



SUBSIDIZING HOMEOWNERSHIP BUILDS WEALTH, CHANGES ATTITUDES, AND GENERATES URBAN CIVIC PARTICIPATION: Evidence from India

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Today, over half of the world's population lives in cities. While low- and middle-income countries remain predominantly rural, urbanization is expected to add 2.5 billion people to the global urban population by 2050, with 90% of this increase slated for Asia and Africa. India alone is expected to contribute 404 million individuals to this figure (UN World Urbanization Prospects 2015). As demand for living space increases, governments have attempted to increase the formal housing supply by encouraging private developers to build and by constructing housing themselves.¹

One common policy is the subsidized sale of homes to lower-middle class households. Such policies exist in cities in many countries, including India, Brazil, Uruguay, Nigeria, Kenya, Ethiopia, and South Africa. Even while the *stated* reason for these policies is most often a shortage of housing, the subsidies actually constitute wealth transfers to beneficiaries experienced in

some combination of three payout structures: 1) a stream of in-kind benefits for those who choose to live in the subsidized home; 2) cash benefits among those who choose to rent it out; 3) or lump-sum through resale. Aside from transferring wealth directly, the programs also facilitate the purchase of an asset that forms the cornerstone of wealth accumulation for many families. This wealth accumulation will be largest for those who live in cities with rising home prices.

The programs are, in some ways, reminiscent of homeownership subsidies that have been in place in many high-income countries since World War II. Examples of relevant policies include Britain's Right to Buy program and both targeted and universal mortgage subsidies in Japan, Canada, and the United States. These programs are consequential not only because they have transferred wealth, but also because they have turned the relevant countries into

1. These attempts are distinct from policies attempting to solve problems associated with illegal settlements or housing on a city's outskirts to which public services may not yet extend. Solutions to these problems include land titling (see e.g. Di Tella et al. 2007; Feder and Feeny 1991; Field 2005; Galiani and Schargrodsky 2010) and the extension of services (see e.g. Burra 2005; Gulyani and Bassett 2007; Imparato and Ruster 2003). These interventions mostly help alleviate problems of informality faced by a city's poorest residents, but low housing supply affects members of higher socio-economic strata, too.

Winners were about 29 percentage points more likely than non-winners to report attending local municipal meetings.

nations of homeowners. Jordá, Schularick, and Taylor (2014), for example, find that mortgage subsidies increased homeownership from 40% in the 1930s to nearly 70% by 2005 (and to about 65% in the wake of the 2008 housing crash) in the United States, with similar changes seen in the United Kingdom.

We also know that homeownership affects political behavior in these contexts. A home is a large asset comprising, in the modal situation, most of a family's wealth. Homeownership therefore leads households to engage in behavior that improves their most immediate neighborhoods to maximize the value of the home (Fischel 2001). Studies of homeownership in the United States have focused on a resulting "not-in-my-backyard" mentality (NIMBYism) that leads homeowners to defect from city-level public goods such as landfills and homeless shelters due to the costs they impose on local communities (Portney 1991; Dear 1992; Fischel 2001; DiPasquale and Glaeser 1999). To the extent that wealth affects political participation (Brady, Verba, and Schlozman 1995), the asset accumulation generated by homeownership, particularly in cities, may also affect political behavior. By increasing rates of homeownership in the US and UK, subsidies have thus affected local-level politics in these countries as well.

How, then, do subsidized housing programs affect local politics and political behavior in low and middle-income countries? It is not clear whether findings from the US translate to urban India, where political participation is often correlated with fixed aspects of one's religion or caste (e.g. Chandra 2004). Could a simple wealth transfer change decision-making that has often been described as tied to identity?

The existing literature's focus on identity might just be a result of the fact that it tends to focus on voting. Studying voting behavior does little to reveal citizens' preferences and their expectations of government, mainly because turnout and vote choice are one-dimensional measures of a decision based on numerous factors. To truly understand how the wealth transfer changes political preferences, I study what comprises a large portion of everyday local politics in urban India: demands to improve services, such as piped water and sanitation, one aspect of what Kruks-Wisner (2018b) calls "claim-making."

The program

I investigate this relationship in Mumbai, India by exploiting a natural experiment wherein applicants were assigned subsidized homes through a lottery system in 2012 and 2014. Such programs have been spearheaded in all major Indian cities by state-level development boards created by India's Second Five Year Development Plan (1951-1956) that provided central government funding to states to develop low-income housing (Pornchokchai 2008). This same development plan advocated cooperative citizen ownership in all sectors of the economy; as a result, the housing boards developed apartments that would be sold, rather than rented, to individuals and buildings that would be collectively maintained by all owners (Ganpati 2010; Sukumar 2001). The policy of construction for ownership continued even as the central government's development plans moved towards policies favoring the facilitation of private construction after the economic liberalization of the 1990s. Moreover, in 2015, India's federal government claimed a housing shortfall of over 18 million to motivate a plan, Pradhan Mantri Awas Yojana (P-MAY), to build 20 million affordable homes by 2022. Grants to

subsidize the construction and sale of low-income housing by local municipal boards remain a central component of this policy.

I studied an instance of the program implemented in Mumbai by the Maharashtra Housing and Area Development Authority (MHADA). Every year, MHADA runs subsidized housing programs for economically weaker section (EWS) and low-income group (LIG) urban residents who 1) do not own housing, and 2) who have lived in the state of Maharashtra for at least 15 continuous years within the 20 years prior to the sale. Winners have access to loans from a state-owned bank, and most take out 15-year mortgages. Households are not permitted to sell the apartments for 10 years, but they can rent them out.

The lottery homes were sold at a “fair price” that government officials claim was 30-60% of market prices at the time of sale. Winners could eventually hope for large gains; 3-5 years after the lottery, the difference between the apartment purchase price and list price for older MHADA apartments of the same size in the same neighborhood lies anywhere between Rs.661,700 (about \$10,300 at 2017 conversion rates) to Rs.2,869,015 (about \$45,000).²

The yearly lotteries are advertised in newspapers (*Figure 1*), on the internet, over the radio, and through text messages. Applicants can apply online or in person at the MHADA offices, and need only an Aadhaar card, personal account number (PAN) card, a passport photo, mobile number, email, and cancelled check.³

Most of these items, particularly the Aadhaar card and PAN card, are required for most formal transactions; possession of the application materials thus forms a low bar to entering the program. The 200 INR (3-4 USD) application fee is nominal, and most applicants reported applying for the lottery year after year, with no real expectation of ever winning.

From the perspective of an applicant, the program is an opportunity to completely change a family's life and economic trajectory. The lottery apartment buildings are close together, densely populated, and stamped with the implementing agency's logo (*Figure 2*), but interviewees rarely seemed worried about any social stigma associated with living in the homes. “People who win these homes have the chance to make their lives better, everyone knows that,” replied one applicant when asked about how the apartments are perceived. “It's the chance to win a home in this extremely expensive city. I could never dream of that otherwise, and it would make me feel more financially secure than any job ever could. If things keep on going the way they have in Mumbai, maybe I can sell it for a high price one day and become comfortable, even wealthy,” answered another.

Nevertheless, the program is not targeted at the poorest households in a city. Winners must, after all, be able to pay a down payment and 15-year mortgage. The sample of applicants I surveyed was at about the 63rd percentile for mean years of education in Mumbai based on the India Human Development Survey- II, which was conducted in 2010 (Desai and Vanneman

2. Data collected from magicbricks.com in 2017.

3. An Aadhar card is part of India's biometric identification program. A PAN card is used for most formal financial transactions.

Figure 1:
An ad for the 2014 lotteries
included in the study.

part of the city. I thus describe the applicant pool as lower middle-class and upwardly mobile. Citing experience from Latin American cities, Alan and Ward (1985, 5) similarly find that public housing interventions generally do not benefit a city's poorest citizens, as they simply cannot afford the requisite rent or mortgage.



Figure 2:
Examples of the buildings
in which lottery apartments
are located.

Data collection

Because this program, like most others run by state housing boards, allocates apartments through a randomized lottery system, a study of winners (treated) and non-winning (control) applicants is a randomized experiment. Estimation of treatment effects requires that I observe outcomes for both treated and control units. For the 2012 and 2014 MHADA lotteries, I received from MHADA 1,862 phone numbers and addresses for winners and a random sample of applicants.⁴ I then mapped these addresses using Google Maps and removed those that were incomplete, outside of Greater Mumbai, or could not be mapped. This left 531 and 532 control and treatment households, respectively. From this sample, I randomly selected 500 households from each treatment condition to interview with the help of a Mumbai-based organization.

The data collection process entailed using phone numbers and addresses that were 3-5 years old to track down respondents. Friends and neighbors assisted in the cases that respondents had moved away. After 9 months, we were able to contact 834 of the 1000 households,

with 413 of the surveyed households in the control condition and 421 households in the treated condition. There was balance on a number of fixed or pre-treatment covariates specified in the pre-analysis plan for this project.

Findings

I estimate effects on local political participation as measured through this survey.⁵ I find that **winners were about 29 percentage points more likely than non-winners to report attending local municipal meetings** where they met with representatives and discussed community improvements. During the time of the survey, these meetings surrounded the Mumbai Draft Development program, which addressed land use issues in the city. Winners were particularly concerned about the use of parks and gardens near their apartments and wanted to protect them from encroachment by squatters and hawkers. They were also 11 percentage points more likely to report approaching bureaucrats and representatives to make complaints about community issues, particularly the arrival of water and electricity in the hot summer months preceding the monsoon. This reported action was accompanied by demonstrated changes in knowledge, as winners were 11 percentage points more likely to be able to correctly name their local elected municipal officials. These municipal officials had been elected just six months prior to the survey, suggesting that winners were quick to learn new information relevant to their neighborhoods.

It might be possible that these effects were driven by winners relocated to new neighborhoods that were simply more politically active. Yet this political participation was not confined

4. There are more than 300,000 economically weaker section applicants for roughly 300 spots.

5. More details on the estimation strategy can be found in Kumar 2019.



Figure 3: A weekly meeting to discuss neighborhood improvements. Many of the attendees are landlords who do not live in the lottery apartments but rent them out.

only to those living in the new apartment buildings. Winners were not required to move to the homes, but could rent them out. Nevertheless, those who rented out the homes might have wanted to participate in local politics to improve communities to increase the rental or resale values of the homes. Fifty-nine percent of landlords traveled over an hour to the lottery homes to participate in weekly neighborhood meetings in the communities in which they owned homes but did not live (*Figure 3*). When they could not make this trip, they participated through WhatsApp and video calls. This effort suggests strong incentives for organizing separate from the effects of social norms within a community. Also, rates of reported demand-making and knowledge about politicians were similar across

winners who live in the homes and those who rent them out.

Why do we observe these changes in behavior? One explanation is that winning the home made recipients feel wealthier and altered their time horizons. Recent work (e.g. Mani et al. 2013; Haushofer and Fehr 2014) finds that the stress created by poverty can make it difficult to focus on long-term goals and lead to short-sighted behavior. Positive income shocks can increase psychological well-being, happiness, and time horizons, thereby reducing the cognitive or time related cost of action. In my qualitative interviews, I similarly found that winners reported feeling “less stressed” on a daily basis and had more time to think about making their futures more comfortable.

In line with this explanation, I estimate that winners were 19 percentage points more likely than non-winners to claim to be “happy” with the financial situation of the household. They also appeared to believe they would pass on their good fortune to their children, as they were roughly 12 percentage points more likely than non-winners to say “yes” when asked if their children would have better lives than them. Their predictions might be supported, as youth from winning households had higher rates of secondary school completion than those from non-winning households, even though on average, lottery homes were in neighborhoods with worse schools than the non-lottery homes. Winners were further 8 percentage points more likely than non-winners to respond that they “would never leave” when asked if would ever consider relocating from Mumbai, suggesting increased time horizons. Multiple interview respondents reported being less worried about having to return to their “native places,” or the villages from which the migrated to the city, in the case of a job loss.

A subsidized home may also affect political behavior by altering a beneficiary's perception of her own status. In July 2018, *The Hindustan Times* ran a story documenting the pride and satisfaction reported by members of 13 households in Mumbai that had fulfilled their dreams of homeownership (Hindustan Times (2018)). I also estimate an 8.9 percentage point increase in the likelihood of respondents selecting "No," when asked "Do you/people like you need to listen to what leaders in the area say?" I interpret this effect as an increase in respondents' perceptions of their own status or efficacy. As stated by one of the winners, "[Beneficiaries] now have some status. The *sarkar* [government] needs to listen to *us* now."

Finally, as demonstrated by the literature on NIMBYism, subsidized homeownership can create interest groups of beneficiaries who are particularly motivated to work together to protect their benefits. To illustrate this mechanism, I also measure effects on stated motivations for another form of local political participation, namely voting in local elections. Relative to nonwinners, I estimate that winners were 22 percentage points more likely to state neighborhood problems as a reported reason for voting, thus supporting increased interest in local problems as a mechanism for my findings. As one winner stated, she "looked for politicians who made an effort in improving the water, cleanliness, and squatter situation in the neighborhood." In contrast, a non-winner said he voted for "those who help people like us."

Implications for the study of comparative politics

These results differ from existing comparative politics research on political behavior in important ways. First, I focus not on voting behav-

ior, but demands for service improvement. In cities in the developing world, the demand for services such as water and electricity can far outstrip supply. This leads to uneven service access and service quality across a municipality. Oftentimes, communities must secure these services through negotiation with politicians (Auerbach 2016), brokers (Stokes *et al.* 2013), or other intermediaries (Jha *et al.* 2007, Krishna 2011). Much is written about politicians' strategies for allocation among different individuals or groups (see Golden and Min 2013). We know less about when and *why* citizens will prioritize improvements to public service delivery over other demands.

Second, in an attempt to learn about the causes of this behavior, I move away from the literature on clientelism, which focuses on ethnicity and reciprocity between politicians and citizens. Instead, I focus on citizens' *capacity* and *aspirations* to make *new* demands (Kruks-Wisner 2018a, 29). I show that government benefits might actually alter how beneficiaries think and *what they want*, thereby motivating and enabling citizens to improve their communities. These important determinants of individual political behavior may change over time in spite of fixed characteristics such as ethnicity or religion, particularly in response to changing economic fortunes.

I also demonstrate the importance of homeownership subsidies, which remain relatively unstudied outside of the US, to urban politics all over the world. The research shows that theories of urban politics based on evidence from the US will be enriched by the study of low- and middle-income countries. US-based studies, for example, emphasize the negative externalities of homeownership that occur when homeowners defect from city-level public goods such as



landfills and homeless shelters due to the costs they impose on local communities (Portney 1991; Dear 1992; Fischel 2001; Schively 2007; Hankinson 2018). They describe a collective action problem wherein homeowners defect from land use policies that are of general benefit to a municipality because they impose costs (in the form of land depreciation or externalities such as crowds and pollution) on the very local communities in which individuals own homes.

But cities in India experience variation in service quality rarely seen in cities in countries like the United States or United Kingdom. The homeowners I interviewed in India were rarely fighting for better views or schools, but rather hoping for regular water service, covers for open manholes, and effective sewage drainage during the monsoon months. Thus, if homeownership leads to the improvement of these vital community-level public services, then it has the potential to generate *positive* externalities at the community level not possible in cities with more uniformly high levels of service provision. This is not to say, of course, that homeownership cannot have negative NIMBY-type externalities in urban India as well. Many have documented, for example, the urban middle class's attempts to clear slums and "beautify" cities; such actions likely share the same underpinnings as NIMBYism in that they benefit homeowners at the expense of others in the city (Fernandes 2006; Heller, Mukhopadhyay, and Walton 2016).

The point is that homeownership subsidies are wealth transfers, and wealth both confers power and motivates people to exercise power. As cities grow, these subsidies will only become more consequential because of both the growing potential for home value appreciation and the increasing number of people city politics will reach.

The study of comparative urban and local politics will thus benefit from the further study of this common policy initiative. One important avenue of future research is to see whether policies in other contexts affect political behavior in similar or other ways. Another is to understand *why* governments pursue such initiatives. Formal housing programs may be particularly appealing to governments for political reasons. Alan and Ward (1985, 5-6) claim that public housing serves three main functions in society: it provides visual evidence that the government is providing for the poor, construction creates jobs, and it provides homes for government supporters and officials. Leaders may also, as we have seen in the case of the UK and US, be ideologically motivated to promote homeownership and/or civic participation. Ultimately, home subsidies remain an important cause and effect of political processes across and within many different countries, and there is still a great deal to be learned about them. ●



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