

Rural Competitiveness

Results of the 1996 Rural Manufacturing Survey

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Introduction

Manufacturing businesses are an important part of the economic base of many rural areas, providing nearly 17 percent of nonmetropolitan jobs in the United States. Income from manufacturing exceeds 30 percent of total income in 506 of the 2,276 nonmetro counties in the United States (Cook and Mizer). Although service industries are becoming more important in America's economic landscape, manufacturing jobs are among the highest paid rural jobs and manufacturing plants have important backward linkages that can generate additional economic activity within a community. Bernat finds that growth in manufacturing output and productivity often translates to regional economic growth.

A number of new trends have raised concerns about whether rural manufacturers can remain competitive. Manufacturers are increasingly adopting computerized automated production technologies and new management practices. Are rural businesses likewise adopting these new practices? These new technologies and management practices are changing the skill requirements for manufacturing workers. Can rural areas supply workers with the skills necessary to keep rural manufacturers competitive? What characteristics of rural locations are barriers to rural competitiveness? What do businesses say about the adequacy of the pool of labor available to them, access to credit, services, local infrastructure, and schools? Globalization of industry means the ability to compete in world markets is crucial to business success and job creation. Are rural businesses at a disadvantage in the export market? What types of establishments are exporting? Are Government business assistance programs properly targeted? Do they assist the types of businesses that need help?

USDA's Economic Research Service (ERS), in cooperation with Washington State University, conducted the 1996 Rural Manufacturing Survey (RMS) to address such questions. This nationwide survey of manufacturing establishments contains information on basic plant and company characteristics, use of technology and management practices, worker training, barriers to competitiveness, and problems related to obtaining capital for expansion or modernization. Interviews were conducted with 2,844 manufacturing establishments in nonmetropolitan areas of the United States and 1,065 establishments in metropolitan areas. Respondents are representative of establishments with 10 or more employees in all manufacturing industries.¹ This unique source of information on rural businesses is a vitally important tool for rural policymakers in the U.S. Department of Agriculture, Congress, other Federal agencies, and State and local governments. Numerous Federal, State, and local government programs are targeted to help rural businesses stay competitive. While considerable resources are devoted to such programs, researchers, rural development practitioners, and policymakers have few hard facts about the characteristics of rural businesses and what they need to compete in the national and global economies. The information available on these topics is often oriented toward urban businesses and may not be relevant in the rural setting.

This report summarizes the results of the 1996 Rural Manufacturing Survey and provides technical documentation of how the survey was performed and the computation of sample statistics. More in-depth analy-

¹See the appendix for details on the survey design and statistical issues.

ses are available in a series of issue-oriented Economic Research Service reports.

The RMS addresses the issue of rural business competitiveness by asking respondents to rate the importance of various problems that may affect their ability to compete. Responses to other questions provide basic information on the establishment, its products, and its work force that permits analysts to study the relationship between competitiveness and plant characteristics. The survey asked about five broad factors that affect business competitiveness.

- New technology, new management practices, and "lean" just-in-time manufacturing are believed to raise productivity and efficiency of firms. The RMS permits an investigation of the degree to which new technologies and practices are used by rural versus urban establishments, and whether adopters differ from nonadopters. New technologies and flexible manufacturing methods place new demands on workers by requiring them to do multiple tasks, take on increased decision-making responsibility, and work in teams.
- The demands of new technologies and management practices have given rise to concerns about the skills and aptitudes of U.S. workers. The RMS permits investigation of the increase in skill requirements, whether workers have the skills employers are looking for, and what firms are doing to improve worker skills.
- Most communities cannot prosper unless they provide a business environment where firms can compete successfully. The cost and quality of labor, land costs, regulation, tax rates, and access to business services, markets, infrastructure, and capital are factors that can affect a business' ability to compete at a particular location (Blair and Premus). The RMS provides a rare glimpse at the perceptions businesses have about what characteristics of their communities hinder their competitiveness. This information will guide policymakers and economic development officials as they consider how to attract new firms and retain old ones in rural communities.
- Federal, State, and local governments have implemented a number of loan, training, and assistance

Rural Manufacturing Survey: In-depth studies

The following special reports in the Rural Manufacturing Study series published by USDA/ERS (available at <http://www.econ.ag.gov/epubs/pdf/aib/736/>) also are noted in the references:

Fred Gale. *Is There a Rural-Urban Technology Gap?*

Ruy Teixeira. *Rural and Urban Manufacturing Workers: Similar Problems, Similar Challenges.*

David McGranahan. *Local Problems Facing Manufacturers.*

Elizabeth Greenberg and Richard Reeder. *Who Benefits from Business Assistance Programs?*

Other studies that used the Rural Manufacturing Survey data:

Fred Gale. "Value-Added Manufacturing Has Strong Local Linkages."

"Most Value-Added Manufacturing Firms Have Access to Needed Capital."

"Rural Manufacturers in the Export Market."

"How Skill Demands Are Related to Flexible Manufacturing Technology and Management Practices."

"Manufacturing Employers Report Widespread Problems with Labor Quality."

Chin Lee, G. Schluter, and F. Gale. "Most Jobs Created by Exports are in Medium- and High-Skill Occupations."

David McGranahan. "Can Manufacturing Reverse Rural Great Plains Depopulation?"

"The Geography of Technology Adoption."

"Manufacturing Sector in Black Counties Weakens in Era of New Technology."

"Advanced Technology Means Better Pay and Benefits for Workers."

R. Teixeira and D. McGranahan. "Rural Employer Demand and Worker Skills."

programs, tax breaks, and enterprise zones, to assist businesses and promote economic development. The RMS asked respondents to evaluate the importance of six types of programs to business operations, and thereby provides an opportunity to evaluate these programs.

- Access to capital is a key to business success and many government programs are designed to provide fair and equal access to business loans. The RMS provides information about reasons for capital investments, sources of funds, and problems encountered in raising capital.

In this report, responses by nonmetro and metro establishments to each question in the survey are tabulated. Statistics were computed using sample weights described in the appendix, which also provides details

about the survey design and the computation of statistics. The number of observations varies from table to table. Many questions were not asked of all respondents. For example, only those who reported using outside technical assistance were asked about sources of assistance. Also, some respondents did not answer every question they were asked. The number of sample observations upon which the statistics are based is shown as "N=" in the notes at the bottom of each table. The reader should keep in mind that nonmetro establishments were over-sampled in order to assure a sufficient number of observations for analysis. The proportion of nonmetro establishments in the sample is much higher than their share of establishments nationwide, and statistics for metro respondents are less reliable than those for nonmetro respondent (see Appendix: Technical Documentation).