

# Environmental Gentrification

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## Abstract

The goal of environmental policy is to protect the environment while promoting efficiency and pursuing equity in the distribution of benefits and costs. This paper focuses on measuring the differential welfare impacts of environmental improvements across household groups, taking account of property market responses and housing re-optimization. A dynamic model of housing decisions with endogenous tenure status (renting vs. owning) and forward-looking residents (heterogeneous by their wealth, income, and race) is used to extend the distributional analysis in three previously overlooked dimensions: wealth accumulation and expectations corresponding to property market changes; differential impacts of property market appreciation on renters and owners; and preference heterogeneity over public amenities. The model is estimated taking advantage of an exogenous and unexpected environmental shock and employing a unique data set (L.A.FANS Data) tracking residents locations and tenure choices in Los Angeles County from 2000 to 2007. I estimate households heterogeneous preferences, explore distribution of welfare changes, and investigate welfare redistribution caused by market responses using my estimations in counterfactual analysis. The results show that the distribution of benefits from a positive environmental shock favors high-income households, especially owners, and harms low-income renters. Low-income renters who gain a small welfare gain from environmental changes in partial equilibrium experience welfare losses once I incorporate housing market responses and residential sorting in a general equilibrium measure. In contrast, owners of all incomes benefit more in general equilibrium because of the capitalization of environmental improvements in the housing market. Evidence that the benefits of an environmental improvement are distributed regressively and the fact that renters are on average both poorer than owners and are more likely to be people of color also raises environmental justice concerns, which will affect likely policy design and evaluation in the future.

**Keywords:** Environmental Gentrification, Residential Sorting, Tenure, Welfare Analysis

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