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PROCEEDINGS OF A SYMPOSIUM

ON

THE FUTURE ROLE OF AGRICULTURAL ECONOMISTS

and the

AAEA IN ECONOMIC EDUCATION

Sponsored by the

Committee on Economic Education

American Agricultural Economics Association

AAEA Organized Symposium Held August 10, 1992

Baltimore, Maryland

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FOREWORD

The AAEA Committee on Economic Education seeks to enhance the understanding of agricultural economics, broadly defined, among the young citizens of America at pre-college levels. In the 1991-1992 academic year, the Committee carried out the charge of AAEA President Bruce Beattie and the AAEA Executive Board with a variety of activities, including an Organized Symposium at the annual AAEA meetings in Baltimore in August of 1992.

Some of the issues addressed at the Symposium included the following:

-- What are the appropriate audiences to target with economic education activities, i.e., K through grade 8, grade 9 through grade 12, and/or 4-H and other non-school-based youth activities?

-- Should individual agricultural economists have a higher profile in economic education work? Should the AAEA have a higher involvement and profile? What are the associated costs and benefits of higher involvement?

In addition to the Symposium, another major thrust of the AAEA Committee on Economic Education has been the creation of a mini-grant program to encourage additional involvement of professional agricultural economists with economic education of our youth. A sub-committee headed by Professor Marc Johnson and including Robert Usry and Leo Polopolus, submitted a grant proposal, "Delivering Agricultural Economic Education to America's Youth", to several potential funding sources. The purpose of this program is to establish a competitive grant contest to support up to three agricultural economists in the development and delivery of pilot economic education programs to youth under the age of 18. A wide variety of audiences could be targeted, such as either 4-H, Council of Economic Education, FFA, Vocational

Agriculture, Ag in the Classroom, or other youth organizations. Based upon some positive response to this proposal, it is anticipated that this program will be inaugurated in 1993.

Copies of this Proceedings issue are available until all supplies are exhausted from Leo Polopolus, Department of Food and Resource Economics, University of Florida, Gainesville, FL 32611.

AAEA Economic Education Committee, 1991-1992

Leo Polopolus, Chair

Bruce Godfrey

Marc Johnson

Robert Usry

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INTRODUCTION

Leo Polopolus, Professor
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This 1992 Symposium, " The Future Role of Agricultural Economists and the AAEA in Economic Education", is designed to provide a forum for a thorough discussion and evaluation of the topic. Special attention has been given to such subject areas as the relative efficiency of youth education versus adult extension education, the comparative advantages of agricultural economists in economic education, urban versus traditional agricultural emphasis, and the delivery mechanisms appropriate for youth oriented materials.

The first presentation by Robert Usry is intended to raise some basic questions regarding the relative efficiency in targeting youth audiences versus adult audiences. How do we optimize the delivery of economic education materials. Adult audiences provide better chances for immediate results from economic education. On the other hand, delivery of economic education to youth audiences may require a longer time horizon for payoff, but the payoff may be more significant.

The second presentation by Bruce Godfrey is designed to focus upon the subject matter. What special skills do agricultural economists have in developing the economics education curriculum? In addition to our traditional role in farm business management and marketing, do we have a comparative advantage with natural resource economics, community and rural development, and international trade and development? Also, how can agricultural economists cooperate with other agricultural science disciplines in developing more meaningful curricula that are appealing to students inside, as well as outside, agricultural programs?

The third presentation by Walter Armbruster relies upon the Farm Foundation's prior experience and involvement with economic and policy education for youth. Some of the issues raised in this paper include the following: what is the role of public policy education for America's youth; how does one improve the level of cooperation among the leading agricultural youth organizations (4-H, FFA, Ag in the Classroom, and AIC) with economics education; and how can the exposure of agricultural economics and related subject areas be expanded with the urban youth of America?

Finally, this forum seeks to explore/debate the incentives needed by professional agricultural economists to modify their extension, research, and/or teaching programs to include economics education for youth. Is the reward structure of tenure and promotion fully or equitably applied in academia for individuals committed to economics education programs? Would a mini-grant program of $5,000 or more provide sufficient incentives to lure agricultural economists into economics education programs for youth?

Hopefully, the content of this Symposium will assist the profession and the Association in charting future directions regarding economic education programs for America's youth.

TARGETING ECONOMIC EDUCATION AUDIENCES

Robert H. Usry
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As the American Agricultural Economics Association (AAEA) and the agricultural economics profession assess their involvement with economic education, targeting adult versus youth audiences is one area to examine. For the most part, agricultural economists target adult audiences with traditional agricultural economics subjects including management, marketing, finance, policy, trade, and price analysis. Agricultural economists define the adult audience very specifically within the agricultural production sector which is experiencing fewer and fewer participants. Focusing a larger portion of agricultural economists time on youth audiences can provide a broader cross-section of the population with a basic economic and agricultural literacy. Can we wait for the knowledge and decision skill payoff from targeting youth audiences? Or, do policy makers, administrators, institutions, and organizations demand that we target adult audiences in hopes of more immediate payoffs in the form of adult making wise decisions about microeconomic and macroeconomic questions? Which has the higher payoff... investing in youth education where presumably per unit payoffs are greater when they are eventually realized or investing in adult education with smaller but more immediate payoffs?

Economic and Agricultural Literacy

To analyze the audience targeting issue, it is important to briefly define economic and agricultural literacy. Economic literacy seeks to improve the audience's understanding of decisions about the allocation of scarce resource in satisfying human wants. The Joint Council

on Economic Education recently named the National Council on Economic Education (NCEE) states--- "people need to understand enough economics to make reasoned judgements about economic questions." The result is people who are more effective decision makers and more responsible citizens. Personal, family, business, and community decisions as well as broader matters of economic policy are included in this ambitious competency goal. The National Council seeks this goal for high school graduates and focuses its economic literacy efforts on the kindergarten through twelfth grade students. The National Council operates under the premise that the more education in economics a teacher has, the greater the improvements in economic literacy achieved by students in the teacher's class. The National Council and its network of university affiliated-Centers for Economic Education focus on teacher training in economics.

For purposes of this discussion, agriculture is broadly defined to include production, distribution, and consumption of food, fiber, and forest products. Agricultural literacy or "an understanding of how agriculture works" has been championed by many people in these industries. Anecdotes about children who believe that milk comes from the grocery store not the cow accompany outcries to rally around agriculture literacy for young people. Advocates emphasize, "these young people must understand the importance of the agriculture industry" and thus imply "save" the industry and strengthen support for public policies favorable to the industry. If the industry requires "saving" then educators had better do a good job with economic and agricultural literacy. My skepticism comes with 17 years as an agricultural economist in the economic education profession and more recently as the father of a nine year old son. My son has seen cows and asked about them and has a basic understanding of milk

production, processing, distribution, and consumption. Although, I am not sure he is ready to explain milk marketing and pricing agreements.

The economic and agricultural literacy questions include where are agricultural examples best incorporated into a person's set of educational experiences (adult versus youth) and what competency levels are optimal (for example, 9 year olds not needing to understand milk marketing and pricing agreements). Agriculture offers many logical, interesting, and relevant examples to compliment a person's economic and agricultural literacy. These examples offer a foundation for AAEA and the agricultural economics profession to examine their role in the economic and agricultural education of the general population.

The Audiences

For the most part, agricultural economists target adults with hopes of a relatively quick payoff when the adults use the knowledge in the operation of their firm, decisions in their community, or support of a public policy. Bite-sized chunks of economic and agricultural literacy, disguised in production-oriented sessions, have been presented to thousands of adults who in theory, and sometimes in practice, benefit from the bites. Agricultural economists are often frustrated when they find that adults who have participated in educational sessions continue making decisions which contradict optimal use of resources. Economic educators ask... to what extent has adult economic literacy among these participants improved?

Some agricultural economists implement economic education experiences for youth audiences. Primarily, these experiences are via Extension 4-H, FFA, USDA-Ag in the Classroom, Farm Bureau, Chicago Board of Trade, and commodity-oriented curricula. These curricula reach a limited percentage of the pre-college youth population. In many cases, they

overlap in reaching the same young people and seek non-economic agendas combined with an economic education thread.

Institutional tradition and ease of contact with farm, rural, production-oriented, 4-H, and/or FFA youth audiences guide many of the economic education efforts involving agricultural economists. With declining numbers of people in the agriculture production sector, fewer and fewer youths are available for these traditional programs. Meanwhile, the non-traditional majority of youths matriculate without the benefit of organized and targeted economic and agricultural literacy.

One goal of many agriculture-related organizations is to develop a cadre of young people interested in and knowledgeable of the food and fiber sector. Organizations hope that these youths will eventually be in employment and leadership positions where they might influence agricultural issues or policies. This scheme works, provided the targeted audience includes a portion of the smartest and brightest youths willing to provide their human capital to the agriculture industry. There is competition for these smartest and brightest youths. Evidence indicates that agriculture has difficulty in attracting these young people to the agriculture curricula in colleges and to careers in the industry. Increasingly, the agricultural industry goes outside the traditional agricultural institutions to recruit the best and brightest persons to their firms and organizations. Even the demand for the person with the agricultural background gives way to the demand for skills and knowledge.

The Payoff

For agricultural economists, the question arises as to whether it is beneficial to expend the same amount of economic education time and energy on youth audiences with a slower,

longer, and potentially larger payoff period or adult audiences with a faster, shorter and smaller payoff period. Also, foregone income and time questions related to adults trying to increase their literacy skills need to be considered. With youths the foregone income (and possibly time) will be lower.

For youth audiences, generally more receptive to increasing knowledge and skills, the economic education payoff comes in the form of decisions over a longer period of time. The chances of the youth internalizing and applying knowledge and skills to hundreds of decisions is much more likely. The results of applying this knowledge and skill occurs over a longer period of time and is difficult to measure.

With adult audiences, they are much more likely to resist economic education efforts and less likely to use knowledge and skills for changes in their behavior. Adult audiences are more likely to have predetermined patterns about how economic decisions should be made. When adults adopt economic knowledge, the payoff is likely to be more immediate than with youths and the adoption is likely to result in faster more measurable results.

Targeting

The agricultural economics profession is recognized for its economic knowledge and analysis. The AAEA/NCEE partnership is an opportunity to explore what really works in the economic and agricultural literacy audience arenas. The audience choices involve traditional and non-traditional adults and youths. Given institutional and administrative expectations for economic education activities, it is unlikely that agricultural economists will choose one audience exclusively. Also, it is unlikely that they will choose to devote a significant amount of time to non-traditional adults from the general population. Based on the points identified in this

presentation, it is more likely for agricultural economists to target a mix of traditional adult audiences (what we have been doing), traditional youth audiences (what some have been doing), and non-traditional youth audiences (what we have not been doing).

Evidence suggests that agricultural economists may wish to redirect at least a portion of their efforts to youth audiences who may be more readily accepting of knowledge and applications inside and outside the industry. For the most part agricultural policies are formed in an arena where very few members of the public understand, or for that matter are aware of, the costs and benefits of the policies. Effective economic education, targeted at youths, provides a public that has a better understanding of policy issues and the associated benefits and costs. Is the agricultural industry ready to answer the questions presented by a more economically and agriculturally literate citizenry? To what extent will economically literate individuals and firms make better decisions regarding the use of resources and policies affecting agriculture?

A Change

Dr. Bruce Beattie, 1991-92 AAEA President, has talked about the "shrinking pond of production agriculture" and the changes needed for the agricultural economics profession to better serve students, their employers, society, and our self interest as a profession. No longer can the agriculture industry depend *only* on the traditional production oriented agriculture support network. Current economic and agricultural literacy efforts by agricultural economists are a part of this network. Targeting non-traditional audiences can play an important role in broadening industry support to include processors, exporters, financial institutions, consumers, and business persons. With youth audiences, the questions still remain...

Can we wait for the payoff? and

Is the payoff greater than targeting adult audiences?

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DO AG ECONOMISTS HAVE ANY COMPARATIVE ADVANTAGE IN ECONOMICS EDUCATION[1]?

E. Bruce Godfrey, Associate Professor
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No summary has been made of the primary activities (e.g., teaching, private business or research) emphasized by the membership of the American Agricultural Economics Association (AAEA). But, a sample of the membership as reflected in the 1991 membership directory suggests that a large percentage (>50%) are involved in research and/or teaching at some university or college. A small portion of the members of AAEA are involved in economics education outside the classroom---this work is primarily associated with adults as part of the cooperative extension service. Thus, a large portion of the membership is involved with economics education to some degree. However, economics education of the general population has never been a major function of AAEA[2]. This differs significantly from the American Economics Association (AEA) where economics education was one of the primary, if not the primary, reason for the formation of AEA. This is reflected in two statements made by Richard D. Ely who was one of the founders of AEA more than 100 years ago (in 1885).

> "The ideal of this new society , as it presented itself to the minds of its projectors, was to seek light, to bear light, to diffuse light---ever the highest aim of all true science." (cited in: Hinshaw and Siegfried)

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[1]The author gratefully recognizes the input of several colleges on the staff at Utah State University who reviewed earlier drafts.

[2]The American Farm Economics Association was formed in 1919 and it was not until 1925 that any articles appeared in the Journal concerning teaching and education. In addition, the number of teaching/education articles that have appeared in the Journal (JFE or AJAE) have been very limited in comparison to the articles that have emphasized research findings.

> "The aim of our association should be the education of the public opinion in regard to economic questions and economic literature. In no other science is there so much quackery and it must be our province to expose it and bring it to merited contempt.
> ....We are resolved to form an American Economic Association to do something towards the development of a system of social ethics." (cited in: Leamer)

This commitment to economics education was also reflected in the

paper written by Leamer which summarized the history of economics education in the AEA.

> "...serious thought must be given to a program which might make it [economics education] a more effective and enduring instrument in behalf of economics in general than have been the writings and discussions of the past. Failing to do so, the economist (scholar and teacher alike) will have failed in his reason for being. For the ultimate function of economics and economists is to help people learn how to live in a free society---and how to maintain and perhaps improve it."

As a result of this strong commitment to economics education the AEA has, with very few exceptions, had a special session on this topic at each annual meeting[3]. This activity has not however, been widespread amongst the membership. Furthermore, this activity is apparently not as popular today as it was in the past.

> "Although the association [AEA] has had a long term commitment to economic education, it is clear that today this interest is located to a greater extent among "specialists" in economic education. Has the pressure to publish, the fragmentation of research interests, and the ever increasing specialization within the profession contributed to the apparent decline in the association's desire to "diffuse light"? Through the associations early history and until as recently as World War II, the teaching of economics was regularly a central topic for discussion and debate *among the leaders* of the association. That is rarely the case today." (Hinshaw and Siegfried, page 379)

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[3]This is the first year, as far as I have been able to determine, that the general topic of economics education has been part of the meetings of AAEA. Teaching symposia and special sessions on teaching have periodically been held but these sessions have focused on teaching in the classroom and not on economic education in general.

Given the above, one can begin to question why this activity has declined, what role might Ag Economists have in the area of economics education and what influence this decline in activity has had on the demand for economists[4]? While answers to all of these questions is beyond the scope of this paper, some insight on the possible role of Ag economists is suggested below.

The comparative advantage of Ag Economists in existing Educational Activities

Before one can determine what role Ag Economists might have in the area of economics education, one needs to determine what activities are happening today.[5] Almost all of the economic education that is being done is "second hand"--i.e., by non economists who work with pre-college students.

Economics classes in high schools

A fairly large portion of the high schools nationally offer classes in economics. While there is considerable variation in the course offerings, most of these classes emphasize two general areas--- consumer economics and the free enterprise system. These two areas could be taught be Ag Economists but it is not clear that members of AAEA have a comparative advantage in either of the areas being emphasized in high schools in America today. In addition, most people who teach economics classes at the high school level rarely have training beyond

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[4]While many factors have an influence on the demand for the services of a particular discipline, one has to conclude given the market signals of today that the demand for economists has declined (it is a "buyers" market and funds available for economics research has declined).

[5]This list is not intended to be exhaustive but only indicative of the most common activities. This list is also restricted to those activities that are primarily associated with those members of society who are too young to attend college (K-12).

principles of economics or perhaps intermediate micro and/or macro (Walstad and Soper). As a result, most of this training is not oriented toward the areas emphasized by most Ag Economists (Ag, Regional, Development and Natural Resources).

Integration of Economics in other curricula

While the teaching of economics is the most common method viewed by economists to increase the level of understanding of economic principles, integration of economic principles in other curricula offers even greater opportunities. These could be incorporated in numerous curricula but it is unlikely because most teachers have limited (or no) training in economics and there has been little (no) reward for economists to prepare materials for teachers that incorporate economic analysis in existing curricula and classes.

The above may change however, if the recommendations contained in a recent report from the National Research Council are implemented. This need is illustrated in the following statements from the National Research Council report:

> "Most Americans know very little about agriculture, its social and economic significance in the United States, and particularly, its links to human health and environmental quality." (page 9)
>
> "All students should receive at least some systematic instruction about agriculture beginning in kindergarten or first grade and continuing through twelfth grade." (page 10)
>
> "Teacher education programs in agriculture should continue to stress applied learning, but should strengthen instruction in science, technology, economics, agribusiness marketing and management, international agriculture and public policy." (page 47)

It takes little imagination to recognize that Ag economists have a comparative advantage in providing training for teachers and materials for instruction in some of these areas. This has

become known as "Ag in the classroom" and represents an area where Ag economists have a distinct comparative advantage. Most of the work that has been done in this area in most states has been done by individuals whose formal education is in Ag Education. Many of these individuals have limited training in economics. This is an area where Ag Economists could contribute and have a comparative advantage.

Youth programs

4-H programs have long had a close association with colleges of agriculture. As a result, on would expect ag economists to have input into these programs. However, a review of the programs that are available nationally suggest that very little is being offered in the general area of economics. Most of the available programs that include an economics component emphasize entrepreneurship and sales which generally do not emphasize the application of economic principles.

One of the required merit badges that must be "passed" by any boy scout who obtains the rank of eagle is personal management. This merit badge emphasizes consumer economics and provides training in the areas of planning, budgeting and record keeping. Instruction in these skills are, however, not unique to ag economists[6].

Vocational Agriculture

While the number of students who take classes in vocational agriculture is limited, this is an area where ag economists not only have a comparative, but perhaps an absolute, advantage.

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[6]Ag economists do have a comparative advantage with respect to some merit badges (e.g., farm and ranch management) but these are earned be a very small portion of those enrolled in scouting and therefore offer very limited opportunities for economics education.

But, it is an area where more could be done. For example, the Ag Sales and Farm Business Management contests are heavily oriented towards economics. Unfortunately, most individuals who teach vocational agriculture have limited training in economics and commonly view economics as being difficult, "too theory oriented" and not applicable to every day problems. These opinions are often formed from classes taken from ag economists that were taught primarily for majors[7]. Vocational agriculture represents an area where ag economists have a greater comparative advantage in affecting economic literacy but, this advantage may not be captured[8].

Readers should recognize that all of the above areas represent areas of curricula where economics have little direct interaction with students. As a result, it is imperative that strong working relationships be developed with educators in other disciplines (e.g., Ag Education, Biology, Social Studies) to improve their level of economic literacy because this is the only way economists will be able to effectively reach large numbers of students in these areas.

The comparative advantage of Ag Economists by area of expertise

Ag economists typically receive training in both micro and to a more limited degree in macro economics. As a result, they do not generally have either an absolute or comparative

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[7]One can teach a class as if it was the "last" class a student would have in economics rather than one of a series. This perspective alone has a profound effect on what topics are covered and how they are presented.

[8]Numerous reasons which are beyond the scope of this paper could be given. The most important reasons however, are likely associated with competition for students and FTE's, the lack of rewards for cooperative teaching efforts and use of quantitative approaches (primarily math) by economists when many ag education majors chose this option because it does not emphasize the use of quantitative skills.

disadvantage to most economists in most of the subdisciplines of economics. They are at a comparative disadvantage in some areas (e.g., history of economic thought, economic history) but they may also have a comparative (not absolute) advantage in some areas.

As the name of the association implies, ag economists are supposedly trained to have a comparative advantage in the economic aspects of agriculture[9]. However, one could question this to some degree. For example, some students could graduate in Ag Econ or Agribusiness at some schools with little (if any) background or training in agriculture per se. However, those who work on problems associated with agriculture (production as well as marketing) soon gain knowledge of the important relationships. This expertise also becomes evident in other areas (e.g., natural resources, regional/rural economic problems[10]). This suggests that ag economists may have a comparative advantage in economics education in those applied areas where they are actively engaged and not as a result of their academic training in economics. This application orientation has been one of the strengths of Ag Econ for some time and has also lead some members of the profession to be active in policy analysis and formulation[11]. This represents one of the applied areas of economics where Ag economists may not only have a comparative

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[9]A review of most principles of economics texts indicates that most have a chapter on the economics of agriculture. However, the coverage of these issues is generally little more than the concepts needed to show the impact of subsidies associated with price support programs. This suggests that some education of general economists concerning the broader issues (e.g., who gains and who bears the cost from technological advances) associated with agriculture may be needed.

[10]See the areas of comparative advantage outlined by James Houck in his 1992 presidential address to AAEA.

[11]The Association's decision to publish "Choices" represents one decision that illustrates the "felt belief" that members of the profession have expertise in policy analysis---particularly in the area of agriculture. However, this venture has not, to date, met a market test and it is likely that it is primarily being used by adults.

advantage but they may also assist many general economists who are not involved in policy analysis on a regular basis.

If the areas outlined in the Hansen report (see the article by Fels and Table 1 below) are valid today, ag economists have a very limited role in economics education at the pre-college level because most of the "important" areas of economic literacy are not in areas where ag economists have a comparative advantage. Furthermore, their role will likely be limited to providing materials for other teachers to use as part of a broader curriculum (e.g., Ag in the Classroom, Vocational Agriculture, Environmental Economics). This however, presents a challenge that will likely not be met under the current reward system that is faced by most ag economists for several reasons. First, those who are employed in academia currently receive few (if any) rewards for the preparation of writings that are not published in a refereed journal[12]. Secondly, a very limited set of economists will be paid by private firms to prepare materials (e.g., Chicago Board of Trade) and these materials will likely have a limited focus (e.g., use of futures markets). Third, most extension programs still focus on production oriented or rural development problems. In addition, materials prepared for extension audiences are primarily designed for use by specialists in working with adults. Thus, one has to conclude that the reward systems[13] of today will likely result in very limited activity by ag economists in the area of economics education for pre-college students even if they have a comparative advantage.

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[12]The likelihood of educational materials for non economists being published in any of the econ journals is remote at best.

[13]Several reasons may be given for why the system does not reward teaching. One of the most important stems from the fact that measures of output are lacking (Godfrey). As a result, it is impossible to measure the effectiveness of an input (e.g., economic materials developed for teachers) when the output (changes in economic literacy) is not measured.

While ag economists may not have a comparative advantage in the area of economics education for pre-college students, they may have a comparative advantage for adults. This advantage is probably due to the experience gained in conducting extension programs and not in subject matter. This suggests that while the "payoff" for economics education may be higher in the long run if conducted for pre-college students, ag economists may have a comparative advantage for adults. Furthermore, it is likely that improvements in education may have a higher return for adults in the short run because they are the individuals who have the resources needed to affect decisions today. This suggests that Ag economists have a role in the economics education of adults that will allow them to use their expertise but it is also likely that the "payoffs" are fairly high, especially if a relatively high discount rate is used to evaluate the benefits of these types of activities.

Table 1. Concepts or clusters taught in high school economics classes.

Concept of cluster taught

1. Scarcity
2. Opportunity costs and tradeoffs
3. Productivity
4. Economic Systems
5. Economic institutions and incentives
6. Exchange/Money/Interdependency
7. Markets and Prices
8. Supply and Demand
9. Competition and Structure
10. Income Distribution
11. Market failures
12. Role of Governments
13. Gross National Product
14. Aggregate Supply
15. Aggregate Demand
16. Unemployment
17. Inflation/Deflation
18. Monetary Policy
19. Comparative Advantage/Trade
20. Balance of Payments/Exchange Rates
21. Economic Growth

From: Walstad and Soper

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PUBLIC POLICY AND ECONOMICS EDUCATION FOR AMERICA'S YOUTH

Walter J. Armbruster, Executive Director
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Barrows has defined public policy education as focusing on public issues applying university-based knowledge and educating citizens for better informed decisions. Why should we, as agricultural economists, be concerned about linking public policy education with economics education for youth?

Youth, tomorrow's citizens, are being taught various perspectives on public policy issues. Recycling is good, use of chemicals is bad, and timber harvesting should cease, are examples of statements readily found in materials used to educate kindergarten through 12th grade students.

The Role of Public Policy Education

An informed citizenry will become more meaningfully involved in public policy issue discussion and ultimate decisions having economic impact on their lives and communities.

Public issues involve conflict or disagreement, are visible and perhaps newsworthy at the national, state or local levels. They thus provide an opportunity for educating youth about economics while evaluating policy alternatives.

Many of today's public policy issues involve subject matter that falls clearly within the purview of agricultural economists. Environmental, food safety and other consumer concerns, and interrelationships between macro-economic policies and agricultural and rural economic prosperity are examples.

Agricultural economists have a knowledge base relevant to the discussion of these topics. Public policy education, focusing on the economic aspects of public issues, provides agricultural

economists employed in publicly-supported institutions to demonstrate the relevance of their profession to citizens' concerns.

Snell and Infanger (p. 1362), after surveying extension specialists and agricultural economics department chairmen in thirteen southern states, concluded that "Macro-economic policies will likely have a major impact on agriculture and rural communities during the 1990s. Thus, extension's educational responsibility for macro policy education is clear: provide farmers, agribusinesses, and communities with an improved awareness and understanding of the impacts of macropolicies and policy making. The net result should be improved decision making and more effective participation in the policy process." By extending their argument, a similar rationale emerges for the involvement of agricultural economists in educating youth on the variety of public policy issues involving topics within our purview.

Reaching Youth with Public Policy Education

Assuming a commitment to conducting public policy education for youth, certain vehicles or organizations exist that could facilitate such education.

The Joint Council on Economic Education Network including the national office, 50 State Councils on Economic Education and the 271 Centers for Economic Education offer an opportunity to reach urban youth audiences (Reda-Wilson, p. 1372). These organizations provide a potential vehicle for application of practical agricultural economic knowledge to public policy issues.

Agriculture in the Classroom is a nationwide program designed to provide students and teachers with resource materials focusing on agriculture. Many of the subjects treated have

economic aspects or lend themselves to significant economic components, although most of the materials I have reviewed lack significant economic content.

4-H programs reach large numbers of youth in rural and urban settings, but the projects or topics addressed have a strong physical science, rather than social science or economic, content. They are generally couched in a proponent or "how to" approach rather than the public policy education framework which identifies issues, specifies alternatives, and analyzes the consequences of each in an economic reasoning framework. Many of the topics treated in 4-H programs have the potential for economic content. Alternatively, the 4-H network may provide an opportunity for focused economic education on current public policy issues through a properly targeted program. The challenge is to design economic content into curriculum for the various age levels within the 4-H programs, fitting economic concepts into topics of interest to youth.

The FFA reaches a large number of rural youth. Some continue on to college, but many will return to farming or agricultural jobs with little understanding of economics or public policy issues. Certainly those going into farming within one or a few years need a good understanding of the economic implications of various policies, both agricultural specific and those impacting agriculture, if they are to maintain economically viable farm operations. Those going into agricultural industries may well be working in situations involving potential public policy issues including environmental and consumer issues.

National scouts (girls and boys) reach large numbers of youth. These programs include elements related to agriculture and economics, but they generally lack public policy education content and an economic framework.

Cultivating Relationships with Delivery Organizations

To access the potential delivery organizations, a good deal of effort may be required.

At the national level, the American Agricultural Economics Association's (AAEA) Economic Education Committee could take the lead in working with the Joint Council on Economic Education, Agriculture in the Classroom, 4-H, FFA and scout organizations to create a receptive environment for public policy education incorporating economic analysis. National level organizations can be instrumental or even crucial in generating receptivity for state level adoption of public policy education programs. All these organizations operate through state and local levels, with coordinating and policy direction coming from state and federal levels.

State level councils or education curriculum committees have a good deal of control over program content for the schools and organizations. Agricultural economics departments could make contact with such state councils and curriculum committees offering the resources of individuals from the department, exploring common subject matter interests creating opportunities for public policy education incorporating economic analysis.

Individual agricultural economists can establish linkages with one interested contact at the state level who is capable of getting the economic analysis and public policy education approach incorporated into the curriculum or programs.

On campus, individual agricultural economists can explore the opportunities for working with extension 4-H specialists and vocational agricultural educators who are closely linked with FFA regarding curriculum or program content. Opportunities may exist for creating free-standing programs and educational materials for focusing on the economic implications of various policy issues. Alternatively, economic analysis of public policy issues could be

incorporated into existing programs. In either case, agricultural economists should explore in-service education possibilities with 4-H extension specialists, vocational agricultural teachers involved with FFA programs and urban educators interested in economic issues.

We should explore every avenue for entering public policy education materials into the curriculum and projects of youth programs. Opportunities and challenges for individual agricultural economists, agricultural economics departments and AAEA exist. Innovative and energetic pursuit of these opportunities may offer great rewards in the form of better educated youth, more capable of analyzing and understanding the full ramifications of various public policy issues.

It is time to get on with the task.

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