The Socioeconomic Link to Wind Turbine Siting in Indiana

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Since the last decade, the state of Indiana has undergone extensive growth with respect to wind turbine siting, which particularly sparked my interest onto the phenomenon. My research answers this fundamental question: Why do developers choose certain counties over others to develop wind farms in Indiana? The methods I chose to conduct my research are a true representation of the reality, since most of it was based on survey at large and credible information sources—interviews of individuals representing each county (those who are part of the economic division or area planning departments of the counties), information gathered from journal articles relating to wind energy, newspaper articles on wind energy, and calls to local citizens who reside in the counties of interest selected in my study. These methods help identify real and genuine aspects developers consider when siting a wind farm in a county, whether it is based on procedural techniques or socioeconomic condition of the county. The review of the six counties that I studied in Indiana clearly exhibits that developers in the long run tend to look for regions with ample wind speed and community acceptance when deciding where to site wind farms. The more important of the two factors—community acceptance of wind farms—depends on the socioeconomic status of the region combined with the population density, making socioeconomic status the most significant. Wealthy and densely populated counties tend to reject wind turbine siting. Contrastingly, my findings show that counties in Indiana that have demographics such as low income and lower population density tend to accept siting of wind farms. Ultimately, the fundamental reason is that less populated areas have fewer people to congregate and oppose, plus their lifestyle is less affected by the footprint of the wind towers, whereas largely populated areas not only have more opportunities for residents to congregate and lobby against the industrial (wind farm) proposals, but also they are prone to be affected largely by the installation and operation of the industrial equipment. Looking at my research through a broader lens, you will find that the siting of wind farms in Indiana illustrates that areas going through depressed economies can regain their foothold economically by accepting siting.

Research advisor Daniel P. Aldrich writes, “Eesa has worked hard to understand a critical puzzle: Why do some Indiana counties have large numbers of wind turbines when others have so few or none at all? Using qualitative and quantitative data gathered from census information, interviews with residents, and archival research, this study provides us with important insights into how developers select locations for often controversial projects.”

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Annual average wind speed in Indiana.