What is regional development? In this paper, I try to sketch suggested necessary characteristics of population and labor force associated with increasingly adequate regional development when that development is compatible with and indeed reinforces national development. I stress interrelationships among regions in the hope of encouraging discussion of the view that public incentives and assistance to particular regions are not necessarily and not advisedly limited prizes in a zero-sum game among regions. I add a taste of empiricism by referring to recent trends in settlement and migration patterns and job and income patterns of rural people. Migration and settlement patterns associated with adequate development of schematic regions are explored. What are the likely dominant relationships of particular public economic instruments to the attainment of such adequate levels of regional development? This question is asked and explicated. I hope this explication will be of productive interest to you and that I can impose on you for further guidance.

A Region

Today, I shall take a region to be a multi-state entity of a size and other characteristics that enable it to interact with other regions to affect national economic progress. The level of the Gross National Product, the national rate of unemployment, the range of investment opportunities for private corporations, the size and composition of the national labor force and even the deployment of economic activity throughout the Nation, as well as changes in these conditions, are significantly affected by economic and social happenings in a region.

This ability of a region to affect other regions and the national economy extends beyond intrinsic statistical effects, such as modifying national unemployment rates, although such effects may be evident. I shall assume that regional development involves increasing the per capita incomes of remaining regional residents and that public efforts to attain this result will be more generally acceptable when they permit accompanying increases in per capita incomes of residents outside the region in question.

In the course of development of a region, considerable population changes can be expected. I would like to sketch suggested population interrelationships among regions in different stages of development.

Population Characteristics Related to Adequacy of Regional Development

Regions that tend to lose population are often underdeveloped. Local fertility rates may enable rapid replacement of these outmigrants as in the Coastal Plains or fail to match outmigration as in some areas of the Great Plains. In any case, the range of job and business opportunities available in the region remains quite circumscribed. As illustrated in Figure 1, the labor market (C) of the underdeveloped region is fragmented, so that many citizens who seek challenging careers in particular occupations and organizations must leave the region for both relevant training and employment. Those who are so trained and employed have only limited opportunities to realize vertical mobility at the same time as they return to their native regions.

In a relatively developed region, the range of career and business opportunities is much broader and the education, training and placement services are all better attuned to these opportunities than in an underdeveloped region. Accordingly, the core labor force (C) of a developed region is represented by an entire pyramid in Figure 1 and not a fragmented or incipient pyramid. Within this labor force, improvements in income, occupational status, and training are all commonly feasible.
Highest Incomes, more or less correlated with higher skills, longer experience, greatest other assets

Poverty Line

Lowest Incomes, more or less correlated with lower skills, least other assets

NUMBER OF PEOPLE

FIGURE 1. POPULATION INTERRELATIONSHIPS AMONG REGIONS - SUGGESTED CHANGES IMPLIED BY DIRECT EMPHASIS ON JOB CREATION FOR UNEMPLOYED AND OTHER POTENTIAL PRODUCERS.

C = Core labor force. U = Unemployed and other potential producers.

Arrows illustrate likely dominant patterns of occupational and geographic mobility and migration.

RELATIVELY DEVELOPED REGION

UNDERDEVELOPED REGION

FORMER RELATIVELY DEVELOPED REGION

FORMER UNDERDEVELOPED REGION

NUMBER OF PEOPLE

FIGURE 2. POPULATION INTERRELATIONSHIPS AMONG REGIONS - PROJECTED PATTERN CONSISTENT WITH JOINT DEVELOPMENT OF RELATIVELY DEVELOPED AND UNDERDEVELOPED REGIONS.

C = Core labor force. U = Unemployed and other potential producers.

Arrows illustrate likely dominant patterns of occupational and geographic mobility and migration.
In both the relatively developed and underdeveloped regions, the base of the pyramid is below the poverty line or the minimum per capita income that is nationally recognized as the poverty threshold value. Thus, in both regions, greater participation in the labor force is not a sufficient condition to eliminate poverty. Associated with each region is an umbra (U) of unemployed and other potential candidates for the labor force. Initial labor force entrants are most likely to come from within the respective regions. However, large numbers of relatively unskilled and unemployed residents of the underdeveloped region may tend to migrate to the developed region.

Postulated Population Interrelationships and Related Characteristics of Jointly Developing Regions

Postulated population interrelationships and related characteristics of jointly developing regions are illustrated in Figure 2. These relationships accept the need for both relatively developed and underdeveloped regions to increase significantly the proportion of skilled members of the labor force, to broaden the mix of skilled occupations and income levels prevailing in each region, and to improve significantly the functioning of regional and interregional labor markets. When these conditions are attained, it is expected that diagrams illustrating the disposition of people by income, experience and asset levels will resemble loaves of bread rather than entire or fragmented pyramids. Such parallel development of labor markets in respective regions is expected to involve significant upward occupational mobility in each region and, most crucially, much greater vertical mobility among regions. Thus, it is expected that considerable numbers of relatively low income members of the labor force in a relatively developed region would migrate to improved income and employment opportunities in underdeveloped regions at the same time as many more relatively skilled labor force members, as well as unskilled workers, in underdeveloped regions migrate to improved employment opportunities in developed regions. Most of the increase in Gross National Product associated with the complementary development of these regions results from upgrading the skills and improving the utilization of skills of present members of the labor force. The functioning of national and subnational labor markets is significantly improved.

The need to increase the proportion of skilled, high-income residents appears greatest in underdeveloped regions, particularly those with lower population density. J. B. Conant, for example, has suggested that high schools with graduating classes of less than 100 cannot provide education of socially acceptable quality. If we accept the fact that areas of population sparsity will persist where such enrollment levels are unattainable, curriculum enrichment and related community support for instruction of adequate quality may be forthcoming by special adaptations, such as use of skilled part-time instructors. In more densely populated areas of impacted poverty, establishing bridgeheads of community services, facilities and modes of living that compete with those now available in suburbs preferred by the skilled appears feasible only if an adequate concentration of former residents of such suburbs can be established rapidly.

The above interrelationships imply a prospective need for major changes in migration patterns among regions. Outmigration and depopulation of depressed areas and regions are well known chronic phenomena. However, gross outmigration from developed areas is equally common. Recent rates of outmigration from the San Francisco area, for example, virtually match those from the Black Belt of Alabama. The unique factor of depressed areas and regions has been the limited amount of gross immigration, particularly of skilled people. To facilitate this increased immigration of skilled people to underdeveloped regions, at least two conditions appear necessary. First, the supply of skilled people in relatively developed regions must be greatly increased. Presently, of course, very many jobs go unfilled in these regions and many business opportunities are missed because of a severe shortage of highly skilled and adequate trained people. Moreover, the demand for unskilled workers is lessening. Second, skilled people in developed regions must be attracted to job and business opportunities in relatively underdeveloped regions. While wage and salary incentives may play a part in attracting such skilled people to underdeveloped regions, community facilities
and services must at least match those now available to skilled potential migrants now living in developed regions.

The extent of needed immigration of skilled people to underdeveloped regions is, of course, related to the extent of gross outmigration. It seems quite unlikely, however, that the rate of immigration to underdeveloped regions would increase sufficiently in the next decade to facilitate increasing national per capita real incomes along with significant narrowing of per capita incomes among regions unless rates of outmigration of unskilled people are maintained or perhaps accelerated. These increased rates of both in- and outmigration might reasonably apply most acutely to regions such as the southeast coast. This schematic region has relatively high human fertility, relatively low levels of educational attainment, and a large potential redundancy of agricultural labor as technological changes affect methods of tobacco production and processing. This region has a relatively high proportion of Negroes. A similarly redundant supply of unskilled labor among whites prevails in the southern Appalachian coal fields.

Rural Population and Migration Patterns in the Sixties

To enable us to explore further the plausibility of the suggested population and migration patterns associated with the complementary development of regions, I would like to refer to recent economic and demographic trends in rural areas and to spell out implied needs for change.

In recent years, the United States had an unprecedented era of sustained economic expansion, represented by increases in the Gross National Product along with population increases, increases in total employment and containment of unemployment rates below 4 percent. It is generally conceded that rural people and depressed regions benefit more from increased incomes and employment during such periods of prosperity than at other times. Yet, during the Sixties, the record of economic achievement of rural areas is patchy. Of eleven schematic regions of the United States, some three that included a disproportionate area generally lost population from 1960 to 1966 (Figure 3). And, highlighting the success of others, some rural areas lost jobs. Geographic variations in population and employment in rural areas in the Sixties can be summarized as follows:

(a) The rate of decline in the farm population continued through most of this decade with some apparent slowdown in 1967-68.

(b) The loss of total population through migration from rural-semi-rural areas slowed greatly in this decade, with considerable regional variation. However, some 1,000 counties, mostly rural still declined in total population because of outmigration (Figure 4).

(c) Nearly 700 rural-semi-rural counties gained over 500 nonfarm jobs each, with about 300 of these counties increasing jobs by 1,000 or more, 1962-67. About 1,000 counties had slow job growth or declined; 268 counties actually lost nonfarm jobs during this period.

(d) Jobs for the rural labor force increased more rapidly in areas near the North-Northeast industrial complexes and in the South than elsewhere. Little or no growth was exhibited in most of the rural counties of the Inter-Mountain, Great Plains, Western Corn Belt, and Appalachian Regions.

(e) A major characteristic of employment growth in rural-semi-rural counties was that nonfarm employment just about offset declines in farm employment. However, nonfarm job growth and farm employment losses were not necessarily found together in the same regions.

From 1955 to 1960 (the most recent period for which we have data) migration from nonmetropolitan to metropolitan areas has been quite selective. For example, one of the ten major streams of migration has been from the Carolinas, Virginia and West Virginia to Washington, D.C. (Figure 5).
Figure 3 - RURAL POPULATION CHANGE, 1960-1966

ZONES OF ABOVE AVERAGE GROWTH

ZONES OF PREDOMINANT DECLINE
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)

Figure 5
Regions of increased rural population from 1960 to 1966 were generally those that also showed increases in urban population. To attract needed people of above average skills and income to regions of rural population loss, such as regions 3 and 6 in Figure 3, increased urbanization will likely be necessary. It is not obvious that the total population of regions such as 3 and 6 will necessarily increase. As a minimum, selective urbanization involving significant increases in population and income opportunities of a limited number of towns and cities now in these regions may be needed. In region 6, this may imply further consolidation of population at existing cities spaced even hundreds of miles apart. This possibility arises because of the likely scale of remaining commercial farms and ranches and the relatively central place of agriculture as the industry of the region. In region 3, the implied pattern of associated urbanization is neither so obvious nor so polarized. Plausible cases could be made for merging patterns of urban development that include: Increased population and economic diversification of groups of towns and cities of various present sizes and establishment of satellite communities, including "new towns." In this connection, I believe it is important to note that three-quarters of all non-metropolitan urban places of 2,500 to 25,000 population increased in population between the last two censuses and their overall growth (including the minority that lost) was 21 percent -- exceeding the rate of population growth of the United States as a whole. Even the population of towns of the smallest nonmetropolitan urban class (2,500 to 5,000 population) grew by 18 percent -- equal to the national growth rate. There are, of course, regional differences. In general, the nonmetropolitan urban towns in the North Central and Northeastern States did not increase in population as rapidly as those in the South and West. If the Southeast, more or less region 3 in Figure 3 does attract sufficient skilled people from other regions, several considerations point to a likely associated variable pattern of urbanization:

1. Rural enterprises such as paper mills, quarries, cement plants, tanneries, brick factories, sugar mills, and even feedlots and broiler operations are notorious pollutants of air and water; They are best located some distance from residential and other commercial activities. Some such enterprises are quite prevalent in the Southeast.

2. The present pattern of residential and commercial activities is quite varied. Personal preferences of residents could be expected to combine with topography and resource distribution to ensure some extensions of this variation.

3. For the United States, the number of counties showing significant relative increases in family median income from 1950 to 1960 is extremely limited. Outstanding examples of successful increases in family income include such special cases as Madison County, Alabama (the site of Huntsville) and Brevard County, Florida (the site of Cape Kennedy).

4. Ethnic problems may affect patterns of urbanization as, for example, in efforts by Floyd McKissick and his associates to establish a new town in North Carolina, and in widespread concern for privacy that may surface either in quite dispersed settlements or extremely dense residential configurations.

Enabling Economic Instruments for Regional Development -- Alternatives

In assessing whether the conceptual and empirical considerations I have sketched have reasonable relevance to the United States, it may be worth while to list examples of implied types of public measures for regional development. I suggest the following sample.

Measures to Increase the National Supply of Skilled People

1. Sabbatical-type training and extended on-the-job training for relatively
skilled and experienced members of the present labor force in both relatively developed and underdeveloped regions.

2. Accelerated retirement and associated retraining and reemployment provisions for skilled, senior members of the labor force.

3. Human investment incentives for citizens with the promise of greatest potential productivity increases, for example, child endowment payments, irrespective of residence and income.

4. Further human investment incentives for present members of the labor force so that, for example, increases in basic or minimum wages or income maintenance allowances would be accompanied by more than commensurate increases in margins for skill and experience.

5. Improved information on training and education, job, business and other income opportunities, irrespective of residence, age, sex, race, and present income.

Measures to Facilitate Income-Equalizing Interregional Migration of Skilled People

1. In providing such assistance as payroll subsidies to enable further training of employees, preference would be given to national corporations which might be most able to establish a network of efficient branch offices and plants and enable systematic, continuous exchange of personnel among these facilities.

2. Similar exchanges of personnel among various units of government might be facilitated.

3. Also facilitated would be a highly concentrated "bridgehead" or "total systems approach" to the upgrading of community facilities and services and the overall social, physical and economic environment for multi-county areas already recognized as districts. Such a concentrated effort would recognize that the establishment of an environment that could compete with affluent suburbs and so attract skilled people is feasible in only a very limited number of areas at one time, unless recent evidence is atypical. Moreover, this approach would recognize that job and income opportunities necessary to attract and retain sufficient skilled people may advisedly be located in a range of rural and urban settings, whereas meeting the conjoint consumer needs most commonly requires concentration and relative standardization of residential construction and associated services and facilities. Criteria for assistance to businesses and direct "job development" would not distinguish between rural and urban areas or among counties in a district. Geographic selectivity within a district would be most evident in the provision of housing and related services and facilities. For example, housing developments might be favored over individual houses.

Measures to Ensure Adequate Participation by Rural People in Regional and National Development

If such measures as those cited above to increase the national supply of skilled people and to facilitate income-equalizing inter-regional migration of skilled people are equitably applied, irrespective of residence, it is difficult to identify needed further special measures for rural people, except those directly facilitating adjustment in farm size and methods of production. In recent years, increased incomes of even farm families have tended to have nonfarm origins. Rural people do, of course, have special problems of isolation. This lack of access to programs for which they are otherwise eligible poses a special challenge in program design.
The above examples of alternative measures to enhance complementary development of regions of the United States can be contrasted with other alternative sets as follows:

**Regional Development Measures — Traditional**

What we may call the traditional approach to regional development is to emphasize parallel public financing and upgrading of public works and other public facilities as a prelude to directly upgrading human productivity. Extreme application of alternative measures listed above would imply a quite limited public investment in physical facilities and an investment concentrated in consolidated multi-county areas irrespective of rural-urban eligibility distinctions. These multi-county areas would comprise only a small portion of each of a few regions. Under the traditional approach, the time table for involving all citizens, whether urban or rural and irrespective of other characteristics, is not made explicit. It is possible to suggest that such traditional approaches may be based on a tacit assumption of regional development as a zero-sum game. Rules against "pirating" industry from other regions suggested this zero-sum game orientation. The case for regional development associated with the traditional approach commonly stresses the need to reduce the "income gap" and further justifies this need by pointing to the increased consumer market thus generated. This case is particularly mystifying. Situations could be conceived where public expenditures based on this reason would redound more to the benefit of other consumers if they were made in relatively developed regions.

**Regional Development Measures — Laissez-Faire**

Regional development alternatives could take a more laissez-faire orientation. A recent North Carolina report eschews this option as follows: "If North Carolina is to improve substantially its income position, Federal, State, and local governments must assume more positive roles in economic development."

Given the present geographic distribution of resources, particularly human resources, it is difficult to envisage a laissez-faire approach that would be consistent with joint development of the various regions of the United States. In 1966, the incidence of poor rural households in selected areas surveyed by the Economic Research Service ranged from 25 percent in the Ozarks to 49 percent in the Coastal Plain and 52 percent in the Delta. For these same areas, the respective percentages of these poor households with male heads under 45 years and without physical disability ranged from only 11 percent in the Ozarks to only 14 percent in the Delta and only 20 percent in the Coastal Plain.

Much has been said of the need to evolve rural-urban migration policies. I do not believe the evidence to hand is sufficient to predict, say, the likely impact on migration streams of equalization of income maintenance measures among states and areas or the lack of such measures. Because of such paucity of knowledge, I feel that it is particularly urgent to explore relevant demographic, economic and other social and physical interrelationships associated with regional development.

**Conclusion**

I believe we can all agree that there is an answer to every question — simple logical and wrong, I'll close so that we may rephase some questions. Thank you.
The views expressed are not necessarily those of the U. S. Department of Agriculture.

Interrelationships developed in this section are described in further detail in: Alan R. Bird, "Public Investment Strategies for Regional Development," mimeographed paper, USDA, ERS, 2 May 1968.

The terms "skilled" and "unskilled" are used throughout this paper in a broad generic sense so that "skilled" includes, for example, managerial, professional and semi-professional labor and, in fact, those who are not unskilled.

As has been pointed out by Calvin Beale in "Demographic and Social Considerations for U.S. Rural Economic Policy," American Journal of Agricultural Economics, 51, No. 2 (May 1969).


Research in progress under the general supervision of Max F. Jordan.