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## A Time-Series Analysis of Employment in Danville, Illinois

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Oral Presentation O5.4

**A TIME-SERIES ANALYSIS OF EMPLOYMENT IN DANVILLE, ILLINOIS**

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Economics Department, Illinois Wesleyan University

This study analyzes employment in the Danville, Illinois metropolitan area from 1990 to 2011. Employment is measured as the number of people working for pay, including self-employed persons and persons holding jobs but not currently working for a number of reasons. A time-series analysis of employment reveals seasonal, cyclical, and long-term trends, which aids in understanding the past and present state of Danville's economy. Monthly data ranging from January 1990 through December 2011 was collected by and obtained from the United States Department of Labor's Bureau of Labor Statistics, totaling 264 observations. Over this time period, employment has decreased gradually from 38,607 to 32,746 persons. Seasonal patterns indicate that summer months typically have higher numbers of employed citizens than winter months. A moving average approximation suggests cyclical changes coincide with economic expansions and contractions.