

Racial Disparities in Housing Politics: Evidence from Administrative Data*

Katherine Levine Einstein[†]

Maxwell Palmer[‡]

David Glick[§]

August 29, 2018

Abstract

Neighborhood meetings may democratize planning decisions and provide voice to underrepresented interests. Or, in keeping with American land use planning's long history of racial exclusion, these institutions may actually amplify the views of wealthy, white landowners. To better understand the dynamics of these meetings, we explore the racial backgrounds of participants in public meetings using novel data from planning and zoning board meeting minutes, a voter file, and sophisticated name matching techniques. We show that homeowners and whites are strikingly overrepresented in these venues, and Latinos are especially underrepresented. Strong majorities of all racial/ethnic groups oppose the construction of new housing, though support is significantly higher among black meeting participants. Even in highly diverse communities, development meetings are dominated by whites who oppose new housing, potentially distorting the housing supply to their benefit.

*This research was funded by Boston University's Initiative on Cities. Many thanks to Joe Ornstein for generously sharing data on property records.

[†]Assistant Professor, Department of Political Science, Boston University. kleinst@bu.edu.

[‡]Assistant Professor, Department of Political Science, Boston University. mbpalmer@bu.edu.

[§]Associate Professor, Department of Political Science, Boston University. dmclick@bu.edu.

In the 1950s and 1960s, the U.S. federal government financed urban renewal programs ostensibly targeting neighborhood decay. In practice, these policy initiatives facilitated the destruction of working-class neighborhoods, replacing these so-called distressed areas with highways and high-rises (Rae 2004; Dreier, Mollenkopf, and Swanstrom 2013). These programs had a particularly deleterious impact on communities of color (Avila and Rose 2009). In Charlotte, for example, the city pushed for the “renewal” of the city’s largest black neighborhood—the Second Ward (also known as Brooklyn)—tearing down 1,480 buildings, including multiple black churches (Kelley 2016).

In the wake of these government- and developer-driven excesses, reformers pushed for more neighborhood input in redevelopment decisions (Logan and Rabrenovic 1990; Gerber and Phillips 2003; Glaeser and Ward 2009; Schleicher 2013). While the process varies from locality to locality, in general, new developments, especially for multifamily buildings, require special permits or other approvals from planning or zoning boards, which hold public hearings to receive feedback from the community. At each of these hearings, the public has the opportunity to offer input, and local governments officially solicit these views through abutter or neighbor notifications about proposed developments.

Democratic theorists have argued that neighborhood-based participation can help provide voice to underrepresented groups, enhance citizen efficacy, and are integral to a thriving democracy (Berry, Portney, and Thomson 1993; Fung 2006; Michels and Graaf 2010). These institutions may offer opportunities for deliberative democracy in which interlocutors formally discuss a political or policy decision to achieve consensus (Gutmann and Thompson 2012). Because such discussions tend to work better in smaller groups, the local level may offer the greatest potential to benefit from such institutions. (Oliver 2001; Lassen and Serritzlew 2011; Oliver, Ha, and Callen 2012). Local officials may learn valuable information from these gatherings; almost half of mayors selected neighborhood meetings as one of the top two ways they learn about their constituents’ views (Einstein, Glick, and LeBlanc 2017).

In a novel analysis of citizen participants in planning and zoning board meetings, Einstein,

Palmer, and Glick (2018) find evidence that these meetings may not be functioning as promised. Rather than empowering underrepresented interests, these meetings amplify the voices of older, home-owning, and male residents who have lived in their communities for longer periods of time. What’s more, these individuals are overwhelmingly—and disproportionately—opposed to the construction of new housing. These voices have real policy import; citizens who attend these meetings have a variety of avenues to stymie developments, ranging from persuasion of local planning officials to filing lawsuits on the development in question (Einstein, Palmer, and Glick 2018). NIMBY (Not In My Backyard) sentiments predominate in these venues (Fischel 2001; Marble and Nall 2017; Hankinson 2018).

This analysis, however, does not explore the *race* of citizen participants. Historical evidence reveals that local governments in many places explicitly designed land use regulations to exclude people of color from their boundaries (Rothstein 2017). Consequently, such codes are strongly linked with contemporary patterns of racial segregation and lower quality public goods in communities of color (Trounstine Forthcoming). Land use regulations, in short, have long been used by wealthy, white homeowners as tools to preserve property values and exclusive access to public goods (Trounstine Forthcoming).

This paper seeks to better understand the dynamics of these meetings. Are neighborhood meetings surrounding housing development an example of neighborhood empowerment—particularly for people of color? Or, are they another manifestation of land use institutions’ long history of racial exclusion? These questions have broader implications for the functioning of one set of democratizing institutions. Do they promote the interests of underrepresented groups and improve democratic governance (Berry, Portney, and Thomson 1993; Fung 2006; Michels and Graaf 2010; Gutmann and Thompson 2012)? Or, are they captured by an unrepresentative, advantaged group with strong views that uses available institutions to preserve its own advantage (Berinsky 2005; Trounstine 2008; Kain 2012)?

To answer these questions, we used public meeting minutes to collect data on *all* citizen participants in planning and zoning board meetings for 97 Massachusetts cities and

towns. Combining these data with a voter file and sophisticated race matching techniques, we measure the racial demographics of actual participants in public meetings. We find that citizen participants are *overwhelmingly white*—far more so than the demographics of their communities would indicate. Controlling for a variety of important demographic and contextual characteristics, race powerfully predicts public participation in the planning and zoning process. These racial disparities are far worse than they are in other forms of political participation. Moreover, race also predicts attitudes; black participants are markedly more supportive of new housing relative to participants of other racial and ethnic groups, and these differences cannot be explained by variations in homeownership rates. Importantly, however, majorities of meeting participants of *all racial and ethnic groups* oppose the construction of new housing, underscoring overall high levels of opposition to housing projects.

1 Race and Political Participation

Canonical research on political participation suggests that we should see lower levels of political participation among less advantaged groups. An individual is more apt to participate in politics if s/he has the time and financial *resources*. Moreover, individuals who are *interested* and *engaged* in politics are more inclined to act on their political preferences. Finally, individuals who are *recruited*—whether by friends, neighbors, or organized political groups—are more likely to participate. *All* of these factors are tightly correlated with an individual’s socioeconomic status. One is more likely to have the resources, be interested in politics, and be asked to participate in politics if one is wealthier, all else equal. Consequently, socioeconomically advantaged individuals are more likely to vote, make political donations, and contact government officials, among other forms of political participation (Verba, Schlozman, and Brady 1995; Schlozman, Verba, and Brady 2012; Gilens 2014; Hajnal and Trounstein 2016).

These forces should operate in even greater force when applied to participation in public

meetings on housing. These forums require significant outlays of time, interest, and expertise. All of these factors will serve to further bias these forums in favor of advantaged voices.

Lower levels of wealth and income in communities of color mean that these forces will also likely diminish political participation among people of color, especially Latinos. Moreover, a number of additional factors may further depress Latino participation, including language and citizenship barriers, a lack of racial group consciousness (Masuoka 2008; Barreto 2010), and a failure of party and political organizations to adequately recruit Latino voters (Barreto and Collingwood 2015). Indeed, in the most recent presidential election, Latino voter turnout was over twenty percentage points lower than that of whites and blacks (Krogstad and Lopez 2016). We anticipate that all of these factors will diminish Latino political participation in planning and zoning board meetings to an even greater extent than in voting—again, because of the resources, interest, and expertise required to speak in these forums.

The picture is less clear for blacks. Better community organization and recruitment (Verba, Schlozman, and Brady 1995; Schlozman, Verba, and Brady 2012) and strong group identity (Dawson 1995) have created generally high political participation levels among black people. We might therefore expect their presence at planning and zoning board meetings to exceed that of Latinos. Still we anticipate that, all else equal, lower income and wealth in the black community will make costly participation in land use institutions relatively less appealing compared to whites.

What's more, the racially biased history of zoning and land use in the United States may further depress minority participation in these forums. Historical accounts (Rothstein 2017) and quantitative analyses of zoning ordinances, local government spending, and residential segregation (Trounstine Forthcoming) show that land use regulations had explicitly racist origins and racially disproportionate consequences. Zoning originated, in part, out of an intentional desire to segregate people of color from whites and it succeeded in that aim. People of color may consequently feel less trust in an institution that has policed their presence and excluded them from accessing high-quality public goods. This lack of trust and efficacy may

further diminish minorities’ propensity to attend planning and zoning board meetings.

This prediction has analogues in research on the American carceral state. Weaver and Lerman (2010) show that individual- and community-level interactions with the carceral state decrease political participation. One key mechanism undergirding this result is decreased *trust* in government—and consequently, skepticism that one’s participation in the political system will actually effect positive change. While there are obviously significant operational differences between America’s land use institutions and carceral state, the racist origins and racially disparate impacts of both may yield similar participatory outcomes.

One countervailing pressure may lead to greater participation among people of color: a need for more affordable housing. Given the strong connection between greater housing supply and affordability (Glaeser and Ward 2009; Gyourko and Molloy 2014), we might expect groups facing pressure from rising housing costs to show up in greater force.

2 Data

In order to analyze the race of those participating in planning and zoning board meetings, we need a dataset that includes information about meeting participants’ 1) traits (including race) and 2) their views as expressed in their comments. With these criteria in mind, we assembled a novel data set of *all* citizen participants in planning and zoning board between 2015-2017 in metropolitan Boston ($n = 2,580$). We downloaded all available public hearing minutes for local and planning boards over this two year time-span and included participants in all meetings concerning the development of more than one housing unit.¹

The Boston area has a number of helpful attributes for studying political participation in land use policy. Perhaps most importantly, because of the Commonwealth’s open meeting laws, Massachusetts provides extraordinarily detailed meeting minutes featuring the names, addresses, and positions of all members of the public who spoke at a meeting. This information

¹These proposals include both market rate and subsidized housing. Research on public opinion concerning affordable housing suggests that opposition is even higher for subsidized housing proposals (Tighe 2010).

Table 1: Traits of cities and towns for which we have participation data

	mean	min	max
Population	25772	4427	183382
Population Density	1976	237	16880
Population Growth 2010-2015	5	-0	11
Median Age	42	24	53
Percent Over 65	15	9	28
Percent White	86	17	98
Percent Black	2	0	15
Percent Hispanic	5	0	76
Median Household Income	97650	34852	199519
Median House Price	431844	205200	1170400
Distance from Boston (miles)	24	4	43
Observations	97		

allow us to merge these individuals with other data sets in order to learn more about their demographic traits.

Moreover, metropolitan Boston is highly fragmented, featuring a number of individual local governments, each with their own politics, local regulations, and demographics—all within 50 miles of Boston. Table 1 shows the summary statistics about several key demographic traits for the 97 cities and towns for which we have coded meeting minutes. While our sample is relatively white and affluent, these measures exhibit considerable variation in terms of racial demographics, residential density, housing prices, population growth, and age.²

Each observation is at the comment level. These observations include whether an individual opposes, is neutral, or supports a given project. When possible, we also code *why* an individual expressed his/her support or opposition.³ Individuals cited everything from septic systems to neighborhood character when outlining their reasons for opposing or supporting a given

²Notably, our sample does not include the city of Boston itself. There is consequently not one large city—which often have very distinct political structures and climates (Judd and Swanstrom 2014)—driving our results. Importantly, we do have a sizable number of mid-sized and diverse cities in our sample, including Cambridge, Worcester, Lawrence, and Lowell, among others.

³Intercoder reliability checks showed that coders agreed 100% of the time about whether a comment should be labeled support/oppose neutral and selected the same set of 19 total topic categories 85% of the time.

project.

Because we have the names and addresses of these individuals, we can merge them with two data sets to learn more about their demographic traits: the Massachusetts voter file and CoreLogic property tax records. We used a fuzzy matching algorithm to link commenters with registered MA voters⁴ and property data.⁵ These data sources allow us to learn valuable demographic information about meeting participants, including age, partisanship, frequency of voting, length of registration at a given address (which we use as a proxy for length of residency), homeownership status, and value of property owned (if any).

3 Estimating Race

The Massachusetts voter file does not record the race of each registered voter. Consequently, we must estimate the race for each. A variety of methods exist to estimate race based on an individual’s name. Here, we use the Bayesian prediction algorithm developed by Imai and Khanna (2016) to estimate race using the individual’s last name, age, gender, and geolocation. The Imai and Khanna (2016) algorithm estimates an individuals’ race by combining three pieces of information: 1) *national* census race data about his/her last name, 2) information about the racial makeup of his/her *local* geographic area, and 3) other information about the individual from the voter file. For each voter, the algorithm estimates that probability that the voter is in one of five groups: White, Black, Hispanic, Asian, or Other.

⁴We matched on name and address, the only data on participants available. Due to a large number of typos and misspellings, we used a fuzzy string matching algorithm and manual review of the matches. A majority of the people who we were unable to match are likely in the voter file, but could not be matched due to name duplication and missing addresses. We were able to match 2,784 of the 3,327 people in the set of participants (83.7%). As many people commented more than once, we were able to match the speakers of 85.4% of the comments to the voter file.

⁵For properties owned by multiple individuals, we matched each owner separately. We restricted the tax properties to single family and multifamily homes (including condominium buildings of any size), and excluded apartment buildings and anything owned by a corporation. In order to simplify matching and since we are interested in homeowners representing their own neighborhoods, we required that the voter’s town and the property’s town be the same. In some cases voters matched to more than one property. In this case we first sought to use the property whose actual address matched the registered voting address of the voter (rather than where the mailing address of the property matched the voter’s address). When this did not uniquely identify a property, we use the property with the highest assessed value of those that matched. Overall, we matched 46% of voters and 73% of commenters to a home in the tax property database.

Table 2: Summary of Race Matching Variables

	Block + Age + Sex	Tract + Age + Sex	Tract + Sex	County Age	County + Sex	Total
Voters	57,844 72%	13,634 17%	3,722 5%	4,900 6%	350 0%	80,450
Commenters	1,892 73%	486 19%	14 1%	188 7%	0 0%	2,580

As the algorithm requires the geographic location of each voter, the first step is to geocode the address of each individual in the voter file to identify their census block.⁶ This step is slow, such that matching the addresses for all 1,620,955 voters is not feasible. Consequently, we match the addresses first for all 2,580 commenters in the data set, and second for a 5% random sample of the voter file. Since many addresses are shared across voters (the average address is home to 2.55 voters; a large apartment building may have 100s of voters), we first identified the 635,150 unique street addresses in the voter file, and selected a random 5% sample (31,757) to geocode. These addresses corresponded to 80,582 unique voters (4.97% of the voter file), who make up the comparison group.⁷

Due to disparities between addresses as recorded in the voter file and addresses recorded by the census bureau, we were not able to match every address. 6% of voters and 7% of commenters were not geocoded, and roughly 20% were only geocoded at the census tract (rather than block) level. For the voters that we could not geocode, we used county-level census data instead of block-level data for the race estimates. Furthermore, in some cases voter gender and age were missing, such that, for some race estimates, we could only use some of the variables. Table 2 summarizes the different types of race estimates and the number of commenters and voters for each.

The Imai and Khanna (2016) algorithm produces probabilities that each voter belongs

⁶We geocoded each address to its 2010 census block using the `censusr` R package.

⁷This reference group includes 132 voter who were also matched as commenters, therefore we exclude them from the group in the analysis.

to each of the five groups. Thus, we can measure race three different ways: using the raw probabilities, assigning each voter to the group with the highest probability, and assigning voters to just two categories, *White* and *Not White*, based on if the probability of being white is 50% or higher. Table 3 summarizes the race estimates for voters and commenters using all three measures, and Figure 1 plots the race estimates using the second measure for all five groups. For all three measures of race, commenters are more likely to be white than voters; there are statistically significant differences between the proportions of commenters that are white (or probabilities that a voter is white) compared to voters, relative to the other groups.

Table 3: Race Estimates by Group

		Voters	Commenters
Mean Probability	White	0.840	0.922
	Black	0.036	0.028
	Hispanic	0.063	0.018
	Asian	0.050	0.026
	Other	0.012	0.007
Maximum Probability	White	0.875	0.953
	Hispanic	0.054	0.009
	Asian	0.041	0.017
	Black	0.025	0.019
	Other	0.005	0.002
$Pr(White) \geq .5$	White	0.867	0.949
	Not White	0.133	0.051

3.1 Race Estimate Validation

Because the MA voter file does not include race and there are no other precise aggregate racial statistics on voters, the true distribution of voters across racial groups in the towns in our sample is unknown. In order to validate our race estimates, we use the best comparison group possible, the distribution of citizen voting age population (CVAP) by town from the 2016 American Community Survey (ACS). Figure 2 plots the white CVAP percentage and the

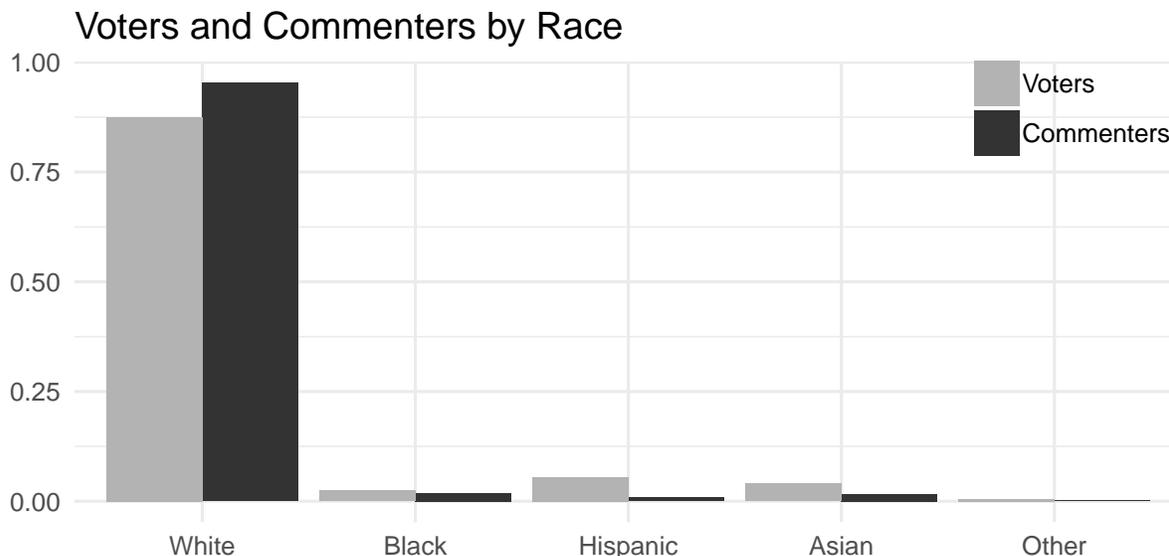


Figure 1: Commenters and Voters by Estimated Race

estimated proportion of white voters by town, ordered from the lowest percentage of white CVAP to highest. The percentage of voters estimated to most likely be white corresponds very closely to the single-race white CVAP population in each town. On average, the percentage of white voters is only 2.7 percentage points higher than the white CVAP. This difference may be attributable to several factors, including that whites may be more likely to be registered to vote than members of other groups, that mixed-race people may have names that the race estimating algorithm determined are white, and that the algorithm is systematically underestimating the minority population by a few percentage points. However, given our interest in comparing voters to commenters, this small difference between actual white CVAP and estimated white voters will not affect our results. We should expect any differences between actual and estimated race to be the same among both voters and commenters, such that differences between the two groups are unbiased.

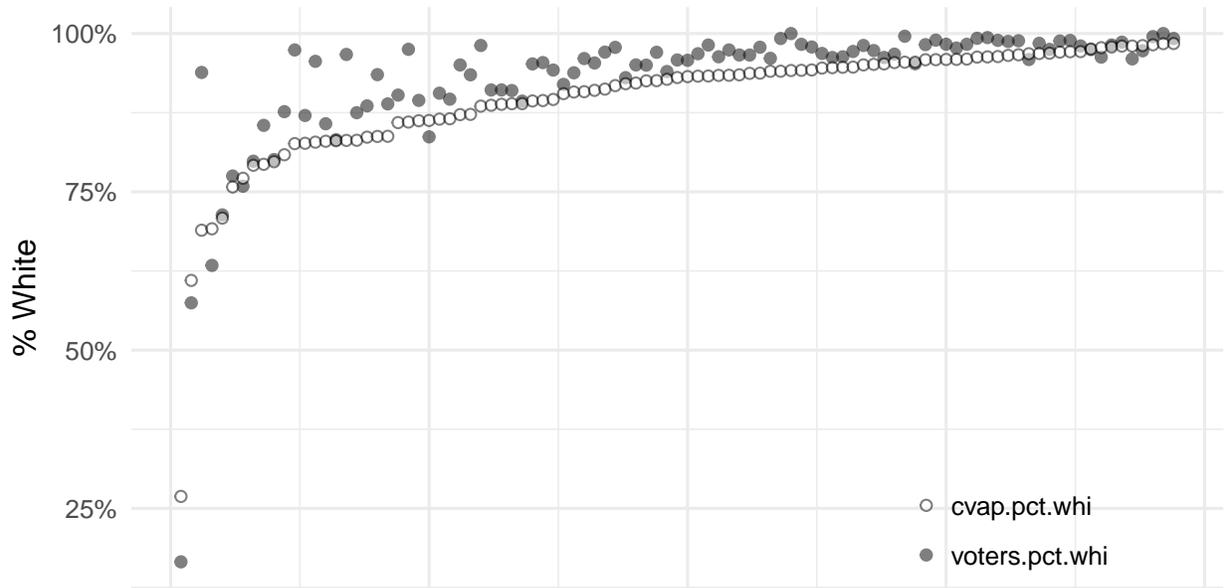


Figure 2: Race Estimate Validation: Town % CVAP and Town Voters % White

4 Results

Table 4 ranks each racial/ethnic group by the number of comments provided. As predicted, whites overwhelmingly dominate zoning and planning board meetings. While they comprise 80% of the adult population of our sample cities, they are a striking 95% of meeting participants. Latinos—8% of the sample adult population—are a mere 1% of commenters. Black representation is only marginally better; while our sample cities’ adult population is 4% black, only 2% of meeting commenters are black. While black participation is slightly higher than that of Latinos—as we anticipated—the main story is that whites are dramatically overrepresented in land use politics.

Table 5 more rigorously assesses the role of race in predicting meeting participation; it presents results from logistic regressions predicting *who comments* using a variety of demographic factors. The dependent variable in this model is a dichotomous measure of who speaks during local planning and zoning board meetings. We find that, all else equal, whites are significantly more likely to participate in local planning and zoning board meetings. This remains the case when we control for a variety of demographic factors, including, most importantly, homeownership. These race results are not simply driven by racial disparities in homeownership rates.

Table 6 illustrates that the positive relationship between homeownership and political participation is equivalent across different racial/ethnic groups. It presents cross-tabulations

Table 4: Number of Commenters and Comments by Race

	race.max	Commenters	Comments
1	White	2460	3487
2	Black	49	59
3	Hispanic	23	30
4	Asian	43	61
5	Other	5	7

Table 5: Logit Models Predicting Who Comments

	Commenter	
	(1)	(2)
Age	0.004*	0.004**
	(0.002)	(0.002)
Registration Length	0.01**	0.01**
	(0.002)	(0.002)
Female	-0.35**	-0.35**
	(0.04)	(0.04)
Democrat	0.11	0.12
	(0.07)	(0.07)
Independent	0.12	0.12
	(0.07)	(0.07)
Pct Elections Voted	1.97**	1.97**
	(0.08)	(0.08)
Homeowner	0.72**	0.72**
	(0.05)	(0.05)
Prob. White	0.43**	
	(0.10)	
Prob. Max. White		0.47**
		(0.09)
Constant	-5.27**	-5.33**
	(0.13)	(0.13)
Observations	78,944	78,944

Note: * p<0.05; ** p<0.01

of homeownership by race and participation in zoning/planning meetings. The second column shows the proportion of *all voters* who own homes, and the third column shows the proportion of *meeting commenters* who do so; both categories are also disaggregated by race and ethnicity. While the overall rates of homeownership vary substantially by race—in line with national racial disparities in homeownership—across all five groups the share of homeownership among commenters is significantly higher than among all registered voters, by a margin of 20-30 percentage points. Regardless of racial/ethnic background, meeting commenters are significantly more likely to be homeowners—consistent with higher political participation among homeowners (Hall and Yoder 2018) and accounts of land use politics as dominated by homevoters bent on protecting their investment (Fischel 2001; Trounstein Forthcoming).

Table 6: Proportion of Homeowners by Race

	All Voters	Meeting Commenters
White	0.49	0.74
Black	0.20	0.59
Hispanic	0.12	0.52
Asian	0.35	0.74
Other	0.19	0.80

4.1 Predicting Commenter Positions Using Race

White voters are more likely to comment at development meetings than non-whites. They are also markedly more likely to speak in opposition to developments. Interestingly, this result is primarily driven by greater support for housing developments among black voters relative to any other group. Black voters provided 2% of the neutral or opposing comments, but 6% of the supporting comments, while white voters provided 93% of the neutral or opposing comments and 90% of the supporting comments. Both of these differences are statistically significant; for all other groups, the difference in proportions of supporting and neutral or

opposing comments are smaller and not statistically significant.

Figure 3 compares the proportion of comments that support development by estimated race. 44% of comments by black voters supported development. In contrast, commenters of all of the other groups had proportions of supportive comments of 14% (whites and other) or less (8% of Asians, 7% of Hispanics). Notably, even among black commenters, who voice support for development at more than triple the rate of the other groups, a majority of their comments are in opposition to developments. As we noted in prior analyses of meeting participants (Einstein, Palmer, and Glick 2018), this opposition is in stark contrast to mass public support for the construction of more housing in these communities.

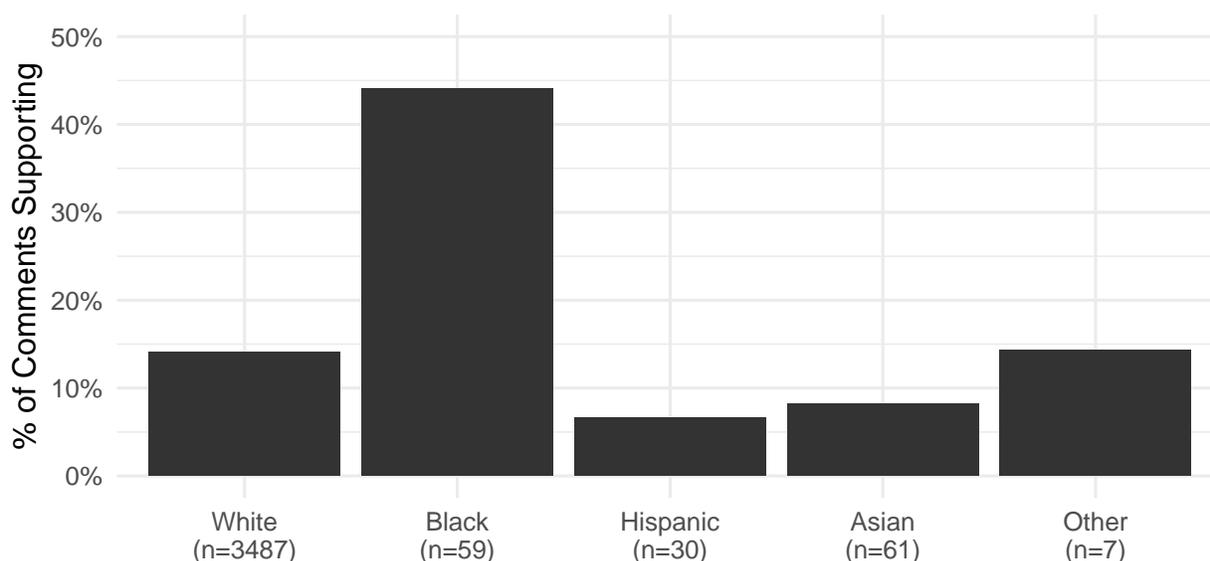


Figure 3: Comments Supporting Development by Estimated Race of Commenter

Figure 4 investigates whether differing levels of support for new housing between racial groups are driven by racial disparities in homeownership rates. While white and Asian non-homeowners are slightly more supportive of new housing than their home-owning counterparts, support among whites, Hispanics, and Asians pales in comparison to black homeowners and renters. Among black commenters, homeowners exhibited slightly higher levels of support for new housing, but the cell sizes here are too small to be confident that these differences are

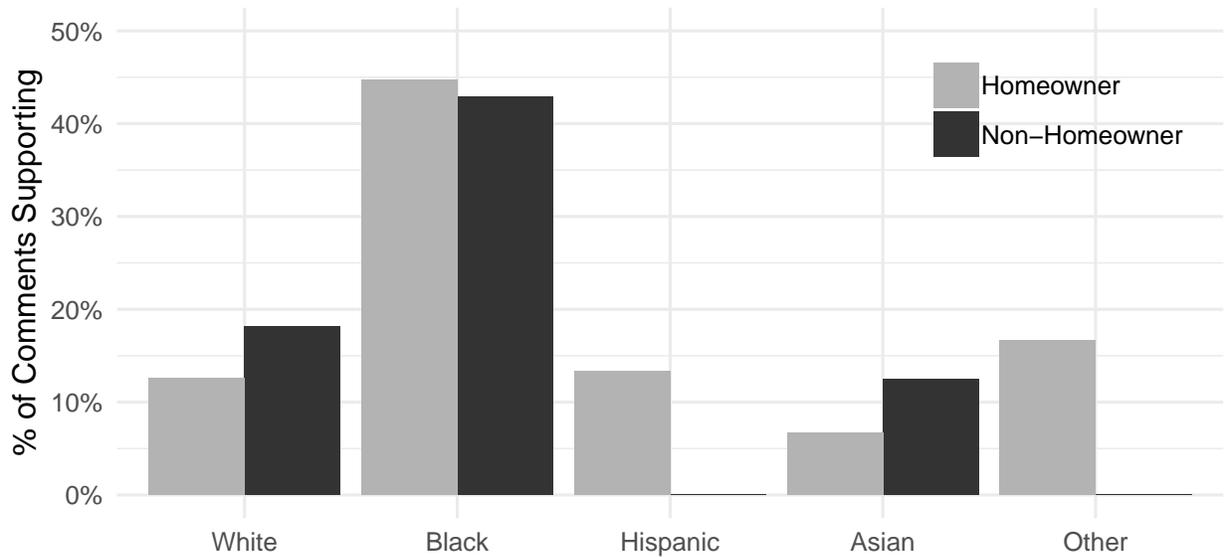


Figure 4: Comments Supporting Development by Estimated Race of Commenter

meaningful. Black homeowners and non-homeowners alike are more supportive of development than members of any other group.

Table 7 predicts the likelihood of a commenter making a supportive comment using logit models with full complements of controls. The dependent variable in these models is a dichotomous measure of whether a commenter supports a proposed housing development. As with Figure 3, we find that white commenters are significantly less likely to support new housing—a result driven by relatively high levels of support for housing among black meeting participants.

For about half of the commenters in the sample, we had sufficiently detailed meeting minutes to code the reason that an individual supported/opposed a proposed development. Table 8 displays these results. The top panel illustrates the top five reasons offered among supporters of new housing by racial/ethnic group, while the bottom panel provides the same statistics for opponents of new projects. While small cell sizes lead us to interpret these results cautiously, there are few notable differences. Blacks who support housing development were markedly more likely to cite affordability concerns relative to other racial/ethnic

Table 7: Logit Models Predicting Supporting Comments

	Commenter	
	(1)	(2)
Age	0.01 (0.005)	0.01 (0.005)
Registration Length	0.004 (0.01)	0.004 (0.01)
Female	-0.31** (0.10)	-0.31** (0.10)
Democrat	0.44** (0.16)	0.44** (0.16)
Independent	-0.04 (0.16)	-0.05 (0.16)
Pct Elections Voted	0.65** (0.16)	0.65** (0.16)
# of Comments	-0.04 (0.03)	-0.04 (0.03)
Homeowner	-0.43** (0.10)	-0.43** (0.10)
Prob. White	-0.64** (0.22)	
Prob. Max. White		-0.46* (0.20)
Constant	-1.64** (0.33)	-1.74** (0.34)
Observations	3,629	3,629
<i>Note:</i>	* p<0.05; ** p<0.01	

groups; this provides some suggestive evidence that rising housing costs and preferences for affordable housing might serve as motivators for minority participation in these forums. The overarching takeaway, however, is the remarkable similarity in the reasons cited across different racial/ethnic groups. Whites, blacks, and Latinos opposed to housing development cited septic, traffic, and environmental concerns at roughly similar rates.

Table 8: Reasons Given by Commenters in Support of and Opposition to Development

Top 5 Reasons Given to Support Development				
	White	Black	Hispanic	Asian
1	Aesthetics (13%)	Affordability (23%)	Neighborhood Character (50%)	Affordability (29%)
2	Environment (11%)	Aesthetics (11%)	Parking (50%)	Density (29%)
3	Density (11%)	Environment (11%)		Diversity (14%)
4	Affordability (10%)	Home Values (11%)		Environment (14%)
5	Neighborhood Character (9%)	Pedestrian Impact (11%)		Parking (14%)
Top 5 Reasons Given to Oppose Development				
	White	Black	Hispanic	Asian
1	Traffic (14%)	Density (14%)	Environment (15%)	Aesthetics (17%)
2	Environment (13%)	Parking (14%)	Flooding (13%)	Environment (15%)
3	Flooding (9%)	Traffic (14%)	Aesthetics (11%)	Parking (11%)
4	Safety (9%)	Environment (12%)	Septic/Water (9%)	Traffic (9%)
5	Septic/Water (8%)	Safety (10%)	Density (7%)	Density (8%)

4.2 Robustness Check: Manual Coding of Latino Surnames

To bolster these results and mitigate concerns about potential bias in the race estimation algorithm, we also manually evaluate commenter surnames to confirm whether Latinos are over- or under-represented in planning and zoning board meetings. Surname alone is highly predictive of Hispanic ethnicity (Word et al. 2000), and is commonly used in social science research to identify individual ethnicity (Barreto, Segura, and Woods 2004; Wei et al. 2006; Henderson, Sekhon, and Titiunik 2015). We manually record whether or not a commenter has a Latino surname in all towns in our sample with a Latino population greater than 10%. We focus on this subset of towns to ensure there is a sufficiently large number of Latino residents to draw reliable conclusions about the representativeness of meeting attendees.

Commenters once again appear to be *overwhelmingly* white. Of the 318 commenters who spoke at planning and zoning board meetings in towns that were at least 10 percent Latino, *only 3 had identifiably Latino surnames*. In Lawrence—which is 75 percent Latino—*only one* of 42 commenters had a Latino surname. Less than one percent of commenters in these high-diversity communities had Latino surnames—a result that comports quite closely with our findings using statistical name matching techniques.

The underrepresentation of Latinos in Lawrence Planning Board meetings also preliminarily suggests that descriptive representation—which has been helpful in mitigating other racially disparate local policy outcomes (Sances and You 2017)—may not help redress these racial participation gaps. The Lawrence, MA planning board is 40% Latino (Town of Lawrence 2018). Despite this descriptive representation in land use institutions, Latino participation in planning and zoning meetings in the city remains shockingly low.

5 Race and Representation in Local Government

This paper reveals a distressing underrepresentation of people of color in important land use proceedings. These disparities are far more stark than in other political arenas, particularly for Latinos. 9.2 percent of voters in 2016 were Latino (Krogstad and Lopez 2016). This means that the 12 percent of eligible voters and 17 percent of the general population who are Latino are certainly underrepresented among actual voters (Krogstad 2016); but, the political inequalities among voters pale in contrast with those among meeting participants. Indeed, even representation among political elites is better than among meeting participants. Ten percent of the 115th Congress is Latino (Bernal 2017). Underrepresentation of Latinos is greater in public meeting participation than it is in Congress.

These results offer an important extension on histories of land use regulations, which show that white, landowning elites create these regulations to entrench their property values and control over local public goods. We reveal that the individuals who are using these

regulations today are largely from the same populations; white homeowners comprise a large majority of meeting attendees. What's more, they overwhelmingly oppose the construction of new housing. As we have shown in other work, their voices may persuade local government officials at these hearings and signal a willingness to pursue more aggressive political and legal action to stop or delay developments (Einstein, Palmer, and Glick 2018).

Moreover, these results suggest that mobilizing people of color will not necessarily redress this oppositional bias among meeting attendees. Even among black people—the group most inclined to support new development—support for housing proposals was less than 50%. While blacks are more supportive of housing developments, we do not find racially polarized preferences among participants; majorities of all groups spoke in opposition to developments. This comports with research from Hankinson (2018) indicating that opposition to housing is not limited to homevoters: renters in high cost cities also oppose the construction of new housing in their neighborhoods, fearing it will raise their rents. While we do not know the housing views of those who do not attend these meetings, these results seemingly indicate that, even among those groups inclined to support development, it will be difficult to attract strong majorities in support of new housing to planning and zoning board meetings.

References

- Avila, Eric, and Mark H. Rose. 2009. "Race, Culture, Politics, and Urban Renewal." *Journal of Urban History* 35 (3): 335-347.
- Barreto, Matt A. 2010. *Ethnic Cues: The Role of Shared Ethnicity in Latino Political Participation*. Ann Arbor, MI: University of Michigan Press.
- Barreto, Matt A., and Loren Collingwood. 2015. "Group-based appeals and the Latino vote in 2012: How immigration became a mobilizing issue." *Electoral Studies* 40 (4).
- Barreto, Matthew A., Gary M. Segura, and Nathan D. Woods. 2004. "The Mobilizing Effect of Majority-Minority Districts on Latino Turnout." *American Political Science Review* 98: 65-75.
- Berinsky, Adam. 2005. "The Perverse Consequences of Electoral Reform in the United States." *American Politics Research* 33 (4): 471-491.
- Bernal, Rafael. 2017. "Latino representation in Congress at record high, but far from parity." *The Hill*. Available at <http://thehill.com/latino/350673-latino-representation-in-congress-at-record-high-but-far-from-parity>. Accessed on August 22, 2018.
- Berry, Jeffrey M., Kent E. Portney, and Ken Thomson. 1993. *The Rebirth of Urban Democracy*. Washington, D.C.: Brookings Institution Press.
- Dawson, Michael C. 1995. *Behind the Mule: Race and Class in African-American Politics*. Princeton, NJ: Princeton University Press.
- Dreier, Peter, John Mollenkopf, and Todd Swanstrom. 2013. *Place Matters: Metropolitcs for the 21st Century, Second Edition*. Lawrence, KS: University Press of Kansas.
- Einstein, Katherine Levine, David M. Glick, and Conor LeBlanc. 2017. "2016 Menino Survey of Mayors". Available at <https://www.bu.edu/ioc/files/2017/01/2016-Menino-Survey-of-Mayors-Final-Report.pdf>. Accessed on August 14, 2017.
- Einstein, Katherine Levine, Maxwell Palmer, and David M. Glick Glick. 2018. "Who Participates in Local Government? Evidence from Meeting Minutes." *Perspectives on Politics*. Available at https://www.dropbox.com/s/k4kzph3ynal3xai/ZoningParticipation_Perspectives_Final.pdf?dl=0. Accessed on August 22, 2018.
- Fischel, William A. 2001. *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*. Cambridge, MA: Harvard University Press.
- Fung, Archon. 2006. *Empowered Participation: Reinventing Urban Democracy*. Princeton, NJ: Princeton University Press.
- Gerber, Elizabeth R., and Justin H. Phillips. 2003. "Development Ballot Measures, Interest Group Endorsements, and the Political Geography of Growth Preferences." *American Journal of Political Science* 46 (4): 625-639.

- Gilens, Martin. 2014. *Affluence and Influence: Economic Inequality and Political Power in America*. Princeton, NJ: Princeton University Press.
- Glaeser, Edward L., and Bryce Ward. 2009. "The Causes and Consequences of Land Use Regulation: Evidence from Greater Boston." *Journal of Urban Economics* 65 (3): 265-278.
- Gutmann, Amy, and Dennis Thompson. 2012. *The Spirit of Compromise: Why Governing Demands it and Campaigning Undermines It*. Princeton, NJ: Princeton University Press.
- Gyourko, Joseph, and Raven Molloy. 2014. "Regulation and Housing Supply." NBER Working Paper 20536.
- Hajnal, Zoltan L., and Jessica L. Trounstein. 2016. "Race and Class Inequality in Local Politics." In *The Double Bind: The Politics of Racial and Class Inequalities in the Americas*, ed. Juliet Hooker and Jr. Alvin B. Tillery. Washington, D.C: American Political Science Association.
- Hall, Andrew B., and Jesse Yoder. 2018. "Does Homeownership Influence Political Behavior? Evidence from Administrative Data." Available at <http://www.andrewbenjaminhall.com/homeowner.pdf>. Accessed on August 22, 2018.
- Hankinson, Michael. 2018. "When Do Renters Behave Like Homeowners? High Rent, Price Anxiety, and NIMBYism." *American Political Science Review* 112 (3): 473-493.
- Henderson, John A., Jasjeet S. Sekhon, and Rocio Titiunik. 2015. "Cause or Effect? Turnout in Hispanic Majority-Minority Districts." Working paper. University of California at Berkeley and University of Michigan. <http://www-personal.umich.edu/~titiunik/papers/HispanicTurnout.pdf>.
- Imai, Kosuke, and Kabir Khanna. 2016. "Improving Ecological Inference by Predicting Individual Ethnicity from Voter Registration Records." *Political Analysis* 24: 263-272.
- Judd, Dennis R., and Todd Swanstrom. 2014. *City Politics*. New York: Routledge.
- Kain, Bruce. 2012. *Democracy More or Less: America's Political Reform Quandary*. New York: Cambridge University Press.
- Kelley, Pam. 2016. "How urban renewal destroyed Charlotte's Brooklyn neighborhood." *Charlotte Observer*. Available at <http://www.charlotteobserver.com/news/local/article66934337.html>. Accessed on February 23, 2018.
- Krogstad, Jens Manuel. 2016. "Key facts about the Latino vote in 2016." Pew Research Center. Available at <http://www.pewresearch.org/fact-tank/2016/10/14/key-facts-about-the-latino-vote-in-2016/>. Accessed on August 22, 2018.
- Krogstad, Jens Manuel, and Mark Hugo Lopez. 2016. "Black voter turnout fell in 2016, even as a record number of Americans cast ballots." Pew Research Center. Available at <http://www.pewresearch.org/fact-tank/2017/05/12/black-voter-turnout-fell-in-2016-even-as-a-record-number-of-americans-cast-ballots/>. Accessed on August 22, 2018.

- Lassen, David Dreyer, and Soren Serritzlew. 2011. "Jurisdiction Size and Local Democracy: Evidence on Internal Political Efficacy from Large-scale Municipal Reform." *American Political Science Reviews* 105 (2): 238-258.
- Logan, John R., and Gordana Rabrenovic. 1990. "Neighborhood Associations: Their Issues, Their Allies, and Their Opponents." *Urban Affairs Review* 26 (1): 68-94.
- Marble, William, and Clayton Nall. 2017. "Beyond 'NIMBYism': Why Americans Support Affordable Housing But Oppose Local Housing Development." Available at https://www.dropbox.com/s/bdo3riekpnywgot/MarbleNall_NIMBYPaper.pdf?dl=0. Accessed on August 15, 2017.
- Masuoka, Natalie. 2008. "Defining the Group: Latino Identity and Political Participation." *American Politics Research* 35 (1).
- Michels, Ank, and Laurens De Graaf. 2010. "Examining Citizen Participation: Local Participatory Policy Making and Democracy." *Local Government Studies* 36 (4): 477-491.
- Oliver, J. Eric. 2001. *Democracy in Suburbia*. Princeton, NJ: Princeton University Press.
- Oliver, J. Eric, Shang E. Ha, and Zachary Callen. 2012. *Local Elections and the Politics of Small-Scale Democracy*. Princeton, NJ: Princeton University Press.
- Rae, Douglas W. 2004. *City: Urbanism and Its End*. New Haven, CT: Yale University Press.
- Rothstein, Richard. 2017. *The Color of Law*. New York: W.W. Norton.
- Sances, Michael W., and Hye Young You. 2017. "Who Pays for Government? Descriptive Representation and Exploitative Revenue Sources." *Journal of Politics* 79 (3): 1090-1094.
- Schleicher, David. 2013. "City Unplanning." *Yale Law Journal* 122: 1672-1736.
- Schlozman, Kay, Sidney Verba, and Henry E. Brady. 2012. *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy*. Princeton, NJ: Princeton University Press.
- Tighe, J. Rosie. 2010. "Public Opinion and Affordable Housing: A Review of the Literature." *Journal of Planning Literature* 25 (1): 3-17.
- Town of Lawrence. 2018. "Planning Board." Available at <http://www.cityoflawrence.com/572/Planning-Board>. Accessed on August 22, 2018.
- Trounstine, Jessica. 2008. *Political Monopolies in American Cities: The Rise and Fall of Bosses and Reformers*. Chicago: University of Chicago Press.
- Trounstine, Jessica. Forthcoming. *Segregation by Design*. New York: Cambridge University Press.
- Verba, Sidney, Kay Lehman Schlozman, and Henry E. Brady. 1995. *Voice and Equality*. Cambridge, MA: Harvard University Press.

- Weaver, Vesla M., and Amy E. Lerman. 2010. "Political Consequences of the Carceral State." *American Political Science Review* 104 (4): 817-833.
- Wei, Iris I., Beth A. Virnig, Dolly A John, and Robert O'Morgan. 2006. "Using a Spanish Surname Match to Improve Identification of Hispanic Women in Medicare Administrative Data." *Health Services Research* 41: 1469-1481.
- Word, David L., Charles D. Coleman, Robert Nunziata, and Robert Kominski. 2000. "Demographic Aspects of Surnames from Census 2000." Available at <http://www2.census.gov/topics/genealogy/2000surnames/surnames.pdf>.