

THE RURAL-URBAN INTERFACE: POLICY ISSUES AND A LAND GRANT RESPONSE

by

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Introduction

Land Grant Universities exist to bring science to bear on the meaningful problems of the day. Roots of this applied science mission are in agriculture and its place in the broader society. As the face and character of agriculture change, so too must the Land Grants. This paper considers how things are changing in the zone where farm and city blend, what policy responses have emerged and where Land Grant Universities fit in all of that.

Land Use Change at the Interface

The facts are striking -- farming and urban life are becoming more interspersed in the 21st century. People move to the countryside for what they hope are the amenities of a country lifestyle (spending an average of 36 hours a year stuck in traffic -- 56 around Los Angeles). But they continue to seek open space, including active farms and the various amenities that go with them.

Farmers markets attract people from downtown and the denser suburbs out to the country for fresh produce and a farm encounter.≡ The experience may include getting close to farm animals and equipment, a corn maze or pumpkin patch, even the farmers themselves. Farms are often tourist destinations for families looking for a change of pace. The Virginia Economic Development Commission organizes three agri-tourism events a year in Loudon County, with an attractive brochure and map for each. Maine dairy farmers welcome urban volunteers for the Milker Relief Program, freeing the farmer for a few days off while providing an agricultural bonding≡ experience for the urbanite. Farms are coming to the cities as well, with extensive urban gardens providing produce for local markets or restaurants (see Kaufman and Bailey).

More than 11 million acres of land were urbanized between the 1992 and 1997 National Resource Inventories by USDA, over 3 million of which were defined by USDA as prime farmland. The top ten states were:

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Acres Converted to Urban Use

1992-97 (000 acres)

Texas	893.5
Georgia	851.9
Florida	825.2
California	553.4
Pennsylvania	545.1
North Carolina	506.6
Tennessee	401.9
Ohio	364.8
Michigan	364.1
South Carolina	362.0
Virginia	343.5

Farmland conversion rates have become a rallying point for policies aimed at protecting farmland for the various food and amenity services it provides.

Of the nearly 421 million acres of cropland in 1982, 350 million were still cropped in 1997, 30 million were in the Conservation Reserve Program, 20 million had gone into pasture and 7 million developed. Offsetting part of this cropland loss were about 27 million acres of land converted from various other uses into cropland between 1982 and 1997 (including 197,000 acres of developed land), for a total cropland base of 377 million acres in 1997 (Table 1).

Table 1: Changes in land cover/use between 1982 and 1997									
Land cover/use in 1982	Land cover/use in 1997								1982 total
	Cropland	CRP land	Pastureland	Rangeland	Forest land	Other rural land	Developed land	Water areas & federal land	
	1,000 acres								
Cropland	350,265.3	30,412.1	19,269.4	3,659.2	5,606.5	3,158.9	7,097.5	1,485.1	420,954.0
Pastureland	15,347.0	1,329.6	92,088.3	2,567.9	14,091.4	1,619.0	4,230.0	732.8	132,006.0
Rangeland	6,967.5	728.5	3,037.2	394,617.4	3,021.6	1,702.7	3,281.3	3,383.2	416,739.4
Forest land	2,037.1	128.8	4,168.2	2,098.8	380,343.3	1,754.8	10,279.2	2,528.0	403,338.2
Other rural land	1,386.8	93.1	1,013.6	719.1	2,767.7	42,713.3	726.9	227.8	49,648.3
Developed Land	196.7	1.2	78.6	110.8	227.0	12.0	72,618.7	0.8	73,245.8
Water areas & federal land	797.5	2.7	336.6	2,204.0	897.7	180.8	18.1	443,760.6	448,198.0
1997 total	376,997.9	32,696.0	119,991.9	405,977.2	406,955.2	51,141.5	98,251.7	452,118.3	1,944,129.7

1982 land cover/use totals are listed in the right hand vertical column, titled "1982 total". 1997 land cover/use totals are listed in the bottom horizontal row, titled "1997 total". The number at the intersection of rows and columns with the same land cover/use designation represents acres that did not change from 1982 to 1997. Reading to the right or left of this number are the acres that were lost to another cover/use by 1997. Reading up or down from this number are the acres that were gained from another cover/use by 1997.

More than the total amount of land converted, it is the pattern of conversion that gets the political juices flowing. Development often seems to be haphazard, skipping across the landscape in search of ever-cheaper real estate. David Rusk (1999) has compared rates of urban population growth and urbanized land from 1950 to 1990. The average ratio of land to people increase over that period in 58 urbanized areas is 4 to 1. People want more land around them in the 21st century.

Scattered development outside of the cities, at the interface, has been encouraged by federal policies that make flight from the cities feasible and attractive. All of these federal initiatives have laudable purposes, but the unintended side effect of urban sprawl has become a major political concern. Our impressive interstate highway system and connecting roads makes most countryside accessible to people wanting to live in the country and work somewhere else. New sewage treatment systems with federal and state grants available under The Clean Water Act bring modern convenience to suburban and even quite rural subdivisions. New package plants, including land treatment of community wastewater, can free the rural subdivision from reliance on a nearby city, again with federal grants and EPA approval. Federal Housing Administration mortgages and later the Federal National Mortgage Association (Fannie Mae) have spread the opportunity to own a single family home throughout the hinterlands of America. The opportunity itself is an important part of American culture, but there has been too little attention to the side effects of unguided exercise of that opportunity. Income tax deductions for mortgage interest are an added inducement, amounting to a \$54 billion federal tax reduction in 1999 just behind social security and defense in federal outlay (Rusk 1999, p.89)

The Issues and Policy Options

The interface between country and city tends to be ragged and indistinct, except for the few states or regions that have strong programs for urban containment. The policy issues are complex and options for solving them inevitably bring heated debate between those who gain and those who lose under each option.

Managing Growth. There are various ways to alter the pattern and pace of urban development into rural areas and sound reasons for doing so. Unguided growth can be costly to serve with needed infrastructure, congested and unpleasant for those involved. But changing growth patterns will cost those whose economic futures are linked to the current pattern.

Urban Growth Boundaries. Establishing urban growth boundaries is the most straightforward approach. Lexington, Kentucky was the real innovator here, with an urban containment boundary since the 1950's. Oregon's statewide system is perhaps the most celebrated and studied. Goal 14 of 19 goals articulated by the Oregon Land Conservation and Development Commission in 1973 required establishment of UGBs around every city in the state. Each boundary is intended to provide adequate development land for that city for 20 years, based on population projections and expected densities for residential, commercial and industrial uses. City planning goals may protect some open space within the boundary, but the general

notion is that development will be contained (Moore and Nelson 1994). Exceptions are granted to permit residential development on land outside the boundary but unsuitable for farming.

Drawing a line on a map is simpler than dealing with the aspirations and innovativeness of people living there. Some boundaries in Oregon have encompassed too much land while others are stretched under the pressure. Expected housing densities have been achieved in some areas, but not others. Development within some urban growth boundaries has been haphazard with inadequate infrastructure. There is still rural sprawl outside the boundary in many areas. As of 1997, an exception status had been granted to about 800,000 acres, about the same amount of land as contained within growth boundaries. Greater housing density means higher prices, and average home prices more than doubled in the Portland area between 1989 and 1996. There has been pressure to relax the growth constraints, to accommodate demands for a lower density living environment, but so far the advantages of actively containing growth seem to outweigh the disadvantages. 1000 Friends of Oregon have given a grade of C to the growth containment goal of the Oregon program (Liberty 1997).

The 1998 growth management program in Tennessee directs all counties to prepare growth plans that include urban growth boundaries for major municipalities. A coordinating council of local governments within that county is the primary initiating unit. Areas outside the growth boundaries are put into various rural land categories, including farmland. Only by completing these growth plans may a county and its municipalities be eligible for Community Development Block Grants, Industrial Training Grants, or other grants for housing, tourism development and intermodal transportation. It is an impressive comprehensive effort to guide the pattern of growth and perhaps more importantly to require coordination among local units of government. July 1, 2001 is the deadline for plan submission -- evidence of success or lack thereof will be coming soon.

Shifting Development Cost. Impact fees and other exactions are really at the other end of the policy spectrum. They require that new developments bear a greater portion of the cost that they impose on local governments. These fees don't really control growth but internalize at least some of the costs involved. The goal is full marginal cost pricing of new development, rather than determining exactly where it may occur. In practice, of course, impact fees are but one element of a comprehensive growth management program. They are an increasingly popular policy instrument employed to influence the pattern and pace of new development without resorting to tough zoning.

There are fee-enabling statutes in 20 states. Florida's law ties impact fees into the overall growth management act in the form of a concurrency requirement. New development is approved only if necessary infrastructure -- streets, water and sewer -- are put in place by the developer. The Illinois law applies only to fees for new roads that are needed as a direct result of the new development. Texas uses impact fees instead of local zoning, since county level zoning is not allowed. Indiana has a standard fee imposed on all new development. Ohio has no such enabling law, but municipalities and home rule townships can have their own fee structure under general

home rule authority. The major legal questions in all of these is whether the impact fee that is imposed bears a definable relationship to the marginal cost of new development, whether the fee relates to the actual needs of new development and the fee charged is specifically and uniquely attributable to cost of that new development (Carrion and Libby 2000). A community cannot hold new development hostage to meeting other community needs not directly linked to the development in question (see Callies 2000).

Saving Open Space. Another set of policies is directed at protecting land in farming, forestry and other open land uses. While there is an obvious relationship between concentrating development and protecting open space, the two goals are often pursued in parallel. The state agencies, interest groups, legal history and even the sources of research and education talent from the university tend to specialize in one or the other with little collaboration. They often compete for scarce public funds. Ohio's recently enacted Clean Ohio program, for example, authorizes \$400 million of bonding, \$200 for downtown improvements and \$200 for Agreenfields programs from trails and wetland protection to purchase of farmland development rights. Quite different groups are competing with each other in each of the two categories for a share of the funds directed toward their concerns.

All of the authorities of state and local governments -- to regulate on behalf of public health and safety, to tax, to encourage and cajole through education and technical assistance, and to spend public funds -- have been directed toward protecting open lands. In some sense, protecting open lands is the supply side of the issue, seeking private land decisions that keep land undeveloped. Growth management policy deals more with the demand side, development forces seeking to convert land to various other more intensive uses.

Regulations. Regulations to retain farm and other open lands draw on the Ageneral welfare rationale for rural zoning. AExclusive Farm Use (EFU) zones are a mandated part of county plans in Oregon, Goal 3 under the 1973 comprehensive planning program discussed above. These zones must be outside of urban growth boundaries and be high quality soils. Only farming is permitted within these zones; non-farm residences are expressly prohibited except where soils are unsuitable for farming. Minimum parcel size in farming areas is 80 acres and 160 acres for range. These are not Aminimum lot sizes in the usual sense, because residences are generally not permitted. These are parcels for farmers and ranchers to buy and sell.

Good intentions are seldom realized uniformly, and the Oregon EFU zones are no exception. Some counties have failed to carefully distinguish between farm and non-farm purposes when approving new homes in ag zones. The number of Afarm residences increased while USDA was reporting declines in number of farms. A study by the state legislature in 1991 determined that 37% of the farms having approval for new farm residences had no gross sales in that year (Liberty 1998, p.65). The Portland area has had more success than counties in the central and eastern parts of the state where rural housing density has increased -- from 121 acres per dwelling in 1975 to 80 acres in 1993 in Jackson County (Liberty 1997).

Zoning is generally a local authority, guided by state policy in Oregon and a few other states, but with little state level oversight in most states. The American Farmland Trust defines Agricultural protection zoning as ordinances with a minimum lot size of at least 20 acres (AFT 1997, p.49). These are not true exclusive agricultural zones as in the Oregon case, but inclusive zones that permit many different uses within the density limits. States that have a few of these county ordinances include California, Florida, Colorado, Iowa and Minnesota. Ohio is one of many states where agricultural zones are really just development land in waiting. Some counties do well, but a recent survey of Ohio counties found the nearly nine of ten local (county or township) ordinances with agricultural zones have minimum lot sizes of 3 acres or less (Stamm 1999).

Tax Incentives. One way of encouraging owners of farmland and other open space to maintain those lands in open use is to reduce the tax cost of keeping them that way. Use value assessment of farmland is the law in all 50 states. These laws acknowledge that markets establish the value of land based on what a willing buyer would pay a willing seller, an indication of income potential of that land. Value, then, is some combination of the land's productivity and its location relative to other land uses. When the location component outweighs productivity as a determinant of value, the farmer cannot convert wealth to income without giving up the productivity value on which farming depends. Use value taxation requires that land taxes be levied only on the productivity component, reducing the short run cost of production and the incentive to sell for location value. That location value still exists, of course, maintaining the farmer's wealth, unless zoning or planning reduces location value by restricting uses that depend more on location than productivity. Use value assessments constitute a tax shift from farmers to other property owners while leaving full land value with the farmer.

Some states capture a portion of that tax shift (3 to 5 year rollbacks of landowner taxes saved) when farmland is converted; others (California) put restrictions on the farmland owner to assure that the public interest is protected. In all cases, though, these special tax provisions are intended to encourage continued provision of open space by subsidizing the landowner for those social benefits beyond returns to the farm enterprise.

Other states (Connecticut, Vermont, Maryland) charge special capital gains or transfer taxes on the conversion of open land (see AFT, pp. 147-166; Libby and Stewart 1999) to discourage conversion. These laws recapture a portion of the unearned increment of location value attributed to public water, sewer, roads and other infrastructure.

Purchase. State and local governments have dedicated various sources of funds to buying the land or landowner discretion necessary to keep lands open. Nineteen states have authority to buy development rights to farmland, leaving other ownership rights with the farmer. Thus the public is assured that those acres will never be developed. Owners may also donate their development rights to a qualified conservation group or government unit, a charitable deduction for income tax purposes. Such deductions for up to 30% of annual household income are allowed for six years. A combination of sale and donation, known as a bargain sale, enables the owner

to combine cash and tax deduction in an optimal way and stretches the government's purchase dollar. Such a purchase can work only if planning, zoning and other instruments of local policy are used in concert, to implement the citizens' desire for thoughtful development and protection of significant blocks of open land (Daniels 2000).

An advantage of the purchase approach is that it assures that the farmland or other open land stays open. Most states have escape clauses for these permanent development easements, to be used only in cases of severe hardship. But for the most part, the transfer is forever. One would assume that such a transfer would lower the market value of open land to a level that reflects productivity or perhaps certain aesthetic virtues. Recent analysis by Nickerson and Lynch (2001) suggests, however, that Maryland farmland retains its market value even when development rights have been purchased. Perhaps the land market considers the easements to be something less than permanent, or perhaps simply places a high value on attractive Maryland countryside.

Other Rural-Urban Problems. The other key issues at the interface are the incongruence between problems and the jurisdictions asked to handle them, the future of large-scale animal production in the new urban agriculture, and farms as sources of non-point water pollution. Brief mention of each is presented here.

Scale Problems. Cities tend to spread linearly along highways and major roads, bounding beyond the city limits to soft rural countryside. Sprawl does not honor county or town boundaries and only the firmest of urban growth boundaries can contain the pattern of change. A metropolitan region, with city and adjacent open country, is a network of social and economic linkages that bind residents together. While the problems are regional, profoundly multi-jurisdictional, policy solutions tend to be balkanized into many local units, each wanting its own piece of the action. The tyranny of small decisions can undercut the best of good intentions in managing growth. David Rusk has studied cities and regions and concluded that a little box governance fosters segregation of all kinds, creating persistent pockets of poverty because agreement among small units is virtually impossible (1999 p.330).

On the other hand, a one size fits all approach to land use policy may render injustice to some parts of the region to satisfy demands in another. Policy response should respond to local demands, or it becomes an inefficient intrusion. Alex Anas argues that a fragmented governance entails substantial benefits. Local governments are more competitive when there is a multitude of them, and a wider variety of local public services is offered (1999, p.1). He favors metropolitan compacts among local units.

A sense of powerlessness led Franklin County, Ohio commissioners to withdraw from the Mid-Ohio Regional Planning Commission in mid-2000. They felt that Columbus, the central city, was imposing its will on rural areas without any attention to the wishes of local people. Ohio townships have recently succeeded in the effort to reform an annexation law that had required only that a proposed annexation to an urban center be in the best interest of the parcels directly involved without attention to surrounding lands. Now surrounding towns and residents are part

of the conversation.

This matter of who decides² is a major issue at the rural-urban interface throughout the US.

The Future of Animal Agriculture. Large confined animal feeding operations (CAFOs), the logical consequence of scale economies in animal production, are uninvited guests in many parts of rural America. Concerns go deeper than the potential environmental insults, to the issues of farm size and even foreigners or outsiders imposing their will on long standing rural communities. Many of these new arrivals are from The Netherlands, where the opportunity to passively invest in dairy farming to balance one's portfolio is being widely advertised. Further, Dutch domestic policy is actively discouraging further growth of the industry there. Since dairy farms larger than 700 cows require hearings on permits to install manure management systems, and such hearings often turn into rancorous community-rendering shouting matches, these new operations stop just below that size threshold. This may be legal, but hardly settles the issue. There are proposals to lower the size threshold and require more detailed manure management plans (EPA 2000). Meanwhile, states without major interspersing of rural and urban seek to lure these big operations toward friendlier areas. Unfortunately, fewer people also mean more distant and costly markets for the dairies.

The future of economically viable dairy and poultry operations, when size is an important variable, is uncertain at best in the new urban agriculture. Such concentrations of farm animals are first order LULUs² in most of the Midwest, resulting in loss of processing capacity and gradual deterioration of animal agriculture as an industry.

Agricultural Non-Point Pollution. Few will dispute that agriculture is America's biggest water quality challenge for the 21st century. Farms are not necessarily huge polluters, but most other sources have been taken care of leaving farms and other non-point sources as the primary barrier to meeting water quality goals. People are generally aware that the rivers look muddy, that parts of the Gulf of Mexico are dead as river-borne sediment and nutrients surge out into the bay, and that clean water is important to human health. Farms are visible and their links to muddy rivers seem obvious to most people. There are other non-point polluters, of course, but farms and particularly those near the rural-urban interface are in the spotlight.

The central policy issue is whether farms will be subject to the same limits as other water users. All states are developing a total maximum daily load of pollutants for selected river segments under Section 303d of the 1972 Clean Water Act. Absolute purity of water is both scientifically and economically impossible and at some level of impurity the water is still safe. Allowable impurity is to be allocated among water users and EPA feels that farms should be included. Others have argued that agriculture and other non-point sources are covered under Section 319 of the Clean Water Act dealing with watershed management, since the sources of stream loading

² Locally Undesirable Land Uses

cannot be precisely defined. There have been lawsuits on this question, most notably by the California Farm Bureau.

The old saw that Perception is reality has bearing here. American taxpayers are increasingly aware that farmers receive substantial income support from the federal government. They also believe that farms are a significant polluter of the nation's rivers and streams. People will insist that farmers improve their land and water stewardship as a *quid pro quo* for the myriad of economic benefits they already receive. The policy mix for farmers will go well beyond the voluntary/incentive based approaches employed thus far, to assure that scientifically valid quality standards are met.

Land Grant Universities Can Help -- The Ohio State University Example

Ohio State is one of several land grant universities throughout the country seeking to reinvent their applied science missions in light of the changing character of rural areas. The Kellogg Foundation provided the impetus with selective grants, but the process will continue beyond the projects. Comments here are limited to the Ohio State case; others may elaborate on experience at the other half dozen or so seeking their own redefinition.

Rural America is more than farms, and the farms themselves aren't what they used to be. The most rapidly growing category of American farms is those with gross sales less than \$250,000, categorized by USDA as residential/life style farms. Farming accounts for less than 8% of rural jobs, over 90% of rural workers have non-farm jobs, and only 1.78% of the rural population cite farming as their primary occupation (Fluharty 2000). Those conditions are particularly apparent in Ohio. Virtually no Ohio farm is beyond the reach of at least one of the state's 13 Standard Metropolitan Areas.

Farmers, traditionally the primary audience for land grants, are asking for help in coping with the expectations of their new rural neighbors. And those new rural residents expect service as well. In this environment, Ohio State University and the other 1862 and 1890 land grant universities cannot be just the spokesperson for farmers as they had been perceived in the past.

A Concept. Hallmark of the reinvention process in Ohio is the ecological paradigm. While no one knows precisely what the term means, we agree that it deals with linkages, connections, relationships among parts of a complex whole. Those parts may be elements of a biological system, aspects of human issues and choice, parts of a community, disciplines and units within a university. University types tend to be cynical about institutional reform in general and fuzzy terms like ecological paradigm in particular. Those who have relied on Ohio State University for various services in the past wonder if we have gone off the deep end. But the administrative team in the College of Food, Agricultural and Environmental Sciences has been both relentless and sincere in pursuit of whatever the term means. College faculty are gradually accepting the notion in the abstract, though are still anxious about how it may translate into mundane things like curricula, research support and reward systems. There has been no

intellectual revolution in the college yet, but the language, ideas and symbols are working their way into everyday parlance.

A Symbol. The tangible symbol of college reinvention at Ohio State is the four-sided pyramid. Each side represents an aspect of any change in policy or technology, and these sides are inter-related. They are: social responsibility, economic viability, environmental compatibility and production efficiency. The notion is that a new dairy production system, a new zoning ordinance or composting technology must be examined for its environmental, economic, physical and social consequences. What are potential impacts on rural communities? Who pays and how much? Is the change practical in the sense that it will work? What are impacts on water and air quality? It is really an analytical framework for mobilizing various disciplines around real problems without judgment as to how the problem *should* be solved. There may even be preliminary questions about whether the problem is worth solving, or whether the university has a role to play.

This pyramid idea may seem too trite or obvious to mention. But it has been remarkably resilient to skepticism from on or off campus. A large and diverse college advisory council has poked, probed and dissected the idea in search of fatal flaws. Faculty still snicker at the pyramid model on a solid wooden base on every department chair's desk. But the idea is catching hold and may just change the way this particular land grant college does business.

Actions. There are several structural examples of reinvention in the College of Food, Agriculture and Environmental Sciences at Ohio State University. Two highly sensitive rural-urban policy matters in the state have led to Dean-initiated and led task forces to assemble knowledge from all disciplines around the four sided pyramid idea. An animal industry task force seeks to sort out the full economic, social and environmental consequence of large dairies moving to Ohio. Criticism of the university role has come from all sides -- as an alleged advocate for big farms based on market potential and economies of scale, as soft on development by raising community and environmental consequences of the new technology. Faculty involved are making a sincere effort to do intellectually honest analysis and education on the topic.

The second controversial issue bringing disciplines together is proposed location of a 40,000 acre wildlife refuge around Little Darby Creek in a farming area near Columbus. Interested parties include the US Fish and Wildlife Service, The Nature Conservancy and other groups interested in protecting habitat and open lands, local governments in the region that feel they are being ignored, Columbus businesses that would like a large wildlife area as regional attribute and farmers as the primary landowners. Virtually all local officials and farmers strongly oppose the project, fearing loss of tax base and a federal Anose under the tent≅ that might lead to use of eminent domain on farmland. Tensions are high. A college task force is attempting to bring the pieces together, but the Darby case may be beyond the teachable/researchable moment. The multi-disciplinary team is working toward a watershed management strategy that is mobile enough for other locations.

The other actions to implement a reinvented college come in the form of two endowed programs. The first, the Agro-ecosystem Management Program (AMP) has an endowed chair funded largely with Kellogg funds. An ecologist with a strong multi-disciplinary bent leads that program, with affiliated research, teaching and extension faculty from both the Wooster and Columbus campuses of OSU. This group has a stakeholder contingent joining faculty at regular meetings, setting priorities and conducting projects. Emphasis is on sustainable agriculture, organic farming, watershed based planning. Successful farming in an increasingly urban environment is the driving force. The full range of disciplines is involved, including economists and other social scientists. A prominent case study deals with an organic dairy operation near the Wooster campus and its attempt to differentiate its product in a setting of increasing industrialization of animal agriculture. Faculty cooperated in developing and offering a new course, AStakeholder Issues in Food Agricultural and Environmental Sciences≅ that drew on the Dean=s Astakeholder in residence≅ program to bring stakeholders into the teaching environment. The ecological paradigm is being built into the basic principles courses in all departments of the college, an initiative headed by AMP.

The Swank Program in Rural-Urban Policy. The second endowed program was seen as a crucial part of reinventing the college, funded largely with a grant from Nationwide Insurance, and named after C. William Swank, former long-term executive vice president of the Ohio Farm Bureau. AProject Reinvent≅ contributed significant funds to the project and Ohio Farm Bureau took the lead in convincing the state legislature to add to the initial endowment. The program represents collaboration among university, government and dozens of county Farm Bureau organizations and farm cooperatives that understand the importance of the rural-urban interface to the state=s future.

I was hired in 1997 as the first holder of the endowed chair and director of the Swank Program based in the Department of Agricultural, Environmental and Development Economics (AEDE) in the College. An attorney with experience in agricultural and land use law was hired in January 2001. A full time administrative assistant with a strong interest in the subject matter makes the whole thing come together. Structural elements so far include a multi-disciplinary Faculty Task Force on Rural-Urban Policy and an external Advisory Council on Rural-Urban Policy Research and Education. The former meets every quarter to discuss ongoing research and extension projects and to consider further activities. Faculty participate only because they are interested. They come from various departments from several colleges and from near-by Otterbein College. The latter is comprised of 16 individuals -- a county engineer, leaders in the Ohio Departments of Agriculture, Development and Environmental Protection, the new director of Agricultural ecology≅ in the Ohio Farm Bureau, a local planning consultant, a consultant for the building industry, head of the county commissioners association, 4 farmers working in the interface parts of the state, staff from the Nature Conservancy, Director of a housing research center at Cleveland State and others. They serve three year terms and meet for a half-day twice a year. Their role, obviously, is to provide guidance for activities and priorities of the Swank Program. The Council assisted in development of a four year action plan with subject matter priorities.

The Swank Program must be academic within the home department and college, academic within the larger Ohio State community, service for research and outreach within Ohio and seeks a broader national role in the subject areas of rural-urban policy. There is even some international comparative work. Subject matter priorities include understanding the changing role of farms at the interface, multi-jurisdictional approaches to growth management, farmland protection policy options, environmental consequences of farming, measuring the non-food services of farmland, modeling land use change in a growth area and understanding how rural communities really make decisions.

Products of the Swank Program are directed conferences and workshops in the above areas, papers and reports available on the internet, outreach programming, sponsorship of selected conferences and individual consultation when useful. Outputs come from sponsored small grants for faculty/graduate students participating on the Faculty Task Force, by funding individual grad. student research within AEDE and our own research, writing and speaking. The Swank endowment is a substantial opportunity to bring scientists, educators and stakeholders together on inter-face issues and helps the College implement its Areinvention.≡ The Program aspires to become a national center of excellence on these topics.

Conclusions

1. Land Grant Universities do indeed have the opportunity, capability and the obligation to help understand and respond to the changing nature of rural America. Farms are feeling the pressure of these changes -- more of the farmers= time is spent dealing with regulatory and community matters, less on production and marketing. So there is no need to shift away from the traditional land grant clientele. We just have to help them deal with these new problems.

2. Land grant multi-disciplinary programs and institutes, including the two at Ohio State, need better marketing. There is product to be Asold,≡ demand to be gauged, labeling and brand recognition to be cultivated. We have never been particularly good at this, but must learn how. We must be more than the sum of individual faculty efforts -- too much useful content still disappears into the bottomless pit of fugitive literature.

3. There are two sides to rural-urban. We must develop credentials and collaborators in the urban side of the interface and not allow ourselves to be taken for granted (and therefore disregarded as Athe spokespersons for farming.) Our goal in the land grants is to diagnose rural-urban forces, issues and options with less attention to prescription. That is difficult, but worth the effort. Collaboration is important on our campuses and off. A few unfunded joint faculty appointments across department and college lines can help. Faculty should seek opportunities for Ain residence≡ assignments in agencies or groups outside of academia.

4. The policy environment for farming in an urbanizing society is likely to become more contentious. In my view, farmers will increasingly be asked to accept responsibilities of resource stewardship as conditions of ownership. The days of complete reliance on incentives and

volunteerism are numbered. Now is the time for farmers to initiate actions for clean air and water and other elements of rural-urban citizenship. Urban people need a better understanding of the realities of farming as a business; farmers need to know more about what urbanites value in farms.

5. Success in reinventing the land grants depends on how structure and good intentions are reflected in the Academic culture within the units. We can tout the virtues of multi-disciplinary work and collaborating with stakeholders on these complex problems, but individual faculty and administrators must really believe that when they vote on tenure or grant the various rewards of academic work. By the same token, the work in these multi-disciplinary units must be academically solid, whether as published journal articles, conference proceedings, bulletins, excellence in classroom or outreach teaching. Individuals involved will also have to meet responsibilities within their units for the advising and other academic governance. That is part of the price.

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THE RURAL-URBAN INTERFACE:
POLICY ISSUES AND A LAND GRANT RESPONSE

ABSTRACT

Rural America is changing as urban and suburban people seek open countryside living and the various amenity services of farmland. Cropland and other rural lands are developed in organized rural subdivisions or isolated parcels, increasing the blending of rural and urban at the ill-defined rural-urban interface. Farmers find that they spend more time dealing with these resource and policy issues at the interface. Land Grant Universities must respond to these changes in light of their general mission to bring science to bear on the meaningful problems of the day. Those problems include the needs of this new mix of rural residents and the policy issues surrounding competition for resources at the interface.

This paper reviews land use change information from the 1997 National Resources Inventory to characterize the setting for the emerging policy issues. At the top of the policy agenda at the interface is how to manage the pattern and pace of growth and protect open space (including farmland) for amenities provided. Experience with urban growth boundaries, the most straightforward growth management technique, is reviewed. At the other extreme in this policy spectrum are development impact fees that seek to internalize the marginal cost of new development.

Protecting open space is certainly closely related to managing growth, but has its own policy history. Regulations, incentives and purchase programs are considered as policy alternatives for towns, counties and municipalities at the interface.

Three other policy issues resulting from increased interspersed of rural and urban people and activity are discussed. First is the “who decides” question as growth tends to be regional and authority for dealing with it more local. Second is strong reaction to large-scale animal agriculture. Third is agricultural non-point pollution, arguably the most significant water quality problem remaining as we seek to achieve national standards.

Efforts by one Land Grant University to “reinvent” itself in light of these issues are discussed. The College of Food, Agricultural and Environmental Sciences at The Ohio State University is attempting to build its programs around the ecological paradigm that emphasizes linkages among physical, economic, biological and social systems. The paper reviews two specific applications of this Land Grant approach to problems of natural resource competition in Ohio, and the creation

of two endowed programs that emphasize multi-disciplinary approaches to problem-focused research, teaching and outreach. Institutional reforms of this type are never easy and success depends on how effectively structure and good intentions are reflected in the “academic culture” within the departments and other units.

KEY WORDS: Rural-urban interface, land use policy, growth management, land grant universities