

# FORECASTING UNEMPLOYMENT WITH SPATIAL CORRELATION

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## ABSTRACT

Using regional data from Missouri, I compare the forecasting performance of a univariate autoregressive model to another which considers spatial correlation. I build each type of model for each designated area and evaluate their performance in making unemployment predictions in both a one-month and one-year horizon. For both specifications, BIC is used to determine the most effective model. After discovering the best model for each region in both univariate and spatial frameworks, I use both to make unemployment forecasts. Using mean square forecast error as the guide for accuracy, I find that in the shorter horizon the AR model is more effective while the spatial model is a better predictor in the one-year forecasts.