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ABSTRACT

Migration is a major continuing phenomenon associated with national and subnational development. The past, present, and future significance of migration on rural development and agriculture are reviewed in this paper. Data are cited which appear to be at variance with popular beliefs. The complexity of interrelationships between migration development (including rural development) and agriculture are illustrated. Discussed are the significant differences among and within regions in patterns of population distribution and related migration behavior. The income position of agriculture in the South, factors affecting U.S. migration, and the relation of migration to agriculture and rural development potentials are discussed. Tables, maps, and graphs are used to present the data. (NQ)

UNITED STATES DEPARTMENT OF AGRICULTURE
Economic Research Service
Economic Development Division

MIGRATION AND ITS EFFECT ON AGRICULTURE AND RURAL DEVELOPMENT POTENTIAL 1/

by

Alan R. Bird 2/

U.S. Annual Migration Rate - High and Stable

Americans are on the move. Each year, from 1948 to 1971, about 17 to 20 percent of all U.S. residents one year old or over have changed residence. 3/ (Figure 1) Two features of these rates are notable -- their size and their stability. On the average, this rate of moving is equivalent to the entire population changing residence, throughout their lifetime, every five or six years. This degree of human resource mobility is thus a potentially powerful factor in the development of individual communities and areas as well as the Nation.

At first sight, the stability of this rate of moving is not surprising. It is inscrutable. During these years, Gross National Product has increased four-fold to over a trillion dollars, total population has increased more than 60 million or over 40 percent and that of California has virtually doubled, annual unemployment rates have varied from 2.9 percent to 6.8 percent, much of the "suburbanization" of the United States has occurred, involvement in wars has varied greatly, periods of major civil strife have occurred, farm population has continued to decline, the number of new housing starts has varied more than 20 percent in some years, the annual marriage rate has varied from over 16 per 1,000 population to 8.5, use of the "pill" and legalized abortion have become commonplace, and major social legislation has been enacted, including "civil rights", health, education and welfare

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1/ Paper presented at a National Symposium on "The Labor Force: Migration, Earnings and Growth", Muscle Shoals, Alabama, June 22 and 23, 1972. Sponsored jointly by the Tennessee Valley Authority and the Social Security Administration.

2/ Deputy Director, Economic Development Division, Economic Research Service, U.S. Department of Agriculture.

3/ "Population Characteristics," Current Population Reports, Series P, No. 235, April, 1972. Bureau of the Census, Social and Economic Statistics Admin., USDC, Washington, D.C.

Movers by Type of Mobility as Percent of the Population 1 Year Old and Over, for the United States: April 1949-March 1971

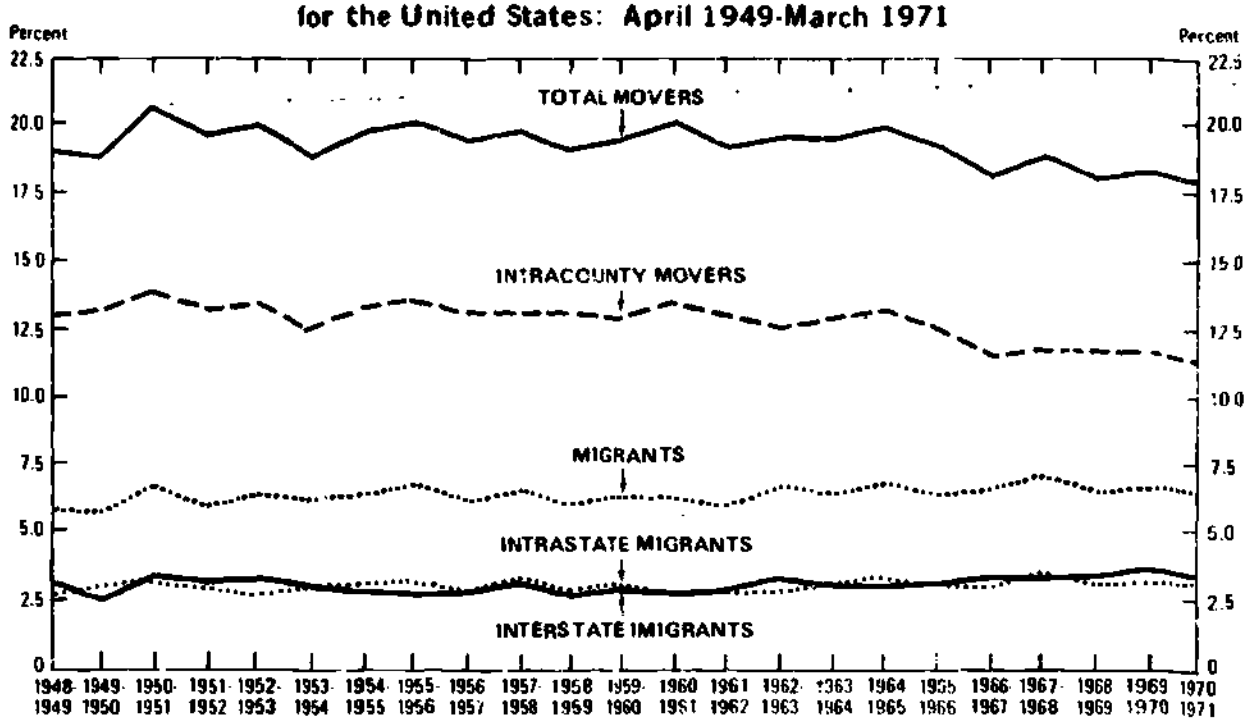

FIGURE 1

measures and public works, safety and environmental improvement programs. 4/ Surely, in the face of these and other major social and economic phenomena, it would be reasonable to expect larger secular and cyclical changes in the annual rates of residence changes.

What is even more remarkable is that rates of migration have been even more stable than rates of residence change. Migrants who have changed states, including those who entered or left the United States, amounted to about three percent of the total population throughout this period and those who changed counties but not states comprised about another three percent.

To my knowledge, little has been done to explain these national migration rates in terms of demographic, economic and other social and technological forces affecting national development and the related differential development of subnational economies. Suggestive fragments of evidence can be cited. And assertions and myths abound. Accordingly, my discussion of the more limited topic of migration and its effect on agriculture and rural development potential will draw on hypotheses, normative assertions and dreams or visions. I hope to end with questions that focus on the likely strategic place of migration incentives on rural development potential and implications for research. First, however, I would like to develop further the context for this discussion.

Factors Affecting U.S. Migration Rate

It is tempting to explain the stability of U.S. migration rates as simply the result of the interaction of innumerable counterbalancing demographic, economic and other social and technological forces. Such an explanation would however be as unhelpful as it is difficult to refute.

I prefer to suggest that major identifiable factors and conditions have tended to cause this stability. And there is need for some first-rate research to provide a systematic explanation. Pending this research, I would suggest that the size of the population base which now, of course exceeds 200 million, is a major factor in the stability of migration rates. With such a base, even seemingly notable events tend to make imperceptible changes in annual migration rates. The average annual number of Cuban refugees registering in Florida for ten years up to 1970 was only about 40,000, for example.

Migration rates are now increasingly dependent on national economic policies and programs and related economic and social institutions.

The high tide of immigration has passed. The annual rate per 1,000 population reached its peak of 10.4 in the ten years 1901-1910 and

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4/ Foregoing data from "Economic Report of the President," Jan. 1972, U.S. G.P.O., Washington, D.C. and "Statistical Abstract of the United States," 1971, Bureau of the Census, U.S. Dept. of Commerce.

averaged only 1.7 for the 1961-1970 period. Moreover, changes in immigration laws have replaced traditional country-by-country quotas with skill requirements so that the relatively small number of immigrants tend to stabilize national labor markets by supplying skills that are in relatively greater demand. These immigrants probably tend to be more mobile than other U.S. citizens, especially among major cities and their suburbs. Many U.S. citizens are now living abroad in any given year -- over 1½ million in March, 1970, for example. Yet this number, too, probably tends to be affected by national economic conditions and by the stability and size of overseas commitments made by government agencies and major voluntary organizations and corporations.

Within the United States, the explicit application of Keynesian and neoKeynesian economic policies and programs began with the Employment Act of 1946 and has been sustained and refined since then through a range of monetary and fiscal policies. It is probably fair to say that, soon after passage of this Act, aggregative measures were relied upon to maintain economic stability. National policies and programs used to curb inflation as early as 1948 included voluntary restraints, a budgetary surplus, increased short-term interest rates, and restrictions upon business and consumer credit. In addition to the 20 percent increase in government spending from 1948 to 1949, the impact of "built-in" stabilizers, such as lower tax rates with declining income, and unemployment insurance benefits, helped minimize the magnitude of the economic downturn. Nevertheless, unemployment increased to six percent of the civilian labor force during the recession.

Perhaps this six percent unemployment rate can be identified as a major reason for the five percent downturn in the rate of interstate migration for 1948-49 to 1949-50. And the considerable upturn in rates of migration and total movers from 1949-50 to 1950-51 would similarly be related to the outbreak of the Korean War in June, 1950 which was associated with a drop in the unemployment rate from 7.6 percent in February 1950 to 3.3 percent by December 1950.

Census data seem to reveal a clear relationship between mobility status and employment status. For 1970, both the local mobility rate and the migration rate were higher for unemployed men than for employed men. 5/ Similarly, of men who were employed in 1970, both rates were higher for men who worked less than 50 weeks in 1970 than for men who worked 50 weeks or more. However, it is not possible to conclude from these data that higher mobility of the unemployed resulted from their efforts to move to jobs. Indeed, the data are consistent with the hypothesis that many of the unemployed moved to low-cost (or high welfare benefit) living areas to register for unemployment. Employment status (more specifically, being employed, unemployed, or not in the labor force) refers to the time of the survey and therefore represents status at the end of the 12-month mobility interval.

5/ Op. cit., p. 1.

I prefer to think of the unemployment rate as a proxy for the level of "national economic conditions" rather than a measure of a major direct factor affecting national migration rates. And I prefer to think of changes in positive or development-related conditions as the major determinants of national migration rates. Other special circumstances can, no doubt reinforce or dampen these changes. For example, mobility rates for individuals are affected when a son leaves to marry and go in the armed forces, as well as to work elsewhere.

From this viewpoint, mobility rates are largely determined by development-oriented urban and suburban decisions. In contrast to rural "problem areas," developing metropolitan areas (with a much larger population base) tend to have high gross rates of both outmigration and inmigration. These gross rates tend to cancel out and typically leave a moderate rate of net inmigration. The contrasting lower contribution of rural areas to national migration rates is more visible and problem rather than development-oriented, since it tends to be associated with (1) net outmigration for many hundreds of counties (2) significant streams of particular ethnic groups to particular localities, such as the outmigration of rural blacks in the southeast to particular metropolitan areas -- Washington, D.C., Baltimore and New York City (Figure 2) and (3) streams associated with particular technological phenomena and dramatic physical conditions, such as the mechanization of cotton production and transfer of a substantial portion to the irrigated west, the evolution of the Dust Bowl and the Cut Over Region of the Upper Great Lakes.

No doubt, individual decisions to migrate together cumulate to give the steady continuing national migration rates. However, the emerging era of "bigness" in a relatively stable economic and social milieu must be given due credit as probably the major underwriter for the revealed degree of stability in migration rates. The importance of large organizations -- corporations, labor unions and public agencies -- in shaping the U.S. economy today is graphically illustrated in Galbraith's "The New Industrial State." 6/ In the light of this exposition, it is easy to envisage the routine transfer of relatively high-skilled, high-income private and public employees among established locations and new branches or field offices, including overseas offices and bases, as a major continuing component of national migration.

Moreover, one can envisage a "multiplier effect" that cumulatively reinforces the importance of this component. Within the one organization, one promotion and associated transfer may generate five or even 10 associated actions. This possibility is consistent with the observed correlation between migration rates and level of education. For the year ended March 1971, among men 25 years old and over, those who had completed four or more years of college had higher migration rates than those who had completed high school. Men who were high school graduates, in turn, had higher migration rates than men who had

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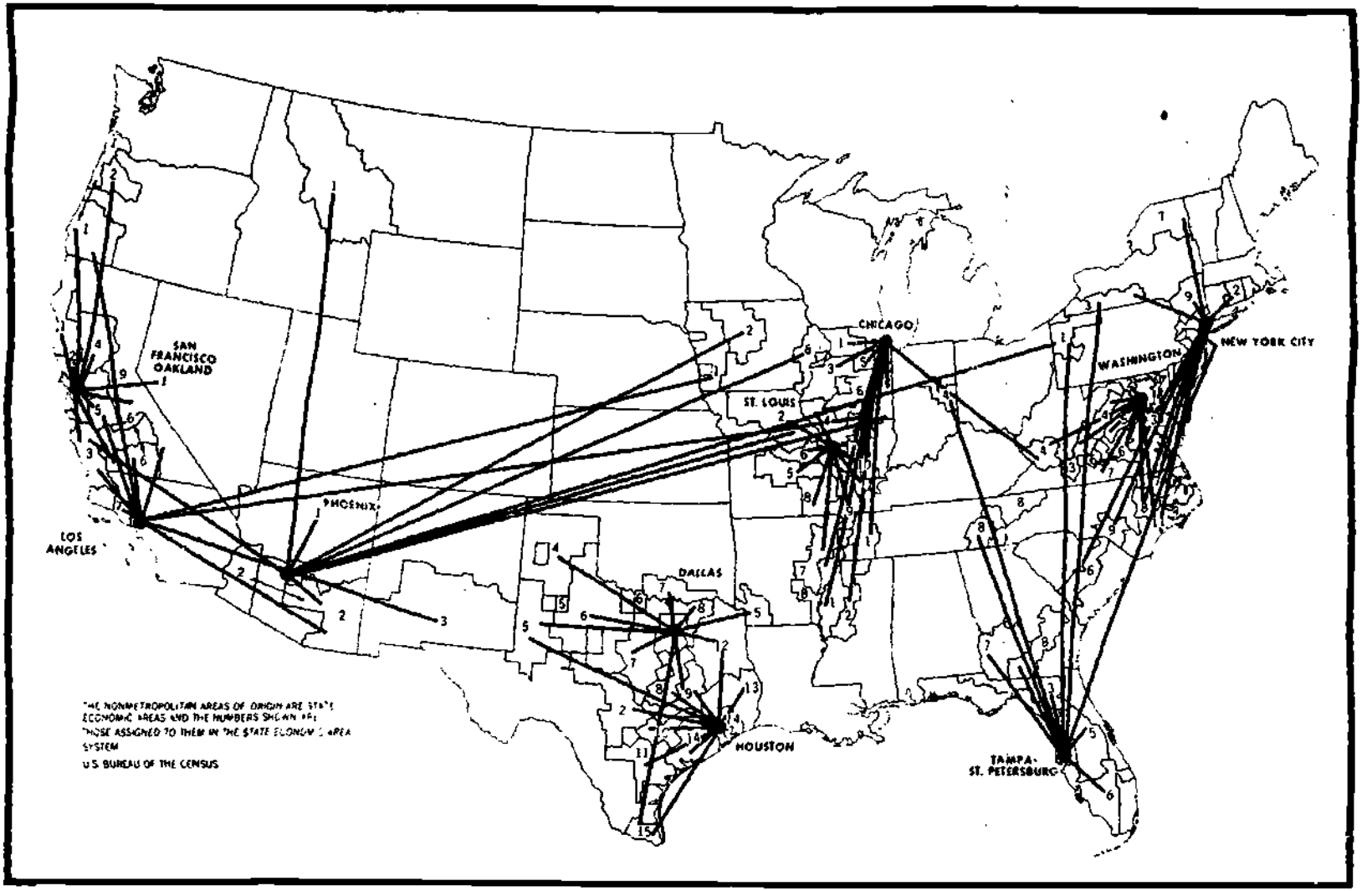
6/ Galbraith, John Kenneth, The New Industrial State, Signet Y3637, The New American Library, New York, N. Y., 1968. 430 pp.

MAJOR STREAMS OF NONMETRO MIGRATION TO SELECTED METRO AREAS, 1955-1960

(THE 10 LARGEST STREAMS OF NONMETRO MIGRATION TO THE 10 METRO AREAS RECEIVING THE LARGEST NUMBER OF NONMETRO LOW-INCOME MIGRANTS, 1955-60)



NEG. ERS 5543 68 (4) ECONOMIC RESEARCH SERVICE

FIGURE 2

completed only elementary school. (Table 1). And expansion of activities at a given location generates predictable expansion of local support activities. Moreover, built-in perquisites associated with particular organizations and professions further reinforce migration along already established paths. University faculty are most likely to transfer to similar offices elsewhere and Federal employees will tend to move among established Federal offices. for example.

During the sixties and early seventies, we have seen the continued application of neoKeynesian aggregative economic measures. Some observers might conclude that this application has been rounded out by more specific geographic and functional measures addressed to problems of structural unemployment. Various public works programs. manpower training, economic development and anti-poverty programs might be categorized this way. Others would conclude that public expenditures apparently addressed to structural problems of the economy should be discounted to two counts. First, the public funds so expended have been minimal compared to the need and, indeed, could scarcely be termed adequte demonstration projects and programs. Second, much of what could be construed as efforts to reduce structural unemployment could just as easily be construed as a series of balanced expenditures in various geographic areas and on various target groups that might be expected to result from the normal give and take of the legislative process. In either case, these expenditures and related activities can be thought to have encouraged maintenance of ongoing rates of migration, particularly in the case of expenditures on the Interstate Highway System and some assistance to industry in depressed areas.

I would like to emphasize further the probable, dominant effect on migration of the private sector, particularly the employed members of the present labor force (compared to the unemployed and potential labor force members). By 1971, the total civilian labor force exceeded 84 million and the members of the armed forces amounted to almost another 3 million. Of almost 71 million wage and salary workers in nonagricultural establishments, only 12.9 million were directly employed by government and most of these (10.2 million) were State and local government workers. The 1971 total reported civil employment in agriculture was under 3.4 million. 7/ And the contribution of agriculture to reported national migration rates is probably further reduced, since persons who moved from but returned to their present address during the year are not counted as migrants, irrespective of the number of intervening moves. 8/

7/Economic Report of the President, Jan. 1972, U.S. G.P.O., Washington, D.C., pp. 220, 226.

8/ "Population Characteristics," op. cit., p. 1.

Table 1.--Years of School Completed by the Population 25 Years Old and Over, by Mobility Status, Age, and Sex: March 1971

(Numbers in thousands)

Years of School Completed, Age, and Sex	Total	Same House (Non-Movers)	Different House in the United States (Movers)							Abroad on March 1, 1970
			Total	Same County	Different County (Migrants)					
					Total	Within a State	Between States			
							Total	Contiguous	Noncontiguous	
Male										
Total, 25-Years old and over	52,357	43,973	7,986	5,132	2,853	1,393	1,461	470	991	398
Elementary, 0 to 8 years	14,635	12,685	1,865	1,364	500	301	199	85	114	85
High School, 1 to 3 years	8,264	7,078	1,163	773	391	202	189	66	123	22
4 years	16,008	13,407	2,463	1,548	916	451	465	142	323	137
College, 1 to 3 years	5,798	4,720	1,043	644	398	184	215	71	144	34
4 years or more	7,653	6,082	1,451	803	648	255	393	106	287	9
25 to 34 years	12,596	8,629	3,745	2,331	1,415	670	744	249	496	22
Elementary, 0 to 8 years	1,262	818	409	283	125	72	53	34	19	36
High School, 1 to 3 years	1,772	1,227	535	359	176	90	85	19	66	10
4 years	5,049	3,660	1,323	834	489	248	241	79	162	65
College, 1 to 3 years	2,005	1,378	610	386	224	97	127	45	82	18
4 years or more	2,507	1,546	868	468	400	162	238	72	167	93
35 to 44 years	11,147	9,367	1,665	1,070	595	277	318	104	214	114
Elementary, 0 to 8 years	1,975	1,597	355	287	68	40	28	12	17	23
High School, 1 to 3 years	1,813	1,570	234	148	86	45	41	27	14	10
4 years	3,993	3,377	562	348	214	88	126	35	91	53
College, 1 to 3 years	1,364	1,146	207	124	83	46	37	11	25	10
4 years or more	2,002	1,676	308	164	143	57	86	19	67	18
45 to 64 years	20,141	18,200	1,889	1,270	619	326	293	91	202	53
Elementary, 0 to 8 years	6,241	5,559	663	475	187	111	76	27	49	19
High School, 1 to 3 years	3,588	3,259	326	227	100	53	46	15	32	3
4 years	5,866	5,364	486	306	180	98	82	24	58	16
College, 1 to 3 years	1,970	1,780	184	112	72	34	38	12	26	7
4 years or more	2,476	2,237	230	150	80	30	50	12	38	9
65 years and over	8,473	7,777	687	462	225	120	105	27	78	9
Elementary, 0 to 8 years	5,157	4,711	439	319	119	78	42	13	29	7
High School, 1 to 3 years	1,090	1,021	69	39	30	13	17	4	12	---
4 years	1,100	1,006	92	60	32	17	15	3	12	2
College, 1 to 3 years	459	416	42	23	19	7	13	3	10	---
4 years or more	668	623	45	21	24	6	19	4	15	---

To sum up, then, I suggest that maintenance of rather high and rather stable national annual migration rates is a symptom and a necessary continuing condition of cumulative national economic affluence. This continuing migration is just as necessary as continuing mobility of other resources to ensure advantageous adjustments of local labor markets as the productivity of labor and other resources tends to vary among areas due to innumerable factors. As the national economy grows, we might expect an increasing proportion of both in- and out-migration to occur among relatively developed, relatively high-income areas as salary and income margins for skill, training and relevant experience are widened in individual areas to attract needed labor from other developed areas. Among other things, this migration probably contributes to relatively higher rates of increase in real estate values, especially of residential property in some high-income suburban areas.

Migration Related to Agriculture and Rural Development Potential

Within the national context, how does migration relate to agriculture and rural development potential? A nostalgic look back through the decades, even centuries, reveals a set of interrelationships that contrasts with likely dominant present and future conditions. From the earliest white settlements, farming and ranching were, of course, the basic and dominant industries of many areas. And migrants from other states or overseas, established these industries. In some instances, agriculture became the basic industry after exhaustion of mineral deposits that attracted the migrants.

Technological, scientific and managerial innovations in agriculture then caused a redundancy of literally millions of man-years of labor as agriculture continued to produce an ever-increasing supply of food and fiber for the expanding U.S. population and for export with proportionally lower labor inputs. Manufacturing continued to expand in the United States and absorbed both surplus agricultural labor and further migrants from overseas. And tertiary industries -- service industries that typically demand high-skilled well-trained labor and much other capital -- have emerged as an increasingly important segment of the economy. These changes have enabled steadily rising U.S. per capita income and the expenditure patterns for these incomes have, in turn, stimulated further changes in industry location and composition.

Both agriculture and manufacturing tended to have specific locational requirements. And these requirements have tended to diverge. Moreover, the economies of size and scale that were realized early in agriculture became increasingly important in nonfarm industry. A parallel upgrading has emerged in the average levels of skill, training and experience demanded of labor in both agriculture and nonfarm industry. And public expenditures, notably Federal expenditures for defense, have tended to go to large urban areas that already have established capability in the production of a range of goods and services that require relatively high-skilled labor.

Accordingly, the decade of the sixties saw the cumulation of a significant redistribution of the U.S. population and related changes in the composition and location of industry.

-- The exodus from farming has continued. And both because of the relatively small remaining base of farm residents (some three million families by the 1969 Census) and for other reasons treated later, will tend to be a less important factor in the development of rural areas in the future.

-- The enlargement of urban areas through increased population and annexation has also continued so that the U.S. population, to a large extent is now deployed around the seaboard perimeter of the Nation and along the Great Lakes.

-- But there has also been substantial expansion in nonfarm population and employment in nonmetropolitan areas. The expansion, obscured in the past by national losses in farm population, varies greatly by areas and regions. The most notable expansion has been in manufacturing and construction jobs in the South. Nonmetropolitan areas in the South provided 42 percent of the manufacturing jobs in the region in 1960 and gained 753,000 such jobs (over half the total for the region) by 1970. These same nonmetropolitan areas employed only 25 percent of the construction workers in the South in 1960, but accounted for 33 percent of the construction employment gains in 1960-70. This performance varied greatly among counties in the region and seemed to be associated with a multiplicity of factors. 9/

-- Accessibility to a metropolitan area is not a generally necessary condition for a nonmetropolitan area to retain population. While many rural areas continued to lose population in the sixties, many with little or no direct access to metropolitan areas did not. For example, a 25-county area in northwestern Arkansas included only two counties that gained population during the 1950's and the area experienced an overall population decline of nine percent. By contrast, from 1960 to 1970, only two counties lost population and the area had an overall gain of 19 percent. 10/ Of all the districts in Arkansas, the Northwest District, (nine counties, including the cities of Fayetteville,

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9/ Haren, Claude C., "Employment, Population and Income Growth in the South's Metro-Nonmetro Areas, 1960-70," EDD, ERS, Washington, D.C. Paper presented at the Annual Meeting of the Southern Regional Science Association, Williamsburg, Va., April 14, 1972.

10/ Beale, Calvin, "Population and Migration Trends in Rural and Nonmetropolitan Areas," Statement to the Committee on Government Operations, U.S. Senate, Washington, D.C., April 1971.

Springdale, Rogers and Bentonville) had the largest 1960-70 percentage increases in both total employment (35 percent) and covered employment in manufacturing (110 percent). 11/

-- Eastern Oklahoma and the lower Tennessee Valley also contained many counties where a population loss in the 1950-60 decade was followed by a population gain in the 1960-70 decade. In all, some 500 U.S. counties that were fairly widely distributed experienced this same phenomenon. (Figure 3).

-- In the 1960's, about 200 nonmetropolitan towns widely deployed throughout the United States, but about half in the South, grew faster than the national average, thus implying net inmigration. These were towns of 10,000 to 50,000 population that grew by at least 15 percent, compared to a national average of 13 percent. Many of these towns were the sites of a State college or university and many were on an interstate highway. (Figure 4).

-- Also in the 1960's, almost 300 counties lost population after having gained in the 1950's. These counties were likewise deployed throughout the Nation, except that, in seven contiguous States, stretching from Idaho through the Northern Plains to Minnesota and Iowa, most counties had a net outmigration in the 1960's or a decline in population or a deteriorating ability to retain population. (Figure 5).

--A 1967 survey 12/ reveals wide differences in migration history between blacks and whites then living in Census-defined rural areas. Nearly three-fourths of the Negroes living in rural areas were nonmigrants, compared with less than half the whites. Nearly a fourth of the rural whites were of urban origin, whereas just a tenth of the Negroes were. These differences reflect the fact that, although there is a much back-and-forth movement between urban and rural areas among white people, the movement of Negroes is more uniformly one-directional, from rural to urban. For both blacks and whites, about 20 percent of the 1967 urban population were migrants from rural areas. (Figure 6).

-- In keeping with the partial revitalization of nonmetropolitan nonfarm America in the 1960's, as represented by the highest proportionate population increase of any residence group (Figure 7) and the more than proportionate increase in some job categories, a significant additional adjustment was made by remaining farm families in lieu of still more accelerated off-farm migration. This was the dramatic increase in nonfarm income as a source of income for all farm families. By 1970,

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11/ Green, Bernal L., "Change in Total Employment, Manufacturing Employment and Wages in Arkansas Multi-County Districts," in the "Ark. Agri. Economist."

12/ Survey of Economic Opportunity, conducted under OEO sponsorship. Analyses made jointly by the University of Georgia and the Economic Research Service, U.S. Dept. of Agriculture.

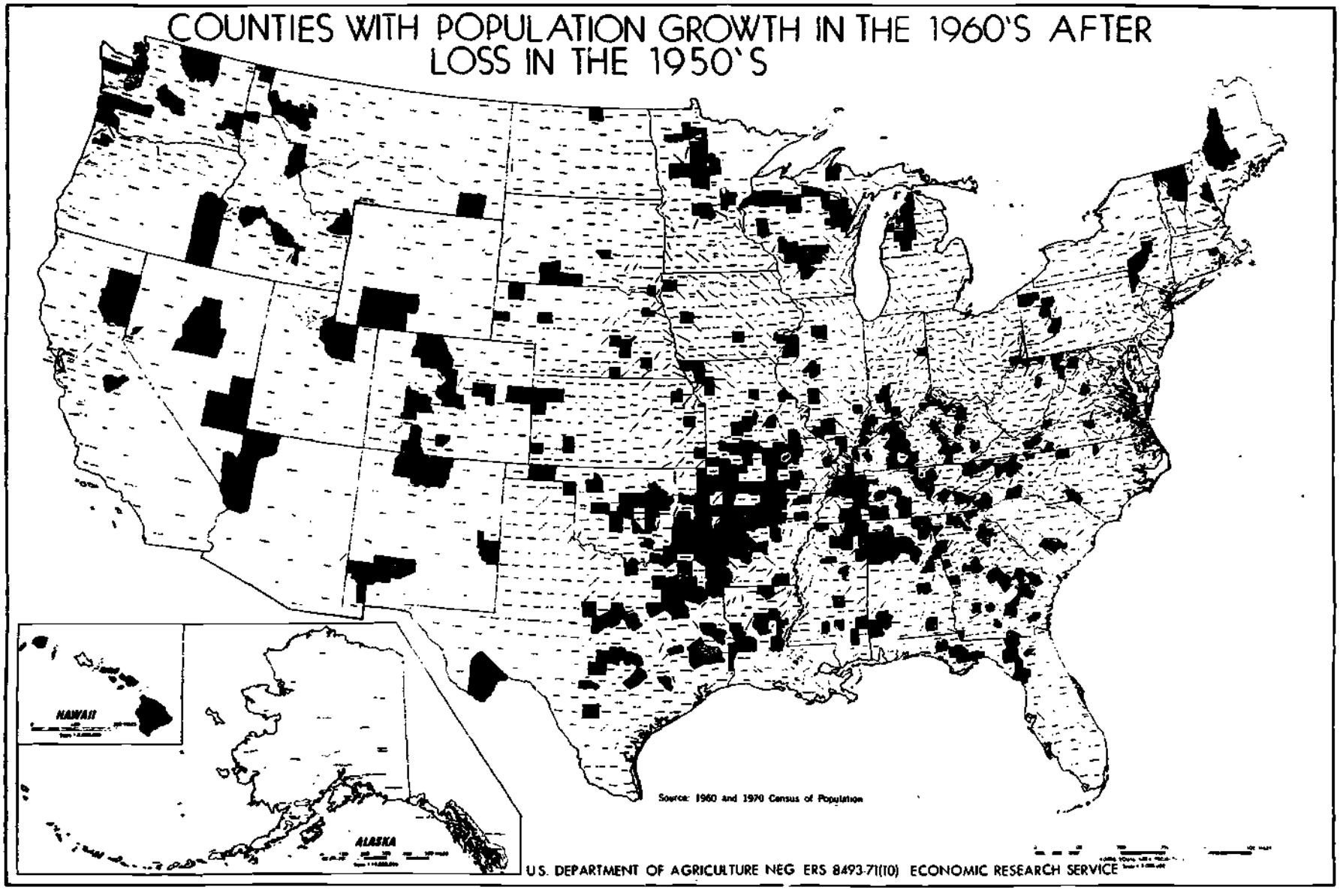

COUNTIES WITH POPULATION GROWTH IN THE 1960'S AFTER LOSS IN THE 1950'S
HAWAII
ALASKA
Source: 1960 and 1970 Census of Population
U.S. DEPARTMENT OF AGRICULTURE NEG ERS 8493-71(10) ECONOMIC RESEARCH SERVICE

FIGURE 3

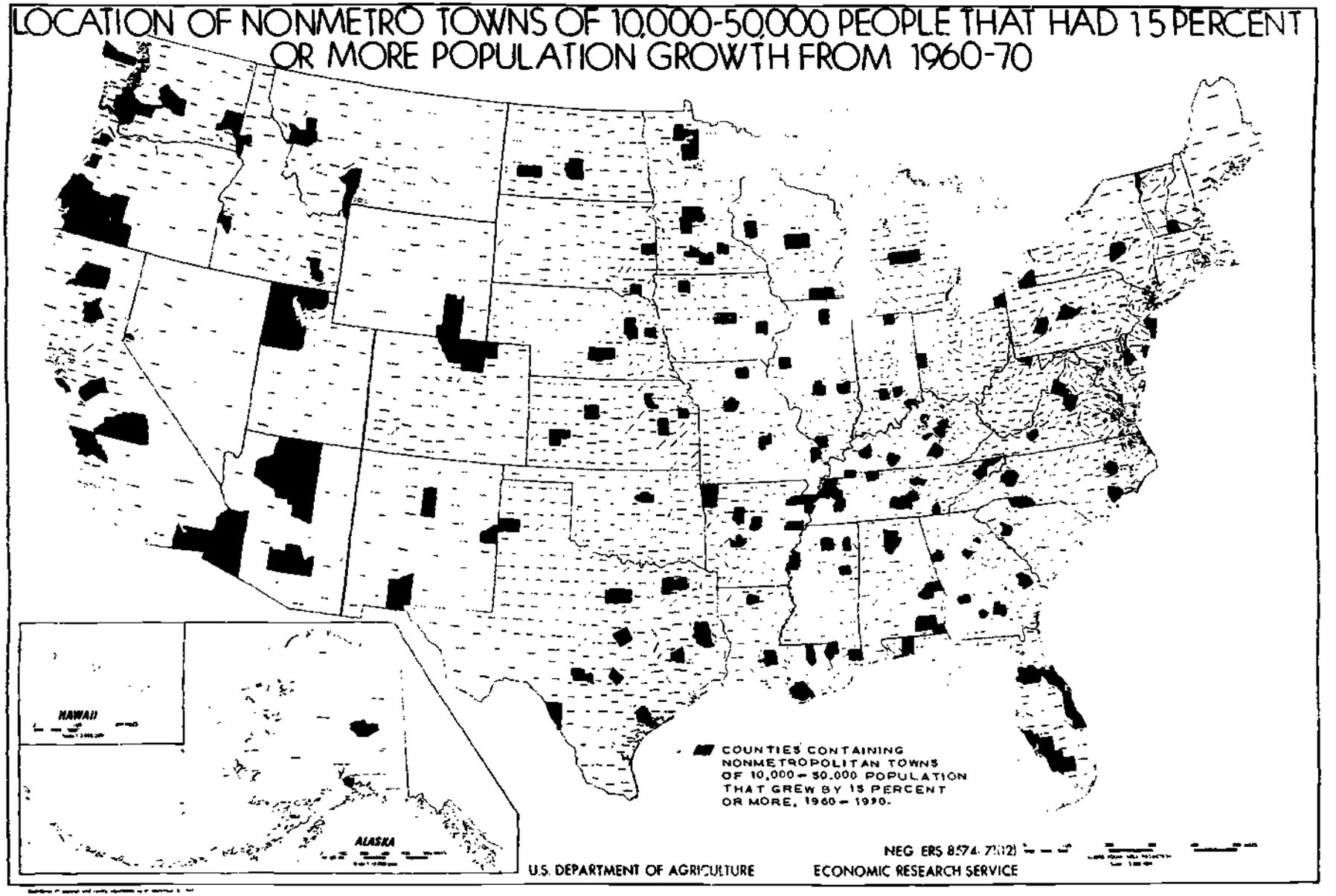

LOCATION OF NONMETRO TOWNS OF 10,000-50,000 PEOPLE THAT HAD 15 PERCENT OR MORE POPULATION GROWTH FROM 1960-70
HAWAII
ALASKA
COUNTIES CONTAINING NONMETROPOLITAN TOWNS OF 10,000 – 50,000 POPULATION THAT GREW BY 15 PERCENT OR MORE, 1960 – 1970.
NEG ERS 8574-71(12)
U.S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE

FIGURE 4

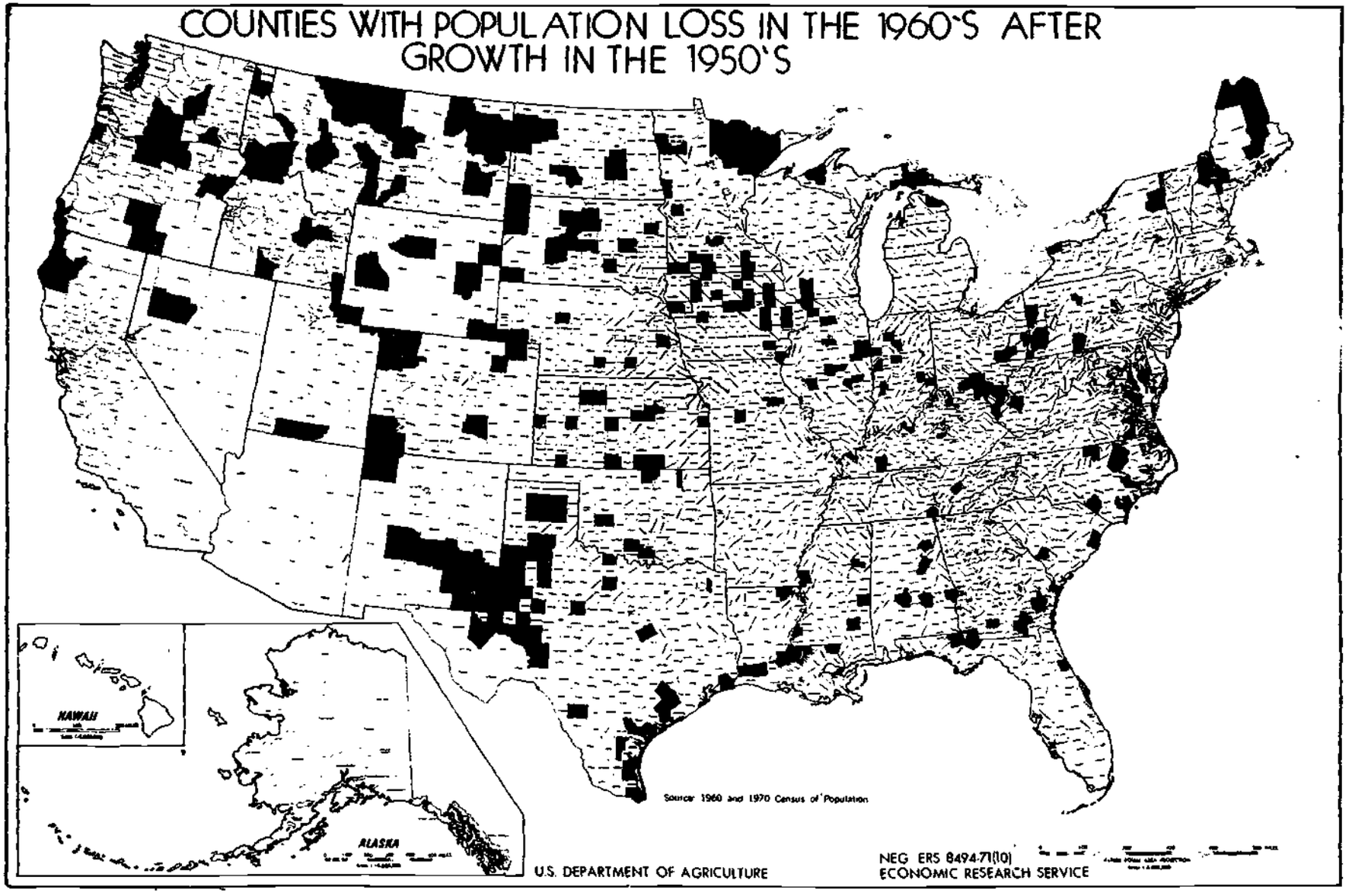
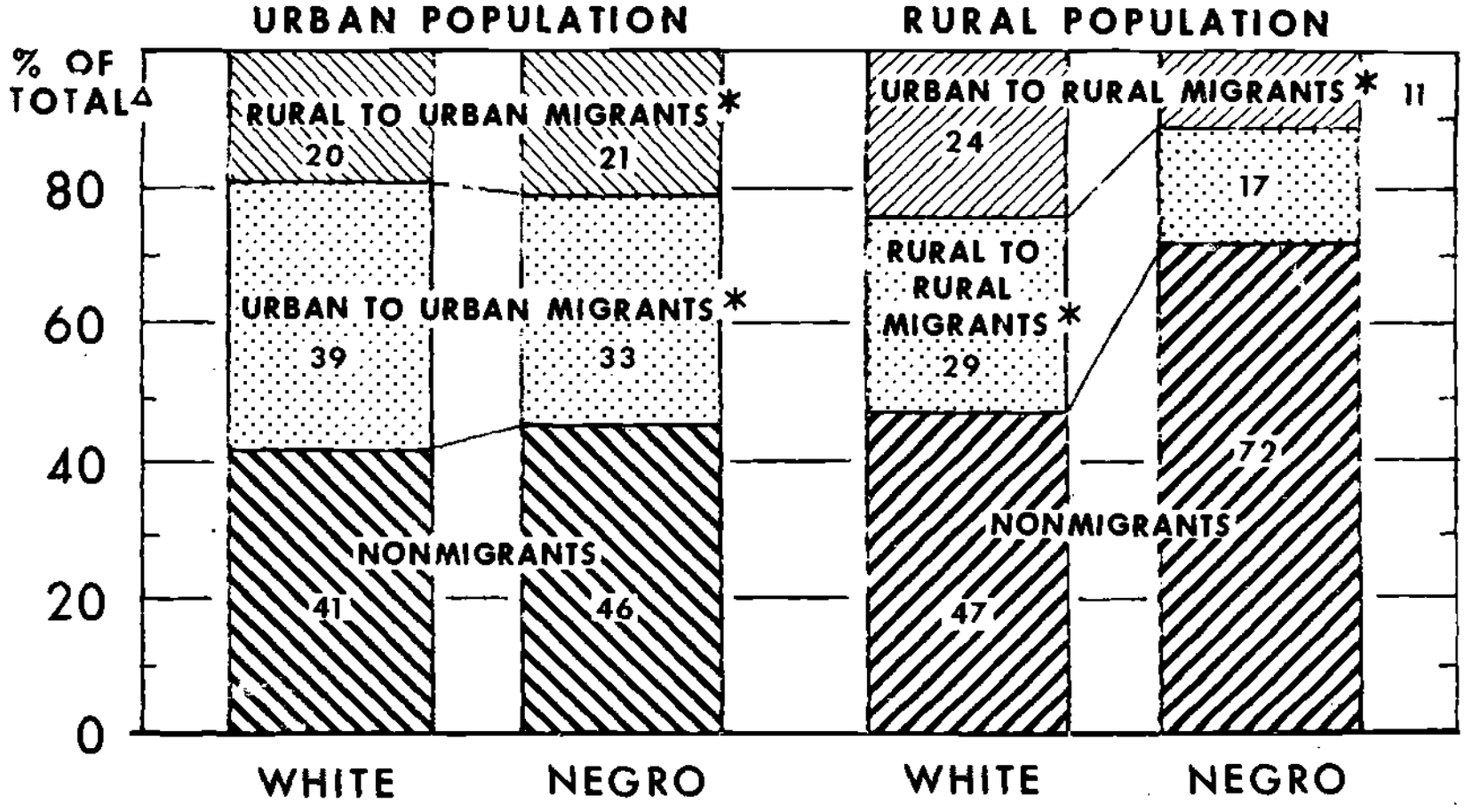

COUNTIES WITH POPULATION LOSS IN THE 1960'S AFTER GROWTH IN THE 1950'S
HAWAII
ALASKA
Source: 1960 and 1970 Census of Population
U.S. DEPARTMENT OF AGRICULTURE
NEG ERS 8494-71(10)
ECONOMIC RESEARCH SERVICE

FIGURE 5

MIGRATION STATUS AND RACE OF URBAN AND RURAL POPULATION, 1967



△ POPULATION 14 YEARS OLD AND OVER BY 1967 RESIDENCE AND RESIDENCE AT AGE 16 OR EARLIER.
* MIGRANTS ARE PERSONS WHO HAVE EVER LIVED MORE THAN 50 MILES FROM THEIR 1967 ADDRESS.
DATA FROM THE 1967 SURVEY OF ECONOMIC OPPORTUNITY.

U.S. DEPARTMENT OF AGRICULTURE UNIVERSITY OF GEORGIA NEG. ERS 7099-70(9) ECONOMIC RESEARCH SERVICE

FIGURE 9

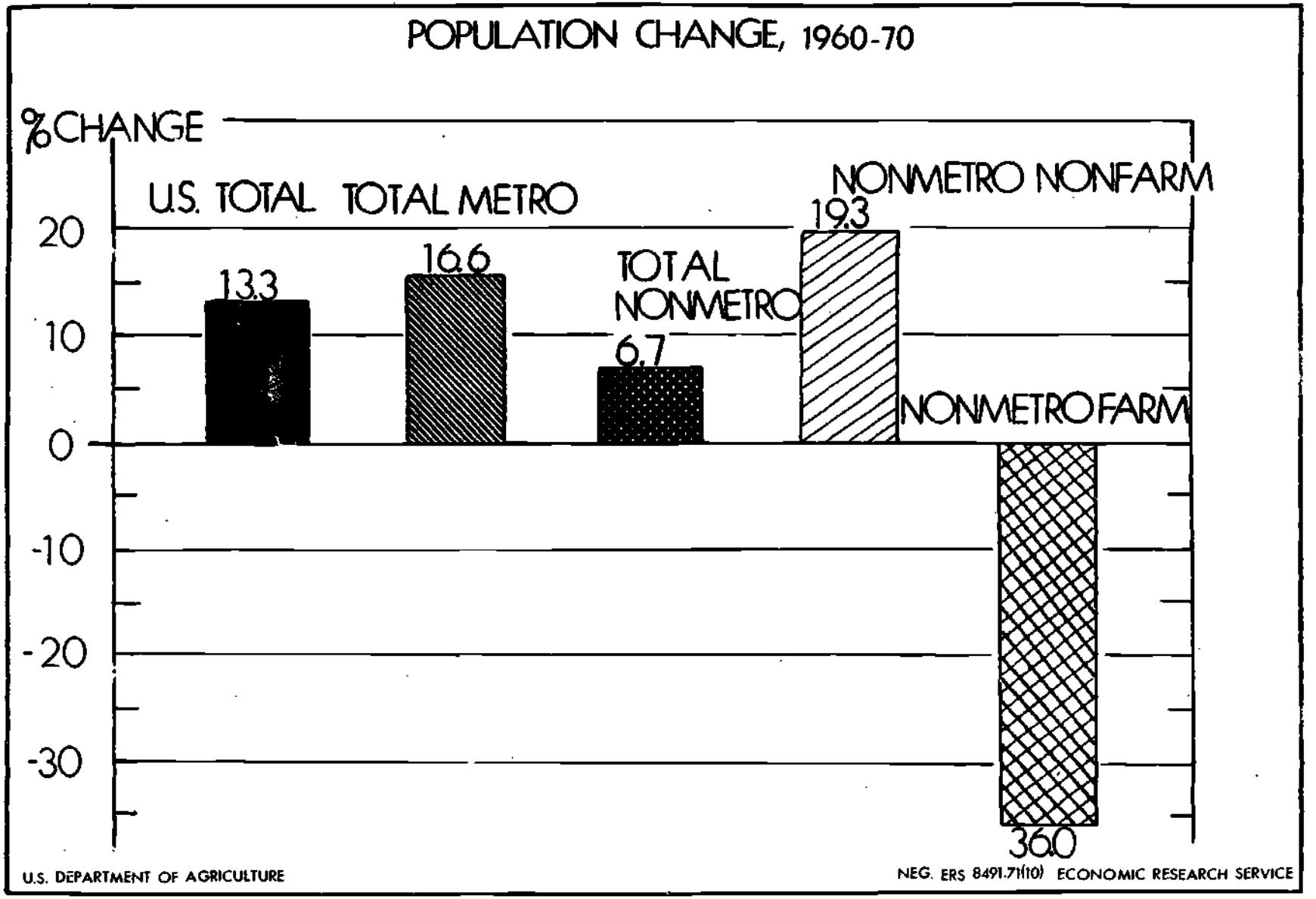

POPULATION CHANGE, 1960-70
%CHANGE
U.S. TOTAL
TOTAL METRO
TOTAL NONMETRO
NONMETRO NONFARM
NONMETRO FARM
20
10
0
-10
-20
-30
13.3
16.6
6.7
19.3
36.0
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FIGURE 7

off-farm income was a significant source of most farmers and average income per farm family was about equally divided between net income from farming and off-farm income. Operators of the 223,000 farms in the largest sales class ($40,000 and over) still depended on off-farm sources for 18 percent of their net family income. And for about one million farms in the smallest sales class (less than $2,500), off-farm income made up 88 percent of total net income. (Table 2 and Figure 8). The pervasiveness and size of nonfarm income among farm families suggests that for many, migration or even ready access to a metropolitan area was not a critical prerequisite to supplementing farm income to a significant extent. Moreover, especially in the Southeast, Delta and Appalachian States the nonfarm income reported by farm proprietors significantly underestimated true income since perhaps 30 percent or more of these families in some states do not earn enough to file Federal income tax returns. 13/

-- Agriculture has been traditionally thought of as two major components -- commercial agriculture and a remaining group of non-commercial, subsistence or marginal farm families and disadvantaged farm labor. This view may need substantial revision as we consider the interfaces between agriculture and economic development. For example, the approximately 2 million persons reporting farm profits on their Federal income tax returns for 1966 had average farm receipts of $13,640 but average combined farm and off-farm income of only $6,050. The million farm proprietors reporting farm losses for the same year had average farm receipts of only $5,790 but average combined farm and off-farm income of $7,260. Similar income relationships applied in 1963. 14/ (Table 3). In a similar vein, Varden Fuller and Van Vuuren have recently cautioned against too simplistic a notion of the relationship between off-farm migration and returns to labor in agriculture. They claim that the rise in self-employed labor incomes that was expected to follow substantial off-farm mobility has not been fully realized. 15/

Thus, many relatively rural counties have tended to grow faster than metropolitan ones during the sixties, but this generalization covers a multiplicity of variations in population growth rates and related

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13/ Reinsel, Edward I., "Farm and Off-Farm Income Reported on Federal Tax Returns," ERS-383, Econ. Res. Serv., U.S. Dept. of Agriculture, Washington, D.C. 20250, Aug. 1968, pp. 4, 5.

14/ Reinsel, Edward I., "People with Farm Earnings -- Sources and Distribution of Incomes," ERS-498, Economic Research Service, USDA, Washington, D.C., March, 1972.

15/ Fuller, Varden and William Van Vuuren, "Farm Labor and Markets," in Size, Structure, and Future of Farms, A. Gordon Ball and Earl O. Heady editors, Iowa State Univ. Press, Ames, Iowa, 1972. pp. 144-170.

Table 2.--Income per farm operator family by major source and by value of sales classes, 1970

Value of products sold	Realized net farm income	Off-farm income	Total income	Pct. off-farm is of total	No. of farms
	Dollars			Percent	Thou.
All farms	5,374	5,833	11,207	52	2,924
$40,000 and over	25,664	5,803	31,467	18	223
20,000 - 39,999	9,962	3,503	13,465	26	374
10,000 - 19,999	6,208	3,452	9,660	36	513
5,000 - 9,999	3,492	4,984	8,476	59	370
2,500 - 4,999	2,049	5,465	7,514	73	260
Less than 2,500	1,059	7,954	9,013	88	1,184

Source: Farm Income Situation, FIS-218, Economic Research Service, July 1971. Table 5D.

FARM AND OFF-FARM INCOME, 1970

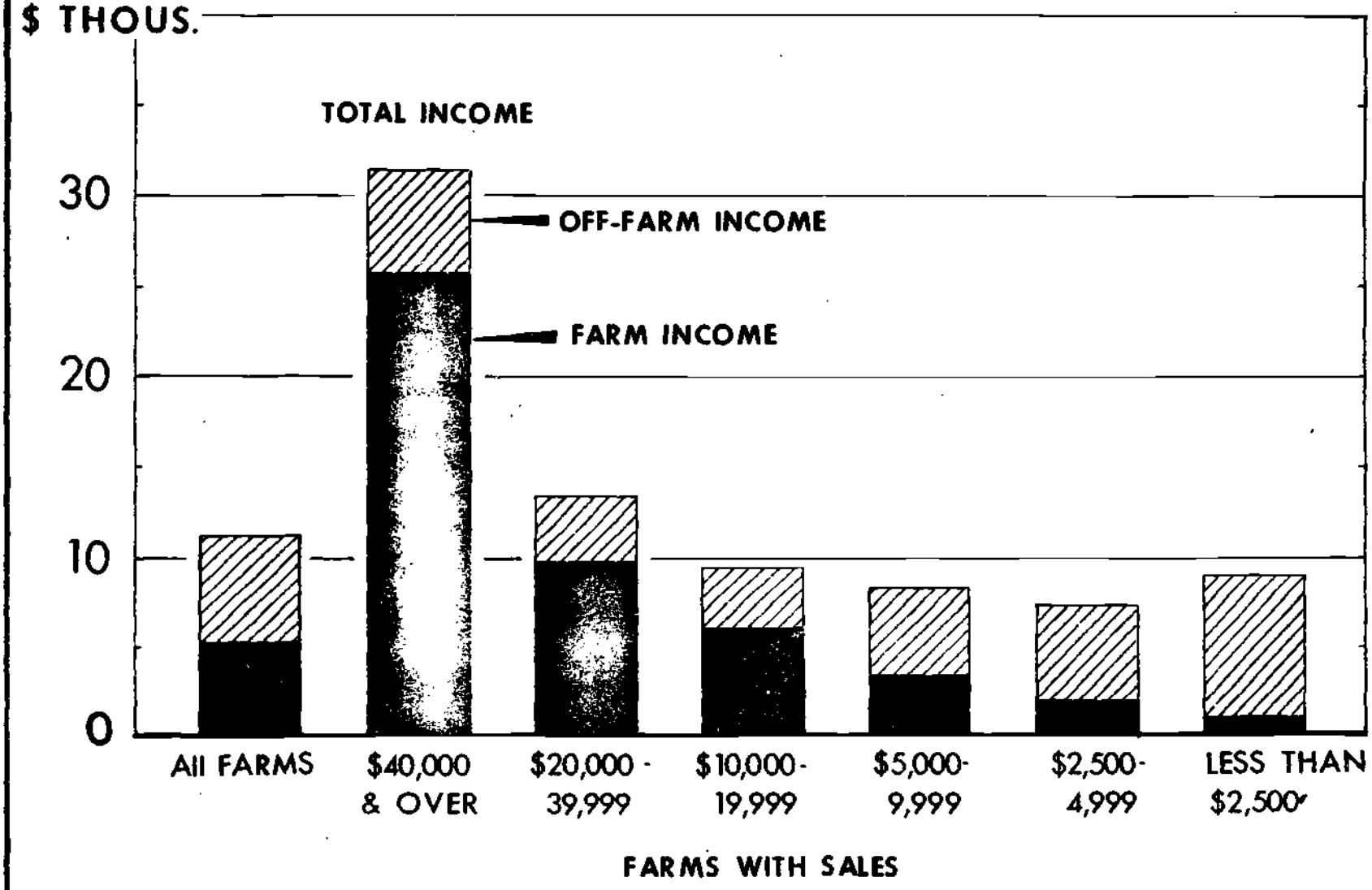

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FIGURE 8

Table 3.--Persons reporting farm income, average farm receipts, and average combined income, by amount of farm profits or losses, 1963 and 1966

Farm profits or losses	Persons reporting 1/		Average farm receipts		Average combined farm and off-farm income 2/	
	1963 3/	1966 4/	1963 3/	1966 4/	1963 3/	1966 4/
	Thousands		Dollars			
Farm profits:						
$10,000 or more	50	103	60,450	63,310	20,120	19,350
5,000 - 9,999	167	267	26,660	27,060	8,500	9,140
3,000 - 4,999	(854	276	(11,820	17,060	4,170	6,150
1,200 - 2,999		514		10,580	2,790	4,600
400 - 1,199	584	471	5,100	4,950	3,180	4,070
Less than 400	448	383	3,120	3,240	3,970	4,650
Farm losses:						
Less than $400	337	312	2,800	2,780	4,160	6,000
400 - 1,199	381	344	3,390	3,520	4,540	6,430
1,200 - 2,999	(310	241	(6,540	5,580	4,700	6,960
3,000 - 4,999		65		9,710	5,140	8,680
5,000 - 9,999	40	41	16,190	16,190	7,720	11,840
10,000 or more	26	26	55,220	53,590	21,700	25,860
All farm profits	2,103	2,014	10,440	13,640	4,340	6,050
All farm losses	1,094	1,029	5,790	5,910	5,250	7,260
All farm profits and losses	3,197	3,043	8,850	11,030	4,650	6,460

1/ Including persons with losses from combined farm and off-farm sources.
2/ Including losses from combined farm and off-farm sources.
3/ Based on: "Statistics of Income...1962, U.S. Business Tax Returns," Int. Rev. Serv., Sept. 1965, tables 10 and 11, pp. 80-81.
4/ Based on special tabulations by Internal Revenue Service, U.S. Depatment of the Treasury.

migration patterns. These variations occur by regions, race, occupation, size of place and other factors. More adequate conceptual frameworks and much detailed empirical work are urgently needed to enable us to understand the likely key present and future interrelationships between migration and rural development and agriculture.

Rural Development

We have come this far without a need to define rural development. Dr. Don Paarlberg recently spoke of rural development as a widening of choice for rural people. 16/ In the same vein, I believe we can say that in the United States, the concept of rural development can be presented as a widening of choice for all Americans, both as consumers and producers, by their productive involvement in the evolution in nonmetropolitan America of better places to live and work. These places will be an updated and adapted synthesis of the best of traditional rural and urban living.

I submit that migration is a likely critical determinant of the rural development potential of given areas, districts or regions of the United States and that its effect on agriculture will likely be exercised mainly through its overall effect on the development potential of these areas.

In view of the data already presented, I judge that the migration that is critical to rural development is not so much rural to urban or urban to rural as the Census defines these terms. Rather, I would suggest it is a likely increased rate of migration among subnational areas or regions that have economically and socially interdependent rural and urban components, or can be expected to have this interdependence when they are adequately developed. The likely most relevant areas for analysis, and programming and planning for public decision-making and action are the generally multi-county areas now designated by most governors for overall planning and development purposes. These are the areas whose planning bodies are commonly authorized to review and comment on applications for Federal loan and grant funds in conjunction with the Office of Management and Budget (OMB) Circular A-95. (Figure 9).

Resident individuals and families of these areas can be thought to behave in accordance with three main motives that may relate directly to migration behavior. From the individual viewpoint, these are:

(1) The sustenance motive
(2) The income motive
and (3) The transcendental motive.

16/ Paarlberg, Don, "Decision-Making on Rural Development at the National Level -- Priority Needs for Research," Remarks at the Conference on Developing Research Priorities on Problems of Rural Development, Illinois Beach State Lodge, Chicago, Illinois, May 9, 1972.

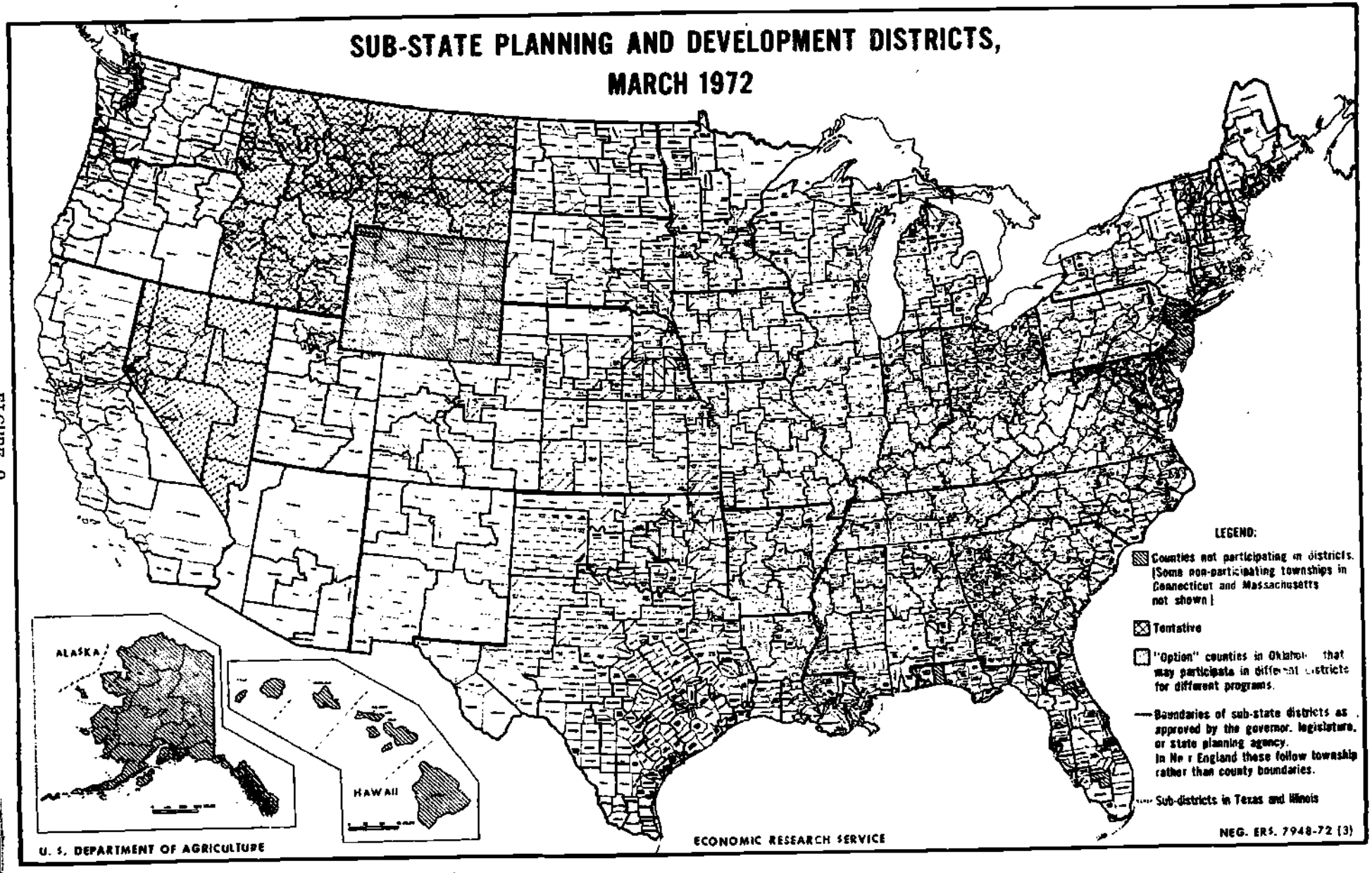
SUB-STATE PLANNING AND DEVELOPMENT DISTRICTS,
MARCH 1972
ALASKA
HAWAII
LEGEND:
Counties not participating in districts. (Some non-participating townships in Connecticut and Massachusetts not shown)
Tentative
"Option" counties in Oklahoma that may participate in different districts for different programs.
Boundaries of sub-state districts as approved by the governor, legislature, or state planning agency. In New England these follow township rather than county boundaries.
Sub-districts in Texas and Illinois
U. S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE
NEG. ERS. 7948-72 (3)

FIGURE 9

These motives are condensed from psychologist Maslow's 17/ listing of five sets of goals which human beings experience as basic needs. These five sets are: (1) physiological needs -- food, shelter and the like; (2) safety; (3) love (affectionate regard or social acceptance); (4) self-esteem; and (5) self-actualization. These can be depicted in the form of a triangle with the most powerful motivator (physiological needs) at the base. Drawing on this work, Bernal Green 18/ has suggested, as a "definition" of development, "the engagement by human beings in activities to achieve five sets of goals which are characteristically arranged in a hierarchy of prepotency." Similarly, in the condensed version offered above, the sustenance motive is considered the most basic or prepotent, followed by the income motive and the transcendental motive.

A quick reading of popular impressions could lead to the conclusion that much of the rural exodus, particularly the migration of southern rural blacks to distant cities results from the sustenance motive -- the attraction of generally higher average levels of welfare payments in states such as New York, Pennsylvania and California. Available evidence does not support this viewpoint.

Rural people have contributed to urban population congestion and poverty and welfare dependence, but in large part only through their numbers. The disproportionate incidence of these problems among rural-urban migrants has been slight, especially among blacks. 19/

The only source of national information on the number and characteristics of rural-urban migrants is the 1967 Survey of Economic Opportunity. Analyses of these data are being made by the Economic Research Service in cooperation with the University of Georgia. I would like to summarize some relevant findings already reported by Calvin Beale. 20/ In 1967, about 18 million adults (17 years old and over), who had originated in rural areas, were then living in an urban place at least 50 miles from their place of origin. They comprised a significant portion of the urban population -- some 21 percent. But despite a somewhat below average educational attainment and a disproportionately elderly age structure, their median family income was only 9 percent lower than that of urban native families and their poverty incidence only 10.8 percent compared with 8.3 percent for urban native families, using

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17/ Maslow, A. H., "A Theory of Human Motivation," The Psychological Review, Vol. 50, No. 4, July, 1943 pp. 370-396.

18/ Green, Bernal L., "Development Defined," manuscript, Dec., 1971, 30 pp. (mimeo).

19/ Beale, Calvin L., "Rural and Nonmetropolitan Trends of Significance to National Population Policy," Paper prepared for the Commission on Population Growth and the American Future, March 1972, 20 pp. (mimeo).

20/ Op. cit.

standard poverty definitions adopted by the Office of Economic Opportunity. Some 4.5 percent of rural-urban migrant families received some income from public assistance, compared with 3.7 percent of urban native families.

Most significantly, the median family income of rural-urban migrants was 28 percent higher than that of rural residents and the 10.8 percent poverty incidence of the migrant families compared with 20.2 percent in the countryside. Rural urban migrant black families had a median income of $5,116 -- virtually the same as the corresponding income of $5,105 for black urban natives. And the incidence of poverty for these migrant blacks was 26.6 percent compared with 26.9 percent among urban black natives.

These data are consistent with casual, but yet unsubstantiated observation that many rural blacks and whites may return to their rural homes to "wait out" periods of unemployment and migrate again to distant cities as employment there picks up.

In brief, then data do not support the hypothesis that U.S. migration, particularly rural to urban migration is largely due to the sustenance or welfare motive. Programs and policies to equalize welfare payment rates and qualifying conditions among geographic areas may be well justified on their own merits, but cannot be expected to effect major net changes in population redistribution. It is at least as plausible to reason that they would accelerate rural outmigration as to suggest they would slow it.

An alternative hypothesis that appears partially supported by data is that people migrate mainly for motives other than improved access to welfare payments and minimal sustenance. In the case of both migration among cities and between rural and urban areas, the likely most important motive of the migrants is to increase income through higher-paying jobs and other activities. Through both "pull" and "push" factors, this job and income motive will, I submit, continue to be a dominant reason for migration.

On the "pull" side, metropolitan areas added 12.3 million workers in the 1960-70 decade, compared to 3.4 million nonmetropolitan areas. Moreover, "fast-growing industries" (exceeding the overall national annual growth rate of 23.8 percent) grew faster in metropolitan than in nonmetropolitan areas. (Table 4). 21/ And, due to differences in industry mix and other factors, median earnings in 1969 for the corresponding occupational group were considerably higher in metropolitan than in nonmetropolitan areas. (Table 5). 22/

21/ Rural Development Chartbook, ERS-500, Economic Research Service, U.S. Dept. of Agriculture, Washington, D.C., Feb. 1972, pp. 24, 25.

22/ Ibid, p. 43.

Table 4.—Employment, by industry, United States, metropolitan areas, and nonmetropolitan areas, March 1960 and March 1970[1]

(Numbers in millions)

Industry	United States				Metropolitan [2 3]				Nonmetropolitan [5]			
	March 1970	March 1960	Change 1960–70 Number	Change 1960–70 Percent [4]	March 1970	March 1960	Change 1960–70 Number	Change 1960–70 Percent [4]	March 1970	March 1960	Change 1960–70 Number	Change 1960–70 Percent [4]
Total	81.8	66.1	15.7	24	58.5	46.2	12.3	27	23.3	19.9	3.4	17
Fast growing industries, total [3]	45.6	31.6	14.0	44	34.3	23.7	10.7	45	11.3	7.9	3.4	42
Government wage and salary employment	12.9	8.4	4.4	53	8.8	5.7	3.1	55	4.1	2.7	1.3	49
Service miscellaneous wage and salary employment	11.2	7.1	4.1	58	8.8	5.5	3.3	59	2.4	1.6	.8	51
Trade wage and salary employment	14.7	11.0	3.7	33	11.2	8.4	2.9	34	3.5	2.7	.8	30
Finance, insurance, and real estate wage and salary employment	3.6	2.6	1.0	39	3.1	2.2	.8	39	.6	.4	.2	40
Construction wage and salary employment	3.2	2.4	.8	33	2.4	1.9	.5	29	.8	.6	.3	48
Other industries, total	36.1	34.4	1.7	5	24.2	22.5	1.7	8	12.0	12.0	(6)	(7)
Manufacturing wage and salary employment	19.7	16.9	2.8	17	14.4	12.9	1.6	12	5.3	4.0	1.3	31
Transportation, communication, and utilities wage and salary employment	4.6	4.0	.5	12	3.5	3.1	.4	14	1.0	.9	.1	6
Mining wage and salary employment	.5	.7	−.1	−11	.2	.2	(8)	−3	.4	.5	−.1	−15
Nonagricultural employment n.e.c. [8]	8.0	8.2	−.2	−3	6.2	5.3	−.1	−2	2.8	2.9	−.1	−4
Agriculture [9]	3.3	4.6	−1.4	−29	.8	1.0	−.2	−24	2.5	3.6	−1.1	−31

[1] Based on establishment reports.

[2] Workers are classified according to their place of employment rather than place of residence.

[3] Substantially, this includes employment in all Standard Metropolitan Statistical Areas as defined by the Bureau of the Budget, Jan. 15, 1968. In a few instances, labor areas delineated by State employment security agencies do not coincide with SMSA's. In these instances, the ES definitions apply.

[4] Computed from unrounded figures.

[5] Industries in which nationwide employment increased by a greater percentage than the overall average of 23.9 percent.

[6] Less than 50,000 workers.

[7] Less than 0.5 percent.

[8] Nonagricultural employment not elsewhere classified in this table. This includes the self-employed, private household workers, and unpaid family workers.

[9] Includes the self-employed, unpaid family workers, and wage and salary workers in agriculture.

NOTE: Due to rounding, figures may not add to totals.

Source: Unpublished data prepared by Claude C. Haren, Economic Development Division, Economic Research Service, U.S. Department of Agriculture, based primarily on data supplied by State employment security agencies. Rural Manpower Developments, Manpower Administration, U.S. Department of Labor, March 1971, p. 11.

Table 5.--Median earnings, 1969, by occupational group

Nonfarm occupation group and sex	Total	Metro	Non-metro
	- - - - - Dollars - - - - -		
Male			
Prof. and managerial	10,381	10,845	9,100
Clerical and sales	7,337	7,509	6,803
Craftsmen and foremen	8,194	8,727	7,297
Operatives	6,626	7,086	5,827
Service workers	4,518	4,963	4,140
Nonfarm laborers	4,269	4,877	3,645
Total	7,653	8,109	6,716
Female			
Prof. and managerial	5,716	5,989	5,193
Clerical and sales	3,838	4,051	3,369
Craftsmen and foremen	4,376	4,684	3,862
Operatives	3,540	3,617	3,468
Service workers	1,477	1,713	1,213
Pvt. household	520	571	487
Other service	2,063	2,281	1,741
Nonfarm laborers	2,613	1/	1/
Total	3,453	3,704	3,003

1/ Base less than 75,000.

Source: Social and Economic Characteristics of the Population in Metropolitan and Nonmetropolitan Areas: 1970 and 1960, Current Population Reports, P. 23, No. 37, June 24, 1971. Bureau of the Census, Table 17, p. 66.

On the "push" side, nonmetropolitan areas continue to have the highest incidence of poverty -- 17 percent in 1969 compared with 10 percent in metropolitan areas. (Figure 10). Poor rural whites and blacks in the South are those most affected by this "push" factor. In the South, poverty is much more prevalent in nonmetropolitan areas, whereas in the North and West, it tends to be more a metropolitan problem. 23/ And the decline in farm population and the number of farm workers could continue for some years, due to a continued decline in farm employment. These declines have been associated rather consistently with approximately a 5 percent annual rate of outmigration of farm population since 1940. 24/ (Figure 11). Recent analyses suggest that, in the near future, the decline in the hired farm working force could amount to one-half to one million and a similar decline could occur in the number of farm operators and unpaid working members of their families. 25/ These numbers apply to people who actually work on farms at some time during the year and not to annual average numbers reported in any particular series. The greatest declines in employment are anticipated in the fruit, vegetable, and tobacco industries, and so will have a differential impact on various regions. Parts of the southern and eastern states, plus some around the Great Lakes are likely to be affected most. The greatest labor redundancy will likely be that of white males who are poorly educated relative to the rest of the labor force. 26/

The present distribution of population throughout the United States is, of course, the cumulative result of millions of individual and family decisions to migrate or not migrate. And we can infer that these decisions are influenced greatly by the extent of expected increases in income resulting from a job change that is usually associated with such migration. As already pointed out, the resultant overall settlement pattern has been one of relative population sparsity in the center of the continent and increasing density of population around the coastline. However, marked disparities have emerged among regions in the relative distribution of places of various population sizes. Fuguitt has recently analyzed these variations for four Census regions comprising the coterminous United States. (Figure 12). 27/ These regions are the Northeast, the North Central, the South and the West. Among other things, he analyzed population changes for five nonmetropolitan place sizes -- less than 500 population, 500 to 999,

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23/ Ibid, pp. 28, 29.

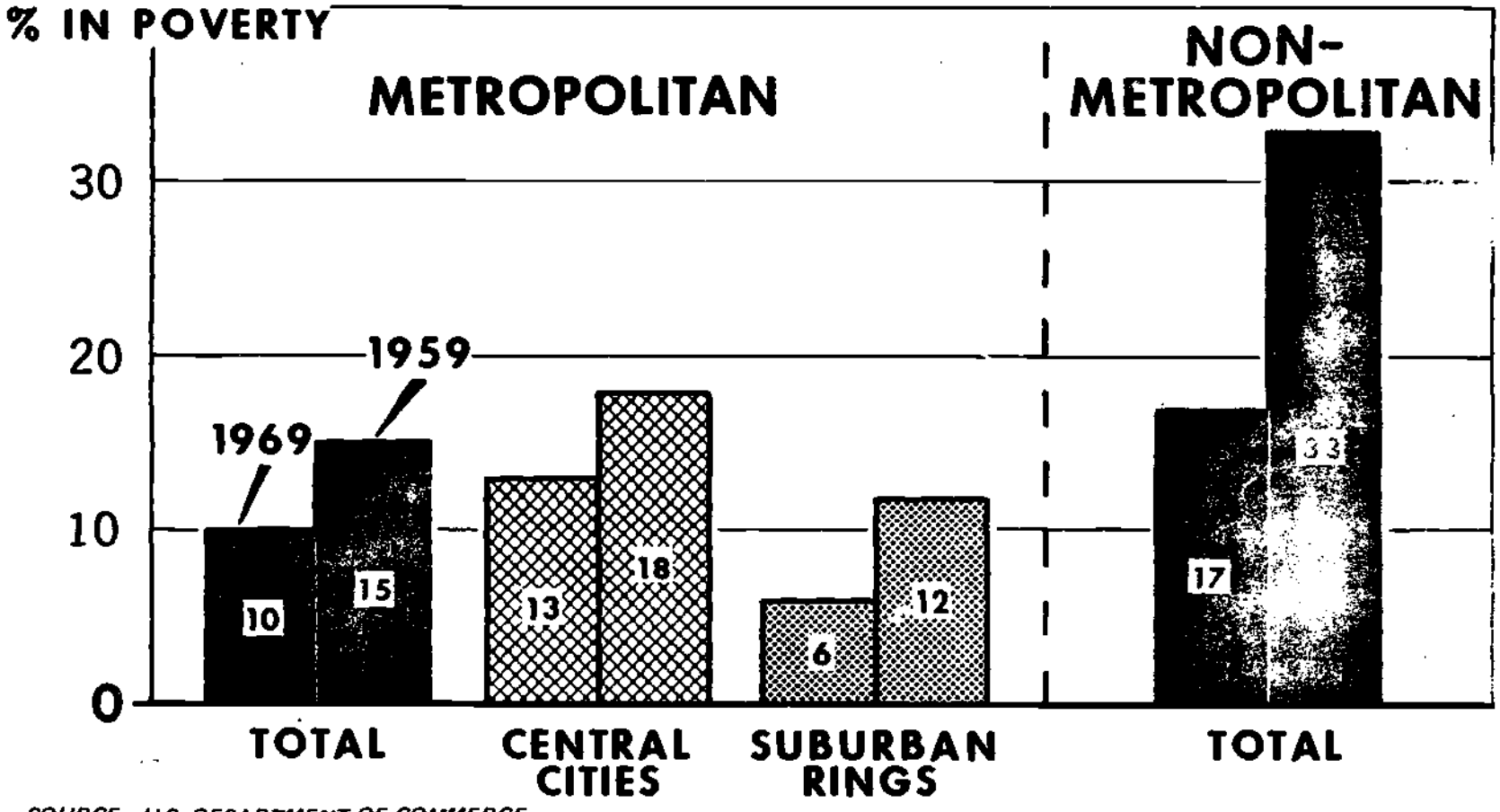
24/ Ibid, p. 29.

25/ McElroy, Robert C., "Agricultural Employment and Unemployment: Situation and Outlook," Paper prepared for U.S. Dept. of Commerce briefing, April 18, 1972.

26/ The Hired Farm Working Force of 1971, AER Rpt. No. 222, Economic Research Service, U.S. Dept. of Agriculture, Washington, D.C.

27/ Fuguitt, Glenn V., "The Places Left Behind: Population Trends and Policy for Rural America," Rural Sociology, Vol. 36, No. 4, Dec. 1971, pp. 449-470.

INCIDENCE OF POVERTY BY METRO AND NONMETRO RESIDENCE, 1969 AND 1959

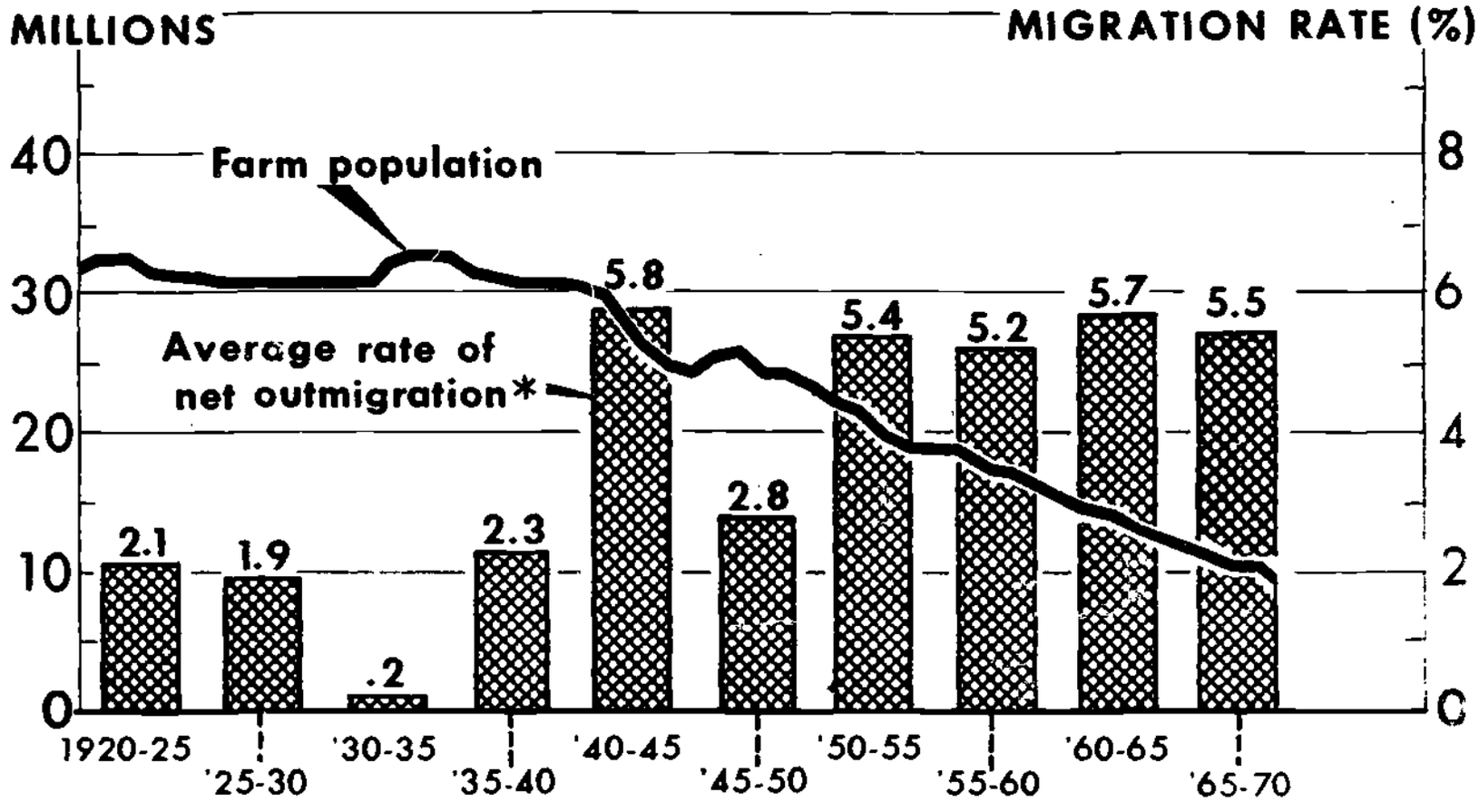


SOURCE: U.S. DEPARTMENT OF COMMERCE.

U.S. DEPARTMENT OF AGRICULTURE NEG. ERS 8203 - 71 (3) ECONOMIC RESEARCH SERVICE

FIGURE 10

FARM POPULATION AND MIGRATION



*BASED ON ANNUAL AVERAGE NET CHANGE IN POPULATION THROUGH MIGRATION PER 100 PERSONS IN THE AVERAGE APRIL FARM POPULATION FOR THE PERIOD INDICATED.

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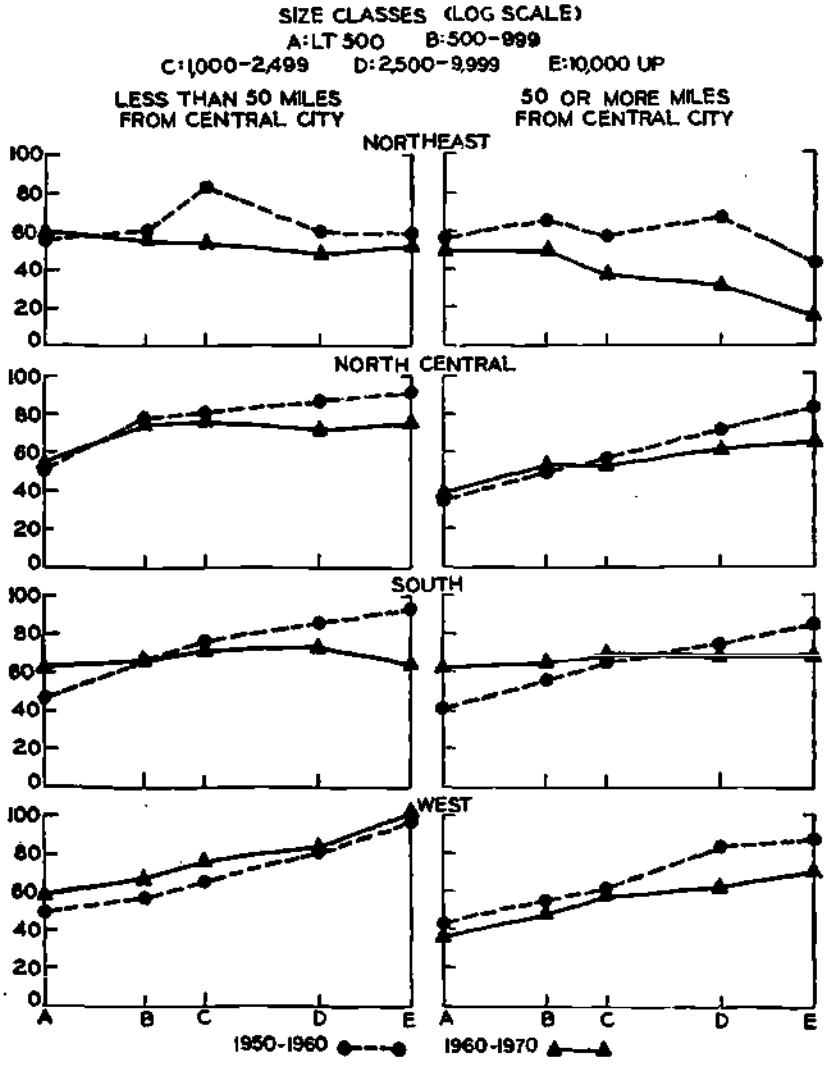
FIGURE 11



Proportion of places growing, by initial size, location with respect to SMSA central cities, region, and decade, nonmetropolitan United States, 1950–1960 and 1960–1970

FIGURE 12

1,000 to 2,499, 2,500 to 9,999 and 10,000 to 49,999. For the South for both the 1950 to 1960 and the 1960 to 1970 decades, virtually the same percentage (60) of places in each size class increased in population and this was true whether the places were less than 50 miles from a central city or more than 50 miles. In other words, proximity to a metropolitan area has not been a dominant factor governing population increase for nonmetropolitan places in the South during the last 20 years. In addition, the percentage of places of less than 1,000 that grew in the 1960-70 decade has increased somewhat and the percentage of places of more than 2,500 that grew in the same decade has decreased somewhat, compared to the previous decade. Smaller places, in short, are tending to grow in the South.

The North Central and the West revealed patterns of population change quite different from the South, but similar to each other. In both these regions, the percentage of places with population growth was higher in both decades for all places within 50 miles of a metropolitan center than for the corresponding size class of places more than 50 miles from such a central city. Moreover, for both the North Central and the West in both decades and irrespective of distance from a central city, the size class with the smallest percentage of members growing in population was the smallest place (less than 500 population) and, in general, the larger the size of place, the higher proportion of that class grew in population.

The Northeast revealed a further unique pattern of population change that tends to be the obverse of that for the North Central and the West. the extreme version of this difference occurs for places 50 miles or more from a central city. For the 1960-70 decade, places so located of less than 500 people had the highest percentage that grew in population and those with 10,000 or more people had the lowest proportion that grew.

These varied patterns of settlement and implied variations in migration can, I believe, be associated with differences among region in resource mix, stage of development and predominant motivation for migration. Moreover, I believe further analyses of factors affecting these differences will help resolve what might be called the "growth center controversy."

The Northeast and the South are, for the most part, regions of relatively high population density. Both have relatively abundant supplies of water and power (electricity and gas), although local distribution problems emerge and the longrun overall availability is more controversial. These problems are most likely to affect larger places in the Northeast (where tariffs are likely higher too). In the South, TVA and other utility companies have assured a more widespread distribution of power and light at favorable rates to places of various sizes. Although the average standard of formal education and training available in the Northeast might be held by some to be higher than in the South, both regions have (1) considerable

variability in this quality among areas or districts and (2) relatively greater emphasis on private and parochial schools than in the rest of the United States. And these variations, it is suspected, are not correlated with size of place, except for the emerging possibility of relatively inferior educational opportunities in both the very largest and very smallest places.

Beyond these common considerations, the Northeast, perhaps most of all in southern New England and eastern New York and New Jersey, has consolidated its early economic advantage gained through manufacturing by vigorous expansion of service industries that cater to the needs of the rest of the Nation and employ a high proportion of highly-skilled, high-income workers. Moreover, they can entice home former outmigrants who reportedly tend to take these skilled jobs at less than national average salaries for comparable skills and experience. 28/ The predominant migration motive in the Northeast is, I suggest, the transcendental one of seeking an increasingly satisfying, enjoyable and meaningful life at the tolerably high income level that most experienced professionals (especially those endowed with rich parents and uncles) can attain with conventional effort and average good fortune.

In the New England context, this "good life" is most readily attainable in smaller communities. Their residents can readily enjoy the amenities of larger cities, public services of tolerable or even superior quality (including educational, health and recreational services) and yet avoid the major disadvantages commonly associated with large cities. Thus, we might expect this same pattern of settlement and migration to continue, perhaps spilling over into the peripheral areas that also tend to be somewhat more agricultural. Policies or programs that tend to assimilate these peripheral areas might speed this interarea migration. For example, branches of a state university system might offer local teachers fully accredited courses so that the best teachers would be more mobile and so benefit rural communities.

Peripheral areas might also expect some continuing expansion of manufacturing in places of various sizes. This pattern is already established in Pennsylvania, for example, where manufacturing employment between 1960 and 1966 grew more rapidly (13.7 percent) in towns of less than 25,000 than in metropolitan areas (3.6 percent). Gains due to expansion of existing firms generally exceeded gains due to new firms. 29/

28/ Eisenmenger, Robert W., "The Dynamics of Growth in New England's Economy," The New England Research Series, Wesleyan University Press, Middletown, Conn. 1970.

29/ Fuller, Theodore E., "Trends in Manufacturing Among Small Centers of Pennsylvania," Bull. 788, Penn. State Univ. in cooperation with EDD, ERS, U.S. Dept. of Agriculture, Dec. 1971. 30 pp.

The South is perhaps the most variable region of all in terms of the economic status and potential of particular areas, including rural areas. Thus, generalizations are uniquely hazardous. Under the immunity hopefully incurred by this caveat, I suggest that migration within and between this region and others is preponderantly due to the income motive and increasingly, but yet insufficiently due to the transcendental motive. The migration of both blacks and whites out of the region is a response to the income motive, as is much of the intraregional white migration. Return migration of poor whites may be due to both income and sustenance motives. Perhaps more than in any other region, conditions in agriculture are likely to provide the basis for further continuing outmigration of blacks and whites due to the income motive. On the one hand, agriculture has gained in income relative to the rest of the Nation and may continue to do so due to a favorable mix of products (such as poultry, fruits and vegetables). Surplus family labor from farms experiencing this income boom may find it easier to leave. On the other hand, rural areas of Southern Appalachia (mainly white) and of the Coastal Plains (mainly black) continue to show high fertility rates, have limited and on the Coastal Plain likely more limited income opportunities in agriculture and, again particularly on the Coastal Plain, limited local nonfarm income opportunities. Expansion of manufacturing in these areas might reduce outmigration, not so much through the direct effect of providing local jobs but through the indirect effect that higher incomes, associated to a large extent with nonfarm job opportunities for women with little education, might modify fertility rates.

Inmigration of higher-income, higher skilled whites can be thought due to the transcendental motive. In that former natives came from a wide range of communities of various sizes well deployed across the region, it is not hard to envisage their return to a similar range of communities rather than clustering in a limited number of places in or near metropolitan areas. Moreover, in addition to inmigrants returning to work, a significant number of higher-income inmigrants are retirees many of whom may select rural communities and whose choices may be positively constrained by the accessibility of adequate medical services but negatively or neutrally constrained by relatively high real estate taxes typically associated with superior school systems. These patterns of inmigration may be expected to continue but the extent to which the inmigration stream of potential workers can be expanded may be the most critical determinant of the rate and pervasiveness of rural development and the upgrading of farm family incomes. Such an accelerated inmigration, due, for example, to short-circuiting of the manufacturing phase and more emphasis on expanding service industries in a significant number of communities, might provide the basis for a rapid upgrading of the average skill and income levels of particular communities and accordingly, both an expansion of lower-income, lower-skill job opportunities needed by many present residents, including underemployed farm families, and the tax base and associated support for upgraded public services and

facilities so that families of local residents would be still more mobile. It is not obvious that such service industries and manufacturing firms would necessarily all be concentrated in limited areas or "growth centers." Indeed, many of the firms needed for an adequate economic base might best be dispersed. Examples are noxious plants such as paper mills, and timber and mineral processing plants. On the other hand, it is conceivable that a community base of at least 10,000 (which could be a county as well as a town) would be needed to enable provision of an adequate school system. Thus, the "growth center" concept in the South might apply at least as much (or more) to meeting coummunity needs for improved living as to direct job development. And the transcendental motive for migration might be met by enhancing job development in one area and community environment in another related area, as well as by other approaches.

Bryant has hypothesized that industrialization efforts in rural areas to enable local residents to escape poverty through employment may be subject to leakage due to inmigrants taking jobs intended for residents. 30/ Bender et al 31/ and Kuehn et al 32/ have found such leakages in four southern rural areas and conclude that in the limited cases studies an average of some 20 percent of the new jobs go to inmigrants, half of whom may be returnees. A leakage of this extent would not appear to negate the projects as anti-poverty measures. From the perspective of rural development, the likelihood of such an impact through industrialization of rural areas with a high incidence of poverty further reinforces the need for encouraging more high-skilled, high-income inmigrants through the transcendental motive so that a further local employment multiplier effect would expand local employment and income opportunities for the most disadvantaged residents.

In the North Central and the West, for all sizes of nonmetropolitan place and both decades, a higher percentage of places grew in areas within 50 miles of a central city than in more remote areas. Moreover, in all areas and both decades, the smallest size class (less than 500) had the lowest percentage of growing places. This pattern of population change is consistent with migration from more remote smaller places both outside these regions and to larger, more centralized places

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30/ Bryant, W. Keith, "Industrialization as a Poverty Policy," In Papers on Rural Poverty, Agr. Policy Inst., Series 37, N. C. State University, March 1969.

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within the regions. I hypothesize that a special combination of factors has caused this pattern of settlement -- a pattern that appears to be most consistent with received location theory and likely to provide the best examples of individual "growth centers" with interrelated hinterlands as well as a so-called "heirarchy of urban places." Likely relevant factors include: (1) The early primacy of commercial farming and ranching over much of this area, the relative uniformity of products and methods of production over considerable areas and the relatively widespread adoption of modern methods of production and marketing. (2) The relative similarity of climate and topography over large areas and particularly the extensive areas of plains. (3) The relatively strong emphasis on public education and the relatively high minimum average level of educational attainment of farm families and other rural people. (4) The likely greater uniformity of characteristics and functions of towns and cities of various sizes in that, for example, their populations are more preponderantly white with smaller, less concentrated low income groups, and nonfarm industry tends to be concentrated in the same areas that are the locus of local community facilities and services, including consumer services and this industry typically does not provide the range of job and income opportunities needed by most new local labor force members. (5) The likely more uniform, less qualified occurrence of increased income as the dominant motive for migration within these regions and on the part of migrants between these and other regions. The very pervasiveness and stability of these factors implies a projection of likely similar migration and population trends. Perhaps the major possible variation would be the disproportionately higher growth of a few major cities as further diversification of industry and upgrading of community services and facilities encourages accelerated inmigration due to the transcendental motive. As a result of past and continuing migration trends, at least one unique problem is emerging. How can public services and facilities, particularly health and educational services of adequate and increasing quality, best be provided to farm families and other rural people who necessarily live in areas of such low population density that provision of such services by conventional means is impractical? Apart from efforts to answer this question on its own merits, related questions of land settlement policy emerge. Can the initial question be avoided, for example, by further retirement of remote land to extensive uses or by increasing local population density through concentrated development projects consistent with national goals?

Conclusion

I have tried to sketch migration as a major continuing phenomenon associated with national and subnational development. And I have speculated on its past, present and future significance for rural development and agriculture. In doing so, I have cited data that appear to be at variance with popular beliefs. I have also tried to illustrate the complexity of interrelationships between migration development (including rural development) and agriculture and suggested a rudimentary and insufficient sketch of conceptual underpinnings. And I have cited the apparently dramatic differences among

regions and within regions in patterns of population distribution and related migration behavior. Valid explanations of migration as a factor in national and subnational development can scarcely fail to include systematic consideration of these variations. If the impressions presented in this paper are a reasonably accurate portrayal of reality, a likely need emerges, as a minimum, for analysis of ways of combatting likely negative effects in the Great Plains due to chronic population sparsity in remote areas. In the South, recent and likely continuing trends in migration and population changes for various subnational areas are particularly complex and will not likely be improved upon without detailed analyses of significant interrelationships within and among these areas. The concept of a growth center as a limited area of concentrated income and employment opportunities and consumer services and amenities appears too simplistic for generalized application as a basis for program and policy formulation related to rural development and agriculture in this region. Although the income position of agriculture in the South has advanced relative to the Nation in recent years (and may continue to do so), accelerated rural development to enable income and related living standards to converge more rapidly to national norms will likely be dependent on loosely articulated joint thrusts to (1) attract a still higher number of highly-skilled, high-income migrants to various locations throughout the South and (2) upgrade public services and facilities, particularly those relating to health and education, in places of various sizes throughout the South that are accessible to, but not necessarily coincident with the places that provide the widest range of income and job opportunities. The prospects for improving the welfare of farm families do not, of course, lie wholly outside agriculture, but the major ones may. I must conclude by repeating that the contents of this paper are highly speculative. They represent an attempt to sketch interrelationships that appear to warrant systematic inquiry. I hope they may provoke some interest in more intensive use of broadly applicable data to provide a more definitive basis for subnational development.