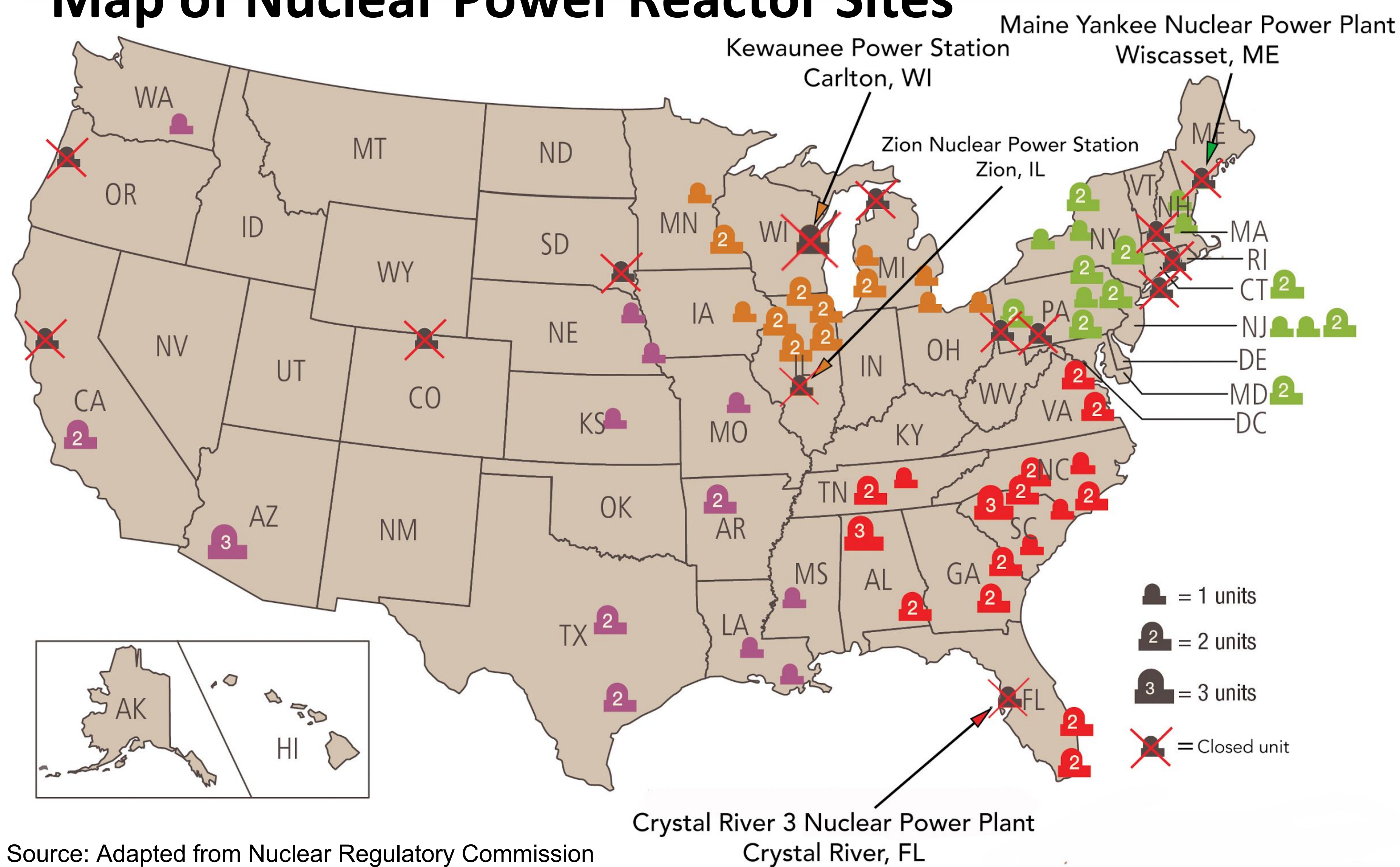


Binam Kayastha (CS), Connor J. Reardon (MGE), Justin M. Mancovsky (ME), Matthew B. Hill (ChE)

Abstract

The nuclear power industry as a whole is declining, as it faces competition from natural gas and renewable energy. Nuclear power plants are an economic engine for hosting communities while operational. The closure of these facilities can have devastating socioeconomic impacts on host communities. The National Spent Fuel Collaborative sponsored our project to investigate the socioeconomic impacts that occur following a closure of a nuclear power plant. **The goal for this project was to help communities and utilities improve planning by identifying potential socioeconomic impacts caused by power plant closure and to explore mitigation opportunities.** We analyzed qualitative and quantitative information on the socioeconomic impacts and mitigation practices from several closed nuclear power plants that have spent fuel on site. Our project served as an initial effort to compare the socioeconomic impacts on a macro scale. We compared four closed nuclear power plants that are identified below.

Map of Nuclear Power Reactor Sites



Findings

- 1) The common socioeconomic impacts are: job loss of utilities workers, loss of a major tax contributor, increased financial burden in a community, raised residential property tax, decreased expenditures in the local economy, funding adjustments for schools or municipal services, land reuse, and changes to the town's economic outlook and morale.
- 2) Host communities experience a large loss in tax contribution that factors into further socioeconomic impacts

Site Location	Crystal River	Kewaunee	Maine Yankee	Zion
Payment to community year prior to closure	2012: \$169,392,384	2012: \$449,705	1996: \$12,785,826	1997: \$19,511,994
Payment to community four years after	2016: \$24,588,470	2016: \$338,012	2000: \$1,908,000	2001: \$8,140,751
Percent Decrease	85.48%	24.83%	85.01%	58.28%

Table 1: Tax Contributions

- 3) Subsequent lawsuits between town and utility have further reaching financial impacts on the town
- 4) The premature closure of Crystal River 3 created impacts for communities outside of its hosting community, Citrus County.
- 5) Stakeholder involvement throughout the process is a key contributor to successful mitigation efforts

Recommendations

- Conduct a pre-closure socioeconomic impact study to incorporate impacts into current and future planning
- Re-evaluate nuclear power plant license lengths
- Maximize stakeholder engagement in the decommissioning process
- Continue building and centralizing lessons learned and implications.

Methodology

- Coded online newspaper articles to determine socioeconomic impacts
- Interviewed local officials who had a role in the decommissioning process to understand impacts and mitigation efforts
- Consulted local government offices and online databases to determine indirect impacts of closure on the community
- Organized collected data into interactive matrix to compare four sites

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Website

<http://bit.ly/2dZrLsL>



Matrix

<http://bit.ly/2dljqle>

