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AN ANALYSIS OF BUSINESS CYCLES AND RESTAURANT FAILURE RATES

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ABSTRACT

Restaurants are thought to be high-risk businesses to operate and invest in. Specific myths about the failure rate of restaurants compared to other businesses have been examined by industry analysts and suggest industry rules-of-thumb for predicting high restaurant failure rates in their first year of operation. Analysts cite the lack of accurate data in tracking true restaurant failure rates. The purpose of this study is to examine the relationship between restaurant failure rates in 50 U.S. states and nine U.S. regions and the respective business cycles in these 50 states and nine regions. In particular, the study seeks to determine if there is a relationship between business cycles and restaurant failure rates.

Data on restaurant failure rates in 50 states are collected from official U.S. Bankruptcy Court records for the period 1990–1996. Nine U.S. regions are identified using the U.S. Census Bureau's regional boundaries. Data on restaurant failure rates are recorded as failures per 10,000 restaurants in each state and represent official bankruptcies and not restaurant closings because of other reasons (i.e., retirements, health reasons, change in ownership). Data on each state's business cycle uses the measure of each state's Gross Domestic Product (GDP) for each year from 1990–1996. GDP represents the total value of goods and services produced in each state, adjusted for inflation each year, and is a commonly used measure of the level of business activity in each state. The methodology used to determine the correlation between restaurant failure rates and business cycles is applied at two levels: (1) the state level, and (2) the regional level. State-level analysis uses state restaurant failure rates and state GDP measures, and regional analysis uses average regional restaurant failure rates and average regional GDP measures. A correlation analysis is used to determine an association between restaurant failure rates and business cycles at both levels for the period 1990–1996.

The correlation analyses were performed at the state level and the regional level for the period 1990–1996. Negative correlation coefficients indicate an indirect relationship between restaurant failure rate and GDP for Alabama, Florida, Kentucky, Indiana, Michigan, North Dakota, and Rhode Island, indicating that, as GDP increases (decreases), restaurant failure rates in these states decrease (increase). The only state with a positive correlation coefficient was Washington, indicating that, as GDP increases (decreases), restaurant failure rates increase (decrease). The regional-level correlation coefficients for average restaurant failure rates and average regional GDP for the period 1990–1996 were analyzed. Positive correlation coefficients were found for MT and PAC regions, while negative relationships were found for the ENC region.

The correlation analysis seeks to determine if a linear relationship exists between restaurant failure rates at the U.S. state and regional levels. From 50 state correlations, only eight states indicated a significant relationship. Of these eight states, all but one state (Washington) showed a negative linear relationship between restaurant failure rates and the state's business cycle. This negative relationship suggests that, as GDP increases (decreases), restaurant failure rates decrease (increase). In Washington, a positive relationship was found, possibly indicating that, in Washington, as GDP increases, the growing economy attracts new restaurant entries into the already saturated market, causing higher levels of restaurant failure rates.

At the regional level of analysis, a positive linear relationship was found between average regional restaurant failure rates and average regional GDP for two out of the nine U.S. regions. This suggests that in the MT and PAC regions of the U.S., as average regional GDP increases (decreases), average restaurant failure rates increase (decrease). The ENC region was found to have a negative linear correlation, indicating that, in this region, as average GDP increases (decreases), average regional restaurant failure rates decrease (increase), although this was only evident for the non-parametric Kendall's test of correlation. Future research will include a longer time period of data on restaurant failure rates and GDP, which will include a 15-year analysis. Specific reasons for differences will be examined from a market saturation and entrepreneurial and business start-up data set.