

INVESTIGATORS: Morse, G.

PERFORMING INSTITUTION:
APPLIED ECONOMICS
UNIVERSITY OF MINNESOTA
ST. PAUL, MN 55102-6040

RURAL ECONOMIC DEVELOPMENT: ALTERNATIVES IN THE NEW COMPETITIVE ENVIRONMENT

OBJECTIVES: OBJECTIVE 3: Identify changing public policy initiatives and relationships and their impacts on rural economies and governments and investigate the effectiveness of alternative policy instruments to affect rural economic and fiscal viability and structure.

APPROACH: 1. Primary data was collected from two different types and two sizes of swine producers in four different types of rural counties in Minnesota on the location of their input purchases. 2) This data was used to estimate regional purchase coefficients (percent of local purchases from local producers) for each of the primary inputs. 3) An integrated economic-fiscal impact model (CPAN type) was used to estimate the impacts on the counties and on the state of these different sizes and types of swine producers.

PROGRESS: 2001/01 TO 2001/12

D Platas completed the data collection and analysis and published this in a Ph.D. thesis in 2000. Two journal articles have been developed and accepted for publication during the past year.

W. F. Lazarus, D. E. Platas, G. W. Morse, and S. Guess-Murphy. Evaluating Economic Impacts of an Evolving Swine Industry: The Importance of Region Size and Structure, Review of Agricultural Economics (accepted for publication and forthcoming).

These papers analyzes the economic impacts of swine operations at both the county and state level, with attention to how those impacts are affected by the underlying economic structure of the region. Two sizes of farrow-to-finish operations and two sizes of finishing-only operations were analyzed using IMPLAN, and the relative impacts were compared to the effects of recent changes in industry structure. The larger operations provide less in economic benefits to the local county than would a larger number of smaller operations. The large operations were comparable to the impacts of the small units when considering exits over the past four years. When examined at the state level, nearly all inputs were purchased in state except for construction materials. The controversy over whether some sizes or types of operations buy more locally than other sizes or types does not appear warranted from a state-level perspective.

D. Platas, W. Lazarus and G. Morse. Which is the Weakest Link in IMPLAN: Production Functions and RPCs? A Case Study of the Minnesota Swine Industry, Journal of Regional Analysis and Policy (accepted for publication and forthcoming)

Community and state policy makers are being pressured to restrict growth of large hog operations for a variety of reasons. In considering the environmental/economic trade-off, there have been questions about whether large or small operators yield the greatest local impacts. The purchasing patterns of the producers will play a part in this debate. This study developed a new approach for estimating the regional purchase patterns and applies it to large farrow-to-finish operations in Martin County, Minnesota. The production function in IMPLAN is also adjusted to reflect farm management accounting data rather than the national averages. For this case study, the production function changes are much more important than the changes due to regional purchase coefficients.

