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INCREASING MOBILITY OF LABOR THROUGH TRAINING PROGRAMS

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THE NEED FOR MOBILITY

In a dynamic economy, labor mobility is necessary to capitalize upon economic opportunities. Economic and technical forces change at different rates in different parts of the U. S. economy. In this process opportunities are created for increasing the returns for labor by a transfer of labor between uses.

The demand for labor on farms has fallen as a result of labor-saving innovations on farms and a slow rate of growth of demand for farm products. The pressure on farm product prices has been so great that the average real incomes of farm people from all sources actually declined about 7 percent between 1946-48 and 1956-58.

The low incomes of many farm families stem in large part from the low return received for their labor. Returns to farm labor cannot be increased by improving the productivity of labor unless substantial amounts of farm labor are transferred to non-farm employment or unless farm programs are modified to increase the prices received for farm products. I do not believe that the people of the United States will permit farm product prices to be increased to levels necessary to equalize the returns for comparable labor in farm and nonfarm employment without a continual high rate of migration from farms.

The problem is complicated by the fact that the replacement ratio for farm males in the age group 20-64 is about 168. Hence, approximately 40 percent of the farm males reaching 20 years of age could be spared from the farm labor force without decreasing the farm population.

I am prepared to argue also that many farm people will likely need greatly increased training and skills before they can earn a reasonable income from nonfarm employment. Certainly the development of human capital is equally as important to the nation as any use of the nation's resources.

IMPEDIMENTS TO MOBILITY

The nation gains by a transfer of labor from farm to nonfarm employment only when labor is underemployed on farms. Labor

is underemployed in agriculture when the marginal real return received for labor in agriculture is less than that received for comparable labor in other uses.¹ A meaningful definition of underemployment must give due weight to nonmonetary as well as to monetary considerations. Hence, when labor is underemployed in agriculture, some labor in agriculture is willing to move to other employment at prevailing rates of return for labor in the alternative employment.

The definition of underemployment used here implies that labor is not sufficiently mobile to equalize the real return for one of three reasons: (1) capital is not available to finance the transfer of labor between uses; (2) people in agriculture do not know of opportunities for employment of labor in higher paying uses; or (3) alternative jobs simply are not available at the prevailing wage, i.e., rationing of jobs prohibits labor from transferring freely among industries.²

Lack of Capital

The effective supply of nonfarm labor may well be limited by the amount of capital available for transfer of labor from farm to nonfarm employment. When underemployment stems from lack of capital to finance the transfer of labor, clearly the supply of labor for nonfarm employment is not shifting at a rate sufficiently high to equate real returns for labor services at the margin. When failure of labor to transfer from farms is due to lack of capital, removal of this inefficiency obviously calls for increasing the supply of capital available to finance the transfer. This action would increase the supply of labor available for nonfarm employment until underemployment was removed.

However, this particular impediment to labor mobility does not appear to be of sufficient importance to explain the differential in returns for labor services in farm and nonfarm employment. Recent studies have illustrated that the costs involved in transferring labor from farm to nonfarm residences even for long distances in the United States are rather insignificant.³ Furthermore, the rate of migration from low-income areas is about 20 percent greater than the rate of migration from U. S. agriculture

¹C. E. Bishop, "Underemployment of Labor in Agriculture," *Journal of Farm Economics*, May 1954, pp. 258-72. This definition may be taken to refer to present circumstances or to relate to the productive potential of labor.

²These impediments are intended to include adjustments within agriculture as well as adjustments between agriculture and nonagricultural industries.

³J. G. Maddox, "The Private and Social Costs of Migration of People out of Agriculture," *American Economic Review*, Proceedings Issue, May 1960, pp. 392-402.

as a whole. While we would expect the rate of migration to be greatest from low-income areas, the high rate of migration from low-income areas causes us to question the importance of lack of capital as an impediment to labor mobility. It raises serious questions about proposals to grant direct subsidies to people to transfer from farm to nonfarm residence.

Lack of Information

A second type of underemployment may result from lack of information by farm people of the availability of nonfarm jobs. In this case nonfarm employers are likely to view underemployment as resulting from failure of the supply of labor for nonfarm employment to increase in line with increases in demand. Underemployed laborers, on the other hand, are likely to view the problem as one of failure of demand for nonfarm labor to increase at a rate sufficient to provide employment for all persons willing to transfer to nonfarm employment at prevailing wages. In either event the appropriate policy is to provide the relevant information through the employment services or other agencies. Such action in effect shifts the demand curve for labor to the right; that is, it increases the number of people who transfer from farm to nonfarm employment without altering their responsiveness to differences in returns for labor services.

Although lack of knowledge of job opportunities undoubtedly was an important impediment to migration at an earlier time, I suspect that its importance has decreased over time. Large numbers of people do migrate, and patterns of migration are fairly well established. Those who migrate can reasonably be expected to communicate fairly accurate information with respect to conditions in the communities to which they migrate. Furthermore, of the 69 million persons who migrated from farms during the last four decades over 41 million, about 60 percent, returned to agriculture. Admittedly, these people may have given biased views of conditions in nonfarm employment. But they also must have communicated much information that was accurate.

As the farm population continues to decline relative to the nonfarm population, the information that farm people have with respect to living conditions and earning opportunities in urban areas is likely to become more accurate. Therefore, lack of knowledge of economic and social conditions in nonfarm areas is likely to become less of an impediment to migration of farm people.

Lack of Opportunity

A third type of underemployment exists when more labor is

willing to transfer to nonfarm jobs at prevailing rates of return than jobs are available.⁴ In this case, job rationing limits migration. The supply of labor to nonfarm firms is essentially infinitely elastic in the relevant range. Labor stands ready and willing to transfer from farm to nonfarm employment at prevailing farm and nonfarm relative rates of return for labor. Under these conditions the actual rate of migration is determined by shifts in the demand for labor in nonfarm employment. The policy problem here definitely is one of increasing the nonfarm demand for labor rather than of increasing the supply of labor available for nonfarm jobs.

This last conception of the underemployment problem is consistent with the pattern of transfer of labor from farms evident in the United States. In fact, the pattern of transfer of labor from agriculture suggests that the United States economy has been characterized by underemployment of labor in agriculture for at least thirty years except possibly during war and for a brief period immediately following World War II when essentially full employment prevailed in the economy and when special subsidies were paid veterans to return to farming. The very rapid rate at which farm people have been shifting to nonfarm occupations is a striking and uncontestable manifestation of underemployment in agriculture and of less than full employment in the economy. We observe that plants locating in areas which are usually considered to be characterized by underemployment of labor normally experience several well-qualified applicants for each job opening. Furthermore, migration from farms appears to be affected little, if any, by changes in the relative prices of farm and nonfarm products or in the relative earnings of farm and nonfarm workers. Farm people transfer to nonfarm employment in spite of increases in farm product prices and in spite of increases in the earnings of farmers relative to the earnings of nonfarmers. Obviously other forces must be determining the rate of migration. Demand is not expanding at a sufficient rate to employ all persons who are willing to transfer to nonfarm employment at prevailing returns for labor. I believe this to be the principal explanation for current underemployment of labor in agriculture.

This third kind of underemployment that I have discussed poses the most difficult policy problems. Appropriate policies for solving this type of underemployment involve altering the conditions of

⁴W. E. Hendrix, "Income Improvement Prospects in Low-Income Areas," *Journal of Farm Economics*, Proceedings Issue, December 1959, p. 1070. See also C. E. Bishop, "The Mobility of Farm Labor," *Policy for Commercial Agriculture*, Hearings before the Joint Economic Committee, Washington, D. C., 1957, pp. 437-47.

demand for nonfarm labor by shifting the demand function to the right, by making the demand more elastic, by making the demand side more competitive and other measures to remove job rationing.

Also, economic underemployment may possibly be abolished by reducing the wages of nonfarm labor to the point that the differential in returns for labor in the farm and the nonfarm sectors is removed. I doubt, however, that this policy will or should be seriously considered. Forces other than wage patterns contribute to underemployment. The U. S. economy is a highly dynamic economy with new technology being introduced at a very rapid rate. This new technology permeates the nonfarm sectors of the economy as well as the farm sectors of the economy. The new technology is largely labor saving both in agriculture and in non-agricultural industries. Faced with organized labor and relatively high and rigid wage rates, nonfarm firms concentrate upon labor-saving inventions and innovations and upon plant relocation as means of decreasing costs rather than upon recruitment of labor from areas characterized by underemployment and upon wage reductions.⁵ Frequent changes in technology, therefore, free labor from both farm and nonfarm industries. Since growth in agricultural markets is limited by the low price and income elasticities of demand, growth in aggregate levels of employment is determined in large part by the rate of growth in the nonfarm sectors of the economy. This rate of growth has not been sufficient to absorb the labor released from agriculture. Hence, labor that is willing to transfer to nonfarm employment at current relative rates of remuneration for labor is dammed up in agriculture.

Policy Implications

Given wage and employment conditions facing entrepreneurs in the nonfarm labor market, underemployment of labor in agriculture stems from the low rate of growth of the nonfarm sector of the economy in relation to the ability of agriculture to free labor. Major policy variables, therefore, for removal of this type of underemployment include: (1) increasing ease of entry of labor into the nonfarm labor market, thereby moving along the demand curve for nonfarm labor and decreasing nonfarm wages until underemployment no longer exists; (2) reducing the rate of adoption of labor saving innovations in the production of farm and nonfarm products, thereby reducing the amount of labor freed from agriculture and increasing the amount of labor em-

⁵The price of labor in the U. S. has been increasing relative to the price of other factors. These conditions create an incentive to focus research upon labor-saving inventions. See J. R. Hicks, *Theory of Wages*, Macmillan Company, 1932, Chapter 6.

ployed per unit of product in nonfarm industries; (3) encouraging a rate of economic growth that is consistent with very rapid increases in the demand for nonfarm labor until demand and supply are equated at prevailing nonfarm wage rates; or (4) using other devices for restricting production and altering prices of farm products.

I doubt that the first policy will receive serious consideration. As a nation we are not likely to pursue a policy of deliberately reducing wages. The second policy will not be effective in increasing the returns for labor in the near future. Technology that is already known is capable of further increasing farm output. Moreover, the nation places a premium on increasing labor productivity in all parts of the economy. Neither is the third policy likely to be very effective in increasing the return for labor used in farming during the next few years. The extent of the underemployment is so large and much of the labor on farms has such limited occupational mobility without additional training that general economic development alone is not likely to bring about equality of returns for labor in farm and nonfarm employment in the near future. In short, I see no easy solution to the problem of underemployment of labor in agriculture. If farm families are to receive a return for their labor during the next few years that is comparable to the return received for nonfarm labor, this must be accomplished for major segments of agriculture through programs specifically designed to alter the terms of trade faced by farmers in the market or through direct income transfers to farmers.

As has already been emphasized at this conference, no one program is likely to solve the complex adjustment problems faced by farmers in the coming decade. This, however, should be no cause for dismay. If the complexity of the problems demands more than one program, we should busy ourselves trying to analyze the effectiveness of alternative programs for the different problem situations encountered. Furthermore, let us not concentrate upon short-run solutions to the total exclusion of long-run solutions.

In the long run labor qualities can be altered. Herein lies some real encouragement for the solution of the problem of underemployment of labor on farms.

DEMAND GROWING FASTER FOR TRAINED LABOR

The rate of growth in the demand for labor differs with the skills and training of the labor force. The U. S. Department of Labor has estimated that no more unskilled workers will be needed in

1970 than we have at the present time in our economy.⁶ It has also estimated that a very small increase in semiskilled laborers will be necessary to fill expected job openings. On the other hand, a substantial increase in the demand for skilled workers is likely.

Since the demand for all grades of labor does not increase uniformly, the extent of underemployment varies according to the skill of the labor force. Hence, the supply of unskilled labor may be perfectly elastic at prevailing wage rates and demand may be so weak that underemployment exists; yet, the demand for skilled workers may be so great that demand tends to outrun supply and the rate of transfer may be determined by supply rather than demand. The rate of migration is highest among the most educated adults. It is lowest among rural youth who have completed only eight grades of formal schooling.⁷ Inasmuch as underemployment tends to be concentrated in the unskilled and semiskilled sectors of the labor force, one method of reducing the underemployment is to convert the unskilled and semiskilled workers into skilled workers. Public policies and programs may speed up the solution of the problems of underemployment and low incomes over the long pull by increasing labor mobility through improvement in educational facilities and educational instruction for rural people.

Experience in North Carolina suggests that youths in low-income areas are eager to acquire skills for nonfarm employment. The 1957 General Assembly authorized funds to expand and strengthen trade and industrial education in the state to the end that the people who were being denied a part in the economic growth of the nation because of lack of labor skills should be trained for jobs for which demand is increasing. The establishment of 18 industrial education centers was authorized. These centers were to serve the geographic areas surrounding them, not just the counties in which they were located. The buildings were to be constructed from local funds; equipment was to be provided by the state and local firms; and the state was to bear part of the operational cost and all of the instructional and staff costs.

Training is offered in these centers for: (1) apprentice carpenters, plumbers, and steam fitters; (2) such skilled trades as machinist, sheet metal mechanic, industrial drafting, industrial electrician, and printing; (3) such technical jobs as electronics technician, industrial technician, chemical technician, instrumentation, and tool

⁶*Man Power Challenge of the 1960's*, U. S. Department of Labor, Washington, D. C.

⁷C. H. Hamilton, "Educational Selectivity of Migration from Rural to Urban Communities," Paper presented at annual meeting of American Sociological Society, New York, 1960.

design; (4) operatives of special machinery and equipment; and (5) supervisory development and management responsibilities. Emphasis is placed not only upon know how but also upon know why. Students enrolled in the course in electrical technology, for example, receive training in mathematics, physics, technical writing, and economics in addition to electronics, currents, circuits, etc. Most programs of study are for two years. The curricula are under the supervision of the State Board of Education. The courses to be offered each year are determined by an occupational survey of prospective job openings in the area surrounding the educational center. Each applicant is given a battery of tests to determine whether he should be admitted for training and the occupational skills for which he is best suited. In addition to pre-employment training, training opportunity is provided for upgrading of persons already employed.

The demand for training has been so great that these schools operate from 7:00 a.m. to 10:30 p.m. Even so, enrollment has exceeded the capacity of the centers, and many courses now are offered in vestibules of firms cooperating in the program. More than 28,000 persons are now enrolled in the training program. One-sixth of these are high school students.

The enthusiasm with which the industrial education centers have been accepted in North Carolina is ample evidence that people who are underemployed will respond to economic opportunity. The high rate of outmigration of farm people and the large number of farm families who engage in part-time farming further attest to the mobility of farm people. The behavioral response of farm people to economic incentives is especially significant with respect to the development of public policies and programs. In our efforts to solve farm problems within agriculture, we must not overlook the importance to farm people of a high rate of national economic growth and of additional investment in rural youth in order to help them enjoy more fully the benefits of this growth.