

# Robin Hood in reverse? Assessing the distributional effects of urban nature using a second-stage hedonic house price model

## ABSTRACT

We analyse the housing markets in a suburb north of the Danish capital Copenhagen. We find that households sort themselves in relation to nature area. The concentration of affluent households decreases rapidly with distance to nature. This indicates that a welfare change generated by a change in the supply of urban nature could be skewed due to a systematic difference in preference that is highly correlated with demographics. In this paper we assess if and to what extent this is the case.

We conduct a second-stage hedonic house price study and recover household-specific preferences for availability of nature. Preference parameters are identified locally through restrictions on household utility-functions. First, we assess the relation between demographic factors and household WTP for nature. Households with higher incomes and wealth have a 0.9% higher WTP per 1.000 EUR and this figure is slightly higher at the low end of the distribution. Interestingly, education mainly impacts the center of the distribution and impacts the tails less.

Our study contributes to the discussion of the distributional aspects of environmental benefits. This is a discussion mainly fuelled by stated-preference methods, and we contribute with results based on a revealed-preference method. Our results show that socio-economic distribution is a relevant factor to consider when evaluating nature area policies.

## Keywords

Public policy, progressive distribution, green space, 2nd stage hedonic regression, quantile regression

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