174 acres in 18 types of farming areas in South Dakota as of 1930, by counties.

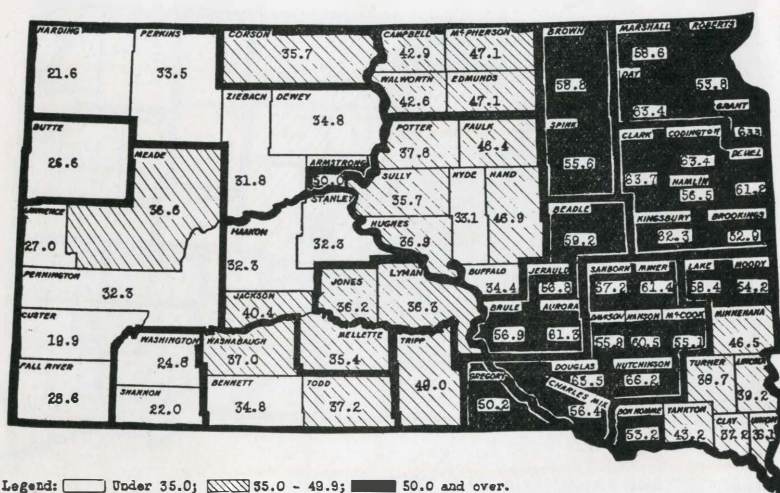
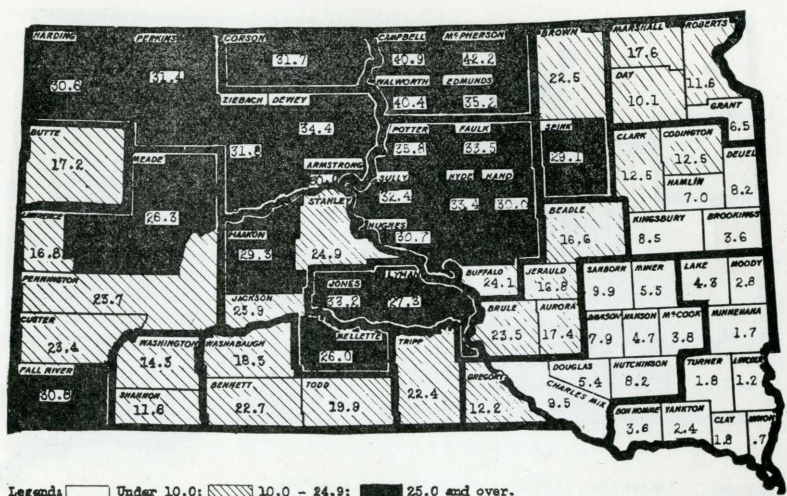


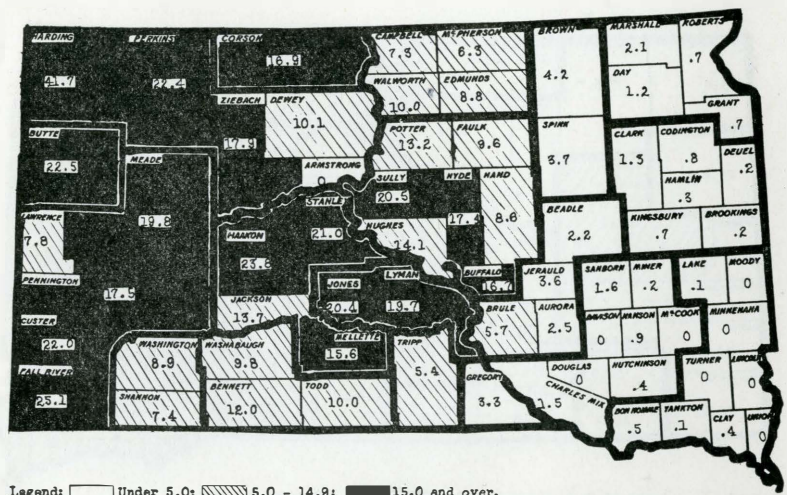
Fig. 49D.—Percentage of farms 175-499 acres in 18 types of farming areas in South Dakota as of 1930, by counties.



Legend: Under 10.0; 10.0 - 24.9; 25.0 and over.

Source: Federal Agricultural Census, 1930.

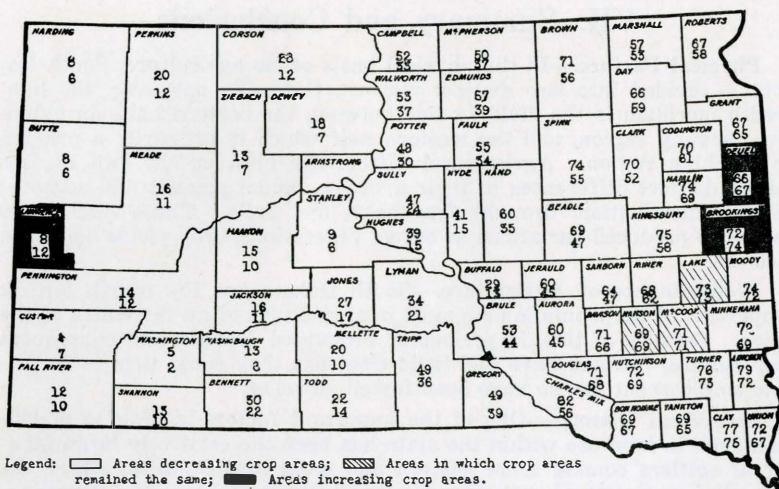
Fig. 49E.—Percentage of farms 500-999 acres in 18 types of farming areas in South Dakota as of 1930, by counties.



Legend: Under 5.0; 5.0 - 14.9; 15.0 and over.

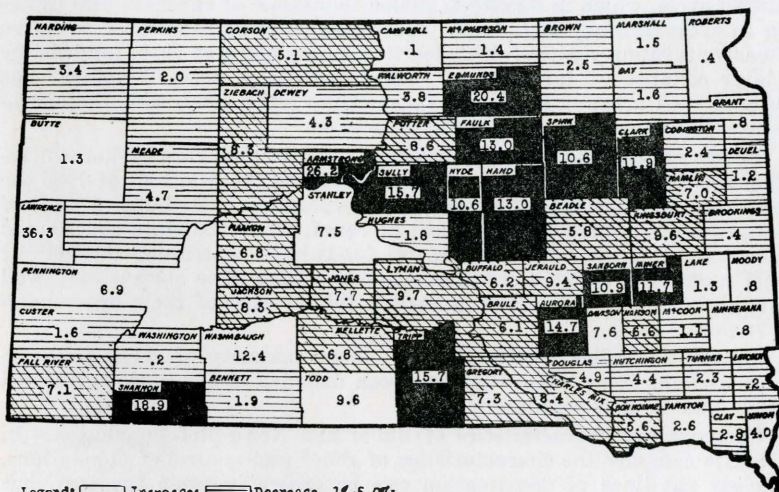
Source: Federal Agricultural Census, 1930.



Fig. 49F.—Percentage of farms 1000 acres and over in 18 types of farming areas in South Dakota as of 1930, by counties.



Source: Federal Agricultural Census, 1930 and 1935.

Fig. 50.—Increase or Decrease in Percentage of Land Area in Crop, By Counties, 1929-1935—The marked reduction in the percentage of farm land in crop between 1929 and 1934 indicates that, to some extent, the drought has brought people to the realization that they have been practicing types of farming inherently unsuited to the areas in which they live. The decrease in land area in crop during the last five years has been greatest in certain west river and center of the state counties in which it is suggested that grazing should replace cropping to a considerable extent.



Legend: Increase; Decrease .1%-5.0%;
 Decrease 5.1%-10.0%;  Decrease 10.1% and over.

Sources: Federal Census, 1930, and South Dakota Census, 1935.

Fig. 51.—Increase or Decrease of Population in South Dakota Counties, 1930-1935* **— Counties which suffered a population decrease of over 5 per cent from 1930 to 1935 are almost without exception the counties which ranked highest with respect to per cent of total families on relief. Since many farms in these counties are too small to make possible the accumulation of reserves, it appears inevitable that certain population readjustments take place in these areas so that changes in land use may be made.

*Federal

**South Dakota Census for 1935.

VII. Summary and Conclusions

Physical Factors.—In the physical basis of its agriculture, South Dakota is divided into two distinct regions. Generally speaking, the hundredth meridian is the dividing line between the eastern half, an extensive farming region, and the western half which is primarily a grazing or ranching region. Agricultural differences between the two regions reflect distinct differences in their average annual amount and seasonal rainfall distribution, drought frequency, and soils. These differences have also produced variations in native vegetations, crop yields and farm incomes.

Predominance of Agriculture.—South Dakota has the fourth largest proportion of its population engaged in agriculture of all the states of the union. Because of this, in periods of prolonged drought and consequent crop failure, farmers have had little else that they could turn to in private employment and so have been forced on relief.

Settlement History.—One of the important factors leading to maladjustments in land use within the state has been the relatively large number of settlers coming from eastern and more humid states, where the prevailing agricultural pattern is for small farms and intensive cropping. Until 1909 the government's policy of limiting homesteads to a quarter section unfortunately aided in establishing and perpetuating a unit too small for an extensive farming region.

War Influence.—The high prices of the World War gave an undue stimulus to crop production in the Great Plains Region west of the hundredth meridian. The war period happened to coincide with a favorable rainfall cycle, which in its effect, misled thousands of ranchers into thinking that dryfarming with small units could compete profitably with the intensive farming regions. This led to the land boom of 1919, followed by a later collapse of farm prices. Only one other state, Wyoming, has suffered such a heavy decline in farm values since 1920, with the consequent disorganization of its credit structure.

Forms of Relief.—During 1930 South Dakota took care of its own relief cases through local funds. In 1931, 1932 and the first half of 1933 the Red Cross and Reconstruction Finance Corporation contributed a total of 42.5 per cent towards the total cost of relief, while the state contributed 57.5 per cent. Since July, 1933 federal funds have constituted the bulk of relief monies, although the various counties have done surprisingly well throughout the entire period in mainly taking care of their own unemployables.

Manner of Relief Distribution.—A large majority of relief funds in South Dakota from 1930—1935 has been distributed for work performed rather than as direct grants.

Comparative Characteristics of Relief and Non-relief Population.—In trying to compare the characteristics of relief and non-relief populations, no clear cut lines of demarcation can be drawn between the two that might enable classification into inclusive categories. It is true that the population on relief is younger, has less education, includes more of the semi-skilled and unskilled occupationally, contains more tenants than owners, has larger households, more unemployed and has had much greater depletion of its resources. However, the main differences between

the two groups are chiefly economic. In general, South Dakota families having the greatest dependency and with the least resources were the first to be forced on relief.

Crop Failure.—Precipitation was below normal every year during the 1930—1935 period, the most devastating droughts occurring in 1931, 1933 and 1934. In 1933 and 1934 crop failure was almost complete in over two-thirds of the state. Crop failure in the worst drought years was much less pronounced in the southeastern and extreme western portions of the state. In addition to a greater shortage of rainfall in central South Dakota, grasshopper infestation was most intense in that area.

Depleted Resources.—Due to the drop in agricultural prices following the agricultural expansion of the boom war period the credit structure of the state became so badly disrupted that South Dakota's resources were at a low ebb at the beginning of the current drought and depression cycle. Depleted resources were attested to prior to the 1930—1935 period by the mounting ratio of indebtedness to farm value, by wholesale bank failures, mortgage foreclosures, tax delinquencies, seed loans, and other indices. As South Dakota is predominantly an agricultural state, depleted resources, in most cases, reflect insufficient farm income. While caused directly by low crop yields and unfavorable agricultural prices, low farm income, in many instances, is fundamentally a result of improper land use.

Unemployment.—South Dakota is predominantly an agricultural state and consequently agricultural distress is either directly or indirectly responsible for unemployment. Due to the absence of other industry, in years of crop failure there is little to which South Dakota citizens can turn for a livelihood. In 1930 when the federal census was taken, a relatively small number of persons was unemployed. When the unemployment Relief Census was taken in October, 1933, after two drought years, a larger percentage of its families was on relief rolls.

Maladjustments in Land Use.—Low farm incomes during the 1930—1935 period may readily be explained by drought, but farm incomes insufficient to make possible the accumulation of reserves in normal times is largely the result of improper land use. It is evident on the basis of soil, precipitation and crop yield records that portions of the state inherently unsuited for intensive cropping are being cultivated. It is also evident that farms too small in size to yield an adequate family income even in normal years are being operated in sections of the state where physical factors make large size farm units desirable.

Resume.—Considering the period (1930—1935) as a whole, relief distribution with only a few exceptions has followed a well-defined and consistent pattern. Relief in various parts of the state has varied in intensity, in proportion to their marginality or sub-marginality in precipitation and crop production, in normal times as well as during the depression. In the intensive relief areas, the families most subject to relief have usually been those with the least income and reserves. Usually the smaller incomes are due to maladjustments in land use, such as operating too small a sized farm, using the wrong type of farming for a given area, or poor farm or home management.

VIII. Appendix

Table 1—CHANGES IN VALUE OF FARM LAND AND BUILDINGS IN SOUTH DAKOTA BY SPECIFIED PERIODS, (1900-1935)

Year	Total Value	Average Value Per Farm	Average Value Per Acre	Percent In- crease or Decrease Over Previous Year
1935	\$ 691,863,413	\$ 8,300	\$18.65	-47
1930	1,285,153,538	15,454	35.24	-21
1925	1,437,288,133	18,071	44.89	-37
1920	2,472,893,681	33,132	71.39	+85
1910	1,005,080,807	12,945	38.63	+235
1900	220,133,190	4,133	11.54	

Source: Federal Census

Table 2—ANNUAL RELIEF EXPENDITURES BY COUNTY COMMISSIONERS (1930-1935)

Year	Care of County Poor	Mothers' Pensions	Poor Farm Maintenance	Total Relief Expenditures
1930	\$ 503,214.12	\$364,299.36	\$109,993.05	\$ 977,506.53
1931	653,543.09	360,179.09	124,541.29	1,138,263.47
1932	984,180.70	364,481.70	116,067.91	1,464,730.31
1933	986,326.46	337,407.76	105,659.36	1,429,393.58
1934	1,440,435.16	315,404.36	103,522.74	1,859,362.26
1935	494,424.54	335,841.52	114,776.31	945,042.37

Source: South Dakota Division of Taxation, Pierre.

Table 3—AMOUNTS SPENT IN SOUTH DAKOTA BY VARIOUS RELIEF AGENCIES (1930-1935)

Name of Agency	Amount Spent
Relief Expenditures of County Commissioners	\$ 7,139,737.86
American Red Cross	649,753.54
Reconstruction Finance Corporation (work relief)	1,803,945.00
Civil Works Administration	6,506,773.88
State ERA	40,459,219.00
Works Progress Administration	900,056.74
Civilian Conservation Corps	13,903,000.00
Resettlement Subsistence Grants	371,272.66
Cattle Benefit Payments	4,517,204.00
Aid to Distressed Schools	300,726.12
TOTAL	\$76,551,688.80

Table 4—AVERAGE ANNUAL RELIEF BENEFITS PER FAMILY FOR SOUTH DAKOTA AND UNITED STATES (April 1933-December 1935)

Years	South Dakota	Continental United States
1933	\$15.31	\$16.72
1934	24.04	23.36
1935	22.15	27.71

Source: Division of Research, Statistics and Records, Works Progress Administration, Washington, D. C.

Table 5—AGE DISTRIBUTION OF THE RURAL NON-RELIEF AND RELIEF POPULATION IN SIX SELECTED COUNTIES OF SOUTH DAKOTA*

Age Distribution	Relief Status			
	Non-Relief Population Number	Non-Relief Population Percentage	Relief Population Number	Relief Population Percentage
Total	21,572	100.0	27,166	100.0
Under 16 yrs. of age	6,030	27.9	10,554	38.9
16 yrs. of age and over	15,534	71.9	16,611	61.1
Age Unknown	8	.2	1	—

*Based on data secured in a survey of rural population mobility in Custer, Edmunds, Haakon, Kingsbury, Tripp and Turner counties, South Dakota as of January 1, 1935. Hereafter referred to as Rural Population Mobility Study.

Table 6—AGE DISTRIBUTION OF THE TOTAL POPULATION OF 1930 AND THE RELIEF POPULATION OF JUNE 1934 IN THREE COUNTIES OF SOUTH DAKOTA*

Age Distribution	Total Population, 1930		Relief Status Relief Population, June, 1934	
	Number	Per cent	Number	Per cent
Total	20,980	100.0	1,980	100.0
Under 16 yrs. of age	7,576	36.1	750	37.9
16 yrs. of age and over	13,404	63.9	1,228	62.0
Age Unknown			2	.1

*Based on data secured in a survey of rural problem areas in the summer of 1934. The counties of South Dakota which were included are Haakon, Harding and Tripp. Hereafter referred to as Rural Problems Area survey.

Table 7—AGE DISTRIBUTION OF THE TOTAL POPULATION IN 1930 AND THE RELIEF POPULATION OF OCTOBER, 1934, IN FOUR COUNTIES OF SOUTH DAKOTA*

Age Distribution	Total Population, 1930		Relief Population, Oct. 1934	
	Number	Per cent	Number	Per cent
Total	48,998	100.0	4,623	100.0
Under 16 yrs. of age	18,256	37.3	2,119	45.8
16 yrs. of age and over	30,742	62.7	2,504	54.2
Age Unknown				

*Based on data secured in a survey of current rural relief trends in Brookings, Corson, Edmunds and Hutchinson counties, South Dakota. Hereafter referred to as DRS—77 study.

Table 8—AGE DISTRIBUTION OF THE TOTAL POPULATION IN 1930 AND THE RELIEF POPULATION OF JUNE, 1935 AND OCTOBER, 1935*

Age Distribution	Total Population 1930		Relief Population			
	Number	Per cent	June, 1935		October, 1935	
			Number	Per cent	Number	Per cent
Total	88,683	100.0	13,232	100.0	6,164	100.0
Under 16 yrs. of age	31,901	36.0	5,028	38.0	2,506	40.7
16 yrs. of age and over	56,782	64.0	8,204	62.0	3,658	59.3

*Based on data secured in a survey of current rural relief trends in Brookings, Corson, Custer, Edmunds, Grant, Hand, Hutchinson, Jackson and Meade counties, South Dakota. Hereafter referred to as DRS—109 study.

Table 9—AGE OF MALE HEADS OF FAMILIES IN THE NON-RELIEF AND RELIEF POPULATION OF SIX SELECTED COUNTIES OF SOUTH DAKOTA*

Age of Male Heads of Families	Non-Relief		Relief Status	
	Number	Per cent	Number	Per cent
Total	5506	100.0	5889	100.0
Under 35 yrs. of age	1156	21.0	1546	26.3
35-54 yrs. of age	2694	49.0	2971	50.4
55 yr. and over	1656	30.0	1368	23.2
Unknown			4	.1

*Rural Mobility Study

Table 10—AGE OF MALE HEADS OF FAMILIES IN THE TOTAL POPULATION, 1930 AND RELIEF POPULATION OF JUNE, 1934, IN THREE COUNTIES OF SOUTH DAKOTA*

Age of Male Heads of Families	Total Population, 1930		Relief Status	
	Number	Per cent	Relief Population, June, 1934	Per cent
Total	147,752	100.0	431	100.0
Under 25 yrs. of age	5,279	3.6	35	8.1
25-44 yr. of age	73,580	49.8	191	44.3
45-64 yrs. of age	53,375	36.1	166	38.5
65 yrs. and over	15,439	10.4	39	9.0
Non ascertainable	79	.1		

*Rural Problems Area Study

Table 11—AGE OF MALE HEADS OF FAMILIES IN THE TOTAL POPULATION AND RELIEF POPULATION IN NINE COUNTIES OF SOUTH DAKOTA*

Age of Male Heads of Families	Total Population, 1930		Relief Population			
	Number	Per Cent	June, 1935	Per Cent	October, 1935	Per Cent
Total	147,752	100.0	2,948	100.0	1,322	100.0
Under 25 yrs. of age	5,279	3.6	182	6.2	98	7.4
25-44 yrs. of age	73,580	49.8	1,512	51.3	620	46.9
45-64 yrs. of age	53,375	36.1	1,036	35.1	432	32.7
65 yrs. of age and over	15,439	10.4	218	7.4	172	13.0
Non ascertainable	79	.1				

*DRS—109 Study

Table 12—AGE AT FIRST MARRIAGE OF THE HEADS OF NON-RELIEF AND RELIEF HOUSEHOLDS IN SIX SELECTED COUNTIES OF SOUTH DAKOTA

Age at First Marriage	Non-Relief		Relief Status	
	Number	Per cent	Number	Per cent
Total	5,984	100.0	6,107	100.0
Never married	693	11.6	408	6.7
Under 20 years	250	4.2	274	4.5
20-24 years	2,182	36.5	2,546	41.7
25-29 years	1,780	29.7	1,869	30.6
30-39 years	896	15.0	890	14.6
40 years and over	165	2.7	114	1.8
No data	18	.3	6	.1

*Rural Population Mobility Study

Table 13—SEX DISTRIBUTION OF THE NON-RELIEF AND RELIEF POPULATION IN SIX SELECTED COUNTIES OF SOUTH DAKOTA*

Sex Distribution	Relief Status	
	Non-Relief	Relief
Males	8,088	8,906
Females	7,454	7,706
Males per 100 females	108.5	11.6

*Rural Population Mobility Survey

Table 14—SEX DISTRIBUTION OF THE TOTAL POPULATION IN 1930 AND THE RELIEF POPULATION IN JUNE, 1934, IN THREE COUNTIES OF SOUTH DAKOTA^b

Sex Distribution	Total Population, 1930	Relief Population, June, 1934
Males	11,367	1,065
Females	9,613	915
Males per 100 females	118.2	116.4

*Rural Problems Area Survey

Table 15—SEX DISTRIBUTION OF THE TOTAL POPULATION IN 1930 AND THE RELIEF POPULATION IN JUNE, 1935, AND OCTOBER, 1935, IN NINE COUNTIES OF SOUTH DAKOTA*

Sex Distribution	Total Population 1930	Relief Population	
		June, 1935	October, 1935
Males	46,807	6,766	3,064
Females	41,876	6,466	3,110
Males per 100 females	111.7	104.6	98.1

*DRS—109 Survey

Table 16—SEX AND MARITAL STATUS OF THE HEADS OF NON-RELIEF AND RELIEF HOUSEHOLDS IN SIX SELECTED COUNTIES IN SOUTH DAKOTA*

	Non-Relief Population		Relief Status	
	Number	Per Cent	Number	Per Cent
Total	5,984	100.0	6,107	100.0
Female single	111	1.9	21	.4
Female married	12	.2	8	.1
Female widowed, separated, or divorced	486	8.1	283	4.6
Male single	579	9.7	375	6.2
Male married	4,507	75.3	5,155	84.4
Male widowed, separated or divorced	289	4.8	265	4.3

*Rural Population Mobility Survey

Table 17—EDUCATION OF THE HEADS OF NON-RELIEF AND RELIEF HOUSEHOLDS IN SIX SELECTED COUNTIES IN SOUTH DAKOTA*

Years in School	Relief Status			
	Non-Relief Population Number	Per Cent	Number	Relief Population Per Cent
Total	5,984	100.0	6,107	100.0
0-7 years	1,373	22.9	1,859	30.5
8 years	2,547	42.6	3,055	50.0
9-11 years	894	15.0	704	11.6
12 years	510	8.5	299	4.9
13-15 years	314	5.3	118	1.9
16 years or more	278	4.6	39	.6
No data	68	1.1	33	.5

*Rural Population Mobility Survey

Table 18—RACE AND NATIVITY OF HEADS OF NON-RELIEF AND RELIEF HOUSEHOLDS IN SIX SELECTED COUNTIES IN SOUTH DAKOTA*

	Relief Status			
	Non-Relief Population Number	Per Cent	Number	Relief Population Per Cent
Total	5,984	100.0	6,107	100.0
Native white	4,790	80.0	4,942	80.9
Foreign-born white	1,166	19.5	1,109	18.2
Negro	3	.1	7	.1
Mexican	2	--	1	--
Indian	21	.4	48	.8
Others	2	--	--	--

*Rural Population Mobility Survey

--Indicates less than .05

Table 19—LENGTH OF RESIDENCE IN THE COUNTY OF HEADS OF NON-RELIEF AND RELIEF HOUSEHOLDS IN SIX SELECTED COUNTIES IN SOUTH DAKOTA*

	Relief Status			
	Non-Relief Population Number	Per Cent	Number	Relief Population Per Cent
Total	5,984	100.0	6,107	100.0
Less than 1 year	41	.7	46	.7
1-9 years	1,054	17.6	994	16.3
10-19 years	1,054	17.6	1,366	22.4
20-24 years	2,046	34.2	2,663	43.6
35-54 years	1,569	26.2	983	16.1
55 years and over	217	3.6	53	.9
No data	3	.1	2	--

*Rural Population Mobility Survey

Table 20—OCCUPATIONS OF THE MALE HEADS OF NON-RELIEF AND RELIEF HOUSEHOLDS IN SIX SELECTED COUNTIES IN SOUTH DAKOTA*

	Relief Status			
	Non-Relief Population Number	Per Cent	Number	Relief Population Per Cent
Total	5,506	100.0	5,889	100.0
Farm Owners	1,762	32.0	1,870	31.8
Farm Tenants	800	14.5	2,434	41.3
Farm Laborers	122	2.2	131	2.2
Professional Persons	281	5.1	18	.3
Proprietors, Managers, and Officials	947	17.2	114	1.9
Clerks and Skilled Workers	940	17.1	264	4.5
Unskilled Workers	301	5.5	214	3.6
Not Gainfully Employed	352	6.4	843	14.3
Occupational Status Unknown	1	--	--	--
Employment Status Unknown	--	--	1	--

*Rural Population Mobility Survey

--Indicates less than .05

Table 21—SIZE OF NON-RELIEF AND RELIEF HOUSEHOLDS IN SIX SELECTED COUNTIES IN SOUTH DAKOTA*

	Relief Status			
	Non-Relief Number	Population Per Cent	Number	Relief Population Per Cent
Total	5,984	100.0	6,107	100.0
1-3 persons	3,266	54.6	2,375	38.9
4-6 persons	2,238	37.4	2,694	44.1
7-9 persons	419	7.0	841	13.8
10 or more persons	61	1.0	197	3.2

*Rural Population Mobility Survey

Table 22—TYPES OF FAMILIES IN THE NON-RELIEF AND RELIEF POPULATION IN SIX SELECTED COUNTIES IN SOUTH DAKOTA*

	Relief Status			
	Non-Relief Number	Population Per Cent	Number	Relief Population Per Cent
Total	6,011	100.0	6,081	100.0
Normal families	4,099	68.2	4,729	77.8
Normal families with other persons and other families	557	9.3	480	7.9
Broken families	528	8.8	456	7.5
Non-family households	827	13.7	416	6.8

*Rural Population Mobility Survey

Table 23—REASONS FOR OPENING AND REOPENING RELIEF CASES OF FEBRUARY-JUNE, 1935 AS COMPARED WITH THE REASONS FOR OPENING AND REOPENING RELIEF CASES OF JULY-OCTOBER, 1935*

Periods	Total		Crop Failure		Loss or Depletion of Assets		Loss of Employment		Other	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
February to June	3,535	100.0	1,933	54.7	1,158	32.8	227	6.4	217	6.1
July to October	1,755	100.0	643	36.6	566	32.2	444	25.3	102	5.8

*DRS—109

Table 24—PERCENTAGE OF OPEN-COUNTRY RELIEF CASES WHO WENT ON RELIEF BECAUSE OF CROP FAILURES OR LOSS OF LIVESTOCK **

County	February-June, 1935			July-October, 1935		
	Open Country Cases	Cases Opened For Crop Failure	Per Cent Opened For Crop Failure	Open Country Cases	Cases Open- ed For Crop Failure	Per Cent Opened For Crop Failure
Total	2,644	1,874	70.9	1,151	645	56.0
Brookings	464	322	69.4	62	36	58.1
Corson	493	350	71.0	186	95	51.1
Custer	102	66	64.7	87	55	63.2
Edmunds	310	258	83.2	64	31	48.4
Grant	339	244	72.0	262	162	61.8
Hand	352	174	49.4	161	80	49.7
Hutchinson	324	274	84.6	143	77	53.8
Jackson	109	71	65.1	73	25	34.2
Meade	151	115	76.2	113	84	74.3

*Excludes those cases which went on relief shortly after the close of CWA and the reason for whose dependency is not known.

**DRS—109

Table 25—REASONS FOR CLOSING RELIEF CASES OF FEBRUARY-JUNE, 1935, AS COMPARED WITH THE REASONS FOR CLOSING RELIEF CASES OF JULY-OCTOBER, 1935*

Periods	Total		Adminis- trative Policy		Client Moved or Failed to Report		Assistance Provided by: Resettle- ment		Other		Employment WPA Employment Secured		Secured Ordinary Employ- ment or an Increase in Wages		Crops Marketed or an Increase in Prices		Received AAA Payments		Other	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
February to June	1707	100	691	40.5	298	17.2	---	---	--	--	-	-	285	16.7	181	10.6	114	6.7	143	8.4
July to October	1610	100	599	37.2	79	4.9	475	29.5	47	2.9	6	.4	211	13.1	87	5.4	1	.1	105	6.5

*DRS—109

Table 26—RURAL RELIEF HOUSEHOLDS, FEBRUARY-JUNE, 1935, IN NINE SOUTH DAKOTA COUNTIES, CLASSIFIED BY COUNTY, NUMBER OF MONTHS ON RELIEF SINCE MARCH 1, 1934, AND THE BREAK IN THE RELIEF PERIOD*

	Months On Relief Since March 1, 1934										Households With or Without Break in Relief Period					
	Total		13—16 Mo.		9—12 Mo.		5—8 Mo.		1—4 Mo.		Total		No Break		With Break	
	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
Nine Counties	4442	100.0	1923	43.3	1302	29.3	875	19.7	342	7.7	4442	100.0	3154	71.0	1288	29.0

*DRS—109

Table 27—PERCENTAGE OF RELIEF AND NON-RELIEF OPERATORS ON BELOW AVERAGE, AVERAGE, AND ABOVE AVERAGE SIZE FARMS IN FOUR SOUTH DAKOTA COUNTIES

COUNTIES	All Sizes		Under Average		Average		Above Average	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
All Counties								
Non-Relief	2080	100.0	530	25.5	979	47.1	571	27.4
Relief	1876	100.0	852	44.9	790	41.7	254	13.4
Turner								
Non-Relief	1162	100.0	140	12.1	700	60.2	322	27.7
Relief	592	100.0	144	24.3	364	61.5	84	14.2
Edmunds								
Non-Relief	354	100.0	124	35.0	138	39.0	92	26.0
Relief	673	100.0	340	50.6	256	38.1	76	11.3
Haakon								
Non-Relief	258	100.0	104	40.3	78	30.2	76	29.5
Relief	444	100.0	264	59.4	114	25.7	66	14.9
Custer								
Non-Relief	306	100.0	162	52.9	63	20.6	81	26.5
Relief	188	100.0	104	55.3	56	29.8	28	14.9

SOURCE: Bankert, Zetta E., "Size of Farm Related to The Relief Status and Characteristics of Farm Operators," a published thesis.

Table 28—Seasonal Distribution of Precipitation in South Dakota (1930-1935) Compared With The Normal Distribution

Year	Normal annual precipitation	Specific precipitation	Departure from normal
1930	20.76	18.10	2.66
1931	20.50	14.66	5.84
1932	20.08	19.16	0.92
1933	20.31	15.31	5.00
1934	20.15	13.27	6.88
1935	20.00	17.07	2.93

Source: Compiled from "Climatological Data" Vol. 35, No. 13,
 "Climatological Data" Vol. 36, No. 13,
 "Climatological Data" Vol. 37, No. 13,
 "Climatological Data" Vol. 38, No. 13,
 "Climatological Data" Vol. 39, No. 13,
 "Climatological Data" Vol. 40, No. 13,
 bulletins issued by the United States Weather Bureau,
 South Dakota Section, Huron, South Dakota.