



STEM

NIMBY Politics and Nuclear Power: Applying the Lessons From Three Mile Island

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The Three Mile Island (TMI) partial core meltdown in March 1979 sparked a wave of public outcry across the United States, signaling the end of the country's "nuclear age" and installing a moratorium on new reactor projects that stood until 2012. However, this stoppage did not apply to projects already under construction at the time, and these persistent construction efforts faced mounting public disapproval and ballooning costs as safety regulations were updated continuously to assuage the outcry. I analyze the effects of local demographics and civic activism on the outcome of reactor projects under construction at the time of the TMI meltdown and hypothesize that a link exists between population density, affluence, and education level and the fate of the project in question. Data sets for 14 counties (as well as their respective states) across the United States were obtained from the U.S. Census Bureau, consisting of general population, education, and income statistics. Qualitative data were collected during a field visit to one of these sites through interviews with residents and

collection of local literature. Using a binary logistic regression analysis on the quantitative data using Microsoft Excel, only inconclusive statistical links could attach meaning to these results; however, the qualitative data collected on these counties offered a much clearer picture. In general, public outcry could be linked to the failure of a project directly, without quantitative data. These findings reflect those obtained in similar studies (such as *Site Fights*, an inspiration for this work and authored by my advisor, Professor Daniel Aldrich) and indicate that disasters such as TMI will, in the future, incite public opposition intense enough to impose significant barriers to new nuclear construction.

Research advisor Daniel P. Aldrich writes, "Jake's article seeks to answer a critical question: Why did some attempts to build nuclear power plants end well, while others, such as Marble Hill here in Indiana, fail? He gathers both qualitative and quantitative data to show how both economics and opposition played a role in canceling many planned facilities in the field. His creative use of interviews, census data, and archival materials helped him build a credible and interesting take on this very important topic."

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