

S  
61  
.R47  
no.356  
1947

WAKELY -

*Changes In Iowa Population*



[REDACTED]

Changes in Iowa population

## TRAVELING LIBRARY OF THE STATE OF IOWA

To communities, and schools, books for reloaning are loaned for a three months' period. To individuals and to clubs for study use, books are loaned for two to four weeks.

Borrowers are requested to return the books as soon as the need for them is passed, and *always* when books are due. Where books are reloaned, fines may be charged by the *local* library and *retained* when the books are returned.

**DAMAGES.** The pages of these books must not be marked and librarians are required to note the condition of books when loaned to borrowers and when returned by such borrowers and to report damages beyond reasonable wear to the State Traveling Library.



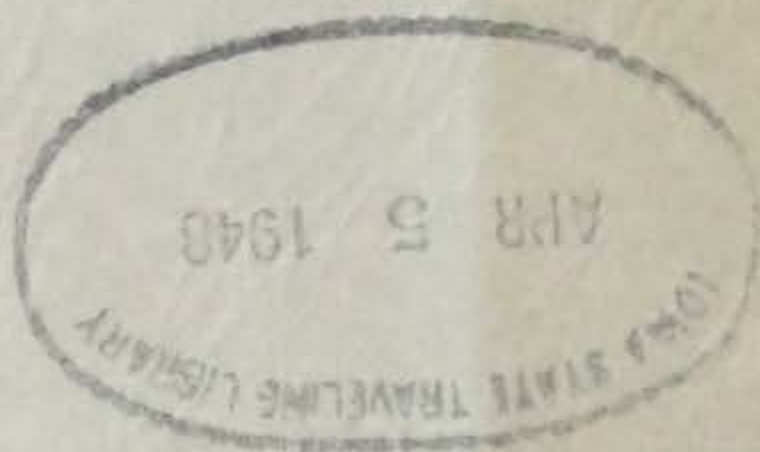
# Changes in Iowa Population

By RAY E. WAKELY

AGRICULTURAL EXPERIMENT STATION  
IOWA STATE COLLEGE OF AGRICULTURE  
AND MECHANIC ARTS

SOCIOLOGY SUBSECTION

ECONOMICS AND SOCIOLOGY SECTION



RESEARCH BULLETIN 356  
NOVEMBER, 1947  
AMES, IOWA

November, 1947

Research Bulletin 356

# Changes in Iowa Population

BY RAY E. WAKELEY

AGRICULTURAL EXPERIMENT STATION  
IOWA STATE COLLEGE OF AGRICULTURE  
AND MECHANIC ARTS

SOCIOLOGY SUBSECTION

ECONOMICS AND SOCIOLOGY SECTION

AMES, IOWA

STATE LIBRARY OF IOWA



3 1723 02025 5030



Iowa  
317.77  
W13

## CONTENTS

	Page
Summary .....	595
Introduction .....	597
Changes in number, characteristics and distribution.....	597
Iowa is a surplus area.....	600
The change from rural to urban.....	602
Long-time growth depends on farm birth rates.....	604
Iowa population aging rapidly.....	606
The changing distribution of population within Iowa.....	608
Changes in Iowa farm population.....	609
Population trends and Iowa institutions.....	612
Population trends and the institutions under the	
Iowa Board of Control.....	613
The over-all picture.....	613
Mental patients in state hospitals.....	618
Mental patients in private hospitals and in county homes	619
Overcrowding in state mental hospitals.....	620
Comparison with other states.....	620
Probable future needs for mental care.....	622
The feeble-minded and the epileptic.....	623
Criminals in state institutions.....	625
Delinquents in state training schools.....	626
The orphans' home and the juvenile home.....	627
The soldiers' home.....	628
The tuberculosis sanatorium.....	628
Population changes affecting Iowa welfare.....	629
County care.....	630
Aid to dependent children.....	631
Aid to the blind.....	631
Old age assistance.....	632
Problems of the aged.....	632
Appendix .....	633

pam.  
cop. 2



## SUMMARY

The beginning of the present century marked a turning point in the growth of Iowa's population. Previous to 1900 there had been a net migration into Iowa of a million persons. Since 1900 there has been a net outward movement of more than a million persons.

During World War II Iowa's civilian population declined. Iowa now can be expected to recoup her wartime population losses and to grow, but slowly, during the next generation.

Distinctive and important changes in Iowa population characterize the present generation.

1. Iowa cities are growing slowly but steadily.
2. Iowa farm population is decreasing slowly.
3. The future growth of Iowa small towns is uncertain. Some small towns are increasing while others are decreasing in population.
4. The number and proportion of elderly persons in Iowa are increasing rapidly and will continue to increase for a generation.
5. The number of young persons in Iowa remains relatively constant but might decrease slightly.

From a population standpoint, the transition of Iowa from a rapidly growing state to a comparatively stationary state was a major process. Adequate adjustment to these changes is also a major process to be continued in line with current economic and social trends. As population characteristics vary widely so also do the influences of these changing characteristics on state institutions and programs.

The total attendance load of the institutions under the Iowa Board of Control has increased more rapidly than the population of the state. This increase in attendance has not been evenly distributed among the various institutions, some of which recently have decreased in population. Decreases are most noticeable in the number of criminals and in the attendance in children's homes and the soldiers' home.

Commitments of the mentally ill and the feeble-minded to state mental hospitals and schools have increased consistently and can be expected to continue to increase. Overcrowding has been a major problem in the state mental hospitals for 20 years.

State schools for the feeble-minded also face the probability of some increase in the number of commitments.

The situations at the training schools, the penal institutions, the children's homes and the soldiers' home are closely related to and dependent upon economic conditions. So long as conditions remain good in business, employment and agriculture, rapid increases in commitments to these institutions are improbable. A depression might send them to previous highs and beyond.



Commitments of the insane and the feeble-minded can be expected to increase steadily and to continue to increase at a rate more rapid than the rate of increase for the population of the state.

Outstanding recent developments in social welfare programs include the following:

1. Cooperative state and federal programs developed during the depression of the 1930's to meet the needs of the unemployed.

2. The number of persons receiving county care decreased as economic conditions improved and as some needy persons were transferred from county care to other programs such as old age assistance and aid to dependent children.

Recipients of old age assistance and aid to dependent children are expected to increase materially during the years ahead. The size of the increases will depend somewhat upon economic conditions and somewhat upon the proportion of the total need which will be met by unemployment insurance, old age and survivors' insurance and similar programs.

Problems associated with increases in the number and proportion of persons 65 years of age and older will be of major importance in Iowa for at least another generation.



# Changes in Iowa Population<sup>1</sup>

BY RAY E. WAKELEY

Nearly half a generation has passed since P. K. Whelpton's bulletin, "Iowa's Population Prospect," was published by the Iowa Agricultural Experiment Station. Since that time the depression and drouth of the 1930's have passed, and Iowa has come through the harrowing experiences of World War II. Many of the problems which accompanied those emergencies have been solved or forgotten. Iowans are looking and working toward the future.

The future growth and development of Iowa depends in large part upon the number and the quality of her population. The present, therefore, appears to be a good time to examine the facts about important changes in the number, distribution and characteristics of the population of Iowa and to indicate some of the more important relationships between these population changes and Iowa institutions and programs.

Iowa population has not followed the national tendency toward more rapid growth. Instead, it has increased more slowly and actually decreased during the war years. While the number of births increased more rapidly than previously estimated, the population movement out of Iowa also showed a corresponding increase. Most of the decrease in population took place on Iowa farms and in spite of the traditionally high rural birth rate. Increases in institutional commitments and in welfare programs are closely related to population. City and town schools and churches are expanding while rural schools and churches are contracting in response to population changes. The people of Iowa need to consider what has happened and what is happening to the population of the state as a guide to future rural and urban developments. By so doing Iowans can hope to understand their present problems more clearly and to plan more adequately for future development.

## CHANGES IN NUMBER, CHARACTERISTICS AND DISTRIBUTION

The population of Iowa increased rapidly from 1850 to 1900. Iowa was a new state and her fertile soil was a powerful attraction. A million persons were added to her population by migration between 1840 and 1880. During the next 20 years the balance of migration swung to the loss side of the ledger. Since 1900 the net loss to Iowa population through migration has been more than 1 million persons.

<sup>1</sup>Project 795 of the Iowa Agricultural Experiment Station. Eleanor Godfrey (Mrs. Richard), project leader, and Robert S. Boyle compiled many of the data and contributed to the analysis upon which this report is based.



Birth rates were high among Iowa's young and growing population. The peak in natural increase was reached in the 10-year period from 1890 to 1900 during which there were 340,000 more births than deaths. Iowa still has a healthy excess of births over deaths, but it seems unlikely that the high point of the last century will be reached even in this present decade of swollen birth rates.

With a population of 2,231,853 in 1900, Iowa was relatively full grown from a population standpoint. The early period of settlement and rapid growth was followed by a period of developing maturity. The turn of the century marked the entry of Iowa into the list of states with a relatively stable population characterized by comparatively slow growth. In 1940, the population of Iowa was 2,538,268, an increase of 14 percent since 1900 (table 1). During the same period the population of the United States increased 73 percent.

The reason for the slow growth of Iowa's population is not to be found in a study of birth and death rates which, taken together, provide a sound basis for predicting further increases (table 2 and Appendix table A). Iowa's birth rates lagged slightly below those for the United States during the depression years 1930-35, but during the next 5-year period, birth rates increased in Iowa and were consistently higher than those for the United States. Death rates for Iowa were consistently lower than those for the United States. As a result, the natural rate of population increase (excess of births over deaths) has been consistently higher for Iowa than for the United States. Iowa's population would have increased if nothing else had happened to prevent it.

Iowa's slow growth results from the fact that, since 1900, more people have been moving out of Iowa. Thus it appears that migration out of Iowa which takes place in response to greater social or economic opportunities in other states is one of the most important population developments in recent Iowa history.<sup>2</sup>

Changes in Iowa population during the last 5 years furnish an exaggerated but realistic illustration of the foregoing analysis. The Census Bureau estimated some of the items, but the figures are approximately correct and the general picture of what happened to Iowa population during the war years stands out clearly.

On July 1, 1945, Iowa's civilian population had decreased from 2,537,605 to 2,236,203, a loss of 301,000 persons or 12 percent since April 1940.<sup>3</sup> During this same 5 years, there were 118,621

<sup>2</sup>For further analysis of trends and earlier characteristics of Iowa's population see the following:

Harter, Wm. L., and Stewart, R. E., *The population of Iowa, its composition and changes*. Iowa Agr. Exp. Sta., Bul. 275, 1930.

Whelpton, P. K., *Iowa's population prospect*. Iowa Agr. Exp. Sta., Res. Bul. 177, 1934.

Wakeley, Ray E., *Differential mobility within the rural population in 18 Iowa townships, 1928 to 1935*. Iowa Agr. Exp. Sta., Res. Bul. 249.

Iowa State Planning Board, *Progress Report, Part III, 1934*.

Iowa State Planning Board, *Second Report, Part III, 1935*.

<sup>3</sup>U. S. Bureau of the Census, *Population—Special Reports, Series P-46, No. 3*.



TABLE 1. THE POPULATION OF THE UNITED STATES AND IOWA WITH PERCENT OF INCREASE BY CENSUS PERIODS, 1900-1940\*.

Year	United States		State of Iowa	
	Number	Percent Increase over previous census	Number	Percent Increase over previous census
1900.....	75,994,575	20.7	2,231,853	16.7
1910.....	91,972,266	21.0	2,224,771	- 0.3
1920.....	105,710,620	14.9	2,404,021	8.1
1930.....	122,775,046	16.1	2,470,939	2.8
1940.....	131,669,275	7.2	2,538,268	2.7
Total increase.....	55,674,700	73.3	306,415	13.7

\*Source: U. S. Census. 1940.

more births than deaths in Iowa, and without migration the population would have increased by that number. This would have made a total increase of between 4 and 5 percent or nearly 1 percent per year; but instead of increasing, Iowa population decreased more than 2 percent per year from 1940 to 1945.

Iowa's loss in population can be explained only in part by her net loss to the armed forces, which amounted to 195,330 persons during the 5-year period. When births, deaths and losses to the armed forces are all taken into account, there still remains a net loss of nearly 220,000 to be accounted for. This represents the net movement of civilians from Iowa. This 5-year net deficit in civilian population was nearly twice as large as the excess of births over deaths during the same period.

TABLE 2. BIRTHS, DEATHS AND NATURAL INCREASE IN THE IOWA POPULATION, 1924 TO 1945\*.

Year	Number			Rate per 1,000 population		
	Births	Deaths	Natural increase	Births	Deaths	Natural increase
1924.....	49,188	23,774	25,414	20.3	9.8	10.5
1925.....	47,760	24,294	23,466	19.7	10.0	9.7
1926.....	45,714	25,466	20,248	18.8	10.5	8.3
1927.....	44,688	24,532	20,156	18.3	10.0	8.3
1928.....	43,378	25,315	18,063	17.7	10.3	7.4
1929.....	42,126	25,681	16,445	17.1	10.4	6.7
1930.....	42,733	26,228	16,505	17.3	10.6	6.7
1931.....	41,943	25,681	16,262	17.0	10.4	6.6
1932.....	40,459	25,786	14,673	16.3	10.4	5.9
1933.....	39,575	25,665	13,910	16.0	10.3	5.7
1934.....	42,463	26,758	15,705	17.0	10.7	6.3
1935.....	41,137	26,364	14,773	16.4	10.5	5.9
1936.....	42,715	28,432	14,283	17.1	11.4	5.7
1937.....	42,105	26,485	15,620	17.0	10.7	6.3
1938.....	43,221	25,623	17,598	17.4	10.3	7.1
1939.....	43,765	26,465	17,300	17.4	10.5	6.9
1940.....	45,464	26,376	19,088	17.9	10.4	7.5
1941.....	46,115	25,677	20,438	18.5	10.3	8.2
1942.....	48,454	25,001	23,453	20.0	10.3	9.7
1943.....	47,617	26,189	21,428	20.8	11.3	9.5
1944.....	46,564	26,094	20,470	20.8	11.5	9.3
1945.....	45,265	25,839	19,426	20.2	11.5	8.7
1946†.....	56,936	25,816	31,120			

\*Source: Vital Statistics Reports. U. S. Census and Iowa Department of Health.  
 †From preliminary reports.



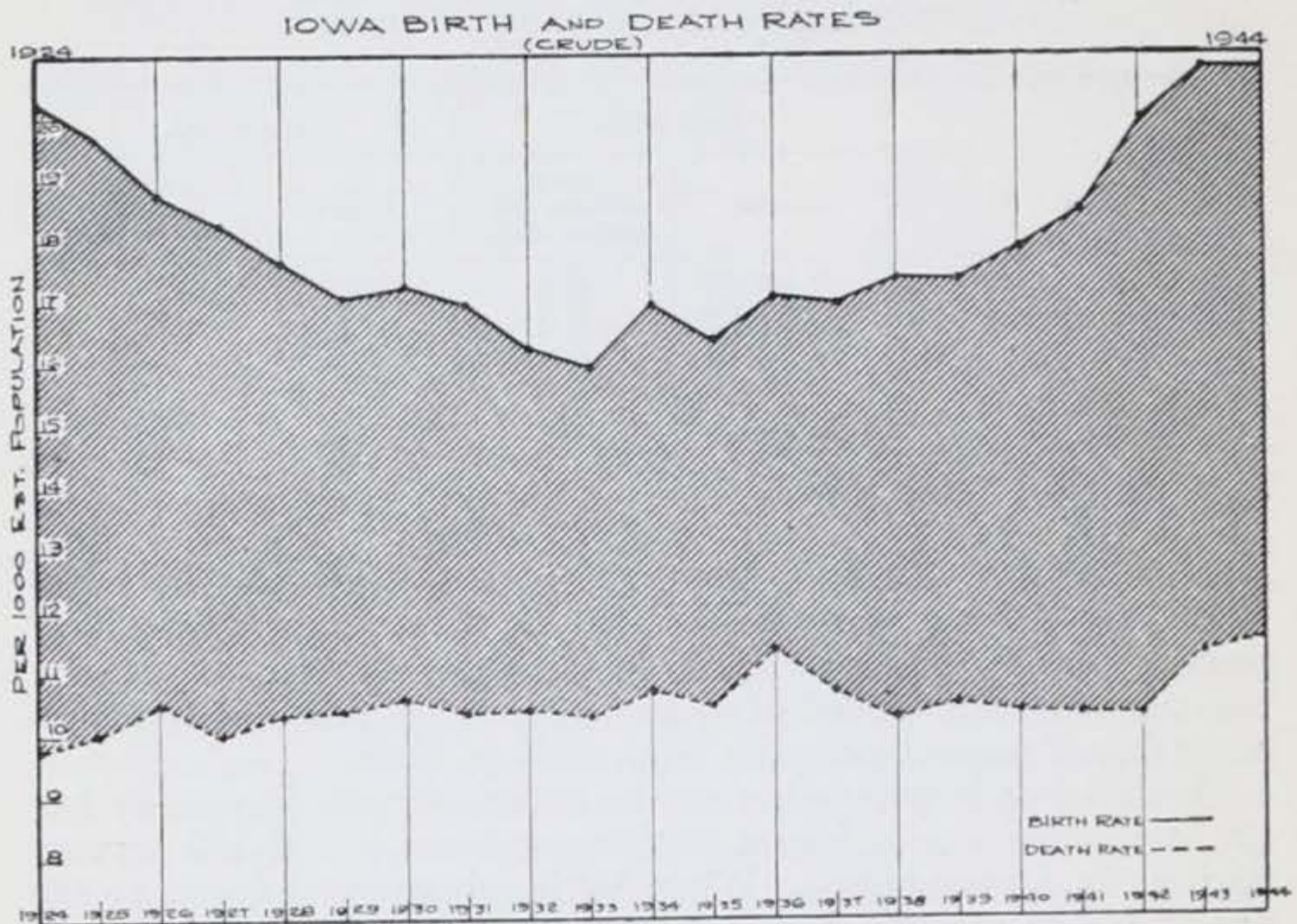


Fig. 1. Birth rates, death rates and natural increase of the Iowa population, 1924-45. (From data in table 2.)

Iowa experienced a reduction in population from 1940 to 1945 slightly larger than that for any other state in the West North Central region, which altogether lost nearly a million.

A large proportion of Iowa servicemen have returned to their home communities and it appears likely that enough of them will stay in Iowa to make up more than half and perhaps as much as three-fourths of the net loss of civilians during the war years.<sup>4</sup> However, most of the war workers have not returned and, barring a depression, it is not expected that they will.

The excess of births over deaths in Iowa is still relatively high (19,426 in 1945). Natural increase is the largest single source of population for Iowa during the years immediately ahead.

#### IOWA IS A SURPLUS AREA

Clearly it appears that Iowa is in the center of a surplus population area. Enough children are born in Iowa to make a sizeable increase in its population. Enough of them remain in the state to replace those who die. Most of the others go to other states where they believe social and economic opportunities to be better. Some of the migrants go to work and live in one or another of the cities in the region of which Iowa is a part. Many of them go to the industrial areas east of the Mississippi or to the Pacific coast states,

<sup>4</sup>Hagood, Margaret J. and Ducoff, Louis J. Million veterans on farms in U. S. The Agricultural Situation, Vol. 30, No. 8, pp. 1-3. Bureau of Agricultural Economics, Washington, D. C., 1946.



which, between 1940 and 1945, showed a total civilian gain of 2 million persons.

Present conditions indicate that the population of Iowa probably will not continue to decrease as it has during the past 5 years. Iowa should be able to retain her present population and perhaps increase it somewhat.

Much of Iowa's prospect for future population depends upon general economic conditions and employment throughout the United States. In the present analysis it has been assumed that economic conditions for agriculture, labor and industry will remain generally favorable. The analysis indicates that people living in a surplus population area, one which produces a population larger than necessary to meet current employment opportunities within the area, react quite promptly and specifically to changes in economic conditions.

An important characteristic of a surplus population area is that it loses population when times are good. On the other hand, when times are bad, people cannot find good jobs in sufficient numbers elsewhere and so they remain at home. In good times population tends to move rather freely. In bad times population piles up in surplus areas until more attractive social and economic opportunities again become available elsewhere.

What is Iowa's prospect for population in the years ahead? The U. S. Census Bureau recently announced that the population of the United States is now 140 million, an increase of 7 percent since 1930. Iowa's population has not followed the national trend. Unless Iowa has an industrial development sufficient to offer an increasing number of attractive jobs, or unless there is a farm and business depression severe enough to result in a lack of migration, Iowa population will increase but little, possibly 200,000 persons, during the next 15 to 20 years. A similar prediction was made by Whelpton in 1934, and although the war and business prosperity during the war years joined to cause a loss in Iowa population, it now appears probable that the future population of Iowa will neither increase nor decrease rapidly enough to fall outside the limits set by his upper and lower estimates.<sup>5</sup> With conditions as they are now the size of the population of Iowa in 1960 is likely to be nearer to Whelpton's "medium" estimate of 2,651,000.

Iowa is, and bids fair to remain for perhaps a generation, a state which produces a surplus of population which, after it has been reared and educated in Iowa, moves to other states.<sup>6</sup> Most of these people have the greater part of their productive life ahead

<sup>5</sup>Whelpton, P. K., Iowa's population prospect. Iowa Agr. Exp. Sta., Res. Bul. 177, pp. 161-167. 1934.

<sup>6</sup>It appears likely that even before 1950 the birth rate will fall somewhat. By 1960 it may approximate the former low point of 16 births per 1,000 population in 1933. If and when this happens Iowa will cease to be a major source of population for other states.



of them and they make their homes mostly in states outside of the region.

The transition of Iowa from a rapidly growing state to a relatively stationary one was a major process. It was accompanied by a number of important changes in the composition of the population which give it distinctive characteristics; these must be taken into account in planning for the future development of Iowa institutions and programs. The following are some of the more important changes which have taken place since 1900:

1. The population of Iowa cities has increased steadily.
2. The farm population of Iowa has decreased slowly.
3. Many Iowa small towns have decreased in size.
4. The number and proportion of older people in the population have increased steadily and quite rapidly.

#### THE CHANGE FROM RURAL TO URBAN

The proportion of Iowa people who live in cities and towns larger than 2,500 population has increased steadily from one-fourth of the total in 1900 to more than two-fifths in 1940 (table 3). During the war, Iowa cities either have grown or have lost population less rapidly than the rest of the state. It now appears likely that by 1950 approximately half of Iowa's population will be living in cities and towns larger than 2,500. The present shift from rural to urban is unusually rapid due to wartime influences, especially the favorable employment situation. After 1950, the urban population can be expected to increase somewhat more slowly than it did in response to wartime pressures during the present decade.

The future growth of Iowa population will depend primarily upon the continued economic development and growth of our cities. Counties which contain cities of 10,000 or over have grown consistently, while other Iowa counties have grown little if any since 1900 (table 4). But the average rural county, with no towns

TABLE 3. THE RURAL AND URBAN DISTRIBUTION OF IOWA POPULATION, 1850 TO 1940\*.

Year	Number of persons			Percent of total pop.	
	Total	Rural	Urban	Rural	Urban
1840.....	43,112	43,112	.....	.....	.....
1850.....	192,214	182,484	9,730	94.0	6.0
1860.....	674,913	614,885	60,028	91.1	8.9
1870.....	1,194,020	1,037,693	156,327	86.9	13.1
1880.....	1,624,615	1,377,188	247,427	84.8	15.2
1890.....	1,912,297	1,506,533	405,764	78.8	21.2
1900.....	2,231,853	1,659,467	572,386	74.4	25.6
1910.....	2,224,771	1,544,717	680,054	69.4	30.6
1920.....	2,404,021	1,528,526	875,495	63.6	36.4
1930.....	2,470,939	1,491,647	979,292	60.4	39.6
1940.....	2,538,268	1,454,037	1,084,231	57.3	42.7
1945.....	2,431,533†				

\* Source: U. S. Census, 1940.

† Estimate January 1, by U. S. Bureau of the Census.



TABLE 4. THE PROPORTION OF IOWA POPULATION LIVING IN FOUR TYPES OF COUNTIES, CLASSIFIED BY SIZE OF LARGEST TOWN IN 1940\*.

Changes in distribution between types					
Year	Total state	20 city counties 10,000 or more	22 town counties 5,000 to 9,999	34 town counties 2,500 to 4,999	23 rural counties less than 2,500
1900.....	100	35.4	19.6	28.3	16.7
1910.....	100	38.9	19.4	26.4	15.3
1920.....	100	41.5	18.9	25.2	14.4
1930.....	100	44.1	18.0	24.4	13.5
1940.....	100	45.5	17.5	24.0	13.0
1943.....	100	47.6	16.8	23.2	12.4

Indexes of changes within types					
Year	Total state	20 city counties 10,000 or more	22 town counties 5,000 to 9,999	34 town counties 2,500 to 4,999	23 rural counties less than 2,500
1900.....	100.0	100.0	100.0	100.0	100.0
1910.....	99.7	109.7	98.2	93.3	91.1
1920.....	107.7	126.2	103.6	96.3	92.7
1930.....	110.7	137.9	101.4	95.5	89.7
1940.....	113.7	146.4	101.1	96.6	88.2
1943.....	102.0	137.2	87.3	83.9	75.4

\* Computed from data in appendix table C.

over 2,500, had a population slightly smaller in 1940 than in 1900.

The farm population of Iowa declined slowly from 1920 to the present (table 5). It is expected that the farm population will regain some, but not all, of its wartime losses during the current quinquennial period, after which it probably will resume a slow rate of decline. A decline in farm population might continue as long as agricultural techniques continue to improve, economic and employment conditions remain good in commercial and manufacturing industries, and urban decentralization does not increase materially.

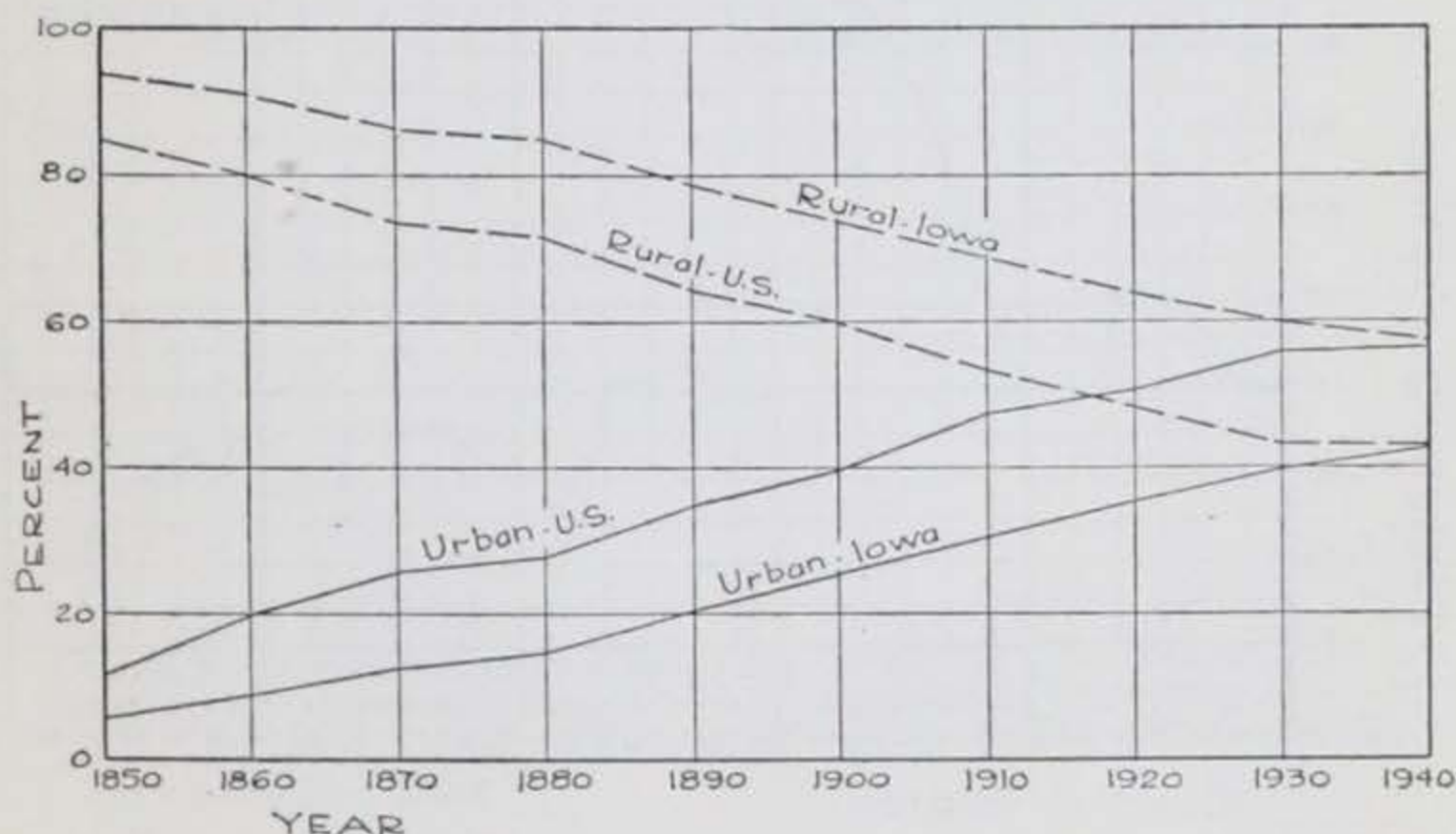


Fig. 2. Changes in the rural and urban proportions of the populations of the United States and Iowa, 1850-1940. (From data in table 3 and appendix table B.)



TABLE 5. CHANGES IN THE RURAL POPULATION OF IOWA, 1920 TO 1945\*.

Year	Total rural		Rural farm		Rural non-farm	
	Number	Percent	Number	Percent	Number	Percent
1920.....	1,528,526	100	977,694	100	550,832	100
1930.....	1,491,647	97.6	964,659	98.7	526,988	95.7
1940.....	1,454,037	95.1	916,768	93.8	537,269	97.5
1945.....	1,237,000†	80.9	764,000†	78.1	473,000†	85.9

\* Data from U. S. Bureau of the Census, 1940, and special reports.

† Estimates based upon the assumption that the rural farm and the rural non-farm populations of Iowa decreased in the same proportion as the farm population of the United States and the Iowa civilian population, respectively.

Rural population not living on farms declined only slightly from 1920 to 1940. This should not hide the fact that over a fourth of Iowa's incorporated small towns, those which had less than 2,500 people in 1940, were smaller in 1940 than they were in 1900. Towns under 500 showed the largest proportion of loss. Towns with a population of 1,000 or more persons held their own fairly well. In contrast, the larger towns grew consistently (table 6). All towns with a population of 5,000 or more in 1940 were larger than in 1900. County seat towns were in a preferred position from the standpoint of population growth.

#### LONG-TIME GROWTH DEPENDS ON FARM BIRTH RATES

With the present freedom of movement of population from one place to another, no locality can depend upon the natural increase

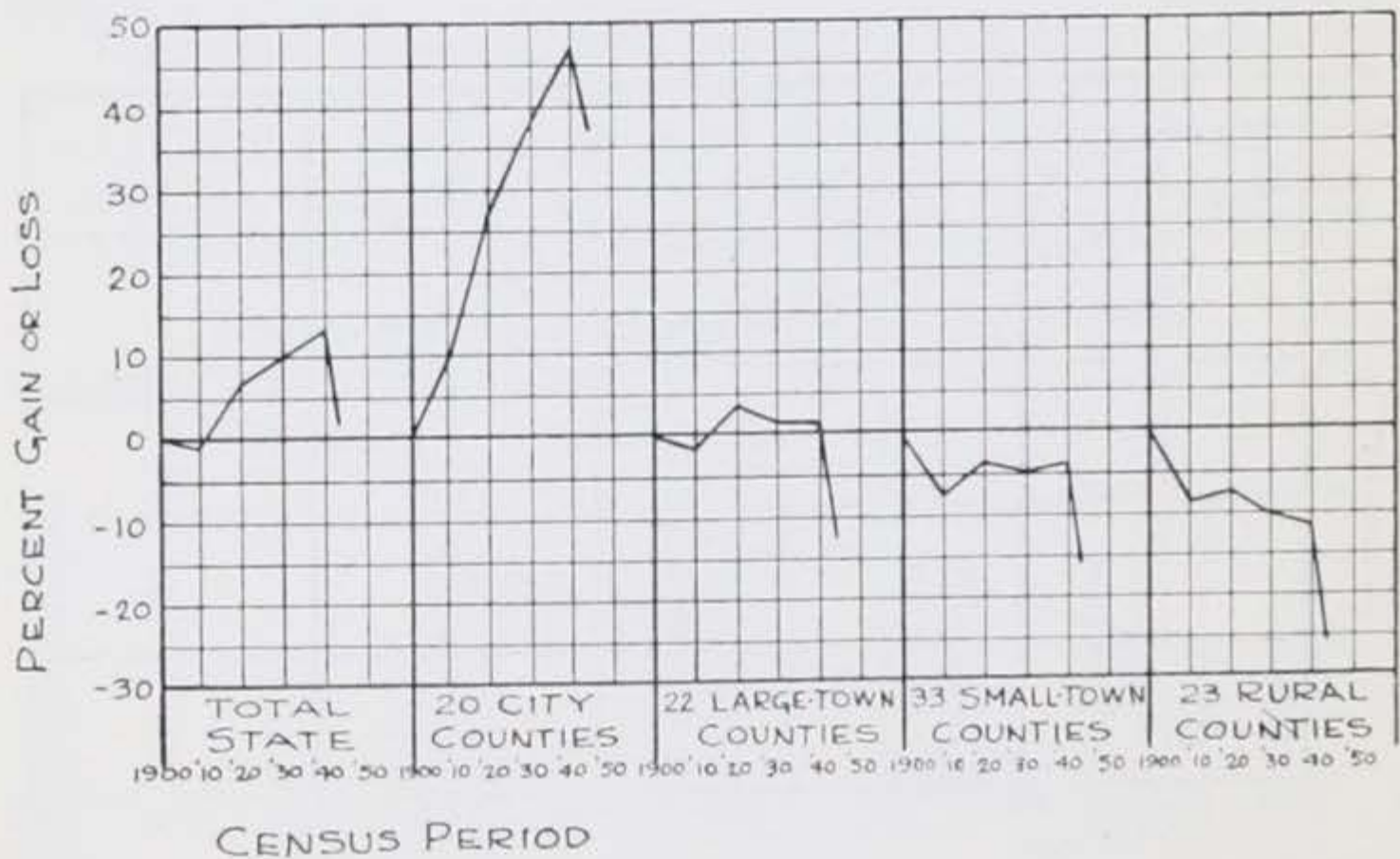


Fig. 3. Gain or loss in population of Iowa counties, 1900-1943. (From data in table 4.)



TABLE 6. INCORPORATED PLACES IN IOWA CLASSIFIED BY SIZE IN 1940, WITH THE NUMBER OF PLACES SHOWING A DECLINE IN POPULATION FROM 1900 TO 1940\*.

Population size	Number	Places declined	
		Number	Percent
Under 250.....	233	105	45.1
250- 499.....	246	77	31.3
500- 749.....	128	33	25.8
750- 999.....	78	21	26.9
1000-1499.....	72	10	13.8
1500-2499.....	50	4	8.0
2500-4999.....	44	2	4.5
5000-9999.....	20	0	0.0
10,000 and over.....	21	0	0.0
Total†.....	892	252	28.3

\* Data compiled from U. S. Census, 1940 and 1900.

† Places incorporated since 1930 were not included.

alone to maintain its population. For example, birth rates are highest among the farming populations, but farm population is decreasing; on the other hand, birth rates are lowest in cities, but city populations are growing. So long as any area continues to offer increasingly attractive social and economic advantages, it will grow. The reverse is also true except in certain areas which have high birth rates and low mobility. The farm population is the only major part of the total which consistently produces an excess over and above its own replacement needs. This excess, large enough in 1940 to increase the farm population of Iowa by

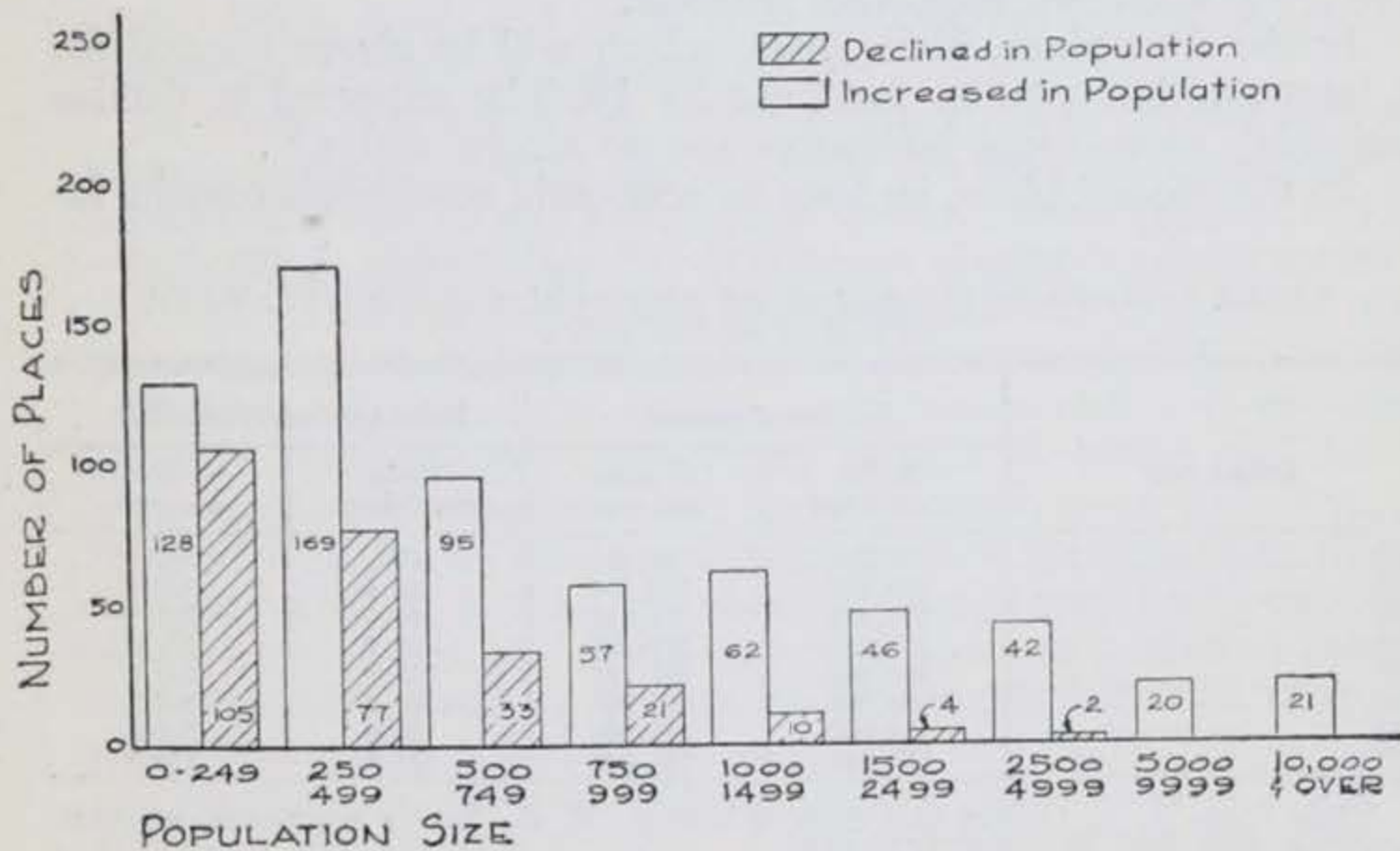


Fig. 4. Growth and decline of towns and cities in Iowa, 1900-1940. (From data in table 6.)



nearly 30 percent in a generation, was drawn off into other areas and especially toward the cities, which did not have birth rates high enough to maintain their population and could not grow without the population movement from the farms. What will happen if and when the farm population ceases to maintain a surplus of births large enough to maintain our cities is one of the major unsolved population problems likely to face the next generation.

### IOWA POPULATION AGING RAPIDLY

Perhaps the most rapidly changing internal characteristic of Iowa's population is the change in age composition. This transformation alone is enough to account for some of the needed changes in state agencies and programs, ranging all the way from school needs to changes in old age assistance.

The first notable change in age composition is the relative stabilization of the number of persons in the younger age groups. For example, the number of persons in Iowa 15-19 years of age inclusive was 226,000 in 1900 and 232,000 in 1940 (table 7). Estimates for 1950 predict a sharp drop to possibly 190,000, and it appears likely that the number of persons 15-19 years of age in Iowa will stabilize for perhaps a generation between 175,000 and 200,000.

Of course, the Iowa situation for persons born since 1940 is somewhat more difficult to predict. While increases of 25 to 30 percent in the birth rate since 1933 mean more children in the U. S. population as a whole, this probably does not mean a large permanent increase in the younger age groups in Iowa. This seems probable for at least two important reasons:

In the first place, birth rates, which will be above normal for at least another year or two, can by 1950 be expected to decline noticeably as wartime influences are no longer active.<sup>7</sup>

In the second place, so long as economic conditions remain fa-

TABLE 7. IOWA POPULATION BY SPECIFIC AGE GROUPS, WITH ESTIMATES TO 1970\*.

Census year	Number of persons		Index numbers (1900=100)	
	15-19 years of age	65 years and over	15-19 years of age	65 years and over
1900.....	227,787	105,916	100	100
1910.....	225,010	125,400	98.8	118.4
1920.....	214,981	144,392	94.4	136.3
1930.....	223,542	184,239	98.1	173.9
1940.....	231,986	227,767	113.3	215.0
1950.....	190,000	267,000	83.4	252.1
1960.....	191,000	314,000	83.9	296.5
1970.....	185,000	335,000	81.3	316.3

\*Data from U. S. Census and from Whelpton, P. K., Iowa's population prospect. Iowa Agr. Exp. Sta., Res. Bul. 177. 1934.

<sup>7</sup>Present birth rates are a result of the high marriage rate encouraged by the favorable economic situation and swollen by the large numbers of returned servicemen whose marriages were delayed by the war.



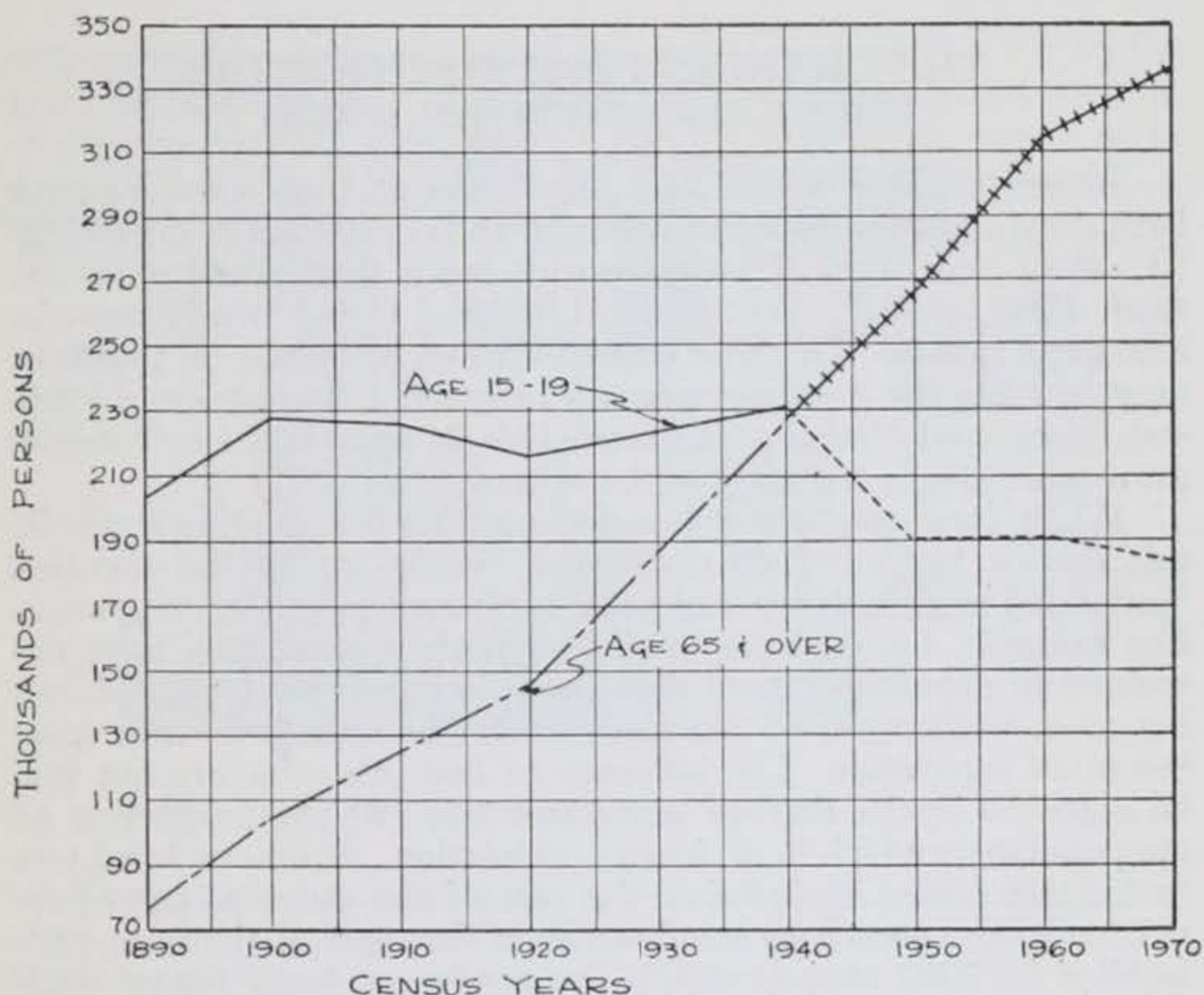


Fig. 5. Changes in the numbers of young people and old people in the Iowa population, 1890-1970. (From data in table 7.)

avorable, more people will continue to move away from farms and small towns to embrace opportunities in Iowa cities and in other states. With them will go a large proportion of the actual and prospective increase in the younger age groups.

In sharp contrast to the youth situation, both the number and the proportion of persons above middle age have increased rapidly. Persons 65 years of age and older increased from 106,000 in 1900 to 228,000 in 1940 (table 7). Estimates predict a continuation of this rapid increase until 1970 when the number of persons over 65 is expected to be approximately 50 percent larger than in 1940.

It seems clear that the number and characteristics of the population of Iowa are determined only in part by births and deaths. Iowa people seek opportunities which to them seem superior, and they move easily to take advantage of such opportunities wherever they are. It is this comparatively large and complex movement of population which characterizes Iowa as a surplus population area and gives its population a composition and character which profoundly influence many of its institutions and programs. The composition of Iowa population also varies widely from one section of the state to another. Only a few of the more outstanding differences which are important for agricultural planning will be presented.



## THE CHANGING DISTRIBUTION OF POPULATION WITHIN IOWA

Recent changes in the total population of Iowa counties have been greatest in the counties which include one or more cities (fig. 9). Polk and Black Hawk counties more than doubled in size from 1900 to 1940. Woodbury, Linn and Cerro Gordo counties also grew rapidly. Of those counties which had cities of 10,000 or over in 1900, the growing counties included Pottawattamie, Webster, Scott and Wapello. Clinton, Des Moines and Lee counties grew more slowly than any of the others.

While farm population has declined for the state as a whole, this decline has not been distributed evenly among the counties. Variations in growth are noticeable between type-of-farming areas. For example, the counties in the southern pasture area have decreased in population more than those in any other type-of-farming area, while most of the counties in the cash grain area have increased somewhat. The influence of two other factors can also be noted: (1) the time of settlement and (2) the proportion of the population which is of foreign extraction. Southern Iowa was completely settled earlier than the rest of the state; a larger proportion of the numerous small towns in that part of the state were smaller in 1940 than in 1900. In northwest Iowa fewer small towns were established and more of them have increased in size. It appears that southern Iowa was overpopulated during its period of settlement, and it is still in process of adjustment from this condition.

In 1900, 43.4 percent of Iowa population was foreign born or of foreign or mixed parentage. In 1930 the proportion had decreased to 23.7 percent. Of these, approximately two-fifths were of German descent, two-fifths were Scandinavian and Danish, and one-fifth were from other European countries. Nearly three-fourths of the foreign born were located in the northern half of the state, and it appears likely that they exerted some influence for population growth in northern Iowa.

TABLE 8. IOWA COUNTIES CLASSIFIED BY TYPE-OF-FARMING AREA AND BY SIZE OF LARGEST TOWN, 1940\*.

Type-of-farming area	Population of largest town in 1940				Total
	Under 2,500 (rural)	2,500-4,999 (town)	5,000-9,999 (town)	10,000 and over (city)	
Cash grain.....	5	7	4	4	20
Western livestock.....	3	9	7	2	21
Southern pasture.....	8	4	6	2	20
Eastern livestock.....	4	5	2	9	20
Northeast dairy.....	3	9	3	3	18
<b>Total.....</b>	<b>23</b>	<b>34</b>	<b>22</b>	<b>20</b>	<b>99</b>

\*Compiled from Bureau of Agricultural Economics and U. S. Census data.



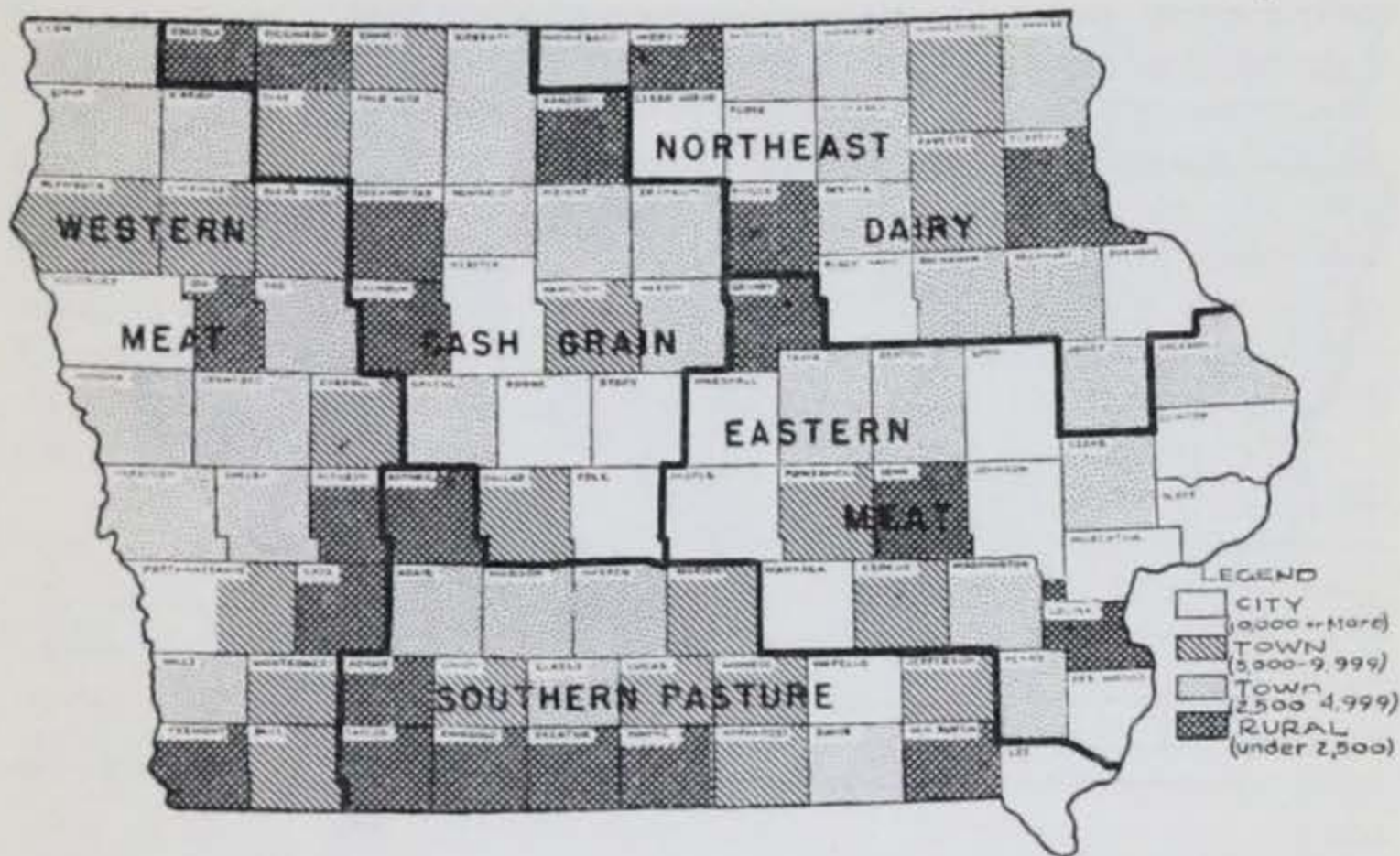


Fig. 6. Iowa counties classified by size of largest town, 1940. (From data in table 8.)

Rural, town and city-centered counties are well distributed over the different type-of-farming areas (fig. 6 and table 8). The southern pasture area has more than its share of rural counties, the western livestock area has more than its share of the town-centered counties, and the eastern livestock area has more than twice as many city-centered counties as any other type-of-farming area. The eastern livestock area has an advantage because it is bordered or crossed by three rivers, the Iowa, the Cedar and the Mississippi, and has one or more cities located on each of them. The location of Iowa cities is influenced more by the location of rivers than by the type of farming.

### CHANGES IN IOWA FARM POPULATION

Farming is an occupation which traditionally has been plagued by a relative undersupply of capital and an oversupply of labor. The development of mechanized commercial agriculture gave added importance to this problem. Population adjustment in agriculture has been a race between birth rates and migration: birth rates which were and still are high enough to increase the population, and the net migration from farms, which tends to hold the number of farm population relatively constant or even to decrease it. This is well illustrated by the population movement from farms during the 1930-40 decade, when the total farm population of Iowa was decreased 16 percent through migration from farms (fig. 7). Migration was above average from farms in the southern pasture, the western livestock and the cash grain areas. Migration has been heavy from both the poorer and the better farm-



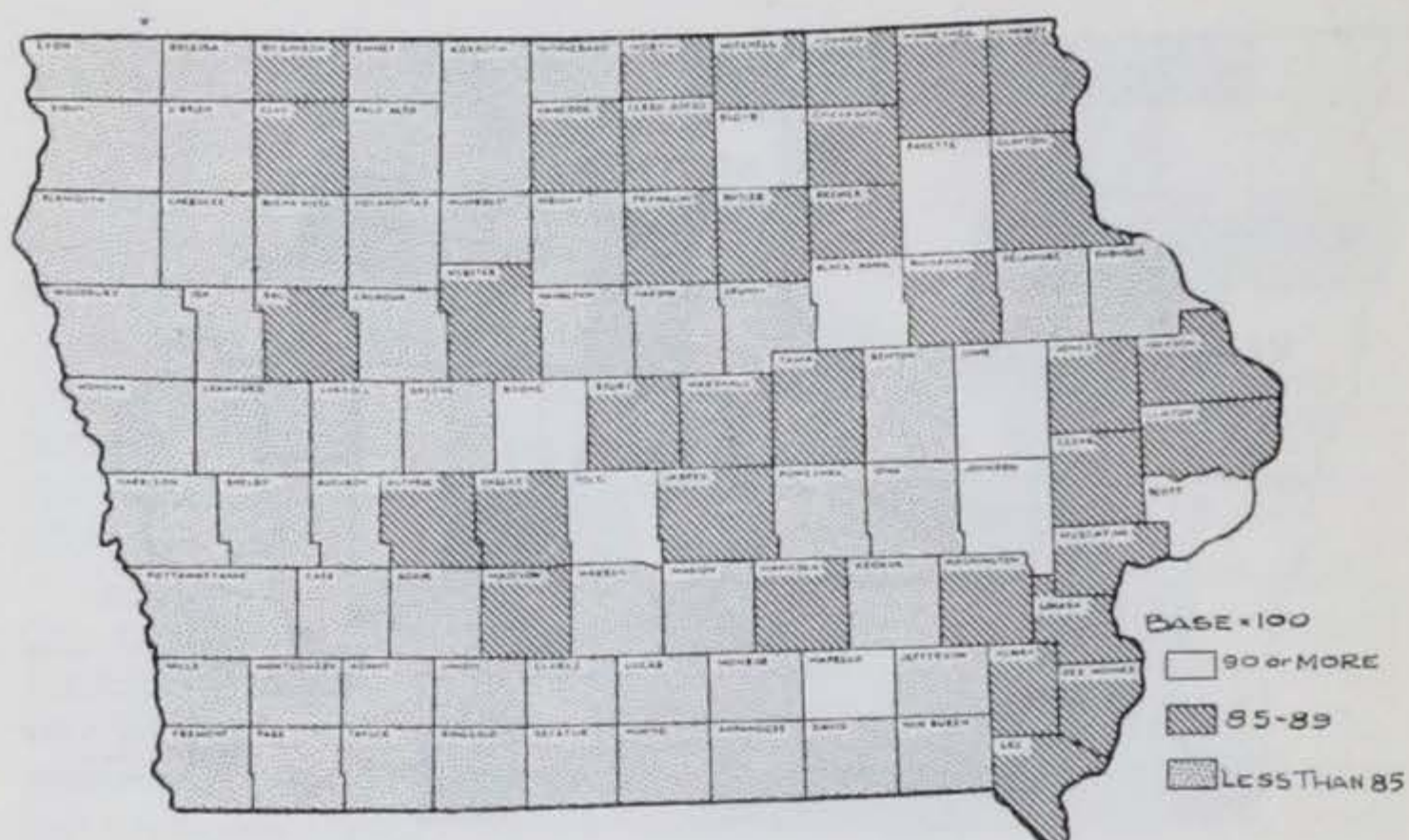


Fig. 7. Net changes in rural-farm population due to migration, 1930-40. (From data in: Bernert, Eleanor H., County variation in net migration from the rural-farm population, 1930-40. B.A.E., USDA, 1944.)

ing areas; from the counties where population has been decreasing and from those where it has been increasing.

The reproductive ratio and the age structure of the farm population in 1940 indicate that the movement from farms must continue if agriculture is not to be oversupplied with laborers. The farm replacement rates in 1940 indicated that without any migra-

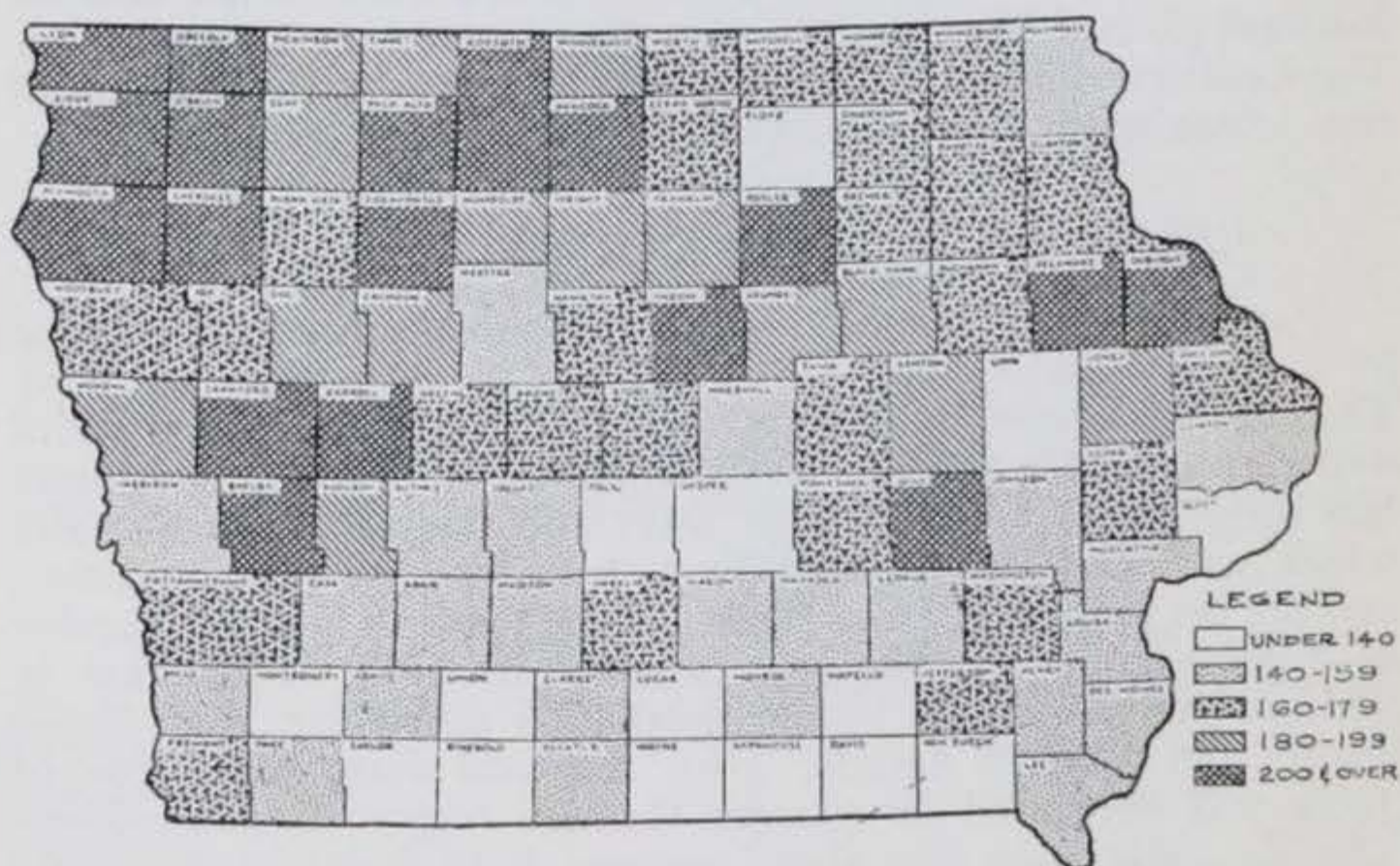


Fig. 8. Estimated number of men 25-70 years of age on Iowa farms in 1950 per 100 men in 1940, assuming no migration.



tion Iowa farming population would increase approximately 1 percent per year or a total of one-third during the next generation.<sup>8</sup> The age structure of the population indicates a need for movement from farms at a somewhat more rapid rate. During the decade 1940-50 with no migration the number of males on farms between the ages of 25 and 70 would increase 70 percent over the 1940 number (fig. 8).<sup>9</sup> If the number of farm males in this age group is not to be larger in 1950 than it was in 1940, more than two-fifths of those males who were between ages 15 and 60 in 1940 must leave Iowa farms.

The 1945 census of agriculture reports 792,159 people on farms in Iowa, which indicates that the number of persons on Iowa farms has decreased approximately 15 percent since 1940.<sup>10</sup> This means that the number of working-age males, which would have increased rapidly but for the war, actually decreased instead. The migration out of agriculture was keenly felt because of the lack of new farm machinery and because so large a proportion of those who left the farm were in the younger age groups which constitute a large part of the farm labor supply.

During the present half of the 1940-50 decade, migration from farms will continue, but it will be less rapid than during the war years. Present conditions justify the estimate that Iowa farm population will increase somewhat from the number on farms in 1945; however, it does not appear probable that the number of persons on farms in 1950 will be as large as the number in 1940. During the present quinquennium more emphasis will be placed on changes of farm operators. More young men will become farm operators, and a larger part of those leaving agriculture will be farm operators in the process of retiring. Retirement is closely related to farm income, and it is in the high-income areas that most retirement of farm operators can be expected. Although farm operators are older on the average in the southern counties than in the rest of the state, it is more difficult for those farm operators to retire because of relatively lower income. The higher migration from farms in southern Iowa apparently indicates that the necessary adjustment of population to economic resources has proceeded further in that area. This conclusion is supported indirectly by the previously mentioned prospective increase in the number of farm males age 25 to 70. The greatest increases are in prospect for northwest and east central Iowa; the smallest increases are indicated for southern Iowa (fig. 8). Differences in birth rates between the various type-of-farming areas do not appear to be large enough to account for the differences in replacement rates.

The sharpest population contrast between type-of-farming areas is between the southern pasture and the cash grain areas.

<sup>8</sup>U. S. Census, 1940.

<sup>9</sup>Taeuber, Conrad. Replacement rates for rural-farm males aged 25-69 years, by counties, 1940-50. B.A.E., USDA, Washington, D. C. 1944.

<sup>10</sup>U. S. Census of Agriculture, 1945.



Most of the cash grain counties gained population between 1900 and 1940. Migration from farms in the cash grain area was high during the decade of the 1930's, being exceeded only by the western livestock and the southern pasture areas, which were stricken by drouth conditions during much of the decade. The cash grain area was last settled, high in proportion of population with foreign background, highest in the prospective number of farm males from 25 to 70 years of age in 1950.

The southern pasture area stands at the opposite pole insofar as population conditions are concerned. It has the highest proportion of its counties showing a loss in population from 1900 to 1940. It was next highest in loss of population from farms during the 1930's and was hardest hit by drouth of any of the areas. The southern pasture area was settled earliest and had the smallest proportion of foreign-born, the lowest level of living for farm operators and the smallest prospective excess of farm males in 1950.

Other type-of-farming areas show intermediate characteristics. The western livestock area is least homogeneous because the southern and the northern counties vary widely in time of settlement, income, proportion of foreign-born, and the prospective number of farm males who will be age 25-70 in 1950. This area had the highest loss of farm population during the decade 1930-40 but still has a farm population problem second only to that in the cash grain area.

The eastern livestock and northeast dairy areas are somewhat similar in the characteristics of their farming population. Both areas were low in loss from migration during the 1930's. Both have in prospect a moderate surplus of farm males 25 to 70 years of age in 1950. Counties in the dairy area lost more of their farm population between 1900 and 1940 and still have more to spare if the number of persons on farms is to remain the same or less than in 1940.

#### POPULATION TRENDS AND IOWA INSTITUTIONS

Changes in the number, distribution and characteristics of Iowa population exert a basic influence and necessitate adjustments in many Iowa programs. All institutions are more or less dependent for their volume of business upon the number of people available, interested and needing their services. Some of the effects of the decrease in farm population on schools and churches located in Iowa small towns or in the open country have been discussed elsewhere. These effects can be summarized by saying that population changes cannot be expected to strengthen the position of open country schools and churches or even to maintain it.

Unable to maintain their farmer patronage and faced with the present demand for improved service, town and country churches



and schools increasingly can be expected to join hands to obtain the necessarily larger base in membership and support which will be essential if better church and school facilities are to be furnished economically.

The relationships between population changes and certain other state programs are not so obvious or so frequently discussed, but they are important and some of them will be presented briefly.

#### POPULATION TRENDS AND THE INSTITUTIONS UNDER THE IOWA BOARD OF CONTROL

Major interest in Iowa currently centers upon the changing needs for care and treatment of persons cared for by the 15 institutions under the direction of the state Board of Control. Are commitment rates increasing or decreasing? Are new buildings needed? Will population changes be accompanied by changes in the need for care and treatment? These questions and similar ones can be answered after carefully considering pertinent facts concerning long-time changes in the number of inmates in the various institutions as they relate to changes in the number and characteristics of the population.

#### THE OVER-ALL PICTURE

The total load of all 15 institutions, in terms of average daily attendance, increased from slightly over 8,000 in 1910 to nearly 14,000 in 1944 (table 9). This increase of 67 percent was evenly distributed through the years, with but two exceptions.

1. The total load decreased slightly immediately following World War I because of decreases in the number of inebriates and

TABLE 9. SUMMARY OF AVERAGE DAILY ATTENDANCE FOR BIENNIAL PERIODS ENDING JUNE 30, IN IOWA BOARD OF CONTROL INSTITUTIONS, 1910 TO 1946\*.

Year	Insane and inebriate	Feeble-minded and epileptic	Criminal	Delinquent	All other†	Grand total
1946‡	6638	3480	1653	507	1174	13,452
1944....	6561	3445	1975	719	1203	13,903
1942....	6477	3335	2444	761	1444	14,532
1940....	6543	3224	2631	783	1615	14,796
1938....	6653	3217	2722	790	1585	14,967
1936....	6724	3007	2832	777	1754	15,094
1934....	6422	2880	2988	710	1799	14,799
1932....	5880	2618	2850	743	1670	13,761
1930....	5580	2409	2407	670	1529	12,595
1928....	5402	2367	2177	637	1504	12,087
1926....	5196	2104	2066	595	1537	11,498
1924....	5120	1944	1866	550	1470	10,950
1922....	4714	1841	1426	549	1376	9,906
1920....	4531	1650	1144	648	1313	9,286
1918....	4697	1558	1258	643	1460	9,616
1916....	4846	1444	1355	603	1465	9,713
1914....	4626	1350	1204	543	1371	9,094
1912....	4451	1265	1199	508	1461	8,784
1910....	4259	1152	924	582	1425	8,342

\* Data from reports of the Iowa Board of Control.

† Includes inmates of the Soldiers' Home, Soldiers' Orphans Home, Children's Home and Tuberculosis Sanatorium.

‡ Preliminary figures for 1946.



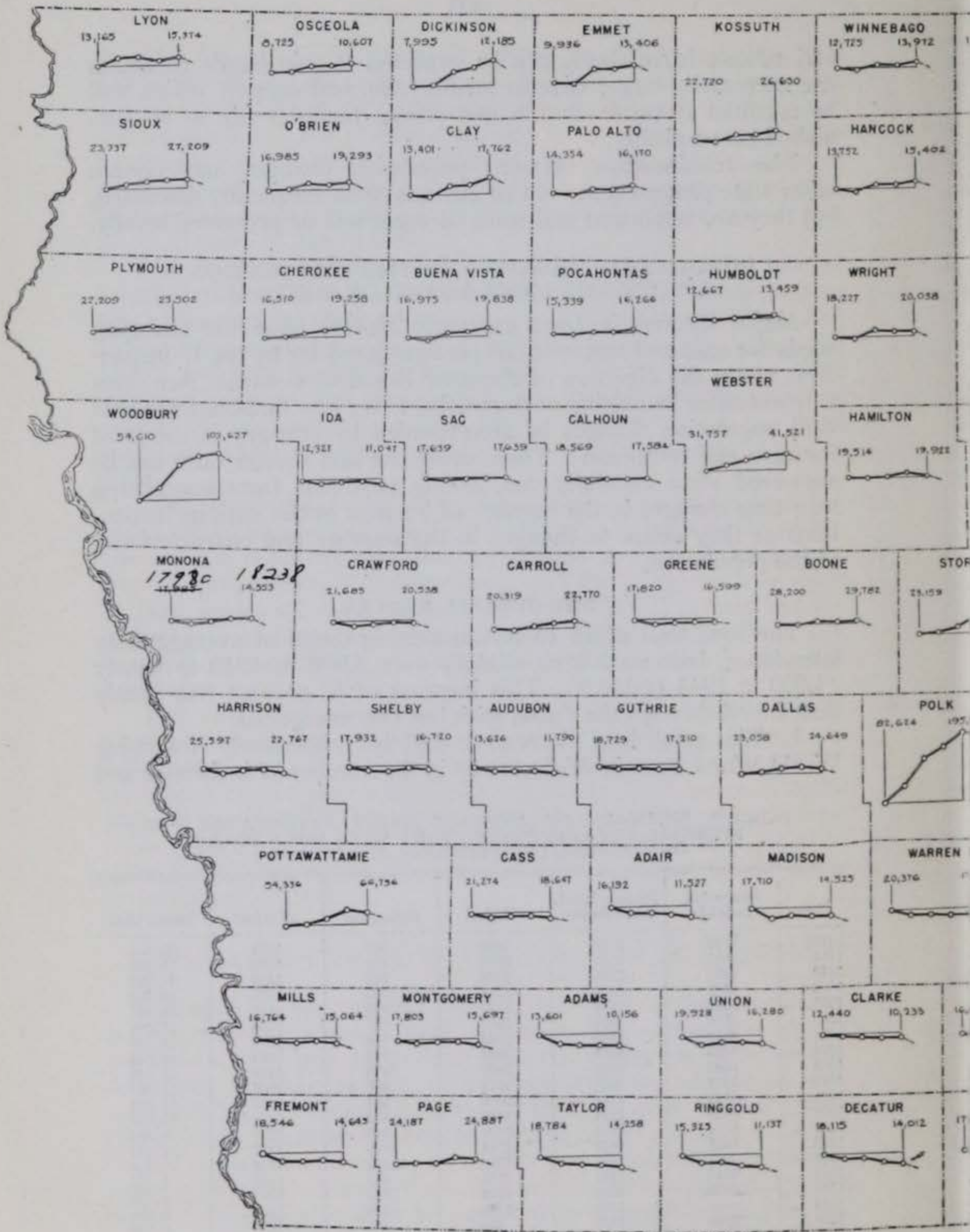
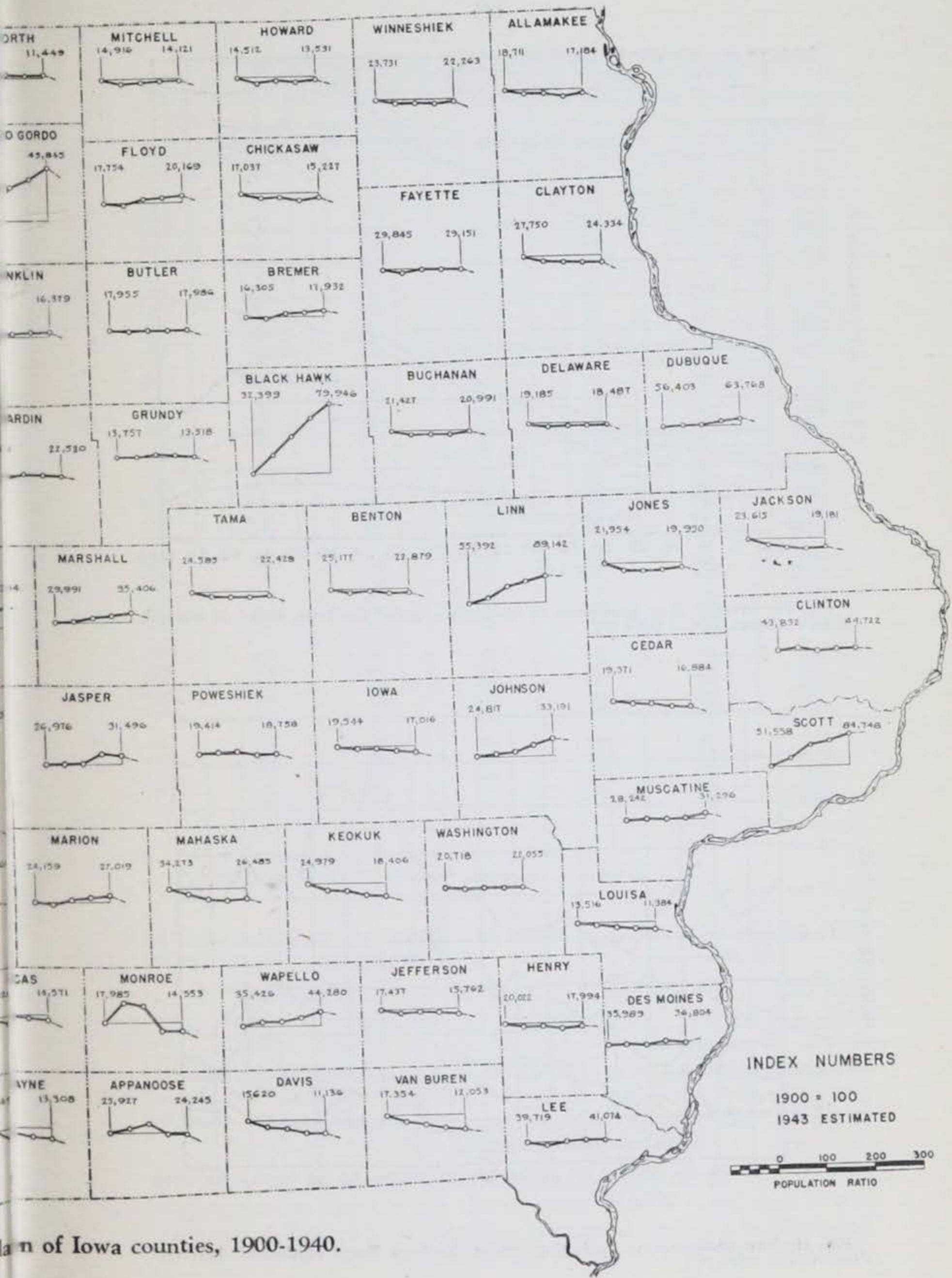


Fig. 9. Changes in the popul





Map of Iowa counties, 1900-1940.



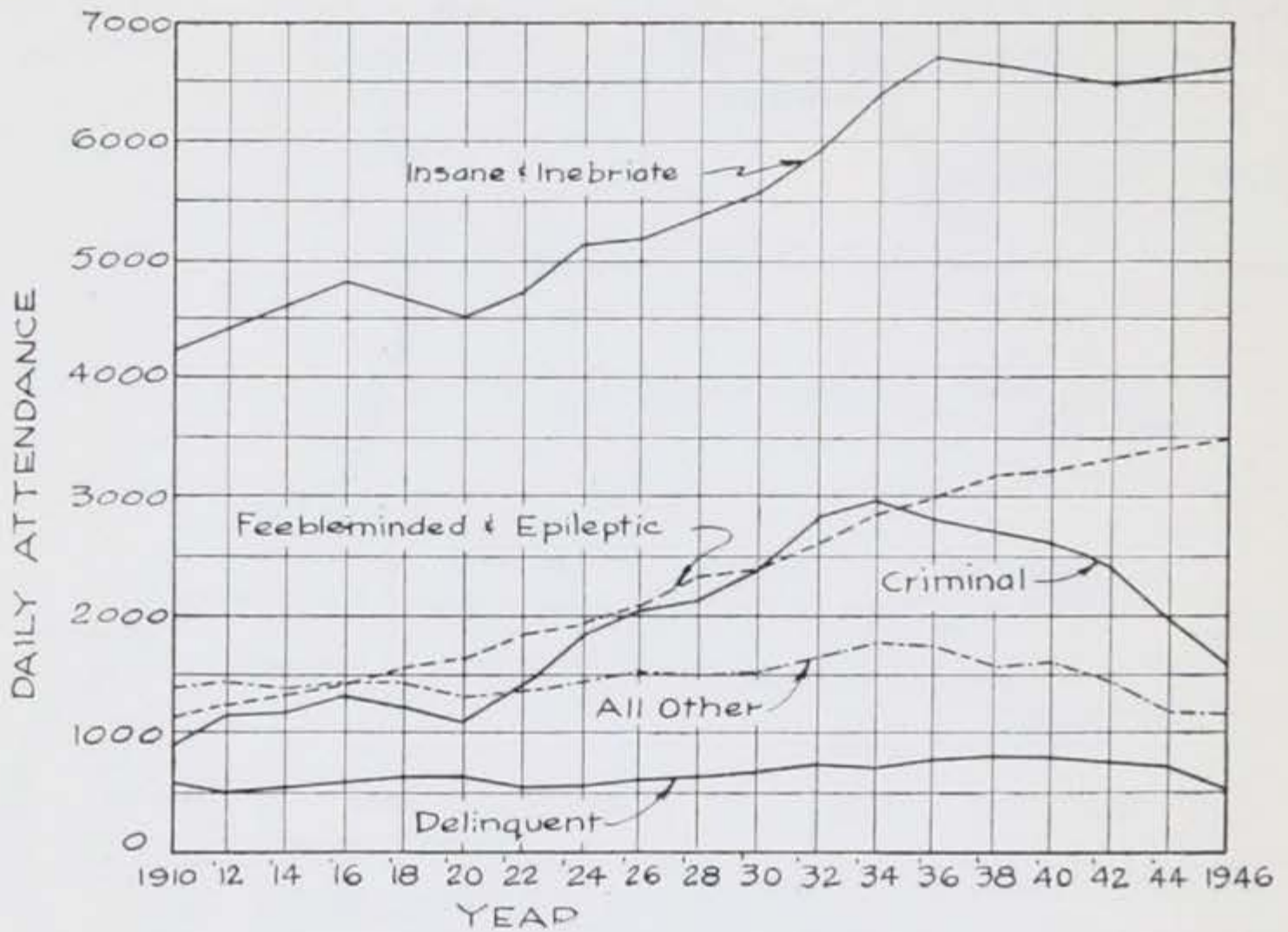


Fig. 10. Average daily attendance in institutions under the Iowa Board of Control, 1910-46. (From data in table 9.)

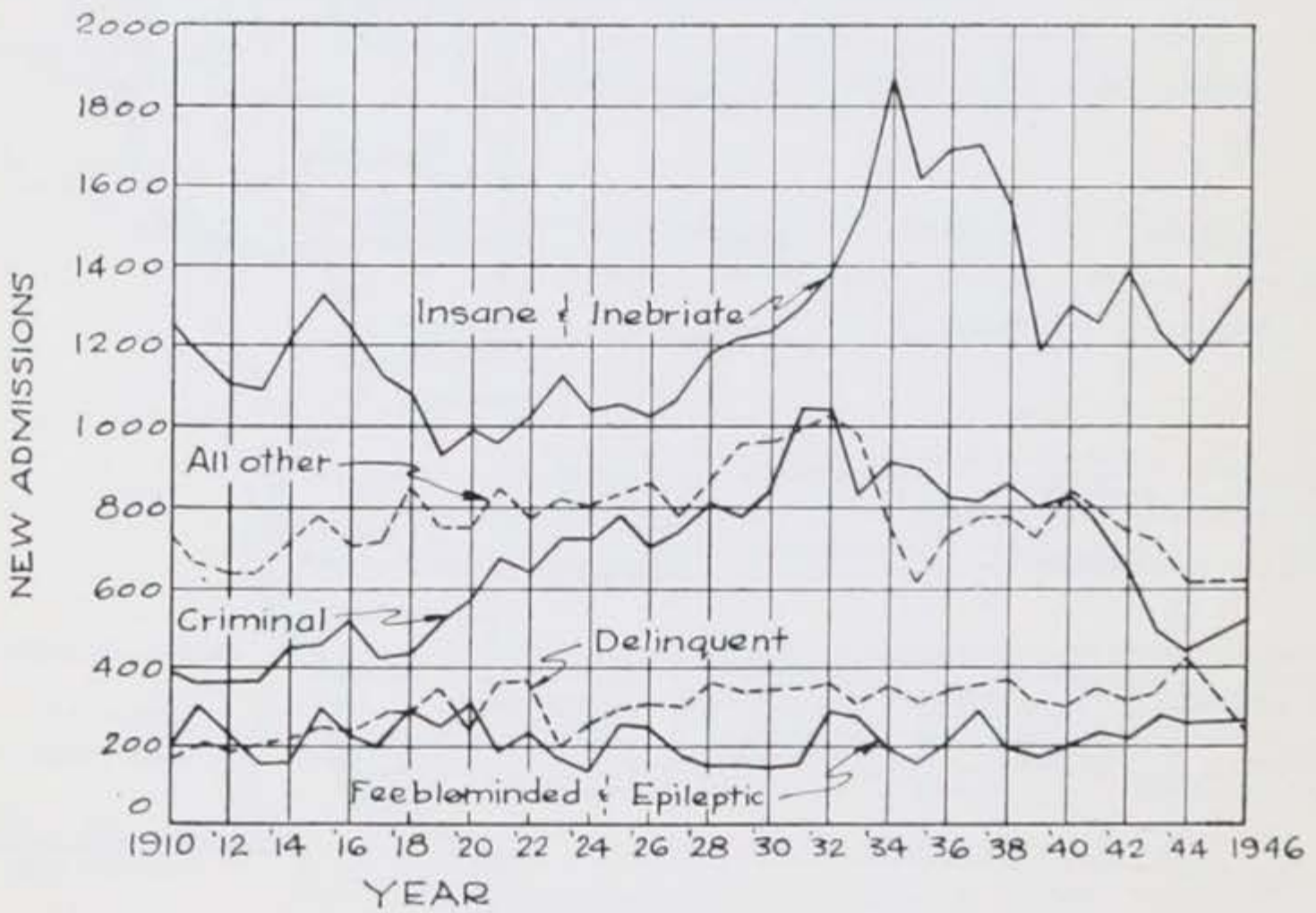


Fig. 11. New admissions to institutions under the Iowa Board of Control, 1910-46. (From data in table 10.)



TABLE 10. SUMMARY OF NEW ADMISSIONS TO STATE BOARD OF CONTROL INSTITUTIONS BY YEARS, 1910-1946\*.

Year	Insane and inebriate	Feeble-minded and epileptic	Criminal	Delinquent	All other	Grand total
1946†	1383	263	521	241	620	3028
1944.....	1153	254	447	443	608	2905
1943.....	1242	276	492	338	716	3064
1942.....	1395	230	637	326	744	3332
1941.....	1262	236	771	349	795	3413
1940.....	1304	203	833	307	836	3483
1939.....	1181	177	800	323	729	3310
1938.....	1547	195	867	381	779	3769
1937.....	1704	293	812	368	772	3949
1936.....	1692	209	825	348	729	3803
1935.....	1617	164	894	317	607	3623
1934.....	1887	197	909	364	754	4111
1933.....	1551	280	819	318	980	3948
1932.....	1380	295	1046	371	1032	4124
1931.....	1297	162	1046	354	988	3847
1930.....	1242	157	839	346	971	3555
1929.....	1223	166	766	348	965	3468
1928.....	1191	162	810	372	860	3395
1927.....	1075	184	740	308	776	3183
1926.....	1019	253	700	319	859	3150
1925.....	1058	266	779	305	836	3244
1924.....	1037	144	726	263	801	2971
1923.....	1135	172	724	201	818	3050
1922.....	1019	243	636	377	776	3251
1921.....	964	198	670	374	850	3056
1920.....	996	327	579	242	742	2786
1919.....	924	254	505	360	744	2787
1918.....	1078	297	429	292	842	2877
1917.....	1126	199	416	282	710	2733
1916.....	1228	229	517	228	699	2901
1915.....	1336	301	451	253	782	3123
1914.....	1226	175	440	216	705	2762
1913.....	1089	166	359	203	632	2449
1912.....	1099	237	356	180	627	2499
1911.....	1165	304	354	206	666	2695
1910.....	1248	184	381	178	737	2728

\* Data from reports of the Iowa Board of Control.

† Preliminary figures for 1946.

criminals and in the number of orphans and other children committed to state institutions.

2. The peak load for the past 35 years was reached in 1936 after which it declined slowly, culminating in a drop of 600 from 1942 to 1944. During World War II, the number of the insane and the feeble-minded in state hospitals continued to increase. The numbers in all other institutions decreased. This was especially true of the number of criminals in Anamosa and Fort Madison, which decreased more than 500 from 1942 to 1944.

The peak load in all Board of Control institutions came during the depression years when the increase was so rapid that it was quite out of line with the long-time trend and could not be accounted for by changes in the general population (table 9). The con-



clusion is inescapable that economic conditions were a major factor in determining the over-all needs of the state for remedial and custodial care. During good times such needs approached a low point which might be considered a minimum. During the depression, needs soared to relatively unpredictable heights. This appeared to be true even during the war years when favorable income appeared to have as much influence on the decrease in institutional population as did service in the armed forces. Of course, the immediate and obvious effect of the war was the sharp decrease in the civilian population of Iowa, which was caused only in part by the induction of a major proportion of the male youth into the armed forces.

It should be carefully noted at this point that, while the increase in average daily attendance in all institutions under the state Board of Control increased 67 percent from 1910 to 1944, the population of Iowa increased only 15 percent from 1910 to 1940. Thus, in the past, commitments to state institutions have increased more rapidly than the general population and it appears most likely that they will continue to do so. Of course, all categories do not increase at the same rate, and specific differences will be indicated as the data for major programs are presented.

#### MENTAL PATIENTS IN STATE HOSPITALS

The combined average daily attendance at the four state mental hospitals increased from over 4,000 in 1910 to 6,600 in 1945-46. This increase of 60 percent was well sustained and quite evenly distributed over the years. However there was a slight decrease

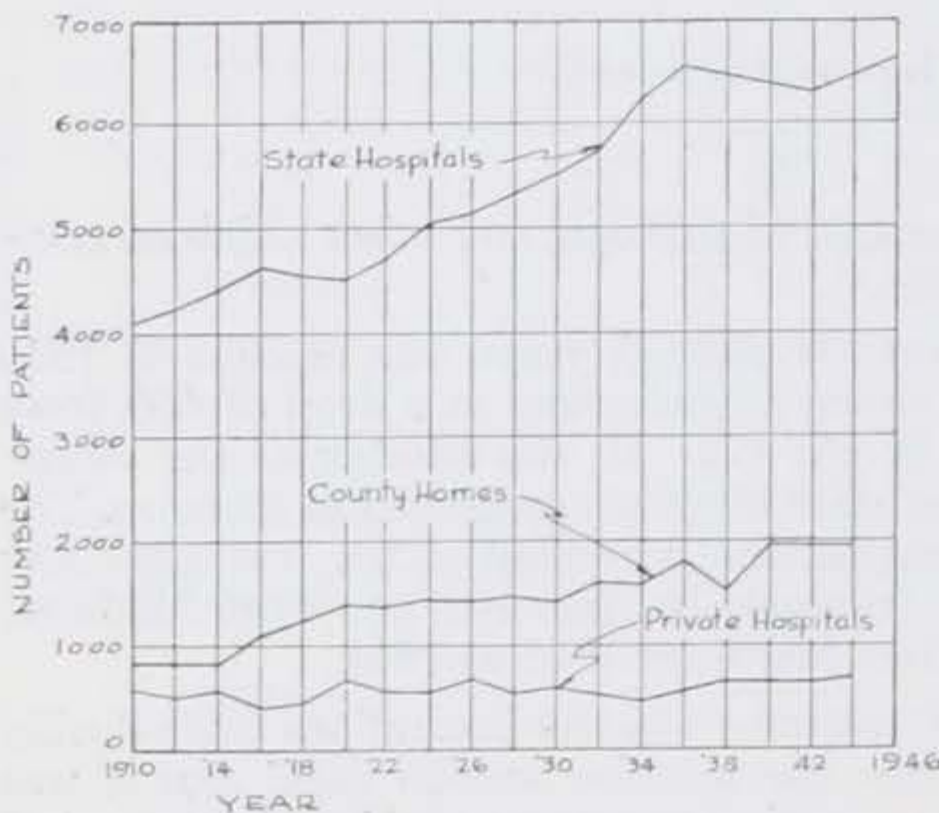


Fig. 12. Insane patients in all types of public institutions, 1910-46. (From data in table 11.)

following World War I and a more rapid increase during the depression years, followed by a drop to 1940; after this time increases in attendance at state mental hospitals were resumed in line with those previously recorded.

The number of new commitments to state mental hospitals varied much more than did the average daily attendance (tables 9 and 10). It was characterized by a sharp increase for a short



period just before World War I, a rapid increase from 1926 to 1936, a decline to 1940 and irregular increases after that date.

Dismissals, which include transfers, deaths and those subsequently readmitted, constitute a much larger group than the first admissions, but the direction of changes in the numbers of new admissions and dismissals during the 35 years is strikingly similar. That is, the more admissions, the more dismissals and the larger the average daily population. However, the data give some indication that in recent years an increasing proportion of mental patients received care for longer periods of time than formerly. While the average daily attendance increased 60 percent from 1912 to 1944, the number of new admissions to state mental hospitals increased only 30 percent.

It should be noted again that the number of new admissions varies more from year to year than does average daily attendance. It seems probable that the number of persons in mental hospitals today is in part a result of the tremendous increase in the number of persons admitted for the first time during the period from 1933 to 1938. Other important contributing causes will be mentioned as the analysis proceeds.

#### MENTAL PATIENTS IN PRIVATE HOSPITALS AND IN COUNTY HOMES

Mental patients in private hospitals and in county homes in 1944 were reported as 2,600, nearly three-fourths of whom were in county homes. This brings the total number of mental patients in Iowa who were legally adjudged insane to more than 9,000 in 1944 (table 11). Of this number 71 percent were in state hospitals, 21 percent in county homes and 8 percent in private hospitals.

TABLE 11. INSANE PATIENTS IN IOWA, 1910-1944\*.

Year	State hospitals	County homes	Private hospitals	Total
1946	6638†	1945	705	9115
1944	6465	1963	678	8949
1942	6308	1981	667	9009
1940	6361	1556	698	8716
1938	6462			
1936	6535	1814	565	8914
1934	6234	1599	455	8288
1932	5756	1610	530	7896
1930	5512	1530	600	7642
1928	5346	1482	563	7391
1926	5151	1444	678	7273
1924	5074	1470	574	7118
1922	4705	1406	582	6693
1920	4514	1402	691	6607
1918	4579	1281	433	6293
1916	4638	1115	414	6167
1914	4438	859	580	5877
1912	4267	842	482	5591
1910	4121	850	535	5506

\*Data from Biennial Reports of the Board of Control, Iowa. This table includes persons adjudged insane in Iowa except the criminal insane.

†Preliminary figure.



During the past 35 years, the proportion of mental patients adjudged insane and cared for in county homes has increased from 15 to 21 percent of the total. During the same time the proportion in the state hospitals decreased from 75 to 71 percent. Stated another way, from 1910 to 1944 the number of mental patients in private hospitals increased 32 percent, in state hospitals 60 percent and in county homes 129 percent.

#### OVERCROWDING IN STATE MENTAL HOSPITALS

The peak number of mental patients in state hospitals for the insane was reached in 1936; this high point has again been reached 10 years later. This naturally raises the question of overcrowding. The normal capacity of the four state mental hospitals has been estimated around 4,900 persons.<sup>11</sup> This appears to be a reasonable estimate approximating a maximum which should not be exceeded if patients are to be given decent housing and reasonable care. The number of patients has exceeded this combined capacity of the hospitals constantly during the past 20 years. At present the overload is sufficient to more than fill another hospital with a capacity similar to the largest of those now in operation in the state.

#### COMPARISON WITH OTHER STATES

Iowa is in a conservative position compared to the United States and to the other states in the West North Central region. Her rate for new commitments to mental hospitals was 48 per 100,000 population in 1943, which was also the average for this region including states located just west of the Mississippi River (table 12). The rate for the United States was 25 percent higher, and the commitment rate for the older states of New York, New Jersey and Pennsylvania was 60 percent higher than the Iowa rate.

The number of patients in mental hospitals in Iowa also increased less rapidly from 1933 to 1942 than in most other states. The 10-year increase in Iowa was 13 percent, in the West North Central Region 24 percent and in the United States 33 percent. During the depression years the increase in number of patients in Iowa mental hospitals was greater than in the region or in the United States as a whole. During the years which followed the depression the slower increase in Iowa might have been due in part to the larger increase during the depression and in part to the recent practice of committing or transferring a larger proportion of mental patients to county homes.

Analysis of the facts at hand point to a continued and reasonably steady increase in the number of mental patients in Iowa to 1960 and possibly beyond. Such a conclusion is based on the assumption that a number of important conditions will remain es-

<sup>11</sup>State of Iowa. Report of the Mental Hospital Survey Committee, 1946.



TABLE 12. POPULATION AND NEW ADMISSIONS TO STATE MENTAL HOSPITALS, UNITED STATES AND SELECTED AREAS, 1943\*.

Division or state	Total population (Est. July 1, 1943)	Total number		Number per 100,000 population	
		Patients (Jan. 1)	New admissions	Patients	New admissions
United States.....	133,966,319	496,136	82,650	370	62
Middle Atlantic.....	26,563,322	136,420	20,780	513	78
East North Central.....	26,415,872	89,573	15,420	339	58
West North Central.....	12,776,398	45,344	6,141	355	48
New York.....	12,860,567	85,835	13,117	667	102
Iowa.....	2,318,820	7,693	1,098	332	47

\*Data from report of U. S. Bureau of the Census. Population does not include persons in the armed forces overseas.

entially unchanged; prominent among these are the following:

1. Iowa statutes which govern the commitment of the mentally ill.
2. General administrative procedures of the Iowa Board of Control, especially those governing admission to and discharge from state mental hospitals.
3. Conditions of care and effectiveness of treatment in state mental hospitals.
4. General economic prosperity.

While minor modifications in any or all of these four factors might reasonably be expected, it does not appear likely that any of them will undergo major change in the near future. It appears that the total effect of changes which are likely to occur among these factors will be more likely to increase the number of persons under care in state mental hospitals than to decrease it.

In addition to the factors already mentioned there are several population factors which can be counted upon to increase the number of patients in the state mental hospitals.

1. General increase in the size of Iowa's population, while slow, can be counted on for a small increase in the number of mental patients by 1960.

2. Continued growth of city population can be counted on for a further increase in the number of mental patients which come from cities. However, the rate of commitment from town and rural counties per 100,000 of their population has increased more rapidly during recent years than the rate for the urban counties.

3. The rapidly increasing number of older persons in the population is probably the most important source of increases in the number of mental patients during this generation.

The rate of first admissions for senile psychosis and cerebral arteriosclerosis in 1943 was three times as high among those over 65 years of age as was the rate of first admissions from all causes for the population as a whole. More than a third of the first



TABLE 13. MAJOR MENTAL DISORDERS OF FIRST ADMISSIONS TO STATE MENTAL HOSPITALS, 1943\*.

Class of disorder	Number of admissions			Percent of admissions		
	United States	New York	Iowa	U. S.	N. Y.	Iowa
Total admissions.....	82,650	13,117	1,098	100	100	100
With psychosis.....	73,023	12,885	1,051	88.4	98.1	95.7
Without psychosis.....	7,722	232	47	9.3	1.9	4.3
Disorder not reported.....	1,905			2.3		
Selected major disorders						
General paresis.....	5,884	752	61	7.1	5.7	5.6
Alcoholic.....	3,721	840	37	4.5	6.4	3.4
Cerebral arteriosclerosis.....	12,368	3,072	121	15.0	23.4	11.0
Senile.....	9,878	1,847	253	12.0	14.1	23.0
Involutional psychosis.....	3,128	712	70	3.8	5.4	6.4
Manic depressive.....	6,555	619	71	7.9	4.7	6.5
Schizophrenia.....	16,368	3,144	202	19.8	24.0	18.4

\* Data from report of the U. S. Bureau of the Census.

admissions in 1943 were 65 years of age or older. (Appendix, table E). Obviously, the increase of 50 percent in this age group already in prospect will result in a marked increase in the number of commitments to mental hospitals. It appears, furthermore, that the care of the aged who are affected with senile dementia and cerebral arteriosclerosis will be a major problem of the next generation. As commitments for these diseases increase there also may be some further tendency to increase the period of treatment or care. Such a change would further increase the average daily attendance.

Other general causes can be seen at work, but the amount of influence they exert is difficult to measure or predict. One of the most prominent of these is the increased popular awareness of the problems of the mentally ill and the increased attention given to solving those problems. This awareness, plus the growing knowledge and belief that the mentally ill can be successfully hospitalized and should be treated and cared for at public expense, eventually may add another 25 to 50 percent to the number of mental patients under public care in Iowa. Increased public interest conceivably may develop legislative action to the point where the law may be changed to permit personal applications for admission to state mental hospitals. Increases which might result from special application of these long-time factors are not included in the more conservative estimates of future needs which follow.

#### PROBABLE FUTURE NEEDS FOR MENTAL CARE

The prospect is for a continuing increase in the number of insane receiving treatment in Iowa. By 1960 the total number under care in the state will probably be between 10,800 and 11,300. During years past the proportion of patients committed to state mental hospitals has been 71 percent of the total. On this basis the average daily attendance in state mental hospitals would be between 7,600 and 8,000. This assumes that the county homes and private hospitals in the future will continue to absorb similar proportions of



the increased load. This they probably cannot continue to do for more than a few years without the addition of new county units and new private hospital facilities for the special care of the mentally ill.

This means that, barring unusual changes in care or in administration, the overcrowding in state mental hospitals will continue and new buildings will be imperatively needed to care for the increase. As indicated previously, the overload in state mental hospitals in 1944 was approximately 1,800 patients. By 1960 this probably will have increased to between 2,700 and 3,100. Under present conditions it appears that a new hospital is urgently needed to care for the present surplus and that another new hospital will be needed to care for the probable increase to 1960. Obviously the entire situation should be re-evaluated frequently as conditions change, but there is every indication that an expansion of 50 percent in state mental hospital facilities should be considered a reasonable minimum.

Under present conditions neither the state nor the counties, nor both of them together, are adequately equipped to care for the mentally ill. Under present law the state can equip itself to adequately house and care for the present overload and for future increases. Any decision which is made should depend in major part upon the answer to the question: Where can persons who are mentally ill or insane get the diagnosis, treatment, re-education and the same high standard of hospital care normally accorded to those who are physically ill?

#### THE FEEBLE-MINDED AND THE EPILEPTIC

The number of feeble-minded and epileptic persons in state institutions (Glenwood and Woodward) increased steadily from 1910 to the present. During that time the average daily attendance increased 200 percent (table 14). Annual increases, which were small during World War I and the four years immediately following, were much larger during the depression of the 1930's. Increases again were smaller during the last half of the World War II period. However, the average daily attendance of feeble-minded at the two state schools, Glenwood and Woodward, increased 43 percent between 1930 and 1944.

The number of new admissions has not been increasing nearly so rapidly as the average daily attendance (Appendix, table D). Thus it is obvious that the length of time that persons have spent in hospital or school has increased. The longer term has resulted partly from the fact that, as the institutions reach their capacity, only the more serious cases are admitted.<sup>12</sup>

<sup>12</sup>Reports also give some indication that not all the epileptics in state institutions are in Woodward hospital. According to state reports there were more than 600 epileptics in various state institutions in 1916. The number in Woodward has seldom been reported as high as 75 percent of that number.



TABLE 14. AVERAGE DAILY ATTENDANCE OF FEEBLE-MINDED AND EPILEPTIC IN IOWA, 1910 TO 1946\*.

Year	Total	Feeble-minded	Epileptic
1910	1152	1152	
1912	1265	1265	
1914	1350	1350	
1916	1444	1444	
1918	1558	1483	75†
1920	1650	1462	188
1922	1841	1496	345
1924	1944	1626	318
1926	2104	1763‡	341‡
1928	2367	1963	404
1930	2409	2005	404
1932	2618	2190	428
1934	2880	2452	428
1936	3007	2589	418
1938	3217	2758	459
1940	3224	2779	445
1942	3335	2869	466
1944	3445	2979	466
1946	3480	3014‡	466‡

\* Data from biennial reports of the Board of Control, Iowa.

† Woodward hospital established.

‡ Estimated division of Woodward total.

If history repeats itself, as it seems likely to do, the number of inmates in these institutions will increase slowly for the remainder of the present decade. By 1950 the number of feeble-minded in our state institutions can be expected to increase more rapidly. By 1960 it is reasonable to expect that the total number will increase to 4,500 or perhaps 4,750. This increase of a thousand or more will consist mostly of feeble-minded persons rather than epileptics. A larger increase does not seem probable at this time because the number of persons under 20 years of age is not expected to increase rapidly and commitment rates for the feeble-minded are high when compared with rates for the United States (table 15).

The projected increases, though not extremely large, are very real in prospect, and plans should be made now to care adequately

TABLE 15. AGE OF FIRST COMMITMENTS OF FEEBLE-MINDED PERSONS TO GLENWOOD AND WOODWARD, 1936 TO 1944\*.

Year	Total new commitments	Age in years					
		0-9	10-14	15-19	20-29	30-44	45 and over and N. A.
1944	431	170	108	78	37	27	11
1942	362	144	94	69	35	12	8
1940	319	130	83	61	29	13	3
1938	360	129	96	72	32	26	5
1936	294	115	82	39	34	16	8
Total	1766	688	463	319	167	94	35
Percent	100	39.0	26.2	18.1	9.5	5.2	2.0

\* Data from reports of the Iowa Board of Control.



for them. The fact that overcrowding has not become chronic must not be used by the state as an excuse for failing to provide adequate housing, care and training for these handicapped persons.

#### CRIMINALS IN STATE INSTITUTIONS

The combined average daily attendance at the state penal institutions in Iowa increased from 900 in 1910 to nearly 3,000 in 1934, but decreased to less than 2,000 in 1944 (table 16). In other words, there was an increase of 200 percent from 1910 to 1934 followed by a decrease of one-third during the past 10 years. Changes in attendance of women at Rockwell City followed a pattern similar to that for the men, but the number of women was less than 5 percent of the total number of criminals in state penal institutions.

New admissions followed a similar pattern. From less than 400 in 1910 they increased to a peak of more than 1,000 in 1932, then decreased to less than half the peak number in 1944 (table 16).

The number of criminals decreased during war, economic prosperity and full employment. The peak of criminal commitments was reached during the depression, and the peak in criminal population was reached soon thereafter. Greatest decreases came during World War II when the lower draft age made many able-bodied criminals subject to service in the armed forces, and eco-

TABLE 16. AVERAGE DAILY ATTENDANCE AND NEW ADMISSIONS IN IOWA PENAL INSTITUTIONS, 1910 TO 1946\*.

Year	Average daily attendance				New admissions (annual)			
	Total	State penitentiary	Men's reformatory	Women's reformatory	Total	State penitentiary	Men's reformatory	Women's reformatory
1946†.....	1653	980	616	57	521	253	226	42
1944.....	1975	1172	738	65	447	243	162	42
1942.....	2515	1379	1065	71	637	339	252	46
1940.....	2631	1457	1096	78	833	416	379	38
1938.....	2722	1513	1128	81	867	436	355	76
1936.....	2832	1528	1199	105	825	453	303	69
1934.....	2988	1501	1386	101	909	419	409	81
1932.....	2850	1361	1385	104	1046	461	503	82
1930.....	2407	1164	1142	101	839	350	430	59
1928.....	2177	1068	1026	83	810	351	399	60
1926.....	2066	994	1001	71	700	293	355	52
1924.....	1866	830	945	91	726	267	397	62
1922.....	1426	567	788	71	636	270	485	81
1920.....	1144	466	633	45	579	197	340	42
1918.....	1258	578	658	22	429	176	242	11‡
1916.....	1355	640	715	.....	517	223	294	.....
1914.....	1204	529	675	.....	440	193	247	.....
1912.....	1099	506	593	.....	356	143	213	.....
1910.....	924	487	437	.....	381	165	216	.....

\* Data from Reports of the Iowa Board of Control.

† Preliminary figures for 1936.

‡ Previously women were in Anamosa.



conomic prosperity and full employment helped to maintain relatively low rates for crimes against property.

During the years ahead it appears likely that economic conditions will be the major factors affecting population in state penal institutions. Population growth will not be a major factor because there will be little change in the number of adults under 30 years of age. It is from this age group that most new admissions come.

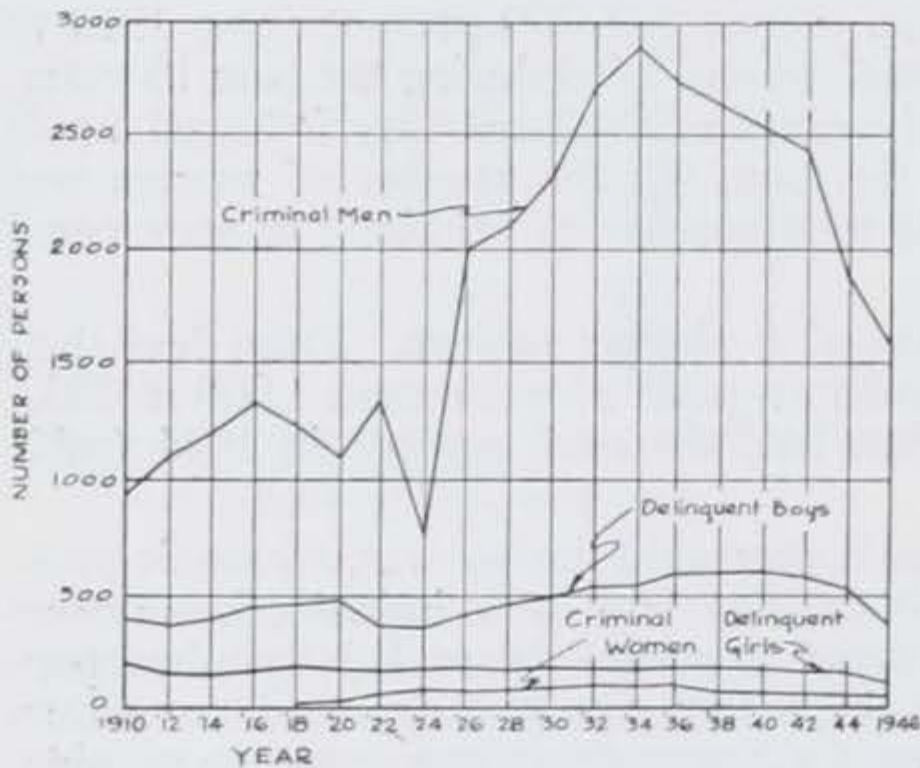


Fig. 13. Criminals and delinquents in institutions under the Iowa Board of Control, 1910-46. (From data in tables 16 and 17.)

Prediction is especially difficult in a situation so dependent upon economic conditions and employment. However, it can be expected that the population of our state prison and reformatories will return rather rapidly to its pre-war number and then increase more slowly toward a possible peak of 3,000 by 1960. A serious economic depression might quickly add another 1,000 to the criminal population in state institutions.

#### DELINQUENTS IN STATE TRAINING SCHOOLS

The number of delinquents increased during World War I and the years immediately after, but decreased somewhat during the middle 1920's (table 17). The former high point was reached again in 1928, and the increase continued throughout the 1930's culminating in a peak in the late 1930's, followed by a decline to a number which in 1944 was only 15 to 20 percent higher than the number in 1910.

During this 35-year period, including two world wars and a major depression, the average daily attendance of girls in Mitchellville remained practically constant. Attendance of boys in Eldora went up and then down as previously indicated, and in 1944 their number was nearly 50 percent larger than in 1910.

New admissions for both boys and girls increased from 178 in 1910 to 443 in 1944, an increase of 150 percent. Admissions increased for both boys and girls but those for boys increased nearly twice as rapidly. The peaks of new admissions for boys and girls were both reached in 1944 (table 17). Ordinarily an increase in new admissions would be expected to lead to a similar increase in



TABLE 17. AVERAGE DAILY ATTENDANCE AND NEW ADMISSIONS IN IOWA TRAINING SCHOOLS, 1910 TO 1946\*.

Year	Average daily attendance			New admissions (annual)		
	Total	Boys	Girls	Total	Boys	Girls
1946†	507	370	137	241	181	60
1944	719	547	172	443	336	107
1942	761	597	164	326	256	70
1940	783	604	179	307	247	60
1938	790	600	190	381	292	89
1936	777	599	178	348	257	91
1934	710	535	175	364	273	91
1932	743	552	191	371	277	94
1930	670	486	184	346	246	100
1928	637	461	176	372	257	115
1926	595	410	185	319	232	87
1924	550	363	187	263	192	71
1922	549	371	178	377	276	101
1920	648	477	171	242	190	52
1918	643	458	185	292	209	83
1916	603	436	167	228	174	54
1914	543	395	148	216	165	51
1912	508	356	152	180	117	63
1910	582	386	196	178	123	55

\* Data from Reports of the Iowa Board of Control.

† Preliminary figures for 1946.

attendance. That this did not happen can be attributed to (1) increased employment for both boys and girls, (2) service in the armed forces and (3) recent administrative changes at the training school which reduced the average daily attendance of boys by approximately one-third.

Judging from past experience the number of delinquent girls can be expected to increase but slowly. It will not be surprising if the number of delinquent boys again increases to the number previously accommodated during the peak years just before the war. Barring depression, the long-time picture indicates that a sustained rapid increase to 1960 is unlikely.

#### THE ORPHANS' HOME AND THE JUVENILE HOME

The combined attendance at the Davenport and Toledo homes doubled from 1910 to 1934. Since that time it has decreased until at present the attendance is less than in 1910 (table 18). New admissions increased according to the same general pattern, but they are still a third higher than in 1910 when only the orphans' home was in operation.

During the next 10 years it seems likely that there will be a rapid increase in the number of children needing care and placement. This should not increase the number of children in the two state homes much above present levels, certainly not above the previous high number. Recent development of child welfare services and of the program for aid to dependent children, together with the work of private agencies for child placement and the general increase in both private and public concern for child care,



TABLE 18. AVERAGE DAILY ATTENDANCE AND NEW ADMISSIONS IN OTHER BOARD OF CONTROL INSTITUTIONS, 1910-1946\*.

Year	Average daily attendance			New admissions		
	Soldiers' orphans and juvenile home	Soldiers' home	Tuberculosis sanatorium	Soldiers' orphans and juvenile home	Soldiers' home	Tuberculosis sanatorium
1946†	523	259	392	248	70	302
1944	517	291	395	271	36	301
1942	645	400	399	383	75	286
1940	820	401	394	384	121	331
1938	907	321	357	372	116	291
1936	982	433	339	370	120	239
1934	1002	456	341	404	137	213
1932	926	423	321	556	210	266
1930	799	418	312	513	150	308
1928	772	461	271	382	102	376
1926	712	542	283	330	152	377
1924	638	577	255	305	137	359
1922	509	642	225	287‡	137	352
1920	384	722	207	167	172	403
1918	432	837	191	202	219	421
1916	567	750	148	146	212	341
1914	533	732	106	204	191	310
1912	585	778	98	188	193	246
1910	530	819	76	196	261	280

\* Data from Reports of the Iowa Board of Control.

† Preliminary figures for 1946.

‡ Juvenile home at Toledo was established in 1920.

combine to bring about improved care of children in a favorable family home environment. Support for these programs might well be increased until the need for child care in state institutions would be confined largely to those children with severe physical disabilities and to those who are not suitable for adoption. In other words the children's homes in the future might become specialized placement agencies or, more likely, take on the characteristics of a children's hospital or rehabilitation center.

#### THE SOLDIERS' HOME

Population in terms of average daily attendance declined from 800 in 1910 to 300 in 1944. During the same time the number of new admissions dropped from 250 to 36 (table 18). The future population of the soldiers' home appears to be highly unpredictable. It is certain that care of the aged will be a problem of increasing size and importance. The state might give some consideration to the need to provide rest home and nursing care for its war veterans who are incapacitated but not in need of specialized hospital treatment.

#### THE TUBERCULOSIS SANATORIUM

The number of patients in the state sanatorium increased 300 percent in terms of average daily attendance, while the number of



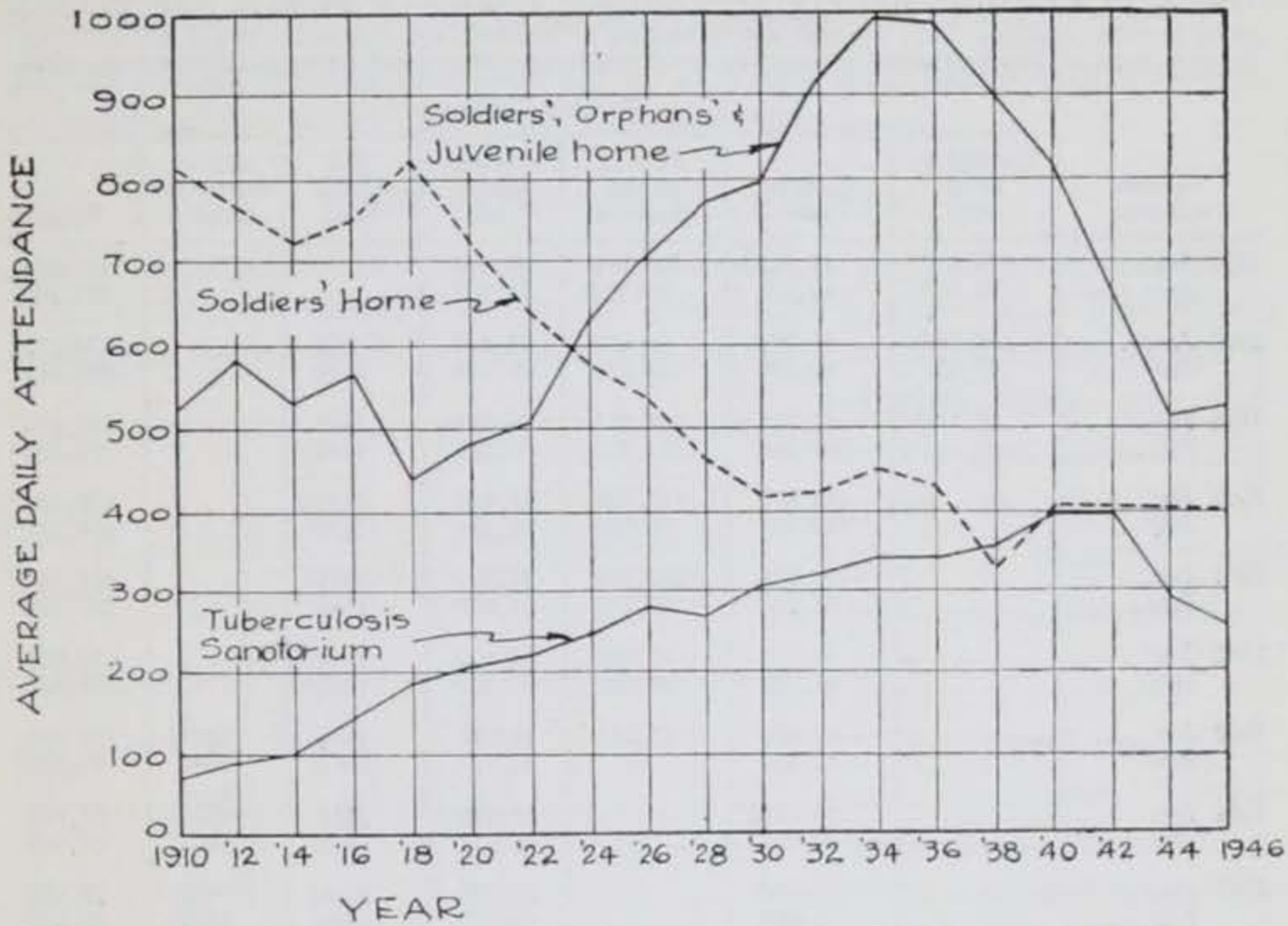


Fig. 14. Average daily attendance in selected institutions under the Iowa Board of Control, 1910-46. (From data in table 18.)

new admissions remained relatively constant, varying around 300 per year from 1910 to 1944 (table 18). The present population stands at approximately 400 and does not appear likely to greatly exceed that number. During the years ahead, the number of admissions for tuberculosis is likely to decline to a point where part of these state facilities might be used to treat other communicable diseases.

#### POPULATION CHANGES AFFECTING IOWA WELFARE

The total number of persons receiving public assistance varied around a January 1 peak of 300,000 for the 5 years 1937 to 1941. The succeeding 5-year period was characterized by sharp annual decreases which amounted to approximately 30 percent each year for the first 3 years. In 1945 and 1946 the decrease in the number of persons receiving public assistance was checked and leveled out at a number between 65,000 and 70,000 persons (table 19). This low point may be considered a benchmark from which to measure future increases in the total number of persons receiving public assistance. Prospective increases may result in a total of approximately 100,000 persons by 1950 or shortly thereafter. In a depression period this number might double quickly were it not for the likelihood that unemployment compensation would cushion the shock of a short business recession.



TABLE 19. PERSONS RECEIVING VARIOUS FORMS OF PUBLIC ASSISTANCE IN IOWA, 1937 TO 1946\*.

Month and year	Number of persons						Total
	Unemployment relief	County care	Federal works program	Old age assistance	Aid to the blind	Aid to dependent children	
1937 Jan.....	114,547	41,775	105,978	30,274	.....	.....	292,574
July.....	63,565	40,177	90,436	38,202	.....	.....	232,380
1938 Jan.....	104,185	41,671	86,359	45,440	386	.....	278,041
July.....	47,057	42,206	153,822	48,148	1178	.....	292,411
1939 Jan.....	60,319†	51,327	137,615	50,863	1298	.....	301,422
July.....	.....	103,656	117,272	52,364	1398	.....	274,690
1940 Jan.....	.....	141,610	112,300	54,123	1457	.....	309,490
July.....	.....	112,153	76,000	55,213	1478	.....	244,844
1941 Jan.....	.....	125,825	113,900	56,497	1521	.....	297,743
July.....	.....	85,186	63,377	57,050	1548	.....	207,161
1942 Jan.....	.....	90,412	63,805	56,990	1550	.....	212,757
July.....	.....	57,722	24,633	56,436	1541	.....	140,332
1943 Jan.....	.....	45,471	11,015	55,271	1524	6157‡	119,438
July.....	.....	31,457	.....	53,777	1492	5649	92,375
1944 Jan.....	.....	13,911§	.....	52,730	1431	5536	73,608
July.....	.....	10,062	.....	51,111	1349	7412	69,934
1945 Jan.....	.....	10,428	.....	50,203	1295	7689	69,615
July.....	.....	8,445	.....	49,129	1248	7508	66,330
1946 Jan.....	.....	10,587	.....	48,597	1201	8289	68,674
July.....	.....	9,354	.....	48,313	1219	9179	68,065

\* Data from reports of the Iowa Department of Social Welfare.

† Unemployment relief was discontinued as a separate category and carried as county relief.

‡ Previously carried as widows' pensions and carried as county relief.

§ Includes only cases receiving subsistence items. Figures for previous years include those receiving hospital, medical or boarding home care.

#### COUNTY CARE

The number of persons receiving assistance directly from the counties has varied tremendously during the past 10 years. From 40,000 in the late 1930's it increased to more than three times that number in 1940 and '41, then decreased rapidly to 10,000 in 1945 and '46 (table 19). This wide fluctuation can be explained in part by the fact that county assistance is a residual category; that is to say, the counties care for those needy people who are not adequately cared for by some other agency or program.

During the late 1930's, from one-third to two-thirds of all persons receiving public assistance were receiving federal unemployment relief or were employed by the federal works program. As unemployment relief was curtailed, more persons were transferred to the works program. As the works program was curtailed the number of persons receiving assistance from the county increased. County care was the largest single program in number of persons assisted from 1940 to '42. During 1942, county care fell below old age assistance and decreased quickly to its present minimum of 8,000 to 10,000 persons. County care might reasonably be



expected to increase to 25,000 or perhaps more by 1950. Increases in aid to dependent children or in old age assistance would serve as alternatives to an increase in county care.

#### AID TO DEPENDENT CHILDREN

This program is relatively new and it is the only welfare program which increased during the war years (table 19). The ADC program appears likely to increase rapidly in size and importance during the next 5 years and then return more nearly to its present number or perhaps to the number in 1945.

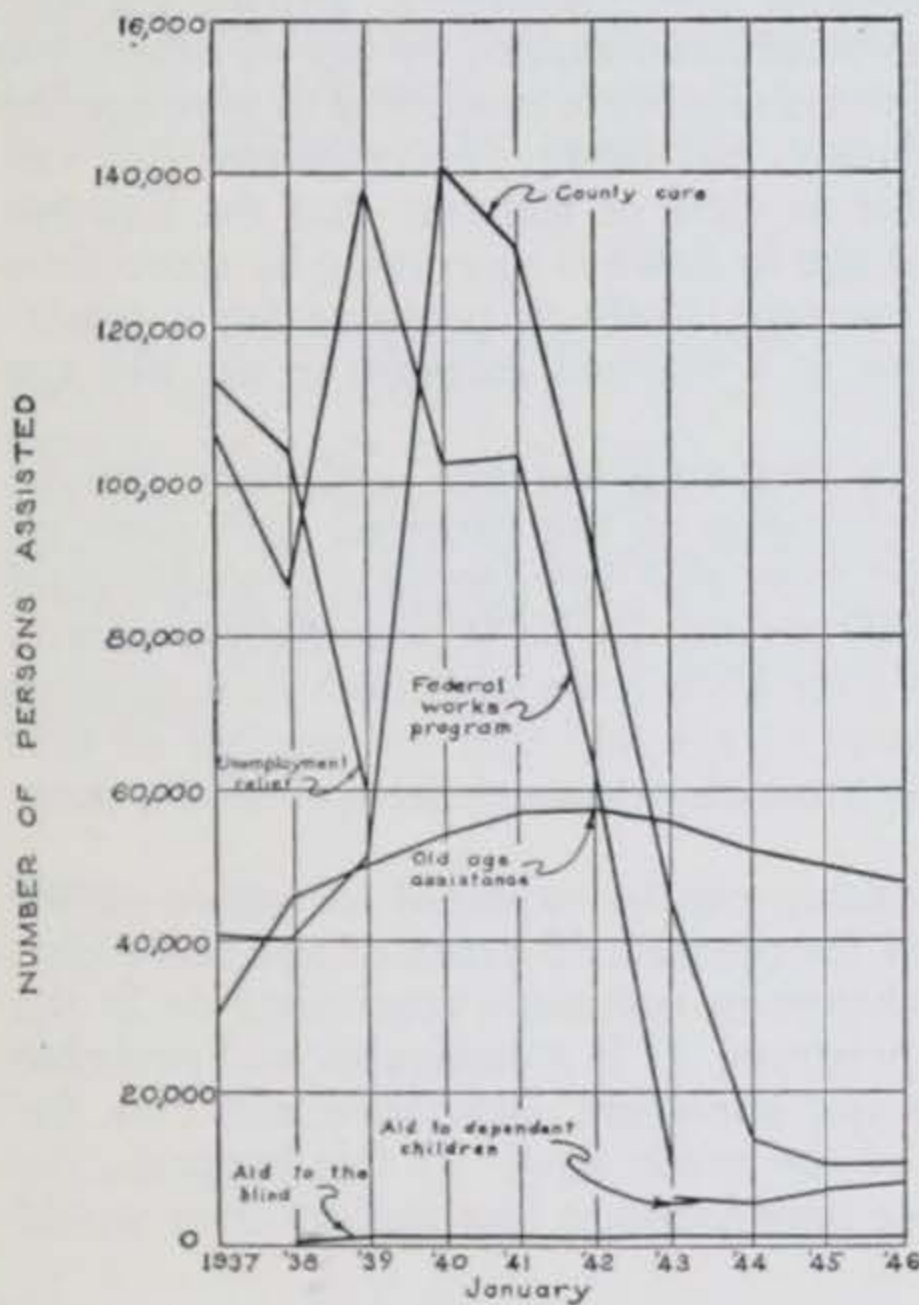


Fig. 15. Persons receiving public assistance in Iowa, 1937-46. (From data in table 19.)

during any future depression the aid to dependent children program will replace county care to a considerable extent and carry a large share of the total load not carried by unemployment insurance. Of course, a further extension of coverage by unemployment insurance might make such an increase in ADC less necessary.

#### AID TO THE BLIND

This program to assist needy blind persons is small from the standpoint of the number of persons assisted and is likely to remain so. The number decreased 25 percent during the war years when it was easier both for blind persons to become self-support-

Increased numbers of marriages, births and divorces are the raw materials on which the ADC program grows. Today the numbers of these are unprecedented, and needs for ADC will increase proportionally. A business depression would send the number of persons assisted by this program soaring to unpredictable heights. The reason is not hard to find; it appears that



ing and for relatives to give needed assistance. While the number of blind persons receiving assistance can be expected to increase up to or somewhat above the previous high of 1,550 persons, it will not constitute a large proportion of the total assistance program.

#### OLD AGE ASSISTANCE

The number of persons receiving old age assistance decreased from 57,000 in 1941 to 48,000 in 1946 (table 19). During the war it was easier for those who were handicapped by age or otherwise to obtain employment. Relatives also were more able to give needed assistance than they previously had been. Nevertheless, this decrease was quite remarkable in view of the fact that the number of persons over 65 years of age in Iowa is increasing by more than 3,000 per year. Such an increase, likely to continue for a generation, will necessarily result in a marked increase in the old age assistance program.

The number of persons receiving old age assistance can be expected to return rather promptly to the previous high point of 57,000 and increase further from that number to a probable total of between 75,000 and 85,000 persons by 1970. Population experts have predicted that shortly after 1970 Iowa will reach its maximum total population over 65 years of age and that the number of oldsters in Iowa might decline somewhat toward the end of the present century (fig. 5).

Needs for old age assistance can be expected to follow rather closely the population trend for persons 65 years of age and older, unless there is a marked change in economic conditions or in the regulations governing the program. It is conceivable and probable that in the future old age and survivors' insurance will care for a much larger proportion of the needy aged. If this happens, the needs for old age assistance may increase less rapidly than would otherwise be expected.

#### PROBLEMS OF THE AGED

The tremendous increase in the number of persons in Iowa over 65 years of age may well be considered the outstanding characteristic of Iowa population (table 7). The importance of this fact has been mentioned in the previous discussions of the increasing number of the mentally ill and the increasing needs for old age assistance. The effects of increases in the number of the aged are much more far-reaching than that. Boarding homes are needed, hospitals are needed, and nursing homes must be expanded to care adequately for the oldsters in our population who need care now and who will need it to an increasing extent in the future. State standards need to be set and maintained for these crucial services. If better standards and better homes and hospital care are not pro-



vided for the aged, the state is likely to face a popular concern greater than that recently caused by the situation in the state mental hospitals.

These problems of the aged extend far beyond the needs of those needy aged who receive public financial aid or public care. More elderly persons are maintaining their own homes instead of living with relatives and friends. Added facilities for their care are needed as their numbers increase and as increasing age or the loss of a spouse makes it impossible for them to care for themselves, even though they might wish to do so. Facilities are not available at present to care adequately either for those who receive public assistance or for those who can pay their own way.

#### APPENDIX

This investigation has brought out a considerable volume of useful and interesting data on population. To include all of these data in the body of the report would make it unnecessarily long and tedious. However, some of the data are needed for reference by readers who may be interested to learn more of the background of the Iowa analysis or who may wish to compare Iowa with the United States. It is for such readers that the following tables are presented.



TABLE A. BIRTH AND DEATH RATES AND NATURAL INCREASE IN THE POPULATION OF THE UNITED STATES, 1915 TO 1945<sup>1</sup>.

Year	Rate per 1,000 population <sup>2</sup>		
	Births	Deaths	Natural increase
1915	25.0	13.2	11.8
1916	24.9	13.8	11.1
1917	24.5	14.0	10.5
1918	24.7	12.9	6.6
1919	22.4	12.9	9.5
1920	23.7	13.0	10.7
1921	24.2	11.5	12.7
1922	22.3	11.7	10.6
1923	22.1	12.1	10.0
1924	22.2	11.6	10.6
1925	21.3	11.7	9.6
1926	20.5	12.1	8.4
1927	20.5	11.3	9.2
1928	19.6	12.0	7.6
1929	18.8	11.9	6.9
1930	18.9	11.3	7.6
1931	18.0	11.1	6.9
1932	17.4	10.9	6.5
1933	16.6	10.7	5.9
1934	17.2	11.1	6.1
1935	16.9	10.9	6.0
1936	16.7	11.6	5.1
1937	17.1	11.3	5.8
1938	17.6	10.6	7.0
1939	17.3	10.6	6.7
1940	17.9	10.8	7.1
1941	18.9	10.5	8.4
1942	21.0	10.4	10.6
1943	21.5	10.9	10.6
1944	20.2	10.2	10.0

<sup>1</sup>Source: U. S. Bureau of the Census. Vital Statistics Reports.

<sup>2</sup>Rates are for the birth registration area which after 1932 included all the states.

TABLE B. THE RURAL AND URBAN POPULATION OF THE UNITED STATES, 1850 TO 1940<sup>1</sup>.

Year	Total	Rural	Urban	Percent	
				Urban	Rural
1850	23,191,876	19,648,160	3,543,716	15.3	84.7
1860	31,443,321	25,226,803	6,216,518	19.8	80.2
1870	38,558,371	26,656,010	9,902,361	25.7	74.3
1880	50,155,783	36,026,048	14,129,735	28.2	71.8
1890	62,947,714	40,841,449	22,106,265	35.1	64.9
1900	75,994,575	45,834,654	30,159,921	39.7	60.3
1910	91,972,266	49,973,334	41,988,932	45.7	54.3
1920	105,710,620	51,406,017	54,304,603	51.2	48.8
1930	122,775,046	53,820,223	68,954,823	56.2	43.8
1940	131,669,275	57,245,573	74,423,702	56.5	43.5
1945	138,955,469 <sup>2</sup>				

<sup>1</sup>Source: U. S. Census. 1940.

<sup>2</sup>Estimate Jan. 1, by U. S. Bureau of the Census.



TABLE C. THE NUMBER OF IOWA POPULATION LIVING IN FOUR TYPES OF COUNTIES, 1900 TO 1943<sup>1</sup>.

Year	Total 99 counties	Population of largest town			
		20 counties 10,000 or over (city)	22 counties 5,000-9,999 (town)	34 counties 2,500-4,999 (town)	23 counties Under 2,500 (rural)
1900.....	2,231,853	790,375	438,270	630,350	372,858
1910.....	2,224,771	866,846	430,508	587,903	339,514
1920.....	2,404,021	997,664	453,879	606,748	345,730
1930.....	2,470,939	1,090,150	444,611	601,892	334,286
1940.....	2,538,268	1,157,158	443,164	609,087	328,949
1943 <sup>2</sup> .....	2,276,876	1,084,211	382,451	529,005	281,209

<sup>1</sup>Data from the U. S. Census. Counties classified by size of largest town or city in 1940.

<sup>2</sup>Estimate from U. S. Bureau of the Census, Series P-44, No. 3. Feb. 15, 1944. This estimate, which is slightly smaller than a later Census estimate for July 1, 1943, was used because the later estimate did not give data for counties.

TABLE D. NEW ADMISSIONS TO STATE HOSPITALS FOR THE INSANE, THE INEBRIATE, THE EPILEPTIC AND TO SCHOOLS FOR THE FEEBLE-MINDED, 1910 TO 1946<sup>1</sup>.

Year	Insane	Inebriate	Feeble-minded	Epileptic (Woodward)	Total
1946 <sup>2</sup> .....		1383		263	
1944.....	1036	117	209	45	1407
1942.....	1106	289	182	48	1625
1940.....	1000	304	168	35	1507
1938.....	1187	360	137	58	1742
1936.....	1293	399	164	45	1901
1934.....	1344	543	160	37	2034
1932.....	1110	270	224	71	1675
1930.....	1095	147	131	26	1399
1928.....	980	211 <sup>3</sup>	103	59	1353
1926.....	870	149		253	1272
1924.....	910	127		144	1181
1922.....	924	95	144	99	1262
1920.....	970	26	160	67	1323
1918.....	1002	76	110	187	1375
1916.....	997	231	137	92	1457
1914.....	951	275	90	85	1401
1912.....	799	300	162	75	1336
1910.....	852	396	122	62	1432

<sup>1</sup>Data from reports of the Iowa Board of Control.

<sup>2</sup>Preliminary figures for 1946.

<sup>3</sup>Inebriates have been housed in all mental hospitals since 1928.



TABLE E. AGE OF FIRST ADMISSIONS TO MENTAL HOSPITALS, 1943<sup>1</sup>.

Age	Number of first admissions			Percent of total		
	United States	New York	Iowa	United States	New York	Iowa
Under 25.....	10,324	1,473	91	12.5	11.2	8.3
25-34.....	13,112	1,814	128	15.9	13.8	11.7
35-44.....	14,020	1,948	196	17.0	14.8	17.8
45-54.....	11,684	1,903	155	14.1	14.5	14.1
55-64.....	10,368	1,782	138	12.5	13.6	12.6
65 and over.....	20,745	4,175	389	25.1	31.9	35.4
Not reported.....	2,397	22	1	2.9	.2	.1
Total.....	82,650	13,117	1,098	100.0	100.0	100.0

<sup>1</sup>Data from report of the U. S. Bureau of the Census.

TABLE F. THE PROPORTIONS OF THE INSANE, HOUSED IN VARIOUS TYPES OF INSTITUTIONS IN IOWA, 1910 TO 1944<sup>1</sup>.

Type of institution	Percent of patients	
	1910	1944
State mental hospitals.....	75	71
County homes.....	15	21
Private hospitals.....	10	8
Total percent.....	100	100

<sup>1</sup>Computed from data in table 10.

TABLE G. MOVEMENT OF POPULATION IN PUBLIC INSTITUTIONS FOR MENTAL DEFECTIVES AND EPILEPTICS FOR U. S. AND IOWA, 1943.

Item	United States <sup>1</sup>			Iowa <sup>2</sup>		
	Total	Defective	Epileptic	Total	Defective	Epileptic
Patients on books Jan. 1.....	123,496	102,162	19,610	3,518	2,884	634
In institution.....	106,612	87,640	17,684	3,342	2,736	606
In extramural care.....	16,884	14,522	1,926	176	148	28
Admissions total.....	11,288	9,057	1,941	292	225	67
First admissions.....	9,847	7,907	1,713	283	218	65
Readmissions and transfers.....	1,441	1,150	228	9	7	2
Separations total.....	10,065	7,994	1,748	181	136	45
Discharges.....	6,639	5,590	787	73	61	12
From institution.....	1,912	1,471	322	40	34	6
From extramural care.....	4,727	4,119	465	33	27	6
Transfers.....	682	580	53	23	14	9
Deaths total.....	2,744	1,824	908	85	61	24
In institution.....	2,673	1,771	891	85	61	24
In extramural care.....	71	53	17			

<sup>1</sup>From U. S. Bureau of the Census, Patients in mental institutions, 1943, p. 163.

<sup>2</sup>Ibid., p. 180.



