Assessing Environmental Justice in Minnesota: Do Native Americans Face Disproportionate Risks?

BEMIDJI STATE UNIVERSITY

Mya Schmeling
Political Science

Introduction

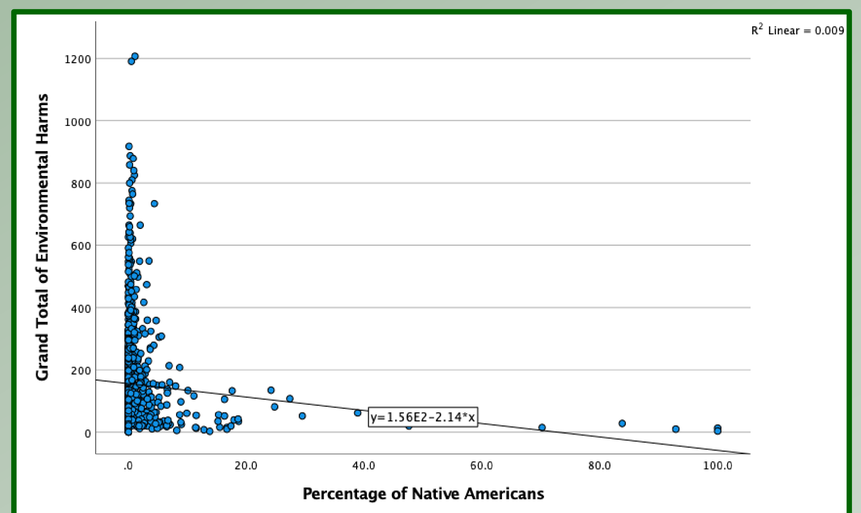
Environmental justice is an area that has gained traction in recent years. Environmental justice focuses on any group that experiences an imbalance of environmental harms. These groups are commonly distinguished by factors such as race and income. Are there any groups in Minnesota that face disproportionate risks? Data analyzed from the Minnesota Pollution Agency and U.S. Census Data analyses these questions.

Literature

- Walker & Bradley, (2002) A Closer Look at Environmental Injustice in Indian Country
- Vickery & Hunter (2015) Native Americans: Where in environmental justice research?
- Been, V. (1993) What's Fairness Got to Do with It? Environmental Justice and the Siting of Locally Undesirable Land Uses

Hypothesis and Analysis

Hypothesis 1: In a comparison of Minnesota zip codes, those with a higher population of Native American individuals will be more likely to have a higher grand total of environmental harms



Pearson's Correlation= -.096**
**= Significance at the .001 level

Hypothesis 2: In a comparison of Minnesota zip codes, when controlling for percent Black, percent Hispanic, percent Native American, percent high school graduates, percent White, count of population over 25 by 100,and median income per $1000, those with a higher population of Native Americans will be more likely to have a higher grand total and higher total of wastewater harms

Table 1: Linear Regression Analysis: The effect of Population Count and Demographics on Various Environmental Harms

Independent Variables	Grand Total	Wastewater
Percent Black	-1.456	-.010
	(1.108)	(.016)
Percent Native American	-.962	.011
	(1.119)	(.025)
Percent Hispanic	1.721	-.006
	(.684)	(.011)
Percent White	.675	-.003
	(.716)	(.008)
Precent High School Graduates	-.529	.134
	(.371)	(.006)
Percentage of Population Over 25 by 100	6.460*	.012*
	(.233)	(.003)
Median Income by 1000	-1.863*	-.012
	(.381)	(.006)
Constant	97.136	.931
	(71.478)	(.931)

Note: Entries are linear regression coefficients with standard errors in parentheses
*p<.001

Results and Implications

The data from my results show that there are disproportionate risks depending on different demographics in Minnesota. The focus of this research was to analyze specifically if Native Americans face disproportionate harms in Minnesota. While this particular analysis may not show that, literature still suggests that this is still an issue, and other approaches may show that. Possible implications may be the difficulty in measuring the harms and the sample size of the data used.