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## An Empirical Approach to Characterize Rural Small Business Growth and Profitability

By Innovation & Information Consultants, Inc.

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### Purpose

Changes in the business cycle have had mixed effects on the rural economy. For example, Drabenstott (2000) suggests that the most recent economic expansion has had a two-fold effect on the rural economy. Some parts have fed off the expansion, while others, such as more remote rural areas, and farm-dependent communities, are struggling to keep up.

With this in mind, the Office of Advocacy sought to study the factors which lead to small business growth in rural areas. Why do certain rural regions expand more than others? Past studies suggest that possible explanatory factors might include population trends, educational attainment, economic conditions at the federal and local level, access to business capital and infrastructure, the availability of technology, and various quality of life measures. This study explores each of these factors, supplementing the examination with case study analysis from six states: Kentucky, Maine, Nebraska, Nevada, North Carolina, and Utah.

### Overall Findings

Areas that experience greater population growth also have increased changes in the number of small business. The growth rates of rural small businesses are influenced by different factors during periods of varying economic conditions. Between 1997 and 1999, significant growth in the number of rural small businesses was influenced by demographic, economic, and quality of life variables. During the period that included the recession, 2000 to 2002, economic variables were more significant.

### Highlights

- Education was a significant explanatory variable in assessing the growth of rural small businesses. The number of high school graduates increases the

number of rural small businesses. Moreover, one of the challenges facing rural communities is how to retain a younger, more educated population.

- The amount of “natural amenities” available in an area can impact rural small business growth. This is defined as the attractiveness of a place to live, based on factors such as climate, topography, and proximity to surface water.

- Rural areas have difficulty attracting profitable, high-tech businesses, primarily because of a lack of both an educated labor force and necessary infrastructure.

- Rural policy initiatives are geared primarily toward specific topics or regions, which often proves effective when there are sufficient resources to help rural small businesses. According to individuals interviewed on the topic, rural development centers and non-profit organizations are vital components for economic development.

- Some explanatory variables were specific to particular states. These range from the number of rural primary care physicians per capita in North Carolina to immigration growth in Maine.

### Scope and Methodology

The authors developed and modified empirical models to determine which factors were most influential in quantifying observed changes in rural small business growth and profitability. Time-series, cross-sectional, and longitudinal (panel) data analyses were all tested and included a wide variety of dependent and explanatory variables.

A national econometric analysis was first examined using panel data from 1997 to 2002. The authors contrasted the model findings by dividing the panel into two distinct time frames: 1997 to 1999, when the economy was growing, and 2000 to 2002, when it was in a downturn.

The authors supplemented their national findings with six state case studies. This included an investigation into demographic, economic and small business trends, an extension of the national-level econometric modeling to the state level, and different policy initiatives and programs enacted to assist rural small businesses.

This report was peer reviewed consistent with the Office of Advocacy's data quality guidelines. More information on this process can be obtained by contacting the Director of Economic Research at [advocacy@sba.gov](mailto:advocacy@sba.gov) or (202) 205-6533.

## Ordering Information

The full text of this report and summaries of other studies performed under contract with the U.S. Small Business Administration's Office of Advocacy are available on the Internet at [www.sba.gov/advo/research](http://www.sba.gov/advo/research).

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