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1968 ANNUAL MEETING

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DURHAM, NEW HAMPSHIRE

JUNE 17, 18, 19, 1968

THE PAST, PRESENT, AND POTENTIAL CONTRIBUTION  
OF AGRICULTURAL RESOURCES TO THE ECONOMY OF NEW ENGLAND

by

Earl I. Fuller  
Department of Agricultural and Food Economics  
University of Massachusetts

My thesis is that future and yet unclear changes in (1) technology, (2) social institutions, (3) living patterns, and (4) food-population balances will create the future contribution of New England's agricultural resources. Further, we can (and will) affect the potential contribution by what we choose to do as a profession.

This paper is an argument to support the thesis. It presents some propositions first as premises to our work as agricultural economists and then proposes some areas for further development both as research and education programs.

Premises

Agriculture has, does, and can continue to contribute to the social welfare here. Through its structure and social institutions as well as through the graciousness and spaciousness of living patterned from it, through the green space of its crop and livestock production, it contributes positively to the quality and the style of life in New England. To be sure, the valleys and hillsides of our rock-ribbed geography give it a big boost but there is something more.

Then, too, beliefs, values, and moral codes such as what Brewster termed the work ethic, the democratic creed, and the entrepreneur creed, even if in conflict, do give a sense of purpose and meaning. <sup>1/</sup> Agricultural New England has fostered such notions. And such notions are not dead today even if declining in influence here and elsewhere.

Agriculture also contributes to the GNP of New England. Around twenty percent of the GNP is still spent in the food sector. Also, as Deane Lee pointed out at our meeting in Amherst several years ago, in spite of the many changes in resources and structure, the amount of

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<sup>1/</sup> Brewster, John M., "Technological Advance and the Future of the Family Farm", Journal of Farm Economics, The American Farm Economic Association, Vol. XL, December 1958, Number 5, Canadian Journal of Agricultural Economics, Vol. VI, 1958, Number 2.



product forthcoming from agriculture in Massachusetts at least, has been amazingly staple over the last 100 years. 2/

I believe that whatever the contribution to gross product which comes from agriculture in New England, this contribution is in the public's and the consumers' interest. I believe that the effect upon both price and quantity in the market place are more than proportional to the amount of product locally produced in the area.

Agriculture remains as price competitive as any sector of our economy. The resulting price taker position justifies public sector fund transfers to provide research and development resources for this sector as well as legal protection for both producer and consumer. It has been said we may help individual firms in the short run, but in a longer length of run the results are more effective use of agricultural resources and a greater consumer surplus.

I also believe that what we do as agricultural economists, as educators, as public citizens, whether we work in the public sector or in the private, makes a difference. By our decisions and actions of today, we affect the contribution agriculture will make tomorrow. The changes in technology, and in the social institutions, which we invent, analyze, and promote will affect agriculture in New England. It will affect the comparative advantage of this sector with other sectors within the area as well as the comparative advantage of agriculture here with agriculture elsewhere. Tomorrow's agriculture will be (in part) of our making. For instance, what are we going to do about milk pricing and milk marketing institutions in the face of closer and closer substitute food products? What is the economics of soybeans in New England? What is the next best economic and social use for New England green space if dairying is to decline in importance?

What "brand" of economics we promote makes a difference. I for one consider myself an economic activist, as do, I have discovered, many agricultural economists. I believe as George Brandow recently stated that in our increasing complex society, the skills of the agricultural economist through experimentalists approaches and problem solving, can and should responsibly deal with questions of changes in social institutions. 3/ Herein is our comparative advantage as a profession. Herein is our greatest opportunity to make a contribution to the academic, to the economy, to society and in the process to the economic contribution of agriculture generally.

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2/ Lee, Deane, Urban Growth and Agricultural Change, Proceedings NEAEC, University of Massachusetts, Amherst, Massachusetts, 1964, pp. 26-29.

3/ Brandow, G.E., Economics Research Needs for Public Policy in Food and Fiber, paper presented at a seminar toward better economics research on the U. S. food and fiber industry, Lincoln, Neb., May 22-24, 1968.

Whether you agree with this premise or not, you must accept that the results of your work will influence the work around you. Even if you are a totally passive economist, content to only describe and predict how the wheels go around in the economy and no more, this brand of economics also has its effect on the nature and type of change that occurs.

#### The Past Contribution of Agriculture

In the days gone by, the agriculture of New England provided labor and capital for the birth of the American Industrial Revolution. In the process as Deane Lee has pointed out, its agriculture output was amazingly staple in spite of dramatic changes in the capital-labor ratio. <sup>4/</sup> Even as off farm alternatives have increased in number and in economic opportunity, resource adjustments have been made. I suspect that many of the recent adjustments that have been made on farms in New England are comparable to the ones which will be made in the next few years on farms farther west. And by that time, further adjustments will be occurring here. Agricultural economic history studies here should be helpful to the nation as a whole.

The little empirical research I did as background to this paper not only points up the magnitude of these changes but also the number of superior technical efficiency ratios this area evidences as compared to other areas in the nation. I would argue that these technical efficiency ratios indicate a well managed use of resources within the economic climate of New England. Did we "cause" this with our work in the past? Is it something we should be proud of?

#### Current Contributions of Agriculture

It is conceivable that under static assumptions we could derive production function estimates of the current contributions of agricultural resources in New England. But such analysis is rather naive, the world is too dynamic, too much change is occurring. The discovery of new production functions changes resource contributions too much for us to get overly concerned about optimum allocation in the static sense.

I've seen various estimates of the multiplier effect of agriculture. It is not always clear what their basic definition of the sector is but estimates are usually at least two in magnitude.

Others have attempted to analyze data on the basis of the value added by various sub-sectors of the agricultural sector. Ray Goldberg, for instance, says that farming now supplies only about ten percent of the value added in the food sector. Other studies suggest 17 percent.

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<sup>4/</sup> Lee, Deane, op. cit.

But all seem to agree that agriculture is still a substantial sector made up of many components, traditional farming of which is only one component and not necessarily the major one any more.

New Capital is certainly going into New England agriculture. I have found myself involved in several \$50,000 to \$250,000 capital decision situations on farms. The farm credit banks have made a few million dollar package deals. These are being made by hard headed businessmen who anticipate adequate payoffs to justify such investments.

Perhaps comparative advantage concepts are also too static. Agriculture's declining relative position regionally, and as an industry, indicates declining comparative advantage for the sector in New England. But still, the economic vitality, the technical efficiency, and the managerial capacity of some of the adjusting firms in the sector indicate an ability to compete which must be considered.

Employment in this sector is declining, particularly on farms. Still food services continue to increase. I suspect the various sub-sectors are following quite different trends.

#### Some Questions

Do agricultural economists earn their keep working on agricultural problems in New England? From what I've said earlier you've probably gathered that I think they do. Dr. Caldwell, North Carolina Chancellor at Raleigh appears to agree. 5/ Second question; is there a foregone opportunity loss by expending resources in the public sector for agricultural economists doing the kind of work they have been doing as compared to working in other sectors? Some people feel that there is. I am yet to be convinced. Feeding people still requires 20 percent of the resources of this economy. New England eats its share. Lyle Schertz mentioned a world food crisis last year. 6/ Some one in the public sector certainly should be concerned about how these resources expended in attempting to still further improve this large sector cannot be justified.

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- 5// Caldwell, John T., "The Future of Colleges of Agriculture in the Large, General University", address before the Division of Agriculture during the Annual Meeting of the National Association of State Universities and Land-grant Colleges, Nov. 12-15, 1967, Columbus, Ohio.
- 6/ Schertz, Lyle P., "The 40-Year War of the 20th Century", in New England Agricultural Economics Council Proceedings 1967, University of Maine, Orono, Maine, June 26, 27, 28, 1967.

I might go on to say that until a clearer problematic focus can be conceived in resource economics by defining problems in terms of the decisions makers involved, much as we have done in agricultural economics, that it will be extremely difficult for work in this new area to be as productive as that in agricultural economics as traditionally defined. 7/

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7/ From some notes I made in 1963. titled, "The Researcher's Problem of Problems":

A workable definition of a problem is the difference between What is (in the world) and what it out to be. Silas Weeks of New Hampshire suggests that we also ought to ask; "when is a problem a problem?" And, "where is the problem a problem?", also "to whom is a problem a problem?" In resource development, there seems to be two useful categories of problems? These are the problems of private individuals (and firms) that call for a research analysis of the alternative solutions in line with the individual objectives or concepts of what ought to be. There are also public policy problems that require an analysis of the procedures for, and the results from changes in the institutional environment with in which the private firm works. Too many researchers, I fear, either because they do not see the difficulty arising from conflicts between public goals and private goals or for some other reason, attempt to incorporate both aspects of the resource development problem into the same statement of what is and what ought to be in a given situation.

Given man's finite limitations at comprehension, even with the best of the theories and conceptual schemes we have to work with, I doubt, that we are to a point where we can mix public sector and private sector policy problems in a meaningful analysis. Nor do we have research tools capable of handling both aspects of resource development at the same time. Both tools and theory under went a Great deal of scrutiny at this meeting. It was said that about the best we can do at the present time in private policy analysis is to assume that institutional constraints on private action will be as they have been in the past. Conversely, as we do public policy analysis, the best we can do is to assume that firms and individuals will behave in the future as they have in the Past.

As Salter pointed out in his very excellent book on the history and development of land economics, land economists spent too long in defining, re-defining, observing and attempting to understand the problems of land use. Consequently they spent too little time in analyzing the alternative solutions to the problems they discovered. It was as if they were always doing preliminary analysis and never coming to concrete recommendations for policy. Resource development economists may make the same error. They can, and I believe they should, attempt instead to define a specific problem with a specific decision maker or decision maker group in mind, and then analyse alternative solutions to that problem even



Footnote 7 continued.

if the definition of the problem is partial in nature. In other words, it seems advisable to define research problems in a way to assume that behavior in the other sector, whether it is public or private, to be pretty much as it has been.

I now (1968) add, the challenge is to enumerate and measure flows of externalities in benefits and costs between the private and public sectors as part of resource focused economic work.

Still another question, what would happen to agriculture's contribution in New England if public sector research and education resources were withdrawn? Would current trends: reverse, stabilize, increase?

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|---------------------------|--|--|--|
| In Production?            |  |  |  |
| In Employment?            |  |  |  |
| In Firm Size?             |  |  |  |
| In Capital Productivity?  |  |  |  |
| In Labor Productivity?    |  |  |  |
| In Rate of Investment?    |  |  |  |
| In Technical Efficiency?  |  |  |  |
| In Comparative Advantage? |  |  |  |

Can we research and answer such questions? Several of us have estimated the current trends; we should expand such work to predict future one under alternative sets of assumptions.

#### Some Further Areas for Inquiry

The discourse above leads me to make some assertions, the further refinement of which would make a set of hypotheses which I believe could be manageable size research projects. I certainly do not feel that I have the resources or the interest to test many of them seriously. But they do seem rather appropriate starting points for further discussion by New England agricultural economists about the contribution of the sector which has been the focus of our discipline.

The first assertion is; "The agricultural sector multipliers (employment and product) evidence a vitality and economic influence which contributes substantially to consumer welfare (consumer surplus) in New England." An alternation statement somewhat on the same topic might be expressed; "New England agriculture plays a price formation and quality maintenance role in excess of the proportion of the food market of New England which is supplied by locally produced products." I am trying to state here the belief that the nearby market has substantial market power. And that the end benefit of this nearby market under the price competitive structure of agriculture accrues to the consumer. Incidentally, I recall Earl Heady once saying that the consumers of New England should really pay for the experiment station work in Iowa because they are really the major benefactors from that work. If true, shouldn't nearby experiment stations also be a good deal for consumers?

Another assertion might be; "The land grant universities of New England have and can continue to provide research, development, and educational leadership to agriculture. The payoff in New England from these expenditures, as measured in terms of technical efficiency ratio changes per dollar of expenditure had been above the national average." Further inquiry in this area might compare sub-areas within states as well as between states as to their effects. Admittedly, such work would be politically "interesting" but it should prove challenging.

A third assertion might be; "The declining number of farm firms along with the associated growth in firm size will eventually force either (1) a drastic change in the structure of agriculture, or (2) that there will be a critical minimum number of firms in a sub-sector below which supply and marketing channels will be unable to operate so as to gain opportunity returns for resources invested therein and the "critical mass" of technology, community and social climate will not exist for the maintenance of the sub-sector. If either (1) or (2) occur, the New England consumer will suffer, food prices will go up, quality of product will not."

A fourth might be; "In the increasingly complex and urban oriented society, the ecology of the existence beneficial to human welfare calls for open space. Open space in the form of agriculture is complimentary to society's food needs and is one of the least expensive forms in which it may be obtained." A sub-assertion might be; "Society will accept open space easement legislation to attain the indicated ends. The social benefits obtained from open space will exceed the private costs by more than the public to private transfer payments required to maintain agriculture under such conditions." 8/

#### Potential Contributions

This paper argues that the contribution of agriculture resources to the social and economic welfare of New England will be affected by the kinds of work people like us do. If we find working with agriculture to be uninteresting and of little social significance, then our belief is likely to be tomorrow's situation. If on the other hand, we view the maintenance of agriculture in New England as being in the best interest of the people of New England both in and outside the sector, then there are many things we can do to make this be the future. To be

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8/ I must acknowledge the ideas of Sanford S. Farness, "Views of a Planner", paper in Resource Use Issues and the Planning Process, and presented at the Conference of Northeast Regional Committees, Extension Public Policy, Farm Management Extension, Farm Management Research, Resource Economics, Boston, Massachusetts, October 11-13, 1966.

sure changes in technology and other economic forces might over-ride whatever we can do. But if it does, so be it. But I for one do not believe that this will be the case. New Englanders have been too adept for too long making too many different kinds of adjustments to changes in economic forces for me to think that New England will become some kind of wooded wasteland without promise for continuing contributions of resources in the agricultural sector.

I have tried to make my biases clear. I suspect you do not agree with me on some points. I challenge you to respond either in dialogue or in the development of the things we as a profession can do to guide change in the interest of our society and its people.