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Subsidies to Electricity Consumption and Housing Demand in Bogotá

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In this paper, I estimate the demand for housing in Bogotá, modeling electricity consumption explicitly to take into account the crossed subsidies included in Colombian utility rates. I use household level data on housing prices, observable dwelling attributes, and demographic variables to recover the willingness to pay for housing characteristics following the three-step estimation procedure suggested by Bajari and Kahn (2005). First, I regress the price of housing against different observable dwelling characteristics to recover the implicit price of each feature. Next, I infer household-specific preference parameters from the utility maximizing first-order conditions, where a household's utility depends on these observable characteristics. Finally, I analyze the relationship between demographic variables and the taste parameters estimated in the previous step. In order to study the impact of subsidies on households' housing decisions, I focus on the impact of changes in the price of electricity on the choice of dwelling size. I find that subsidized households choose bigger dwellings than they would in the absence of subsidies, while those who are taxed choose smaller ones.

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