Abstract

The industrial, commercial, and transportation activity surrounding off-shore oil rig operations off the Gulf Coast of the United States is a significant contributor to air pollution. The primary air pollutants of concern are particulate matter, nitrogen oxides, sulfur dioxide, and Ozone. These emissions are caused by the burning of fossil fuels in vehicles, power plants, and industrial boilers, as well as the stacks of refineries and chemical plants.

The study aims to investigate the relationship between these air pollutants and health outcomes. It employs a time series analysis of data collected from 2000 to 2010 in Mississippi. The analysis focuses on particular regions, including the northern, central, and southern parts of the state.

The study uses meteorological parameters to understand the interplay between air quality and health. The data collected from CDC and state health departments will be examined for any association with the observed air pollution levels.

Key words: Criteria Air Pollutants, Wind Speed, Wind Directions, Statistical Modeling, Environmental modeling, Health Impacts

Conclusion

The study findings indicate a significant association between air pollutants and health outcomes. The results highlight the importance of addressing pollution sources and implementing mitigation strategies to improve air quality and public health.

Future Work

Further research is needed to extend the analysis to other regions and to explore the long-term impacts of air pollution on public health.

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