Achieving Environmental Equity: An Analysis of New Jersey's Environmental Justice Law

Aamir Jamil, Georgetown University
Professor Enrique Nuñez, Ramapo College of New Jersey

INTRODUCTION & OBJECTIVES

New Jersey's Environmental Justice (EJ) Law, passed in 2020 and implemented in 2023, requires permit applicants for eight facility types to consider "environmental and public health stressors affecting the host overburdened community and seek [...] to avoid a disproportionate impact" (N.J.A.C. 7:1C, 2023).

The main objectives of the research project are to study the effects of New Jersey's EJ, investigating how the New Jersey Department of Environmental Protection (NJDEP) is approving permits, examining the geographical distribution of permit approvals in Overburdened Communities (OBCs), and measuring environmental thresholds in relation to OBCs.

Hypothesis: The EJ Law had mixed results, significantly impacting levels of certain environmental burdens in overburdened communities while failing to address the effects of other environmental stressors.

METHODS

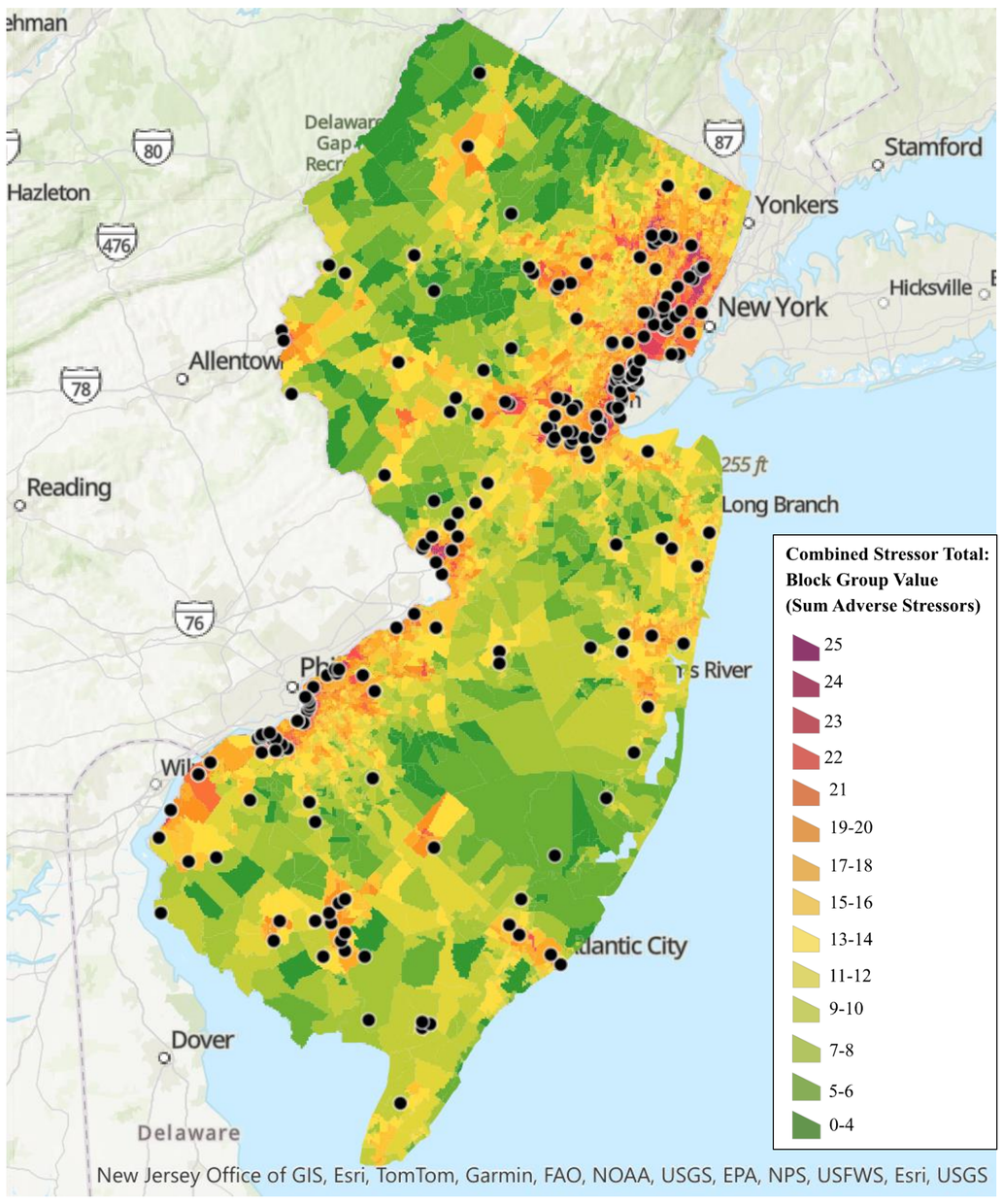
Data was collected from NJDEP on major source Title V air permit applications, air pollution data, permit action dates, and hearing transcripts. Demographic and socioeconomic data, environmental and health stressor levels, and the thresholds of the stressors as recorded for Census Bureau-designated block groups were also collected. Data was analyzed to identify patterns and trends in permit approvals for major air source facilities, community characteristics, and the consistency of DEP's decision-making process.

RESULTS & DISCUSSION

There were significant differences in the mean levels of 20 stressors between OBC and non-OBC communities pre-law, compared to 15 stressors post-law. Six stressors were significantly different between non-OBCs and OBCs pre-law but no longer significant post-law: ground-level ozone, combined sewer overflows, NJPDES sites, solid waste facilities, soil contamination deed restrictions, and groundwater restrictions. Differences between stressor levels pre- and post-law for OBC and non-OBC communities were not significant.

Significant differences in stressor levels between OBCs and non-OBCs before the enactment of the law, and for many stressors after the enactment of the law, establish a justification for having the EJ Law. They also suggest the Law may reduce the disparities in stressor levels between OBC and non-OBC communities. The lack of significant differences between stressor levels pre- and post-law suggests it is too soon to determine if the law has effectively reduced environmental and public health hazards. However, data does suggest the disproportionate effect of environmental hazards is starting to shift.

Combined Stressor Total for Census Block Groups and Major Air Source Title V Facilities



CONCLUSION & IMPACT

This is one of the first analyses on New Jersey's EJ Law and its impacts on underserved communities since it went into full effect. While the report is only preliminary to future studies, it provides insight into the purpose of the EJ Law and the landscape of air pollution in New Jersey. This data provides a baseline on why the EJ Law is needed and its potential to reduce the disproportionate impact of environmental burdens on low income, minority, or limited English communities.

The analysis confirms the existence of disparities between non-OBCs and OBCs. It is too early to tell if law has made a difference in reducing stressor levels before and after the law's implementation, but it has had some effect in reducing disparities between OBCs and non-OBCs. In the future, the question of effectiveness can be truly examined in analyzing emissions of facilities operating on permits approved before the EJ Law and after, and whether NJDEP's special conditions had any effect on emissions and environmental stressors.

REFERENCES CITED

Environmental Justice. 7 N.J.A.C. § 1C (2023).
Environmental Justice Mapping, Assessment and Protection Tool [map]. (2023). New Jersey Department of Environmental Protection.

Center for Sustainability
STEVENS INSTITUTE OF TECHNOLOGY
PSEG
PSEG FOUNDATION