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City Limits: Why Citizen Opposition to Urban Development Become Concentrated in Expensive Housing Markets

Martin Vinæs Larsen¹ & Jacob Nyrup²

Abstract: Urbanization fuels a fundamental conflict in urban politics between those who want cities to embrace ambitious urban development projects to accommodate increased demand for living space, and urban conservationists who are weary of such changes. Even though this conflict will have important ramifications for the future of cities, and society at large, we know little about what make citizens embrace or reject urban development. In this article, we argue that those who select into (and stay in) an increasingly expensive area must have a less price-sensitive preference for living there, which in part reflects a taste for the physical characteristics of this area. This naturally translates into opposing urban development projects. We label citizens' sincere taste for the current physical characteristics of the area in which they live 'localism'. We explore the empirical implications of this theoretical argument using data from a set of large-scale survey experiments ($n \approx 12,000$). Consistent with our model, we find that opposition to new development is much higher in areas with higher housing costs, and that people with localist views are less likely to move to less expensive areas when they experience a local housing price shock. Our findings suggest that rising housing prices can create a vicious circle, where prices feed opposition to urban change, and this opposition further increases prices. A vicious circle some US cities are probably already trapped in.

From 1970 to 2020 the urban population of the EU and the US grew by 200 million - or fifty percent - while the rural population decreased by 15 million (Ritchie and Roser, 2018). This ongoing urbanization fuels a fundamental conflict in urban politics between those who want cities to develop and grow and urban conservationists who are weary of such changes (Jacobs, 1961; Glaeser and Cutler, 2021). The outcome of this political struggle over urban development carries important implications for cities and for society at large. If cities are going to make room for the middle and working class that has traditionally used cities for upward mobility (Glaeser, 2011), increasing prosperity and tempering regional inequality (Hsieh and Moretti, 2019; Ganong and Shoag, 2017), then they need new housing and updated transportation infrastructure. Cities also need to change, physically, to move towards a zero carbon economy (Sarkodie, Owusu and Leirvik, 2020), and to remain resilient in the face of

¹Associate Professor, Aarhus University, mvl@ps.au.dk.

²Assistant Professor, University of Oslo

climate related environmental shocks (Leichenko, 2011). The trajectory of urban life therefore hinges crucially on whether cities embrace or reject urban development.

Since urban planning is almost always under local democratic control (Fischel, 2015), local public opinion shape how cities approach urban development. Yet in spite of a growing literature that studies why citizens oppose or support particular types of urban development projects, i.e., projects that aim to change the build environment of a city, such as multi-family housing, drug treatment centers and wind turbines (Stokes, 2016; de Benedictis-Kessner and Hankinson, 2019; Trounstine, 2021), we know very little about why some citizens oppose urban development more than others. In line with this, a lot of studies have found that homeowners oppose urban development projects if they are build close to their home (e.g., Marble and Nall, 2021; Hankinson, 2018) - so-called *nimbyism* (not-in-my-back-yardism). However, few studies try to explain why some citizens might be more *nimby* than others. This gap in the existing literature limit our ability to understand to what extent, and why, the politics of urban development is settled differently in different cities.

In this article, we propose and test a novel theoretical model that explains why citizen opposition to urban development projects vary across cities and neighbourhoods. This model connects citizen opposition to urban development with one of the most important economic developments in recent history: the unequal boom in housing prices (Fuller, Johnston and Regan, 2020; Glaeser, Gyourko and Saks, 2005). We hypothesize that opposition to urban development projects are higher in areas where housing costs are higher. The central argument is that those who select into (and stay in) an increasingly expensive area must have a less price-sensitive preference for living there, which in part reflects a taste for the physical characteristics of this area. This naturally translates into opposing urban development projects, because, by definition, they aim to change these characteristics. We label citizens' sincere taste for the current physical characteristics of the area in which they live 'localism'.

We test this *localist model of citizen opposition* to urban development by combining geocoded surveys with detailed administrative data on local housing markets. Using a survey experiment to elicit survey respondents' attitudes towards different types of urban development, we find that opposition to new development is consistently higher in more expensive areas. This is the case for both renters and homeowners. Moreover, and consistent with our model, we find that those who live in more expensive areas are also more 'localist', that is, they want their neighbourhood to stay the same. Unlike some prior work on why citizens oppose urban development, but consistent with others (O'Grady, 2020), we find limited evidence that economic motivations play in important role in explaining differences in citizen opposition to new development. Finally, we use a survey experiment to study the key mechanism driving our theoretical model: that localist are less price sensitive when it comes to making relocation choices. We find that when informed about an increase in housing costs, non-localist become more likely to want to move to an area with lower housing costs, but this is *not* the case for localists.

Overall, our empirical work corroborates the localist model, suggesting that higher housing costs changes the composition of cities towards more localists, who have a strong preference for the current look and feel of their neighbourhood, and who

therefore oppose most urban development projects. A concerning implication of this localist model, is that once housing prices in a city start to increase, this will create a vicious circle where increases in housing costs lead to less support for new urban development, curbing the supply of housing and further increasing prices. In time, this vicious circle can turn once dynamic cities into unsustainable gated communities for the wealthy - a process which we have seen take place in some of the world's most productive cities (Glaeser and Cutler, 2021), and which might be under way in more cities today.

Theoretical Background

There is no extensive and cumulative literature in public opinion research on how citizens form opinions about urban development projects. Instead, there are many disparate studies that try to explain citizen opposition to urban development spread out across the fields of urban planning (or geography) (e.g., Devine-Wright, 2009), economics (e.g., Fischel, 2001), and political science (e.g., Stokes, 2016; Trounstein, 2021). Since they come from very different disciplines, these studies tend to have very different explanatory ambitions and methodological approaches. The most important cross-cutting theoretical concept is *nimbyism* (not-in-my-back-yard-ism), which denotes that even urban development projects which are broadly popular will face intense opposition from those who live close to where these projects are being implemented.

Studies in urban planning focus on understanding which kinds of locally unwanted land use (LULU's), such as wind turbines, landfills and new housing, create a nimbyist response (e.g., Tighe, 2010; Sasao, 2004; Ek and Persson, 2014; Molin, Oppewal and Timmermans, 1996). These studies try to find out what features of an urban development project makes it more or less popular and whether different participatory processes increase citizen satisfaction with these projects. These questions are extremely important from a city planner's or a developer's perspective, but it tells us little about where this opposition comes from, and why it varies from place to place or across individuals (Whittemore and BenDor, 2019).

Studies in economics tend to focus on explaining *why* urban development projects are undersupplied (Laurent-Lucchetti, Leroux et al., 2010; Glaeser and Cutler, 2021). Here, construction of urban development projects is modeled as a collective action problem (Feinerman, Finkelshtain and Kan, 2004) where diffuse benefits for the city or society of completing the projects are insufficient to mobilize support, but the concentrated costs associated with the project for the local community in which it is being build is sufficient to mobilize opposition. While this conception of urban development fit certain projects, like the placement of landfills or highways, it cannot explain opposition to more benign urban development projects that provide local amenities, such as a new commercial district. To explain opposition in these cases, some economists have focused on the risk that new projects carry for the home values of local homeowners (Fischel, 2005). For most homeowners their home is by far their largest asset, and therefore they are very risk averse when it comes to protecting it, opposing most urban development projects based on the small chance that construction delays or errors leads to a large drop in their home values (Fischel, 2001).

The small number of studies in political science on citizen opposition to urban development tend to conceptualize opinions on this issue as a compromise between an ideological stand for a given type of urban development and economic, self-interested nimby-motives (Marble and Nall, 2021; de Benedictis-Kessner and Hankinson, 2019). While most studies of public opinion in political science find that self-interest typically takes a back seat to such ideological commitments (Feldman, 1982; Chong, Citrin and Conley, 2001), that is not the case when it comes to urban development projects. Instead, these studies tend to find that “homeowners remain opposed to local development plans that threaten their self-interest” (Marble and Nall, 2021; Ansell, 2014, p. 35).

Taken together, prior research has yielded important insights about which types of urban development projects citizens oppose, why it is in their self-interest to oppose these projects, and why any ideological commitment to urban development will tend to be subordinated by this self-interest. Yet a clear limitation lies in explaining *variation* in citizen opposition to urban development across individuals, neighbourhoods and cities. That is, while we have a number of good theoretical explanations for why citizens tend to oppose particular urban development projects, we have few theoretical models that can explain why citizen might differ in their views of the same urban development project - especially if we hold constant the personal economic cost and risks associated with such a project. This article addresses this limitation by developing a model that explains why *some* citizens in *some* places will tend to oppose all kinds of urban development projects more than others.

A Localist Model of Opposition to Urban Development

Our Localist Model of Opposition to Urban Development suggests that as the cost of housing in a city increases, those who select into (and those who decide to stay in) this city will have a stronger preference for the area in which they live, including its physical design. That is, they will be *localists*. This localism leads them to reject urban development projects, because these projects change the physical design of their local area. This model is unique in its focus on how housing prices shape support for urban development. The existing literature on the politics of housing prices has focused primarily on how they shape social policy preferences and voting behavior (e.g., Kemeny, 1981; Ansell, 2019). Moreover, the model departs from prior work (Larsen et al., 2019; Ansell et al., 2021; Ansell, 2014), focusing on a new mechanism through which the cost of housing shape public opinion, namely, by affecting who lives where.

To understand how housing costs shapes mobility of localist and non-localists, we build on insights from urban economics that suggest housing markets are defined by monopolistic competition (Chamberlin, 1949; Blank and Winnick, 1953; Glaeser, Gyourko and Saks, 2005). That is, homeowners who want to sell or rent out a home are monopolists in that they own a unique commodity (no two homes are exactly alike), yet they are also in competition with other homeowners in that prospective buyers or renters can easily substitute into a different home if they think the price set by the seller is too high.

What happens in the housing market if more people with higher incomes want to move into cities and demand for housing increases as a result? If demand increases uniformly across cities, then the price of housing simply increases everywhere, with the rate of price increases defined by how hard it is for new sellers to join the market (i.e., the extent to which housing supply is elastic). As a result, everyone has to cut back on other types of consumption to afford the more expensive housing, and the wealth of homeowners increase (Mian and Sufi, 2015). However, imagine that the increase in demand is limited to some cities (Gyourko, Mayer and Sinai, 2013). Now prices only increase in some cities, and those living in these cities face a choice: keep living in a high-price city and cut back on consumption *or* move to a low-price city. This is clearly the case for tenants who face rising rents, but it is also the case for homeowners even though they do not face any financial disadvantage - quite the opposite - from rising home prices. In particular, homeowners face rising opportunity costs of staying in a city when home prices increase, as they forego potential consumption by not selling their home and moving to a cheaper location (i.e., if they stay they decide consume more expensive 'land' rather than shift consumption to something else). This trade-off also exists for the new buyers and renters who drive up demand for housing. They have to decide whether they want to select into a more or less expensive city. If these newcomers decide to select into the more expensive city, then they will have to forego non-housing consumption.

Who decides to stay in and/or select into the more expensive cities and forego non-housing consumption? We argue that it is people with a strong (i.e., inelastic) demand for living in one of the expensive cities. This affinity for a given city or neighbourhood could come from family or friends living there, it could come from particularly lucrative job opportunities, or, crucially, it could stem from *a taste for the physical characteristics of this area*. It is this individual-level taste for the current build environment of the place you live that we define as 'localism'.

In much of the prior literature, localist concerns over 'neighborhood character' has been considered a rationalization of economic (Fischel, 2005) or even racist motivations (Tighe, 2012). In contrast to this, we argue that people's concern for the look and feel of their local community should be taken seriously as an important motivation for why they oppose urban development.

This leads us to the central hypothesis of the Localist Model: *Those who live in areas with higher housing costs will oppose new housing development more strongly, because they have stronger preferences for the current physical characteristics of the area in which they live.*

Importantly, there should be a positive relationship between housing cost and citizen opposition to urban development for both homeowners *and* renters. That our model also covers renters is important. More and more people are renting (Cilluffo, Geiger and Fry, 2017), and renters have been overlooked in parts of the existing literature which tends to focus on whether concerns over home values motivate opposition to urban development (for an important exception see, Hankinson, 2018).

Finally, we want to emphasize that the localist model does not say that residents of inexpensive cities cannot be localist, or that poor people do not care about where they live. Instead, the model suggests that in places where the cost of housing is low,

localist will live side by side with individuals, who have decided to live there because they could not afford to live in more expensive areas, or because they did not want to spend much on housing. In fact, it is a straightforward implication of the model that the relationship between housing cost and citizen opposition should be *stronger* for low income households. People with low incomes who have decided to live in expensive housing markets will typically have to accept a low quality home, and in relative terms they also forego more non-housing consumption by not moving to a cheaper area. To make these sacrifices they must have a very strong attachment to their local area, and part of this attachment reflects a preference for how this particular area looks and feels.

Research Design

The article uses a series of surveys and experiments to explore the empirical viability of the localist model. First, we examine whether opposition to different types of urban development is concentrated in areas with higher housing costs, and whether citizens in these areas are also more likely to express a localist sentiment. To do so, we rely on a large scale geo-coded nationally representative survey (n=8,731). We use a survey experiment to elicit respondents opposition to local urban development projects, and connect these responses to detailed data on local housing markets in the areas where the respondents live.

Second, we try to find out whether our localist model is uniquely useful in terms of explaining patterns in citizen opposition to urban development projects. We do this by exploring a number of alternative explanations for why housing costs and opposition to urban development might go together. In particular, we explore whether economic self-interest, an effect of anti-development attitudes on housing prices, class solidarity and differential expectations can explain why housing costs and opposition to urban development is correlated.

Third, and finally, we use a pre-registered³ survey experiment (n=3,037) to test the key causal mechanism in the localist model: that localist are less sensitive than non-localist to housing price shocks when deciding whether to relocate. To do so, we exploit that housing costs had increased dramatically in almost all of the US in 2020-21, which give us an opportunity to provide accurate yet surprising information on how much local housing costs have increased.

While the experiment provide the strongest test of the mechanisms underlying the localist model, the observational data also have inferential strengths. As such, even though we cannot rule out all alternative explanations for the patterns identified in the observational data, it demonstrates that a key implication of the localist model holds true - i.e., that opposition to new urban development projects is concentrated in areas with higher housing costs.

³Pre-registration can be found here: <https://osf.io/mpf2r/>.

Data and Measures

Our analyses rely on two nationally representative surveys. The surveys were collected online in October 2021 and June 2022 including 8,731 respondents and 3,037 respondent's respectively. For both surveys, respondents were quota sampled from the YouGov panel to match the US population on age, education, race and region. This gives us a diverse national sample of renters and owners from urban, suburban and rural areas, and it should give us ample variation in housing costs. Both surveys included a question asking respondent's to write down their zip-code. This allows us to match respondents with their local housing market.

The first survey is used to do the observational analysis, and here we measure opposition to urban development and localist attitudes, which we then link to data on home prices in respondents' zip code. The second survey includes a survey experiment where half of the respondents are informed about how home prices have developed in their metropolitan area. Before the treatment we measure localist attitudes, and after the treatment, as the primary outcome, we measure citizens intention to move to a cheaper area.

Before presenting the results from these surveys, we lay out how our key independent variable - housing cost - is measured and manipulated, and how our dependent variables - citizen opposition to urban development, localist attitudes and relocation decisions - are measured in the two surveys.

Independent Variables: Housing Cost

Our key independent variable is local housing costs. To measure this we use the price of homes sold in respondent's zip code or metropolitan statistical area (MSA). Home prices do not reflect the average housing costs currently paid by those who live in that zip code or MSA. For owners this will instead be equal to mortgage payments and property taxes, and even though rents follow housing prices, there is usually a considerable lag, which means that current housing prices will not reflect what renters pay (Gallin, 2008). However, in terms of the localist model, current home prices is a more interesting indicator than average housing costs, because people base their decision to stay or relocate on *current* home prices. As such, even though someone might be living cheaply in a home they bought long ago, high current home prices will give them an incentive to cash in and move to a cheaper area, where they can buy a nicer home or spend down their housing wealth. Similarly, even though current rents might not have caught up with current housing prices, renters will know that eventually their landlords will probably increase rents, providing an incentive to relocate before this happens.

To estimate home prices in respondent's neighbourhood we use data from the tech real-estate company *Zillow.com*. In particular, we use data on the average price of homes sold in respondents zip-code in 2020. (Unfortunately, we were not able to get data from 2021 as Zillow no longer makes zip-code level home values available.) Zip codes average roughly 10,000 people, which correspond to roughly twice the size of a census tract. This gives us as detailed a picture of respondent's local housing costs as

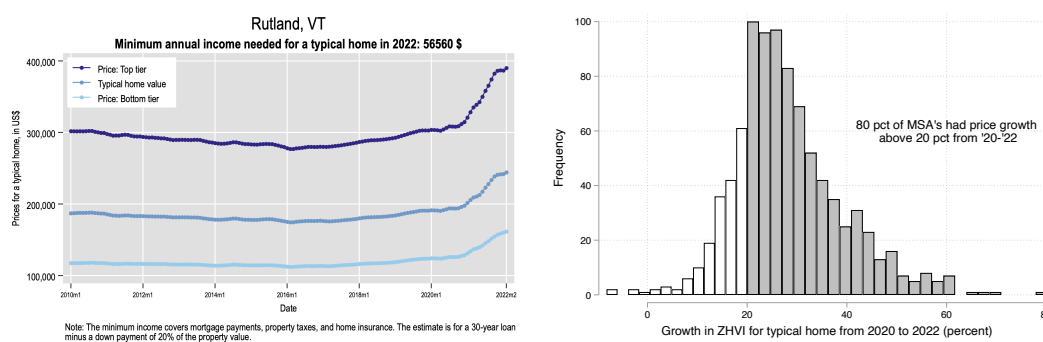


Figure 1: Left panel shows the treatment presented to residents from Rutland, Vermont. Right panel shows distribution of housing price changes across metropolitan statistical areas.

we are likely to get. If we were to examine smaller units, sales would be too infrequent to get a reliable estimate of current home prices.

In the second survey, we try to *experimentally manipulate* respondents' beliefs about their housing costs. To do so, we create a treatment which present respondents with information about how housing prices have increased in their MSA in the past 12 years (2010-2022). Naturally, this will mean that respondents will be presented with different information on housing costs depending on how housing costs have actually developed where they live, however, due to the 'covid-boom' in housing prices from 2020-2022, almost all respondents receive a treatment that shows housing costs increasing dramatically in the recent past (see Figure 1).

We show local rather than national housing price changes to convince citizens that housing costs have increased in their neighbourhood, but we focus on the MSA rather than zip code, because the trend in housing costs is less uniform across zipcodes. In particular, we show respondents' the Zillow Home Value index which reflects the typical value for homes in the 35th to 65th percentile range. We also show home prices for top tier (65th to 95th) and bottom tier (5th to 35th percentile) homes. By showing these different trends respondents can hopefully identify the trend they believe their own home has followed (i.e., based on whether they live in a relatively cheaper or more expensive home), maximizing the effect the treatment has on respondent's beliefs about housing costs. We also give respondents a calculation of the minimum income needed to buy a home in their local area today, which is based on an estimate provided by Zillow. In Figure 1 we present a sample treatment, as well as the distribution of recent changes in typical home values across MSA's.

Dependent Variables: Citizen Opposition, Localism and Relocation Behavior

Our key dependent variable in the observational study is citizen opposition to urban development. There are two challenges in measuring citizen opposition to urban development. One is that you want the projects to be as concrete and realistic as possible to make sure that they can imagine what the project would look and feel like. At the same time, you do not want respondents' ideological commitments to certain projects

to bias your measurement. For instance, some might really like or dislike social housing much more than other types of urban development, and therefore you might get a distorted picture of citizen opposition to urban development if you only ask about this kind of project. To sidestep these issues, we use an experimental approach to estimate citizens' opposition to urban development. In particular, we present all respondents with a concrete development project, but then experimentally vary which attributes the project has. This allows us to give respondents a relatively concrete example of an urban development project, while at the same time ensuring that when we compare opposition to urban development projects across areas with higher and lower housing cost, this relationship does not depend on the exact nature of the project respondents were evaluating.

In the survey, we start by asking respondents to *imagine that your county is planning to permit a real estate development*. Then we describe this development in more detail, presenting respondents with one of 16 different project types. In particular, we experimentally manipulate the distance from respondent's home of the proposed project (*1 mile vs. can be seen from your home*), whether the development is residential or commercial (*new homes which have the same type and size as your home or a mall with restaurants, new shopping opportunities and cultural activities*), whether the project includes parking (*the development includes a large number of parking spaces, which means that parking should become easier after the development is completed*) and whether the project includes a cue about the quality of the project (*the development is designed by an architect as a tribute to the neighborhood's character*). Finally, we ask respondents whether they would support or oppose this development on a balanced, seven point scale from strongly oppose to strongly support. In our analysis, we group respondents by whether they oppose it (1) or whether they support or have no opinion on the project (0).

To increase engagement with this survey task we preface the presentation of the development by noting that that *"local officials have to grant permits for real estate developments"* and that *"to make their decision, they receive input from the general public."*, and we also ask respondents for *"permission to pass along their answers in anonymized form to their local officials"*.

In the surveys we also measure localist attitudes. Localism is essentially a preference for the current physical characteristics of your neighbourhood. We therefore measure localist attitudes using a three-item scale, asking respondents to agree or disagree that *"I would like my community to stay the way that it is"*, *"I would like to stay in my community for the rest of my life"* and *"I like how my community looks and feels"* ($\alpha = .77$). In the data used for the observational analysis we unfortunately only have data on the item: *"I would like my community to stay the way that it is"*. This means that our measure of localist attitudes will be less precise in our observational analysis, this imprecision should not introduce any bias into our estimate of the relationship between housing costs and localism.

In the survey experiment, where we provide respondents with information on recent changes in housing cost, the key dependent variable is citizens' willingness to move to a cheaper location. To measure this, we first ask *"In the near future, would you consider moving to another city?"*, and then if they respond *Yes* or *Not sure* we

ask, if you were to move, would you then move to a city where housing costs are higher, about the same or lower?" If respondents answer that they would move to a place where housing costs are lower they are coded as willing to move to a cheaper location, if they answer no to the first question or that they would move to a place where housing costs are about the same, higher or don't know, then they are coded as unwilling to move to a cheaper location.

Citizen Opposition Is Concentrated in Expensive Housing Markets

We begin our analysis by showing that people who live in zip-codes with higher home values are more opposed to new urban development projects and more likely to have localist attitudes. In the analyses where we examine the relationship between opposition to urban development, localism and home values, we estimate the relationship controlling for state fixed effects and the log of zip code population density. We do this to make sure that we are looking at the impact of prices relative to other areas that respondents might realistically move to (only one in seven moves in the US are made between state lines), and to control for how built up respondent's local area already is (using population density as a proxy). Figure 2 shows the relationship between housing prices in the zip-code where the respondent lives, how likely it is that they oppose the urban development project they were asked to evaluate, *and* whether respondents want their community to stay the way it is. We present this relationship for both renters and owners.

Opposition increases from 10 to 40 percent when going from one of the most inexpensive zip-codes to one of the most expensive zip-codes (e.g., from Canton, OH to Malibu, LA). Interestingly, and in line with the localist Model, there is a strong relationship for both renters and homeowners. Renters are less opposed to new development projects than owners across levels of housing prices, which might reflect difference in economic incentives or in the extent to which renters feel attached to the local area. However, the relationship between housing prices and citizen opposition is so strong that renters in the most expensive areas are considerably more opposed to the urban development project than homeowners in the cheapest areas. There is also a strong relationship between home values and localist attitudes - i.e., wanting your community to stay the same - for both renters and owners, which is in line with what the localist model would predict.

This relationship is not limited to any of the ($2 \times 2 \times 2 \times 2 =$) 16 different types of urban development project that we presented to respondents. As can be seen from Figure 3, while there is some variation in the strength of the relationship, we find a statistically significant positive relationship in all 16 cases. The differences in effect size across type of development project are not jointly statistically significant ($p > .7$). Moreover, we find no evidence that providing more information about the development project, i.e., providing cues about the project's quality or effects on parking, reduce the strength of the relationship between local housing cost and opposition to the project. This suggests that differences in opposition to urban development is not the result of those in cheaper housing markets expecting the project to be of higher quality than those in expensive housing markets. If such differences in expectations

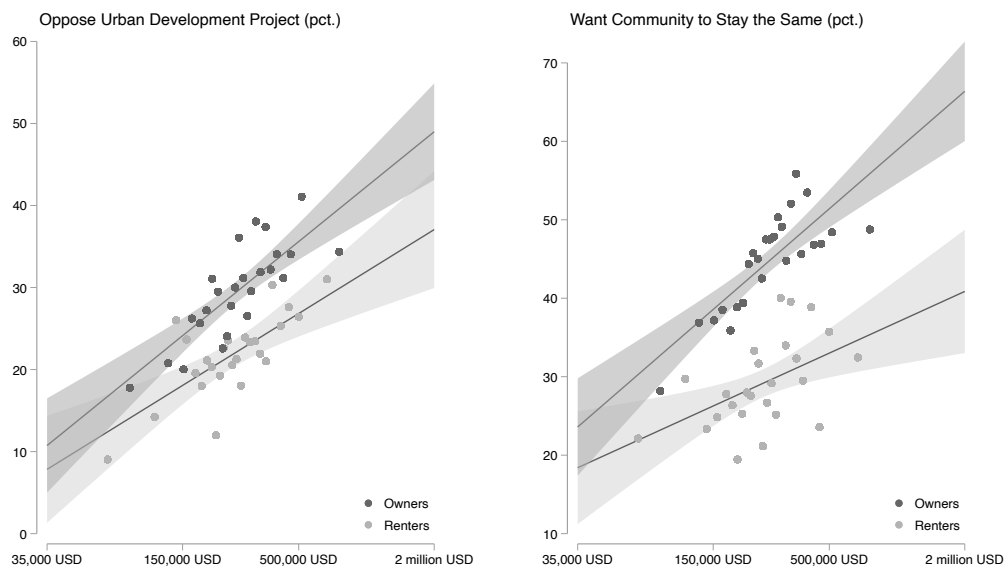
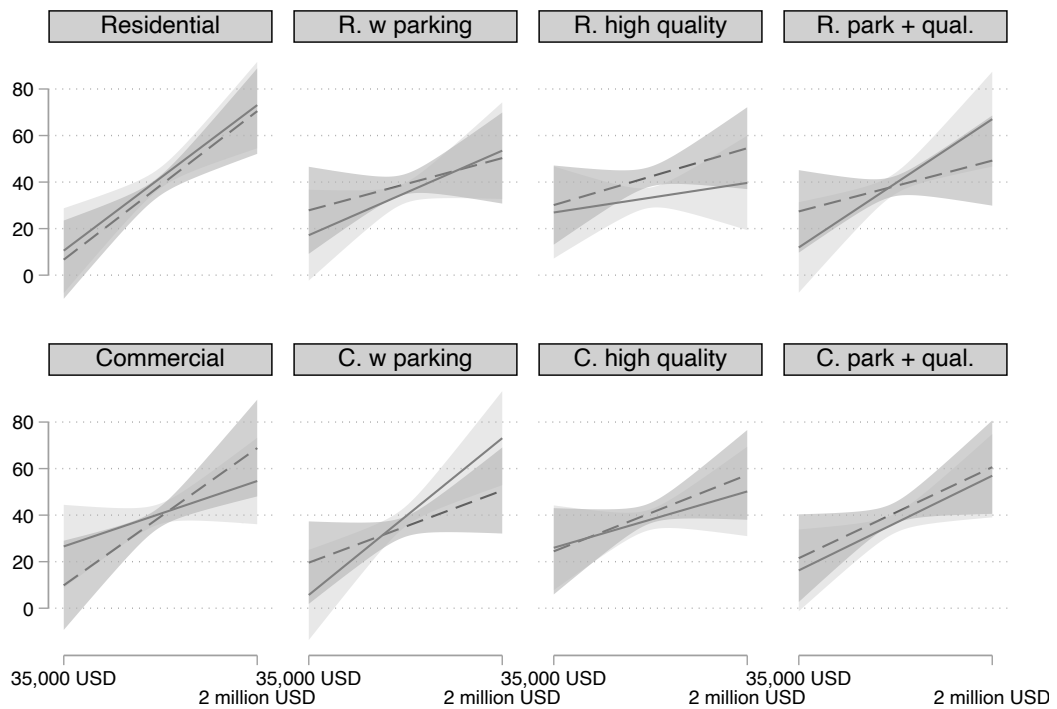


Figure 2: Housing costs, localism and citizen opposition to urban development go together. Dots are binned grouped means estimated separately for renters and owners. The solid line and shaded area is a linear fit on the underlying data with a 95 pct. confidence interval. Estimated levels of housing cost, citizen opposition and localism are adjusted for the log of the population density and state fixed effects.

were driving the relationship, we should expect cues about the project’s content to weaken the relationship between home values and opposition to the project.

The relationship is also robust to a number of different controls. This can be seen in Table 1, where we present the estimated effect of housing prices on citizen opposition to the urban development project and localist attitudes across a number of different linear probability models. Opposition and localist attitudes are coded as 100 allowing us to interpret the effects in percentage points. The first row is the baseline estimate, controlling for the log of density and state fixed effects, and then in the subsequent rows we present estimated effects from models with more controls. The controls included are age, gender and race; income, education level; household characteristics, including household size, how long the respondent has lived in their current home, and whether they live in an urban, rural or suburban area (self-reported); and partisanship. In the last model we also include the log value of respondent’s own home (self-reported) as well as the log of their home equity (self-reported). This model excludes renters, as they have no meaningful home value or home equity. The controls are added to the model cumulatively, and thus the effects presented in a given row are estimated using the controls presented in the prior rows. We present estimated effects for all respondent, for owners and renters separately, and for models where we use county fixed effects as an alternative to state fixed effects. Across *all* these specifications there is a strong, statistically significant estimated effect of local housing prices on opposition to the urban development project as well as on localist attitudes. Effects



Solid: 'Within 1 mile', Dashed: 'Can be seen from your home'.

Figure 3: The relationship between housing prices and and citizen opposition does not depend on the type of urban development project. The relationship between housing prices and citizen opposition across the 16 different project types respondents were presented with. The solid lines and shaded areas represent a linear fits with a 95 pct. confidence interval. The estimated relationships are from a linear probability model controlling for the log of density and state fixed effects.

are generally smaller for renters than for owners, but for both groups the estimated effects are non-negligible and statistically significant.

Importantly, these results suggest that differences between high and low cost areas in opposition to urban development cannot be explained in terms of expected or current financial advantage (cf. controls for income and education). That is, our results cannot be explained by low-income households, who tend to live in inexpensive housing markets, demanding more housing, because this advantages other low-income people. In fact, as we show later in our analysis, low-income residents in expensive housing markets are particularly likely to oppose urban development.

Table 1: How Robust is the Relationship between Housing Prices, Localism, and Citizen opposition?

	All			Owners			Renters			County FE		
	β	se	n	β	se	n	β	se	n	β	se	n
<i>Citizen Opposition</i>												
Baseline	9.12	1.10	7802	9.54	1.44	4599	7.17	1.70	2601	8.67	1.78	7068
Age, Gender and Race	8.92	1.07	7802	10.01	1.40	4599	6.44	1.75	2601	7.25	1.79	7068
Income and Education	8.48	1.09	7802	10.04	1.44	4599	5.29	1.79	2601	7.01	1.81	7068
Household characteristics	8.01	1.10	7802	9.50	1.45	4599	4.87	1.80	2601	6.63	1.82	7068
Partisanship	7.99	1.10	7802	9.49	1.45	4599	4.78	1.81	2601	6.60	1.81	7068
Home Equity and Value	10.50	2.10	2781	10.50	2.10	2781	.	.	.	7.09	3.87	2229
<i>Localism</i>												
Baseline	9.68	1.14	7802	10.66	1.53	4599	5.63	1.82	2601	9.81	1.93	7068
Age, Gender and Race	9.54	1.15	7802	10.74	1.54	4599	5.90	1.90	2601	8.91	2.01	7068
Income and Education	8.46	1.17	7802	10.43	1.58	4599	5.83	1.95	2601	7.50	2.03	7068
Household characteristics	8.00	1.18	7802	10.28	1.59	4599	5.06	1.97	2601	7.45	2.03	7068
Partisanship	8.09	1.17	7802	10.46	1.58	4599	5.07	1.97	2601	7.45	2.03	7068
Home Equity and Value	12.05	2.20	2781	12.05	2.20	2781	.	.	.	7.10	4.15	2229

The estimated effect of 8 in the most restrictive model that includes renters (i.e., the models that include all controls except those for home value and home equity) suggests that opposition to urban development increases by 8 percent when housing prices double. This corresponds, for instance, to the difference between Amarillo and Dallas or Dallas and Austin or Austin and San Diego (at least in the spring of 2022). Notably, the estimated effects of housing prices on citizen opposition and on localist attitudes are of similar magnitude.

In sum, we find a strong correlation between housing costs and opposition to urban development, with citizens in high cost areas opposing urban development projects to a much greater extent than citizens in low cost areas. This is consistent with the localist model, which suggested that as housing costs in an area increased, those who *do not* particularly care about how this area looks and feels will opt for a cheaper home elsewhere, leaving behind those who *do* have a strong attachment to how the area looks and feels.

Citizen Opposition is not Explained by Concerns over Home Values

Citizens desire to protect their home values has been identified as a key motivation for why citizens oppose new urban development projects in their ‘back yard’ (Fischel, 2001, 2005). This interest in preserving home values should be relatively universal among homeowners. Even so, it could be that homeowners are more sensitive to

potential threats to their home values when homes are very expensive, and that is why we find that a correlation between opposition to urban development and housing prices.

However, some of the evidence presented above seems to go against this explanation. As such, even though homeowners in more expensive areas might have a greater economic self-interest in preserving home values, this cannot explain why *renters* in more expensive areas, who have no home equity and no mortgage, also oppose urban development projects. Table 1 also showed that the relationship between housing prices and citizen opposition to urban development became stronger after controlling for respondent's self-reported home equity and the estimated sales price of their home - two variables that measure how heavily invested in the local housing market the respondent is.

One economic explanation for the patterns identified above is that renters form beliefs about the expected effect of new urban development on housing costs in a different way in areas where housing costs are high. Following narratives of gentrification, renters could believe that new construction projects increase the price of local housing in expensive housing markets (for evidence in line with this, see Hankinson, 2018).

To find out whether this is indeed the case, we ask respondents whether they believe “the proposed development would make housing prices in your local area increase or decrease”, grouping respondents who said that prices would ‘increase a lot’, ‘increase’ or ‘increase somewhat’ together, and then examine whether the share of respondents in this group is larger in areas with higher housing costs. We present this analysis in Figure 4, which shows that renters’ beliefs about the effect of the urban development project on local housing costs do not depend in whether they live in a place with higher or lower housing prices. For owners there is a weak relationship, with those in expensive areas being somewhat less likely to believe that the new development will increase prices. Overall, it is striking how many (almost fifty percent) of voters believe that housing prices will increase in response to the urban development project, however, since these beliefs are fairly uniform across cheaper and more expensive housing markets, it cannot help explain why opposition differs so much across these different types of areas.

To further corroborate that those in expensive areas do not oppose new urban development projects based on economic considerations, we also use open ended answers to a different question, namely “Why do you support or oppose building new homes in your community?”. Figure 5 present relative popularity of words used by those who oppose and support the policy in cheaper and more expensive areas. In particular, we use the method developed by Monroe, Colaresi and Quinn (2008).

The words in the bottom of the figures are used more frequently by people who oppose new developments, while words used in the top of the figure are used more frequently by supporters of new developments. The right side shows the responses for people living in expensive areas, defined as having housing prices above the median, while the left side shows the responses for those living in areas with housing prices below the median. Interestingly, people who oppose the new development does not center economic considerations at all. Instead, and in line with the localist model, they

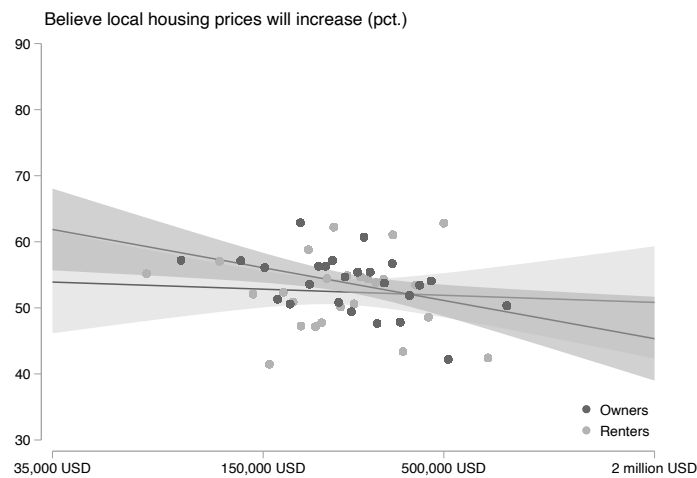


Figure 4: Renters (and owners) do not have stronger ‘gentrification-beliefs’ in expensive local housing markets. Dots are binned grouped means estimated separately for renters and owners. The solid line and shaded area is a linear fit on the underlying data with a 95 pct. confidence interval. Estimates are adjusted for the log of the population density and state fixed effects.

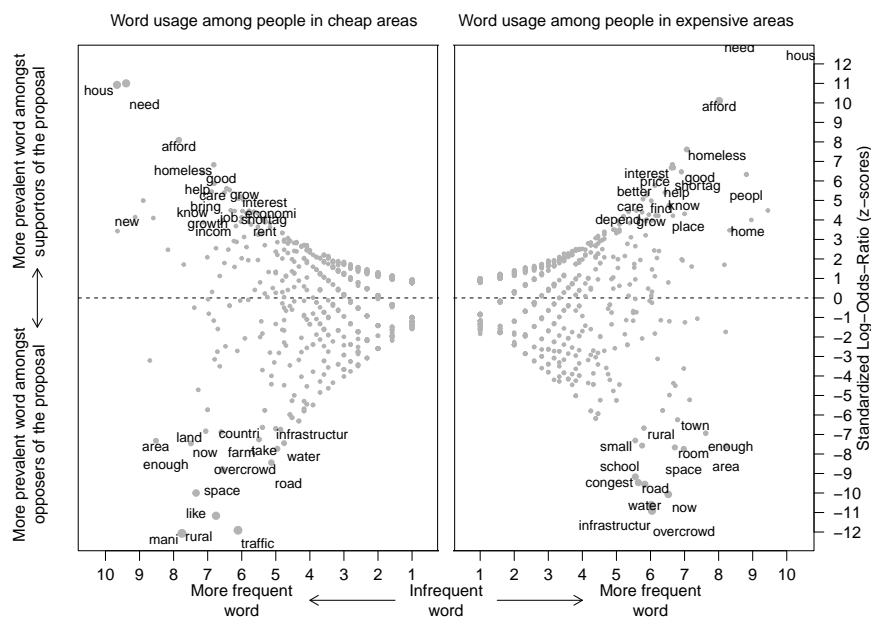


Figure 5: People who oppose the development do not highlight economic concerns. Each point indicates a unique word that appears in the open response to whether they oppose the development. The analysis is based on 1,551 unique words (using stemming, and excluding stop words and symbols) appearing in 8,783 open responses.

center descriptions of their local area - talking about their town and their fears that it might become congested and overcrowded.

On the other hand, supporters of the proposal use language related to economics, such as develop, afford, and attract - especially in the less expensive areas. This seems to suggest that they see the development as a way to create new economic activity in their area. Contrary to the conventional 'nimby' story this seems to suggest that some people believe that residential developments represent economic opportunity rather than an economic threat.

All in all, a concern for home values or future trends in housing prices do not seem to explain why citizens are much more likely to oppose urban development in more expensive local housing markets.

Citizen Opposition, Localism and Selection Patterns

The key argument in the localist model of citizen opposition to urban development presented above is that as prices increase, localist - people who really care about the physical appearance of the local area - are more likely to move in. This is why we expected to find a positive relationship between housing costs and anti-development attitudes. However, it could also be that the relationship we identify is the result of reverse causation, namely, that some areas - for some other reason - are more localist and then, over time, these areas become more expensive because localist object to the construction of new housing.

We do not want to rule out that the relationship identified in Figure 2 and Table 1 above is in part driven by an effect of anti-development attitudes on housing costs. However, it seems unlikely that the identified correlation can be fully explained by this type of reverse causation. Figure 6 shows that even among respondents who moved in to their current home within the last 12 months, there is a strong relationship between housing costs and opposition to urban development. Since this group of respondents have not lived in their homes long enough to affect local housing prices, it must be that those who selected into the more expensive areas were more localist to begin with. To estimate differences in the effect of housing prices we interact this variable with a set of dummies for time spent in respondent's current home, including the full set of controls as well (except the controls for home equity and value, as these are only available for homeowners)

The estimated effect of housing prices on citizen opposition are larger among those who have lived in their current home for more than five years. This could be because there is some reverse causality here - that those who have lived somewhere for five years have been able to curb housing supply somewhat, putting an upwards pressure on prices (although the time-span still seems a little short for such an effect to play out). It could also be that short-term moves are more likely to be driven by concerns that are unrelated to localism (e.g., education or jobs) whereas localism plays a larger role in selection patterns for long-term moves.

As we argued above, differences in citizen opposition to urban development across cheap and expensive housing markets should be particularly large among low-income households. In particular, low-income households should be more sensitive to changes

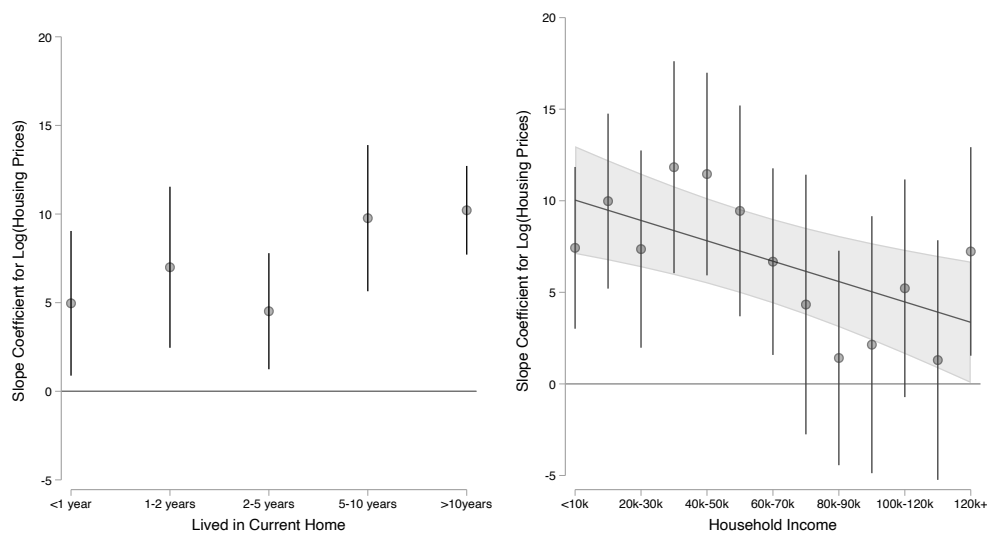


Figure 6: Housing costs, citizen and patterns of selection into local housing markets. Dots are effects of housing prices estimated across time lived in current home and household income respectively. Spikes are 95 percent confidence intervals. To model differences in effect sizes we have used two interaction models with the full set of controls from Table 1 (except for home equity and home values)

in housing costs, because they forego relatively more non-housing consumption by staying in an area that is becoming more expensive. In Figure 6 we plot the effect of housing costs across different levels of household income. We show estimates from a linear interaction model, where we assume a linear effect between categories chosen on a self-reported income scale, as well as a more flexible model, where we estimate the relationship for each reported level of income. Both sets of estimates come from a model including the full set of controls (except for home equity and home values) where we interact household income with the log of housing prices.

Once again, the identified pattern in citizen opposition to urban development aligns with what we would expect from the localist model: the correlation between housing cost and citizen opposition is much stronger for low income households.

Localists Are Less Sensitive To Housing Price Chocks

The analyses above have shown that citizen opposition to urban development is related to higher housing costs in a way that is consistent with the localist model and inconsistent with important alternative explanations. However, the key mechanism underlying the localist model remains untested, namely, that localists are less sensitive to housing price chocks, and therefore tend to stay in areas as they become more expensive, while non-localist relocate to a cheaper area.

We explore how housing costs affect localist and non-localists relocation decisions using a survey experiment, which presented respondents with information on housing

prices in their metro area across the past 12 years. In almost all metro areas prices had increased in the past two years (see Figure 1), giving almost all treated respondents a directionally uniform signal about housing costs in their local area. We group respondents into localist and non-localist based on whether they score above or below the median on our three-item localism scale (this ends up being the same as scoring above the midpoint of the scale).

Figure 7 presents the results of the survey experiment. In the left panel we show that respondents in the treatment group, which got information on housing costs, were 10 percentage points more likely to believe that housing prices had increased a lot in their metro area. This is the case for both localists and non-localists. This works as a manipulation check showing that even though many respondents had picked up that prices in their metro area had increased, the treatment still had an effect on respondents' perception of their local housing market.⁴ In the right panel we look at whether respondents say they want to move to an area with lower housing cost. For localists there is no effect of the treatment, however, non-localists are 6 percentage points more likely to say they want to move to an area with lower housing costs. This difference between localists and non-localists is statistically significant ($p < .05$).

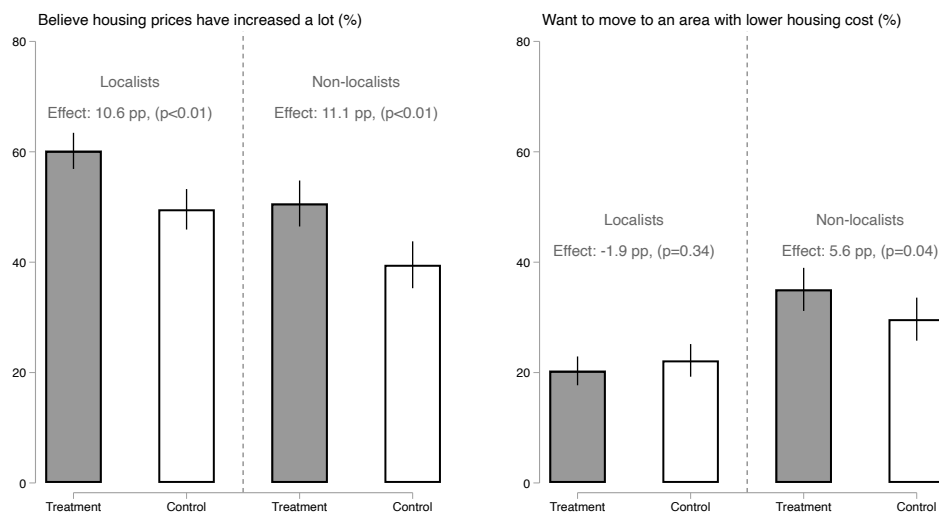


Figure 7: Localist are less sensitive to housing price shocks. Bars represent mean response for treated and untreated respondents among localist (who score above the median on the localism scale) and non-localist (who score below median). Spikes are 95 pct confidence intervals.

⁴In particular, we look at the share who answered 'Housing prices have increased a lot' to the question 'Would you say that the price of homes and apartments in your metropolitan area have increased or decreased from 2020 to 2022?'. The other options were 'Decreased a lot', 'Decreased somewhat', 'Have remained about the same' and 'Increased somewhat'. Using linear and quantile regression we also identify a statistically significant effect of the treatment on the median and mean response to this question ($p < .01$).

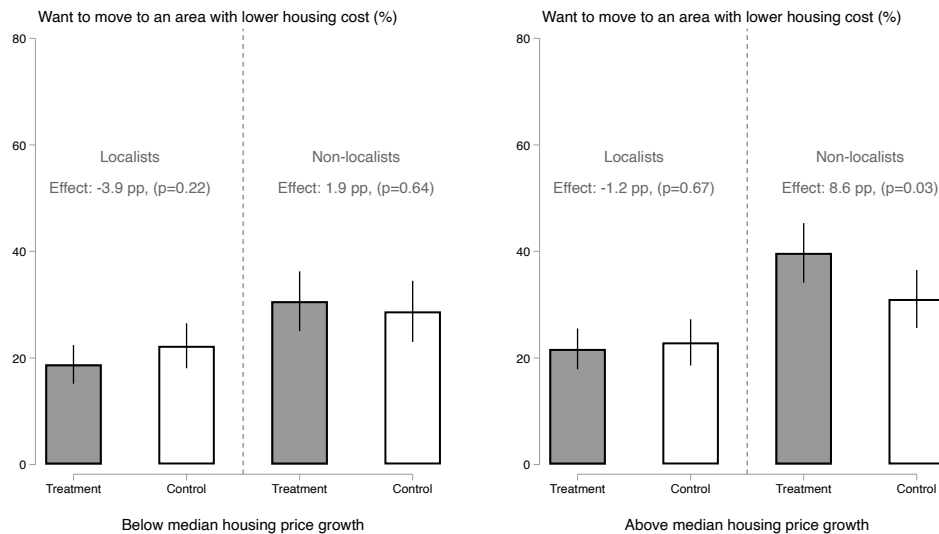


Figure 8: Treatment effects are concentrated in areas which experienced a higher housing price growth. Bars represent mean response for treated and untreated respondents among localist and non-localist across areas which had an above or below the median increase in housing prices from 2010 to 2022 (i.e., above or below 75 percent). Spikes are 95 pct confidence intervals.

Figure 8 shows that the effect on relocation behavior is concentrated among non-localist in areas which experienced above median housing price growth, as measured by the relative difference in housing prices between 2010 and 2022. This makes us more confident that the information provided in the treatment about housing prices is what is affecting relocation decisions. As such, respondents who live in areas with above median housing price growth were provided with the strongest signal about housing price increases (i.e., a graph where prices sloped the most steeply upwards), and it is among these respondent's we identify the strongest effect.

Table 2: How Robust is the Difference between Localist and Non-Localist?

	Localists		Non-Localist		Difference		
	β	se	β	se	β	se	n
Baseline	-1.90	2.01	5.39	2.81	-7.29	3.46	2782
Log(Typical Home Value)	-1.91	2.01	5.37	2.81	-7.29	3.46	2782
Household Income	-2.19	2.03	4.74	2.76	-6.93	3.43	2782
Housing Tenure	-2.04	2.08	5.17	2.80	-7.21	3.57	2782
Education	-2.34	2.09	5.41	2.80	-7.74	3.57	2782
Years in Current Home	-2.40	2.09	4.98	2.86	-7.39	3.63	2715

Is it really 'localist' attitudes which make a difference in terms of how people respond to housing price shocks or is it some feature correlated with these attitudes? To some extent, this does not matter for whether increasing housing costs will lead to an exodus of non-localists. Even if it some other feature of localists that make them respond differently (e.g., their income) the result of a housing cost increase will be the same, namely, fewer people with localist attitudes. Even so, we do not find

any evidence that income, the typical home value in your area, housing tenure (i.e., whether you are an owner or renter), education levels or time lived in your current home can explain the differences in how localist and non-localist respond. This can be seen in Table 2, where we report the treatment effect for localist, non-localist and the difference in treatment effect (the interaction effect) estimated from models where we control for these variables by interacting them with treatment status. The controls are added cumulatively. Across all model there is roughly the same gap in effect size between localists and non-localists.

Consistent with the localist model, we thus find that increasing housing cost changes the relocation intention of non-localists, who look for cheaper housing elsewhere, while localist are not affected by increasing housing costs. This can explain why we find more localists, and, in turn, more opposition to urban development projects, in places with higher housing cost in the observational analyses above.

Conclusion

In this article we have shown that opposition to urban development projects is concentrated in places where housing costs are high, and argued that this is because increasing housing costs lead to an increasing concentration of localist - citizens who prefer to preserve the current build environment.

Our findings can help explain why some of the world's richest and most progressive cities struggle to solve a number of different problems, including the affordability crisis, which locks the middle class out of some of the world's most productive cities (Wetzstein, 2017), congestion which locks people in their car for long commutes (Downs, 2005), and, perhaps most importantly, the climate crisis, which require urban development and densification to limit sprawl and shorten commutes (e.g., Mieziš et al., 2016). In particular, our article helps explain why the overwhelmingly liberal residents of some of the world's richest cities, who usually support both affordable housing and public transit, might not believe that urban development projects are an acceptable solution to this problem (Dougherty, 2020).

Moreover, by improving our understanding of the motives that underlie opposition to new commercial and residential developments, the findings in this article might help us understand which policies might effectively mitigate this opposition. For instance, our findings imply that policies which limit or provide insurance against risks to home values will have a limited impact (e.g., Fischel, 2015), since the opposition to housing does not seem to be driven by economic rationales. On the other hand, policies that limit the average cost of housing, such as rent control or public housing, might temper opposition to urban development, as they will allow for a more balanced mix of localist and non-localist in expensive housing markets.

Finally, as mentioned in the introduction, a concerning implication of our findings is that once housing prices in a city start to increase, this can create a vicious circle where increases in housing costs lead to less support for new urban development, curbing the supply of housing and further increasing prices. In time, this vicious circle can turn once dynamic cities into unsustainable gated communities for the wealthy - a

process which we have seen take place in many of the world's most productive cities (Glaeser and Cutler, 2021), and which might be on the way in many cities today.

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