



Protecting Farmland at the Fringe: Do Regulations Work?

STRENGTHENING THE RESEARCH AGENDA



CONFERENCE SUMMARY PROCEEDINGS

PUBLISHED BY THE NORTHEAST REGIONAL CENTER FOR RURAL DEVELOPMENT • DECEMBER 2001

Conference Planning Committee

Lawrence W. Libby (Committee Co-Chair)
Swank Program in Rural-Urban Policy
Dept. of Agricultural Economics and Rural Sociology
The Ohio State University

Charles W. Abdalla (Committee Co-Chair)
Dept. of Agricultural Economics and Rural Sociology
The Pennsylvania State University

Marilyn Altobello
Dept. of Agricultural and Resource Economics
University of Connecticut

Nelson Bills
Dept. of Applied Economics and Management
Cornell University

Joshua Duke
Dept. of Food and Resource Economics
University of Delaware

Loretta Lynch
Dept. of Agricultural and Resource Economics
University of Maryland

Andrew Seidl
Dept. of Agricultural and Resource Economics
Colorado State University

L. Steven Smutko
Dept. of Agricultural and Resource Economics
North Carolina State University

Alvin D. Sokolow
Dept. of Human and Community Development
University of California, Davis

Gary D. Taylor
Michigan State University Extension

These are the summary proceedings of a conference held on September 5-7, 2001 in Baltimore, Maryland. The conference proceedings are being produced separately and will be made available at the website:
www.cas.nercrd.psu.edu.

Prepared by Dr. Charles W. Abdalla; technical editing by Lee Carpenter

NERCRD Regional Rural Development Paper No. 7

©2001 The Northeast Regional Center for Rural Development

**Protecting Farmland at the Fringe:
Do Regulations Work?
Strengthening the Research Agenda**

Table of Contents

	Page
Preface	i
Executive Summary	ii
I. Introduction	1
II. Summary of Conference Presentations	2
Why Do We Save Land, Farms, and Agriculture?	2
Achieving Sensible Agricultural Zoning to Protect PDR Investment	3
Agricultural Zoning: Impacts and Future Directions	4
Assessing the Impact of Right to Farm Laws on an Evolving Agricultural Industry: A Checks and Balances System Approach	4
Linking Growth Management and Farmland Preservation: Proposals from the American Planning Association’s Growing Smart SM Project	6
Farmland Protection Programs: How Would We Know They Worked?	8
The Political Viability of Zoning for Preventing Premature Conversion of Farmland to Housing	10
Regulating for Farmland Protection: What About Private Property Rights?	11
Retooling New Jersey’s Right to Farm Law	12
A Comprehensive Approach to Rural Preservation: Maryland’s Smart Growth Initiative	13
Using Effective Agriculture Preservation Zoning to Save an Industry	14
III. Strengthening the Research Agenda	16
Better Problem Definition	16
Meeting Public Preferences and Values for Farmland and Open Space Protection	17
Integration of Public Policy Tools and Across Jurisdictions	17
Measuring Impacts of Farmland Protection Policies	18
Creativity in Developing New Policy Tools	19
Recommendations for Extension and Outreach	20
Speakers and Program Participants	22

Preface

While the issue of land use on the urban fringe is hardly novel, it is associated with a growing sense of urgency – especially in the Northeast US – because current land use choices are generally irreversible. Furthermore, the manner in which cities have been growing over the last two decades is leading to rising costs associated with traffic congestion. This is uniformly true across the country, and apparently independent of what is happening to average population density in different cities.

The aggregate consequences of individuals' land use choices are complex, and often controversial. From an academic perspective, land use is a vast topic, involving numerous disciplines scattered across different colleges. The subject is also complex from a public policy perspective, as the long list of agencies co-sponsoring this conference suggests. Land use decisions are affected by numerous incentives and regulations that vary across the States.

We are pleased to have the opportunity to publish these summary proceedings from a national conference that addressed one important question related to land use: whether regulations are effective in protecting farmland at the fringe. The proceedings summarize papers presented at the conference and, equally important, the research agenda that emerged during discussions held by the organizers and selected participants at the conclusion of the conference.

Stephan J. Goetz, Director
The Northeast Regional Center for Rural Development

December 2001

Executive Summary

Competition for open land at the fringe of metropolitan areas across the United States is intense. Counties and municipalities have passed laws to guide development and all fifty states have enacted farmland protection programs. This conference focused on a particular category of land use policy methods – regulation. Priority was placed on three classes of tools: agricultural protection zoning, right to farm laws, and urban growth management regulation. Leading scholars were invited to address the effectiveness and impacts of each of these policy tools at a national conference in September 2001. State and local case studies of each regulatory approach were presented. Additional key topics addressed at the conference were:

Why Do We Save Land, Farms, and Agriculture?

Achieving Sensible Agricultural Zoning to Protect PDR Investment

Farmland Protection Programs: How Would We Know They Worked?

The Political Viability of Zoning for Preventing Premature Conversion of Farmland to Housing

Regulating for Farmland Protection: What About Private Property Rights?

A major conference goal was to identify ways to strengthen the research agenda on farmland and open space preservation. The recommendations fell into six categories:

- **Better Problem Definition.** Until the farmland "problem" is better identified or the issue more clearly understood, it will be difficult to make progress toward improving public policies for farmland protection.
- **Meeting Public Preferences and Values for Farmland and Open Space Protection.** Improved understanding of the public's perceptions and their preferences and values toward farmland is needed. Do people really want farms or do they want the amenities associated with living in proximity to farms?
- **Integration of Public Policy Tools and Across Jurisdictions.** A common thread is the need for greater integration of policy goals, modes of analyses, policy tools, and policies across governmental boundaries.
- **Measuring Impacts of Farmland Protection Policies.** Empirical evidence on the performance of policy options is often missing and decision makers often make assumptions about impacts. Research is needed to measure policy impacts in local situations to fill this void and inform policy decisions.
- **Creativity in Developing New Policy Tools.** More creativity and experimentation are needed in our research and in policy innovation on farmland and open space protection.

- Recommendations for Extension and Outreach. We need to examine how we frame and discuss farmland issues and policy options. We need to talk about the contributions of agriculture to the economy, and we need to share farmer adaptation strategies. In addition, greater attention could be given to understanding the process by which effective farmland and open space policies become enacted and implemented. Lessons learned from previous efforts could be disseminated.

Summary proceedings were prepared and distributed by The Northeast Regional Center for Rural Development, one of the major sponsors of the conference. The Swank Program in Rural-Urban Policy, The Ohio State University, will publish a full conference proceedings volume in early 2002.

I. Introduction

There is intense competition for open land at the fringe of metropolitan areas across the United States. Counties, towns, and municipalities have tried many different programs and laws to guide the pattern of development. Further, all fifty states have enacted farmland protection programs with some combination of tax incentives, development rights acquisition, and regulation, to protect farmland in the face of urban pressure. Each mix of policy instruments implies a different distribution of both benefit and burden to achieve the stated public purpose.

A 1998 conference, organized and conducted by many of the same sponsors and individuals responsible for the 2001 event, considered the broad range of state policy approaches. The point of departure for this conference was focused attention on a particular category of land use policy methods – regulation. Examination of three classes of tools took priority: agricultural protection zoning, right to farm laws, and urban growth management regulation. Leading scholars and managers were invited to address the effectiveness and impacts of these regulations and to identify an agenda to strengthen current research efforts.

Local and state decision makers want better information on whether agricultural protection zoning really makes a difference, on how right to farm laws influence land choices, and on the economic and social consequences of urban growth boundaries or other growth management regulations. The intent of this conference was to assist in that process.

The two-day national conference was held on September 5-7, 2001 in Baltimore, Maryland. Approximately 100 professionals from farmland protection programs, academia and the private sector attended the conference. Co-chairs were Dr. Lawrence Libby, Ohio State University, and Dr. Charles Abdalla, The Pennsylvania State University. This summary proceedings volume was prepared and distributed by The Northeast Regional Center for Rural Development, one of the major sponsors of the conference.

Highlights of each speaker's presentation are located in the next section, followed by the research recommendations identified by conference organizers and participants.

The Swank Program in Rural-Urban Policy, Department of Agricultural Economics and Rural Sociology, The Ohio State University, will publish a full conference proceedings volume in early 2002. Contact the Swank Program at (614) 688-4890 for information on how to obtain a copy of that publication, or visit The Northeast Center's website at www.cas.nercrd.psu.edu.

II. Summary of Conference Presentations

Why Do We Save Land, Farms, and Agriculture?

Paul Barkley set the stage for the conference by asking, "Why are we here?" His answer: "We are here because we don't know why we are here." When it comes to farmland issues, confusion abounds with regard to the central questions of what, where, and how to save or to use land resources. Based on his analysis of farmland retention programs, there is neither one reason nor one objective for farmland preservation efforts. Instead, the constituencies and decision makers have multiple reasons, or combinations of reasons, for public policy in this area. Consequently the coalitions for policy are very fragile.

Farm numbers in the United States peaked at 6.8 million in 1935, cropland acreage peaked at about 530 million acres in the early 1940s, and total land in farms peaked at more than 1.2 billion acres in 1953. All three indicators have declined since the midpoint of the last century, so that now only 943 million acres are in the nation's 2.2 million farms, and only 349 million acres are planted with crops. Even with these reductions in basic resources, the nation's agricultural plant is languishing, world food surpluses are enormous, commodity prices are low, farm incomes must be supplemented by "emergency legislation" every year, and farm families continue to seek supplemental family income from off-farm sources.

There is not one single reason, nor a single objective, for farmland preservation efforts.

Paul W. Barkley

Given these developments, why do local, state, or federal governments continue to feel obligated to retain land in farming? Barkley offered reasons – some plausible, some possible, and some outrageous – for governments' desire to retain farmland. They include:

- An agrarian tradition based on the ideas of the physiocrats, strengthened by the Protestant work ethic, and quickly followed by the realization that land was the most durable of all investment opportunities.
- An early struggle for self-sufficiency (the antidote to starvation).
- The huge resource base that assured an American presence in world trade.
- The occasional need (desire) to provide food and fiber for a troubled world.
- As a contingency reserve against future need.
- The population's desire to have the option of farming even if the option is never exercised.
- The use of farm (open) spaces to protect the values of non-farm (closed) spaces.
- The use of farm spaces to provide intangible amenities.

Barkley reviewed a long history of national policies that enabled farming, as well as modern state and local policies, including both market-like and regulatory tools, that allow farmland to be maintained as open space. A serious limitation of market-based

approaches, such as purchase of development rights and transfer of development rights, is their expense. Regulatory tools may have limited applicability given the prevailing ideology against expansive government. The regulatory tool of zoning is significantly limited because variances can be granted with relative ease.

Barkley closed his presentation by addressing several key questions for farmland retention at the national level. As for the question, "Is there a farmland crisis in the U.S.?" he concluded that there probably is not. In terms of "Should we protect farmland?" he suggested that a guide for policy direction could be to protect the farmland that provides the greatest environmental services.

Achieving Sensible Agricultural Zoning to Protect PDR Investment

Deborah Bowers addressed the regulatory option of farmland protection zoning. She questioned the long-run effectiveness of investments in the purchase of development rights (PDR) programs in areas without agricultural protection zoning. More than 800,000 acres of farmland have been preserved through PDR programs, at a cost to the public of \$1.2 billion. Farmers in more than 250 localities nationwide can participate in these programs. Available information indicates that some local governments that implement these programs have agricultural zoning that effectively protects farmland from development, but the great majority do not. According to Bowers, if local governments do not use zoning to adequately restrict development in farming areas, the multi-million dollar PDR programs will not have the desired effects.

...someone needs to do the math concerning the impacts on land value.

Deborah Bowers

Effective agricultural zoning does two things: (1) it promotes and otherwise helps agriculture be productive and profitable, and (2) it protects the resource upon which agriculture depends – productive lands – by restricting both the type and amount of development that can occur in agricultural areas. Indications of effectiveness over time include whether enough farmland exists for a viable agricultural industry, changes in zoning to allow residential use for relatively few parcels, and minimal or non-existent neighbor complaints.

Some localities are convinced that agricultural zoning has become impossible due to the escalation of land values to a point where any level of down-zoning would result in unbearable takings claims. Bowers believes that this assumption may not be in line with the facts, and provided results from two Maryland municipalities where no correlation was found between down-zoning and diminished land values in agricultural areas. Both localities successfully down-zoned, significantly enhancing farmland preservation efforts. Bowers cited several additional cases in other states where evidence indicated that down-zoning may in fact not reduce property values in agricultural areas. She concluded that a key lesson from this work in Maryland and elsewhere was that researchers, planners, and community leaders need to "test their assumptions" about the impacts of farmland protection policies.

Agricultural Zoning: Impacts and Future Directions

Mark Cordes examined the main impacts of agricultural zoning and possible future directions for this policy option. He noted that such zoning provides a strong foundation for a farmland preservation program. Important advantages are immediacy of effect, affordability, stability to the farmland base, and familiarity to the community. He then addressed the impacts of agricultural zoning from legal, economic, development, and preservation perspectives.

In considering the legal impacts, Cordes discussed the U.S. Constitution's taking clause, and the implications of the Supreme Court's recent *Palazzolo v. Rhode*

Island decision for takings. Although *Palazzolo* provides additional protection for property owners, he concluded that agricultural zoning should rarely constitute an unconstitutional taking.

The long run effectiveness of ag zoning is undermined by the ability of landowners to request their property to be rezoned.

The most successful programs are the hybrid programs. Ag zoning needs other tools, especially PDRs, to make it work.

Mark Cordes

Agricultural zoning basically shifts the costs of farmland preservation to farmland owners. Is this shift fair? In addressing this question, Cordes discussed how agricultural zoning benefits farmers when surrounding uses of land conflict with farming activity. Further, some of the lost value to farmers stems from past government "givings" of property rights, and property rights in our society are not absolute. Despite the potential for imposing disproportionate burdens, agricultural zoning is not inherently unfair to landowners.

Agricultural zoning imposes some development costs in terms of reducing consumer choice and housing affordability. But it also provides broader societal benefits, many of which are not reflected in land markets, that add to its attractiveness as a preservation method. Cordes concluded that the long-term effectiveness of agricultural zoning is undermined by the ease with which change is granted under development pressure. The variance problem can be reduced through planning efforts that address the underlying reasons for the requested change.

After charting future directions for agricultural zoning, Cordes recommended that such zoning should be used while considering the impacts noted above. He strongly suggested that agricultural zoning be coordinated with compact growth strategies and urban growth boundaries. Also, future use of this option should involve greater reliance on exclusive agriculture zoning tools, use of PDRs in support of zoning, and sufficient advance identification of areas to be preserved.

Assessing the Impact of Right to Farm Laws on an Evolving Agricultural Industry: A Checks and Balances System Approach

John Becker focused on three central questions in his assessment of right to farm laws:

- As public policy measures, how effective are these statutes in providing protection to agricultural producers?
- How do these laws fare in the face of current legal challenges?
- What key questions about these laws will confront public policy makers and agricultural producers in the future?

Checks and balances in the U.S. government system assure that action taken by one branch of government is subject to review by other branches. The system acts to safeguard against placing too much power in the hands of individuals or groups without some degree of counter balancing review. Becker used the political and social factors operating within the "checks and balances" system to answer the three questions listed above about the impact of "right to farm" policies over the past 30 years. He highlighted the important role played by the application of these factors in developing, revising, and interpreting right to farm laws. Each of these factors provides insights to future issues for possible revision and interpretation of these laws.

The language of a statute must be clear, concise, and capable of being applied to a variety of situations. In addition, legislators should have a sense of the future and the kinds of problems to which the law will be applied. Since the words in a statute are subject to legislative deliberation, the final version may reflect considerations that differ from those appearing in the original bill. Political considerations and demands made in return for support of legislation can change the language, as well as the character, of the law's final version.

Interpreting statute language can be an exercise in creative thinking. The words chosen are often general and the variety of circumstances to which the law could be applied are vast. Can the statute be interpreted to apply to any or all of the various combinations of circumstances being considered? Lobbying for a law or regulation to resolve a problem may show that supporters prefer to move the dispute to the legal forum, a forum of winners and losers. Implicit in this choice is confidence that once in the desired forum, the party will prevail there. This confidence can be bolstered if the supporters have influenced the terms of the legislation applied in the desired forum.

Challenges to right to farm statutes have taken three forms.

- Attacks on the meaning and application of the law's specific provisions.
- Challenges seeking an analysis of the law from a constitutional perspective.
- Challenges based on strategies to bypass the protection offered by these statutes without battling their specific language.

Courts called upon to review these statutes apply different political and social standards than do legislatures or executives when laws are enacted. The significance

What messages do these continuing challenges send? ... (it) demonstrates that some individuals are not fully accepting of policies that limit their right to influence decisions or impose controls in their community.

John Becker

of these differences flows from the checks and balances system. Such cases offer policy makers several important lessons about public support for agriculture and its response to right to farm laws.

1. Support from the Non-farm Public. At their inception, right to farm laws enjoyed considerable support from the largely non-farming public. Has public support for agriculture been weakened by challenges brought against these laws? Challenges seeking interpretation of legislative terms and requirements are typical and thus less likely to reflect weakening support. Successful constitutional challenges are more serious as they identify the law's failure to address basic legal principles.

2. An Evolving Agriculture. While right to farm measures have been in place, changes within the agricultural economy have taken place at a rapid rate. Some of the challenges brought against right to farm laws may have been motivated by the desire to slow down the rate of change and give harried producers some breathing space in their competitive environment. How have changes in the agricultural sector influenced changes to these measures and what choices do policy makers have when responding?

Becker noted that challenges to right to farm laws have continued as some protective measures have been strengthened. What messages do these continuing challenges send? The search for strategies to avoid ever-strengthening protections or limits on authority demonstrates that some individuals do not fully accept policies that limit their right to influence decisions or impose controls in their community. How should the public's skepticism about limited policy measures be addressed? Becker highlighted opportunities available to address industry concerns while retaining public support and addressing community concerns. Taking advantage of these opportunities for discussion and decision making in the near term will yield long-term dividends.

Linking Growth Management and Farmland Preservation: Proposals from the American Planning Association's Growing SmartSM Project

Stuart Meck discussed his early involvement with sprawl issues as a regional planner assessing the impact of proposed Interstate 675 near Dayton, Ohio in the late

...(significant) problems arise when preservation of "rural character" and "open space" is equated to (and confused with) preservation of farmland.

Stuart Meck

1970s. The area has subsequently grown significantly, accompanied by a decline in farmland and increased population density. At that time, the regional agency he worked with was aware of the potential for loss of prime agricultural land and the suburbanization impacts.

Yet he observed that these issues were not then on the public policy radar screen. Further, there was no proactive planning to identify and prioritize land for its importance as prime farmland, separate that land from land for urbanization, and undertake a program that would ensure that it remained in agricultural use. With time, it was clear that many local land use decisions were made under the assumption that Interstate 675 would in fact be built. Such major form-giving decisions about infrastructure are often central to land use change.

Three systems for planning and land-use control exist in the United States:

- The system dictated by the use of the property tax, in which local governments seek out and encourage high ratables.
- The system imposed by state-level and regional decisions on major public facilities, major public facilities, especially transportation and water and sewer facilities, that fails to account for cumulative impacts on land-use change.
- The "official" system of local comprehensive planning, zoning, subdivision control, official mapping, and other devices, which is often less influential than the two "non-official" systems.

Unless these systems are harmonized both in statute and operation, efforts to manage growth and preserve farmland will not achieve much over the long term.

Meck emphasized that planning and development decisions are affected by and affect a variety of governmental units. Each of these systems makes it difficult to manage urban growth and, in the process, to then preserve agricultural land. Economies and the major form-giving decisions for a region are regional in nature – the interstate bypass, the spacing of interchanges on a highway, the location of wastewater treatment plants and trunk lines, the location of major transportation facilities. Sometimes these decisions are made by state agencies alone, and sometimes by the state in conjunction with special districts or affected local governments. Often, these decisions, even in their tentative stages, have an air of *fait accompli* about them. They are gradually slipped into plans without much initial rigorous study and, once there, acquire a constituency of their own without much serious regard for their consequences.

My view is that modern agriculture has an industrial dimension about it, and the rationale for separating urban uses from agricultural uses is stronger than ever.
Stuart Meck

Meck addressed the limitations of traditional land use controls for preserving farmland. He noted that in many developing areas leaders are concerned about the loss of rural character and farmland, and use low-density zoning to forestall development. His conclusion was that this common, misguided technique does not preserve agriculture because farms are not economically viable at small sizes. Instead, this policy response forces residential development farther out because each new dwelling unit uses more land than if the densities were more urban in nature.

An additional problem pointed out by Meck was that of communities often equating agricultural land with "rural character" and "open space." While farming has a bucolic dimension to it, it is still a business, and a business that impacts adjoining land uses. He further argued that agricultural land, because of its characteristics and impacts, should be treated as an industrial land use, not as a low-density residential reserve area. For the purposes of growth management, its uses should be sharply separated from urban land uses.

Meck concluded with an overview of the Growing SmartSM project of the American Planning Association. The project's goal is to draft the next generation of model

planning and zoning enabling for the United States. Initiated in 1994, it will end in December 2001 with publication of a 1,300-page Legislative Guidebook containing the model legislation and commentary.

Meck highlighted the Growing SmartSM project's proposals for growth management and their relation to the preservation of farmland, including:

- The use of urban growth areas at the regional and local levels.
- The requirement for a land market monitoring system to track the supply of and demand for land, and the provisions for an agriculture, forestry, and scenic preservation element in a local comprehensive plan.
- Authority for the purchase of and transfer of development rights.
- Model statutes for development timing, development agreements, and agricultural districting.

Meck discussed the Guidebook's proposals for decision making on major public facilities and regional tax base sharing and their strengths and weaknesses as tools in the protection of farmland. Finally, he described the way in which model statutes in the Guidebook can be integrated into a coherent farmland preservation program.

Farmland Protection Programs: How Would We Know They Worked?

Ralph Heimlich addressed how different policies for farmland protection and urban growth management could be evaluated. Drawing on a recent USDA report on urban growth issues, he concluded that using easement purchases to protect all farmland affected by urbanization would be too expensive. Other means, such as regulatory programs and land use controls, are needed.

Heimlich emphasized the importance of being clear about intended program goals or consequences when evaluating programs. Shortcomings in evaluation are frequently the result of differing initial assumptions about what the programs being evaluated are actually intended to accomplish. One problem is that economists often substitute notions of "efficiency" instead of carefully examining what the framers of particular policies had in mind as policy goals. Another is that the nature of the problem being addressed may not be clear. For example, while all sides seem to be in agreement that "sprawl" is bad, there is little agreement about how to define the term.

*We can't know what
"works" until we know what
end state we desire.*
Ralph Heimlich

Two major policy approaches – regulatory and incentive-based – for protecting farmland and controlling urban development were discussed. Regulatory approaches alter the "rules of the game," rules previously established by government. These tools include agricultural protection zoning, agricultural districts/right to farm, nonagricultural planning and zoning, and urban growth boundaries.

By contrast, incentive approaches, the other major class of programs, operate by participating in markets according to the "rules of the game," without changing

them. These tools include preferential tax assessment, purchase/transfer of development rights, and "smart growth" initiatives.

Assessing what "works" requires predicting what would have happened in the absence of the program or policy – a "with-and-without" analysis. Heimlich observed that economists, planners, and regional scientists have not been very successful in understanding and predicting land use patterns and land use change, making this kind of comparison difficult. Three types of problems hamper these endeavors: appropriate comparisons (across time or across space), issues of dynamics and timing, and uncertainty. A large number of previous studies were reviewed, including those using land values or prices as indicators, and those more directly dealing with land use change. These included quantitative econometric approaches and more anecdotal case studies. Observations from this review were as follows:

- **There is much confusion about policy goals.** There is little clarity and much confusion about desired policy goals, making policy evaluation very difficult. The task of evaluating any program must always start with an inquiry into what the program is intended to accomplish. With land use or growth controls, the ends appear to be as varied as the means, and are more often unspecified than made clear. It will be extremely difficult to know what "works" until we ascertain the desired end state.
- **Results based on economics alone will be inconclusive.** There is more to solving land use problems than can be answered by aggregate market indicators of land price or quantity. Neither test addresses development quality questions. Patterns of landscape and the interactions of the various elements within them may be more important to our perceptions of the "goodness" or "badness" of land use solutions than anything that results in significant market effects, such as land or housing prices or land conversion.
- **Econometric studies are necessary, but not sufficient to understand what works and why.** Even the best case studies have an anecdotal quality to them that comes from their focus on the particular and the specific. Econometric studies provide objective, verifiable evidence for a specific effect, but do not go much further than that.
- **Combining case study and econometric research approaches.** Even the best econometric studies do not capture everything going on in the messy real world, especially subtle interactions from institutional processes. While case studies reveal these subtleties, they can be derived from any given set of anecdotes, so they may lack rigor. The best combination would have the scientific certainty of econometric studies, while preserving the qualitative distinctions as well as the insights to be drawn from case studies.

Heimlich concluded that real progress toward understanding "what works," "what doesn't," and "why" will depend on melding the objectivity of quantitative analysis with the anecdotal insights into the institutional mechanisms from careful case studies.

The Political Viability of Zoning for Preventing Premature Conversion of Farmland to Housing

Dick Esseks and Lela Long addressed the political acceptability of zoning for farmland protection and reported on analyses in California, Illinois, Oregon, and Wisconsin. The research tested the proposition that local zoning may be an effective policy for protecting financially productive farmland from "premature" development. Premature development was defined as that which occurs before the usual or "proper" time. One criterion for judging this time is when the costs of conversion are acceptable to nearby farmers and public service providers.

A key assumption was that the success of any regulatory approach requires active or tacit acceptance by many, if not most, of those affected by the policy. From their own work and a review of empirical studies of agricultural use zoning, Esseks and Long found four indicators of the conditions for such acceptability:

- Farmland owners need to believe that zoning constraints are not unchangeable (i.e., that as development proceeds in the direction of their properties, conversion would eventually be allowed).
- The farmland temporarily zoned for exclusive agricultural use had to be capable of producing acceptable financial returns, at least in some recent-memory year. Otherwise, the owners felt compelled and justified in seeking compensation for "taking" property rights.
- Many farmland owners need to believe that, at least for some years, they will benefit from the zoning restrictions. The benefit most widely cited is that of avoiding conflicts with non-farmer neighbors.
- Farmland owners are likely to oppose restrictive zoning when they know they lack the voting power to veto it. Frustrating them are enough other voters – farmers in search of protection from nuisance complaints and suits and, also, non-farmer taxpayers who believe that scattered residential development means higher local taxes for them and/or the loss of rural scenery and other values.

Fairness was identified as an important theme in the results related to the acceptability of agricultural zoning. Esseks and Long reported that the DeKalb County (Illinois) Farm Bureau has supported restrictive agricultural zoning for more than two decades. Important elements of this support included the following: all land comprising the agricultural zones was quality farmland; consistent implementation of regulations; and timing. With regard to timing, the zoning restrictions were established early enough so that relatively few owners suffered actual losses in the market value of their land.

Success of any regulatory approach requires active or tacit acceptance by many, if not most, of those affected by the policy.

Dick Esseks and Lela Long

Esseks and Long provided evidence that restrictive agricultural zoning does reduce "premature" development. Three categories of evidence were given: (1) observa-

tions of experts; (2) research on land prices that shows a significant decline in land prices where urban growth boundaries end; and (3) reduced incidence in low-density development in unincorporated areas in counties that direct growth toward municipalities.

Regulating for Farmland Protection: What About Private Property Rights?

Peggy Hall suggested that regulatory strategies must begin with recognition that farmland provides valuable public benefits. However, such strategies must contend with the institution of private property rights. In farmland and other conservation issues, there is a tension between the rights of the individual and the broader rights of society. In the minds of many citizens, individual rights in private property are tantamount to public desire to protect property that offers resources of broader benefit to the community or society. The ability to use one's property in a way that he or she sees fit is a closely held freedom. Passion for private property rights runs particularly high among farmers. Hall noted that unique property rights may apply to farmland specifically based on many policies and practices over time that have treated farmland differently than other land. A related tension that needs to be balanced is stability of the political system (e.g., interest in protecting property rights) versus economic stability (e.g., a need for rights to change or be asserted in the interest of promoting economic development).

A successful regulatory program for farmland protection should be consistent with established rules regarding the acceptability of a public action that affects private rights in property.

Peggy Hall

A review of legal history suggests that rules regarding private rights in property are not absolute. In addition, they are not static. Property rights are largely a function of prevailing social preferences at the time, which are reflected in public policy. A successful regulatory program for farmland protection should be consistent with established rules regarding the acceptability of a public action that affects private rights in property.

Hall traced the roots of the U.S. private property rights system, including changes that occurred after the Revolutionary War when the natural rights ideas of John Locke supplanted the English concepts of feudal law. About this same time, the notion of fee simple ownership in land was established. The Fifth Amendment to the U.S. Constitution concerning "takings" reflects the state's interest in land and property, and redefines situations in which private property rights can be infringed upon in the public interest. One of Hall's central points was that individual property rights are not absolute but exist within a context of public policy. Also, many of the state laws that enabled local land use planning efforts and further defined public rights in land had their genesis in the 1920s. Recent court cases identify the limits of public intrusion upon individual property rights, but may not adequately address the issue of farmland specifically.

In describing the current climate for regulatory farmland protection policies, Hall emphasized that social policies and preferences have treated farmland differently

than other land. These factors must be considered when discussing the acceptability of a public action that intrudes upon farmland property rights.

Retooling New Jersey's Right to Farm Law

Soji Adelaja presented the challenges faced by New Jersey as it implemented its right to farm policies and program. New Jersey has 850,000 acres of farmland – only one-third of what it had in 1950. It has the highest farmland values in the country,

The public is generally interested in preservation, but is less than enthusiastic about protecting the farmer's right to farm. When you observe the presence of a right to farm ordinance at the local level, it is more than likely in a farm dominated community or one that was previously so. It is the farm community that makes right to farm happen...

Soji Adelaja

and the land has appreciated at approximately twice the rate of Treasury bills. Three reasons were given for the rapid loss of farmland: (1) urban to rural migration; (2) demand for land for development; and (3) declining viability of agriculture. As farmland declined, important economic, environmental, and quality of life benefits related to farmland vanished as well. The state's farmland retention programs grew from a realization that taxes, state competitiveness and fiscal impact, and quality of life issues were tied to the availability of farmland.

New Jersey has been involved in farmland protection since 1964. In 1983, the state passed its Right

to Farm Law to protect farmers from unnecessary public and private nuisance actions and inappropriate regulations and other intrusions by state and municipal governments. Within ten years, the farm community realized that the law did not provide the protections needed to conduct normal farming practices and maintain stable and profitable farm operations. Court decisions have validated farmers' concerns.

In 1993, the state asked Rutgers University to broadly study the Right to Farm Law and recommend ways to improve it. A multi-disciplinary team identified the strengths and weaknesses of the existing law, evaluated innovative alternatives, and prescribed new provisions to strengthen the law and educated policy makers about the need for reform.

The research team examined political support for right to farm legislation. They found community income levels and the farmers' political and several other factors to be important. Communities with higher incomes were more likely to support farmland preservation and less likely to support right to farm laws. In farmer-dominated communities strong support for these laws was greater while the non-farm public was generally not supportive. The following implications were drawn regarding political support:

- Existence of a right to farm law is probably the result of farmers having substantial control over municipal affairs or of non-farmers being induced to support farmland preservation.
- Given the decline in farmers' political clout, forming coalitions for right to farm will be difficult.

- The public may have a hard time seeing right to farm as being in their interest. The farm community may need to educate the public about the benefits of right to farm to them.
- When the non-farm community supports right to farm laws in order to obtain farmland preservation, it opts for weak right to farm programs, suggesting possible resentment of right to farm.
- Public information programs to highlight the benefits of right to farm to the non-farm public will be important to obtaining support. Conflict resolution and conflict prevention must be important components of a right to farm program.

The researchers proposed seven elements of a successful right to farm law:

- Clear identification of operations and activities to be protected.
- Precise description of protections provided and limitations of this protection on various levels of government having jurisdiction over the agricultural activities in question and on non-farmers.
- Specific description of standards to be met to receive protection.
- A well-defined institutional framework to provide efficient, effective right to farm information, assistance and enforcement (including staffing/funding).
- A clearly specified conflict resolution process for right to farm issues, whether they arise among state agencies, municipalities, and farm operations, or between farm and non-farm neighboring property owners.
- A mechanism incorporated in the above that allows changes to be made in a reasonable fashion to keep current with a very dynamic industry and changing needs of the public.
- An articulated right to farm conflict prevention process, including educational and public awareness programs, designed to head off concerns before they become contentious.

Implementation of these elements led to adoption of a revised New Jersey Right to Farm Law in 1998 and development of innovative conflict prevention and resolution programs.

A Comprehensive Approach to Rural Preservation: Maryland's Smart Growth Initiative

Harriet Tregoning described Maryland's Smart Growth Initiative. By the mid-1990s, it had become apparent that haphazard growth patterns in land threatened to destroy the state's natural beauty and resources. Older, existing communities were being treated as if they were expendable and natural resources, especially farmland, were being treated as if they were unlimited. In 1996 alone, Maryland lost nearly 15,000 acres of farmland. Absent changes in growth patterns, planners projected that development would consume as much land in central Maryland alone over the next 25 years as it had during the entire history of the state.

Maryland's leaders responded by taking actions to find a better way to grow – a path that would improve the quality of life, broaden choices for families, protect natural

resources, and cost taxpayers less. This new vision of growth was embodied in the Smart Growth and Neighborhood Conservation Act of 1997. It recognized that suburban sprawl and urban decay are mirror images, and that the two reinforce each other.

Two major programs provide the foundation for Smart Growth:

- Priority Funding Areas directing growth to existing communities and locally designated growth areas; and
- Rural Legacy protecting the best remaining farm, forest, natural resource, and historically significant land before it is lost to development.

A number of the 50 additional programs that have been created or refocused to support this initial framework were described, including Live Near Your Work, Brownfields, and Community Legacy.

The Smart Growth Initiative's achievements are being documented. Its programs are helping Maryland to grow in a way that preserves natural resources and sustains quality of life into the future. One indicator of success was that the pace of farmland conversion slowed in the 1990s in the majority of the state's counties. Also, investment in urban areas has increased and people are beginning to move back into urban neighborhoods.

...changing growth patterns will not happen overnight. It takes years or even decades to shift land use patterns.

Harriet Tregoning

The prevailing view of Governor Glendening is that Maryland's Smart Growth Initiative is a beginning, not an end, to dealing with growth management and rural preservation. Each year new program incentives are added and older ones are improved. For example, a new program, GreenPrint, will help counties prevent fragmentation by providing financial resources to protect the most environmentally sensitive lands.

Tregoning cautioned that growth patterns do not change overnight. The change, however, must begin with a fundamental shift in thinking about the need to make growth more sustainable and supportive of the quality of life.

Using Effective Agriculture Preservation Zoning to Save an Industry

Clyde Myers and Cheryl Auchenbach described Berks County, Pennsylvania's agricultural zoning and supporting initiatives to preserve farms and agribusinesses. Berks County has 221,500 acres in farm use and farm product sales of almost \$250 million annually, ranking third in Pennsylvania and 90th nationally. The county has significant animal production, including swine, dairy, and broiler production.

Berks County is in the middle of the path of southeast Pennsylvania's urban sprawl, with influences from Philadelphia, Allentown, Harrisburg, Lancaster, and Reading. Myers believes that large animal confinement operations and environmental quality, quality of life, and sustainability of the agricultural industry can coexist in the county.

The county's farmland protection efforts are based on widespread recognition that agriculture was a vital county industry essential to business and employment, tourism, scenic vistas, and groundwater recharge. Such efforts have promoted the ideas that a critical number of farm supply businesses, farmers, and processing and marketing firms were needed and that land was a critical ingredient for the industry's survival. In the early 1990s, Berks County developed a Comprehensive Plan with a major agricultural preservation element.

Two tools available in Pennsylvania – the purchase of agriculture easements and municipal-level effective agriculture preservation zoning – have been used in combination to protect the county's farmland. More than 21,000 acres of farmland on 180 farms have been preserved so far through the state and county easement purchase programs. Easement and agricultural zoning programs go hand in hand in the county. Easements are purchased only in agriculturally zoned townships. Berks County has set a goal of 200,000 acres of preserved farmland through zoning and the purchase of agriculture conservation easements.

Agricultural zoning is a regulatory tool that sets aside areas within a municipality for farming while limiting non-agriculture activities. Twelve townships in the county developed such ordinances from 1973 to 1997, covering about 60,000 acres. These ordinances limited non-agricultural activities but did not address large-scale agriculture issues.

The county's comprehensive approach and encouragement to municipal governments to enact agricultural protection zoning began in 1997. The Planning Commission and Extension work jointly with municipalities through the county's Agriculture Zoning Incentive Program. The county helps by paying for costs to amend existing ordinances as an incentive to townships. The presenters emphasized that local township committees composed of farmers, landowners, residents, supervisors, and local planning commission members were key to the program's success.

To reduce conflicts with residents, the more comprehensive agricultural zoning ordinances set standards for larger intensive animal operations. These standards may relate to the use of additional requirements, such as setbacks and plans for odor or fly abatement, as the animal units increase on a farm. One challenging aspect of this effort is that widely accepted standards for particular industries have not yet been established.

Efforts to preserve farmland through this new approach to effective agriculture preservation zoning continue to grow in Berks County. Since 1997, eight townships have developed this comprehensive locally driven approach and over 48,000 acres have been designated for agriculture production and other farm-related businesses. In total, the county has more than 108,000 acres in 19 townships that use the agricultural zoning tool to encourage farm production and businesses in designated areas.

The easements program and agricultural zoning really go hand in hand – we will only do easements in agriculturally-zoned townships.
Clyde Myers

Section III. Strengthening the Research Agenda

A major goal of the conference was to stimulate research on the performance of rural land use policies, with particular attention to regulatory approaches to land use management. To this end, a focused discussion of workshop organizers and participants was held at the conference to identify important gaps in our knowledge of the workings and impact of these policies. This input was used to develop a set of recommendations for strengthening the research agenda on farmland and open space protection issues.

The recommendations fell into six broad categories:

- Better Problem Definition
- Meeting Public Preferences and Values for Farmland and Open Space Protection
- Integration of Public Policy Tools and Across Jurisdictions
- Measuring Impacts of Farmland Protection Policies
- Creativity in Developing New Policy Tools
- Recommendations for Extension and Outreach

I. Better Problem Definition

A number of conference participants argued that there are many aspects of the land use that we do not understand very well. Until the problem is better identified or issue more clearly understood, it will be difficult to make progress in improving public policies for farmland protection. Specific research topics included:

- A. Creating better data collection systems to document the nature and amount of farm and forestland converted to other uses.
- B. Learning what farmers do to adapt to the challenges and opportunities brought by changes at the rural-suburban fringe and the outcomes of such strategies.
- C. Ascertaining the nature of demographic change in rural areas where farm land and open space are threatened.
- D. Understanding personal and family considerations and stresses and the factors influencing farmers' decision making to stay in farming, pass the farm down to children, or to sell to developers.
- E. Determining the effect of industrializing the food system (e.g., changes in farm size, ownership, contracting) on farm decision making about conversion of land to other uses.

- F. Determining the role played by agriculture in local, regional, and state economies. What is the economic impact of farmland loss on economies and communities? Is the amount of loss affected by scale?
- G. Answering this question: Is a critical mass of farms and supporting businesses needed for the long-run viability of farms in a particular region? If so, what are the methods by which critical mass can be defined for any particular economic setting?
- H. Defining the term "sprawl" more clearly. From previous experience and past research, we should be better able to define what sprawl is, understand the underlying causes of this phenomenon, and predict its impacts.
- I. Understanding residents' location choices, including preferences, travel costs and congestion issues, and budget constraints, as well as the roles of developers, banks, and other organizations that affect these choices. What do people really want in housing? Why do they end up in rural areas?
- J. Defining the factors that influence the "premature development" of farmland and open space. How can policies be devised to alter these forces?

II. Meeting Public Preferences and Values for Farmland and Open Space Protection

Improved understanding of the public's perceptions of farmland and preferences and values toward farmland was identified as an important gap. Much discussion centered on the issue of whether people really want farms or the amenities associated with living in proximity to farms. As farms change to be economically viable, how well will farms provide the characteristics desired by the public?

- A. There is a need to gain a better understanding of the public's perceptions of farming and its benefits or burdens to them. How do these perceptions relate to farm characteristics (scale, type, and ownership)?
- B. There is a need to document the public values for farmland and to more precisely measure the citizens' willingness to pay for the outcomes (i.e., services) that result from farmland and open space protection policies.
- C. There is a need to develop an exhaustive list of rural and urban stakeholders to farmland policy issues and to better document the goals of these individuals and groups. Further, there is a need to identify convergent and conflicting goal sets and policies that have the potential to achieve multiple goals.

III. Integration of Public Policy Tools and Across Jurisdictions

Perhaps the most common thread in speakers' presentations and in participants' discussion comments was the need for greater integration along a number of dimen-

sions. Conference participants suggested greater integration of policy goals, modes of analyses, policy tools, and governmental boundaries.

- A. There was widespread recognition that farmland and open space protection is undertaken with a variety of goals and intentions. These goals are often not stated or adequately acknowledged. Some farmland protection options may achieve some goals at the expense of other conservation or environmental goals. Other policies may have unintended consequences, such as increasing the cost of housing or environmental costs if suburban growth occurs further into rural areas. Greater understanding of farmland protection goals is needed to design policies that attain goals congruent with stakeholder preferences regarding these issues.
- B. Multi-disciplinary studies are needed to understand the complex and dynamic nature of land conversion decisions and to formulate effective public and private responses to issues of farmland and open space loss. Farms are converted to other uses when external stresses are placed on them. Decisions within the family as well as within business structures affect farmers' responses to these stresses. Family sociology, conflict resolution, legal, and other perspectives may be needed in addition to financial assistance to effectively understand and help resolve these complex issues.
- C. In the real world, different policy approaches are often utilized together. We need to know more about the potential complementarity of different policy tools and ways in which they may conflict with one another. In addition, policy evaluation must be more sophisticated to effectively measure the impacts of hybrid or "blended" policies.
- D. More information is needed on regional approaches that cross political boundaries, how different programs work, and outcomes for different stakeholders and jurisdictions. Several states have programs on regional growth management that present excellent opportunities for evaluation.

IV. Measuring Impacts of Farmland Protection Policies

Speakers and conference participants pointed out the dearth of empirical evidence on the performance of policy options. More research, particularly of the type that identifies and measures policy impacts in local situations, is needed to fill this void and inform policy decision making.

- A. When evidence of policy performance is lacking, decisions may rely on theory and use untested assumptions or anecdotal evidence about an impact in decision making. For example, agricultural zoning is often thought to reduce agriculture-zoned property values. Yet several applied studies of land values have found the opposite – that values of down-zoned farms have shown values to increase. More work is needed to test our assumptions and determine the real effects of policies on land values and other impacts of

concern. Results need to be shared and compared in order to understand the full range of factors affecting the results.

- B. Policy impacts depend on follow-through in addition to initial legislation and policy making. Several speakers noted that variances are often granted to agricultural zoning programs. What is the actual impact of this regulatory option when variances are granted? More study of the details of policy implementation is needed.
- C. Speakers and conference participants identified the unintended consequences of farmland and open space policy as an area ripe for inquiry. A prime example was the potential effect of farmland preservation on residential land availability and housing affordability. While some of the impacts have been identified, a more thorough inventory of these consequences and an investigation of the magnitude of their impacts are needed.
- D. Related to unintended impacts are second- or third-round impacts of policies. One participant suggested that decision makers should know more about the impacts of the significant amounts of money flowing from public to private hands through PDR programs. How is this money being used and what are the impacts on local, regional, or state economies?
- E. Several successful programs appeared to work well because of the institutional designs that led individual farmer behavior toward common group goals in his or her decision to stay in farming. Thus, individual goals may be suppressed to achieve the collective interest of farmers within an area. Greater understanding of these programs and how they influence participants' expectations and behavior is needed.
- F. Many different criteria were used to evaluate performance. Some of these related to the different goals of stakeholders, such as amenities or land preserved. Others related to efficiency, equity, and practical issues of legal and political feasibility. More work is needed to advance the conceptual framework offered by Heimlich and to incorporate suggestions by others.
- G. Application of the policy evaluation framework in a systematic way was seen as a logical next step in applied research in this area. The suggestion was made to focus on a specific category of regulatory policies (e.g., agricultural zoning) and to begin cross-state comparative studies. After completing such research, a follow-up conference could be organized that provided researchers with a forum to compare results and work toward practical recommendations to decision makers about what works in farmland preservation policies.

V. Creativity in Developing New Policy Tools

Several conference participants felt that research on farmland and open space protection needs to be much more creative and experimental. The suggestions ranged from new areas to invention of hybrid or new policy alternatives.

- A. Devise new ways to raise funds for the Purchase of Development Rights.
- B. Engage multi-disciplinary teams to understand why farmers leave farming and why farms are not passed on to the next generation. Such information can then be used to assist public and private interventions when and where they are needed. Specific topics that could be investigated include the following:
 - 1. What are the stress points?
 - 2. What do farmers need to stay in business? (e.g., pensions and life insurance)
 - 3. What are the family dynamics in staying in business; how do farm families deal with conflict among siblings?
- C. Conduct multi-disciplinary research to broadly examine the patterns of development at the rural-urban interface in a broader context. Such work should include an analysis of the role of banks, developers, and real estate businesses, and examine urban migrants' reasons for locating in rural areas (land costs and housing affordability).
- D. Build on the work in New Jersey to better understand the complex interactions among policies and institutions and types of farmers (e.g., crop vs. livestock) and rural residents at the farm-urban fringe, to include an inventory and analysis of successful farmer adaptation strategies.
- E. Analyze the distributional consequences of different farmland protection policies that would examine the main beneficiaries of such programs and those who directly or indirectly pay for them.
- F. Analyze in a holistic manner the relationship between farmland protection issues and other issues (e.g., housing affordability) and identify stakeholders to these issues.
- G. Analyze political and institutional relationships between state and local government as they affect farmland protection policy development and its implementation.

VI. Recommendations for Extension and Outreach

- A. There is a need for thoughtful reflection and re-examination of the messages we send when we use particular terms in farmland policy (agricultural protection zoning, premature development) and frame farmland protection issues in narrow or selective ways. Learning from such a reexamination may allow programs to be developed that are balanced and more inclusive of all stakeholders to farmland protection issues. Words may need to be honed

and some abandoned to improve participation and dialogue among the many audiences for these issues.

- B. Education is needed regarding how and how much agriculture contributes to the economy. This education and supporting research would assess the issues of level of "critical mass" of farming and supporting infrastructure needed to sustain these economic benefits over time.
- C. Successful strategies by farmers to survive and even thrive through adaptation at the rural-urban fringe need to be shared, along with available information about factors likely to be associated with the success of these strategies.

More effort needs to be undertaken to understand the process by which effective farmland and open space policies become enacted and implemented. Extension and other organizations have played a catalytic role in many states and local areas. What do we know about how they identified and involved stakeholders? A future conference could identify the process element as well as what is known about the success of these education and involvement strategies. Perhaps steps are needed to change our approaches to do this better over time. One outcome of such a conference could be a detailed manual or guidebook with supporting case studies on how to mobilize support through education and community participation for farmland protection programs.

Speakers and Program Participants

Charles Abdalla, Conference Co-Chair
Associate Professor of Agricultural Economics
Department of Agricultural Economics and
Rural Sociology
The Pennsylvania State University

Adesoji Adelaja
Dean of Research, Cook College
Rutgers University

Cheryl Auchenbach
Planner
Berks County Planning Commission
Reading, Pennsylvania

Paul W. Barkley
Professor
Department of Agricultural Economics
Washington State University

John C. Becker
Professor of Agricultural Economics and Law
The Pennsylvania State University
University Park

Deborah Bowers
Editor, Farmland Preservation Report
Bowers Publishing, Inc.
Street, Maryland

Mark W. Cordes
Professor
College of Law
Northern Illinois University

J. Dixon Esseks
Research Associate
Center for Governmental Studies,
& Emeritus Professor of Public Administration
Northern Illinois University

Lela Long
Doctoral Candidate
Department of Political Science
Northern Illinois University

Peggy Kirk Hall
Senior Research-Extension Associate,
Agricultural Law
Swank Program in Rural-Urban Policy
The Ohio State University

Ralph Heimlich
Deputy Director for Analysis
Resource Economics Division
Economic Research Service, USDA

Lawrence W. Libby, Conference Co-Chair
Swank Professor of Rural-Urban Policy
Department of Agricultural, Environmental,
and Development Economics
The Ohio State University

Stuart Meck
Principal Investigator, Growing Smart Project
American Planning Association
Chicago, Illinois

Clyde A. B. Myers
Penn State Extension Agent, Berks County
Leesport, Pennsylvania

Harriet Tregoning
Secretary
Governor's Office of Smart Growth
State of Maryland

CONFERENCE CO-SPONSORS:

The American Planning Association; The Center for Agricultural and Resource Policy; The Farm Foundation; The National Center for Smart Growth Research and Education; The Maryland Center for Agro-Ecology, Inc.; The Maryland Department of Agriculture/Maryland Agricultural Land Preservation Foundation; The Maryland Department of Housing and Community Development; Maryland Department of Natural Resources; US Department of Agriculture Natural Resource Conservation Service; The North Central Regional Center for Rural Development; The Northeast Regional Center for Rural Development; The Southern Rural Development Center; The Western Rural Development Center; U.S. Department of Agriculture, National Research Initiative; The C. William Swank Program in Rural-Urban Policy, The Ohio State University