Housing Lottery to Increase Demand for Formal Government Housing and Improve Welfare in Ethiopia

Sector(s): Labor Markets

Sample: 1,564 households from the housing lottery

Target group: Urban population Adults Families and households People experiencing housing instability

Outcome of interest: Earnings and income Household finance Social cohesion Labor

Intervention type: Housing and neighborhoods Social networks

AEA RCT registration number: AEARCTR-0003579

□□□□□□□□ **:** https://doi.org/10.1016/j.jpubeco.2023.104939

Partner organization(s): International Growth Center (IGC)

In low- to middle-income countries around the world, nearly one billion people lived in urban informal settlements as of 2018. Rapid urbanization in most large African cities has led to both more people and a higher proportion of people living in informal settlements over time. Researchers conducted a randomized evaluation to test the impact of winning the housing lottery on the demand for formal government housing, consumption, labor market outcomes, social networks, and community and public goods in Addis Ababa, Ethiopia. Winning the housing lottery increased demand for formal government housing: nearly 46 percent of participant households that win the lottery chose to move into their formal housing, indicating many prefer to live in government housing despite the high implicit cost that they pay to do so.

□□□□□□□□ □□□□□□□□

In low- to middle-income countries around the world, nearly one billion people lived in urban informal settlements as of 2018. This housing is often occupied by low-income populations, are overcrowded, and may lack durable building materials or access to services like running water or decent sanitation. The UN estimates that nearly three billion people will require adequate affordable housing by 2030.

Governments often respond to these poor housing conditions by providing government-built, subsidized housing on cheaper land that is typically located far from city centers. This additional supply of housing can address the improved housing demand that the private sector often fails to meet. However, it is unclear if residents of informal settlement who purchase government housing will choose to stay put and treat the housing as an investment, or will value it as an opportunity to live in improved conditions and move in.

Does winning a housing lottery in Ethiopia increase demand for government housing, improve welfare and earnings, and increase the willingness to contribute to public goods?

□□□□ □□□□□□□□

In most large African cities, over 50 percent of households live in informal settlements. Rapid urbanization on the continent has led to both more people and a higher proportion of people living in informal settlements over time. In Addis Ababa, Ethiopia, rapid urbanization is a growing challenge: the population is expected to double in the next 25 years from 3.2 million in 2014. The

city is also facing a formal housing shortage. More than two-thirds of the population lives in informal settlements and approximately one quarter of households rent kebele housing, which is government-owned informal housing in the center of the city and is largely free for renters.

To correct for the shortage of formal housing, the government built new formal housing apartment blocks at scale beginning in 2013. These housing blocks are typically located on cheaper land on the outskirts of the city, and the average price paid for a unit is US$10,000 (nearly 40 percent less than the building cost) and are highly popular. Given the government's investment in connective infrastructure, units are equipped with formal water, sewer, and electricity connections and households are responsible for upgrading the units as they see fit.

Opportunities to buy the government-built formal housing are determined by a city-wide lottery. Only one application is allowed per household. Eligible applicants must not already own a property and they must have lived in Addis Ababa for at least six months. Once households have applied, they are required to make monthly savings payments to contribute to a mortgage down payment of 20 percent should they win the lottery. Winners can choose to live in the unit or rent it to others.

Among 130,000 eligible applicants, the lottery dedicated 30 percent of units to female applicants and 20 percent to government employees; the remaining 50 percent of winners were randomly chosen from the applicant pool, regardless of gender or public employment. Fewer than 30 percent of eligible applicants won the lottery in 2015. Study participants were less likely to own a home and their residences were more overcrowded than the average household in the city.



Family walking towards housing in Ethiopia

Panoglobe, Shutterstock.com

□□□□□□□ □□□□□□□ □□ □□□□□□

Researchers conducted a randomized evaluation to test the impact of winning the housing lottery on the demand for formal government housing, consumption, labor market outcomes, social networks, and community and public goods in Addis Ababa, Ethiopia.

Researchers took a random sample of 1,564 households among eligible lottery applicants. Of the households researchers were able to reach that formed the baseline sample, the study's intervention group consisted of 783 winning households and the comparison group was 781 non-winning households. Given that female and government employee applicants were prioritized in the lottery, researchers stratified households in the two groups to ensure that each of the 1,564 households in the sample had an equal chance of winning the lottery.

To measure the impact of winning the housing lottery on the demand for government housing and other socioeconomic outcomes, researchers conducted surveys just after the 2015 lottery results announcement and three years after the 2018 lottery. At the time of the endline survey, winning households that chose to move into their formal government housing had lived there for approximately sixteen months, on average.

□□□□□□□ □□□□□□□ □□□□□□□□□ □□□□ □□□□□□□□

Winning the housing lottery increased demand for formal government housing: nearly 46 percent of participant households that won the lottery chose to move into their formal housing. Researchers suggest that this shows that winners who previously lived in informal settlements prefer to live in formal government housing despite the high costs and potential risks of moving outside of the city center. Conversely, 39 percent of lottery winners chose to rent out their new homes.

Housing and Consumption: Winning the housing lottery led to improvements in the quality of the structure that households occupy in Addis Ababa. Using a housing quality index, housing quality improved by an average of 0.70 standard deviations for lottery winners. Winning households also spent US$5.46 more per month on housing expenditures due to mortgage costs, a 29 percent increase from the comparison group average of US$18.74 per month. After moving in, winning households made upgrades to their homes and invested nearly US$1,682.70 over two years, a 2,171 percent increase from a comparison group average of US$74.09. Researchers hypothesize that housing security and formal housing technology made households more likely to make upgrades to their formal government housing.

Income Effects and Labor Market Outcomes: Researchers found that winning the housing lottery had no effect on income, total earnings, hours worked, or overall employment. This result holds when comparing households that do and do not move in. Notably, this result also remains for households who moved, on average, 8.8 kilometers further from the center of the city. These workers either adjusted working location or faced longer commute times by an average of 34 minutes per day, but the new communities were well connected to private mini-bus services.

Social Networks: Households that moved into the formal government housing units faced a reduction in the size of social networks and reduced regularity of interactions with neighbors, but also a decrease in conflict with neighbors and a decline in economic reliance on these networks. For instance, winning households had 2.18 fewer social interactions per week, a 19 percent decrease from the comparison group average of 11.4 interactions per week. Researchers find no evidence of a reduction in welfare or well-being as a result.

Community and Public Goods: Lottery winners were 0.112 standard deviations more likely to contribute both time and money to public goods such as risk-sharing groups in their new housing communities. Households that moved were also more likely to participate in neighborhood committees that enforce rules and regular payments, suggesting a shift towards more formal housing interactions due to more clearly defined property rights and a clear division of public and private spaces.

Taken together, these findings demonstrate that households living in informal settlements in Addis Ababa, Ethiopia are willing to pay to move to formal housing and experience dramatic improvements in housing quality through formal housing despite incurring significant moving costs. These short-term results suggest increasing the supply of formal housing can have positive benefits for many growing African cities, although long-term research would provide additional detail for the effectiveness of these housing programs.

---

1. United Nations Department of Economic and Social Affairs, Statistics Division. 2019. “Rapid Urbanization and Population Growth are Outpacing the Construction of Adequate and Affordable Housing.” United Nations.