

The following is a brief synopsis of some of the points raised in: Vertical Coordination of Agriculture in Farming-Dependent Areas, Council for Agricultural Science and Technology, Task Force Report No. 137, March 2001 by Luther G. Tweeten, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, Columbus, Ohio and Cornelia B. Flora, North Central Regional Center for Rural Development, Iowa State University, Ames, Iowa.

- Costs of odor-, waste-, and pest-control need to be charged to the producing units and not to their neighbors or to other “downstream” parties. p. 6.
- Firms will tend to go to counties, states, and countries with the weakest environmental standards. Thus, some national standards may be appropriate. State-level regulations may differ due to differences in population density and aridity. p. 7.
- National environmental rules do not account for differences in population density and climates among states. Thus, national environmental rules need to have sufficient flexibility to be tailored to the unique circumstances of individual states and communities. p. 32
- There can be no universal formula; each community or other entity must decide which development strategy to use. State and federal governments can assist in this decision-making process by establishing environmental ground rules and regulations and by providing information. p. 2.
- A county option is sometimes useful where environmental regulations need to differ appropriately among local areas. People in a local jurisdiction can vote whether to accept or to reject a proposed economic activity. For instance, communities with dense populations or sensitive environments may be unsuitable for large livestock-operations. p. 32, 33.
- Labeling backed by proper standards and enforcement allows consumers to “vote” by purchasing the labeled product at a price eliciting the appropriate supply. Providing education and technical assistance to private sector certifiers can enhance niche market options. p. 2.
- The United States must continue to promote competition through antitrust and other measures, including enforcing existing antitrust laws. p. 7.
- Production contracts offer the promise of economies of size but with less threat to small farms and communities than integrated ownership poses. p. 5.
- Promote market transparency, competition, and efficiency by releasing terms of contracts to the public. Such information not only can improve decisions of growers and contractors, but also allows for collective action where individuals share disadvantageous terms and provides a data base to research issues of market structure, conduct, and performance. p. 2.
- The forms of vertical coordination have unique effects on employment. Marketing contracts probably displace few resources from farms and small rural communities. Integrated ownership, especially, has the potential to displace resources from farms and rural communities because

production units tend to be large and because ownership and control may reside in distant metropolitan centers. p. 24

- All else being equal, industry wide productivity gains decrease aggregate employment and other economic activities in rural communities. p. 5.
- As a general rule, allowing operators to choose whichever form of vertical coordination they find advantageous but relying on the public sector to establish and to enforce environmental standards raises real national income while holding down food and fiber costs to consumers. p. 6.
- Consolidation affects the ability of small producers to respond to shifting demand by entering or leaving markets. Large, modern livestock-production facilities tend to have higher overhead costs (for facilities and equipment) than operating costs (for labor and feed). In hog production, large buildings must be kept full in order to minimize cost/unit. This strategy works best when production is at or near capacity. Low variable-cost/unit keeps large operations producing at low product prices; hence, the burden of adjusting supply to weak demand falls heavily on small producers. Vertical coordination of large-scale producers leaves small-scale, independent producers as residual suppliers selling in cash markets. p. 11.
- The standards set by the target hog producers now suggest that some 50 producers could account for all the hogs needed in the United States. Moreover, the standards set by new, state-of-the-art packing plants suggest that fewer than 12 plants could process the country's hogs. Source: Benjamin, G. 1997. *Industrialization in hog production: Implications for Midwest agriculture*. pp. 2–13. Economic Perspectives. Federal Reserve Bank, Chicago, Illinois.
- Compared with small farms with an equivalent composite production value, a large farm tends to buy a smaller share of consumption and production inputs in nearby small towns. p. 25 Sources: Chism, J. and R. Levins. 1994. *Farms spending and local selling: How much do they match up?* Minn Agric Econ 676:1–4 and Henderson, D., L. Tweeten, and D. Schreiner. 1989. *Community ties to the farm*. Rural Dev Perspect 5(3):31–35.
- Input-output analysis indicates this rule of thumb: each farm job adds another job in local communities and another in the state outside the local communities. Similarly, each \$1,000 of farm income adds another \$1,000 to local communities and another \$1,000 to the state outside the local communities, for a total multiplier of nearly 3.0. Sources: Sporleder, T. 1997. Ohfood Income enhancement program. Agricultural, Environmental, and Development Economics Department, Ohio State University, Columbus, p. 9.

Those benefiting are local merchants of consumer goods, of farm input supplies, and of food transportation, processing, and storage. Resulting higher tax revenues can better support educational and other local services. p. 27
- Less-efficient smaller operations producing today's output by means of traditional technologies require many more inputs of labor and other resources, many of which come from local communities. It is, therefore, tempting to conclude that small traditional live-stock operations best serve rural communities. The problem is that small, inefficient producers cannot compete

effectively and thus will struggle to remain in production. Hence, the option facing rural communities is not (1) large numbers of small livestock farms purchasing inputs locally versus (2) few farms having greater sales and purchasing more competitively and thus less in local communities. The first option is unlikely to be a viable alternative. p. 25

- Large, concentrated animal-feeding operations can generate flies, odors, and other externalities (or divergences between private and social costs/benefits) that decrease land values near production facilities. A Michigan study estimated that house values decreased \$0.43 for each additional hog within a five-mile radius. The study probably overestimated the loss in real estate value because home sale observations were recorded only near hog farms having received multiple complaints. Source: Abeles–Allison, M. and L. J. Connor. 1990. *An analysis of local benefits and costs of Michigan hog operations experiencing environmental conflicts*. Agricultural Economics Report No. 536. Department of Agricultural Economics, Michigan State University, East Lansing.
- Palmquist, Roka, and Vukina (1995) estimated, based on 237 home sales in 1992 and 1993 in North Carolina, that housing values were decreased 7.9% one-half mile away, and 3.5% two miles away from a new 2,400-head swine-finishing facility. Source: Palmquist R., F. Roka, and T. Vukina. 1995. Hog operations, environmental effects, and residential property values. Department of Agricultural and Resource Economics, North Carolina State University, Raleigh.
If they create environmental problems, newly developed or arrived agri-businesses may undermine a community's opportunities to expand its economic base. Market incentives bring about efficient social and economic outcomes only if the environmental problems of waste disposal, odor, pests, and water quality are addressed effectively. p. 27