

**THE BUFFALO COMMONS AND THE CONSERVATION RESERVE PROGRAM: THEIR
SHARED IMPACT ON THE POPULATION OF THE NORTHERN GREAT PLAINS**

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ABSTRACT

Population decline has been a fact of life on the northern Great Plains for many years. Even though this area of the United States has been an important producer of agricultural products over the past century, the population has declined, fueled by such factors as agricultural mechanization, more competitive global markets, and federal subsidies favoring corporate agriculture. Other factors may exacerbate the outmigration of people from this region. One such factor could be the Conservation Reserve Program (CRP). The CRP is a federal subsidy program that provides financial incentives to farmers who are willing to take marginal lands out of production. These "at risk" lands are susceptible to erosion. By allowing this land to revert to natural prairie, soils and streams are conserved. However, evidence suggests that this program may lead to greater population loss in the northern Great Plains because farmers who take land out of production will purchase less fuel, seeds, or other agricultural inputs, thereby causing a negative economic ripple effect.

This paper examines the economic impact that the CRP has on the population of farming dependent counties of the northern Great Plains. The impact of the CRP on the dependent variable percent population change was determined using six independent variables from 1980 to 2000 including, percent change in the proportion of the county with a high school diploma, percent change with a four year education, overall county population, population density, personal income, and change in CRP acres as a percent of cropland in 2000. The method used to determine the impact included independent samples t-test to ensure the farming dependent counties were significantly different from non-farming dependent counties. Second a correlation was conducted to determine the

strength of the relationship between the dependent variable and independent variables. Third, a regression analysis was conducted to determine the type of relationship and allowed predictions to be made.

Based on the results nearly 60 percent of the variation was accounted for by the model, however, the analysis revealed that the percent population change could not be determined by the variables chosen. In particular, the CRP was found to have a negligible impact on the demographic change experienced in farm-dependent counties.