

was largely due to the relatively small grain crop in 1959.

As of mid-July, the outlook for the 1960 district small grain crop was excellent. Much of it has already been harvested, and with the exception of some dry spots in central Montana, crop production should be at record levels in most areas. The 1960 district wheat crop, for example, is now estimated at 34 percent above that of last year, with oats and flax production up an estimated 48 percent. This situation along with favorable livestock marketings this summer and fall may soon, if it has not already, push farm income to the plus side compared with year ago statistics. This would be a general business stimulus. In fact, some of the economic data just becoming available for June and early July do show modest improvement. Department store sales in Minneapolis, for example, in the 4 weeks ended July 9, were up 6 percent from the comparable period a year earlier. For the United States, the figure was a plus 2 percent. District employment in June also showed a healthy improvement and the number of insured unemployed dropped from 35,134 in May to 25,527 in June. This latter comparison represents a greater improvement from May to June than for the country as a whole. Farm income in May (latest available official data) was only about 5 percent less than a year ago. In previous months of 1960 the decline from year ago levels was substantially larger, ranging up to a minus 15 percent in February.

During the first half of 1960, daily average gross demand deposits at district banks averaged about 3 percent less than in the first half of 1959. Loans and discounts in the first half of this year averaged nearly 12 percent higher than in the comparable period of 1959. The result has been a mild liquidity squeeze on district member banks which is reflected in the loan to deposit ratio of 54.1 percent in June of 1960, compared with a ratio of 49.5 percent a year earlier. Ordinarily there is a substantial expansion in district bank deposits during the last half of the year as farm marketings are in-

creased, tending to improve the liquidity position of banks.

*The following selected topics describe particular aspects of the district's current economic scene:*

## RETAIL SALES REGAIN

In the Ninth district as well as in the nation, retail sales during the second quarter were well sustained. Sales in May, seasonally adjusted, were lower than in April, but April figures had established a new record by an impressive margin. June sales indicate that the May dip was of short duration.

The seasonally adjusted index of Ninth district department store sales in April rose to 147 percent of the 1947-49 base period. The previous high of 140 percent occurred in June 1959. In May the index declined to 134 percent, comparable to the level of sales in January and February and above those in March on a seasonally adjusted basis. In June the adjusted index again rose to 138.1<sup>1</sup> percent, which was almost equal to the June 1959 figure, the peak for last year.

Department store sales have held up better in the larger urban centers with industrial payrolls than in the agricultural regions. In district areas with considerable manufacturing — the Twin Cities, southeastern Minnesota and parts of northwestern Wisconsin—sales were consistently strong during the first half of the year. In the iron ore mining regions, sales picked up materially during the second quarter. On the other hand, sales in some of the district's agricultural regions have been weak, reflecting the relatively low cash receipts from farm marketings.

Sales of all types of retail stores as measured by a special Bureau of Census sample (excluding large retail chains) give a broader measure of consumer purchases than do department store sales, which are greatly influenced by the discretionary income which consumers have at their dis-

<sup>1</sup> Preliminary

posals. In the Census sample, district sales have held up well; in both April and May they were 7 and 10 percent respectively above a year ago.

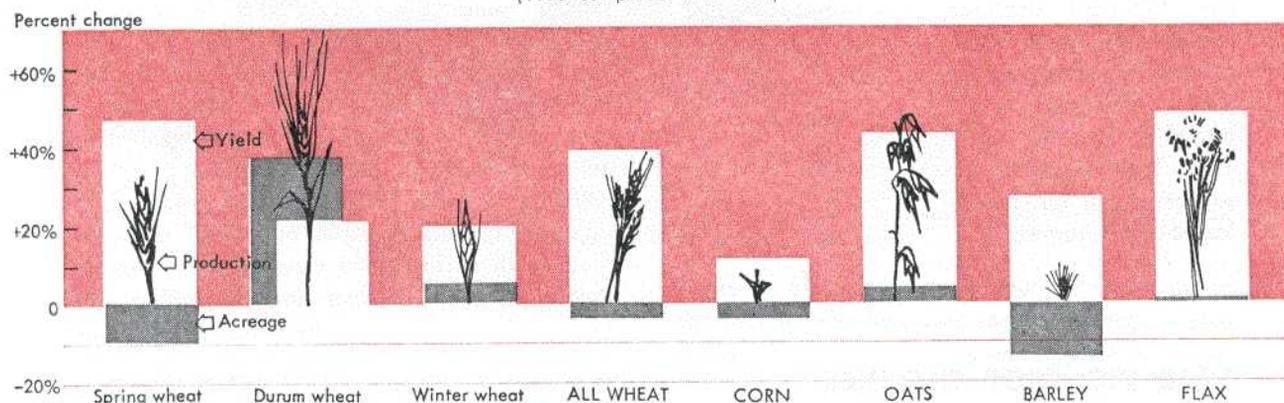
The sale of new automobiles has lagged in agricultural regions. In the first five months of this year, the number of new cars registered in the four states fully within the district was 1 percent below the number for the corresponding period of last year. In North Dakota and South Dakota, registrations were down as much as 10 percent and 13

percent respectively from a year ago. In Montana registrations were down 4 percent and in Minnesota up 4 percent.

In contrast, the sale of new automobiles has been a buoyant part of the national retail sales picture. Over the first half of the year, an estimated 3.3 million cars were sold, an increase of 7 percent from last year. Sales thus far have been second only to the record established in 1955 when 3.5 million were sold during the first half.

### Prospective changes in crop acreages, yields, and production in Ninth district

(1960 compared with 1959)



Based on four states wholly within district, 1960 data from USDA July 1 forecast.

### CROP PROSPECTS MIXED

July 1 U. S. Department of Agriculture estimates of crop production indicate a total wheat crop for the Ninth district of 296 million bushels; this estimate is up 2 million bushels from the June 1 report and 34 percent above the 1959 output. The upward revisions in the estimate are largely tied to favorable cropping conditions which prevailed during June in the eastern Dakotas and Minnesota. In contrast, crops in the western part of the district suffered some setback because of a developing drouth situation which continues unabated at mid-July. High temperatures in the early days of July also exerted a deteriorating effect on

the crop. As of July 1, however, yield estimates throughout the district continued well above year ago levels.

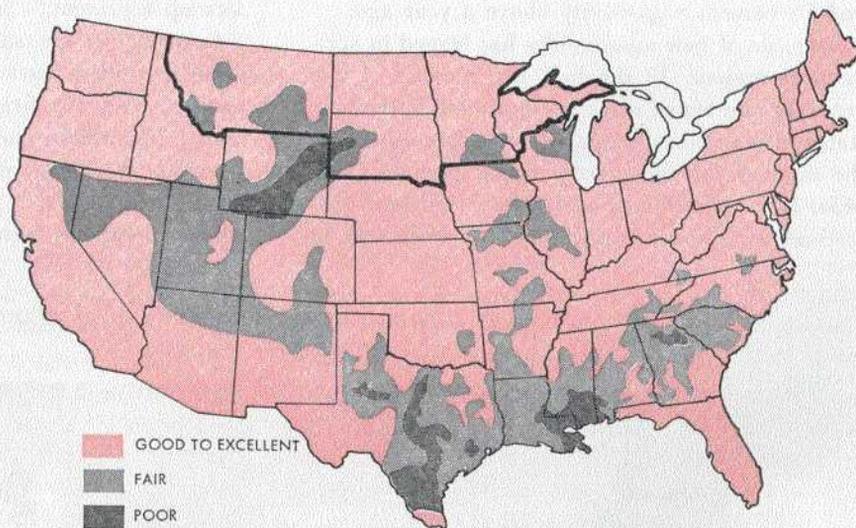
The other small grain crops are also expected to exceed year-earlier production records by substantial amounts. Oats and flax production are expected to exceed 1959 levels in the district by 48 percent, while barley output is currently forecast 9 percent higher than last year. Planted acreage of oats and flax for the district as a whole showed only minor changes, while barley acreage dropped 13 percent.

District corn production is expected to exceed the year-ago level by 7 percent, with the increase attributable to substantial yield increases expected

in the Dakotas. In Minnesota, the district's major corn state, an exceptionally cool, wet season has dampened corn prospects, currently reported as only fair in the southeastern and south central part of the state. Minnesota's corn yield is expected only to equal the 49-bushel level of last year; this is 10 percent below the 1953-58 five-year average yield for the state.

Soybean acreage in the district this year is reported 7 percent below 1959. Yield estimates for soybeans will not be released until August.

### July 1960 crop prospects



Source: U. S. Department of Agriculture

### 1960 PIG CROP DECLINES

At midyear the U. S. Department of Agriculture estimated the 1960 U. S. spring pig crop at 49,103,000 head, 16 percent below last year. The decline resulted from a 15 percent cutback in sow farrowings and a slight reduction in the number of pigs saved per litter. The estimated reduction in the spring crop reflects a greater decrease than had been expected on the basis of farrowing intentions as reported last December.

The fall pig crop this year (June-November) is also expected to be down from a year earlier. Reports on breeding intentions indicated that fall farrowings will be 4 percent below the level of last year. The 10 corn belt states of South Dakota, Minnesota, Wisconsin, Ohio, Indiana, Illinois, Iowa, Missouri, Nebraska and Kansas, which accounted for nearly three-fourths of the 1959 U. S. pig crop, intend to cut farrowings 2 percent this fall

as compared with last fall. This farrowing reduction is expected in the summer; farrowings in the 10 states, June-August, are anticipated to be 6 percent less than last summer. The late fall (September-November) farrowings in the 10 states are expected to be 2 percent above a year ago. If this estimate is realized, the turn-around in the late fall crop will mark the end to the shortest downturn in hog numbers on record.

#### PERCENTAGE CHANGE IN SOW FARROWINGS (1960 COMPARED WITH 1959)

	Spring	Fall
Minnesota	-18	-1
North Dakota	-40	-13
South Dakota	-30	+10
Montana	-25	0
Total	-24	+1

District states reported spring farrowing down more sharply than did the nation as a whole. The

reduction in spring farrowings noted in Minnesota was more nearly in line with the national change, while in South Dakota, the district's other major hog producing state, spring farrowings were off 30 percent. The very sharp decline in South Dakota may reflect the sharp reduction in crop output in 1959. Similarly, the greater upturn in fall farrowings in South Dakota (10 percent) may be in anticipation of more abundant feed crop output this year.

## LOANS TOUCH NEW HIGH

Total loans at both city and country member banks in the Ninth district touched a new high in June; total deposits also rose but remained under the year earlier level at both classes of banks. Borrowings from the Federal Reserve by reserve city banks continued to fall in June, averaging \$33.2 million for the month, down from \$59.8 million in April and \$51.6 million in May. In contrast, country banks borrowed an average of \$13.1 million in June, more than in any month since October last year.

### MEMBER BANK LOAN-TO-DEPOSIT RATIOS

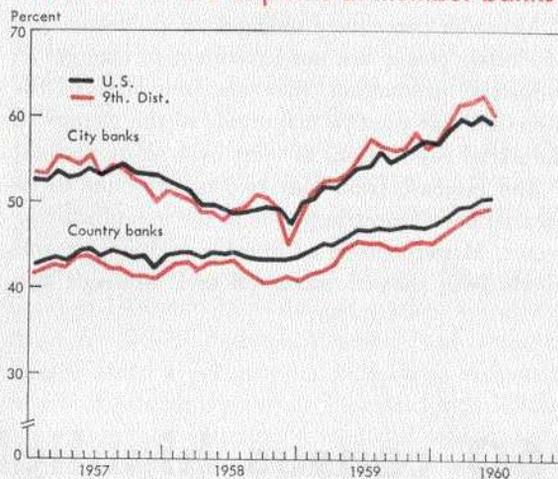
	June 1959	June 1960
Michigan	41.5%	44.3%
Minnesota	52.5	56.9
Montana	48.7	52.5
North Dakota	44.9	50.5
South Dakota	47.3	53.7
Wisconsin	41.2	45.0
District	49.5	54.1
United States	51.4	55.9

As indicated by the chart, district city banks have for several months maintained a higher loan-deposit ratio than the national average. At district country banks the ratio was just slightly under the national figure in June.

The pressure on district bank liquidity should be reduced to some extent in the months to come as the usual seasonal inflow of deposits takes place. In the past thirteen years district member banks deposits have increased from June to December

by an average of 6.4 percent. Total member bank deposits in every district state with the exception of Montana were lower in June 1960 than was true a year earlier. On the other hand, member

### Ratio of loans to deposits at member banks



banks in all district states reported loans up in the period. The increases ranged between a plus 5.9 percent for district member banks in Michigan and a plus 11.6 percent for those in North Dakota.

## NEW INDEX SHOWS INDUSTRY'S USE OF ELECTRIC POWER

A series recently constructed by the Federal Reserve Bank of Minneapolis shows a 3 percent increase in the industrial use of electric power in the Ninth district from May to June on a seasonally adjusted basis. The index has risen in four of the last five months and is now 14 percent above January 1960.

The series, which is based on a sample of over 1,400 firms, is an intermediate stage in a study which will lead to the construction of a production index for the Ninth district corresponding to the Federal Reserve system's National Industrial Production Index. Separate indexes of industrial use of electric power are being computed for 21 in-

dustry groups. Indexes for durable goods, non-durable goods, all manufacturing, mineral industries, and total industrial components are computed by combining separate industry indexes weighted by value added as given in the 1954 Census.

Although percentage changes in industrial use of electric power are not equivalent to changes in industrial production, they are indicative of the direction and relative magnitude of the change in industrial production, at least over short periods.

The increase from May to June was due to increased use of electric power in the manufacturing sector. Manufacturers of durable and non-durable goods both showed increased use, although dur-

ables, with a 1 percent increase, did not reach the March high. Kilowatt-hours (KWH) used in non-durable industries were up 5 percent.

Among manufacturers of durable goods, lumber and wood products and furniture and fixtures both dropped in the use of electricity. There were increases in most of the other durable goods. In the manufacturing of non-durable goods, sizable increases in electric power usage occurred in June throughout the industries, with the exception of petroleum products, where usage dropped.

Mineral industries used virtually the same amounts of electricity as last month. Within the mineral industries, metal mining was unchanged in KWH usage; other sectors had minor changes.

## '60 census highlights population shifts

*The actual Enumeration shall be made within three years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct.*

This seldom-noted provision of the Constitution is the basis for legislation authorizing the decennial Censuses of Population, which have been taken every ten years since 1790. It has provided the United States with the longest record of systematic national censuses in the world. The first census takers counted 3,929,214 persons. The most recent census, taken in April of this year, will record approximately 179,500,000 persons. Apart from this tremendous growth in numbers of people, the modern population census snaps a gigantic picture of the characteristics of the population. The uses of this data are manifold; little of the statistical information available does not rely heavily on census resources.

The need of such information by a wide variety of private and public decision makers has required the extension of enumeration to many areas other than population. Today the Bureau of the Census, which is organizationally part of the U. S. Department of Commerce, is required by law to take censuses of such subjects as agriculture, business, housing, manufacturing, mineral industries and governments. Besides these major undertakings, the Bureau has turned to intercensal estimates and to the estimation of more particular subjects by means of sample surveys.

This article reports on the results of the preliminary tabulations of total population from the 1960 Census of Population.<sup>1</sup> It should be emphasized that these preliminary tabulations are subject to revision before publication in final form. The official, final population tabulations must be delivered to the President by December 1 of this

<sup>1</sup> Subsequent articles in the *Monthly Review* will report on the results of other recent, major censuses.

Here are the preliminary 1960 population totals for Ninth district states:

	1950	1960	% change
Minnesota	2,982,483	3,393,302	+14%
Montana	591,024	668,022	+13%
North Dakota	619,636	627,209	+1%
South Dakota	652,740	676,738	+4%
Upper Michigan	302,258	305,622	+1%
Northwest Wisconsin	582,768	571,845	-2%
Total Ninth district	5,730,909	6,242,738	+9%

year, when they will be forwarded to the Congress for purposes of reapportioning the seats of the House of Representatives among the states. However, the more extensive bundles of data will continue to be published during 1961 and 1962. Revisions in the total population figures as presented and used in this article will result from several factors, especially: (1) the correction of errors, and (2) the inclusion of those residents who were counted away from home, either abroad or in places other than their residence. Consequently, the tabulations presented in this article will be changed in the final reports, but these changes (except in rare instances) will be minor in nature, and should not invalidate any major conclusions which might be drawn from the preliminary data.

Results of these preliminary tabulations, plus an estimate of approximately two million people counted away from home, indicate that 179,500,000 persons were U. S. residents during the April census period. This represents an increase of about 18.5 percent from the 1950 count of 154,233,234. It compares with a 14.5 percent increase from 1940 to 1950. Total population in the area of the Ninth district increased by 8.9 percent between 1950 and 1960, and 3.4 percent between 1940 and 1950.

#### Regional and state population changes

A population may change in size because of two factors: "natural" increase and migration. Net natural increase is the excess of births over deaths,

although the reverse situation may occur in some instances. Net migration is the difference between in-migration and out-migration. These latter two terms are usually used to designate internal migration movements between states or areas as distinguished from immigration (permanent entry into a country) and emigration (permanent departure from a country). Immigration into the United States was approximately 250,000 a year from 1950 to 1960, whereas emigration was about 26,000 a year. Consequently about 2,200,000 of the 25,300,000 population increase, or less than 10 percent of the expansion, are accounted for by net immigration.

Changes in the populations of individual states between 1950 and 1960 showed marked variations from the over-all national average. This variation ranged from a 7.2 percent decrease in Arkansas to a 76.5 percent increase in Florida. Chart 1 indicates the total population changes which have occurred on a state-by-state basis in the continental United States. This map shows that the greatest population increases have occurred during the past decade in the states of the West, in Florida, and in some scattered northern states. The greatest decreases and smallest increases in population have occurred in some of the states in the South and Midwest. A similar pattern of change took place from 1940 to 1950.

Charts 2 and 3 separate the total change into its two components of net natural increase and net migration. An important fact is revealed by this breakdown: the variations in net migration rates are considerably wider than the variations in rates of net natural increase. Net migration rates range from -44.5 percent in South Dakota to +55.3 percent in Florida. Rates of net natural increase, on the other hand, range from +11.4 percent in New Hampshire to +29.8 percent in New Mexico.

It is perhaps obvious that these two components of total change are not independent of each other. The comparative youth of migrants, for example, influences the birth rates in the states of origin

and the states of destination of the migrants. It is suggested that this fact accounts for the high rate of net natural increase in some western states, as shown in Chart 2. Other differences can largely be accounted for by the fact that birth rates are usually higher in rural areas than in urban areas. Unfortunately, it is impossible to establish the validity of these interpretations with more assurance, because the necessary data are not yet avail-

able to complete the analysis. Whatever the reasons for the greater stability of the rates of natural increase, this comparative stability means that the variability in total changes will tend to be explained by the variability in migration.

The net migration rates for 1950-60 as shown in Chart 3 indicate, as was suggested by the changes in total population, that in-migration has been the greatest to Florida and to some of the

Chart 1—Percent change in total population, by states, 1950 to 1960

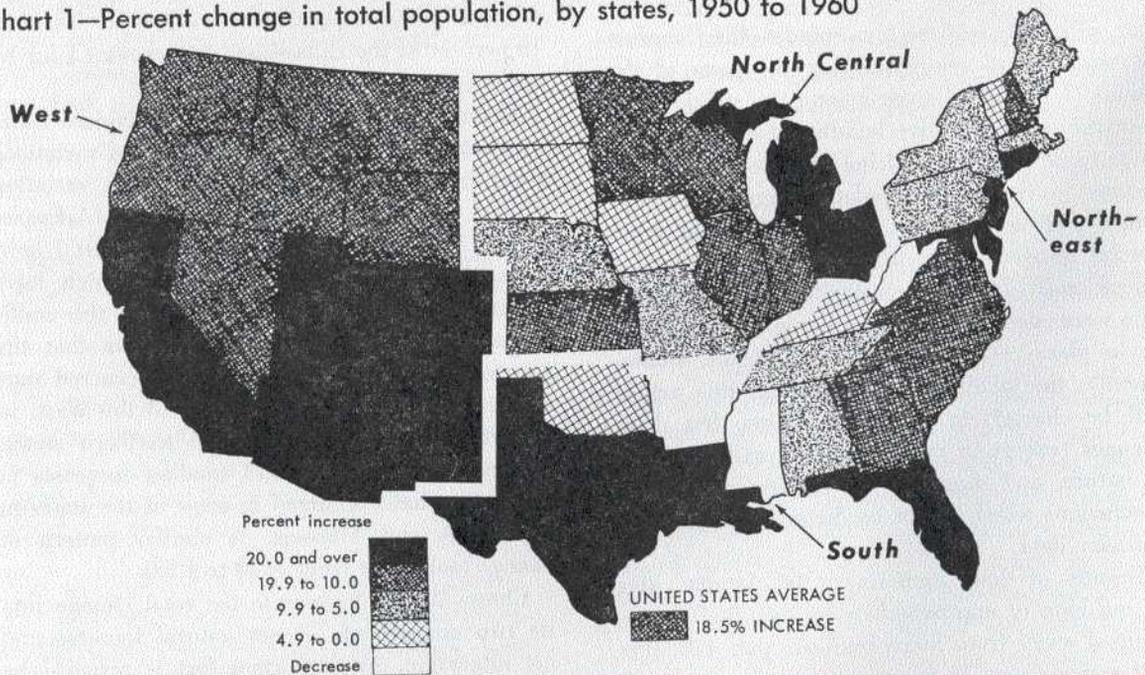


Chart 2—Net natural increase, as percent of 1950 population, by states, 1950 to 1960

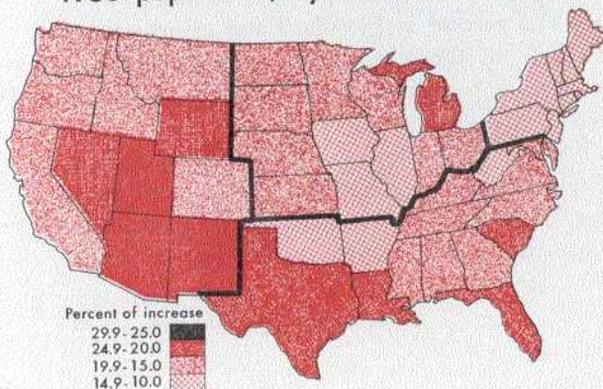
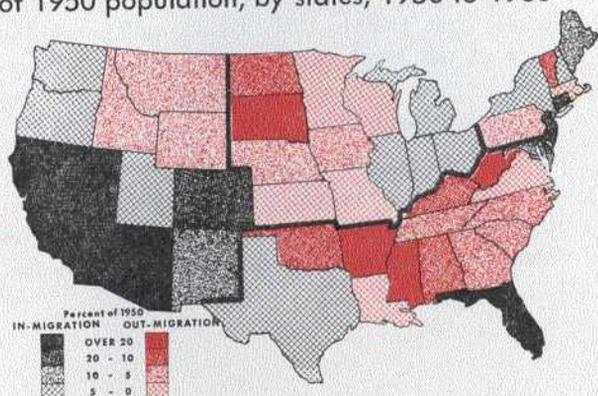


Chart 3—Net migration changes, as percent of 1950 population, by states, 1950 to 1960



western states. Out-migration has been heaviest from the South and the Midwest. These migration rates do not, however, indicate the direction of movement. In specific terms, did migrants to California come from Miami, Bismarck, or Walla Walla, and in what numbers? A complete answer cannot be given to this interesting question, but it is possible to shed some light on such specific migratory movements.

The 1950 Census revealed that the North Central states had lost a larger proportion of their native born through migration than any other region. About half of the western population as of 1950 had migrated from other regions, and about half of these migrants had come from the North Central region.

What changes have occurred since that time? To answer this question, it is necessary to turn to the results of five special sample surveys of migrants undertaken by the Bureau of the Census between 1954 and 1958. The information is presented in Table 1. This table presents percentage distributions of the number of migrants from a region as percents of the region to which they migrated.

Have the destinations of migrants changed since 1950, especially in those movements which might affect our area? The table shows that they have. A sharp change in the destination of North Central out-migrants has occurred. Whereas prior to 1950, 26 percent of these migrants moved south, since 1950, 53 percent moved into the South. Prior to 1950, 63 percent had moved to the West; since 1950 only 37 percent moved west. On the in-migration side of the coin, residents of the Northeast and the West have not migrated to the North Central states as much as prior to 1950. However, only a slightly less proportion of southern migrants made the trek to the North Central states during this latter period.

If this has been the direction of movement, what has been its magnitude? Chart 4 gives a picture of the average annual migration between 1953 and 1958. Two important characteristics are revealed

TABLE 1A  
WHERE DID MIGRANTS GO BEFORE 1950?

Interregional migrants born in these areas . . .	. . .resided in other regions in 1950, according to the following pattern:			
	North-east	North Central	South	West
Northeast	.....	35%	37%	28%
North Central	11%	.....	26%	63%
South	23%	45%	.....	32%
West	16%	46%	38%	.....

TABLE 1B  
WHERE DID MIGRANTS GO AFTER 1950?

People migrating <sup>1</sup> from these regions during 1953-58 . . .	. . .moved into other regions, according to the following pattern:			
	North-east	North Central	South	West
Northeast	.....	24%	49%	27%
North Central	10%	.....	53%	37%
South	27%	43%	.....	30%
West	15%	35%	50%	.....

<sup>1</sup> Civilian migrants only.

by these flows: (1) The South and the North Central states are continuing to lose the largest numbers of people, and the West is benefiting by a net gain from all regions, but it is especially noteworthy that (2) there is substantial in-migration and out-migration from every region, including the West. As the map points out, net migration figures obscure this more dynamic interchange.

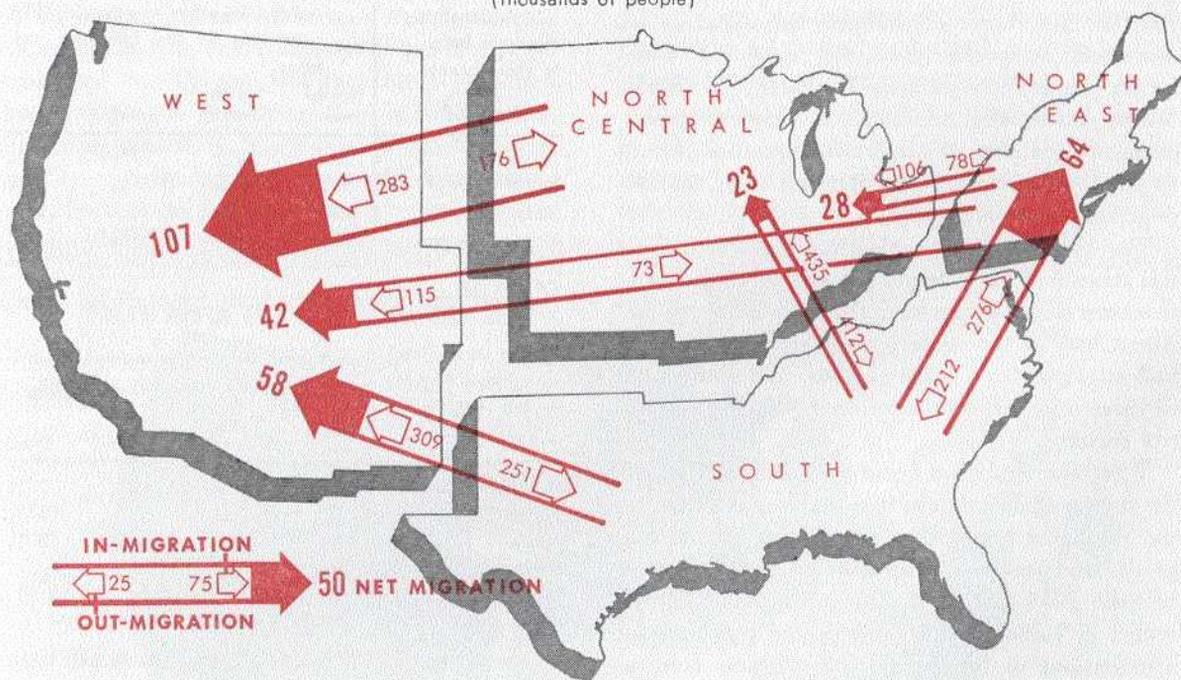
#### From rural to urban, from city to suburb

High local mobility is characteristic of the U. S. resident. This mobility has resulted not only in substantial interregional migration, but has also taken the form of movement from rural, mainly farm areas, to urban areas. The trend toward urban and metropolitan centers has continued into 1960, both in regard to their number and size. However, an important change has been taking place *within* the metropolitan area. Table 2 pre-

The charts and tables in this article are based on data from the U. S. Department of Commerce; the U. S. Department of Health, Education and Welfare; and state Departments of Vital Statistics.

Chart 4—Average annual migration, by regions, 1953 to 1958

(thousands of people)



sents a regional breakdown of the structure of metropolitan areas in 1950 and 1960.

Except for the South, there has been a larger increase in the suburban areas surrounding the

TABLE 2—METROPOLITAN AREA POPULATION AS A PERCENT OF TOTAL REGIONAL POPULATION

Region	Metropolitan Area				Total	
	Central City		Suburban		1950	1960
	1950	1960	1950	1960	1950	1960
Northeast	45%	38%	35%	41%	80%	79%
North Central	39%	35%	18%	23%	57%	59%
9th district	18%	16%	8%	13%	26%	29%
South	23%	26%	15%	20%	39%	46%
West	33%	31%	32%	39%	65%	69%

central cities than in the core cities themselves. The Northeast region has been particularly affected by this movement, in part because expansion room in the central city is not as plentiful there as in other regions. The relative decline in the central cities has occurred even in the face

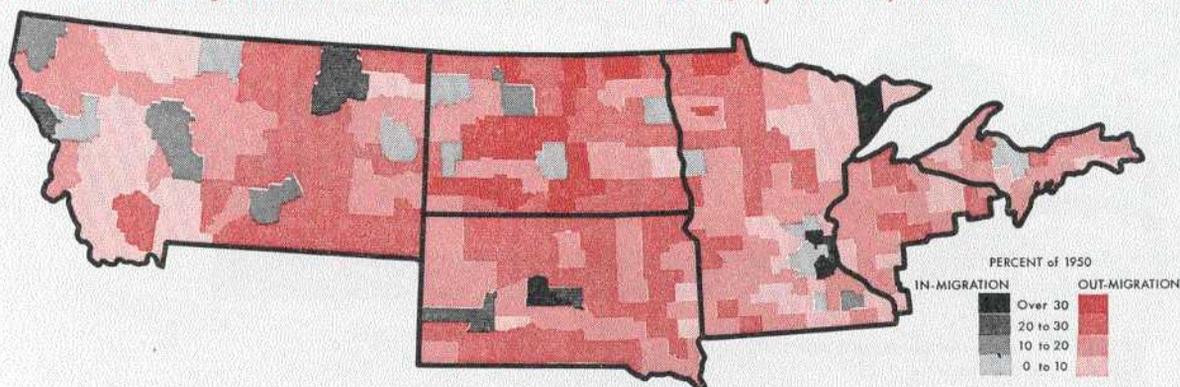
of some annexations of smaller communities by central cities.

The Ninth district contains three metropolitan areas: Minneapolis-St. Paul, Duluth-Superior, and Sioux Falls. The metropolitan population in the district, however, comprises a substantially smaller

TABLE 3—TOTAL POPULATION IN THE NINTH DISTRICT, BY METROPOLITAN AREAS

Metropolitan areas	Total population		% change 1950-1960	% of total	
	1950	1960		1950	1960
Metropolitan areas	1,507,747	1,857,849	+23%	26%	30%
Minneapolis-St. Paul	1,151,053	1,477,080	+28%	20%	24%
Duluth-Superior	252,777	272,992	+ 8%	4%	4%
Sioux Falls	103,917	107,777	+ 4%	2%	2%
Nonmetropolitan areas	4,223,162	4,384,889	+ 4%	74%	70%
Ninth district total	5,730,909	6,242,738	+ 9%	100%	100%

Chart 5—Net migration in the 9th Federal Reserve district, by counties, 1950 to 1960



portion of the total population than is true of the country as a whole. Table 3 presents the 1950 and 1960 total population counts for these three areas together with the Ninth district total. As can be seen, the metropolitan tendency is also in evidence within the district.

#### Migration from Ninth district states

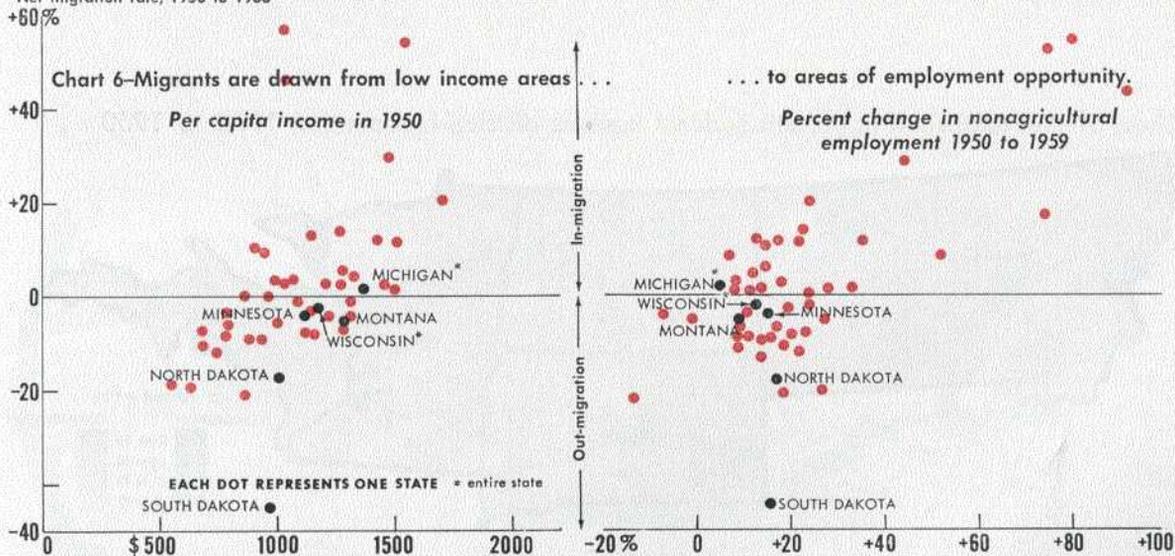
It is apparent that the grouping of all the states into four major regions masks differential migration tendencies for particular areas. This is perhaps especially true for the area of our special interest—the North Central region, which contains the relatively urban, industrialized states of the lower Great Lakes and the relatively rural, agricultural states of the Upper Midwest.

Migration from Ninth district states prior to 1950 was primarily within the North Central region or to the Western region. All of the Pacific coast states gained from Ninth district native born citizens in this period. Montana and North Dakota sent an equal proportion of their numbers to California and to Washington. Minnesota and South Dakota, on the other hand, were the source of approximately twice as many migrants to California as to Washington. Migration was also considerable within the confines of the four-state area. For example, 8.9 percent of native North Dakotans and 5.8 percent of native South Dakotans migrated to Minnesota up to 1950.

No data are available to substantiate migratory tendencies from the individual Ninth district states since 1950. However, post-1950 data contained in Table 1 suggest that this trend has not altered in substantial proportions. The fact, however, that Washington and Oregon have not had the proportionate increase in net in-migration during 1950-1960 which they had during 1940-1950 would also suggest that the movement out of Ninth district states has been to California at greater rates than to the other Pacific coast states in this latter decade. It should be emphasized that this statement is true only under the seemingly reasonable premise that the significant post-1950 increase in out-migration from the North Central region to the South has come primarily from the lower Great Lakes states adjacent to the South. Although the available signs point this way, only more detailed data can verify the speculations.

#### Migration from Ninth district counties

What are the origins of migrants from states within the Ninth district? Chart 5 shows net migration rates by counties within the district. It is readily apparent that relatively few counties benefited from net in-migration. In nearly every case it is possible to cite specific developments in these counties which would account for their net in-migration. Developments in basic industries, such as taconite processing in northeastern Minnesota,



oil development at Williston in northwestern North Dakota and Glendive in eastern Montana, and expansion of timber-based activity in some part of northwestern Montana, pinpoint the increased economic opportunities in these areas. Likewise, large defense and other governmental installations have been important in several other counties showing increases. Rochester in southeastern Minnesota has grown significantly through industrial expansion in the electronics industry, while Billings in south central Montana has become an increasingly important oil center as well as the nucleus of an expanding trade activity. Growth in the Twin Cities metropolitan area has been based on a wide variety of industrial and commercial developments.

### Reasons for migration

Why do people migrate? For reasons of health? Military service? Economic opportunity? There are varied motivations for interregional migration, but it is suggested that migration because of personal or area-wide changes in economic circumstances cover a substantial portion of these motivations. To support this statement, two scatter diagrams are presented in Chart 6. These charts show that there is a high association between migration from an area and the economic opportunity which exists there and elsewhere. States with

low per capita incomes in 1950 had higher rates of net out-migration during 1950-1960 than states with a higher 1950 income. A similar presentation would show that this relationship holds true at the county level on a state-by-state basis within the Ninth district. The second diagram in Chart 6 shows that migrants went to those states where economic opportunities, as measured by increases in employment, existed.

### Conclusion

The facts presented in this analysis show that out-migration has resulted in a substantial loss in population from the areas encompassed by the Ninth district, as well as from other states in the nation. The natural reaction is one of concern, in part stemming from a spirit of local pride. A broader and more realistic perspective is also possible—one which recognizes the function and importance which population movements have for a dynamic economy, an economy which is subject to changes in demand, in technology, and in comparative locational advantages. If population movements have the effect of contributing to the efficient utilization of the nation's resources and also raising the economic welfare of the migrants, then these movements can be viewed as constructive adaptations to a changing economic environment.

—CHARLES J. LIBERA