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Income and Mobility of Labor and Community Development

SHORT-RUN FACTOR SUPPLY ELASTICITY is high for individual products of agriculture where technological production possibilities allow relatively high and constant marginal rates of product substitution. Instability of price and income of individual products results accordingly from the commodity cycles so generated. But short-run supply elasticity of factors is low for agricultural commodities in aggregate, causing farm income to lag behind nonfarm income. In the regime of low supply elasticities, two factors are most important: land and labor. The impacts of these low supply elasticities for agriculture in aggregate are somewhat different, however. Low supply elasticity for land has its most notable effect in causing a low income blanket to lie over all of agriculture. Low elasticity and mobility for labor cause particular individuals and strata of the farm population to suffer extreme income depression. Supply elasticity of labor has been high relative to that of land, but low relative to equilibrium conditions which would give labor returns in agriculture approaching those of other industries.

The mobility of labor does not solve the aggregate supply problem of agriculture as long as land sticks to production of the conventional mix of crops and labor is still underemployed. With an approximate halving of the farm work force between 1940 and 1962, agricultural supply still hung heavy over demand. As mentioned in previous chapters, this large outflow of labor was possible without check on forward advance in farm

output because of several reasons: Labor has been highly underemployed in agriculture, allowing the work force remaining to handle the crops and livestock of those who left. Scale economies and the substitution of machinery for labor has furthered this opportunity. But the same time, land remained employed in the conventional crops because its reservation price for this complex is low and because price policy encouraged it to do so.

Outmigration which was large in absolute number, if not in magnitude relative to level of labor returns, aided the income position of persons who moved to favorable positions in off-farm employment. It aided those who remained and, with sufficient resources, were able to increase volume and realize scale economies more than offsetting price recession. But though these income gains went to individuals, the high "stickiness" of land in current uses caused depressed income still to blanket agriculture in aggregate and especially for the strata of farmers able to make neither of the two above adjustments.

Quite obviously, outmigration of labor from agriculture can cause resource returns, as an average for the industry, to increase through more complete employment of persons remaining, through increased marginal productivity in the conventional production function sense and through reduction in output. But withdrawal of labor inputs must proceed much further before it will have great effect in causing output to be cut back; raising marginal value productivity through an increase in the marginal physical productivity of labor and a higher commodity price taken together. Withdrawal of labor must become so great that it has important complementary effect (see Figure 14.1) in causing shift of land from more intensive crops such as cotton, feed grains and wheat to less intensive ones such as grass, forestry and recreation.

Outmigration of labor can be discussed and evaluated in respect to these aggregate aspects of agricultural structure, or in terms of welfare of individuals who might better their income and life outlook by occupational transfer. The two can, of course, go hand-in-hand. But the analysis also can look at the problem either in purely mechanistic manners or in human perspective: People as resources to be adjusted as levers in bringing about the equilibrating process, and as machines into which commodities are dropped through slots to register utility; or people who are individuals with human aspirations and frustrations. Our emphasis in this chapter is mainly on welfare of individuals who have opportunity and prospect for improving their position by occupational migration; recognizing, of course, that this is a necessary adjustment of agriculture if magnitude of inputs is drawn to levels allowing resource earnings to be favorable through the market. While decrease in labor input to draw factor rewards in agriculture to higher levels is one goal of migration and greater supply elasticity, an equally important goal is that of benefit to individuals who can and should migrate because of better opportunity thus attained. Hence, our discussion in this chapter is on the latter, recognizing that it is an important step in accomplishing the former.

If compensation policies are developed which award farmers for possible loss attached to aggregate economic progress, or which allow them greater market power and retention of a share of developmental gains through this process, the need for migration still exists. It exists because of the large number of farm families whose income is so meager that compensation can do little to lift their welfare; because technical advance and change in relative factor prices will still give rise to need in migration; and because economic expansion outside of agriculture will provide larger benefits for many people now in farming. Under efficient and politically acceptable compensation schemes, even should these be based on negotiable marketing quotas, the opportunity for people to capitalize in sale of these and to migrate to other employment will still exist. It thus is reasonable to look to compensation schemes, or their equivalent, which redress welfare sacrifices of individuals by aiding them in migration from agriculture. Possibilities then exist for aggregate national gain from progress, regardless of the initial distribution of gains and losses, which benefits the people directly involved in migration and also brings structural and resource balance to agriculture so that more favorable returns are possible through prices consumers are willing to pay in the market.

EQUILIBRIUM THROUGH DEMAND, SUPPLY AND CAPITAL AVAILABILITY

The persistence of labor returns in agriculture at lower level than elsewhere provides several propositions of relevance in explaining the difference. This underemployment of labor in agriculture, a chief cause of downward drag in average incomes, would not exist in a full-employment economy where capital and knowledge supply served effectively to transfer and reallocate labor of farms to other sectors. Demand for labor from the nonfarm sector and supply from the farm sector would balance (also against labor supplied from nonfarm farm sectors) to give employment of agricultural labor which lifts returns in farming to the nonfarm level.

But this timeless, perfect market exists neither for labor or the capital related to its transfer. Two time periods serve to obstruct the equilibrating process: One in which the demand blade prevents it and one in which labor supply, as affected by counterpart supply of capital and knowledge, prevents it. Given full employment, failure for enough labor to transfer prevails because the supply of labor moving from farms to nonfarm sectors does not fill demand, in discrete sense of number of people against employment opportunity. Labor supplied from farms is limited then evidently because (1) the supply of capital to cover transfer costs is limited, (2) the supply of knowledge about job openings, magnitude of labor demand and living conditions is too restricted, or (3) differences in real income persist, with labor supply restricted because of personal preferences and related elements or real income. In period of prevailing unemployment, transfer is restricted because nonfarm demand for labor

from farms is insufficient. Employment is then rationed. A level of wages prevails in industry and cannot be "beat down by competing labor of farms" because labor price is determined through market bargaining power rather than by open market forces. Labor supply eligible to "equilibrate the demand" then is defined largely by institutional creation, only some from farms being able to enter the industrial force (or having to enter the lower-priced, nonskilled wage pool).

Both of these supply and demand circumstances have worked to restrain labor movement from farms. Farm policy per se can do little to cope with the nonfarm "labor demand blade" restraint in the one period. It can, however, affect the "supply blade" through policy directed at labor on farms, causing the labor supply function, in amount of labor furnished by agriculture to industry, to shift rightward and increasing its elasticity. Policy which does so automatically shifts the supply function of labor to agriculture leftward and increases its elasticity.

This chapter concentrates on the supplying of farm labor to nonfarm industry. The demand aspect outlined above is properly one of economic growth and fiscal policy at level of national society. The limited supply of capital going into education and guidance in rural communities restrains the supply of labor moving from farms to higher paid professions and skilled fields, relative to the supply moving from nonfarm household sectors to these same fields. Investment for these purposes in rural areas is limited because education has been based too greatly on the supply of capital in the community; various institutional restrictions preventing augmentation of capital supply for education from outside or national sources. Farm youth and labor thus are excluded from major opportunities for increasing their welfare beyond horizons possible in agriculture. These considerations represent the general complex to be discussed.

Opportunity of People

Policy of agriculture focusing entirely and alone on compensation and market power for people who remain in agriculture is negative. It stands to constrain future earning power and economic opportunity of an important strata of the farm population. It diverts attention from the many human resources which can be aided little or not at all by typical compensation policies and which have opportunity closed to them by price or production policy fixation. Many of the youth and younger persons of agriculture need opportunity opened to them in manner which cannot be done through policy which has focus only on support prices, marketing quotas and similar devices. Finally, even if land use and supply could be transformed to bring greater prosperity to the farm industry in aggregate, the large pocket of persons with few resources and low income would still exist.

Nearly the whole of agriculture making up the poverty sector is candidate for transfer, or erasure of poverty, in the next generation if not in this one. Subsistence at substandard consumer levels has too long been its

lot, in one generation following another. Youth has lacked education, guidance and opportunity—falling back into the same lot as its parents too much in a sense of perpetuity. The initial reasons for this situation are now unimportant. Further describing of factor markets and plotting of statistics in pure descriptive sense is unnecessary and only serves to distract from the need for positive action to relieve the situation. Action is desired: in the sense of economics wherein movements to Pareto optima or Pareto-better conditions are possible, in bringing gain to individuals involved and in furthering the growth and product of the nation; in the sense of constitutional guarantee of opportunity to the individual; and directly in the sense of equity and distributive justice. Complete freedom and opportunity of the individual does not prevail as long as successive generations are forced into a cast which prevents their capabilities as resources and consumers from being fully developed.

The poverty sector of agriculture stands to gain relatively most from investment which increases their worth as resources and gives them greater employment opportunity under economic growth. Lack of opportunity for this sector of the farm population does not stem from economic progress. Their lot is only made more noticeable by progress. In the absence of progress and with constrained supply of farm products giving rise to aggregate prosperity in agriculture, the poverty problem would still prevail. It is not, of course, necessary that all such persons be transformed from agriculturist. Given their inflexibilities of age and abilities in farming, and with opportunities otherwise lacking in farm size expansion, some stand to prosper best in agriculture if sufficient numbers of others migrate and credit supply is made favorable.

The need for migration to provide improved economic opportunity does not apply in the poverty sector of agriculture alone, however. Occupational migration is desired for a large number of persons in commercial agriculture who could better their lifetime opportunity in income and welfare by shifting to occupations with rewards greater than those in store for them in farming. Even with the present number and sizes of farms in commercial agriculture, this is true. Johnson's projections indicate that opportunities for gainful employment of new farm operators will average less than 25,000 annually during the 1960's.¹ Against this number of openings, about 250,000 male farm youth will be entering the labor force each year.

Johnson's definition of gainful employment is operation of a unit producing farm products valued at \$5,000 or more annually. Even against this definition of opportunity, only about one in ten farm youth could ex-

¹ Sherman E. Johnson, *Agricultural Outlook in the 1960's*, Mimeographed presentation, Outlook Conference, Washington, D.C. Nov. 1960. Karl Shoemaker (*Opportunities and Limitation for Employment of Farm People Within and Outside Farming*, USDA Fed. Ext. Serv. Mimeo. 1958) estimates opportunity for one in 10 farm youth in agriculture on units producing \$2,500 or more gross value of sales. The \$2,500 value is consistent with net incomes of about \$1,500 or less, a meager quantity considering the general opulence in the American economy.

pect to have reasonable opportunity in the industry. But \$5,000 gross value of output is extremely low, too low for most types of farming, and would leave net income too meager for acceptance at current per capita income levels. With average nonfarm family net income already above \$6,500 the \$5,000 value of gross sales defines economic opportunity which is too restricted for acceptance at current levels of national and per capita income. The number of opportunities providing favorable economic outlook in family living level and capital accumulation is probably less than one in 15 for male farm youth entering the labor force during the 1960's. Hence, as many as 230,000 male youths annually will, or should, be casting to nonfarm industry for employment. In addition to this must be added females entering the labor force and looking for employment, plus those who have already started in agriculture but have found their returns to be low.

Demand for Labor and Supply Elasticity in Agriculture

Increasing numbers of farm persons will turn to nonfarm employment at a time when a bulge occurs in the labor force because of the jump in the birth rates during the 1940's. The number of new entrants in the national labor force will average upwards of 2,600,000 per year during the 1960's, an increase of 40 percent over the 1950's. (The number of young persons reaching 18 years of age is predicted to increase from 2.6 million annually in 1960 to 3.8 million in 1965.) The number of new jobs created during the 1950's averaged about 2.3 million annually. Hence, without stepped up growth rate, competition for employment will be keen, disadvantage lying mostly with those having least preparation and knowledge of opportunities. Employment opportunity is predicted to increase in professional, technical, clerical, skilled, service and sales jobs, but to remain constant in unskilled jobs.² Hence, some unemployment is likely to prevail in unskilled jobs while relative shortages exist in professional and skilled positions favored by economic growth. Typically, a majority of migrants from farms have had to first seek or remain in unskilled employment, with approximately half the expansion in urban-industrial labor force between 1930 and 1955 coming through migration from the farm population.³ Educational and vocational training deficiencies of rural areas (see Table 13.1) cause farm migrants to be at disadvantage in migration and nonfarm employment. This is importantly true for farm youth, but particularly true for persons of 35 years and up who have spent their entire life in farming and have had but little education oriented towards modern industrial employment requirements.

² *Manpower Challenge of the 1960's*, U.S. Department of Labor, Washington D.C., 1960. For return on educational investment, see G. S. Becker, *Investment in Education*, Nat. Bur. of Econ. Research, Annual Report, no. 39, pp. 38-40.

³ L. J. Ducoff, "Trends and Characteristics of Farm Populations in Low Income Farming Areas," *Jour. Farm Econ.*, Vol. 37. Over the single decade 1940-50, 8.6 million persons, alive in both 1940 and 1950, were added to the urban labor force through net migration from agriculture.

Prospects in Migration

The strata of farm people with low present and prospective incomes thus are faced with two major disadvantages in economic opportunity: There is not opportunity for many of them in agriculture because of paucity of their resources or rapid technical development of the industry; they are at a disadvantage in education and skills in moving into the non-farm labor force.⁴ Their disadvantage in skills arises out of the fact that knowledge and abilities used for agriculture have little transfer value when shifted to other employment. Also their education has been too limited and of uneven quality.

In general farm people have been, and continue to be, at an important geographic and educational disadvantage in attempting to avert the penalties attached to economic progress in agriculture and to capture the premiums attending progress in nonfarm employment. Improvements have been made in rural educational facilities and more are in store. However, the fact remains that concentration is still too much in turning farm youth back into agriculture where opportunity is bleak for many; that the majority of school districts is too small to allow attainment of scale economies and specialization necessary in supplying labor for future developmental demands. Educational deficiencies continue to place farm youth and established agricultural workers at a disadvantage as they migrate to nonfarm employment. These disadvantages can be fully overcome only in a decade and a generation, but there is need for immediate effort in this direction.

Immediate public investment to lessen this void in development of the human resource can have quick payoff for the youth involved. More effective use of talents in older persons is more difficult and requires somewhat different action as is suggested by the data of Table 12.1. From the standpoint of youth and the more flexible portion of the established labor force in agriculture, there is need to turn their abilities in directions of professional, technical services and skilled operatives where economic growth of future decades will have its greatest demand for human effort.

⁴ D. G. Johnson, "Comparability of Labor Capacities of Farm and Nonfarm Labor," *Amer. Econ. Rev.*, Vol. 43 (and "Policies to Improve Labor Transfer," *Amer. Econ. Rev.*, Vol. 50) estimates off-farm migrants to have income of 82 to 90 percent that of nonfarm people of the same age and sex group. By weighting the 1950 median income of the ten broad occupation groups by the distribution of all employed males, 14 years and over, he estimates average 1950 income at \$2,699. The occupational distribution of male off-farm migrants, 14 and over, yields an estimate of \$2,348, only 87 percent of the income for all males. An age correction yields an estimate of off-farm migrants which is 88.6 percent of that for all males (over 14). Johnson's adjustment indicates the male off-farm migrants, in 1950 might expect an income between 80 and 87 percent of the average in the total employed male labor force. This does not account, however, for persons who hung back in low paid farm work because skills did not allow them to take other than the lower end of nonskilled off-farm work, or for differences in age distribution of migrants. Those most inclined to migrate obviously are those with smallest realized disadvantage in doing so. The fact that farmers moving into non-skilled labor categories get only slightly less than their city colleagues does little to alleviate the fact that a disproportionate of the farm population finds its way into these low skilled categories.

Yet with established farmers and farm workers lowest in educational attainment, there is much less (and more frequently no) opportunity to train them to partake of premiums in major growth categories. Educational attainment of established farm workers varies greatly by region and economic class of farm.⁵ It is highest, in the process of economic selection and interaction, for operators of larger farms generating fairly high incomes (exactly the group least likely to transfer) and of no particular need in transfer. The main public policy element for this group is that to provide stability and compensation where society deems this equitable under the realized distribution of gains and losses from progress.

TABLE 12.1

PROJECTED CHANGE 1960 TO 1970 IN JOB OPPORTUNITIES IN SELECTED EMPLOYMENT CATEGORIES AND AVERAGE EDUCATION OF PERSONS EMPLOYED IN CATEGORY IN 1959

Type of Worker	Change in Opportunities, 1960 to 1970	Average Schooling, 1959
	(Percent)	(Years)
Professional and technical.	+42	16.2
Proprietors and managers.	+23	12.4
Clerical and sales.	+25	12.5
Skilled craftsmen.	+23	11.0
Semiskilled operatives.	+18	9.9
Service workers.	+24	9.7
Unskilled laborers.	0	8.6
Farmers and farm workers.	-17	8.6

Source: *Manpower—Challenge of the 1960's*, U.S. Department of Labor, Washington, D.C., 1960.

Educational attainment and development of abilities is lowest, and extremely so, for farmers from the poverty class; especially Negro farmers and operators in regions such as the Appalachian and Ozark mountain areas. As outlined in Chapter 5, this income group is source of the greatest number of migrants. Educational attainment, and equality of the flexibility of skills, also is low for many older farm operators scattered throughout dairy regions, the Cornbelt, wheat regions and other commercial farming areas. This group also is one little likely to migrate and perhaps with most claim to policy which increases stability of income and provides compensation for any loss resulting from progress. The utility of living among community, culture and acquaintance of long conditioned attachment is not small for this group, as also is true for many middle-aged families with children. Move to nonfarm job and new community with higher money income, even with adjustment for price level, does not

⁵ Labor from farms has a high (or equal) rate of substitution for nonfarm labor of the same capacity and education generally. The trouble is less that it so serves and may have similar returns where it finds its way into nonfarm employment and more that it isn't developed to find greater way into higher-capacity positions. For notes on substitution of labor, see G. S. Becker, *The Economics of Discrimination*, University of Chicago Press, Chicago, 1957.

guarantee welfare increase for them and provides a strong barrier to geographic migration.

The goal in adjusting labor force and increasing supply elasticity of this resource, even in sense of restoring favorable income in agriculture, is not that of transferring all persons out of the industry, as some discussions would imply. Instead, it is only to do so in extent which will cause factor return in this industry to be comparable with that of other sectors. The discussion of equations (5.1) through (5.19) illustrates the purely economic mechanics of the reorganization involved. But quite obviously those most subject to transfer, because of few resources and low income, are either youth or persons with least training and resources to make success in agriculture. For the same reasons, the latter group tends to become thrown in with unskilled laborers where return also is lowest. For many of the older persons in agriculture, this is no advantage since they have opportunity only in menial tasks and promise of living standard and real income, considering strong value orientation to rural community, at a lower level than in agriculture. Hence, they are not prone to migrate.

Even though education in rural areas is deficient relative to labor demands under economic growth, youth is flexible and can take with him ability and some elements of training with payoff in nonfarm employment. While many youth, and the majority of persons first established in agriculture who later migrate, end up in unskilled work, an important portion of young persons progress into managerial and professional positions. Data for 1952 show that of persons of the labor force with fathers in farming, 30 percent were farmers, 46 percent were manual workers and 24 percent were nonmanual workers.⁶ In contrast, 32 percent of persons whose fathers were manual workers were employed in nonmanual work while 64 percent with fathers in nonmanual occupation were employed similarly (i.e. in nonmanual work). Yet 16 percent of persons whose fathers were farmers were employed in 1952 as nonfarm proprietors, managers and officials; a proportion exceeded only by persons whose fathers were in these professions, the figure for the latter group being 26 percent.

The older farm worker with skills calcified to the industry has little experience and special ability of great value to take with him, and often is even at great disadvantage in the unskilled laborer group. There are, of course, a group of younger persons already established in agriculture who have greater opportunity for income and family well-being in nonfarm employment. Their skills retain important flexibility, even though schooling of past decades did not necessarily develop talents in manner most consistent with future employment opportunity. They have opportunity to transfer and, by devious methods, to acquire experience and eventually work up into semiskilled, skilled or service professions. But they would have much better opportunity to do so if retraining programs existed to revive talents which have been latent and without exercise in the farm industry.

⁶ For data, see S. M. Lipset and R. Bendix, *Social Mobility in Industrial Society*, University of California Press, Berkeley, 1959, pp. 21, 89.

PEOPLE INVOLVED IN TRANSFER

Potential candidates for transfer from the farm industry are people, and not inanimate resources. For this reason, their welfare and the payoff of employment which they might attain is equally as important as the benefits from their migration which seep back to those who remain in agriculture—benefits which might arise because of smaller output and higher price, fewer and larger farms with more resources per worker, or greater freedom in sense of fewer restraints on production. Policy to guarantee that their transfer insures them prospect of continuous and permanent gain is equally as important as that which provides the same elements in stability and level of income for those who remain to grow the crops and milk the cows. The problem is one of defining reorganization and shift which results in movement towards Pareto optimum, with both groups made better off. There is no basis in economics, humanitarianism or democracy for prescribing courses of action which make one group better off, but only at great expense and misery of another. Indeed, the certainty that more people would be made better off in nonfarm employment would lead to increased migration and better resource balance of agriculture.

Here we should indicate that our emphasis on labor up to this point has been largely its low supply elasticity to agriculture. This is the outstanding source of the century-long and persistent tendency of farm income to lag behind nonfarm income, in all nations where economic development has had long-term upward trend. There have been times, in a century, when employment opportunity did exist and the excess of labor in agriculture, as measured by its low returns, might have been wiped out, had it not been for the fact of its low occupational mobility and hence small supply elasticity to the farm industry. But it would be an omission to underemphasize the effect of limit in demand for farm migrants in restraining movement of labor from farms. Labor supply elasticity is low to agriculture relative to the magnitude of labor being released from, and underemployed in, the industry. Even while this is true, however, the supply elasticity of labor from farms to other employment sectors has been high over the last two decades. It has been sufficiently large that many more persons would have migrated had there been demand for their services. As Table 12.2 suggests, net off-farm migration has diminished greatly and even reversed in periods of industrial recession and unemployment such as 1958. Unfortunately, employment sectors with greatest growth in demand are not those open to farm migrants whose previous education and experience have failed to prepare them for these occupations.

In an earlier chapter, we explained that the farm industry, in bringing healthier resource structure and improving resource returns, depends particularly on economic growth and absence of major depression in order that more labor released from farms can be employed. Also we mentioned that this absorption process is much easier in a developed economy such as that of the United States where a minor portion of the labor force is in

TABLE 12.2

NET MIGRATION, MIGRATION TO FARMS AND FROM FARMS, AND NET MIGRATION AS A PERCENT OF THE FARM POPULATION, 1940-1958 IN THOUSANDS

Year	Migration Since Preceding April			Net Migration as a Percent of the Farm Population
	To farms	From farms	Net	
1940	819	1,522	- 703	2.3
1941	696	1,329	- 633	2.1
1942	822	2,246	-1,424	4.9
1943	824	3,799	-2,975	11.2
1944	1,095	2,658	-1,563	6.1
1945	916	1,480	- 564	2.2
1946	2,585	1,721	+ 864	(3.3)
1947	1,768	1,617	+ 151	(0.6)
1948	1,016	2,702	-1,686	6.5
1949	1,171	1,542	- 371	1.4
1950	995	2,309	-1,314	5.2
1951	597	1,899	-1,302	5.4
1952	643	914	- 271	1.1
1953	528	2,524	-1,996	8.8
1954	675	1,846	-1,171	5.3
1955	544	635	- 91	0.4
1956	461	1,595	-1,134	5.1
1957	475	1,051	- 576	2.7
1958	440	988	- 548	2.6

Source: Department of Agriculture, Agricultural Marketing Service, *Farm Populations, Migration to and from Farms, 1920-1954*, AMS-10, and Farm Population (annual bulletin AMS-80).

agriculture, as compared to the Indian economy where the portion of labor in the industrial sector is almost trivial relative to number of persons engaged in agriculture. Yet the ability of the U.S. economy to absorb further labor released from agriculture is not routine, even though industry with 92 percent of the labor force need absorb perhaps only another 2 or 3 million persons displaced from agriculture. With economic progress and growth in labor demand falling in occupations largely of skilled and professional ability, release of another two million persons, beyond the normal youth, to the ranks of the industrial unskilled does present problem of employment opportunity. Then, if particular facets of growth cause perpetuation of labor scarcity in highly skilled occupations but with 3 or 4 million persons unemployed in less skilled labor categories, as was true over much of the 1955-60 period, farm migrants will be at an extreme disadvantage—regardless of a national labor force mixed predominantly in direction of nonfarm workers. Not only is economic growth required for mass absorption of labor from agriculture, but also that released from the industry needs education and training so that less of it is dumped in unskilled ranks.

Opportunity and Dignity of People

The need, purpose and structure of policy to cope with excess labor resources in agriculture obviously deviates from that directed towards compensation of ongoing operators because of loss incidence growing out of rapid technical advance. In addition to youth from all income strata,

TABLE 12.3

FAMILY PERSONAL INCOME DISTRIBUTION BY NUMBER OF FAMILIES AND
FAMILIES AS PERCENT OF TOTAL, 1958 (000)

Family Personal Income	Number Farm Families	Percent Farm Families	Percent Nonfarm Families	Farm Families as Percent of Nation
Under \$2,000.....	1,777	25	6	33
\$2,000-\$2,999.....	834	18	6	26
\$3,000-\$4,999.....	1,242	26	24	12
\$5,000-\$9,999.....	1,160	24	47	6
\$10,000 & Over.....	336	7	17	5
Total.....	4,749	100	100	—

Source: U.S. Department of Commerce. Figures are net family income before income tax.

migration from agriculture—as large as it has been—came particularly from low income strata in the 15 years following the end of World War II. Even then, a large pocket of low income persons still reside in agriculture; over two-fifths, as indicated by Table 12.3 with family incomes less than \$3,000. Too, the lowest income groups of the nation are populated by farm people in disproportionate number. While migration has drawn many people from these ranks, the low income problem and its waste of human resources in agriculture has not been eliminated. In terms of numbers of persons, it is still exceedingly important, even though a portion of the strata is represented by beginning operators and older people. But as indicated previously, to solve this problem will not solve that of excess producing capacity of agriculture and possible society decision to provide mechanisms to restrain supply against demand or distribute compensation against the effects of production possibilities which advance more rapidly than demand. McElveen's figures, and those of the most recent census, show no decline since 1944 and an increase before then, in number of farms producing gross product of \$2,500 or more at 1954 prices:⁷

1939.....	1.9 million farms with sales over \$2,500
1944.....	2.1 million farms with sales over \$2,500
1949.....	2.1 million farms with sales over \$2,500
1954.....	2.1 million farms with sales over \$2,500
1959.....	2.1 million farms with sales over \$2,500

The commercial farm problem still exists with major migration from low income groups; the poverty problem will remain in face of policy to solve only the commercial problem.

Development of Human Resources and Differential Migration Rates

Starting at current wealth and income levels of the United States under economic development, relative factor supply places premium price on labor, but particularly on labor embodying a large investment

⁷ J. McElveen, *Family Farms in a Changing Economy*, Agr. Info. Bul. 171, USDA, and subsequent data from 1960 census. (The 1959 figures are in current dollars.)

in development of technical and professional skills. Studies in genetics and psychology indicate that distribution of inherent abilities in population strata of low income is not measurably different from those of high income strata. Human resources in lower income strata are highly unexploited and capable of much greater development in a prospective economic expansion period when the nation is faced with a shortage of trained manpower.⁸ The archaic system of public investment in human resource development wherein local communities are expected, or protect the right, to finance the training force for the national economy places both a restraint on rate at which economic growth can take place and the personal fortunes of those who must feed from farm to industrial labor force. Not only, as indicated in Chapter 5 by Freedmans, do farm migrants end up in low income and status groups, but also their migration puts a disproportionate capital drain on local communities. Taves estimates the cost of rearing and educating a child through high school to be \$20,000.⁹ With half the youth leaving a community of 4,000 persons, the annual outflow of capital is a million dollars.

This syphoning of capital from declining communities to the broader growth stream may be greatly consistent with progress. However, a much greater proportion of the transfer in capital surplus might well take place in other forms, with general society investing more heavily in education and training and a smaller restraint thus falling on (1) the abilities developed in human resources which will migrate and (2) the future stream of benefits open to these persons, and to general society. Numerous studies have indicated the inadequacies of education in rural areas, resulting from obsolete dependence entirely on local and state finance.¹⁰ Great unevenness exists among communities in educational investment per head because of variance in resources, tax base and bonding power. Too, educational investment still leans too much to economic opportunity as it is seen within small communities and areas. In the latter 1950's, expenditure per day-pupil averaged nearly \$300 for the United States but ranged from a low of around \$125 to a high of \$400 among states, with the low figure falling in agricultural and southern states. The small investment in some areas causes many youth to drop out of school, equipment and buildings to be inefficient, teachers to be in short supply and proper curriculum to be neglected.

⁸ For detailed emphasis on need for better development and utilization of untapped human capacities, see: *Goals for Americans. Report of the President's Commission on National Goals*, Prentice-Hall, New York, 1960, Part I and Chap. I.

⁹ M. J. Taves, "Impact of Population Decline on Rural Communities," in *Labor Mobility and Population in Agriculture*, Iowa State University Center for Agricultural and Economic Adjustment, Iowa State University Press, Ames, 1961.

¹⁰ For example, see: W. Rovetch, "Opportunities and Limitations in Education of Farm Youth," in *Problems and Policies of American Agriculture*, Iowa State University Center for Agricultural and Economic Adjustment, Iowa State University Press, Ames, 1959; National Planning Assoc., *Special Report No. 58*, Washington, D.C., 1960; and H. W. Beers and T. R. Ford, "Health, Housing and Education of Commercial Farmers in the U.S.," in *Policy for Commercial Agriculture, Its Relation to Growth and Stability*, Joint Economic Committee, Washington, D.C., 1957.

As material for mobility, youth present small problem. Provided with education and vocational guidance, they are readily drawn to growth sectors where value productivity and wages exceed those of agriculture. The main problem in respect to youth is to develop relative supplies of labor for various qualities and professions which mesh with growth in demand, and which do not mushroom supply largely in unskilled labor categories where growth is stalemated because of automation and the substitution of capital for labor (the latter under growth forces causing capital to be priced low relative to human effort). Agrarian philosophies and educational emphases, such as historically in vocational agriculture and 4-H work which have had major focus on turning youth back into agriculture, disfavor youth who have neither the capital, desire or managerial ability to farm successfully. Yet, the nation has gone through several decades in which this philosophy prevailed and rural youth were provided little other opportunity in vocational training or no national prospectus in growth trends and labor demand. (See Table 13.1.) Misery only results for the youth which is thus directed into agriculture, only to find five years later that he must transfer, with loss of income and underdevelopment of skills being the result. Policy which grinds alone on compensation and bargaining power for commercial farmers fails to focus on this important problem of people, not only for low income strata but also for youth and others of commercial farms.

Youth have relatively small problems in transfer costs as they enter the nonfarm labor force. Improved vocational guidance could, of course, effectively improve their geographical flexibility and diminish costs of false starts for them, as they swing from place to place in trying to match the supply of their talents with the demand for them. Young people have much greater mobility than older persons. Their future income stream is longer and, discounted back to the present, has greater current value. They are flexible in skills and attachment to the community and are in a better position, with few family responsibilities, to assume risks and uncertainties in transfer. Their transportation and relocation costs are lower. The skills young people can take with them are greater than the salvage value of those developed by older persons through farming, and they generally are at a "breaking point" as they leave school to enter the labor force. For the obverse reasons, age selectivity in migration leaves at home young persons with families, debtors and those whose previous job establishment has caused them to grow inflexible as resources.

Persons past middle age may migrate more readily due to dissolution of household, retirement and final attainment of financial security. Transfer costs, in money and real terms, are greatest for persons in the median of age range. If they own their own housing, inadequate as it may be, the same space costs them more in movement to new location. Transportation and subsistence for the family during the period of transfer adds to this cost, as well as does the process of liquidation of their assets and the transition period of unemployment and related activities and costs. While incomes are meager for many older persons short of retirement from the

poverty class, and also for many from the commercial classes of farms, opportunity for them to improve real income is constrained through movement to city or new occupation. Typically their education is short, even in years of school completed, and resistance to employment of older persons, because of lack of trained skills as well as costs in employee benefits and inflexibilities in group work and new environment, causes them to end up in the most menial of tasks.¹¹

Census data show that farm operators in economic class with gross income of \$2,500 to \$5,000 in 1950 averaged only 6.9 years of schooling. The amount was even smaller for older persons in the group. In contrast, operators in the group with gross income of \$10,000 and over averaged 10.2 years. Money income and urban culture typically has less appeal in marginal utility for older and middle-aged persons than air of security in rural acquaintances and culture. While most rural communities are weighted with people of this age group and culture orientation, the best alternative for many of these people is to remain in the agricultural setting.

The "in between" class of persons who have established themselves in farming but still have flexibilities in skills and community adaptation, have brighter prospects in occupational migration. Their chief restraints are (1) costs of the type pointed out above, (2) guidance in matching employment, location and community to their abilities, (3) preferences for farm community and (4) degree of "rustiness" in particular knowledge and skills which have gone unused. If any group is particularly caused to teeter longer in agriculture because of the uncertainty of outside world and the availability of price supports and subsidies, it is this class. (Subsidies have been negligible in holding youth on farms, and unimportantly thus for older people.) It is doubtful that farm subsidies have been as important as lack of positive guidance and migration policy, even in holding the "in between" group on farms. Their migration has been rapid, next to that of youth entering the labor force, and it would have been even faster had employment demand not been so highly restrained relative to the supply of persons falling quite largely in the category of unskilled labor. Farm experience has provided resource of some transfer value to many of them; but for others it has not, or their more important talents lie in other directions. In contrast to youth, which has some opportunity in improved public schooling, formal training programs in rural areas does not exist for the "in between group." In the regions where total migration rate is greatest, the group of younger but established farm families with children has lowest migration rate; partly because of farm opportunity within the region but also because of the relatively greater cost of migration over longer distances. (See Figure 12.1 for indication of migration rate and distribution among age groups and regions.)

¹¹ For discussion of employment restraints of the older migrant, see Burton Seeker, "Business Views Labor Mobility Needs," in *Labor Mobility and Population in Agriculture*, Iowa State University Center for Agricultural and Economic Adjustment, Iowa State University Press, Ames, 1961.

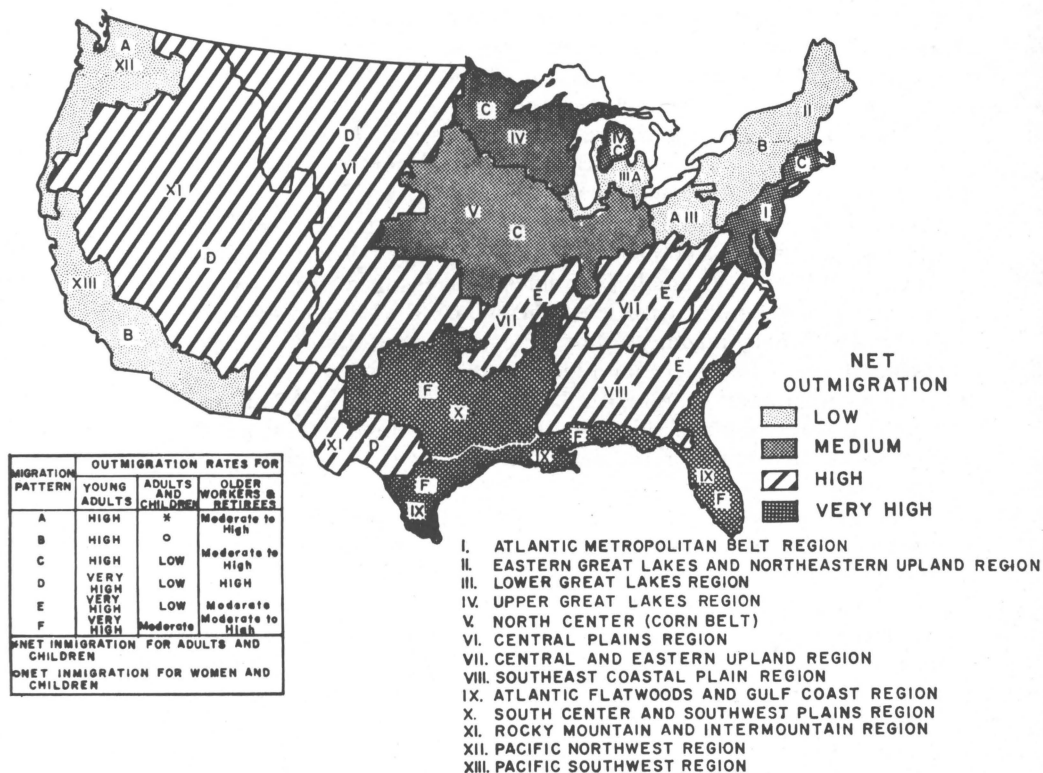


Fig. 12.1. Net migration of the Rural Farm Population by Regions, 1940-60. (Also See Table 5.7.)

Equality in Opportunity

American society is based on the concept of the individual and on equality of opportunity for him. Freedom, a goal much discussed in respect to farm policy, depends on opportunity in exercise of choice and talents of the individual.¹² But freedom is "greatly unequal," being especially low for farm persons who have too little (1) capital and education for farm management success and (2) lack skill and knowledge to transfer to well-salaried nonfarm positions. Possibilities in contributing to national growth and income, and in attaining increased individual welfare, are limited for persons who have inadequate and below average resources for developing their capabilities. Farm people have been overrepresented in this realm of suboptimum development, throughout agriculture generally and in low income sectors particularly. Opportunity to better develop and reshape their talents and inherent abilities should be

¹² For emphasis of this point, see: *Goals for Americans*, Report of the President's Commission on National Goals, Part I, The Individual.

given many more in order that they can benefit most advantageously from nonfarm growth sectors in decades ahead.

With small farm labor force relative to national labor force, the need is more in relative gain to the individuals so represented, rather than in relative magnitude to which they can lift gross national product. The view is not that they must be ground into a mold and mustered into the market under the inescapable forces of the pricing mechanism. Instead, it is that many have talents which will thus reward them most and boost their life satisfactions to much higher levels by being able to attach to these opportunities, rather than in being forced to become members of farm fraternity which supposes salvation only on farms under management of the market.

While the farm product and resource market mechanism can be reshaped to benefit those who will and should remain in agriculture, this reshaping cannot be the most positive hope of all persons born in agriculture and of all operators now in agriculture, especially those with magnitude of talents useful elsewhere and of capital promising no hope ever for success in farming. To turn to policy which can bend market mechanism with emphasis only on benefit to people if they stay in agriculture is as negative and backward as historic emphasis which provided only vocational education and guidance for return to agriculture. Not a few farm families of the United States have housing far below the standards of cows in Wisconsin and hogs in Indiana. To restrain the sons of these families, or even many of the farmers, to agriculture and use pricing policy to increase their income by 20 percent is trivial, against the much broader nonfarm opportunities open to them through appropriate investment in education and training, or compensation method which helps them in transfer from agriculture.

EFFECTS OF COMPENSATION POLICIES

Compensation policies of types used since 1930, and those discussed in Chapter 11, have little effect on the supply elasticity of farm labor in the poverty strata of income. The forces tying this labor to agriculture are not those which will be affected materially by market power, quotas, land retirement or other policies which might boost average per capita real income of American agriculture to nonfarm levels. Paucity of resources, and the very philosophy of the compensation principle prevent the poverty problem from thus being solved. Neither are farm youth from the higher income strata, as means are used to redress loss to commercial agriculture, very likely to be held inflexibly to agriculture by compensation policy. Melding of urban and rural cultures, the extent and effectiveness of modern communication, the widespread attraction of urban living and wage scales and greater vista for expression of talents has served and will continue to serve as the dominating force in drawing youth from rural communities. It is, in fact, extremely doubtful that farm policy has been influential in diminishing the rate of transfer from

farms since World War II. True, some farmers were able to thus remain when they would otherwise have had to liquidate and move. Yet others did move just as fast as information, industrial demand and employment opportunity allowed them. To have freed more from the embracing effect of farm subsidies would have had no effect in increasing number of non-farm employment opportunities, a major restraint to migration, although the geographical pattern of shift might have been somewhat different.

As a sector of pure competition, against most sectors which are not, agriculture acts as it should in this academic context; namely, as a repository for the unemployed. Unemployed do not transfer directly from industry to agriculture, but the incidence of unemployment is the same in the sense that opportunity for off-farm migration becomes more limited and the preferences for youth and seniority rights prevail to pass major extent of unemployment back to established operators in agriculture. While price of farm labor is competitive in this sense, with wage flexibility so that people remain and continue employment in agriculture as their return declines, institutions and market power of other groups restrain them from stepping into the nonfarm market with full effect in pricing their labor at level to replace industrial workers.

The major structural problems of agriculture will be solved in the future largely through the occupational choices of farm children and young people. This is already proving true. Farm programs of the past decade have done little to retard the choice and mobility of young people. Migration of people from farms has been extremely rapid even in the presence of these programs. This rapid migration of labor from agriculture to nonagricultural work opportunities has been stimulated by the continued economic growth over the nation as a whole. Expanding nonfarm employment opportunities, at wage rates far exceeding labor returns on a very large proportion of the farms in the nation, have drawn labor, especially young people, out of agriculture. Perhaps the rate of labor transfer, from farm to nonfarm employment, has not been less than the amount which could be assimilated in an orderly way by industry and community facilities. Evidence is lacking to indicate that the mobility rate should have been significantly greater in the recent past, considering the rate at which nonskilled jobs were being created, the speed with which public services such as schools could be provided, the rate at which increased housing facilities could progress in industrial centers, and even the degree of economic instability and short-lived unemployment in postwar years. As mentioned in Chapter 5, lack of a more positive approach in counseling and guidance probably has been more important than acreage control and agricultural price policies in retarding labor from moving as fast as it could have, should slack have actually existed in employment opportunities, public services, and housing. Farm children of this decade, in making choice of occupation and social policy, will care little whether monopolistic production and pricing policies might increase their income should they select to enter agriculture, especially when the rewards to them from the same policies might

be much greater in other endeavors and industries. It should also be remembered that where public compensation policy may have tendency to cause some, particularly older people in grain and tobacco farming, to "hold on," public development policy in research and education causes new technology to replace even more and cause them to leave farming.¹³ A major accomplishment of public agricultural research and education, and factor prices favorable to the process, over the last three decades has been to free and displace labor from agriculture. These processes have replaced more people than subsidies have retained in agriculture.

Compensation policy in first impact makes it possible for incomes to be lifted when returns have been unduly depressed from rapid advance of technology and the supply function against inelastic demand and factor supply. Once initiated, it can keep this latter process from occurring at rates so fast that farmers fail to gain a share of their economic progress contribution. But once it has been initiated and has continued long enough to be capitalized into resources, or to be purchased outright if it is negotiable apart from resources, it has no, or little, effect on relative resource earnings. Capitalized at the same rate as assets of similar character and attachment, premium in price and income from compensation policy has no effect on relative difference in returns for farm and nonfarm employment for a new entry into farming, and no effect on absolute difference for a person already engaged in agriculture.

Taking the first for example, suppose that a farmer has assets producing income of \$1,200 net, and the prevailing capitalization rate is 6 percent. (Also see the example in Chapter 10 emphasizing farm size expansion through recapitalization.) Under this combination, capitalized value of the assets is \$20,000. A person able to muster \$20,000 can purchase income of \$1,200. Now suppose compensation boosts net income of resources by 10 percent. Assets of \$18,183 which previously produced \$1,091 in income will now produce \$1,200. But capitalized at 6 percent, the assets formerly worth \$18,183 now are worth \$20,000. The beginner can buy no more resources and no more income with his capital than

¹³ Considering the role of the tobacco enterprise as the main source of cash income on a large number of small, low-income farms, the short-run effects of compensation policy were those of holding some people on farms. On farms where both cash and real incomes are extremely low, and where part-time farming provides very little supplemental income, cash income made possible by tobacco allotments provides a necessary means of subsistence for some older persons. By causing the total tobacco acreage to be dispersed widely over many farms, many older farm people who are satisfied with "the rural way of life" are able to remain in agriculture. If the tobacco program were abolished, the competitive effects would remove this cash income source for many low-income families, forcing some to look elsewhere for employment. Furthermore, since many of these low-income farmers now are able to remain in agriculture because of the cash income made possible by their tobacco allotment, they prevent an expansion in farm size and an increase in productivity by other labor units in the locality. Abolishment of quotas would squeeze out many farmers operating small units who "hang on" because of the cash income from tobacco quotas. However, it is questionable whether many older farm operators who lack industrial skills (with their particular customs and value systems) would make important additions to the industrial labor force, or to the community life of urban centers.

previously. Hence, presence of compensation benefit can hardly cause him to select farming over other occupations. Similarly, an established operator with given differential of income against off-farm income, can now sell his resources and realize the same absolute differential by moving to other occupations.

It is likely that most of the more permanent effects of compensation through output control, marketing orders and quotas for sugar in Louisiana, tobacco in North Carolina, dairy cows in Orange County and lettuce in the Salinas Valley of California have already been so capitalized and their mobility restraints largely cancelled.¹⁴ To be certain, individuals with capitalized effects of compensation or quotas would experience capital loss if they were dropped, and some more would have incentive to move out of agriculture. But to the extent that competition prevails for their resources, due to limited outside employment opportunity and knowledge, with farm labor and operators backing up in agriculture and looking for employment therein, assets would typically be sold to others who would retain them in production, partly as additions to other units but also as independent units.

Compensation policy elements are not the basic restraints to occupational transfer and more productive contribution of underemployed human resources to national economic growth and welfare goals. Conversely, initiation of negotiable quotas as a scheme of compensation, with some able to sell the future stream at capitalized value, would be direct incentive for many to "cash in now" and move to other occupations. Again we state that failure to effectively utilize agriculture's manpower rests more on negative policy in educational investment, in extension of education relating to job opportunities, in facilities for retraining and related activities, than on penalizing effect of farm compensation subsidies in historic magnitudes. These items, along with sporadic periods of unemployment in important magnitude, have held people to low income farms where their alternative was to accept meager compensation subsidy.

Rather than investment in surplus production and storage of grain and cotton under policy complexes of the past, a different set of production restraints and compensation method could have been used. These could have been more effective and/or less costly. Then, a large part of the real cost or amount (see Chapter 14) going into surplus production and its storage, could have been invested in education, retraining programs and improved employment services; thus making greater contribution in shift of more people to occupations of increased rewards to themselves.

Policies can be devised to provide (1) compensation to guarantee a positive-sum distribution of gains from rapid development of agriculture

¹⁴ As an empirical study representing capitalization of subsidies into land values, see F. H. Maier, *et al.*, *Sale Value of Flue-Cured Tobacco Allotments*, Va. Agr. Exp. Sta. Tech. Bul. 148.

and (2) equity in opportunity for utilization of human capacities, labor mobility effects being of secondary consideration but a necessary complement, and need not be competitive or confounded in results. Policies have been but little so in the past, the greatest weakness being that little investment has been made in the category of increasing equity in general economic opportunity for people from agriculture.

POLICIES FOR DEVELOPMENT OF HUMAN RESOURCES AND LABOR TRANSFER

Diminution of labor input is an orthodox recommendation for solving the surplus problem of commercial agriculture. (It has the exceptions and limitations in time and factor supply elasticity discussed in previous chapters.) Policy which increases the supply elasticity of resources to agriculture should aid the transfer process, causing balance in resource returns of the market to be restored more readily. In the conventional tenets of farm policy economics, supposing economy-wide existence of pure competition and mechanistic resource allocation goals, this is a notable purpose. But equally in worth, the elasticity effect and restoration of economic balance can be a by-product of a more important purpose; namely, lifting the productivity, income and welfare of many persons whose prospects are better in nonfarm employment.

Whichever the viewpoint, policies are possible which can aid mobility, supposing that the nonfarm demand function for labor is sufficient to absorb potential migrants. Even where this is not true, policy can still put labor of farms on equal footing with that in urban centers; a condition lacking in the past because of variables in education, location and employment aids of differential magnitude for the two sectors. In the sections which follow, we discuss some policy alternatives for increasing labor supply elasticity, equally in the sense of mobility to increase welfare of people involved in transfer and for improving the long-run economic structure of agriculture.¹⁵

Education of Youth and Community Capital Supply

Equal footing in economic opportunity through more appropriate education is policy especially relevant for youth. The reasons why equity in personal opportunity is lacking in this respect have already been discussed. We add some summary notes, however, especially as these relate to existing public machinery for this purpose.

There is no principle in equity supposing that rural communities should make the full investment in education of labor resources which will become part of the production complex in other communities and locations. Neither is there a principle which says they should not do so if

¹⁵ Numerous of the policy and action alternatives in this section were originally outlined in my article: "Adaptation of Extension Education and Auxiliary Aids to the Basic Economic Problem of Agriculture," *Jour. Farm Econ.*, Vol. 39.

they prefer. Largely, local and state groups have held to this preference and right. Unfortunately, however, local supply of capital for these purposes has been too meager, limiting the supply of professional and skilled labor which can be developed from farm youth of particular localities. Too much so, the productivity of capital in education is assessed by the locality in terms of endogenous employment opportunity. Why invest in education of chemistry and higher mathematics when they have low productivity in the neighborhood, lower than for vocational agriculture? However, labor resources are not restricted to the community after termination of community school and it is productivity of science and business in national community which is relevant.

While this productivity potential exists, it is not adequately assessed in the local community. The optimum level of investment in various educational fields within the community thus is entirely different from that of the national community. If communities and national society made calculation of optimum investment level in refined marginal form (and they do so in highly lagged and subjective manner), we would have the difference in level and allocation of educational investment suggested in Figure 12.2 where *A* is for the local farm community and *B* is for

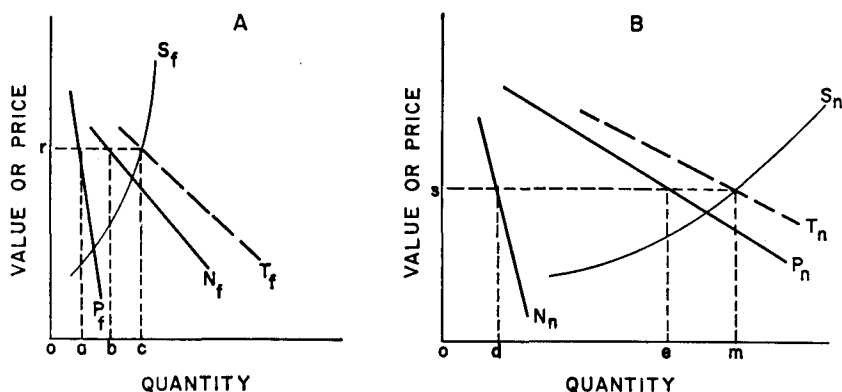


Fig. 12.2. Relative Supply and Demand for Investment in Education and Labor.

national aggregate. The marginal value productivity of capital invested in developing professional human services for the farm community is P_f , supposing that the professional services are used in the same community. The marginal productivity of investment to the farm community in nonskilled or "subprofessional" labor (including farm labor) used in the farm community, is N_f . The corresponding marginal value productivity functions for the national community are respectively P_n and N_n where we suppose productivity is measured across all sectors of the economy. Hence, each community has an aggregate marginal value productivity function, for capital invested in labor which will be used

in the respective communities. These are T_f for the farm community and T_n for the national community.

We can represent each set of productivity functions as the payoff or demand in investment in human skills by the two communities. Productivity of investment in professional labor used within the farm community is high for small absolute quantities, but falls off rapidly when basic needs are met in doctors, dentists, teachers, etc. The farm community has little return on engineers, draftsmen and air pilots used within the locality. In contrast, however, the productivity functions are reversed for the national community, where we suppose more rapid growth and factor prices causing substitution of capital more nearly for nonskilled than for professional labor. The supply functions of capital for investment in education is $S_f(S_n)$, considering alternative uses of funds in consumption and production for the two communities. With relatively larger supply of investment funds for the national aggregate, the "optimum" level of investment in education and training is om , as compared to oc for the farm community. Investment can be made to realize lower value productivity at national level (os) than at farm community (or) level. The greater supply of capital available to education and the higher productivity of professional labor cause level of optimum investment to be relatively greater at the national level. Too, the largest proportion of investment is in professional education at national level while it is in nonskilled labor (perhaps vocational agriculture) in farm community.

Experience conforms to the theory elucidated. Local communities have high investment in vocational agricultural training largely because the supply of funds comes from national society; a point well forgotten by local communities who point with pride to the fine projects of their FFA clubs and the great uplifting it has brought to farm boys, but protest the lack of freedom promised by federal aid to education. The local community, where it alone makes the decision and investment, restrains investment in education while its productivity is held above levels preferred by general society and it invests far too little in nonroutine curricula and courses. Many rural high schools even lack a course in chemistry, biology or mathematics beyond geometry. The answer to the problem posed above is to integrate the supply of capital for educational investment at the local and state level with that of the state and national level (e.g. as outlined for equations 13.1 and 13.2). Not only can more educational resources thus be made available, but also these can be better resources in the sense of human and physical inputs devoted to education. Too, educational investment can be allocated more consistently with future demand for different occupational strata at the national level. Abandonment of the local philosophy of educational investment also can allow better attainment of scale economies in all fields of education—and better education.

Machinery or precedents already exist in many communities for turning education, training, and guidance in directions needed in future de-

mand expansion for labor. Unfortunately, the concentration on vocational training in farm communities has been in agriculture and home-making. (See Table 13.1.) Neither is splendidly adapted to skills and abilities needed for youth who will transfer to industry of growing automation and capital proportion. The emphasis in educational policy for agriculture has been that every farm boy should be made into a better farmer. The criterion of success for the Smith-Hughes teacher in many agricultural communities is the proportion of farm boys that can be enrolled in vocational agricultural classes. Given today's surplus of labor and income depression in many localities, the economic growth criterion for successful education might better be the opposite; namely, that farm youth be trained for other opportunities and guided from agriculture. As a minimum, education at this level should be broadened to explain the relative level of incomes in different sectors of agriculture, and of agriculture as compared with other employment. Given the high income elasticity of demand for prepared food, females might better be offered more courses in psychology; both for congenial association with their future working associates and to meet the modern day problems and challenges of housewifery. Both males and females in more communities could be furnished vocational training in trades distribution, industry and other areas allowed even by initial and existing federal legislation and appropriations.

Vocational agriculture has had as its focus teaching the boy to be a better farmer on his home tract of soil. In many cases, the individual and society would benefit if he were told why he should, and how he can, move from this farming location to another. But more important, vocational concentration should be on training farm youth who will not be needed in producing food so that their abilities can be better used for goods and services that have relatively greatest demand in a growing economy. To be certain, food needs of the future require that new farmers enter the occupation to replace portion of those who retire and otherwise leave the industry. The competitive prospects for future agriculture require that the farmer be even better educated and a more efficient manager than at the present. Agricultural education is required accordingly.

But it is just as important that, systematically, some boys be guided out of agriculture. The vocational agriculture courses taken by many leaving the farm provides them with little training and sometimes no skills for the products and services in which they become employed. The emphasis on vocational agriculture relative to trades, industry and distributive occupations is particularly great in the low-income areas of southern states. (See Table 13.1.) The value of this training is questionable for boys who will not return to the farm. In most agricultural communities there are several boys who must leave the farm for each one who will be needed for replacement, if agricultural production is to be geared to potential demand and economic growth. Human resources can be improved to a degree approaching the limit only if a much greater invest-

ment is made in occupational counseling and if vocational courses of a nonfarm nature are greatly increased. Counseling needs to begin with students entering high school, rather than as a main contact at time of graduation.

Historically, the main emphasis on youth in extension education also has been on farm skills. This activity is needed in the years ahead for the reasons mentioned above. But in order that a relatively larger portion of farm youth can have higher incomes and greater life satisfactions, as compared to subsistence on an undersized farm, 4-H activity needs to focus relatively less on how to fatten a calf for the fair and more on developing knowledge about, and interest in, economic opportunities on farms and elsewhere. Since there are many more boys than are needed as farmer replacement, specialists in youth work might best have vocational guidance as their central training. The challenge ahead is to help the individual predict, comparing different activities through which he can sell his labor services, the production possibilities that represent his makeup.

Prediction cannot end here, however. To tell the individual that he should follow farming because his production possibility curve extends further in this direction (i.e., that, representing his abilities, the marginal rate of substitution of farm production for other products is high), considers only half the relevant variables. If the price or returns ratio provides a revenue line with little slope towards the extreme of farming on the production possibility curve, the individual will have a higher return in the nonfarming activity. (See Chapter 13.)

Adult Education and Retraining

Adult classes in vocational agriculture schools now provide a basis for extending skills or retraining persons in agriculture. With the economic growth impinging on agriculture as it does, these same general facilities should be used to provide retraining for persons who are now engaged in agriculture but know about, or are interested in, opportunities elsewhere. Funds for these purposes were included for slump-areas, under the 1961 Depressed Area Legislation. They should be provided similarly for widespread areas of agriculture which suffer similarly from growth which is uneven for sectors and regions. Retraining of persons who can then leave agriculture is important, in areas where farms are small and income is low, for increasing incomes of those who will remain in agriculture. In fact it is equally as important as providing adult education to promote the skills of those who will remain: the latter often can increase incomes sufficiently only if others leave agriculture to allow farm consolidations and attainment of scale economies. In some instance, resources used in adult retraining for nonfarm skills could be provided by the same vocational agriculture instructor who conducts evening classes for farmers. Hence, resistance need not be encountered in "lessening the capacity" of current educational resources. Mainly, however, total educational resources need to be extended to provide a broader

range of skill opportunities, for an activity that is as important socially as evening schools for farmers. Cost of subsistence during the retraining period might be furnished much as in "on the job training" following the last war.

The extension service should similarly redirect some of its work with young married couples. Farm and home planning and rural development programs should emphasize off-farm employment opportunities for resources, as well as reallocations of these same resources within the existing firm-household complex. The portion of the agricultural population with the high mobility potential is, of course, young persons who have not yet committed their abilities for a particular line and have not yet acquired a fixed set of skills. Next in flexibility are young persons who have started farming but have not pushed their roots deeply into the community; have long working lives ahead and still have enough youth to switch from one to another skill. Farm and home planning should, as is already true in some states, focus particularly on this group. A broad view of resource use and family welfare maximization is needed. From the family's standpoint, it is important to show them where they will have higher incomes and greater satisfactions in leaving agriculture, as it is to explain how some can reorganize production and consumption patterns to increase dollar profit and household utility on the farm. Planning should help those young families whose main hope for high income and utility level is not from compensation policies and quotas in agriculture, before their flexibility declines greatly, decide whether their capital and managerial assets best fit them for farm or other occupations. Refresher courses in science and mathematics, advanced short courses in these and similar scientific and vocational fields also could be offered.¹⁶ Too, however, there is need for these extensions at point of impact in new employment.

Termination Compensation

U.S. society has precedent in providing termination payment to those released from particular employment. Such "mustering out" pay is tradition for armed services, as it is with many private firms. Its equivalent for technological unemployment or replacement also is provided in unemployment compensation possible between jobs under Social Security. Use of this principle, as capital investment to increase labor mobility and supply to nonfarm employment or as compensation reflecting recognition of a degree of technological unemployment stemming from advance of agriculture, could increase supply and elasticity of labor to nonfarm employment. In time of sufficient nonfarm employment opportunity and demand for farm labor, this policy might well have aided many persons to transfer, lowering total costs of programs and adding to welfare of selected persons.

¹⁶ For the complex of problems involved in adult education in a progressing society, see: R. and William Peterson, *University Adult Education*, Harper and Brothers, New York, 1961, pp. 201-30.

Investment thus of the subsidy realized by many farmers during the 1950's, plus some of the capital invested in surplus grain storage—the rest going into resources for schools or developmental projects in the private sector—would have been much more productive and less burdensome on the farm public's conscience than the visible and large grain storage accumulated during the period. Such compensation mechanism could be on a choice basis, so that Pareto optimum is allowed, with persons accepting the alternative only if they believed their welfare to be so increased. Compensation and payment would be oriented around people as resources of possibilities in nonfarm employment, rather than as owners of resources tied in agriculture. The extent of labor withdrawal by this method, with individuals still making Pareto-better choices, could be extended to any desired amount, depending on the level of supply price acceptable to the public. Persons not preferring this choice could remain in agriculture to accept compensation through direct payments, quotas, etc.—or to accept the fortunes of the open market. All three alternatives, or more, could be used to allow choice and guarantee movement towards Pareto optima; a framework of pure freedom of choice in extent allowed by public outlay.

Magnitude and nature of these termination payments could be various, depending on the particular goals of transfer. One method would be to simply compute the value of subsidy in prospect over 5 years through other means; then offer approximately this sum at the moment for the person who wishes to retire or withdraw from farming, with limitation of a single payment and some provision for restraining use of his land. Or, payment might be calculated in terms of cost of liquidating assets, transportation costs, waiting period for employment contact, capital loss on assets and some aid in obtaining housing; the final mixture of compensation elements depending on public concept of equity and gain. (This scheme might appeal most to older persons, but social costs, considering differences in housing costs, might be less if some of these persons were to remain in present location and employment.) Where transfer did take place, provision could be made for locking land out of production if this is needed, desired or effective in restricting commercial farm supply. Or, the method could be tied in with a land retirement policy; a condition and precedent of termination payment which was closely approached in "whole farm" retirement initiated in 1957.

Cost of such a program would depend on level of compensation to be attained, supply of labor to be directed to nonfarm activity and extent to which the program is separated from or confounded with on-farm compensation, supply control and other types of programs. As a specific aid to persons whose welfare would be best advanced in nonfarm employment, the cost would be different—and less—than if it were used as a method to draw farm output down to level giving considerably higher farm commodity prices. Society would benefit more than in past programs where people have been subsidized only if they stayed in agriculture, payments have continued on indefinite basis and surpluses have

continued to build up with capital investment required to store them. Farmers moving would be those in less advantageous position for farming. They would be persons benefiting least from public subsidy of research and education in agriculture. Undoubtedly, the system could be used effectively to remove two million farmers from agriculture in 5 years; but not necessarily with corresponding immediate reduction in output. As mentioned previously, migration must go far enough that labor input begins to serve in capacity of technical complementarity with land (as in Figure 14.1) eventually causing the latter to shift from conventional surplus crops to less intensive ones.

Transportation Subsidy

Cost of moving is a trivial capital cost for persons finding employment in their own community. It is a small and insignificant cost for a young person who has commitment for no others and who may look upon the venture to a new community partly as a consumption service providing utility, whether or not employment contract arises immediately. The capital cost is a function of, and increases with, family size, distance, and involvement in farming. It, plus the living costs during the period of transfer and employment location, can tax the resources of persons with small incomes and no savings. Hence, a means in between "mustered out pay" and passive employment services would be subsidy to cover transportation costs, perhaps on a once-and-for-all basis, to eligible persons moving out of farming. It might be especially effective in increasing labor mobility for persons making interregional transfer. Or loans could be made to cover transportation for moving and living costs until employment is obtained. This is a mechanism that has precedent, as does unemployment compensation under existing machinery. Although indentured servitude is not recommended as an acceptable mobility means, it drew a large proportion of immigrants to the United States and was, in effect, such a procedure. The indentured servant received his subsistence while he worked a contracted period of time to repay his transportation and upkeep costs. Another mechanism with experience behind it is the postwar G.I. on-the-job training. During 1942-50 payments provided living costs and retraining opportunity for persons who wished to make productive transfers of their skills and locations. We mention these to indicate again that the means required do not require any "revolutionary social measures," but generally are represented in public legislation accepted in the present or past.

The market for human labor functions much less perfectly than that for other animals, partly because private property is not allowed for the former. If a bull in Wisconsin has positive prospects of employment in Indiana, private endeavor will see that his services are transported to the latter location. Similarly firms specializing in relocation of animal services effectively invest and cause feeder cattle to be transported from Montana ranches to Illinois feedlots, then to packing plants and finally to consumer services in Boston. Although the end desired is not the same

and the preference map of the individual involved is to be honored, man should be able to provide equivalent services for human resources which have consumers attached to them. The calculation to be made is one of the marginal utility and gain to be realized by the individual and society, and the supply price necessary in order that persons will offer their services for transfer with guarantee of family welfare gain. This alternative in choice does not make the supposition of the interpersonal utility measurement implied in shipping a person off to the Siberian salt mines.

Improved Employment Services

Labor transfer is possible and desirable, within a market framework where wage prices are established by market bargaining power, only to the extent that nonfarm demand for labor is of sufficient magnitude. Supposing periods with employment opportunity great enough to absorb greater supply of labor from agriculture, or to put it on more equal footing with nonfarm labor in ability to demand industrial employment opportunity, the means discussed above suppose supply of capital to serve in relation of technical complementarity with labor supplied from agriculture to nonfarm industry. We now turn to an additional quantity or resource serving in similar capacity; namely, knowledge of and about nonfarm employment opportunities. A large expansion is needed in services to inform people of job openings and personal adjustments required for new employment and new living environments. Emphasis should be on interregional job communication.

The existing facilities of the state and national employment services could, if extended to a broader basis, provide another means to supplement education and training in helping agriculture adjust to economic growth. The two are not substitutes for each other. Education and vocational guidance should be used to give individuals broad and long-run productivity and understanding of the working of the economy, and the prospects and needs in various industries and services. Employment services should provide much broader and more current indication of where nonfarm positions are. The federal employment service has over 1,800 local offices and is affiliated with state employment services. Yet it has no special program for farm people, except information on job opportunities elsewhere for migratory farm laborers. The employment services provide information on employer, location of position, hours of work, remuneration rate, job characteristics, expected duration of employment, local transportation facilities, requirement in union membership and general living conditions in the locality. The latter includes information on housing accommodations and costs, but nothing on community, sociological and other aspects. The set of information mentioned above refers to a specific area or geographic location, information for other areas being too costly for present resources of employment services.

Evidence suggests that employment service facilities have been inadequate or too little used in making geographic transfer and bringing

greater perfection to functioning of the labor market.¹⁷ State employment services, while concentrating on labor requirements of the locality, do provide some "clearing house" information with other localities. During the war period the federal service helped an important number of farm people find positions in rural and urban industries. Mobility during the war also was encouraged through provision of transportation costs and job guarantees. As an aid to the peacetime mobility required for agriculture, this information and the monetary and job aids need to be extended and made more comprehensive and detailed. Present employment services necessarily, because of fund limitations, are too little concerned in indicating the existence and conditions for off-farm employment for labor in agriculture.

Of course, some restrictive state and local legislation promises to stand in the way of using the employment services more effectively. For instance, scattered southern states have had laws that allow recruiting of agricultural labor, to be used elsewhere, only if a fee is paid for this privilege and if the county agent or other authorities give permission. Labor legislation in many states directly has discouraged migration of farm people. Except in New York, state and county residence requirements create hardships and barriers to labor mobility.¹⁸ The most critical time for a migrant family is its initial period in a new community. The process of securing permanent employment and stabilizing the family's economic status at a satisfactory level may take several years. Therefore, even if alternative employment opportunities are known, the uncertainty of economic security and the lack of available welfare services in the short run tend to reduce mobility among an appreciable portion of the labor force, people who would consider a change in occupation and the locality of employment.

As a mobility aid, the state employment service should be expanded to emphasize nonfarm opportunities, more than alone on placement of seasonal farm labor. It could be relatively less a means of supply function in filling producers' needs and more a demand function for indicating employment alternatives for prospective migrants. The ideal would be a national "market clearing house," similar to commodity and stock markets, to reflect the location and nature of positions, wage rates and skill requirements. The prospective employee could be "fully as informed at the moment" as traders in the markets mentioned. This degree of "finesse" is impossible, of course, but it serves as a goal to be approached. These "market quotations" provided by the employment services could be complemented by information relating to consumption and the household, with the Agricultural Extension Service helping to

¹⁷ See E. D. Smith, "Nonfarm Employment Information of Farm People," *Jour. Farm Econ.*, Vol. 38.

¹⁸ Two articles indicating the difficulties families in new communities suffer as a result of state and local residence requirements are in *Parade*, Sunday magazine supplement to United States newspapers, Sept. 29, 1957, and Oct. 6, 1957.

carry information to farm people. The latter information should indicate the nature of living conditions and adjustments that might be required. Its purpose would be to prevent families from moving to places where their living patterns and social values would be inconsistent with those of the new community. This information would help prevent "waste motion" that otherwise occurs as the individual or family becomes discouraged and returns to the old community. It would help individuals to better find communities that match their own preferences and value systems.

Information and service should not be restricted to the "sending end" of transfers, but should be extended to the "receiving end" as well. A great deal of uncertainty exists as interregional transfers are made; in respect not only to employment opportunities, but also to making friends, finding housing, becoming integrated into a community and so forth. Lessening of this uncertainty at the "receiving end" would increase interregional labor mobility. This aid should be provided by a broad, well integrated national employment service. But again, as for most of the elements outlined here, a completely new machine need not be invented. This type of service, while far from perfect, has been used in helping to relocate Indians and in moving them from reservations to industrial employment. It has been used, at both sending and receiving end, in aiding migration of Puerto Rican labor to the continental U.S.¹⁹

Facilities of state employment services and extension services might well be joined in attack on some of the "intermediate run" problems of labor supply and demand and employment. For example research findings to predict possible impact of mechanization and other technology on farm labor demand and potential need for migration could be extended by extension services and used especially under guidance schemes which could be developed in employment services. Typically we have research to predict the results of technology on farms, supposing an operator who will "stay fixed." But we need estimates of broader impacts—interproduct, interregional and inter-industry substitution and productivity effects—of technological advance. Both public agencies could work more closely with schools in rural areas, the extension service to project longer-run outlook and the employment service to provide testing services and guidance at early time in student courses.

One problem of expanded employment service is that of getting sufficient resources and administrative sanction in extending certain activities now available in city areas to rural areas. Rural areas need, as much as or more than large city labor markets, services such as those provided in the latter, proficiency and aptitude tests for high school students and adults, and counseling aids for both. Provision of these aids to scattered

¹⁹ The Puerto Rico Migration Division has 12 "receiving end" offices to help adaptation to cultural life and to locate in positions. See "Surprising Puerto Rico," *Look*, Jan. 17, 1961, p. 44.

rural areas is costly and difficult, but present transportation and mobility in this sense is as important as that of traveling libraries, and even in "getting the mail through." The experimental and intensive programs of the employment service in selected rural counties represent a significant step in this direction, if the productivity of limited resources is thus most efficiently defined. Effort in the initial experimental areas emphasized labor supply in terms of potential industrial development in the locality. Expansion of effort would need also to concentrate on connecting persons in specific localities with demand in industrial employment at various other locations.

Channels of information in respect to nonfarm demand for labor do exist outside of employment services. They have functioned quite well, having been the American tradition. The void in job communication through friends and relatives is somewhat less than that in vocational guidance services functioning in a *priori* manner to allow youth to anticipate future demand and absorb educational inputs accordingly; or, in guiding initial transfers from the farm labor force. In functioning efficiently, employment services as labor market devices would help to minimize undesirable migration and "false starts," as well as to guide those moves which are positive.

The crucial long-run need in balancing labor supply against labor demand is in supply of capital to educational and vocational guidance systems. This is a function relating to the public education sector, more than to the public clearing house represented by employment services. The latter is best adapted to serve in the short-run market, and thus for guiding persons who are directly entering the labor force, or those who are on farms and wish to transfer. In more positive mold, and given amplitude of budget and administrative opportunity, the employment services could serve in more positive fashion as an *employment service*, rather than under the negative connotation as the *unemployment service*. By itself, an employment service cannot create aggregate national demand for labor. It can, however, better inform potential farm migrants of the demand in various locations and occupations. Also, it can better inform employers of the supply of labor from farm sources.

DEVELOPMENT, EMPLOYMENT DEMAND AND LOW INCOME

Forces and policy leading to increased demand or nonfarm employment opportunity for farm labor must be viewed first, and over the short term, as a means of bettering the income and welfare position of persons at disadvantage in agriculture. Up to an important magnitude in shrinking of labor input, total output and level of price will not turn favorably towards higher income of agriculture. In 1960 numbers, farms and farm operators could be reduced by at least 2.7 million, leaving only slightly over a million, without crimping productive capacity of agriculture. (About 61 percent of all farms produced only 13 percent of

all farm market sales in 1959.) Similarly, programs aimed at improving the on-farm opportunities of low-income or poverty-sector farmers must be looked upon as method specifically for enhancing their welfare, an important social problem in equity, or as a method of improving their position relative to other strata of farmers. To bring greater on-farm opportunity to their underemployed labor is not aid in solution of the over-capacity and surplus supply problems in aggregate commercial agriculture. The lowness of income, lack of effective opportunity in on-farm employment and generally restrained outlet for human capacities and talent in the poverty sector is cause for concern in social policy. Impact in causing labor to be more mobile, by increasing nonfarm demand for it, or by increasing knowledge of people on farms, promises to draw first and particularly on workers from low productivity farms with meager income and small contribution to national production.²⁰ The smaller proportion (39 percent) of commercial operators who produce the extreme majority of product (88 percent) are not mainly transfer candidates and will rest hopes largely in agriculture. They can readily take over the farms left by their low-income neighbors who represent 61 percent of farms. (In some localities of course, all farmers are in the low income category.)

Three particular groups are affected by sizeable reductions in the labor force. First is the group which moves from farming to nonfarm employment. To the extent that these persons possess little capital and operate inefficient units, transfer to employments of higher real incomes can increase their welfare. Second is the consolidating group which remains in agriculture. To the extent that they expand farm size and increase volume of sales and reduce unit costs relative to any decline in product prices, they also will gain from a reduction in the labor force. Third is the group which both remains in agriculture and is unable to expand farm size. Their relative welfare may be depressed further if product prices continue to decline because of continued growth in output. If time could be telescoped and this group could be inventoried, we would expect to find that it includes farm families unable to adjust because of age, health, skills, capital limitations, lack of knowledge, or similar considerations. It is this group especially that has claim to compensation to redress individual welfare losses growing out of general social gain from reorganization and development.

Several public programs have been attempted to ease low incomes of the poverty sector of agriculture. Those aimed specifically in this direction were the Federal Emergency Relief Administration of the early 1930's and its successors, the Resettlement Administration and the Farm

²⁰ This fact is substantiated by data presented in this and earlier chapters. Almost all of the decline in farm numbers over the past two decades has come from small low-income farms. The number of farms producing \$2,500 and more of gross product (at 1954 prices) remained constant at 2.1 million after 1940 (a slight increase over 1939 made possible by liquidation of small farms).

Security Administration. These agencies carried a fairly vigorous program aimed at relief of poverty up to the early 1940's. Their programs had little focus on the commercial farm problem and its appeal in compensation. It has been suggested that orientation and action towards the poverty problem through these agencies were largely swept away by political struggle and power politics of farm organizations. McConnell suggests that one major farm organization which had its initial impetus in public support and program (i.e. through the agricultural extension service) was afraid that a second farm organization would be so favored through the Farm Security Administration and acted accordingly.²¹ The politic process and maneuvering described in lessening the vigor of the FSA program appears to parallel the model mentioned in Chapter 9, namely, the goal in political process of maximizing power and control over others, with the farm organization of concern fighting to liquidate program and agency which fell outside of its control.²² After respite in tackling the poverty problem, milder public attempt at community development was initiated in 1954 through the Rural Development Program, but through the extension service and interagency operation wherein power position was not threatened. This program was incorporated into somewhat broader community or area development activities effort after 1961.

Rural and Community Development Opportunities

Rural development, as a mild policy for tackling the poverty and equity problems of agriculture, cannot obviate the fact that labor is still in excess in much of the industry. In contrast to earlier attacks (through FSA, FHA, etc.) on the problem which assumed capital to be the restraining resource, the later development program more nearly assumes knowledge to provide the constraint. A rural area development program cannot cause incomes of all low-income farm families to be pushed, within the confines of the community, near the national level of per capita income. Neither can it alone materially lessen the on-farm underemployment of labor by all farm families. This is true because acquisition of enough capital and land resources for some operators to expand must cause others to be ejected from the industry. Yet the direction of such programs is appropriate to the extent that they (1) aid some farmers to expand to efficient operational size and increase their welfare and income and (2) guide others to nonfarm employment opportunity where their income and utility also are increased, both groups having welfare gain and Pareto-better conditions insured. Older persons who are entirely inflexible in move to other work, in managing more farm resources or in shifting cultural setting, might best retain utility level in continuing their present routine in agriculture. Most appropriately, rural and community development programs can aid in guidance of young opera-

²¹ Grant McConnell, *The Decline of Agrarian Democracy*, University of California Press, Berkeley, 1953, Ch. 8.

²² *Ibid.*, Ch. 9.

tors with some flexibility. These are persons whose future in income opportunity and development of personal capacities is largely "blacked out" unless they either move to other employment or extend farm resources to sufficient commercial scale.

Local development as a means of alerting all resources and facilities in a community is desirable. In essence, it calls upon the community to make predictions of its current production possibilities and how these can be extended by increasing capital supply to the area. But just as important, predictions for these production possibilities should be compared against those of the outside world. Many, if not the majority of, communities will have to look to outside demand for labor, and hence in migration of people, to erase poverty conditions on farms. As mentioned previously, this is true especially in concentrated low-income areas because the extremely small amount of resources per person. If all such low-income areas were gathered together in one location, the productivity of labor and income of people would differ but little from that of agriculture in Greece and similar countries. Fortunately, as compared to Greece, a much broader and more diverse national economy exists into which this labor can feed, however. This tie to national economy should not be submerged by communities purely through the existence of local developmental concepts and attempt to "keep the boys at home."

Local development is correctly a step in the needed direction of a general social policy as discussed in Chapter 10. We pointed out that solutions bringing relief to farm people often cause the same problem to show up in somewhat different form for nonfarm people of the same community; the latter being no less important as resources and consumers than the former. In "over the board" fashion, early objectives of rural development programs recognized high concentration of farm populations on few resources, inability of operators to make needed adjustments and underemployment of farm labor. They were oriented to helping farmers develop more adequate producing units, for counseling farmers in respect to nonfarm employment and for encouraging local groups in introducing industry to supplement farm income in the community.

Rural development programs originally concentrated too much on growth in local focus, supposing mainly that, for all communities, capital and managerial resources could be extended to improve income of farmers and that local industrialization could be developed for local employment of farm people. Local industrial development can successfully serve thus only where nature's endowment causes it to be productive and profitable. Where this is untrue, the community has little opportunity to lift itself by its bootstraps. Not all communities can be developing areas. In an economy as large, wealthy and diverse as that of the U.S., some must be developing communities and some must be declining communities. Development programs which prospect a community for 10 years, grubbing through industrial opportunities of great sparsity and holding people in false hopes, can only prolong misery and

extend the time before income and welfare of families can increase more sharply.

All programs centered on community development and depressed area concepts are proper in recognizing the interdependence of the various sectors of a community and the equal worth of the people in it. The inter-group motivation which can lead to matching supply of various resources against their marginal productivities over various endeavors within the community is salutary and long overdue. The public has long invested in this process for physical resources: in mapping soil types by counties and specifying the collection of crop alternatives and yields for them. It is high time that we do the same at the local level for human resources and capital in its broadest meaning.

Developmental programs are desirable as social policy, but not specifically in solving the commercial farm problem of supply function shifting rightward faster than demand. In their very structure, they are designed to retain land in production but to make the resources used on it more productive. Their positive contribution in policy is promise in increasing income and welfare of low income persons (1) who remain on farms and (2) who migrate occupationally, with hope of spillover to non-farm people in rural areas of chronically low income. On an equity basis alone, there is no reason why any less of public funds should be invested in this group of low-production farm families than on equal number of commercial farms of larger output. In 1960, the number of farms with gross output value of less than \$5,000 was roughly equal to the number of commercial farms with output greater than this. (Excluding noncommercial farms, the number of commercial farms with less than \$5,000 in gross sales at 1954 prices was about two-thirds proportion of those with gross income greater than this amount.)

The low-income commercial farmer gains little from compensation policies. As mentioned previously an increase in land resources to allow income of some to grow to satisfactory levels necessitates that others forsake farming. But opportunity exists for these migrants to realize welfare gains in doing so, providing conditions of growth and employment can be maintained in the national economy and appropriate aids in transfer are made. The opportunity must be examined in national economic growth, however, simply because some areas must be declining communities in face of limited natural endowments and a structure of factor prices and consumer demands which favors growth at other locations of the economy.

Resource Flows

If the labor market worked perfectly, workers could migrate out of declining communities at the rate of job formation in growing communities. They would migrate to opportunities which provide highest real income to their labor. The rate of transfer would not be faster because of added costs involved for those who transfer but who do not find employment.

Of course, if the economy worked perfectly, supply of employment opportunities would expand likewise in growing communities to absorb labor as quickly as it becomes unemployed (or underemployed) in declining communities. In this general complex of flows and reallocations, the free-wheeling of the market works far from perfectly and is cause of great frustration and potential income foregone by individuals. More than that, lack of growth rates in expanding communities which keep apace of decline in other communities, or lack of knowledge of matching rates where they occur, causes actual income loss to fall on many individuals.

Growth of industry in communities and areas of underemployed farm labor, or where labor is replaced rapidly by the capital of new technology in agriculture, would ease greatly the reallocation process, especially for the older and less mobile strata of the farm population. Draw of industry outside of the community is not a sufficient force to cause migration of all displaced and low-income farm labor in communities lacking local employment opportunities. More labor would shift to nonfarm employment under local economic development. This is the hope of most small community groups. But the fact stands that a major fraction of rural communities just do not have the resources and locational advantages to cause local industrialization and growth in nonfarm demand for labor.

Spatial spreading of industry, a policy followed in certain planned economies, would give more opportunity to these stranded peoples. But over the long run, the cost of aiding transfer, as suggested in the policy means outlined earlier, is likely less than the marginal cost of moving industry in, and the products out, of more remote areas as a physical means of providing local employment. The tendency of industrial growth to continue concentration largely at large population centers suggests this likelihood, especially in light of lower wage rates which have prevailed in depressed rural areas, or in smaller towns.²³

Local development necessitates flow of resources between and among sectors whether its emphasis is on growth of the community, the central focus of early developmental programs initiated, or on a broader national view of development. In the typical community orientation, which supposes farm enlargement and flow of displaced labor to locally-stimulated industry, it is expected that the elasticity of labor supply to agriculture will be increased, or the supply function of labor to agriculture will shrink, as result of increased nonfarm demand and price for labor formerly used in agriculture.

In the theoretical model, productivity of labor on farms should increase as its quantity is shrunk against land and capital inputs. But this

²³ Cf. V. W. Ruttan, "Potential in Rural Industrialization and Local Economic Development" in Earl O. Heady, *et al.*, *Agricultural Adjustment Problems in a Growing Economy*, Iowa State University Press, Ames, Iowa, 1958.

complex in equations of rural economic development becomes operative only if certain other relations exist with coefficients and variables of sufficient magnitude. First, the demand function for the final product to be "brought in" under development must be of sufficient magnitude, in order that the price function does not include coefficient declining too rapidly with quantity marketed. Otherwise, the derived demand price for labor will also fall rapidly with quantity of local labor used. But also, in order that the derived demand price for labor will not fall too rapidly with quantity used, the production function for the industrial commodity must be one without important restraints in natural resources and conditions and without rapid decline in marginal physical productivity of labor.

But this is not all in the system of simultaneous relationships defining extent of industrialization and nonfarm labor demand in the community. The nature of the capital supply function, defining the price of capital in different quantities, also will determine the net value product imputable to labor, and hence the demand price for labor. We also must know the supply price of labor furnished from nonfarm sources within the community and from sources outside of the community. Both are substitutes for labor from local farm sources. The story in many communities after bringing in a plant typically is this: the employees are not drawn from farm operator ranks, but from filling station operatives of general and specialized experience, from local supply of housewives who were former clerical workers or technicians, from persons in nearby communities who have had training and experience extending beyond that of low-income or commercial farm operators and from graduating high school students. In this case, the development program proves of benefit in demand for products and service of local businessmen, but not in demand for labor of local farmers. Finally, the supply function of capital for individual operators, who will remain and take over assets of those who do migrate occupationally, is not automatically enlarged by growth of local industry.

Within the above system of resource flows and supply and demand schedules, the greatest number of small rural communities in widespread and sprawling commercial farm areas such as the western Cornbelt, the Great Plains and grazing regions, will not be able to attract or develop the equivalent of an automobile assembling plant, although some regions of chronically low-income farms will do so because of their location. However, most of both types of communities will draw small-scale, sometimes-risky and seasonal enterprises somewhat oriented to farm products. They will use but a small portion of the local labor supply, with much more labor still having to migrate geographically, commute to larger industrial centers or continue in underemployment on small farms. Not all communities will fall in this setting, but enough will do so that rural and community development programs should be pointed to the outside economy, equally as to the local economy. With the latter fixation, the problem of the community becomes essentially that of a closed economy in an under-developed nation. It has an extreme shortage of capital, little ini-

tial industry and perhaps a large concentration of low-income farm people against meager land and capital resources. With emphasis on the former, however, the analogy becomes more nearly that of a less developed nation in an open world economy: where farm and other labor can move out into the larger demand realms and productivity sectors of world regions and capital can move over space to its location of greatest marginal productivity.

Rural and community development can upgrade local economies where the complex of relationships above has variables and coefficients defining growth opportunity, although the lift in income and welfare of farm families often will come with part-time farming operations and few farmers immediately relinquishing their assets to others. But over broad regions and in the majority of other communities, where it won't so serve, local development will need to take quite a different focus, with emphasis on improved schooling and guidance programs, the attraction of outside public capital for these purposes and the improvement of capital and management supply to farmers who go through the process of farm enlargement as land is relinquished by operators who transfer geographically. In concentrated low-income farming areas, and in those of medium-income levels such as much of the southern Cornbelt, this transformation won't come in 5 years. It will come only in a generation unless more vigorous policy is developed. Local development is a program recognizing the interdependence of sectors in growth, but thus far it has been a timid substitute for the larger investment needed in lifting the utilization of human capacities and in providing constitutionally-specified equality of opportunity for a significant portion of the farm nation's people.

Alternative Models in Communities

The emphasis in some communities can rightly be on local industrial development. The economic relationships—in supply of labor and capital, in demand for industrial products and services and in the production function for the latter—are favorable for utilizing much of the locality's excess farm labor. Development and the supplying of information, without transfer subsidies, can largely do the job. In others, however, this set of conditions is not favorable and concentration might better be on relative economic outlook of the community, vocational counseling and guidance, occupational training and transfer payments and services to send local labor out into other communities where development is favored.

We can use an overly simplified "one period" example to illustrate different outcomes depending on particular local circumstances.²⁴ (More

²⁴ The example excludes technical change on farms, lagged responses, resource supply response differing among demand sectors, the multiplier effect as industrialization boosts demands for products in local service industries, inter-period effects in growth and capital, and the simultaneous effects or interaction in supply and demand relationships of different sectors.

detailed algebra or geometry could encompass other community environments giving rise to still different outcomes.) Figure 12.3, representing developmental opportunities in a community, has three labor supply functions: S_n for that from local nonfarm households, S_f for that from local farm households and S_o , that which can be furnished from households from outside the community. The total labor supply from within the community is curve MS_i , while the aggregate supply from all sources is MS_Σ , for the community. The demand functions for labor are as follows: D_n for local nonfarm industries, D_f for local farms and D_o for industries outside of the community to which labor may migrate. The total labor demand in the community is RD_i . If labor returns on farms

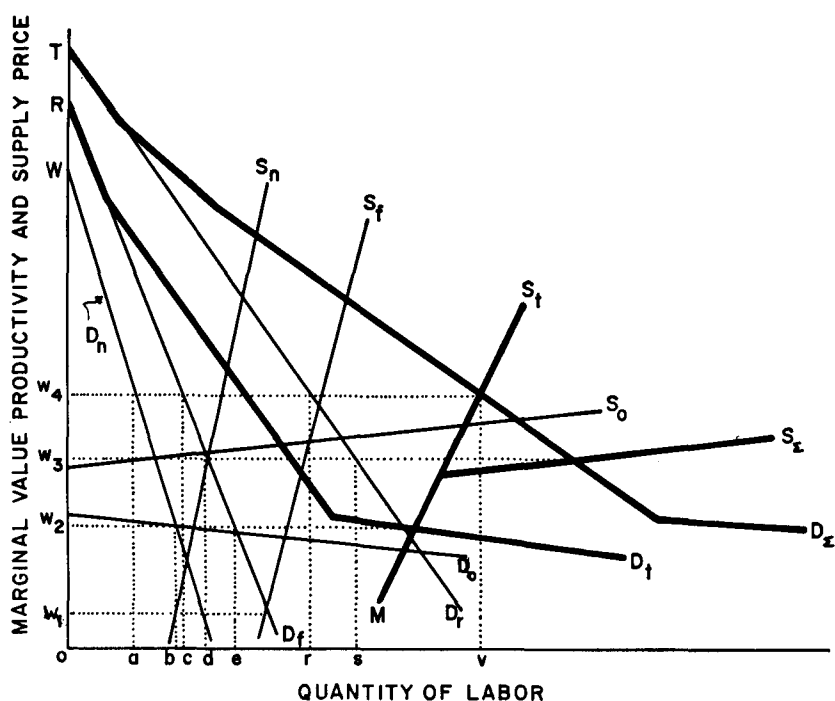


Fig. 12.3. Selected Relationships in Community Development.

were determined solely by supply of and demand for labor therein, wage return to farm labor would be ow_1 . However, with full mobility between local farm and nonfarm sectors (the actual situation falling between these extremes), the equilibrium wage rate is ow_2 with ob of labor used in local nonfarm industry, oe used on farms while ob quantity of workers also migrate during the period.

Now it is hoped that a new industry or production sector with marginal

value productivity or demand of D_r can be added to the community. If so, the total demand for labor now becomes TD_2 . If the community could close itself off from other communities in labor supply, a hope of local workers is represented by supply function MS_i , but not a hope of merchants dealing in consumer necessities. The new equilibrium labor price or wage rate then would jump to ow_4 , with oa employed in traditional local activity, or in new industry and oc on farms. In this case migration drops to zero and labor supplied from within the community realizes the total benefit of increased labor demand. However, if labor can be supplied from outside, as normally would be the case, the total labor supply function is MS_2 and the equilibrium wage rate is ow_3 with od employed on farms and os in new industry, with no migration. (Actually, we would expect the D_n curve to move rightward from higher resource returns in the first case and with greater employment in the second.) The significant change in alleviating farm poverty is that labor return has been lifted from ow_2 to ow_3 and farm employment has declined from oe to od (most low income areas require a greater relative reduction than that appearing on the chart).

This is a fortunate community, faced with internal production function and net external or "outside" demand function for the new product helping to raise productivity and income of labor and "keeping all the young folks at home" (plus generating further demand for consumer goods from traditional local business—a first step in "chain reaction" or joint relationships not easily shown in a graph). But other communities are faced with quite an opposite condition where local production function, "outside" demand function and capital supply function from "outside" do not give rise to the marginal value productivity, D_r , for labor. In this case, the whole set of demand and supply relationships starts moving to the left. With the original supply functions S_n , S_f and S_i and the original demand functions D_n , D_f , D_o and D_i for a "first" period (where wage rate is w_2), this "chain reaction" of decline may develop: First, with migration lowering number of household, total demand falls from D_i to RD_o in a "next" period. Supply of local labor, because of decline of households, may also fall from S_i to S_f total; the resulting wage falling to level less than ow_2 —a type of contraction in supply, demand and return of labor repeated in succeeding periods, with labor income supported only by "outside" demand function D_o . With further reduction in total labor demand to WD_o and total labor supply to S_n , the initial equilibrium labor return, ow_2 , is restored. But income is still at its early depressed level, after having recovered some from even more distressed level, and total labor employment in the community has fallen from initial level of $oa+oe$ to ob . Here the community cannot lift itself by the bootstraps and policy must look "outward," with necessary informational and monetary assistance to aid outmigration and to help keep labor return from falling below the original depressed level of ow_2 .

Whichever focus and direction eventually lifts welfare and opportunity in use of excess human resources of farm areas, it will lessen little the

burden of supply capacity in commercial agriculture. Other policy must be used if the latter goal is to be attained. But as emphasized before, in large numbers of families and in great quantity of human resources represented for contribution to national society, solution of the low-income farm problem would appear to balance in urgency of solution with the commercial farm problem. This is not apparent, however, in magnitude and allocation of public appropriations, in number and subject matter of papers on policy written by agricultural economists, in equations selected for estimation and practice in inverting matrices by econometricians and in subjects brought to the surface for debate by national, state and local farm organizations.