

**Title:** “Improved Prospects for Rural Manufacturing: An Industrial Targeting System for the Great Plains”

**Authors:** John Leatherman and Terry Kastens

Department of Agricultural Economics

Kansas State University

331 Waters Hall

Manhattan, KS 66506

Phone: 785-532-4492

Fax: 785-532-6925

E-mail: jleather@agecon.ksu.edu

**Abstract:** This chapter introduces an industrial targeting system intended to improve local decision-making related to selection of targets for business recruitment. The Plains Economic Targeting System (PETS) consists of a series of econometric equations that match industry input and market requirements with community characteristics to generate a probability of new business location over a given time period. The system matches location requirements for 78 industry sectors to local characteristics for 414 counties in six Great Plains' states. Further, the coefficients generated for a given county are transformed into marginal impacts, providing important information relating to local policies that can improve the probability of attracting a given industry.

This chapter focuses the results for 38 two- and three-digit SIC manufacturing industry classifications represented in the model. The most compelling use of the model is the individual story told for a county: a rank ordering of manufacturing activities likely to be found in a given county considering its characteristics; the relative probabilities of some manufacturing industry compared to other non-manufacturing industry prospects; the rank order of counties by a given industry's probabilities; and the marginal impacts of discrete factors influencing the probability levels, implying policies that can mitigate or enhance these effects.

Beyond the individual county story, the system can provide an overall regional perspective on manufacturing industry prospects and the factors that influence the probability of their location. Aggregate manufacturing industry information will show the average industry probability for each state in the region; the frequency of statistically significant marginal impacts, implying the policy variables of relatively greatest importance; and the geographic dispersion of probabilities by industry showing the spatial patterns of industry location and co-location.

The system works well with other industry targeting strategies and analyses. Illustrations will be made showing how the probability-type information can be used with other clustering approaches, input-output information, normative approaches and others.