

# HOUSING AS WELFARE

How government-supported homeownership generates social mobility through wealth, voice, and dignity in India

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# 1. HOUSING AS WELFARE

Present-day Mumbai bears many of the hallmarks of a growing city. Day or night, the streets are filled with people of all trades and backgrounds—businessmen, wage laborers, tourists, students, street vendors, recent migrants, and those who have lived here for generations. Black and yellow taxis, auto-rickshaws, private cars, and a lumbering local train system that dates back to the 1850s carry millions of residents from their homes to their livelihoods. And amid these currents rise the houses and apartments where the metropolitan area’s 20+ million residents live: a collection of sleek highrises, *chawls* (which are similar to tenements), colonial-era mansions, 21st century mansions, sprawling self-constructed settlements, squat apartment buildings, precariously erected tents, and often the pavement itself.

Two types of buildings are ubiquitous and well-known by anyone who has spent some amount of time here. There are the ones constructed by the Slum Rehabilitation Authority: highrise apartments for those who once lived in self-constructed settlements, easily identified by the red and blue logo of six triangles stacked in a pyramid. There are also apartments constructed by the Maharashtra Housing and Area Development Authority, emblazoned with images of an orange house with a pointed roof (or an upward pointing arrow, depending on your perspective). These apartments have been sold for a fraction of their value through an annual lottery. How do programs that subsidize homeownership shape the lives, behavior, and futures of these citizens?

Data from an older rural program provide a clue. In 1985, India’s central government launched *Indira Awas Yojana* (“Indira’s Housing Scheme”) as part of the Rural Landless Employment Guarantee Act to help members of Scheduled Castes/Scheduled Tribes, freed bonded laborers, and others below the poverty line construct their own homes. Using data from the 1993-1994 Human Development Profile of India survey, it is possible to compare outcomes for beneficiaries and non-beneficiaries

from the same village, caste group, and religion (Figure 1.1). In 1994, beneficiaries are poorer than non-beneficiaries; they are 11% more likely to be below the poverty line. Yet they are 14% more likely to have permanently-constructed, or *pucca* housing than non-beneficiaries. The program is targeted to poor households but is effective in helping them build housing.

By the time a follow-up survey is conducted by Desai and Vanneman (2020) in 2004-2005, things have changed. Beneficiaries are now, on average, wealthier than non-beneficiaries. They are 3% *less* likely to be below the poverty line. By the second follow-up in 2011-2012, this gap has increased even further, with beneficiaries from 1994 8% less likely to be below the poverty line than non-beneficiaries. They are also different types of citizens, as they are about 2% more likely to report having voted in the last general election and 10% more likely to express confidence in the local *panchayat* (village) governance. I argue that *Indira Awas Yojana* and other housing policies can contribute to such a divergence in economic prospects. They can, further shape other aspects of beneficiaries' lives, such as their role as citizens or how they interact with others in society.

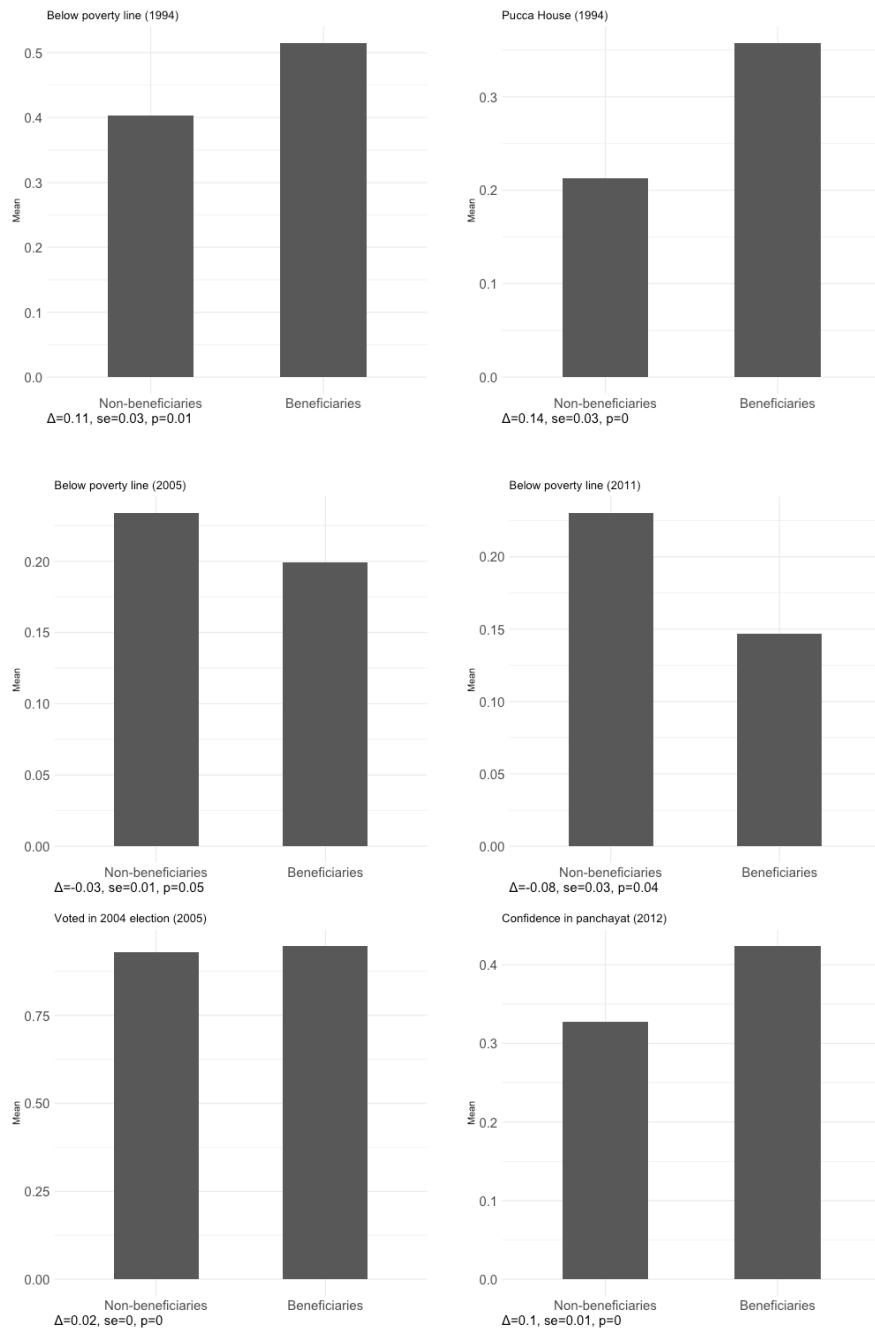
Governments can help their citizens find shelter in a number of different ways, but there is something unique about helping households purchase a large, durable asset that they can use, rent, or sell as they wish. This ownership helps even the poorest households build wealth, exercise their voice as citizens, and live with dignity—in both rural and urban areas. Government subsidized homeownership is, in short, a powerful tool for social mobility.

This book explores the idea of housing as welfare. The comparison highlights the economic and political role housing can take in a government's portfolio of policies, but it also broadens notions about what welfare programs can be and accomplish.

## AFFORDABLE HOUSING IN INDIA AND OTHER LOW- AND MIDDLE-INCOME COUNTRIES

The programs in Mumbai are part of a long history of affordable housing in India. In 1947, the Partition of India and Pakistan led to a large flow of refugees into the country (Hingorani, 2011; Gopalan and Venkataraman, 2015; Tiwari et al., 2016). They desperately needed somewhere to live. At the same time, the Indian central government was being formed in the wake of Independence from Britain, and a key idea motivating the structure of its design was that the state should be an

Figure 1.1: Comparing beneficiaries and non-beneficiaries of *Indira Awas Yojana*, 1994-2012.



Graphs display difference in means for outcomes for beneficiaries (N=144) and non-beneficiaries (N=1,155) exactly matched on village, membership in scheduled castes/scheduled tribes, and an indicator for being Muslim. Means are estimated using ordinary least squares regression with matching weights, and standard errors are heteroskedasticity-robust (HC2). Survey data is from the India Human Development Survey panel including the Human Development Profile of India round in 1994 (Desai and Vanneman, 2020). Years in parentheses refer to the survey year. More details on methodology can be found in chapters 2 and 3.

engine of economic growth and uplift a widely impoverished citizenry (Chhibber and Verma, 2018, p. 7-10; Frankel, 1978, p. 3-27; Varshney, 2014, p. 29-30).

Against this backdrop, the central government introduced a policy to construct urban housing in 1952, and a rural village housing program soon followed in 1957. In many cases, these initiatives were preceded by a patchwork of state-level policies. Since then, Indian housing policy has evolved, with continuous debates about which policies should receive the most focus and whether the demand for housing should be met by public or private actors. Today, central, state, and local governments support six main policy types: land titling for informal settlements, infrastructure investments for informal settlements, rental subsidies, sites and services, loan subsidies, and price subsidies (Table 1.1).

Generally, existing research on these policies in India and elsewhere evaluates their potential to address problems related to housing shortages in cities, particularly those faced by those living in informal squatter settlements. I argue, however, that an important aspect of a housing policy is whether it subsidizes homeownership. Many of the well-studied policies related to informality do not do so. Yet governments in India and other low- and middle-income countries are actively involved in subsidizing homeownership—both in cities and in the countryside.

Subsidizing homeownership has theoretically distinct implications for beneficiaries' economic, social, and political behavior. These implications, furthermore, suggest that this intervention has the potential to yield large effects on social mobility that extend well beyond addressing problems related to housing shortages and informality.

### *Addressing informality*

The stated motivation for affordable housing programs is to address a shortfall of habitable dwellings that low-income citizens can afford. In rural areas, subsistence-level incomes inhibit households' ability to access dwellings with basic amenities such as toilets, or roofs and walls made of a permanent material (as opposed to mud or thatch). In cities, rapid rural to urban migration has resulted in explosive population growth across Latin America, Africa, and South Asia (Montgomery, 2008). Exorbitant urban land rents, construction costs, and regulatory mechanisms such as building codes

can hinder the supply of housing to keep up with demand. In other words, households in rural areas often cannot afford the material costs of housing, while it is land rents that keep housing out of reach for the urban poor.

One set of policy solutions to this problem of land rents in particular is to regularize housing that has been constructed on unsanctioned land, or land that belongs either to the government or a private entity. These policies are summarized in Panel A of Table 1.1. Cities especially are often characterized by the presence of these self-constructed settlements, which can be called informal settlements or slums. While the term ‘ ‘informal housing’ ’ may bring to mind shantytowns or hastily erected tents, a variety of types of housing can be informal, from impermanent squatter settlements to large homes that have stood for decades. The defining feature of informality is the unauthorized occupation of land owned by the state or a private entity. As of 2016, about 33-47% of India’s urban population lived in informal housing (Jain et al., 2016). Perhaps because informal housing is so widespread in low- and middle-income countries, it is the focus of substantial research here.

Living in informal housing can create distinct problems for residents. First, as they occupy land illegally, residents may be evicted from their homes and therefore lack what is known as tenure security. Second, even those who have lived on a piece of land for years and “own it” in *de facto* terms – that is, nobody will interfere with their self-proclaimed rights to use, rent, or sell the land – a lack of legal recognition prevents them from using this land or the homes they have built as collateral for loans or to trade the assets freely (De Soto, 2003). To address problems of tenure security and legal recognition, individuals can be given formal rights to occupy the land. Called land titling, this solution has been widely studied (e.g. De Janvry et al., 2014; Di Tella et al., 2007; Field, 2005, 2007; Galiani and Schargrodsky, 2010). While most of this research focuses on cases from Latin America, the process of land titling in Indian cities, typically referred to as “slum notification” has received some attention in Urban Studies as well (Nakamura, 2014, 2017).

Across a broad range of studies, a few generalizations can be made. Land titling is associated with higher investment in the land itself, greater provision of labor, greater access to credit, a movement away from clientelistic political relationships, and a movement towards free market beliefs. Yet in certain communities, informal property rights are as effective as those guaranteed by the state

Table 1.1: Common affordable housing policies.

Type supported	Policy	Definition	Involves government subsidy?	Facilitates homeowner-ship?
A. Regularizing unsanctioned housing	Land titling	Government acknowledgement of property rights for extralegally inhabited land		X
	Infrastructure investments	Support for improving housing quality and service connections	X	
B. Making sanctioned housing accessible	Rental subsidies	Government responsibility for rent over a below-market rate threshold	X	
	Sites and services	Provision of land along with a bare minimum of essential public infrastructure	X	X
	Loan subsidies	Reduced interest rates for borrowing to build or purchase a home	X	X
	Price subsidies	Government responsibility for build/purchase price over a below-market rate threshold	X	X

The policies of interest— those that facilitate ownership and involve some type of government subsidy – are in gray.

(Lanjouw and Levy, 2002). As a result, land titling will generate the largest effects in younger, disorganized communities. Durand-Lasserve and Royston (2002) further find that the allocation of formal title can often be misaligned with existing ownership, generating conflict within communities.

Other policies address the fact that unsanctioned settlements often lack access to planned services such as water, sanitation, and electricity (UN-Habitat, 1996, 2004, 2013). Infrastructure investments can address this problem. The Mathare 4A slum upgrading project, for example, seeks to provide rooms, business stalls, schools, street lighting, roads, footpaths, and sewage infrastructure to part of Nairobi’s Mathare slum network. Slum upgrading projects can range from such incremental infrastructural improvements to the provision of new housing in the existing settlement (Otiso, 2003). The World Bank strongly advocated such an approach in the first generation of its urban development projects in the 1970s and 1980s (Werlin, 1999). As a result, such initiatives have also received considerable attention in research on housing across multiple disciplines (Burra, 2005; Das and Takahashi, 2009; Field and Kremer, 2006; Gulyani and Bassett, 2007; Imparato and Ruster, 2003; Werlin, 1999). Evaluations have found that successful projects are driven by community demand – the demand helps determine which renovations residents will find most useful and also ensures maintenance of renovations after upgrading projects are complete (Das et al., 2016; Imparato and Ruster, 2003; Otiso, 2003).

### *Making sanctioned housing affordable*

An alternative to allowing citizens to live in housing that is unsanctioned by the government is to subsidize the cost of living in or owning sanctioned housing. These are summarized in Panel B of Table 1.1. A common model adopted in OECD countries is a rental subsidy. Public housing in the United States or Japan’s postwar *danchi* system center on below-market rental rates for eligible poor households. Likely due to its prevalence in the West, this is an intervention that has also received attention from several disciplines, with attention on how they improve residents’ prospects for social mobility, their political determinants, and their political feedback effects (e.g. Bloom (2014); Currie and Yelowitz (2000); Popkin et al. (2005); and see Ansell (2019) for a review).

Rental subsidies are less well-studied in low and middle-income countries, likely because they are



less common here. According to India’s Ministry of Housing and Urban Affairs, the national-level Affordable Rental Housing Complexes Scheme has been slow to roll out, with just 5,478 units made available between 2015 and 2022. There are a few other instances, such as state-level programs in Assam and Nagaland or a program organized by Self-Employed Women’s Association Union in Gujarat (Barnhardt et al., 2017). Several poorer countries including Chile, Venezuela, South Africa, and Colombia experimented with such constructing buildings with subsidized rental units in the second half of the 20th century, but the model was eventually abandoned by the development banks funding the initiatives as part of a shift towards market- and ownership-based solutions (Gilbert, 2004).

*Subsidizing ownership: widespread, underresearched, and theoretically distinct*

The policy initiative with which this book is concerned is the subsidy of housing for ownership, shaded in gray in Table 1.1. Subsidized homeownership programs provide monetary support to build or buy a home. This monetary support can come in the form of a subsidized interest rate for a loan or a subsidized sale price. These policies come in many flavors. The housing, for example, can be constructed by the government, the private sector, or citizens themselves. Subsidies can apply to specific buildings or units, or can be vouchers to subsidize the purchase of housing on the open market. A price subsidy can cover either a fraction or the full cost of the housing. As I discuss below, these initiatives are, across their many types, both extremely widespread in India and other low- and middle-income countries, and they are also theoretically distinct from the aforementioned policies.

A policy model which was once common is known as “sites and services,” wherein residents are provided plots of land to own along with connections to basic public infrastructure. Here, the price of land (with services) is completely subsidized, but beneficiaries are left to construct their own housing. In some ways, this policy is essentially a blend of the land-titling and infrastructure investments discussed above, but the key distinction is that the government chooses the land upon which construction happens. These programs were pursued with enthusiasm in the early 1970s, with the World Bank investing 14.6 billion USD in 100 sites and service projects across 53 countries

(Owens et al., 2018). They, too, were eventually abandoned due to issues of implementation, such as time to completion, difficulties targeting, and the distance of sites from jobs (Mayo and Gross, 1987).<sup>1</sup>

A policy type more prevalent in India today is a loan subsidy, which provides reduced interest rates for borrowing to build or purchase a home. In March 2022, India’s central government claimed to have disbursed over 5.5 billion USD (41,415 crore INR at the time) of interest subsidies to over 1.5 million beneficiaries since 2015 through the Credit-Linked Subsidy Scheme. In the past few decades, loan subsidy programs have been accompanied by a growth in low-income housing finance initiatives in an aim to reach citizens who are not typically considered credit-worthy by traditional lending institutions (Patel and Burra, 1994).

Even more prevalent are price subsidies in which the government covers the price to build or purchase a house over a below-market rate threshold, which can often be as low as zero. By 2012, at least 5% of the population had benefitted from a rural program I discussed earlier, *Indira Awas Yojana* (India Human Development Survey- II 2020). Considering that India’s population had already exceeded 1 billion by that time, this means that there have been over 50 million beneficiaries from *just one* of the policies pursued by multiple levels of government over time. In 2015, prime minister Narendra Modi revamped and renamed the program as *Pradhan Mantri Awas Yojana* (The Prime Minister’s Dwelling Scheme) as part of a housing-for-all-initiative that also reaches urban areas.<sup>2</sup> According to the Ministry of Housing and Urban Affairs and Ministry Rural Development, this program successfully constructed 10,000,776 rural homes from 2018-2022 and 5,510,492 urban homes from 2014-2022. These numbers have fallen short of targets, but the fact that this is a program aiming to deliver at a large scale remains.

These large government initiatives to subsidize homeownership for the poor are not unique to India. For example, consider the policy type in which the government pays for the construction of housing, which is then given to citizens for free or a highly subsidized price. In Brazil, *Minha Casa, Minha Vida* is a federally-funded program to support the local construction of houses, which

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<sup>1</sup>A 2018 re-evaluation of a 1970s era program in Chennai and Mumbai that developed about 143,000 plots, however, finds that “these projects appear to have achieved remarkable success in delivering not only housing but also neighborhoods that are livable and inclusive” (Owens et al., 2018).

<sup>2</sup>The aforementioned credit-linked subsidy is part of this larger initiative.

are then given to eligible households. There were about 1 million low-income beneficiaries between the program's creation in 2009 and 2017 (Bueno, 2021). In Indonesia, the *Satu Jutah Rumah* (One Million Homes) program launched in 2015 aims to construct 1 million houses a *year*, with about 70% of these allocated towards low-income households (Aulia, 2020). As part of the post-Apartheid Reconstruction and Development Program (RDP), the South African government delivered over 3 million free households to citizens between 1994 and 2013 (Franklin, 2020). This list could go on, especially if one includes loan subsidies and sites and services.

These policies have received extremely little research attention, especially when considering their prevalence and scope across the globe. Those who do study them do not focus on aspects that make them unique from other affordable housing policies.<sup>3</sup> Picarelli (2019) and Franklin (2020) examine the effects of South Africa's RDP program, with a focus on mechanisms related to relocation and informality. These mechanisms are not unique to government subsidized homeownership programs. Franklin's (2020) argument that formality can increase labor supply is similar to one put forth by Field (2007) in her study of land titling in Peru. Picarelli's argument that relocation can affect labor market outcomes is also applicable to rental-based programs, such as the one studied by Barnhardt et al. (2017).

Scholars of the United States have focused on mortgage subsidies (i.e. loan subsidies), which are the dominant form of subsidized homeownership here and in other advanced industrialized nations. Most of this work examines the effects on outcomes directly related to housing markets, including housing demand and supply (Durning, 1987; Fetter, 2013; Greulich and Quigley, 2009; Gruber et al., 2021; Hilber and Turner, 2014; Martins and Villanueva, 2006).

This focus on other types of housing and outcomes leaves much to learn about affordable housing. I argue in this book that government-subsidized homeownership is theoretically distinct from other types of affordable housing programs and it should have effects on outcomes beyond beneficiaries' housing-related needs. Unlike programs that only facilitate formal ownership, such as land titling, these programs entail income or wealth transfers from government. On the other hand, unlike

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<sup>3</sup>An important exception is Bueno et al.'s (2022) study of *Minha Casa, Minha Vida* in Brazil, which focuses on how government subsidized ownership affects citizens' values and voice; the insights from this study are important in developing this book's argument in subsequent sections and chapters.

programs that entail transfers without ownership, such as rental subsidies, these transfers are made to support the ownership of a home: a durable asset that generates cash or in-kind benefits in perpetuity, with certainty.

This transfer combined with ownership affects household behavior in important ways that may shape social mobility. The subsidized ownership programs, therefore, are not just affordable housing initiatives, but also are a unique type of income and wealth transfer.

#### SUBSIDIZED HOMEOWNERSHIP BUILDS WEALTH, VOICE, AND DIGNITY

I argue that subsidized homeownership generates social mobility by facilitating the accumulation of wealth among beneficiaries, and by helping and motivating them to participate to protect this newfound wealth. In this way, subsidized housing programs exhibit many of the policy feedback effects common to welfare programs in the West. But subsidized homeownership goes one step further by endowing its beneficiaries with a sense of dignity, which is an important outcome in hierarchical societies wherein most citizens are poor. Dignity for citizens may be as normatively desirable as freedom (Sen, 1999), but it also deepens and reinforces the effects on economic and political behavior. These three sets of effects go well beyond solving problems related to informality or a shortage of housing. I conceive of subsidized housing as a welfare program that generates social mobility through its effects on citizen voice, wealth, and dignity.

#### *Wealth*

First, I argue that subsidized homeownership can help poor households exit poverty traps.<sup>4</sup> Cash and small asset transfers have been found to facilitate this process through many mechanisms, such as allowing households to transition from labor to capital intensive occupations (Balboni et al., 2021), easing the psychological burdens of poverty (Haushofer and Fehr, 2014; Haushofer and Shapiro, 2016), or helping households to relocate to places with better opportunities (Banerjee et al., 2021). Many other mechanisms may exist, as the field of Development Economics has identified many reasons why the poor stay poor. Chronic infection, for example, can inhibit children's education

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<sup>4</sup>See Ghatak (2015) or Chapter 3 for a review of poverty traps.

and future earnings (Hamory et al., 2021). To the extent that healthcare is constrained by income, any transfer may allow access to healthcare or, beyond this example, access to any other intervention found to have long-term effects on household economic prospects.

Subsidized homeownership necessarily involves a transfer to households because there is some type of subsidy involved. The transfers households receive are typically in-kind through a stream of housing benefits, such as secure tenure or an actual roof over one's head. These in-kind benefits may have their own effects on household economic prosperity, especially if they decrease stress or allow households to reallocate time from home and tenure maintenance to labor or education. These effects should be universal to all affordable housing programs.

A key aspect of ownership, however, is that households can convert these in-kind benefits into cash through rent or resale of the home. A house is a durable asset that generally preserves its value over time. There are legal and (at least in the case of cities) active markets for home rental and sale. A transfer made through a homeownership subsidy can therefore be converted by households from in-kind to cash transfers, a conversion the beneficiary can make due to the rights of ownership. The durability of the home means that households can make this conversion long after they initially receive the transfer. Where real estate markets favor sellers, this transfer can be made at a minimal loss and even result in a gain if the overall demand for housing is high. Certain housing programs may not explicitly allow this rental or resale. But if the potential profit is high enough, beneficiaries are likely to put their homes on the market anyway, especially when enforcement of program rules is weak. Furthermore, unlike rent or cash, the transfer of a durable asset for ownership can also ease credit constraints by providing an asset that households can use as collateral for loans.

Importantly, unlike basic income guarantees, the flow of in-kind benefits or any cash income derived through the rental of the home is received with certainty. Problems with implementation are common in low- and middle-income countries with overloaded bureaucracies (Dasgupta and Kapur, 2020). Political incentives may also guide the the fate of programs at the expense of beneficiaries. From 2004 to 2021, for example, Brazil's *Bolsa Família* program made regular payments to citizens who met certain educational and healthcare conditions. Yet in October 2021, the Bolsonaro government ended the program and replaced it with the rebranded *Auxílio Brasil*, an action that created

uncertainty for beneficiaries as the program came with multiple implementation changes and needed to be approved by both legislative houses. Such problems with policy change or implementation are less likely to affect the flow of benefits received from housing for ownership. This certainty is likely to increase investment in physical and human capital, thereby improving prospects for long-term economic mobility.

For these reasons, subsidized homes are essentially income or wealth transfers to homes, and may help families exit poverty through any of the mechanisms identified in the vast literature on the topic. As I discuss in my description of the programs I study empirically, they may also be financial and politically attractive to implementing governments in ways that other types of transfers are not.

### *Voice*

These effects on wealth should further shape individuals' relationships with government. Especially because the programs are being implemented at scale, effects on political behavior have implications for the broader political arena as well. Existing research suggests that wealth transfers should affect both political participation and preferences. The effects on participation should be relevant to all successful government transfers, but transfers made through housing have the unique ability to shift certain types of *preferences* about local and national-level policies.

First, the transfers may increase beneficiaries' capacity for action. A literature on policy feedback from the United States calls this a "resource effect." Campbell (2003), for example, finds that Social Security and Medicare allows Americans to retire and participate in politics more as they age. In lower-income contexts, research in Development Economics (see Haushofer and Fehr 2014) has found that poverty can create stress, which might reduce one's ability to participate in politics. Even in Germany, Schaub (2021) finds that households are less likely to vote when they are extremely financially constrained. Increasing household wealth could increase the mental bandwidth to participate in politics. Bueno (2022), find that benefitting from *Minha Casa, Minha Vida* in Brazil leads beneficiaries to participate more in politics.

Receiving some sort of transfer may also increase political participation by improving impressions

of government efficacy. MacLean (2011), for example, discusses how past experiences with health and education services create a set of expectations about government programs. Hunter and Sugiyama, furthermore, (2014) show that a program like Brazil's *Bolsa Família* sends citizens important signals that the government will provide services to people like them. An emerging body of literature finds that citizens are more likely to make demands of government if they feel they will get a response (Kruks-Wisner, 2018; Dipoppa and Grossman, 2020; Trucco, 2017; Goldfrank, 2002). Receiving a large government transfer may therefore increase political participation by increasing citizens' expected value from participation.

Second, the transfers may alter citizens' political preferences. It is possible that benefitting from a government program may induce citizens to vote for the implementing party or politician (De La O, 2013), but it remains unclear why citizens would attribute responsibility to specific parties or politicians for long-standing programs over which they have minimal discretion or control (Imai et al., 2020).

Yet a transfer made explicitly through homeownership specifically may generate ideological shifts.<sup>5</sup> Ansell (2014), for example, argues that homeownership makes citizens, particularly those whose home values are increasing, more conservative because their home equity serves as a form of private insurance that crowds out public insurance. These results are line with those of Bueno (2022), who find that Brazil's *Minha Casa, Minha Vida* beneficiaries become more conservative than non-beneficiaries with respect to redistribution.

At the local level and beyond just election time, beneficiaries may be motivated to protect their newfound wealth by improving levels of service provision. Those who study the US and Europe argue that benefitting from government social welfare can "create material incentives for mobilization" (Mettler and Soss 2004, 62). It can encourage political participation to ensure either the continued or increased receipt of program transfers (e.g. Campbell 2012; Mettler and Soss 2004; Pierson 1993). In the case of a program providing homeownership just once, the value of the benefit is best protected by increasing the value of the home. One effective way to do this is to express one's voice in local politics and to help guide issues of land use and public works.

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<sup>5</sup>See Chhibber and Verma (2018) for a discussion of ideology in India.

We see such mobilization to protect wealth in research on homeowners in the US who participate in local to politics to protect their property values (e.g. Portney 1991; Dear 1992; Fischel 2001; Einstein *et al.* 2019). The comparison with the US, of course, underscores the idea that this mobilization may have both positive and negative externalities for other citizens.

### *Dignity*

As I have argued, subsidized housing appears to have many features common to successful welfare programs. It makes beneficiaries wealthier while simultaneously generating policy-feedback effects in that beneficiaries will participate in politics to preserve and maximize this new wealth. Subsidized homeownership should also lead to another outcome of interest in low-income or socially stratified settings: they should endow beneficiaries with a sense of dignity.

As a topic of growing interest among scholars and policymakers of International Development, dignity has a number of definitions and measures (see Wein (2020) for a review). I put forward a definition based on citizen agency. I define dignity as the feeling of agency or control in one's life. This "feeling" is composed of two parts: control over one's future and independence from the decisions of others. I consider independence from the decisions of others to subsume feelings of self-respect or freedom from humiliation, which are commonly mentioned in other notions of dignity. This definition of dignity emphasizes what citizens feel they are able to do to alter the course of their lives.

Any type of subsidized transfer should impart some level of dignity on citizens simply by making them wealthier. Indeed, Sen (1999) considers the principal goal of economic development to be increase citizen agency, or what he calls freedom. Hunter and Sugiyama (2014) find that Brazil's *Bolsa Família* conditional cash transfer program increased citizens' feelings of independence and agency by virtue of freeing them some of the burdens of grinding poverty. Beneficiaries are also freed from the judgements of others by being able to address a common stigma of poverty, namely a lack of shoes for themselves and their children.

Yet subsidized housing should have a larger impact on dignity than many other common welfare interventions for three reasons. First, many of the poor without their own housing can suffer from



insecure housing tenure, which robs them of their ability to control and plan for the future. Tenure insecurity may come in the form of being forcibly removed from land when living in a squatter settlement, being evicted from a home one is renting, depending on the whims and good favor of friends and relatives for housing, or failing to meet program requirements. As such, tenure insecurity can be a problem for any type of affordable housing program that does not entail ownership. Public housing programs in the United States, for example, frequently have drug-use or employment-based conditions that can lead to evictions if violated.

Relatedly, the absence of a home with secure tenure, like going without shoes, can carry a social stigma. Moreover, homeownership is associated with a certain level of social status in India and in many other countries (Das et al., 2019). This status can help citizens more effectively and confidently navigate their interactions with others.

Finally, not only does subsidized homeownership address these issues when the benefits are consumed in-kind, but recipients have full control over the stream of benefits, whether they are consumed in-cash or in-kind, over time. They do not have to meet any conditions, wait in line, routinely fill out forms, or use their networks to negotiate access. That access to other types of welfare benefits must be continuously renegotiated undermines their effects on dignity. Hunter and Sugiyama (2014), for example, find that among beneficiaries' greatest frustrations with *Bolsa Família* is the need to constantly wait in line to access benefits. Ownership allows beneficiaries to choose to convert their benefits to cash; the autonomy to choose how consume benefits is one of the principal reasons Shapiro (2019) finds that citizens in Kenya prefer cash to in-kind welfare benefits.

Gains to dignity can be normatively desirable, and this point cannot be overstated. They are also likely to form an another important mechanism for the effects on wealth and voice. A sense of control over one's future, first of all, might increase his or her long-term human and physical capital investments. In this way, a lack of certainty about the future and short time-horizons may be an overlooked psychological burden of poverty that can inhibit the capital accumulation needed to exit poverty. Furthermore, independence from the decisions and behaviors of others, especially political actors like public officials or informal leaders, may bolster citizens' capacity to exercise their voice through increased feelings of self-efficacy. In other words, dignity is an important outcome of

any welfare program, and those that do grant citizens with a sense of dignity may be particularly effective.

### *Externalities and equity*

I theorize and measure effects for beneficiaries only. Yet it is likely that effects for beneficiaries will generate externalities for others. If beneficiaries are more vocal in civic institutions for input on how public funds should be spent, for example, this action will have positive or negative externalities for other citizens, depending on whether or not their preferences are aligned with those of beneficiaries. These externalities must be considered in general equilibrium analyses of the effects of subsidized housing policies implemented everywhere.

The argument also assumes that housing will continue to be a scarce resource, thereby allowing housing distributed to beneficiaries to maintain or increase in value. Supplying opportunities for the poor to own housing can generate social mobility even when this is not the case; the effects seen in rural areas confirm this. Yet the gains to beneficiaries (but perhaps not society at large) will be greatest when policies to do so cannot keep up with demand.

Finally, by studying effects only for beneficiaries, I sidestep issues of implementation and targeting. Like all welfare programs, housing policies can be criticized for not reaching enough people or reaching the wrong people. The large gains for beneficiaries and the effects on voice underscore the importance of effective and equitable program targeting. These important problems are issues of politics, allocation and public choice rather than program effects, and I discuss them in the final chapter of the book.

### A STUDY OF THREE PRICE-SUBSIDY POLICIES

I illustrate the argument through a study of three housing programs in India, as outlined in Table 1.2. These policies vary in their geographic coverage, whether they require relocation, and the research design I use to learn about their impacts.

First, I study *Indira Awas Yojana* (IAY), a subsidy program for landless laborers and freed bonded workers that started in the late 1980s. Beneficiaries receive large grants from the govern-

ment to build their own houses, subject to certain requirements related to housing amenities and build quality. I study the effects of this program through the 1994-2012 three-round India Human Development Survey (Desai and Vanneman, 2020) panel survey. I construct exact matches of respondents who did and did not benefit and track their outcomes over three waves across 18 years. To my knowledge, this is one of the first evaluations of this large central government program, aside from one conducted by Sharma et al. (2019).

Second, I use a natural experiment to study a program implemented by the Maharashtra Housing and Development Authority (MHADA) in Mumbai. This is a price subsidy in which the apartments are constructed by government and sold at an extremely discounted rate to eligible low income households. The program is oversubscribed, so beneficiaries are selected through a lottery process. Importantly, beneficiaries do not have to live in the housing, but can rent it out. They may also legally sell it 10 years after winning. The program is similar to those implemented by state boards all over the country through a lottery. I study its effects through qualitative interviews and an original survey of a sample of winners and non-winners in 2017, conducted 3-5 years after lottery wins in 2012 and 2014. Due to the randomization, the differences in outcomes across winners and non-winners is the causally identified effect of becoming a program beneficiary.

Third, I study a program implemented by Mumbai's Slum Rehabilitation Authority (SRA). This is another price subsidy (at 100% of the cost) targeted to those living in slums. Households living in eligible informal settlements can elect to move into government constructed apartments at no cost. If they choose to do so, the settlement is destroyed to accommodate the new housing or some other development project. Unlike the MHADA program, this program requires some form of relocation. Even if households were to rent or sell these apartments, they would not be able to return to their original housing because it is usually no longer exists. This is an important feature of the program that limits its potential. I study its effects using 40 paired qualitative interviews in 2022 of citizens living in informal settlements and citizens who chose to relocate.

Together, these three policies illustrate the scope conditions for the argument. I show that both rural and urban programs can generate effects on wealth. Yet urban programs are likely to have stronger effects on wealth and especially voice. This is because urban housing is more subject to

Table 1.2: The programs studied in this book.

Program	Requires re- location?	Geographic coverage	Design	Years data collected
Indira Awas Yojana	No	Rural India	Exact matched beneficiaries and non-beneficiaries tracked over time	1993-1994, 2004-2005, 2011-2012
Maharashtra Housing and Area Development Authority lottery	No	Urban (Mumbai)	Natural experiment; survey of winners and non-winners	2017
Mumbai Slum Rehabilitation Authority Program	Yes	Urban (Mumbai)	Paired qualitative interviews	2022

increases in market value due to an excess of demand common in these contexts. Within urban areas, the comparison between the SRA and MHADA programs suggests that policies are likely to generate the largest effects when they do not require relocation. This finding is complementary to research finding that relocation can undermine the gains to housing programs due to broken social networks and distance from labor markets (Barnhardt et al., 2017; Picarelli, 2019).

The mixed-methods design also aims to reveal multiple dimensions of policy effects. The panel study of IAY allows me to show how a policy may lead to divergences in economic prospects over time. The natural experiment used to measure the effects of the MHADA program addresses problems of selection—namely, that beneficiaries and non-beneficiaries are fundamentally different even before gaining access to housing— that typically plague policy evaluations. The qualitative surveys, finally, allow me to understand and describe how a policy shapes citizens’ lives in their own words.

#### KEY RESULTS AND OVERVIEW OF THE BOOK

This book is an empirical study of the three policies presented in Table 1.2. In Chapter 2, I present the historical and institutional context of housing policies in India. I discuss where subsidized homeownership policies fit within a broader menu of policy choices, including supporting unsanctioned housing and rental subsidies (Table 1.1). I then present the three policies studied in detail, and include other major incidences of these policy types within and beyond India. The chapter concludes with a description of the research methodology used to study each program.

Chapter 3 explores the household-level economic effects of the programs I study. I begin with IAY, the rural program, as earlier previewed in Figure 1.1. In 1994, beneficiaries are poorer than non-beneficiaries, but have better quality housing, as measured by the construction of the roof, walls, and presence of a toilet and water connection. In other words, the program is being targeted to the poor, but their better housing quality suggests the subsidies are being consumed as a stream of in-kind housing benefits.

Yet by 2005, beneficiaries are wealthier than non-beneficiaries, and this gap has grown by 2012. I argue that this divergence in economic prospects is driven by the beneficiaries’ investments in

human and physical capital that allows them to diversify their employment out of agriculture. In 1994, beneficiaries are spending more on education and productive assets than non-beneficiaries. By 2005, they are more educated and more likely to have non-agricultural jobs. Their government-subsidized housing plays a key role here because the investments are reportedly funded through loans to which individuals would not have access without a credible form of collateral. In sum, I find that housing expands access to credit, which facilitates capital investment, which in turn allows diversification away from agriculture and into more lucrative income-generating activities.

I next show a similar story for the urban MHADA price subsidy program. Lottery winners have better housing 3-5 years after the program implementation. They also have higher household incomes, driven by better education and more employment (and salaried employment in particular) among those who were school-aged youth at the time of implementation. These results are not driven by relocation, because winners tend to live in areas with worse educational and employment opportunities than non-beneficiaries. Similar to the effects for IAY, I suggest that housing facilitates human capital investment, which improves economic prospects. I show evidence for many possible mechanisms for greater human capital investment, including income effects from the subsidy's effect on permanent income, changes in aspirations, access to credit, and psychological effects.

Finally, I study the urban SRA price subsidy program, which does require relocation. I compare reports from beneficiaries and citizens living in slums on how they decide whether to invest in their futures to further explain the long-term income effects I find for the other two programs. I find, however, that the program's requirement for relocation limits its potential, as forced relocation destroys social networks and, in turn, limits employment opportunities which are often based on social networks.

Overall, Chapter 3 shows that the three different programs generate economic mobility among beneficiaries by facilitating physical and human capital investment. These effects should be larger in urban areas because of the greater potential for appreciation in value here. In urban areas, programs that do not require relocation should have greater potential.

Chapter 4 next illustrates the political effects of the three programs. I first show suggestive results from the IAY study. Beneficiaries are more likely to vote, attend local meetings, and be able

to name politicians than non-beneficiaries. Yet causal identification in this setting and with this methodology is imperfect; differences in political participation could arise because of selection or omitted variables.

The natural experiment used to study the MHADA program provides more convincing causal identification. Here too, beneficiaries are more likely to attend local meetings and ask government for resources benefitting their communities. They also have better knowledge about local politics and emphasize local public goods that affect the value of their housing when asked how they make their choices in local elections. These effects hold for both those who move into the housing they have won and those who rent it out, suggesting effects are not driven by the locations of the program housing.

Similarly, beneficiaries of the SRA program are more willing than non-beneficiaries to take political action to improve their housing. Households living in slums or squatter settlements certainly care about their housing, but they do less to improve it because 1) they feel less efficacious and 2) they are uncertain about how long they will live in a settlement and therefore less likely to invest their time in its improvement.

Overall, the findings in Chapter 4 show that policies to facilitate homeownership create active citizenship organized around protecting the value of the home. This dynamic should be stronger in urban areas, as the potential for home values to appreciate is much higher here. This can have positive or negative externalities. On the one hand, this type of citizenship can improve public service delivery for other citizens as well. On the other hand, this activism can give too much voice to the preferences of homeowners, especially when they are at odds with those of other citizens. For example, beneficiaries in the MHADA study often wanted to rid the neighborhoods of local markets because they created too much foot traffic near their homes.

Chapter 5 explores the effects of government-subsidized homeownership on dignity. The relative novelty of the outcomes I study means that dynamics are best illustrated through the programs for which I have collected primary data, or the SRA and MHADA programs.

I first show that winning increases MHADA beneficiaries' time horizons, increases their sense that they make their own decisions, and decreases their sense that government officials can bully

them. These effects indicate an increase in as a sense of control over one's future and independence from the decisions and behavior of others, feelings which I have defined as key aspects of dignity.

I then argue that these changes are at least partially responsible for the effects on economic and political behavior that I see. The effects on human capital investment cannot entirely be explained by income effects, as I see better use of free healthcare among beneficiaries. This suggests that beneficiaries' behavior is more future-oriented than the behavior of non-beneficiaries, even for activities that should be unconstrained by income. Feeling less threatened by government officials also facilitates participation in local politics by decreasing its perceived costs, namely bullying and intimidation.

I illustrate the the importance of dignity and how it is shaped by subsidized government housing through self-reflective quotes from my qualitative interviews of SRA beneficiaries and non-beneficiaries. I also show that respondents prefer housing to other types of welfare programs because of the stability and status it affords.

Chapter 6 concludes with a summary of the argument, evidence, implications, and open questions. The major contribution of this book is an empirical examination of a common yet understudied policy type. The findings should be of interest to anybody who cares about affordable housing. They have implications beyond just low- and middle-income countries. As discussed, for example, most affordable housing programs in the US are based on subsidized rent. The effects illustrated in this book suggest that ownership-based programs that reach the poor may have potential here as well.

Throughout the empirical analysis, I also develop theoretical arguments for why housing should have such large effects on the three outcomes of interest. These effects on overall social mobility are typically larger than interventions that have received more attention from scholars and policymakers in social protection and International Development. Existing research on social protection in developing countries focuses on adjustments to short-term income through tools like cash transfers or microcredit. A content analysis of reports from major development banks and international aid organizations reveals that this is the case for the broader International Development community as well. Yet I show that subsidized homeownership is an extremely powerful policy tool that generates



gains that dwarf those of these more popular programs. In many ways, it is a classic OECD-style welfare policy because it redistributes income (in the form of publicly-held land or credit) and also creates an entrenched group of interests. But beyond such programs, asset-based transfers that increase a household's permanent income are important because of the degree of dignity and control they confer on beneficiaries.

Moreover, housing programs may be appealing to governments because they require minimal short-term budget outlays for government with public land earmarked for social purposes. This is because (as we see in the MHADA model), beneficiaries cover the cost of housing through a mortgage paid over many years. Even beneficiaries who cannot afford this mortgage can pay it by renting out the housing. In urban areas, governments with large public landholdings can provide enormous benefits to citizens at minimal immediate costs through subsidized homeownership because most of their value is derived from the access it provides to an expensive real estate market.

These ideas raise the question of what the general equilibrium effects might be. Are the economic effects I find dampened when access to housing is widespread? Would housing for all create a country of active citizens? Are the effects that I see a result of extreme housing inequality? These are open questions for future studies on affordable housing. While this book focuses mainly on public policies to increase homeownership among the poor, it remains unclear whether subsidizing homeownership by encouraging the expansion of supply (whether through public or private construction) will yield similar effects. The effects for IAY provide tentative evidence that homeownership can improve social mobility even when it is not extremely scarce, but more research is needed here.

More broadly, the large and transformative effects I find reveal that the allocation of such a large asset creates distinct groups of winners. These findings underscore the importance of better understanding the politics of housing and the distributive politics of subsidized homeownership. That this policy is so widespread suggests that it is appealing and strategic for politicians and policymakers. An interest in expanding its scope and reach that is based in a desire for equity demands that we better understand why.

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