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## EMERGING AGRICULTURAL PROBLEMS FOR THE DECADE AHEAD

James G. Maddox\*

Perhaps the first important question is, "Will the next few years be significantly different from those of the past decade"? Assuming that the world is not again engulfed in a war of major magnitude, it is probably safe to conclude that many of the agricultural problems of the 1960's will continue to be of importance well into the 1970's. The problems associated with a highly competitive industry in which output per man-hour of labor is increasing rapidly while the demand for its output is both inelastic and expanding slowly are not likely to disappear at an early date.

First let us focus attention on problem areas which may not be "new" in any basic sense of that word, but which are likely to be of increasing importance in the years immediately ahead. The factors and forces which shape the delineation and evaluation of problems that are of greatest concern to legislators, administrators, and others who are primarily engaged in formulating and administering farm policies are not always the same as those which are of primary interest to economists engaged in research, extension, and teaching. Nevertheless, agricultural economics is an applied field of study, and one important type of activity in which the knowledge generated and disseminated by agricultural economists can be particularly significant is in policy-making. This discussion will center around problem areas that have public policy implications for all rural people, as contrasted, for example, with those which pertain to profit maximization by individual farmers and business firms closely related to agriculture.

For most of the past half-century, the predominant impact of the research, teaching, and extension activities of the agricultural establishment have been aimed at raising the efficiency of individual farms and marketing firms. The largest action programs of the Federal government have been focused on raising incomes of farmers by maintaining reasonably stable

prices of farm products at prices above competitive levels. Consumers have been the main beneficiaries of the research and extension activities in two forms: (1) lower real costs of high-quality food, and (2) manpower released from farming for employment in more productive activities. But those farmers with high management skills, easy access to capital, in close touch with extension workers, and fully aware of the rules and regulations of government programs have also benefited greatly. In 1968, one-third of all farmers in the United States (the operators of about one million of the largest and most efficiently managed units) produced slightly over 85 percent of the total value of farm products. They received the lion's share of direct government payments to farmers, of income gains from acreage diversion and price support programs, and from many agricultural research and extension activities. In contrast, most of the remaining two million farmers produced less than 15 percent of the total value of agricultural products, and received relatively few benefits from Federal government programs or from the research and educational activities of the colleges of agriculture.

There is little reason to believe that the operators of large, highly capitalized, efficient farms will not continue to be aided by the established agricultural agencies. The real and important problems of the future, however, will not revolve around the need to use large amounts of public funds, or the time and energy of Land-Grant College personnel, to serve the interests of this group of farmers and the business firms that are closely related to their activities.

Our society is rapidly reaching a stage of development in which farming as an industry is becoming an extremely small part of our total economy, the unit that is commonly characterized as a farm is increasingly difficult to define, the place of residence of large numbers of families is not closely related to their principal source of income (approximately

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two-thirds of all farmers received more income from off-farm sources than as net income from farming in 1968), and small community organizations and local units of government established to serve rural communities are obsolete and inefficient. These are the characteristics of a rapidly urbanizing society. Agricultural economists will find their most challenging opportunities with the problems of this new type of society.

First priority for both action programs and educational activities might well be given to programs aimed at enhancing the education, skills and job opportunities to those rural people who have few opportunities in farming or in agriculturally related service industries. Programs to serve the needs of the following groups are particularly important:

1. The operators of medium-sized, undercapitalized farms, many of whom are part-time farmers. A high proportion of the younger, better educated farmers in this group will have greater opportunities in non-farm industries than in farming during the next few years.
2. Maturing farm boys and girls, many of whom will find few opportunities to become operators of successful commercial farms.
3. Hired farm laborers, of which there are three principal groups - - migratory seasonal workers, year-round hired men on commercial farms, and casual, part-time workers.
4. Businessmen and other people in those small towns and villages in which economic opportunities are disappearing as a result of the decreasing number of farms and declining farm employment.
5. The operators of small, inefficient farms, who because of age, physical infirmities, poor education and similar handicaps, have limited prospects of becoming fully self-supporting workers either in farming or nonfarm occupations.

Programs which would serve important needs of most people in these groups, and which, at the same time, would make a contribution to the growth of the economy, should focus primary attention on developing their productive skills and abilities. In short, there is need for human development programs in research, in extension, and in government action programs.

The basic foundation on which long-term human development programs for rural people must be built is a greatly improved system of primary and secondary education for rural children. Farm boys and girls in practically all areas of the country have long been short-changed, relative to urban children, in the quality of schooling which they receive. The problem is

especially severe in low-income farming areas with a declining population base. There is strong justification for increased Federal and state aid to rural schools in many areas of the country, as well as for curriculum revisions, merging of rural and urban school districts and numerous other changes to improve the quality of teaching and counseling in primary and secondary schools.

In addition, there is need for an improved system of area vocational schools and technical institutes to provide specialized occupational training and counseling for maturing farm youths and young farmers to qualify them for nonfarm jobs. Job-oriented training and retraining programs for large numbers of rural residents who will be earning most of their incomes from nonfarm sources are among the surest ways of increasing their earning power and preparing them to become productive and constructive citizens in the society of the future. Such programs are deserving of much greater interest and support by farm people and farm policy-makers than they have received in the past.

Moreover, they offer many challenging problems and opportunities to both research and extension workers. An increasing number of economists have been turning their attention to problems of education. However, there is still much to be learned about the optimum location and size of schools to serve different age groups, the costs and returns to investments in various types of curriculums for different types of students, results of different kinds of instructional methods, alternative sources of financing, and countless other problems associated with the educational establishment. Many of the pertinent problems can be cast in an economic framework and are subject to cost-benefit analyses.

The great majority of our citizens have long placed a high priority on education as an escalator to personal success, and as an important stimulant to the growth and development of the total economy. Moreover, they have expended billions of dollars in support of public education. Yet, they have done relatively little to undergird the educational establishment with research organizations and programs. It is interesting to speculate on the kinds of educational system that we now might have, if a nation-wide network of experiment stations in education and child development had been established at the time that the agricultural experiment stations came into being. That this did not occur lends credence to the view that educational problems will be with us for a good many years in the future, and that economists can make important contributions to their solution.

A second type of approach to the problems of many rural people who have been "left behind" by the rapidly changing structure of the farming industry

is to encourage the growth of nonfarm jobs in rural areas. For several years, thousands of small towns and communities throughout most rural areas of the nation have been engaged in costly and highly competitive efforts to attract most any kind of manufacturing plant to their local areas. Many of these efforts have been encouraged and aided by Federal and state programs of various kinds. No doubt, many of them have made valuable contributions to the growth of employment in numerous localities, and perhaps to increasing the efficiency of the spatial distribution of national employment. However, not all rural areas have equal potentials for the growth of nonfarm industries. There is, therefore, great need for research studies and extension programs to aid in the establishment of sound criteria and standards to guide the disbursement of public funds and various types of subsidies aimed at encouraging the growth of nonfarm jobs in rural areas.

The basic problem of determining the optimum spatial distribution on jobs and population for the nation as a whole may be beyond a fully satisfactory solution in our present state of knowledge: first, because we do not have a social welfare function from which to calculate the welfare of alternative population distributions, and second, because we are sadly lacking in sound information about external costs, as well as external benefits, with respect to the location of a particular establishment in a given locale versus the external costs and benefits of alternative locations. There is obviously great need for research on these problems, and for extension education programs which will aid local people in thinking clearly about the relative costs and benefits, including externalities, of alternative kinds of plants being located within their areas. To encourage research and extension programs of this general type, on the part of Land-Grant Colleges and the U.S. Department of Agriculture, might well be an important aspect of Federal and state action programs which are aimed at raising the rate of growth of nonfarm jobs in rural areas.

Even though important progress may be made during the next decade in raising the educational and skill levels of rural people and in providing an increasing number of nonfarm jobs in rural areas, there are substantial numbers of people living on farms, in rural nonfarm residences, and in small towns and villages, who cannot be expected to become fully self-supporting by their own efforts in our highly competitive, urbanizing society. They are too old, too poorly educated, or too handicapped physically or mentally to earn an adequate level of living.

There is both the need for, and the likely prospect of, enlarged and improved social welfare services in practically all rural areas of the country to aid low-income people. Because of personal variations in assets,

incomes, and earning abilities of the individuals and families who cannot be fully self-supporting, different types of income supplements are needed. For those people who are able to work in private employment, and have full-time or part-time jobs, but whose earnings are too low to support themselves and their dependents at an adequate level of living, modest income supplements through the food stamp program may be sufficient. In other cases, income supplements might well be some combination of employment at subsidized wages on government-sponsored work projects, food stamps, rent subsidies, health care, and direct cash payments.

In view of the many different forms which income supplement programs can take, in coping with the problems of the poor, and since there is as yet no general agreement with respect to what the dominant or most common form will be, there is an unusually good opportunity for economists and other social scientists to make important contributions to policy-making by analyzing the costs and benefits of alternative programs, their effects on work incentives and mobility, and their probable significance to commercial farms and agribusiness firms. Likewise, there are similar opportunities for both research and extension workers to aid in designing and improving eligibility criteria and standards to guide the administration of various programs aimed at serving the poor.

If individual economists and their employing agencies, such as Land-Grant Colleges and the U.S. Department of Agriculture, decide to come to grips with the most important problems which are likely to come into sharp focus in the 1970's, it will be necessary to define more clearly than they have yet done, the various clientele groups to which they will give their major allegiance and service. If they choose their clientele groups from among those who derive their incomes mainly from farming and farm-related business activities, they will be providing direct services to a small and dwindling number of farms and agribusiness firms. They will be concerned mainly with problems pertaining to the production, pricing, and merchandising of farm commodities and of purchased farm inputs. On the other hand, if they choose their clientele groups mainly on the basis of place of residence, and decide to be of direct service to virtually all persons who live in rural areas, they will receive the support of a much larger population, they will be concerned with a myriad of challenging problems, and they will probably be making their greatest contribution to the general welfare.

