Where Self-Interest Trumps Ideology: Liberal Homeowners and Local Opposition to Housing Development

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Abstract

How much does self-interest drive Americans' policy attitudes? Survey research typically finds that self-interest's role is minimal. Such conclusions are typically reached by examining attitudes toward federal policies that present diffuse costs and low stakes. We consider a starker test-case of self-interest: controversies surrounding development of dense and affordable housing in Americans' communities. Liberal homeowners, especially, must cope with dissonance between their egalitarian ideology and a desire to protect their home values and quality of life. They often embrace liberal housing goals and redistributive housing policies, but join conservatives in opposing dense housing in their own communities. Two survey experiments show that liberal homeowners are cross-pressured, and barely more likely than conservative homeowners to support dense housing development. Messages appealing to homeowners' self-interest reduce support further, while countervailing appeals about housing's benefits to low- and middle-income families barely offset the negative effect. We discuss implications for the politics of equality of opportunity in state and local politics.

Keywords: Homeownership; self-interest; local politics; ideology; housing

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When does material self-interest influence policy attitudes? Political scientists have long puzzled over the reasons that cause Americans to adopt specific policy attitudes or vote for parties whose policy positions run counter to their well-being. From the earliest days of the modern survey era, political scientists have accumulated evidence that Americans' vote choices are driven by factors other than their economic class or a rational assessment of their material self-interest (Campbell et al., 1960; Achen and Bartels, 2016). Political scientists have attributed voters' seemingly self-negating behavior to ignorance (Bartels, 2005, 2008), altruistic personality traits (Gilens and Thal, 2017), and religious and cultural beliefs (Frank, 2004). Others have concluded that deviations from economic voting are more prevalent among educated, affluent voters who face few existential threats from the economic policies on offer and are therefore free to vote on the basis of "post-materialist" issues (Inglehart, 1981; Gelman et al., 2007). While scholars have occasionally found self-interested voter behavior on issues involving organized interest groups and high personal stakes (Campbell, 2003), it rarely appears in national elections.

Self-interest's general irrelevance may, however, be an artifact of researcher choice. It may arise not from voters' self-negating behavior, but because voters usually face few meaningful threats to their self-interest from national policies. For example, differences between the two major party platforms on economic policy questions are smaller than they might be if the U.S. had a viable socialist party or more multi-party competition. And, voters often do not attribute their personal fortunes to federal policies, but to more proximal factors that are within their personal experience and control (Citrin and Green, 1990; Feldman, 1982). Their beliefs about federal policies' minimal effects are often well-founded. For example, major economic policies such as recent changes in marginal tax rates are typically insufficient to noticeably change Americans' relative socioeconomic status. National politics thus can be a poor test of Americans' responses to conflicts between their material interests and political ideologies.

In contrast, state and local government policies can have substantial and immediate impacts on Americans' daily lives with respect to matters ranging from public safety to school quality. In this paper, we draw upon original survey evidence in one such policy area: the regulation of housing development by local governments, a policy area for which the stakes are high and the policy-outcome link clear (Citrin and Green, 1990; Green and Cowden, 1992). Local government policies are frequently more important

and visible to Americans' daily lives on matters ranging from policing to transportation (Trounstine, 2009). As the nation's primary land use regulators, local governments influence home values (Molotch, 1976; Dettling et al., 2017). In response, homeowners become deeply involved in local politics. Voters who become homeowners become more engaged in local policy issues (Hall and Yoder, 2018), and homeowners use local government to defend both their home values and their "quality of life" (Fischel, 2001*a*,*b*; Einstein, Palmer and Glick, 2019; Hall and Yoder, 2018; Yoder, 2019). Under homeowners' influence, U.S. municipalities have adopted restrictive single-family zoning laws that prohibit construction of multi-unit housing in most areas, thus excluding lower-income households who depend on such developments (Downs, 1973; Danielson, 1976; Levine, 2006; Wilson, 1996; Rothstein, 2017; Trounstine, 2018). Such exclusionary zoning policies are extensive and vary little across metropolitan areas with respect to the areas' partisan composition or ideology. In fact, land use policies are often more restrictive in more liberal coastal cities (Kahn 2011, Glaeser, Gyourko and Saks 2006, Glaeser and Gyourko 2018: 19). As a consequence, local governments are influenced by homeowners whose generalized ideological commitment to equality of opportunity (Jackman, 1978) conflicts with their support for exclusionary local land use policies.[1]

Homeowners' attitudes toward local development thus present a hard test of the clash between ideology and self-interest. To demonstrate this, we present both observational and experimental analyses designed to assess how homeowner self-interest and ideology conflict.

In the first set of tests, we consider how liberals and conservatives, homeowners and renters differ over developmental and redistributive approaches to housing. While support for redistributive housing

[1]Restrictive housing policies have become a topic of debate in Democratic metropolitan areas such as New York, Boston, Seattle, Los Angeles, and San Francisco (Glaeser and Gyourko, 2018). As more high-income workers move into these regions, legal limits on housing supply have caused prices to rise beyond the means of the middle class. In San Francisco, for example, the Zillow Price Index grew by 93% between 2011 and 2018. The rent for a typical one-bedroom apartment in San Francisco is now a financial burden (exceeding 30% of pre-tax income) for any household earning less than $136,000 per year (Brinklow, 2018; Zillow, 2018).

policies (such as aid to renters) follows ideological lines, support for policies to enable housing development does not. Next, in two survey experiments, we show that liberal homeowners—defined as those who support the ideal of a federal guarantee of housing access for all—respond negatively to proposals to build more housing in their communities.

In the first experiment, we test whether standard pro-housing messages could persuade homeowners to support dense housing development, using arguments that have been widely used by supporters of additional housing production ("Yes in My Backyard," or YIMBY activists). In a second experiment, we assess how self-interested behavior manifests itself in terms of response to spatially specific threats from housing (Hankinson, 2018), which vary with the types of residents served by the housing (market-rate tenants or low-income tenants) and the proximity of the housing to one's home. Both experiments reveal that, regardless of experimental condition, considerations attached to homeownership matter more than one's self-reported ideology on housing policy questions. Messages constructed to appeal to ideology are rarely sufficient to counteract the effect of messages constructed to appeal to self-interest.

Whether they are responding to different housing policies, responding to persuasive political messaging, or evaluating hypothetical proposals for local development, homeowners remain opposed to local development policies that threaten their self-interest. For liberals homeowners, especially, appeals to ideological commitment shift attitudes in support of development, but not enough to close the large gap in support between liberal owners and renters. In fact, differences between liberal and conservative owners, are smaller than gaps between liberal owners and renters across analyses. Proposals to develop housing pose a proximal and legible threat to home values and associated local quality of life, and the response of liberal homeowners, especially, confirms the power of self-interest over ideological commitment.

Self-Interest and Ideological Dissonance in Housing Politics

Local attitudes toward housing development policy provide an ideal test of how ideologies forged through national politics clash with, and become subordinated to the proximal concerns of daily life. Recent work focused mostly on national issues has concluded that Americans have adopted positions on national economic and social policy issues that are consistent with the party position (Levendusky, 2009), often

in response to cues from party elites (Lenz, 2009, 2013; Barber and Pope, 2019). Democrats tend to be liberal on multiple issues, whereas Republicans tend to be conservative. However, partisan consistency on national issues may not translate to local government policy, even when seemingly well established positions (for example, the liberal principle that government should aid the poor) logically imply a need for local action.

When ideology and self-interest clash, voters frequently forsake their generalized ideological commitments to protect specific proximal interests (Jackman, 1978). For example, Democrats are more likely than Republicans to respond on surveys that they support a federal guarantee of housing for all, but such support does not consistently coincide with support for building needed housing in their own communities or other specific measures to build housing. Similarly, Republicans may state that they oppose intrusive government economic regulation but nevertheless support strong land-use regulation in their own communities.

On the matter of housing policy, local behavior appears especially unlikely to coalesce around the national political agenda (Pew Research Center, 2014; Hopkins, 2018). This disconnect merits exploration. A possible cause is that party elites—especially Democrats—have refrained from making exclusionary housing policies a national issue, because to do so would antagonize pivotal suburban voters (Schneider, 1992). As a result, voters need not reconcile their nationalized ideologies with proximal local concerns tied to housing. A dearth of elite cues on housing development policy leaves Americans without the partisan heuristics for determining the ideologically "correct" position on housing policy, despite its overall national importance to equality of economic opportunity (Sniderman and Stiglitz, 2012). Voters are thus left to their own devices or rely on typically nonpartisan local information. Their personal self-interest fills a political information vacuum.

When a voter's local policy attitudes appear to violate their generalized political ideology, accusations of hypocrisy fly, and on matters of housing such a voter may be branded as a "NIMBY" (not in my backyard). While this terminology is in widespread popular (and, increasingly, academic) use, it can inappropriately reduce individuals' complex considerations related to local and personally costly policy measures (Pendall, 1999). Especially on questions pertaining to housing, voters may adopt behaviors

that appear inconsistent with their ideological commitments for a host of reasons. This clash may arise in two forms: *logical* dissonance between political beliefs and behaviors that may outwardly appear as hypocrisy, and *cognitive* dissonance in which an individual must cope with the discomfort that arises when several of their "cognitions" conflict (Festinger, 1962; Aronson, 1969).

Logical inconsistencies around policy positions need not culminate in cognitive dissonance. For example, liberals are much more likely than conservatives to agree with the desideratum that the federal government should guarantee housing for all. One practical policy implication is that a voter who believes this should support federal, state, and local programs to create adequate housing in communities that currently lack it, including in their own town or neighborhood. But, consistent with the long-observed disconnected between general and applied principles (Jackman, 1978), liberals may sway from supporting housing development, and instead favor other policies. For example, economists nearly unanimously conclude that standard rent control policies fail to deliver affordable, quality housing (Glaeser and Luttmer, 2003; IGM Economic Experts Panel, 2012; Lee, 2019), but rent control is embraced by liberal homeowners and renters alike, even as they do not embrace building more housing, as pro-market economists propose (Glaeser and Gyourko, 2018). Conveniently for homeowners, redistributive approaches to housing such as rent control or renter tax credits present diffuse costs, posing a less concentrated threat. But homeowners' beliefs may not reflect bias or "NIMBYism," but sincere policy positions deriving from voter's knowledge and personal ideology.

Only if individuals perceive an inconsistency between their policy positions and their ideological commitments will they suffer from *cognitive* dissonance. the psychological discomfort associated with holding two conflicting cognitions (Festinger, 1962; Aronson, 1968). Cognitive dissonance scholarship is based on a single behavioral axiom: that individuals will seek to end the discomfort associated with holding two conflicting cognitions simultaneously. One of those "cognitions" may be an ongoing behavioral choice, such as the decision to own and maintain a home, with all that entails. Another may be their believe in providing equality of opportunity to all, which may entail support for policies that would threaten their home-related interests. To cope with cognitive dissonance, they must develop rationales to justify holding both ideas simultaneously or select one cognition over the other (Festinger, 1962).

Often, this entails changing beliefs accommodate an entrenched behavior, rather than changing behavior to match a perceived obligation (Aronson, 1969; Acharya, Blackwell and Sen, 2018).

Homeownership is a major life choice and source of identity, and likely to predominate over other cognitions, including prior ideological commitments. Homeowners who face a conflict between their status and other ideological considerations are likely to resolve their discomfort in a way that allows them to maintain their homeowner interests and political identity simultaneously. For example, homeowners looking to block local housing development and other threats to their self-interest, but who identify as liberals and otherwise support liberal causes, will be pressed either to renounce their liberal ideology completely, or determine how it can be consistent with homeowner self-interest.

One way to manage such conflicts is to generate socially acceptable reasons for policy attitudes that are separate from one's own self-interest. For example, in making public statements to oppose housing development, Americans seldom claim that their pecuniary self-interest is their reason for doing so. Instead, they frame concerns in terms of community quality of life: safety of children, traffic congestion, and school quality. Such rationales may be sincere, but they also allow development opponents to reconcile ideology and self-interest.

Homeowners may also justify their opposition to needed housing development by arguing for alternative policies to address housing affordability without inviting in unwanted and spatially focused home construction. This may manifest itself in classic NIMBYism: homeowners embrace the idea of building housing somewhere in their general vicinity, but that local facts argue against building in their town or neighborhood (Pendall, 1999).[2] Or, liberal homeowners may avoid cognitive dissonance by asserting that local housing development is futile or inadequate, instead proposing redistributive or means-tested housing policies such as renter tax credits, rent control, or Section 8 housing vouchers. Such policies typically present diffuse costs while promising to improve access to housing.

[2]This form of "NIMBY" behavior is sometimes described as a spatial version of the collective action problem (Hankinson, 2018). This interpretation applies to renters who benefit from additional housing stock, but even liberal homeowners' opposition to housing development is better understood as a traditional redistribution problem.

Research Design

Our design consists of three different research studies on a sample of respondents from major US metropolitan areas, each designed to assess how a voter material self-interest interacts with stated ideology shape support for local housing development. We begin to address this question with an observational analysis of attitudes on different solutions to housing affordability, including housing development, then present results from two survey experiments. The first experiment is designed to test widely used messages extolling the virtues of building more housing supply to address regional housing affordability. The second tests how voters respond to aspects of hypothetical apartment building proposal by varying information about the project's proximity and whether the proposed facility consists of market rate apartments or if part of the facility is reserved for low-income residents.

We begin by defining a two-by-two typology to assess how ideology and self-interest are likely to conflict. The typology is defined on one axis by support for a federal guarantee of housing for all, which we shorthand as "liberal" or "pro-guarantee" respondents. On the other axis, homeownership status acts as the key variable capturing self-interest. Thus, our typology consists of pro-guarantee renters, pro-guarantee homeowners, anti-guarantee renters, and anti-guarantee homeowners.

Across these four categories, we assess how individuals respond to information constructed to appeal to self-interest or ideology as a function of their expected level of cognitive dissonance. Ex ante, we expected that the stated ideologies and material self-interest of both conservative homeowners and liberal renters would be logically consistent, producing the least amount of cognitive dissonance, whereas liberal owners and (to a lesser degree) conservative renters would be more cross-pressured on questions pertaining to local housing development.[3] Because we are especially concerned with how liberal home-

[3]Alignment of ideology and self-interest can hinder identification of the effect of self-interest on behavior. For example, Sears, Hensler and Speer (1979) find that conservative white parents whose children were subject to school desegregation "busing" were no more likely to oppose busing than other conservatives. For both groups, opinions on the issue were already set.

owners' self-interest conflicts with their stated ideology, our observational and experimental designs report all groups' results but focus on their survey responses.[4]

Our observational survey analysis considers how the self-interest associated with homeownership and ideology interact across different policy alternatives proposed as solutions to housing affordability concerns. A battery of questions assess attitudes towards a range of regulatory and redistributive policies (e.g., state renter tax credits and Section 8 housing vouchers) and development policies (e.g., loosening of zoning laws). If self-interest were a dominant force over policy attitudes, we would expect homeowners and renters to embrace policies consistent with their pecuniary interest and oppose those that most threaten it by posing concentrated threats to their financial well-being. Homeowners might be more favorable policy alternatives that do are funded through diffuse taxation and do not threaten their home values or quality of life.

Of course, observational studies do not allow manipulation of factors that might shape individuals' self-interest or ideology. Thus, we conduct two survey experiments, each designed to vary the salience of self-interest and ideology, and then measure attitudes toward housing development questions. In the first survey experiment, we randomly assign respondents to view alternative messages on economists' beliefs that allowing more housing development can reduce housing prices in an area, followed by a battery of questions assessing support for five different housing types in their area, ranging from single-family homes to apartment buildings.

In setting up the first experiment, we expected that messages on housing supply's effects on housing prices would work in opposite fashion for homeowners and renters. A reduction in housing prices is usually beneficial to renters or potential home buyers in an area, while homeowners face economic

[4]Of course, some conservatives could also experience cognitive dissonance around housing issues. In principle, libertarians oppose government intervention in free markets, whether in the form of welfare spending or intrusive local government land use regulation. However, such consistent libertarianism is rare, especially on housing policy questions. Data from an April 2015 Golden State Poll show that only 10% of California voters took a libertarian position on housing by supporting a looser zoning code while opposing financial aid to renters (Hoover Institution, 2015).

losses. All else equal, we should expect attitudes towards housing development to vary with personal economic threat (Hoover Institution, 2015; Hankinson, 2018). But, expecting that ideology may cross-pressure self-interest, we expected that housing production could be received more favorably by liberal homeowners who are more receptive to the importance of housing affordability. We expected that additional messaging on the redistributive impacts of housing development could amplify these differences, increasing liberal owners' support for housing development.

In the second experiment, we test respondents' reactions to different versions of a hypothetical proposed 120-unit apartment building in their community. We randomly assign each respondent to view a different version of the proposed development, varying information on 1) the tenant population (mixed low-income or market-rate tenants) expected to occupy the housing and 2) the project's distance from the respondent's residence. We expected that projects built closer to one's place of residence would activate self-interest, prompting homeowners to oppose the developments. In addition, we expected that deliberately affordable housing (those with half of units rented to Section 8 voucher recipients) would also activate respondents' ideology, with conservatives opposing the housing to a greater degree and liberals supporting it, all else equal.

Data

Our observational and experimental data were collected on a single original survey of $n = 4{,}100$ voting-eligible persons (US citizens over 18) in the 20 largest U.S. metropolitan areas (MSAs).[5] Many of the

[5]Included metros were New York-Newark-Jersey City, NY-NJ-PA; Los Angeles-Long Beach-Anaheim, CA; Chicago-Naperville-Elgin, IL-IN-WI; Dallas-Fort Worth-Arlington, TX; Houston-The Woodlands-Sugar Land, TX; Washington-Arlington-Alexandria, DC-VA-MD; Philadelphia-Camden-Wilmington, PA-NJ-DE; Miami-Fort Lauderdale-West Palm Beach, FL; Atlanta-Sandy Springs-Roswell, GA; Boston-Cambridge-Newton, MA-NH; San Francisco-Oakland-Hayward, CA; Phoenix-Mesa-Scottsdale, AZ; Riverside-San Bernardino-Ontario, CA; Detroit-Warren-Dearborn, MI; Seattle-Tacoma-Bellevue, WA; Minneapolis-St. Paul-Bloomington, MN-WI; San Diego-Carlsbad, CA; Tampa-St. Petersburg-Clearwater, FL; Denver-Aurora-Lakewood, CO; and St. Louis, MO-IL.

metropolitan areas included in our sample have experienced rising housing prices that disproportionately stress the finances of low- and middle-income people, placing adequate housing out of their reach. In other markets, housing development remains a pertinent policy issue: exclusionary suburban zoning policies prevent construction of multi-unit housing and quality affordable housing for less wealthy residents. We quota-sampled respondents to match the aggregated demographics of the MSAs included in each Census region.[6]

After initial demographic screening, we ask respondents a series of questions on partisanship and economic ideology. The most important question asks them to place themselves on a five-point (Likert) support scale in response to the following statement: "Some people say the federal government should ensure that all Americans have housing. Others say that shouldn't be a concern of the federal government." A critical advantage of this question is that, except in referring to the federal government, the question does not address support for specific policies to the desired end of a housing guarantee.

[6]To generate the quotas, we started with the November 2014 Current Population Survey voting supplement (U.S. Department of Commerce, Bureau of the Census, 2014). We subsetted to respondents living within the metro regions we sampled. Then, within Census regions, we designated quotas for Qualtrics intended to match the univariate distributions for each of the following variables, organized into quota categories: age (18-24, 25-44, 45-64 and 65+), sex, race/ethnicity (Asian only, black only, non-Hispanic white only, Hispanic, and multiracial/other), income (5 categories with a top code at $75,000 per year), and MSA. The quota-sampling was administered by Qualtrics. The Online Appendix (p. 4) summarizes our sample's demographics in relation to quota targets. We also assessed sample representativeness on two additional variables for which quotas were not specified: education and homeownership (figures A-1 and A-2). Like many online samples, our sample exhibited higher educational levels than the national average, but homeownership levels were only slightly below the CPS averages. Note that we used multiple screening questions asking about each quota variable at the beginning of the survey to identify eligible respondents. Quotas were filled as surveys were completed.

	Homeowners	Renters
Anti-Housing Guarantee (Conservative)	Consonant (30%)	Potential Dissonance (13%)
Pro-Housing Guarantee (Liberal)	Potential Dissonance (30%)	Consonant (27%)

Table 1: Two-by-two typology of homeowners and renters, by support for a federal housing guarantee, displaying expected cognitive dissonance resulting from proposals for dense local housing development. Percentages refer to the proportion of the sample in our survey of the largest metro areas that fall into each group.

Hereafter, we refer to individuals who strongly or somewhat agree with the statement as "liberal," or "pro-guarantee," and those opposed or neutral toward it as "conservative," or "anti-guarantee."[7]

To construct a homeownership-ideology typology following the logic in table 1, we used respondents' self-reported homeownership status and their support for the housing guarantee. Table 2 shows the distribution of respondents on this typology by party, race, and respondent negative racial affect, which we operationalized by whether or not a respondent endorsed at least one of three negative stereotypes about blacks (Peffley, Hurwitz and Sniderman, 1997). All cells of our two-by-two typology are well populated across these reported subgroups.

After initial demographic questions and screening questions, our questionnaire features a question battery of state and local housing policy reforms used in our observational analysis. These questions are followed by the first survey experiment, which tests the effect of various persuasive messages on support for different types of housing development. Immediately after the first survey experiment, respondents see the second survey experiment, which tests responses to hypothetical apartment development scenarios.

[7]The five-point version of the housing guarantee item correlates at $r = .53$ with a composite index of economic ideology constructed by asking whether the government should reduce income differences, whether people are better off under a free market, and whether the government should redistribute income through heavy taxes on the rich. Online Appendix table A-11 presents correlations with other customary measures of economic liberalism.

	Anti-guarantee homeowner	Anti-guarantee renter	Pro-guarantee Homeowner	Pro-guarantee renter
Party: Democratic	20%	10%	36%	34%
	(461)	(232)	(838)	(791)
Republican	50%	16%	21%	12%
	(630)	(207)	(263)	(157)
Independent/Other	30%	16%	24%	30%
	(154)	(85)	(125)	(157)
Race: White	33%	14%	30%	24%
	(709)	(300)	(647)	(518)
Black	19%	8%	36%	36%
	(119)	(52)	(224)	(225)
Other	32%	13%	27%	28%
	(417)	(172)	(355)	(362)
Racial affect: Negative	32%	15%	27%	26%
	(491)	(230)	(416)	(400)
Positive	29%	11%	32%	28%
	(754)	(294)	(810)	(705)

Table 2: Distribution of respondents on the homeowner-ideology typology, by group. Percentages show row frequencies, and numbers in parentheses are sample sizes. Partisan identification includes "leaning" partisans; racial affect is a binary variable that is coded as negative if respondents endorse at least one of three negative stereotypes about blacks, positive otherwise.

Observational Analysis: Attitudes Toward Housing Policy Alternatives

To examine self-interest's importance to housing policy attitudes, we first collect data on respondents' attitudes toward state and local policies that relate to renter financial aid and protections, land use, and development rules.[8] For each of the items, we ask respondents to indicate their support on a five-point Likert scale, and then dichotomize each variable to be coded 1 if individuals reported somewhat or strongly supporting the policy and 0 otherwise. The list of measures designed to aid and protect renters includes non-discrimination against low-income (Section 8) housing voucher recipients; state measures to reduce racial discrimination; state tax credits for renters; and expanded local rent control. Another set of policies were included regulatory changes and other reforms meant to enable high-density devel-

[8]Many of these questions are based on items from an April 2015 Golden State Poll on housing policy (Hoover Institution, 2015).

opment. These included relaxing of state environmental limits; giving neighborhoods a greater role in development decisions; preempting local zoning to allow the construction of apartments; changing local laws to allow more housing construction; and allowing more development of housing in open space. Exact question phrasing appears in the Online Appendix.

To estimate differences in policy attitudes among comparable renters and homeowners of different ideologies, for each policy we estimate a linear probability model of the following form:

$$Y_i = \beta_0 + \beta_1 G_i + \beta_2 H_i + \beta_3 G_i \times H_i + \mathbf{X}_i'\delta + \epsilon_i \tag{1}$$

where Y_i is a binary outcome variable indicating respondent i supports the policy in question, G_i is a binary variable coded 1 if the respondent opposes or is neutral with respect to a federal housing guarantee for all, and H_i is an indicator for the respondent owning their home. These two key independent variables are interacted to assess how policy attitudes vary across ideology and self-interest, with liberal renters acting as the base category. Results for conservatives and liberal homeowners are reported relative to this base group. The regressions also included a vector, X_i, consisting of additional covariates that may differ across groups in our two-by-two typology: age, race, sex, income, as well as respondents' zip code population density.[9]

Table 3 presents the coefficients, which contrast liberal and conservative homeowners' support for each policy with a baseline represented by liberal renters' support.[10] The items are reported in descending order by the difference between liberal and conservative homeowners. Regardless of their stated ideology, homeowners were less supportive than renters of most of proposed housing affordability solutions. Among homeowners, liberals and conservatives disagreed the most on programs tailored to deliver direct benefits to renters. Such programs—housing vouchers, rent control, and renter tax credits—address housing affordability through an approach based on tenants' programmatic rights and through fiscal policy conducted at the state level. As a result, while they impose costs on real estate investors and landlords,

[9]The Online Appendix (p. 1) provides full coding details of covariates.

[10]Full regression tables appear in the Online Appendix (p. 9).

Policy	Pro-guarantee homeowners	Anti-guarantee homeowners	Difference
Require accepting Section 8 tenants (state)	-0.05^{*}	-0.30^{**}	0.26^{**}
	(0.023)	(0.023)	(0.019)
Pass rent control (local)	-0.08^{**}	-0.30^{**}	0.22^{**}
	(0.022)	(0.023)	(0.020)
Tax credits for renters (state)	-0.21^{**}	-0.40^{**}	0.19^{**}
	(0.022)	(0.022)	(0.019)
Require local govs allow apts (state)	-0.13^{**}	-0.28^{**}	0.15^{**}
	(0.023)	(0.023)	(0.018)
Combat racial discrimination (state)	-0.04^{*}	-0.20^{**}	0.15^{**}
	(0.019)	(0.021)	(0.018)
Change laws to allow more construction (local)	-0.08^{**}	-0.18^{**}	0.09^{**}
	(0.023)	(0.024)	(0.019)
Give neighborhoods more voice (local)	-0.01	-0.08^{**}	0.07^{**}
	(0.018)	(0.020)	(0.017)
Allow development of open space (local)	-0.09^{**}	-0.13^{**}	0.04^{*}
	(0.023)	(0.024)	(0.020)
Relax environmental limits (state)	0.01	0.01	0.00
	(0.021)	(0.022)	(0.017)

Table 3: Support for state and local housing-related policy proposals among homeowners relative to pro-guarantee renters. Point estimates in the second and third columns reflect differences in the proportion of pro- or anti-guarantee homeowners, respectively, that support a policy relative to demographically comparable liberal renters. The final column displays the difference between liberal and conservative homeowners. Estimates are drawn from a linear probability model containing the categorical homeownership-ideology variable, demographics, zip code population density, and MSA fixed effects. Robust standard errors are reported in parentheses. $^{**}p < 0.01$, $^{*}p < 0.05$

they impose minimal, diffuse costs on homeowners. Above all, such policies do little to threaten their self-interest or home values.

In contrast, liberal and conservative homeowners articulated more similar attitudes toward policies meant to facilitate local development: local governments allowing more housing construction or state governments pre-empting local zoning codes to allow apartment construction. Liberals stated more support for such development policies than conservatives did, but the gap between homeowners and renters was substantial and larger than the gap between liberal and conservative homeowners.

Finally, some policies that impede development are strongly backed by all groups. Liberals and conservatives, homeowners and renters supported giving neighborhoods a greater voice in development

decisions and opposed relaxing environmental limits on development. While such policies may reflect the durability of public support for democratic norms (Imbroscio, 2019), as well as general care for the environment, democratic procedures can be used by local homeowners and socioeconomic elites to stall construction, drive up the cost of new housing construction, and even impede construction of deliberately affordable, inclusionary housing (Einstein, Palmer and Glick, 2019; Einstein, Glick and Palmer, 2019).

While our cross-sectional analyses do not retrieve an unbiased estimate of the causal effects of homeownership and ideology, they do indicate where self-interest is likely to manifest itself, as well as the types of policies that are likely to win broad-based support from renters and homeowners. Homeowners' ideological division over whether to guarantee housing melts away when they are asked to support local housing development. Liberal homeowners were more likely to back liberal policies that manipulate rental markets or provide rental aid, but, like demographically comparable conservative homeowners, they tend to oppose measures that would allow more housing development.

Experiment 1: Assessing Support for Development of High- and Low-Density Housing Types

Our first survey experiment tests the effect of different persuasive messages that refer to housing development's economic effects and appeal to voters' support for redistribution. The messages that we test have been widely used in housing debates to argue for state and local policies allowing housing development. Respondents selected for the experiment viewed one of four randomly assigned treatments containing informational and persuasive messages pertaining to local housing markets, including a no-information ("control") condition and three persuasive messages explaining how building more housing in an area can help to reduce local housing costs, using the following language:[11]

- *Expert*: "Economists have shown that building more housing in an area can reduce housing prices." This message summarizes the received (albeit contested) economic wisdom. We expected that such a message could increase support for housing development among renters and reduce support

[11]One-fifth of the sample was randomly assigned not to receive a treatment or answer the housing construction questions in this section.

among homeowners, and that it could appeal to liberal homeowners who profess concern over high housing prices. Alternatively, the message could threaten homeowners by alerting them to potential home value losses.

- *Expert, with "Escape Clause" Language*: "Economists have shown that building more housing in an area can reduce housing prices. Of course, housing prices are not the only issue affecting communities." The added diversionary escape clause is an attempt to offset experimenter demand effects. It invites respondents to simultaneously receive and then, if desired, disregard our message (Zizzo, 2010). We expected the escape clause's effect to be largest among liberal homeowners subjected to cognitive dissonance.

- *Expert, with Additional Equality Language*: "Economists have shown that building more housing in an area can reduce housing prices. This can make communities more affordable to low-income and middle-income families." This message prompts respondents to consider the positive association between development-induced lower housing prices and equality of opportunity. We expected that this would appeal to liberal homeowners' ideology, boosting their support for dense housing relative to the control condition and the basic *expert* condition.

We then ask, "Thinking about the possibility of more housing development in your area, do you support or oppose constructing more…"

- Apartment-only buildings
- Buildings that have both apartments and business spaces
- Multi-family housing (for example, townhomes or duplexes)
- Single-family houses in high-density subdivisions (small yards with neighboring houses close together)
- Single-family houses in low-density subdivisions (large yards with neighboring houses far apart)[12]

[12]These items replicate language used in an April 2015 Hoover Institution poll (Hoover Institution, 2015).

Support for Apartment-Only Buildings (High Threat to Homeowner Self-Interest)

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Control	2.69	3.05	3.47	3.40
	(0.08)	(0.07)	(0.08)	(0.08)
Economist	2.74	2.74	3.33	3.50
	(0.11)	(0.14)	(0.11)	(0.11)
Escape Clause	2.69	2.93	3.10	3.39
	(0.08)	(0.08)	(0.08)	(0.09)
Families	2.64	3.03	3.29	3.58
	(0.08)	(0.08)	(0.08)	(0.08)

Support for Single-Family Housing (Low Threat to Homeowner Self-Interest)

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Control	3.93	3.87	3.95	3.93
	(0.07)	(0.06)	(0.07)	(0.07)
Economist	3.78	3.88	3.90	3.87
	(0.10)	(0.12)	(0.11)	(0.10)
Escape Clause	3.92	3.99	3.75	3.97
	(0.07)	(0.06)	(0.07)	(0.07)
Families	3.83	3.87	3.76	3.81
	(0.07)	(0.07)	(0.07)	(0.07)

Table 4: Average support for apartment-only buildings (top) and low-density single-family housing (bottom) among metropolitan residents. The different groups on the homeownership-ideology typology are organized in columns, while experimental conditions appear in the rows. Outcomes are reported on a five-point Likert scale, with 5 indicating the strongest support. Standard errors appear in parentheses.

Individuals respond on a five-point Likert scale. For estimation, we treated the responses as continuous outcome variables.[13] Including multiple housing types in our outcome measures allowed us to assess how the response to the treatments was moderated by the threat implied by different housing development forms.

Table 4 shows the mean support across all treatment conditions and groups on the homeownership-ideology typology. For simplicity, we report only the results for housing types that are least and most desired, as measured in various previous surveys: apartment-only buildings, which are usually seen

[13]Models with dichotomized outcomes are shown in the Online Appendix. The substantive conclusions do not change.

as a threat to homeowners and neighborhood quality of life, and single-family houses in low-density subdivisions, which represent a minimal threat.[14]

The top half of table 4 shows support for apartment-only buildings, while the second half shows support for single-family housing. Average support under the control (no-information) condition appears on the first line. Liberal homeowners were on average split over whether to support additional apartment construction, expressing average support of 3.05 on the five-point scale. Conservative homeowners' average support was only 2.69. Renters were more uniformly supportive: liberal renters' support was 3.40, and even conservative renters' support was 3.47. These differences between renters and owners are substantively large: the overall standard deviation in the no-information (control) condition was 1.26.

[14]In the April 2015 Hoover Institution Golden State Poll on which our questions were based, large majorities of liberals and conservatives and renters and homeowners supported building more low-density single-family homes in their area.

Average Treatment Effects on Support for Apartment-Only Buildings

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Economist	0.07	-0.28^{*}	-0.18	0.08
	(0.11)	(0.12)	(0.16)	(0.12)
Escape Clause	0.02	-0.11	-0.37^{*}	-0.05
	(0.11)	(0.11)	(0.18)	(0.12)
Families	0.03	-0.09	-0.23	0.13
	(0.11)	(0.11)	(0.15)	(0.11)
Covariates	✓	✓	✓	✓
R^2	0.09	0.11	0.11	0.06
N	1,004	959	409	860

Average Treatment Effects on Support for Single-Family Housing

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Economist	-0.15	0.02	-0.12	-0.05
	(0.10)	(0.10)	(0.15)	(0.11)
Escape Clause	-0.01	0.10	-0.25	0.04
	(0.10)	(0.09)	(0.16)	(0.10)
Families	-0.08	-0.01	-0.22	-0.09
	(0.10)	(0.10)	(0.15)	(0.10)
Covariates	✓	✓	✓	✓
R^2	0.05	0.06	0.10	0.07
N	1,004	959	409	860

Table 5: Group average treatment effects on support for apartment-only buildings (top) and low-density single-family housing (bottom) among metropolitan residents. Treatment effects were estimated by least squares regression of the five-point Likert support scale on indicators for the experimental conditions plus controls for basic demographics, zip code population density, and MSA fixed effects. Robust standard errors appear in parentheses. $^{**}p < 0.01$, $^{*}p < 0.05$

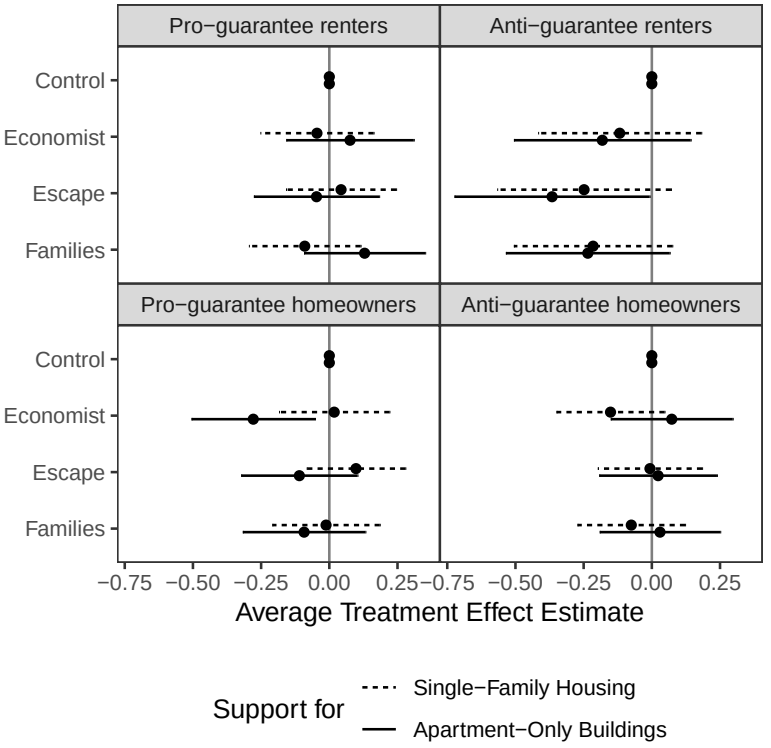

Figure 1: Coefficient plot of group average treatment effects on support for apartment-only buildings (solid) and low-density single-family housing (dashed) among metropolitan residents, along with robust 95% confidence intervals. See table 5 for model description.

Next, table 5 and figure 1 present the average treatment effects relative to the no-information (control) condition.[15] The basic "expert" treatment calling attention to supply-and-demand logic has little effect on the already low support for apartments among conservative homeowners. However, it reduced liberal homeowners' support by 0.28 points ($p = .016$), an almost 0.25 standard deviation reduction that, in the process, eliminates the differences between liberal and conservative homeowners. Adding the escape clause to the treatment nullifies most of the "expert" treatment's negative effects among liberal homeowners. Separately supplementing the "expert" treatment with a statement of additional housing's benefits to "families" restores support, but only to the same level as in the no-information group.

As expected, persuasive messages have less effect among the groups expected to be less conflicted. Renters' support for housing was greater under the control condition but was barely changed across different treatment arms, regardless of renters' ideology.[16]

The bottom panels of tables 4 and 5 display mean support levels and average treatment effects for the low-density single-family housing question. Such housing, typically characterized as "sprawl," wins support across all cells of our homeownership-ideology typology. Construction of additional low-density single-family housing wins broad support from liberals and conservatives, homeowners and renters. Our persuasion messages have no detectable effect on any groups' already high support levels.[17]

[15]Estimates are derived from a least squares regression of the five-point support scale on a set of indicators for treatment conditions, as well as baseline covariates including age, race, sex, income, and MSA indicators. The Online Appendix presents balance statistics across treatment conditions.

[16]An exception to this finding was that the "escape clause" language did reduce support for apartments among anti-guarantee renters.

[17]In the Online Appendix, we present results from a Mechanical Turk sample to address whether respondents' level of trust in economists moderated their response to our messages. We found that respondents who expressed distrust in economists were less responsive to the experimental manipulation. The treatment nonetheless increased the proportion of respondents identifying the "correct" expert position by 10 percentage points. Moreover, the basic expert (economist) treatment increased the proportion of respondents who agreed that housing supply would reduce housing prices by six points.

Experiment 2: Testing NIMBY Attitudes as a Function of Ideology

Our second survey experiment extends beyond the role of informational appeals, instead testing response to issues related to ideology and self-interest by asking them to evaluate a hypothetical housing proposal. Each respondent is randomly assigned to view and evaluate one of six different versions of a hypothetical 120-unit apartment development project proposed in their community. Two different features were manipulated to constructing the hypotheticals. The first is an indirect measure of the socioeconomic composition of likely tenants: whether tenants would be paying market rate or if half of tenants would be low-income housing voucher recipients. The second is the distance of a project to the respondent's home, which can be interpreted as a measure of the spatial threat implied by a project (Hankinson, 2018). After presenting the hypothetical proposal, we ask respondents to state their support on the five-point Likert scale.

While we expected conservative homeowners to oppose apartment-style development projects regardless of treatment condition, we expected liberal homeowners to express more conflicted views. Developments expected to house voucher recipients may appeal to liberal ideology and boost support among liberal homeowners, perhaps enough to close the homeowner-renter divide among liberals. However, the logic of NIMBYism—that individuals respond negatively to spatially concentrated costs of development—suggests that liberal homeowners would only endorse low-income housing to a greater extent if the proposal called for it to be built elsewhere (Hankinson, 2018).

Respondents are randomly assigned to one of six experimental conditions under a fractional factorial design. We then measure support for the proposed development again on a five-point Likert scale.[18] The treatments assigned to respondents begin with a one-sentence description, as follows:

- *Control (No-Information)*: "A local group is proposing to build a 120-unit apartment building in your community."

[18]Our design emulates a survey experiment presented in Hankinson (2018). Several treatment arms possible in a full-factorial design were excluded to maintain statistical power, without sacrificing ability to test pairwise hypotheses of interest.

- *Low-Income*: "A local group is proposing to build a 120-unit apartment building in your community. About half of the units will be occupied by low-income housing voucher recipients."

- *Low-Income, Quarter Mile*: "A local group is proposing to build a 120-unit apartment building in your community. About half of the units will be occupied by low-income housing voucher recipients. The new building will be 1/4 mile from your home."

- *Low-Income, Two Miles*: "A local group is proposing to build a 120-unit apartment building in your community. About half of the units will be occupied by low-income housing voucher recipients. The new building will be 2 miles from your home."

- *Market Rate, Quarter Mile*: "A local group is proposing to build a 120-unit apartment building in your community. The units will be rented at whatever price the local market supports. The new building will be 1/4 mile from your home."

- *Market Rate, Two Miles*: "A local group is proposing to build a 120-unit apartment building in your community. The units will be rented at whatever price the local market supports. The new building will be 2 miles from your home."

All respondents then are then asked to answer the question, "Based on this information, would you support or oppose such a project?" Again, respondents selected from a 5-point Likert scale ranging from "strongly support" to "strongly oppose."

Table 6 displays mean levels of support for each scenario under the homeownership-ideology typology. The average treatment effect estimates are shown in table 7 and figure 2. We again find evidence that homeowners are much less likely than renters to support building apartments, regardless of their attitudes toward a housing guarantee. Conservative homeowners consistently oppose all versions of apartment housing. In the no-information (control) condition, conservative homeowners' average support for a generic 120-unit apartment building measures 2.61 on a five-point scale, a number only slightly lower in experimental conditions describing low-income apartments. Their support is lower when the proposed building is described as being located within a quarter mile of respondents' homes. (The only exception to this pattern is for market-rate housing located two miles away.)

Support for Building 120-Unit Apt. Building

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
No Info	2.61	2.89	3.02	3.68
	(0.08)	(0.08)	(0.09)	(0.09)
Low Inc., Dist. Not Given	2.33	3.02	3.05	3.62
	(0.13)	(0.13)	(0.09)	(0.09)
Low Inc., 1/4 Mile	2.29	3.05	2.66	3.40
	(0.09)	(0.09)	(0.09)	(0.08)
Low Inc., 2 Miles	2.41	3.16	2.99	3.79
	(0.09)	(0.08)	(0.13)	(0.13)
Mkt. Rate, 1/4 Mile	2.38	2.77	3.18	3.46
	(0.08)	(0.09)	(0.10)	(0.09)
Mkt. Rate, 2 Miles	2.97	2.94	3.08	3.29
	(0.13)	(0.13)	(0.09)	(0.09)

Table 6: Average support for building hypothetical 120-unit apartment building among residents of the top 20 U.S. metropolitan areas. Different groups in the homeownership-ideology typology appear in columns, while experimental conditions appear in the rows. Outcomes are expressed on the five-point Likert scale and standard errors are in parentheses.

Liberal homeowners express higher average support than conservatives for apartment buildings, at an average level of 2.89 on the 1-to-5 scale in the no-information condition. Unlike conservative homeowners, their support is slightly higher for a project described as serving low-income housing voucher recipients. However, these differences are not statistically significant.

Both liberal and conservative renters state more support for the hypothetical apartment development. Liberal renters' support is especially strong: 3.68 on a 1-to-5 scale in the no-information condition. Support in this group drops by 0.31 points for an apartment with low-income apartments located one-quarter mile from the respondent's home ($p = 0.015$). Still, even for this comparatively unpopular proposal, support among liberal renters remained higher than support among homeowners in any condition. Liberal renters showed less support for market-rate housing, with drops in support of 0.17 (n.s.) and 0.39 ($p < 0.01$) for market-rate housing located a quarter-mile and two miles away from the respondents' home, respectively.

Consistent with cross-pressuring, conservative renters' stated positions fall between those of liberal homeowners and liberal renters. On average, they express more support for apartments in the basic

Average Treatment Effects on Support for 120-Unit Apt. Building				
Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Low Inc., Dist. Not Given	-0.21	0.11	-0.01	-0.05
	(0.12)	(0.13)	(0.18)	(0.12)
Low Inc., 1/4 Mile	-0.35^{**}	0.15	-0.36^{*}	-0.31^{*}
	(0.12)	(0.13)	(0.18)	(0.13)
Low Inc., 2 Miles	-0.11	0.26	-0.11	0.06
	(0.11)	(0.13)	(0.19)	(0.12)
Mkt. Rate, 1/4 Mile	-0.16	-0.15	0.14	-0.17
	(0.12)	(0.13)	(0.19)	(0.12)
Mkt. Rate, 2 Miles	0.38^{**}	0.05	0.00	-0.39^{**}
	(0.12)	(0.13)	(0.18)	(0.12)
Covariates	✓	✓	✓	✓
R^2	0.12	0.08	0.09	0.08
N	$1,233$	$1,211$	515	$1,096$

Table 7: Subgroup average treatment effects on support for building a hypothetical 120-unit apartment building, as a function of randomly assigned information on residents' low-income status and project distance to the respondent's home. Treatment effects were estimated by least squares regression of the five-point Likert support scale on indicators for the experimental conditions plus controls for basic demographics, zip code population density, and MSA fixed effects. Robust standard errors appear in parentheses. $^{**}p < 0.01$, $^{*}p < 0.05$

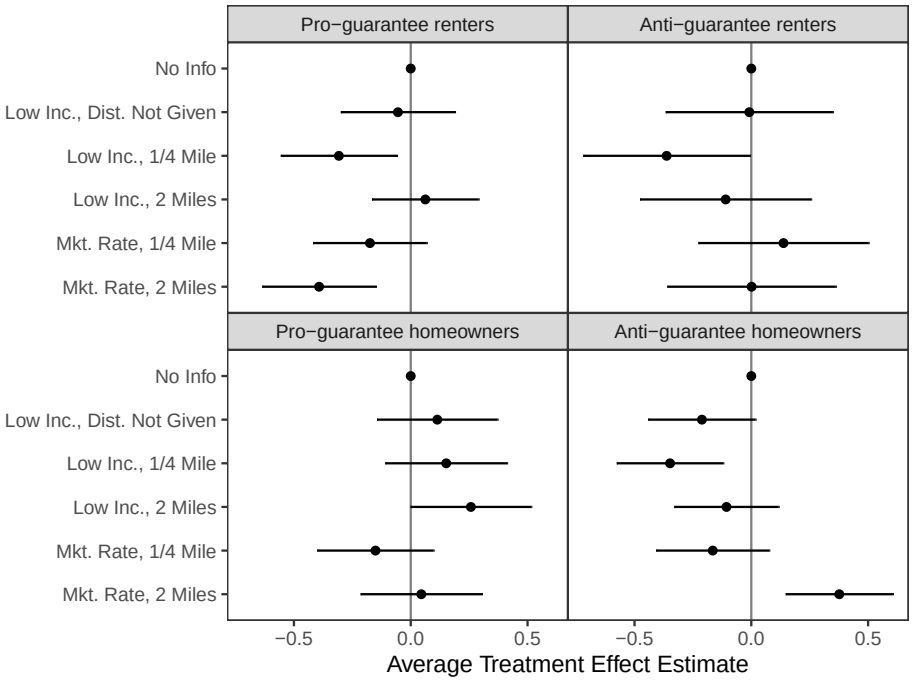

Figure 2: Coefficient plot for subgroup average treatment effects on support for hypothetical 120-unit apartment building, along with robust 95% confidence intervals. See table 7 for model description.

(control) condition than do homeowners. As conservatives, they express less support for low-income housing, especially if located near their place of residence. Their support for low-income housing is 0.36 points lower than in the control condition ($p = 0.046$), making them less supportive than liberal homeowners. Market-rate apartments receive the same support as the hypothetical development in the no-information (control) condition.

Liberal homeowners' net positive support for hypothetical mixed income projects present a hard challenge to our claims, as this appears to deviate from naively self-interested behavior. Such stated preferences may reflect social desirability bias. Or, liberal homeowners asked to evaluate an apartment "in their community" without additional information may infer that the project is close to their home and occupied by low-income residents anyway. Providing specific information in the experimental profiles reduces uncertainty around proposed projects. Another possible reason for such support is that even the "low-income" apartments described in our experimental prompts are, in fact, mixed income: voucher recipients would occupy only half the units, a much less threatening prospect than a development dedicated entirely to low-income residents. Even with ideology playing an apparent role in liberal homeowners' survey responses, liberal homeowners' support does not reach that of liberal renters.

In summary, while conservative homeowners are quite consistently anti-apartment, liberal homeowners were only slightly more receptive to apartment construction, but never as receptive as liberal renters to any of the hypothetical proposals.

Addressing Alternative Explanations

WE have interpreted findings as capturing self-interest. Two major alternative explanations may explain how the public interprets and responds to proposals for new housing development. The first concerns racial attitudes, which could better explain attitudes towards housing than material self-interest, especially if respondents make racial inferences about residents' different housing types. The second concerns how levels of support and effect sizes are likely to vary with population density, as people who live at different density levels have already selected into different residential environments, thereby expressing their preferences for specific housing types.

First, we assess the extent to which opposition to high-density housing is driven by racial attitudes versus material self-interest. Of course, racial biases and pecuniary considerations are not mutually exclusive: homeowners are likely to account for racial bias among potential buyers when anticipating changes in their home values. Many factors drive perception of threats to home values. A preference for homogeneously non-minority neighborhoods may be motivated not by personal racial animus, but by concern over home values and neighborhood trajectory (Ellen, 2000). While our survey was not designed to study racial attitudes, it is nonetheless instructive to investigate the extent to which racial attitudes are associated with respondents' preferences over development policy. Ultimately, we find that one's racial attitudes are only partially associated with attitudes toward allowing development of more apartments, and sometimes run counter to the expected relationship.

The survey includes a standard three-question battery on negative racial stereotypes against blacks (Peffley, Hurwitz and Sniderman, 1997). Respondents who endorse at least one negative stereotype are coded as having negative racial affect or animus. To measure the association between racial animus and housing support, we focus on the apartment outcomes presented in Experiment 1. We regress support for the apartment item on experimental conditions, plus racial affect and other pre-treatment covariates. The results, which are presented in full in the Online Appendix, indicate that racial affect is only loosely associated with attitudes toward apartment development. Among all white respondents and across several subsamples, those who endorsed a negative stereotype were less supportive of apartments. However, in none of the models we estimated was this difference statistically significant.

In a second analysis on racial attitudes, we measure revealed preferences for racial diversity: whether the respondent has moved to a less white zip code than their previous place of residence within the past 5 years. To be sure, this measure does not easily permit inference about preferences for racial makeup, since zip code racial diversity is correlated with a host of other characteristics, including income and the prevalence of multi-unit housing. However, we find that white homeowners who recently moved to a less white zip code were significantly more opposed to construction of apartments in their communities than white homeowners who recently moved to a zip code that was more diverse than their previous zip code. Full results are available in the Online Appendix.

Another question is whether our results are somehow an artifact of the types of contexts in which our metropolitan sample has chosen to live. People may respond to the prospect of high-density housing differently depending on their local community. For instance, residents of low-density suburbs may experience construction of dense housing as a larger deviation from the status quo than do residents of dense urban areas. In the Online Appendix (p. 24), we present changes in overall support for apartment housing generally, and hypothetical proposed apartments specifically, by the a respondent's zipcode population density. Using the first experiment's outcome, we find that renters were more supportive of building apartments than homeowners, regardless of the population density of the area they live in. The homeowner-renter gap was substantial among those who live in low- and moderate-density zip codes, but shrank in extremely high-density areas. Across all groups in our homeowner-ideology typology, those who live in higher-density areas were more supportive of building apartments. We found mostly similar results when applying a similar approach to the outcome measure from the second experiment—support for a hypothetical 120-unit apartment complex.[19] Overall, existing population density is an important determinant of attitudes toward new housing construction, but, overall, homeowner-renter differences appeared in all but the densest zip codes.

Conclusion

Are Americans blind to their self-interest when forming their policy attitudes? Previous work has suggested that material self-interest broadly defined has little bearing on vote choice or on many policy attitudes. Scholarship built on this research often neglects an important caveat: threats to self-interest that are objectively large and appear in Americans' daily lives can lead to strong expressions of self-interest (Citrin and Green, 1990). Our results demonstrate that homeownership is an important manifestation of self-interest in politics, overwhelming other personal political commitments. When local housing

[19]The only major difference was within the conservative renter group, which displayed a u-shaped relationship between population density and support for the apartment building. Conservative renters in low-density areas showed high support, with middling support among those in moderate-density areas, and strong support among those in high-density areas.

changes threaten their self-interest, homeowners may experience logical and cognitive dissonance between their self-interest and ideological principles.

In addition to showing that a threat's magnitude matters, our results also show how self-interest manifests itself in the kinds of policies that are embraced. Redistributive and regulatory policies, while moderately costly to the affluent, pose only a diffuse threat to home values and homeowners' quality of life. As such, liberal homeowners may be more willing to follow their ideological leanings over these policies. New housing construction, on the other hand, presents a more immediate and concentrated cost. We find evidence that attitudes toward development policies are structured more by homeownership interests than by ideology.

Our two survey experiments show that the policy preferences that divide renters and homeowners are robust and that large differences persist regardless of homeowners' ideology. Liberal homeowners prompted to think about the market implications of building more housing in their area express less support, and in the process look more like conservative homeowners. Additionally reminding homeowners of the benefits to lower and middle income families offset the negative effects of the supply-and-demand message somewhat but did not increase net support. More importantly, none of these appeals to ideology prove sufficient to reduce the large gaps between renters and liberal homeowners, whose positions remained more similar to those of conservative owners than to those of liberal renters.

Our second experiment again shows a large homeowner-renter gap, and reveal that we are able to present housing development proposals that induce expected cognitive dissonance. Ideology does clash with self-interest, with liberals expressing public support for affordable housing, but not enough to eliminate the large gap between renters and owners.

Our results reveal the cognitive dissonance that citizens may experience around the personally costly and local implementation of generalized policies that they would otherwise support. We suspect that liberal homeowners avoid or suppress cognitive dissonance by defaulting to opposition to development-based threats to their neighborhoods. While the ideal of equal housing opportunity is appealing, whatever additional utility homeowners might gain from redistributive housing policy in their communities is likely to be offset by threats to their quality of life. Having invested in both a private property and in a

community to receive such benefits, they have good reason to stand by their choice and their material self-interest on questions of local policy (Fischel, 2001*b*).

Our findings are consistent with previous work on the contingent expression of self-interest in politics, leading us to believe that they may generalize to other similar issues that entail a mismatch between vaguely considered principles and their real-world implementation (Jackman, 1978). One test of the durability of our findings would be if behavior persisted even with clear partisan elite signals on the issue. Such elite signals have appeared occasionally around the housing topic, but have had little bearing on homeowner attitudes or behavior. For example, late in the Obama Administration, the Council of Economic Advisors released a "toolkit," a set of policy guidelines recommending that local governments eliminate restrictions on multifamily housing development (*Housing Development Toolkit*, 2016; Woellert, 2016). In an accompanying op-ed piece, the Council's chair wrote that "barriers to housing development can allow a small number of individuals to enjoy the benefits of living in a community while excluding many others, limiting diversity and economic mobility" (Furman, 2016).[20] Such ideas have informed a "Yes in My Backyard" or "YIMBY" movement consisting primarily of Democrats but which internally divides the party (Yglesias, 2018). If such debates continue and Democratic partisan elites develop a consistent message, self-identified liberal voters—and homeowners especially—may be forced to grapple even more with the dissonance between their homeownership-focused proximal concerns and the "correct" partisan positions on various housing policies (Lenz, 2013).

Our study offers insights to housing policy advocates seeking to promote housing development. Such advocates often believe that Americans' seemingly inconsistent views over housing policy result from misinformation. As a result, they embrace policies such as rent control that do not increase overall housing opportunity and can reduce quality housing stock, whereas if they were better informed they would support additional housing development. Our findings suggest that individuals are likely to disregard information—such as claims from economists about the importance of market forces in housing

[20]Former Obama White House officials have claimed that they could not persuade President Obama to endorse this position publicly (Stegman, 2019). If they had, we would have an even clearer message to voters about the clash between housing opportunity and local housing goals.

markets—that are often meant by to be corrective (Nyhan and Reifler, 2010). Presenting voters with expert endorsements or stylized facts about housing markets does not, on its own, increase net support for housing development—even when statements are framed to link these stylized facts to liberal policy positions. Similarly, presenting voters with different scenarios pertaining to development "in their backyard" does little to reduce the major divide in housing politics, which is not between the two parties or between ideological camps, but between homeowners and renters. While self-interest does not fully overcome political principles, homeownership remains a high-stakes investment that prompts Americans to treat their ideological commitments as secondary considerations.

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Online Appendix for "Where Self-Interest Trumps Ideology: Liberal Homeowners and Local Opposition to Housing Development"

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Contents

Survey Question Wording

Exact wordings for survey questions referenced in the paper, along with recoding rules, are listed here.

Age. *What is your age group?*

- *Under 18*
- *18-24 years*
- *25-34 years*
- *35-44 years*
- *45-54 years*
- *55-64 years*
- *65-74 years*
- *75 years and up*

Income. *Now, for statistical purposes only, we have a question about your income. Last year (in 2016), what was your total family income from all sources, before taxes.*

- *Less than 15,000*
- *$15,000 - 24,999*
- *$25,000 - 34,999*
- *$35,000 - 49,999*
- *$50,000 74,999*
- *$75,000 99,999*
- *$100,000 - 119,999*
- *$120,000 - 149,999*
- *$150,000 or greater*

For those who answered above $150,000, we asked a follow-up question: *We see you make over $150,000. Can you tell us which best represents your total family income before taxes?*

- *$150,000-$199,999*
- *$200,000-$299,999*
- *$300,000-$399,999*
- *$400,000 or greater*

- *Prefer not to answer*

In analyses, we code income to be the midpoint of each category, with a top-code of $425,000 and a bottom-code of $10,000.

Federal Housing Guarantee. *Some people say the federal government should ensure that all Americans have housing. Others say that shouldn't be a concern of the federal government.*

- *1–Yes, the federal government should ensure that all Americans have housing*
- *2*
- *3*
- *4*
- *5–No, ensuring all Americans have housing should not be a concern of the federal government*

We code people as "pro-housing-guarantee" if they respond 1 or 2 and "anti-housing-guarantee" otherwise.

Homeownership. *Which of the following most closely describes your current housing?*

- *I own it*
- *I rent it*
- *I neither own nor rent it (live with a home owner)*

When we refer to "renters," we group together all people who do not own their home.

Race/Ethnicity. *What is your race/ethnicity? (Please select all that apply.)*

- *White/Caucasian*
- *Black/African American*
- *Hispanic/Latino*
- *Asian*
- *Native American*
- *Pacific Islander*
- *Other*

In analyses and in quota sampling, we collapse the responses to the following categories: White, Black, Asian, Hispanic/Latino, and Other.

Gender. *What is your gender?*

- *Male*
- *Female*

- *Neither of these apply*
- *I prefer not to answer*

Education. *What is the highest level of education you have completed?*

- *Less than High School*
- *High School / GED*
- *Some College*
- *2-year College Degree*
- *4-year College Degree*
- *Masters Degree*
- *Doctoral Degree*
- *Professional Degree (JD, MD)*

In analyses, we include an indicator for having at least a 4-year college degree.

Policy Changes. We analyze attitudes on a variety of potential policy changes. We asked respondents to indicate whether they *Strongly support, somewhat support, Neither support nor oppose, Somewhat oppose* or *Strongly oppose* a series of potential changes to state or local policy. We code responses as 1 if they *Strongly support* or *Somewhat support* the policy change, and 0 otherwise.

Some people have proposed public policies that would affect housing in your state. Considering a few of these ideas, do you support or oppose your state...

- *Relaxing environmental limits to allow building of more housing*
- *Financing regional public transportation systems to enable people to live farther from work*
- *Providing additional tax credits for renters*
- *Requiring landlords to accept tenants who use low-income (Section 8) vouchers to pay rent*
- *Requiring local governments to allow more apartment housing*
- *Fining landlords and real estate agents that discriminate by race or ethnicity*

Do you support or oppose your local government...

- *Allowing more housing to be built in undeveloped open space*
- *Changing residential and business zoning laws to allow more housing construction*
- *Passing rent control*
- *Supporting expansion of bus or rail service in my community*
- *Giving neighborhoods more voice over development proposals*

Survey Quota Targets

We recruited a sample of $n = 4{,}100$ respondents from the largest 20 Metropolitan Statistical Areas in the United States using Qualtrics's online panel. As noted in the main text, we quota-sampled to match the within-Census region marginal distributions, as drawn from the Current Population Survey, on the following variables: age (18-24, 25-44, 45-64 and 65+), sex, race/ethnicity (Asian only, black only, non-Hispanic white only, Hispanic, and multiracial/other), income (5 categories with a top code at $75,000 per year), and MSA.

To generate the quotas, we used the following procedure. First, start with the full November 2014 CPS Voting Supplement sample. Second, subset to respondents who live within one of the largest 20 MSAs and are over 18 years old. Third, calculate the distribution of the target variables (age, sex, race, income, and MSA) within Census region (West, Midwest, Northeast, and South). Finally, generate the total number of respondents expected within each Census region by multiplying the proportion of the CPS sample within each Census region by 4,000 (our overall sample size). All analyses employed the CPS survey weights.

The table on the following pages shows the requested quotas alongside the actual sample. Despite having a very restrictive set of quotas, the marginal distributions of the targeted variables in the sample look nearly identical to the quota targets.

Additionally, we can compare our sample to the CPS target on two additional variables that we did not explicitly target: education and homeownership. Figures A-1 shows that our sample is more highly educated than those in the CPS. In particular, virtually none of our respondents have less than a high school education—unsurprising in the context of an online survey—and a much higher proportion have a college or graduate degree. Figure A-2 shows that homeownership rates in our sample were very similar to those in the CPS data. The largest difference is within the Midwest region, where just over 65% of our respondents were homeowners, compared to 72% in the CPS.

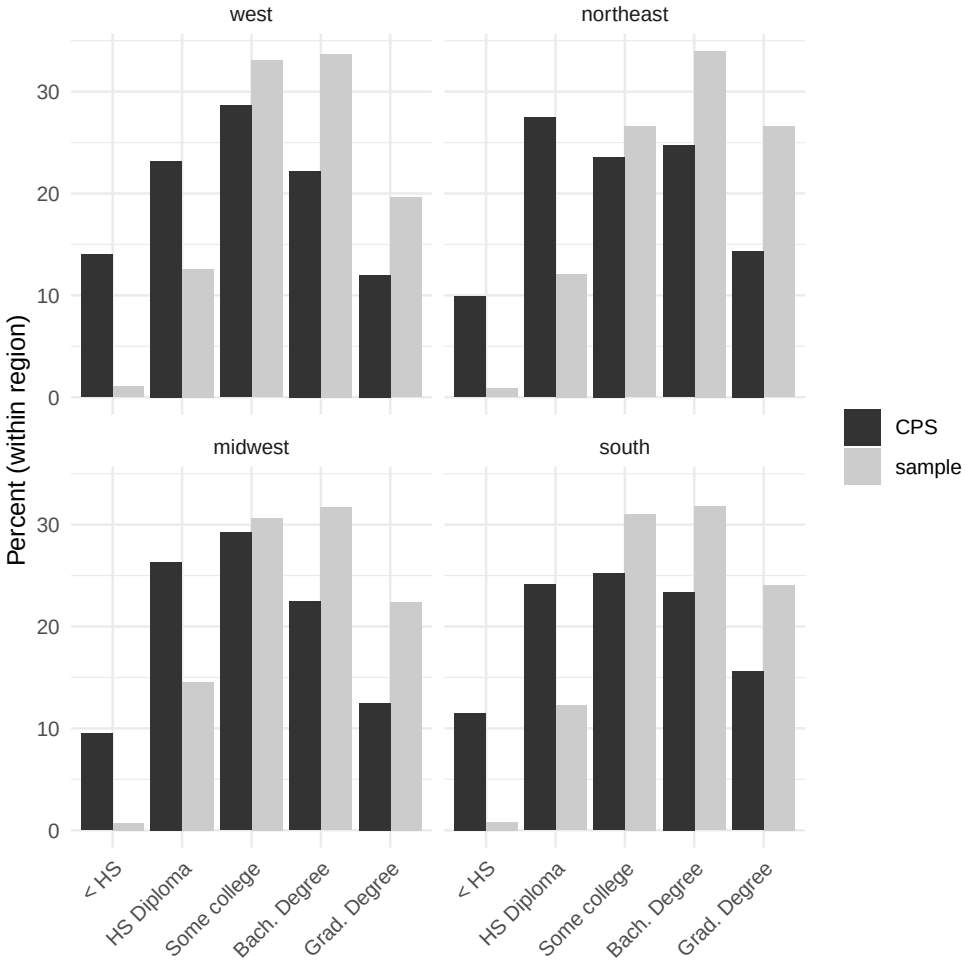

Figure A-1: Education of sample vs. CPS target

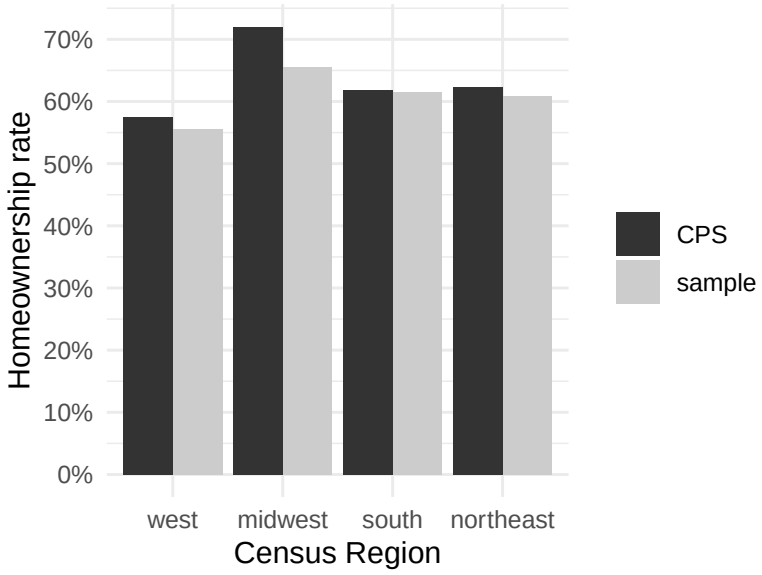

Figure A-2: Homeownership rates in sample vs. CPS target

Region	Target	N	Pct	Target Pct	Target N	Difference	Diff (%)	Abs Diff (%)	Abs Diff (N)
Midwest	AGE: 18 - 24	84	12%	13%	87	-1%	-3	1%	3
Midwest	AGE: 25 - 44	245	35%	35%	237	0%	8	0%	8
Midwest	AGE: 45 - 64	244	35%	35%	239	0%	5	0%	5
Midwest	AGE: 65+	128	18%	18%	121	1%	7	1%	7
Midwest	INCOME: $15,000 to $24,999	60	9%	8%	55	0%	5	0%	5
Midwest	INCOME: $25,000 to $34,999	81	12%	11%	78	0%	3	0%	3
Midwest	INCOME: $35,000 to $49,999	94	13%	13%	91	0%	3	0%	3
Midwest	INCOME: $50,000 to $74,999	130	19%	19%	127	0%	3	0%	3
Midwest	INCOME: $75,000 to $99,999+	267	38%	38%	260	0%	7	0%	7
Midwest	INCOME: Under $15,000	69	10%	11%	73	-1%	-4	1%	4
Midwest	MSA: Chicago-Naperville-Elgin, IL-IN-WI	350	50%	47%	323	3%	27	3%	27
Midwest	MSA: Detroit-Warren-Dearborn, MI	144	21%	23%	154	-2%	-10	2%	10
Midwest	MSA: Minneapolis-St. Paul-Bloomington, MN-WI	127	18%	17%	113	2%	14	2%	14
Midwest	MSA: St. Louis, MO-IL	80	11%	14%	94	-2%	-14	2%	14
Midwest	RACE: asian only	41	6%	6%	39	0%	2	0%	2
Midwest	RACE: black only	113	16%	16%	110	0%	3	0%	3
Midwest	RACE: hispanic	69	10%	10%	67	0%	2	0%	2
Midwest	RACE: other/multiracial	12	2%	2%	11	0%	1	0%	1
Midwest	RACE: white only	466	66%	67%	458	0%	8	0%	8
Midwest	SEX: Female	363	52%	52%	354	0%	9	0%	9
Midwest	SEX: Male	334	48%	48%	330	-1%	4	1%	4
Midwest		4	1%			1%	4	1%	4
Northeast	AGE: 18 - 24	116	12%	12%	115	0%	1	0%	1
Northeast	AGE: 25 - 44	339	35%	35%	330	0%	9	0%	9
Northeast	AGE: 45 - 64	337	35%	35%	328	0%	9	0%	9
Northeast	AGE: 65+	176	18%	18%	172	0%	4	0%	4
Northeast	INCOME: $15,000 to $24,999	60	6%	7%	63	0%	-3	0%	3
Northeast	INCOME: $25,000 to $34,999	83	9%	10%	91	-1%	-8	1%	8
Northeast	INCOME: $35,000 to $49,999	124	13%	13%	120	0%	4	0%	4
Northeast	INCOME: $50,000 to $74,999	161	17%	17%	156	0%	5	0%	5
Northeast	INCOME: $75,000 to $99,999+	468	48%	44%	412	5%	56	5%	56
Northeast	INCOME: Under $15,000	72	7%	11%	102	-3%	-30	3%	30
Northeast	MSA: Boston-Cambridge-Newton, MA-NH	138	14%	13%	126	1%	12	1%	12

Region	Target	N	Pct	Target Pct	Target N	Difference	Diff (%)	Abs Diff (%)	Abs Diff (N)
Northeast	MSA: New York-Newark-Jersey City, NY-NJ-PA	579	60%	56%	531	4%	48	4%	48
Northeast	MSA: Philadelphia-Camden-Wilmington, PA-NJ-DE	251	26%	31%	288	-5%	-37	5%	37
Northeast	RACE: asian only	86	9%	9%	83	0%	3	0%	3
Northeast	RACE: black only	145	15%	15%	141	0%	4	0%	4
Northeast	RACE: hispanic	147	15%	15%	143	0%	4	0%	4
Northeast	RACE: other/multiracial	19	2%	2%	19	0%	0	0%	0
Northeast	RACE: white only	571	59%	59%	560	0%	11	0%	11
Northeast	SEX: Female	494	51%	52%	489	-1%	5	1%	5
Northeast	SEX: Male	468	48%	48%	456	0%	12	0%	12
Northeast		6	1%			1%	6	1%	6
South	AGE: 18 - 24	93	8%	12%	140	-4%	-47	4%	47
South	AGE: 25 - 44	481	41%	39%	469	2%	12	2%	12
South	AGE: 45 - 64	395	34%	32%	385	1%	10	1%	10
South	AGE: 65+	198	17%	16%	193	1%	5	1%	5
South	INCOME: $15,000 to $24,999	94	8%	8%	99	0%	-5	0%	5
South	INCOME: $25,000 to $34,999	121	10%	10%	118	0%	3	0%	3
South	INCOME: $35,000 to $49,999	151	13%	12%	147	1%	4	1%	4
South	INCOME: $50,000 to $74,999	208	18%	17%	203	1%	5	1%	5
South	INCOME: $75,000 to $99,999+	506	43%	42%	493	2%	13	2%	13
South	INCOME: Under $15,000	87	7%	11%	127	-3%	-40	3%	40
South	MSA: Atlanta-Sandy Springs-Roswell, GA	177	15%	13%	159	2%	18	2%	18
South	MSA: Dallas-Fort Worth-Arlington, TX	232	20%	17%	201	3%	31	3%	31
South	MSA: Houston-The Woodlands-Sugar Land, TX	200	17%	16%	188	1%	12	1%	12
South	MSA: Miami-Fort Lauderdale-West Palm Beach,	204	17%	16%	188	2%	16	2%	16
South	MSA: Tampa-St. Petersburg-Clearwater, FL	110	9%	7%	85	2%	25	2%	25
South	MSA: Washington-Arlington-Alexandria, DC-VA-MD	244	21%	31%	365	-10%	-121	10%	121
South	RACE: asian only	73	6%	6%	71	0%	2	0%	2
South	RACE: black only	286	25%	23%	279	1%	7	1%	7
South	RACE: hispanic	251	22%	21%	244	1%	7	1%	7
South	RACE: other/multiracial	30	3%	2%	29	0%	1	0%	1
South	RACE: white only	527	45%	48%	565	-2%	-38	2%	38
South	SEX: Female	630	54%	52%	614	2%	16	2%	16
South	SEX: Male	536	46%	48%	573	-2%	-37	2%	37

Region	Target	N	Pct	Target Pct	Target N	Difference	Diff (%)	Abs Diff (%)	Abs Diff (N)
South		1	0%			0%	1	0%	1
West	AGE: 18 - 24	131	11%	0.1276	151	-2%	-20	2%	20
West	AGE: 25 - 44	456	38%	0.3749	444	1%	12	1%	12
West	AGE: 45 - 64	402	34%	0.3304	391	1%	11	1%	11
West	AGE: 65+	202	17%	0.167	198	0%	4	0%	4
West	INCOME: $15,000 to $24,999	108	9%	0.0774	92	1%	16	1%	16
West	INCOME: $25,000 to $34,999	134	11%	0.1149	136	0%	-2	0%	2
West	INCOME: $35,000 to $49,999	161	14%	0.1322	157	0%	4	0%	4
West	INCOME: $50,000 to $74,999	203	17%	0.167	198	0%	5	0%	5
West	INCOME: $75,000 to $99,999+	484	41%	0.3986	472	1%	12	1%	12
West	INCOME: Under $15,000	101	8%	0.1099	130	-3%	-29	3%	29
West		2	0%	0		0%	2	0%	2
West	MSA: Denver-Aurora-Lakewood, CO	90	8%	0.0769	91	0%	-1	0%	1
West	MSA: Los Angeles-Long Beach-Anaheim, CA	455	38%	0.3639	431	2%	24	2%	24
West	MSA: Phoenix-Mesa-Scottsdale, AZ	152	13%	0.1166	138	1%	14	1%	14
West	MSA: Riverside-San Bernardino-Ontario, CA	142	12%	0.1174	139	0%	3	0%	3
West	MSA: San Diego-Carlsbad, CA	102	9%	0.0836	99	0%	3	0%	3
West	MSA: San Francisco-Oakland-Hayward, CA	143	12%	0.138	163	-2%	-20	2%	20
West	MSA: Seattle-Tacoma-Bellevue, WA	105	9%	0.1037	123	-2%	-18	2%	18
West	RACE: asian only	161	14%	0.1326	157	0%	4	0%	4
West	RACE: black only	76	6%	0.0624	74	0%	2	0%	2
West	RACE: hispanic	359	30%	0.2954	350	1%	9	1%	9
West	RACE: other/multiracial	58	5%	0.0472	56	0%	2	0%	2
West	RACE: white only	537	45%	0.4624	547	-1%	-10	1%	10
West	SEX: Female	621	52%	0.5108	605	1%	16	1%	16
West	SEX: Male	564	47%	0.4892	579	-2%	-15	2%	15
West		6	1%			1%	6	1%	6
					MEAN ABSOLUTE DIFFERENCE			1%	12.44

Observational Regression Tables

Here we report the full regression results predicting support for local and state policy changes. These regression tables correspond to the models summarized in Table 3. Each column corresponds to a different policy outcome, in the following order:

Model 1: Combating housing discrimination (state)

Model 2: Giving neighborhoods more voice (local)

Model 3: Relax environmental limits (state)

Model 4: Require accepting Section 8 tenants (state)

Model 5: Passing rent control (local)

Model 6: Tax credits for renters (state)

Model 7: Allowing development of open space (local)

Model 8: Changing laws to allow more construction (local)

Model 9: Require local governments to allow more apartment construction (state)

The estimates are presented in Table A-1.

Additionally, Table A-2 shows similar regressions, except the outcome variables and the housing guarantee scale are not dichotomized. In these regressions, the outcome variable is measured on an oppose-support Likert scale. For the outcome variables, 0 indicates strongly oppose and 1 indicates strongly support. For the housing guarantee item, 0 indicates strong support for a housing guarantee and 1 indicates strong opposition.

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**	**Model 9**
	Housing discrim	Neighborhood voice	Relax env. limits	Sec. 8	Rent control	Renter tax credit	Develop open space	Allow construction	State intervention
Anti-guarantee homeowner	-0.196^{***}	-0.079^{***}	0.007	-0.303^{***}	-0.301^{***}	-0.404^{***}	-0.126^{***}	-0.177^{***}	-0.284^{***}
	(0.021)	(0.020)	(0.022)	(0.023)	(0.023)	(0.022)	(0.024)	(0.024)	(0.023)
Anti-guarantee renter	-0.149^{***}	-0.116^{***}	-0.005	-0.273^{***}	-0.150^{***}	-0.158^{***}	-0.112^{***}	-0.111^{***}	-0.199^{***}
	(0.025)	(0.024)	(0.025)	(0.026)	(0.026)	(0.026)	(0.027)	(0.027)	(0.026)
Pro-guarantee homeowner	-0.045^{**}	-0.010	0.005	-0.045^{**}	-0.076^{***}	-0.211^{***}	-0.087^{***}	-0.084^{***}	-0.129^{***}
	(0.019)	(0.018)	(0.021)	(0.023)	(0.022)	(0.022)	(0.023)	(0.023)	(0.023)
Age: 25-34	-0.010	-0.020	0.019	0.019	0.109^{***}	0.079^{**}	0.003	0.030	-0.051^{*}
	(0.030)	(0.027)	(0.030)	(0.030)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
Age: 35-44	0.023	0.011	-0.030	-0.015	0.121^{***}	0.087^{***}	-0.059^{*}	0.009	-0.080^{**}
	(0.030)	(0.027)	(0.030)	(0.031)	(0.031)	(0.031)	(0.031)	(0.032)	(0.031)
Age: 45-54	0.068^{**}	0.019	-0.022	-0.043	0.067^{**}	0.116^{***}	-0.031	0.022	-0.085^{***}
	(0.030)	(0.028)	(0.032)	(0.032)	(0.033)	(0.032)	(0.033)	(0.033)	(0.032)
Age: 55-64	0.077^{***}	0.022	-0.095^{***}	-0.058^{*}	0.061^{*}	0.062^{**}	-0.068^{**}	-0.023	-0.086^{***}
	(0.030)	(0.028)	(0.030)	(0.031)	(0.032)	(0.031)	(0.032)	(0.032)	(0.031)
Age: 65-74	0.117^{***}	0.047^{*}	-0.123^{***}	-0.039	0.062^{*}	0.041	-0.040	-0.0001	-0.101^{***}
	(0.030)	(0.028)	(0.031)	(0.032)	(0.033)	(0.033)	(0.033)	(0.033)	(0.032)
Age: 75+	0.061	0.038	-0.236^{***}	-0.056	-0.020	-0.029	-0.052	-0.073	-0.119^{***}
	(0.048)	(0.045)	(0.038)	(0.049)	(0.050)	(0.048)	(0.052)	(0.050)	(0.046)
Race: Black	0.035^{*}	0.024	0.055^{**}	0.019	0.056^{**}	0.048^{**}	0.118^{***}	0.025	0.069^{***}
	(0.020)	(0.019)	(0.022)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
Race: Hispanic	0.027	0.054^{***}	0.036^{*}	0.014	0.065^{***}	0.046^{**}	0.083^{***}	0.040^{*}	0.020
	(0.020)	(0.018)	(0.021)	(0.021)	(0.021)	(0.021)	(0.022)	(0.022)	(0.021)
Race: Asian	0.025	-0.016	0.020	0.011	-0.004	0.020	0.062^{**}	0.015	0.056^{*}
	(0.025)	(0.025)	(0.027)	(0.028)	(0.029)	(0.028)	(0.030)	(0.029)	(0.029)
Race: Other	0.068^{*}	-0.054	-0.017	-0.050	-0.080^{*}	0.024	0.011	-0.069	-0.051
	(0.041)	(0.044)	(0.043)	(0.044)	(0.044)	(0.044)	(0.049)	(0.045)	(0.044)
Educ: BA or higher	0.047^{***}	-0.010	-0.054^{***}	-0.004	-0.025	0.010	-0.010	-0.024	-0.017
	(0.016)	(0.015)	(0.016)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.016)
Male	0.025^{*}	-0.027^{**}	0.054^{***}	0.032^{**}	-0.068^{***}	0.026^{*}	0.051^{***}	0.087^{***}	0.054^{***}
	(0.014)	(0.013)	(0.014)	(0.015)	(0.015)	(0.015)	(0.016)	(0.016)	(0.015)
Income (log)	0.067^{***}	0.036^{***}	-0.029^{***}	-0.047^{***}	-0.028^{***}	-0.022^{**}	-0.020^{*}	-0.003	-0.026^{**}
	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Moderate pop. density	0.023	0.016	-0.0002	0.021	0.007	0.0002	0.029	0.030	0.017
	(0.017)	(0.016)	(0.017)	(0.018)	(0.019)	(0.018)	(0.019)	(0.019)	(0.018)
High pop. density	0.011	0.016	0.056^{***}	0.035^{*}	0.016	0.035^{*}	0.110^{***}	0.084^{***}	0.071^{***}
	(0.019)	(0.018)	(0.020)	(0.021)	(0.021)	(0.021)	(0.022)	(0.021)	(0.021)
MSA Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	4055	4055	4055	4055	4055	4055	4055	4055	4055
R^2	0.063	0.029	0.046	0.114	0.112	0.125	0.058	0.050	0.106

Table A-1: Full regression results predicting support for changing various laws related to development. Income is recorded in thousands of dollars. See appendix text for description of outcome variables. Robust standard errors are reported in parenthese. $^{**}p < .01$, $^{*}p < .05$

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**	**Model 9**
	Housing discrim	Neighborhood voice	Relax env. limits	Sec. 8	Rent control	Renter tax credit	Develop open space	Allow construction	State intervention
Anti-guarantee homeowner	−0.150***	−0.051***	0.024	−0.240***	−0.219***	−0.288***	−0.078***	−0.114***	−0.213***
	(0.016)	(0.011)	(0.015)	(0.014)	(0.013)	(0.014)	(0.014)	(0.013)	(0.014)
Anti-guarantee renter	−0.104***	−0.075***	0.032**	−0.195***	−0.111***	−0.106***	−0.050***	−0.060***	−0.120***
	(0.018)	(0.012)	(0.016)	(0.015)	(0.015)	(0.016)	(0.015)	(0.014)	(0.015)
Pro-guarantee homeowner	−0.033**	0.0001	−0.010	−0.047***	−0.052***	−0.132***	−0.047***	−0.055***	−0.088***
	(0.015)	(0.010)	(0.015)	(0.014)	(0.012)	(0.013)	(0.014)	(0.013)	(0.013)
Age: 25-34	0.006	−0.011	0.028	0.006	0.077***	0.053***	−0.0002	0.031*	−0.019
	(0.021)	(0.014)	(0.019)	(0.017)	(0.016)	(0.018)	(0.018)	(0.017)	(0.017)
Age: 35-44	0.023	0.001	−0.013	−0.021	0.076***	0.051***	−0.043**	0.006	−0.040**
	(0.022)	(0.014)	(0.020)	(0.018)	(0.017)	(0.018)	(0.018)	(0.018)	(0.017)
Age: 45-54	0.060***	0.014	−0.029	−0.034*	0.043**	0.078***	−0.050**	−0.002	−0.068***
	(0.022)	(0.015)	(0.021)	(0.019)	(0.018)	(0.019)	(0.020)	(0.019)	(0.019)
Age: 55-64	0.069***	0.010	−0.082***	−0.048***	0.022	0.038**	−0.080***	−0.038**	−0.071***
	(0.022)	(0.014)	(0.020)	(0.019)	(0.017)	(0.019)	(0.019)	(0.018)	(0.018)
Age: 65-74	0.096***	0.033**	−0.121***	−0.034*	0.018	0.028	−0.061***	−0.028	−0.086***
	(0.022)	(0.015)	(0.021)	(0.019)	(0.019)	(0.020)	(0.020)	(0.019)	(0.019)
Age: 75+	0.060*	0.027	−0.167***	−0.017	−0.001	−0.001	−0.042	−0.056**	−0.111***
	(0.034)	(0.024)	(0.029)	(0.030)	(0.030)	(0.030)	(0.030)	(0.028)	(0.030)
Race: Black	0.038**	0.034***	0.080***	0.031**	0.059***	0.046***	0.099***	0.034***	0.059***
	(0.016)	(0.010)	(0.015)	(0.014)	(0.013)	(0.014)	(0.014)	(0.013)	(0.013)
Race: Hispanic	0.015	0.037***	0.030**	−0.002	0.041***	0.030**	0.053***	0.019	−0.0004
	(0.015)	(0.010)	(0.014)	(0.014)	(0.012)	(0.014)	(0.013)	(0.013)	(0.013)
Race: Asian	0.026	−0.001	0.044**	0.039**	0.011	0.030*	0.061***	0.032**	0.063***
	(0.017)	(0.012)	(0.018)	(0.017)	(0.017)	(0.016)	(0.017)	(0.016)	(0.016)
Race: Other	0.097***	−0.013	0.017	−0.015	−0.042	0.031	0.031	−0.006	−0.008
	(0.027)	(0.022)	(0.029)	(0.029)	(0.029)	(0.027)	(0.026)	(0.023)	(0.025)
Educ: BA or higher	0.034***	−0.004	−0.063***	−0.007	−0.030***	−0.006	−0.007	−0.019*	−0.013
	(0.012)	(0.008)	(0.011)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Male	0.022**	−0.019***	0.030***	0.016*	−0.050***	0.014	0.041***	0.047***	0.015*
	(0.010)	(0.007)	(0.010)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Income (log)	0.043***	0.009*	−0.034***	−0.038***	−0.027***	−0.018***	−0.017**	−0.002	−0.017***
	(0.007)	(0.005)	(0.007)	(0.007)	(0.006)	(0.007)	(0.007)	(0.006)	(0.006)
Moderate pop. density	0.018	0.005	0.003	0.010	0.006	0.007	0.021*	0.030***	0.010
	(0.013)	(0.009)	(0.012)	(0.011)	(0.011)	(0.011)	(0.012)	(0.011)	(0.011)
High pop. density	0.017	0.015	0.041***	0.016	0.006	0.023*	0.078***	0.056***	0.042***
	(0.014)	(0.010)	(0.014)	(0.013)	(0.012)	(0.013)	(0.013)	(0.012)	(0.012)
MSA Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
N	4055	4055	4055	4055	4055	4055	4055	4055	4055
R^2	0.067	0.039	0.083	0.160	0.172	0.162	0.082	0.068	0.152

Table A-2: Regression results predicting support for changing various laws related to development. The outcome variable ranges from 0 (strongly oppose) to 1 (strongly support). The federal housing guarantee item is on a 0-1 scale where 0 indicates support for a federal housing guarantee and 1 indicates opposition. Income is recorded in thousands of dollars. See appendix text for description of outcome variables. Robust standard errors are reported in parentheses. $^{**}p < .01$, $^{*}p < .05$

Balance Tables

To assess whether there is balance in covariates across treatment conditions within each experiment, we ran multinomial logistic (MNL) regression models predicting treatment assignment as a function of homeownership, housing guarantee support, age, race, income, education, and party ID. We then ran likelihood ratio tests of the models against a null model with only intercepts. The p-value from the likelihood ratio test for the first experiment is 0.002, indicating that the covariates jointly predict treatment in the first experiment. The p-value for the second experiment is 0.317, so we cannot reject the null hypothesis that the covariates are unrelated to the treatment in the second experiment.

In this section we describe and investigate the imbalance in the first experiment. We first note that the results presented in the main text all include respondent-level covariates, so the imbalances reported here are unlikely to be affecting our conclusions.

Table A-3 shows the means of these variables across treatment conditions in Experiment 1. While there are some small differences across experimental conditions in terms of homeownership and opposition to a federal housing guarantee, none of the coefficients on these variables were significant in the MNL regression model. In addition, because we subset our analyses by these variables, they are controlled for by design and thus do not threaten our conclustions.

The largest imbalances occur on income, where people in the "economist" and "escape" conditions have higher incomes on average than those in the control or "families" conditions. The marginal effect of log income in the MNL model (controlling for other covariates), in terms of risk ratio relative to the control condition (RRR), is 1.16 for the "family" condition ($p = 0.034$), 1.15 for the "escape" condition ($p = 0.047$) and 1.12 for the "economist" condition ($p = 0.11$).

The other significant imbalances are on race variables — whereby Latino/Hispanic respondents are less likely to be in the "economist" condition relative to the control condition ($RRR = 0.66$, $p = 0.003$), black respondents are slightly more likely to be in the active treatment arms than the control condition — $RRR = 1.34$ ($p = .054$) for the "economist" condition, $RRR = 1.30$ ($p = 0.088$) for the "escape" condition, and $RRR = 1.32$ ($p = 0.070$) for the "families" condition. Finally, people with a college degree are less likely to be in the "family" condition relative to control, with a relative risk ratio of 0.79 ($p = 0.035$).

We found no errors in the survey randomization code that would explain these imbalances. Additionally, there was no attrition in the survey, so differential attrition cannot explain the imbalances. As a result, we conclude that they are likely simply due to bad luck in the randomization.

Moreover, the imbalances do not appear to influence our results. First, the absolute magnitude of these imbalances tends to be relatively small, as seen in the balance table. Second, the results from the analysis of Experiment 1 are unchanged when we control for the full set of covariates variables tested here.

		Control	Economist	Economist/Escape	Economist/Families	Max Diff
Age	18-24 years	13.7	9.8	12.5	14	4.2
	25-44 years	35.8	37.4	36.7	37.3	1.7
	45-64 years	33.3	34.8	34.2	30.1	4.7
	65+ years	17.3	17.9	16.6	18.6	2
Education	BA or higher	56.1	55.6	55.9	51.9	4.2
Homeownership	Owns home	59.8	61.3	64.3	57.6	6.6
Housing guarantee	Opposed	43.9	44.4	41.2	45.8	4.7
Party ID	Democrat	45	46.8	48.8	47.5	3.9
	Independent	23.1	24.6	23.6	22.9	1.7
	Other	6.7	5.7	3.5	6.6	3.2
	Republican	25.2	22.9	24.1	23	2.3
Race	Asian	8.7	9.6	7.7	8.3	1.9
	Black	12	16.9	15.4	15.2	4.9
	Hispanic	22.5	15.8	21.3	21.4	6.7
	Other	3.2	3.2	3.8	2.1	1.7
	White	53.5	54.5	51.8	52.9	2.7
Income		$76,788.4	82,843.8	84,551.1	78,776.5	7,762.7

Table A-3: Balance table for Experiment 1. Entries show percentage of respondents within each treatment condition that fall into each category, except for income which shows the average income. The final column gives the maximum difference in means across treatment conditions.

Experiment 1: Dichotomized Outcome

Table A-4 shows the average treatment effects for Experiment 1 when defining the outcome variable to be an indicator for being at least a 3 on the 5-point Likert scale. Figure A-3 graphically illustrates the treatment effects in Experiment 1.

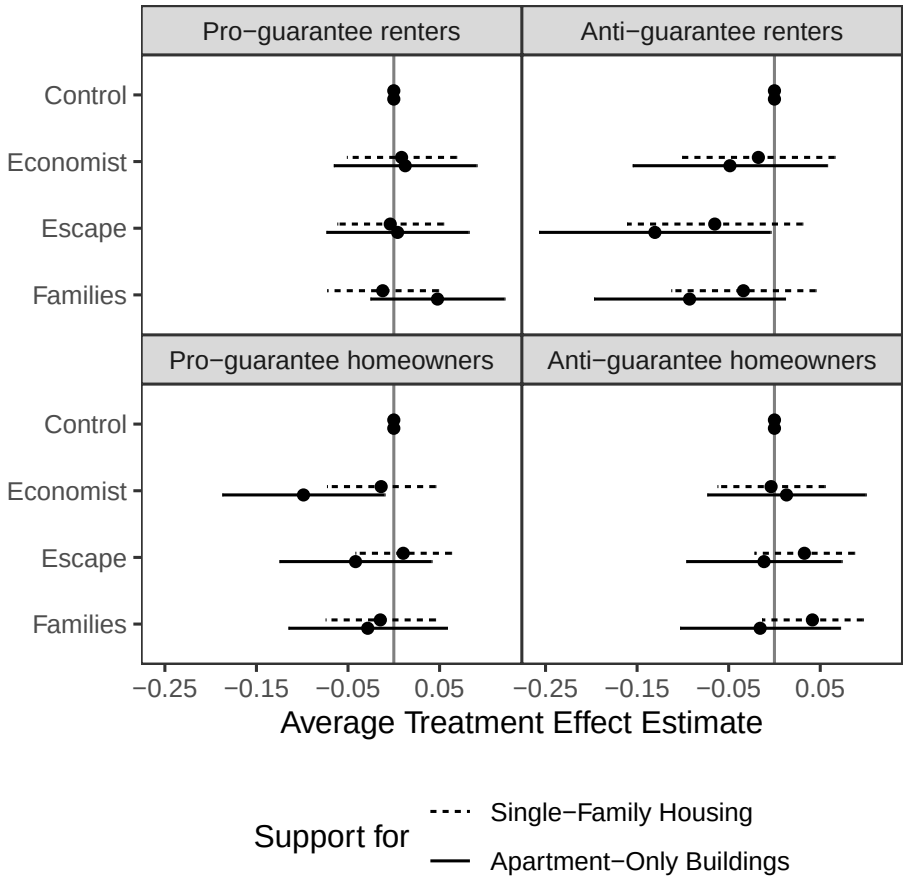

Figure A-3: Coefficient plot of group average treatment effects on an indicator for support for apartment-only buildings (solid) and low-density single-family housing (dashed) among metropolitan residents, along with robust 95% confidence intervals. See Table A-4 for model description.

Average Treatment Effects on Support for Apartment-Only Buildings

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Economist	0.01	-0.10^{*}	-0.05	0.01
	(0.04)	(0.05)	(0.05)	(0.04)
Escape	-0.01	-0.04	-0.13^{*}	0.00
	(0.04)	(0.04)	(0.06)	(0.04)
Families	-0.02	-0.03	-0.09	0.05
	(0.04)	(0.04)	(0.05)	(0.04)
Covariates	✓	✓	✓	✓
R^2	0.08	0.09	0.14	0.05
N	1004	959	409	860
Dichotomized outcome	✓	✓	✓	✓

Average Treatment Effects on Support for Single-Family Housing

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Economist	-0.00	-0.01	-0.02	0.01
	(0.03)	(0.03)	(0.04)	(0.03)
Escape	0.03	0.01	-0.07	-0.00
	(0.03)	(0.03)	(0.05)	(0.03)
Families	0.04	-0.01	-0.03	-0.01
	(0.03)	(0.03)	(0.04)	(0.03)
Covariates	✓	✓	✓	✓
R^2	0.04	0.05	0.08	0.06
N	1004	959	409	860
Dichotomized outcome	✓	✓	✓	✓

Table A-4: Group average treatment effects on support for apartment-only buildings (top) and low-density single-family housing (bottom) among metropolitan residents. Treatment effects were estimated by least squares regression of an indicator for supporting construction on indicators for the experimental conditions plus controls for basic demographics and MSA fixed effects. Robust standard errors appear in parentheses. $^{**}p < 0.01$, $^{*}p < 0.05$

Robustness to Exclusion of Republicans

Our analyses classify people as liberal if they endorse the goal of a federal guarantee of housing for all, and conservative if they do not endorse that goal. However, it could be the case that Republicans who endorse a federal housing guarantee have idiosyncratic views that are distorting our interpretation of the results. To address this concern, we first note that there are three times more liberal homeowners in our sample who are Democrats than Republicans (838 vs. 263, see also Table 2 in the main text). Thus, it is unlikely that our results are driven by this group. Nonetheless, in this section we re-run all the analyses in the main text including only respondents who identify as Democrats (including) leaners). The results are very similar to those in the main text.

First, Table A-5 replicates the observational results of Table A-1 in the main text using only Democrats. The results are nearly identical to those in the main text. The largest absolute difference in the coefficients on pro-guarantee homeowners, pro-guarantee renters, and anti-guarantee homeowners relative to pro-guarantee renters (i.e., the first two columns of Table A-5) and those in the main is 0.038. The contrasts between liberal and conservative homeowners are also very similar to those in the full sample. There is a slightly larger liberal-conservative gap on attitudes toward changing laws to allow more construction when subsetting to Democrats (15 percentage points relative to 9 percentage points in the full sample), and smaller gap on attitudes towards forcing local governments to legalize apartments (11 percentage points relative to 15 in the full sample). These differences notwithstanding, we again see larger liberal-conservative disagreement on policies that provide regulatory and redistributive support to renters—such as Section 8 housing, rent control, and a renters tax credit—than on policies related to increasing the housing supply.

Second, Table A-6 shows the subgroup average treatment effects for the first experiment using only Democrats. The pattern of results are generally similar. Focusing on the bottom panel—which reports treatment effects on support for building apartments—there is again a relatively large negative effect of the expert prime among liberal homeowners, though the estimate is less precise than among the full sample.

Third, Table A-7 shows the subgroup averagr treatment effects for the second experiment using only Democrats, and Figure A-4 shows means across treatment conditions. Focusing on the figure, it is clear that there is a large gap in support between homeowners and renters, even when we subset to Democrats. Across all conditions, liberal renter support is higher than liberal homeowner support, and the least-favored condition by renters—market rate housing located two miles away—garners more support than the most-favored condition among homeowners—50% low income, 2 miles away.

When omitting Republicans and independents, liberal homeowners' support for housing that is occupied by low-income residents increases relative to their support for a generic 120-unit apartment building. Relative to the baseline no information condition, Democratic liberal homeowners supported a low-income development (when distance was not specified) by an additional 0.39 points on the 1-5 scale—compared to 0.11 points when including Republicans. However, we still observe a spatial effect among Democratic liberal homeowners: support for the low-income development declines substantially when the project is said to be located a quarter mile from respondents' homes. Similar to the full sample, we observe that Democratic liberal homeowners' support for market rate housing tends to be lower than their support for low-income housing.

Overall, while there may be some differences between Democrats and Republicans who identify as liberal on the housing issue, our results are generally robust to the exclusion of Republicans.

Policy	Pro-guarantee homeowners	Anti-guarantee homeowners	Difference
Require accepting Section 8 tenants (state)	-0.04	-0.29^{**}	0.30^{**}
	(0.025)	(0.026)	(0.045)
Pass rent control (local)	-0.09^{**}	-0.29^{**}	0.26^{**}
	(0.024)	(0.027)	(0.045)
Tax credits for renters (state)	-0.21^{**}	-0.40^{**}	0.24^{**}
	(0.024)	(0.026)	(0.046)
Change laws to allow more construction (local)	-0.09^{**}	-0.19^{**}	0.15^{**}
	(0.025)	(0.027)	(0.046)
Combat racial discrimination (state)	-0.04	-0.16^{**}	0.13^{**}
	(0.021)	(0.024)	(0.043)
Require local govs allow apts (state)	-0.14^{**}	-0.27^{**}	0.11^{*}
	(0.025)	(0.026)	(0.046)
Give neighborhoods more voice (local)	0.00	-0.07^{**}	0.09^{*}
	(0.020)	(0.023)	(0.040)
Allow development of open space (local)	-0.08^{**}	-0.13^{**}	0.09^{*}
	(0.025)	(0.027)	(0.045)
Relax environmental limits (state)	0.00	0.00	0.03
	(0.023)	(0.024)	(0.043)

Table A-5: Support for various housing-related policy proposals among homeowners relative to pro-guarantee renters, subsetting to Democrats. Point estimates in the second and third columns reflect differences in the proportion of pro- or anti-guarantee homeowners, respectively, that support a policy relative to demographically comparable liberal renters. The final column displays the difference between liberal and conservative homeowners. Estimates are drawn from a linear probability model that contain the categorical homeownership-ideology variable, demographics, zip code population density, and MSA fixed effects. Robust standard errors are reported in parentheses. $^{**}p < 0.01$, $^{*}p < 0.05$

Average Treatment Effects on Support for Single-Family Housing

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Economist	0.19	−0.05	0.09	−0.01
	(0.17)	(0.12)	(0.23)	(0.13)
Escape Clause	0.05	0.03	−0.24	0.05
	(0.18)	(0.11)	(0.24)	(0.13)
Families	0.14	−0.05	−0.08	−0.07
	(0.18)	(0.12)	(0.22)	(0.13)
Covariates	✓	✓	✓	✓
R^2	0.08	0.08	0.27	0.10
N	365	656	186	608

Average Treatment Effects on Support for Apartment-Only Buildings

Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Economist	0.14	−0.25	−0.07	−0.03
	(0.19)	(0.14)	(0.25)	(0.15)
Escape	−0.12	−0.09	−0.31	−0.03
	(0.19)	(0.13)	(0.26)	(0.14)
Families	−0.03	0.04	0.29	0.00
	(0.20)	(0.14)	(0.25)	(0.14)
Covariates	✓	✓	✓	✓
R^2	0.14	0.11	0.17	0.05
N	365	656	186	608

Table A-6: Replication of the treatment effect table for Experiment 1 subsetting to Democrats. Group average treatment effects on support for apartment-only buildings (top) and low-density single-family housing (bottom) among metropolitan residents. Treatment effects were estimated by least squares regression of the five-point Likert support scale on indicators for the experimental conditions plus controls for basic demographics and MSA fixed effects. Robust standard errors appear in parentheses. $^{**}p < 0.01$, $^{*}p < 0.05$

Average Treatment Effects on Support for 120-Unit Apt. Building				
Condition	Anti-guarantee homeowner	Pro-guarantee homeowner	Anti-guarantee renter	Pro-guarantee renter
Low Inc., Dist. Not Given	-0.48^{*}	0.39^{**}	-0.03	-0.00
	(0.19)	(0.15)	(0.25)	(0.15)
Low Inc., 1/4 Mile	-0.36	0.29	-0.18	-0.32^{*}
	(0.20)	(0.15)	(0.28)	(0.15)
Low Inc., 2 Miles	-0.23	0.38^{*}	0.30	0.10
	(0.20)	(0.16)	(0.27)	(0.14)
Mkt. Rate, 1/4 Mile	-0.39	-0.05	-0.02	-0.14
	(0.23)	(0.15)	(0.29)	(0.14)
Mkt. Rate, 2 Miles	0.10	0.10	-0.09	-0.47^{**}
	(0.22)	(0.15)	(0.27)	(0.15)
Covariates	✓	✓	✓	✓
R^2	0.14	0.11	0.21	0.10
N	458	828	229	785

Table A-7: Replication of the subgroup average treatment effect table for Experiment 2 subsetting to Democrats. Outcome is support for building hypothetical 120-unit apartment building on 1-5 Likert scale. Treatment effects were estimated by least squares regression of the five-point Likert support scale on indicators for the experimental conditions plus controls for basic demographics and MSA fixed effects. Robust standard errors appear in parentheses. $^{**}p < 0.01$, $^{*}p < 0.05$

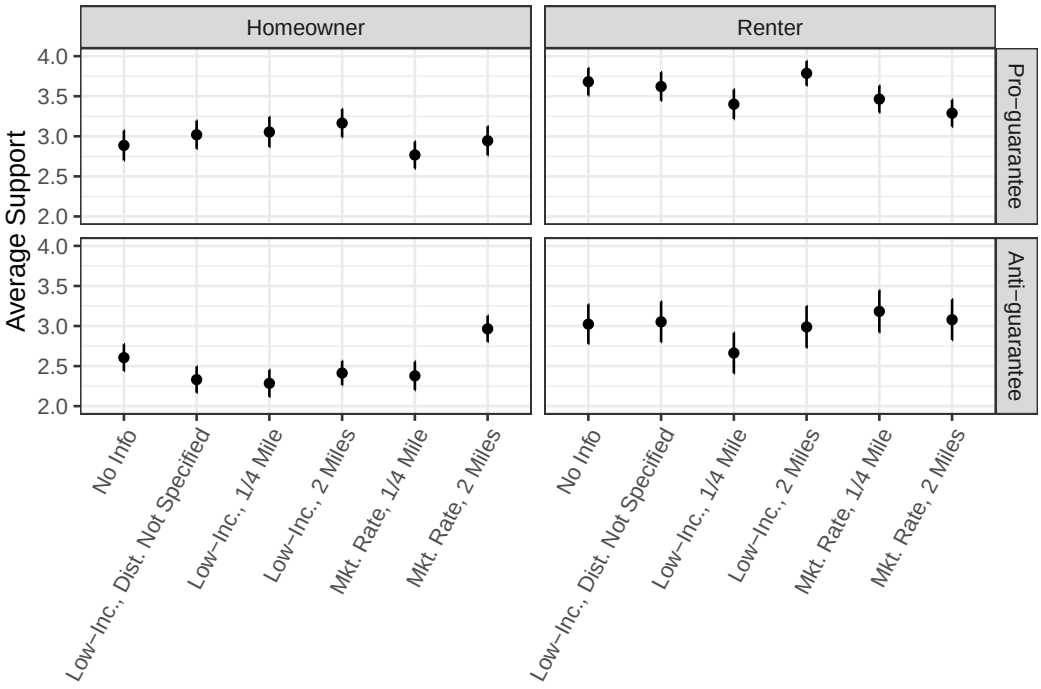

Figure A-4: Mean support for building 120-unit apartment building (on 1-5 Likert scale) among Democrats, by treatment condition and homeowner-ideology typology. Bars show 95% confidence intervals.

Racial Affect

Here we investigate the role of racial affect in shaping opinions towards construction of high-density housing. Table A-8 reports regression results from Experiment 1 predicting support for construction of apartment-only buildings. Covariates include the experimental condition, support for a federal housing guarantee, an indicator for endorsing negative stereotypes about blacks, and sociodemographic controls. Column 1 reports the results for all whites, column 2 for liberal (pro-guarantee) white homeowners, and column 3 for conservative (anti-guarantee) white homeowners.

In addition to the stated racial affect measures, we also employ a revealed-preference measure of racial affect. We asked respondents who moved to their current home within the past 5 years what zip code they previously lived in. We then merged data on the racial makeup of zip codes from the American Community Survey to examine whether they moved to a place that was more or less diverse (defined as the proportion of non-white residents). We then created an indicator that equals 1 if their current zip code is less diverse than their previous zip code, and 0 otherwise. We include the indicator in an analogous set of regressions predicting support for building apartments among various subsets of white respondents. The results are presented in Table A-9.

Roughly a third of our sample ($N = 1,378$) moved in the last 5 years and provided their previous zip code. When we subset this group just to whites, the sample size is reduced to 572.

	Support for Building Apartments			
Condition: Economist	−0.059	−0.084	−0.439**	0.222
	(0.083)	(0.105)	(0.151)	(0.144)
Condition: Economic/Escape	−0.046	−0.009	−0.184	0.151
	(0.080)	(0.101)	(0.150)	(0.136)
Condition: Economist/Families	0.089	0.031	−0.030	0.089
	(0.080)	(0.104)	(0.154)	(0.140)
Negative racial affect	−0.065	−0.093	−0.135	−0.059
	(0.060)	(0.078)	(0.117)	(0.105)
Homeowner	−0.326**			
	(0.074)			
Anti-housing guarantee	−0.197**	−0.227**		
	(0.058)	(0.074)		
Income (log)	−0.042	−0.076	−0.123	−0.032
	(0.040)	(0.054)	(0.078)	(0.072)
Educ: BA or higher	0.162*	0.196*	0.313*	0.084
	(0.064)	(0.081)	(0.126)	(0.107)
Age: 25-44	−0.380**	−0.584**	−0.298	−1.054**
	(0.094)	(0.191)	(0.253)	(0.273)
Age: 45-64	−0.684**	−1.094**	−0.853**	−1.489**
	(0.100)	(0.183)	(0.234)	(0.269)
Age: 65+	−0.850**	−1.181**	−0.951**	−1.607**
	(0.106)	(0.181)	(0.240)	(0.264)
Constant	4.267**	4.648**	5.036**	4.265**
	(0.395)	(0.553)	(0.789)	(0.798)
Sample:	All whites	White homeowners	Pro-guarantee white homeowners	Anti-guarantee white homeowners
N	1726	1076	504	572
R-squared	0.115	0.093	0.107	0.086

**p < .01; *p < .05

Table A-8: Re-analysis of Experiment 1 among white respondents, including controls for racial affect. Outcome variable is support for building apartments on a 1-5 scale. Robust standard errors are reported in parentheses.

	Support for Building Apartments			
Condition: Economist	0.006	−0.014	−0.293	0.523
	(0.140)	(0.241)	(0.324)	(0.334)
Condition: Economic/Escape	−0.016	0.130	0.243	0.116
	(0.138)	(0.245)	(0.356)	(0.325)
Condition: Economist/Families	0.107	0.053	0.562	−0.286
	(0.135)	(0.263)	(0.388)	(0.366)
Moved to less diverse Zip	−0.190	−0.433**	−0.542**	−0.364
	(0.105)	(0.186)	(0.276)	(0.242)
Homeowner	−0.276**			
	(0.119)			
Anti-housing guarantee	−0.107	−0.040		
	(0.101)	(0.184)		
Income (log)	0.025	0.021	−0.286	0.280
	(0.068)	(0.126)	(0.163)	(0.160)
Educ: BA or higher	−0.029	−0.052	0.173	−0.473
	(0.115)	(0.222)	(0.317)	(0.316)
Age: 25-44	−0.475***	−0.916***	−0.178	−1.653***
	(0.134)	(0.329)	(0.506)	(0.296)
Age: 45-64	−0.659***	−1.319***	−0.830	−1.819***
	(0.169)	(0.341)	(0.512)	(0.350)
Age: 65+	−0.668***	−0.918**	0.025	−1.979***
	(0.218)	(0.363)	(0.501)	(0.486)
Constant	3.661***	3.885***	6.488***	1.761
	(0.659)	(1.205)	(1.574)	(1.620)
Sample:	All white recent movers	White homeowners, recently moved	Pro-guarantee white homeowners, recently moved	Anti-guarantee white homeowners, recently moved
N	551	190	97	93
R-squared	0.087	0.113	0.188	0.268

**p < .01; *p < .05

Table A-9: Re-analysis of Experiment 1 among whites who moved in the past 5 years, including an indicator for having moved to a zip code with a higher proportion of whites. Outcome variable is support for building apartments on a 1-4 scale. Robust standard errors are reported in parentheses.

Population Density Analysis

In this section, we provide some descriptive evidence on how attitudes towards apartments vary as a function of respondents' local context, specifically the population density of the zip code they live in. First, we merged data from the 2016 American Community Survey on population density of the zip code in which each respondent lives. Then, we plotted support for building apartments, using the outcomes from both experiment 1 (support for an apartment building in respondents' area) and experiment 2 (support for the hypothetical 120-unit apartment building described in the vignette), as a function of the density of respondents' zip code and their place in the homeowner-ideology typology. To purge our outcome of the average effect of the experimental manipulations, we first regressed the outcome (in the full sample) on treatment indicators, and work with the residual of that regression as our measure of support for apartment buildings.

Results are shown in Figure A-5 (experiment 1) and in Figure A-6 (experiment 2). The x-axis is zip code population density while the y-axis is (residualized) support for apartment construction.

In both plots, support for apartments is generally increasing in population density, and higher for renters than for homowners. In Figure A-5, both liberal and conservative renters are more supportive of building housing than homeowners of all ideologies, regardless of population density—though attitudes converge in very high-density areas. In Figure A-6, the pattern is similar, with the exception of a notable non-monotonicity among anti-guarantee renters.

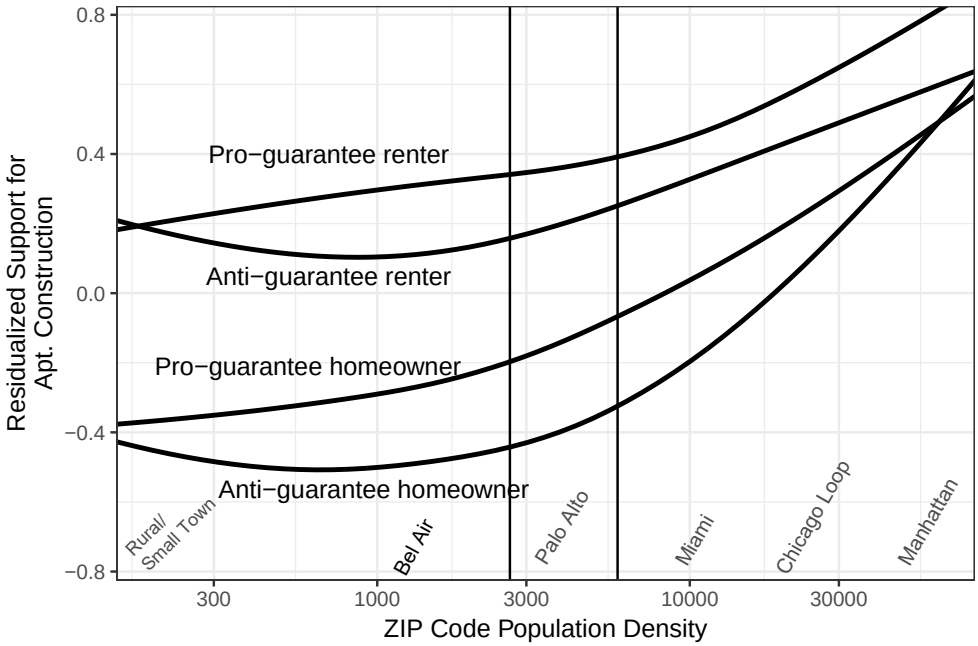

Figure A-5: Experiment 1: Support for building apartments, residualized of treatment, by zip code population density and homeowner-ideology typology. The x-axis is measured in people per square mile on the log scale. Lines correspond to the 33rd and 67th percentiles of zip code population density in our sample. One-third of all respondents fall into each region.

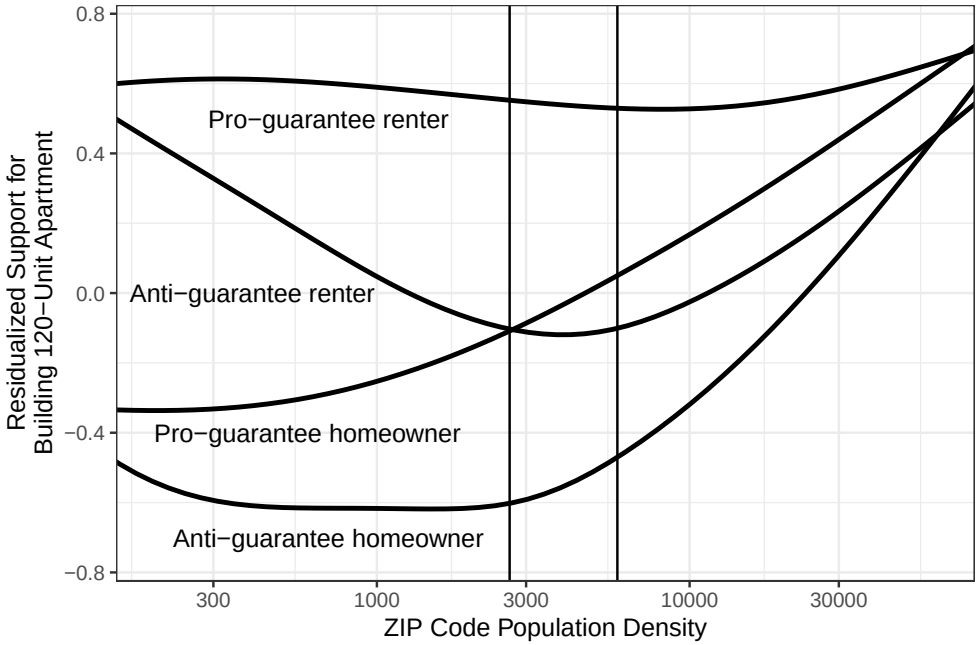

Figure A-6: Experiment 2: Support for building 120-unit apartment, residualized of treatment, by zip code population density and homeowner-ideology typology. The x-axis is measured in people per square mile on the log scale. Lines correspond to the 33rd and 67th percentiles of zip code population density in our sample, so a third of all respondents fall into each region.

Mechanical Turk Survey for Manipulation Checks and Trust in Economists

As noted in footnote 17 of the main text, we conducted a follow-up survey on Mechanical Turk to assess two possible explanations for our mostly null results. First, it might have been the case that out treatment primes were not sufficiently strong. Second, respondents may be skeptical of experts, which would dampen the effects of our primes which appeal to experts.

To test the first possibility, we took two approaches. We replicated the main experiment with the original "economist" prime, along with an extended "explanation" prime that explained the economic logic of why increasing housing supply should decrease prices. We expected that this prime would be stronger than a mere appeal to experts. Additionally, we included explicit manipulation checks to assess the effect of the primes on (a) respondents' own beliefs about the relationship between housing development and prices and (b) respondents' beliefs about what economists say on the same question. If the treatment prime is weak, then we will not be able to reject the null hypothesis that the treatment has no effect on these manipulation check measures.

To test the second possibility, we included the following question prior to the experiment:

"Which of the following statements best capture your view of economists? You may select more than one. (a) They're generally unbiased (accurate and objective); (b) They're often biased for business reasons; (c) They're often biased for political reasons; (d) They're often biased for some other reason."

Respondents who selected any of the bias answers are classified as "low-trust," while those who selected that economists are generally unbiased are classified as "high-trust."

First, in Table A-10 we report the results of the manipulation checks, for the full sample and by the trust variable. Generally, the treatments had a small effect on respondents' own beliefs but had a relatively large effect on their beliefs about economists' views. We take this as evidence the treatments are informative, but that respondents are resistant to updating their own views. Notably, the effects on beliefs were stronger among low-trust respondents—perhaps because they are slightly less accurate in their beliefs in the absence of any informational treatment.

Second, we report the results of the replication. Figure A-7 shows the same patterns of response among homeowners and renters that we document in the main text. More importantly, Figure A-8 shows the results split by trust in economists. Among people who think that economists are biased, we again see mostly null results. Among people who think economists are unbiased, however, the treatments appear to have a stronger effect. In particular, the primes induce people to decrease their support of low-density housing relative to the controls. Interestingly, the vanilla "economist" prime has a negative effect on support for building apartment-only buildings, but the "explanation" prime has a positive effect. It also has a positive effect on support for mixed-use housing and townhouses.

	Dependent variable:					
	Respondent's Own Beliefs			Beliefs about economists		
	(1)	(2)	(3)	(4)	(5)	(6)
Economist treatment	0.060*	0.031	0.074*	0.101***	0.055	0.121***
	(0.035)	(0.064)	(0.042)	(0.034)	(0.059)	(0.041)
Explanation treatment	0.036	0.073	0.017	0.102***	0.104*	0.098**
	(0.035)	(0.062)	(0.042)	(0.033)	(0.056)	(0.041)
Constant	0.460***	0.504***	0.440***	0.602***	0.669***	0.571***
	(0.025)	(0.046)	(0.030)	(0.025)	(0.043)	(0.030)
Sample:	Full	High trust	Low trust	Full	High trust	Low trust
Observations	1,223	385	838	1,223	385	838
R^2	0.002	0.004	0.004	0.010	0.009	0.012

Robust standard errors in parentheses
*p<0.1; **p<0.05; ***p<0.01

Table A-10: The outcome variable is an indicator for whether respondents believe building more housing will reduce prices (columns 1-3) and whether respondents think that *economists* believe building more housing will reduce prices. The "low-trust" subsample includes people who said economists were biased in at least one way. The "high-trust" subsample includes people who did not indicate that they thought economists were biased. Models estimated via OLS with robust standard errors in parentheses.

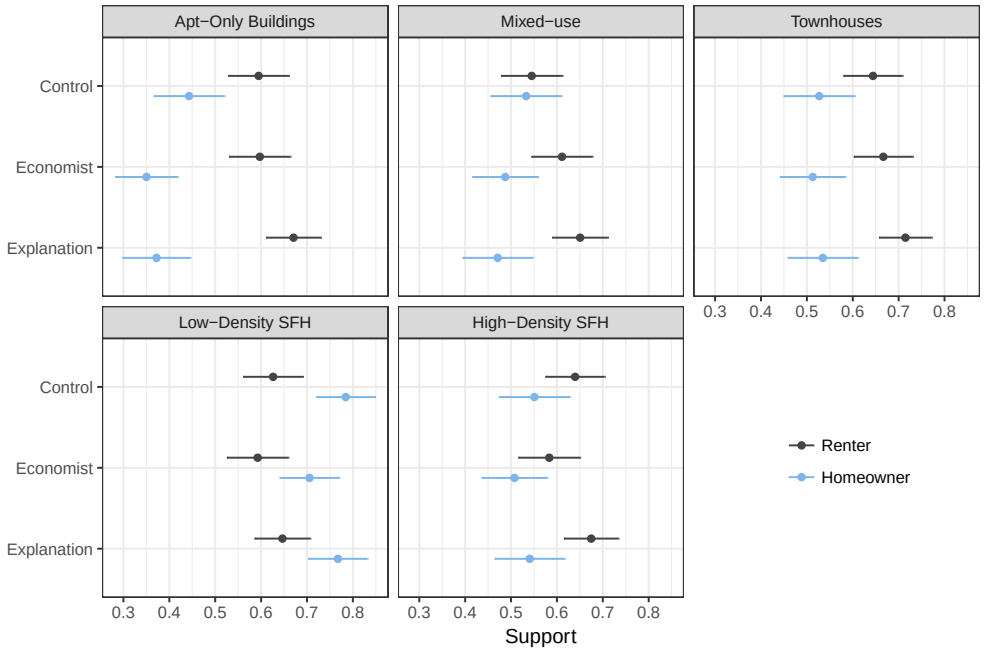

Figure A-7: Support for building additional housing, by homeownership status. Source: Authors' January 2018 MTurk study.

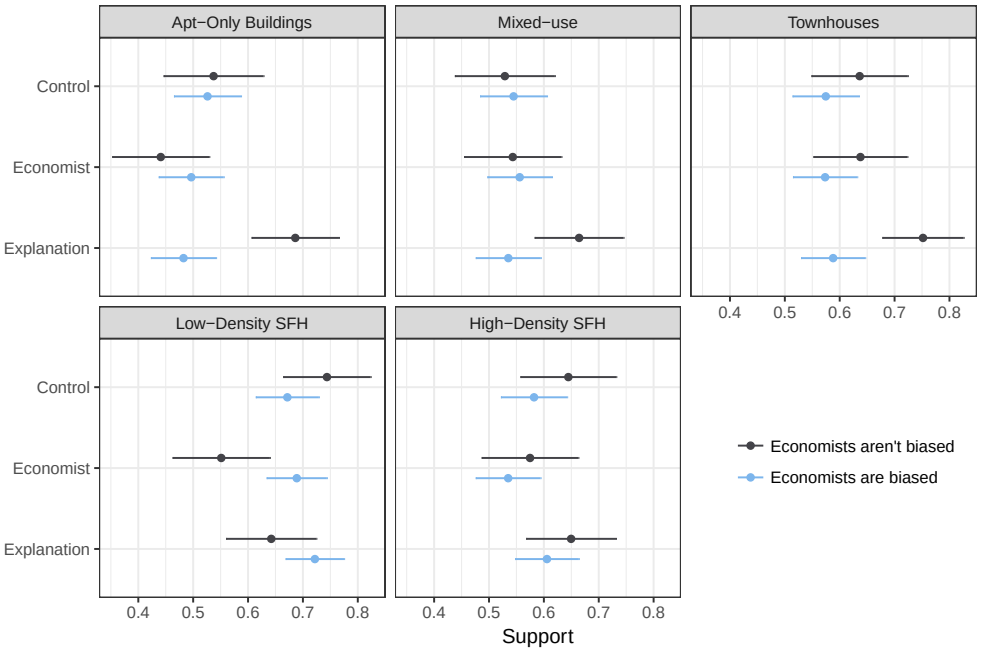

Figure A-8: Support for building additional housing, by trust in economists. Source: Authors' January 2018 MTurk study.

Correlation Between Housing Liberalism and Economic Liberalism

Table A-11 shows correlations between support for a federal housing guarantee and three questions related to general economic ideology: endorsement of a statement that people are better off under the free market, support for high taxes on the rich, and support for the government taking actions to reduce income inequality. All items are coded so higher numbers indicate more liberal responses.

Question wording is as follows:

- Do you agree or disagree with the following statement: "Most people are better off in a free market economy, even though some people are rich and some are poor."
  - Strongly agree (1)
  - Somewhat agree (2)
  - Neither agree nor disagree (3)
  - Somewhat disagree (4)
  - Strongly disagree (5)
- Do you think our government should or should not redistribute wealth through much higher taxes on the rich?
  - No, our government should not redistribute wealth through much higher taxes on the rich (0)
  - No opinion (1)
  - Yes, our government should redistribute wealth through much higher taxes on the rich (2)
- Some people think the federal government should reduce income differences between the rich and the poor. Others say it should not involve itself in reducing income differences. On a 5- point scale, which comes closer to the way you feel? (Responses are reverse-coded in analysis)
  - 1–The government ought to reduce income differences
  - 2
  - 3
  - 4
  - 5–The government shouldn't concern itself with reducing income differences

	Housing guarantee	Free market bad	High taxes	Reduce inc. differences
Housing guarantee	1.00			
Free market bad	0.36	1.00		
High taxes	0.43	0.38	1.00	
Income differences	0.49	0.41	0.51	1.00

Table A-11: Correlation matrix between housing liberalism and economic liberalism.