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Smart growth at the ballot box: Understanding voting on affordable housing and land management referendums\textsuperscript{1}

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Abstract: This study investigates voter decision making on two smart growth components: land preservation and affordable housing. We seek to understand how voters make concurrent decisions about unpaired smart growth components at the ballot box. Previous studies of smart growth, affordable housing, and environmental preservation have focused primarily on describing the attitudes and traits of voters on these policies, utilize aggregate voting outcomes, or are case studies of single towns in which there is a fairly homogenous group of residents either supporting or opposing the policy. We draw on a unique data set to investigate the different covariates of attitudes for environmental preservation and affordable housing: an exit poll of voters in the 2016 Rhode Island General Election on bond referendums for environmental preservation and affordable housing. We find that the coalition for smart growth that includes both land preservation and affordable housing is undermined by views of minorities and the poor as undeserving.

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“The environmental justification for [growth control] policies that just happen to increase existing home values is a shield against outside criticism of exclusion and a source of unification among homeowners with otherwise unequal interest in the policies.” -- Fischel (2017, p. 7)

Columnist and economist Paul Krugman (2017) argues that both political parties get land-use regulation “wrong.” Places with a high degree of housing regulation, he points out, are better prepared for environmental disasters and have less traffic congestion and pollution, but these regulations stifle economic growth and the economic prospects of the working class by driving up housing prices (Krugman 2017). Clearly, smart land use has two distinct but inextricably linked elements: land preservation and housing affordability. Regardless of which, if you have one but not the other, there are negative social and environmental repercussions (Downs 2004). As a result, local and state government efforts to conserve land helps the environment, but also acts as an “exclusionary zoning policy” because these programs keep out lower income renters and owners by reducing “the supply of land for more affordable and/or denser forms of housing and thereby displace growth to even further exurban areas, exacerbating the sprawl they claim to thwart.” (Schmidt and Paulson 2009, 97). As a result, land protection policies that do not make allowances for affordable development can cause even more sprawl as well as racial and economic exclusion (Ibid). This is largely because the preservation of open space drives up housing prices both locally and regionally (e.g. Irwin 2002; Geoghegan et al 2003; e.g., Geoghegan 2002; Luttik 2000; Sander and Polasky 2009; Irwin and Bockstael 2004; Lang 2018) and leads to economic segregation (Pendall 2000; Rothwell and Massey 2010; Lens and Monkkonen 2016). As Lang (2018) notes “average housing prices increase about .68-1.12% for every $1000 per household of open space spending authorized.” While the appreciation
implies that households value land conservation, conservation also leads housing prices to escalate out of the reach of lower and median income households.

As a result of this paradox, land planners promoting “smart growth” or “growth management” advocate for preserving land and building affordable housing through well-designed regional plans (e.g. Nelson et al 2002). However, in most scenarios, politicians and voters consider policies on land use in isolation—an environmental preservation initiative here and a regulation to preserve or increase affordability of housing there—not in tandem. This is especially true in referendums where the money to implement community land-use initiatives has to be approved by voters.

Referendums are also an especially attractive means of local policymaking because they allow policymakers to punt important policy decisions to voters. When voters choose policy issues one at a time, rather than together, they will often make different choices because trade-off preferences differ from distinct preferences when voters struggle to see the logical link between seemingly disparate policy areas (e.g. Dyck 2006; Lacy and Niou 2004). This disparity/discongruity is exacerbated by the fact that the coalitions that advocate for land preservation and those that advocate for affordable housing are separate and unique (Kling et al. 1995; Orfield 2002; Phelps and Wood 2011; Phelps et al. 2010; McCauley and Murphy 2013; Fischel 2017) so voters do not link the two issues in their minds. But also, importantly, housing policy is critically intertwined with the politics of economic and racial privilege (Squires and Kubrin 2005).

We seek to understand the political, racial/class dynamics of outcomes of unpaired smart growth proposals by taking two intertwined progressive agenda items and investigating the political coalitions that fraction support for policies that can both preserve the environment and
promote socioeconomic mobility, stability, and equality of opportunity as defined by geography. Our approach greatly improves upon previous studies. First, there is an extremely limited number of studies that examine preferences of individuals on smart growth proposals either individually or when combined. Second, we improve upon most public opinion surveys by utilizing an exit poll of voters who had just cast ballots on two smart-growth ballot referendums. Thus, we are able to capture voter attitudes just moments after they have made a decision to support both, one of, or none of the smart growth proposals.

Here, we analyze patterns of individual voting choices on two ballot referendums on the 2016 Rhode Island General Election ballot regarding environmental preservation and affordable housing to uncover the micro-level determinants of macro-electoral outcomes. In effect, we investigate the question “if smart growth is popular in theory, why do we see it so rarely?” as posed by Downs (2005). And a second question: Is the reason the US has had so little smart growth that includes both affordable housing and land preservation due to negative stereotypes of minorities and the poor, as has been suggested by the extant case study literature? Our results support our hypothesis that voter decision making on the individual components of smart growth is more complex than has generally been portrayed in the land planning, political science, and economics literatures. Attitudes toward target groups are correlated with the likelihood of breaking the coalition for smart growth and voting in ways that exacerbate sprawl and economic inequality.

The Undeserving Poor, Interjurisdictional Competition and Housing/Land-Use Policy

Housing and land-use policy has always been linked with the politics of race and class (e.g. Rothstein 2017; Massey and Denton 1993; Wilson 2006; Pulido 2000). Racial covenants were used for many decades by locales to keep African-Americans and other minorities from
purchasing or renting housing units; however, after these policies were struck down by the Supreme Court and legal barriers to integration fell, neighborhoods and towns found other ways to constrain the ability of minorities to access housing. These policies took “race neutral” approaches and, as a result, had the effect of creating a formal structure of class, instead of race, segregation in the American housing market—that is, economic and racial housing segregation is at least partially due to policies that drive the price of housing beyond affordability in middle and upper class White areas (Squires and Kubrin 2005).

While many of these policies appear aimed at environmental preservation, there is now a well-established literature from scholars in political science, economics, and land planning which argues that environmental justifications for restrictive voting practices are often an attempt by middle class White property owners to use environmental language for policies that are really aimed at White protectionism and housing exclusion (Fischel 2017; Schmidt and Paulsen 2009; Frieden 1979; Gottlieb 1993; Rome 2001). However, while aggregate studies and case studies lead these scholars to suggest that there is more than environmentalism driving these land-use policies, very few studies investigate individual level decision-making on smart growth referendums (see Wassmer and Lascher 2006; Mohamed 2008; Handy et al. 2008; Lewis and Baldassare 2010; Tian, Ewing and Greene 2015) and no literature that we know of investigates attitudes about minorities and the poor and attitudes toward smart growth measures using a large-N study. Instead, studies that exist are largely based on aggregate data from elections and case studies of local land-use decisions. In addition, the literature to date has failed to take into account whether or not the views attributed to individuals are a product of the ecological inference fallacy—where the actions that appear when using aggregate variables are not reliable
for individuals (e.g. King, Tanner and Rosen 2004; also see Prendergast et al. 2019, specifically about ecological fallacy issues on views of land preservation).

The research presented here improves on the literature by providing evidence of individual level views on unpaired smart growth proposals using a large-N study of actual voters that is able to control for individual perceptions of those perceived as benefiting from increased housing supply as well as opinions about environmental issues. We propose that voter decision making on these questions at the ballot box will be linked to views of the poor and minorities as undeserving (e.g. Katz 1989) as well as views of the environment due to the ways in which voters make decisions when they lack full information. Foremost, support for social programs has long been wrapped up in views toward “target populations.” As Schneider and Ingram (1993, p. 334) explain, social constructions “become embedded in policy as messages that are absorbed by citizens and affect their orientations and participation.” The target populations for environmental preservation are seen as benefiting “strong and positive” target populations—farmers, hikers and bikers, endangered species, and existing homeowners—while limiting development that might service lower income minorities (e.g. Schmidt and Paulsen 2009; Fischel 2017). Affordable housing, on the other hand, is associated with “weak and negative” target populations, most specifically, the “undeserving poor” (e.g. Katz 1989; Gilens 1999; Vale 2002; Tighe 2012). The “undeserving poor” is a term coined by Katz (1989) to explain how, throughout American history, impoverished people have been seen as people who do not deserve sympathy primarily because their poverty is seen as a result of laziness and immorality. This view of poverty is one of personal failure and used to justify a non-governmental approach to poverty—if it is the individual’s fault they are impoverished, then it is the individual’s (and not the government or society’s) responsibility to remedy the issue.
In line with a long line of scholarship regarding public support for social program investment and views of the “undeserving poor,” we assert that support for/opposition to smart growth development that includes affordable housing is linked to views of the perceived beneficiaries of government investment in affordable housing. Voters with views consistent with a view of the “undeserving poor” will be more likely to support land preservation/acquisition and oppose investment in affordable housing—in effect, stereotypes of those who benefit from investments in affordable housing will lead voters to “break the coalition” for smart growth.

Second, we propose that people may have strong place-based identities and identify politics as a competitive jurisdictional game. Where people live profoundly influences how people understand politics. As Cramer (2016) notes, White voters from outside the cities, view politics through a geographic lens whereby government is an agent redistributing resources to benefit urban minorities at the expense of rural Whites. Many land-use policies, including open space preservation as well as affordable housing and other new development projects, have consequences that are perceived differently in different geographic areas. For example, despite the fact that jobs for the working class sprawl across states and are not located in concentrated urban environments in most places (Ewing et al. 2016), and the vast majority of the United States lacks adequate affordable housing (Getsinger et al. 2017), many suburbanites argue that affordable housing is not needed in their communities because it is not where the working class currently lives. Affordable housing is perceived as a “city issue.”

If policies have a spatial element (e.g. housing is built in one area, a farm is preserved in another) the costs of these policies fall on people differently depending on where they live. Research suggests that open space preservation is generally most popular in areas in which there are or once were significant land-based natural resources (farms, forests, wetlands) and where
there has been a high degree of development threatening those resources (e.g. Kotchen and Powers 2006) and, importantly, is highly associated with perceptions of land use but not with objective measures of land use (Prendergast et al. 2019). Thus, voters likely vote for/against these initiatives in response to where they think the land will be preserved and where the housing will be built (also see Mohamed 2008). In the case of support for government expenditures on smart growth elements, then, one would expect that voters weigh how they believe the expenditures will affect their community. Particularly when it comes to state or regional plans, voters also consider how the money will be spent since both policies may be perceived as having diffuse costs but concentrated benefits (Gerber and Phillips 2003). Thus, there is some inter-jurisdictional competition for resources.

In the case of open space preservation, voters are likely to assume that if the money is spent in their jurisdiction, the externalities created will be positive. Preservation of farms and forests could have a positive or at least non-negative impact on housing values, traffic is not likely to increase, and public expenditures will not be affected beyond the initial expenditure to acquire the land. In effect, spending on open space preservation is spending to protect the status quo against development perceived as having negative externalities (e.g. Gerber and Phillips 2003). People may then be willing to vote in favor of the proposition when they believe the preservation will occur in their town. However, in the case of affordable housing, we would expect the inverse. There is a long tradition of people battling the development of affordable housing in their community (e.g. Dear 1992; Scally 2012; Scally et al. 2013; Tighe 2010). Thus, we expect voters who believe their town will be the recipient of the state’s investment in affordable housing will be less inclined to support it. Generating from this theory we propose that, while voters will be more likely to vote for environmental preservation if they think it will
be in their town, they will be *more* likely to vote *against* affordable housing if they think it will be in their town — the opposite of a “smart growth” plan.

There are a host of other factors that may go into the decision to vote for or against each of these issues, and we control for as many of these factors as possible. However, none are clear that they would lead voters to split their vote except concern over the environment and population. Much of the literature on land preservation and growth management focuses on concerns over the environment and population growth and has suggested that the link between these comes from the fact that the state’s role in growth management developed out of and at the same time as the environmental and population sustainability movements of the 1960s and 1970s (Bengston et al. 2004; Fischel 2017). However, people may not fully understand how access to affordable housing affects the environment, despite that when affordable housing is concentrated in silos and not well distributed to all areas where low income work is available, the working class have to commute farther (Cervero and Duncan 2006), emitting more exhaust and resulting in other negative environmental effects. Thus, we posit that concerns over the environment and population growth may lead voters to split their ticket and vote *for* environmental preservation efforts and *against* affordable housing measures which would suggest that it is not due to racial concerns but truly are driven by concern (and a misunderstanding) over the environment.

**Study Data and Methodology**

This study seeks to understand the correlates of voter decision making on two smart growth components: land preservation/acquisition and affordable housing. Specifically, we investigate whether voters utilize different heuristics when weighing how to vote on the different components of smart growth when they are presented as discrete choices. Previous studies of smart growth, affordable housing, and environmental preservation focus primarily on describing
the attitudes and traits of voters on these policies, utilize aggregate voting outcomes, or are case studies of single towns in which there is a fairly homogenous group of residents either supporting or opposing the policy. We improve upon this research by drawing on a unique dataset to investigate the different covariates of attitudes for land preservation and affordable housing: an exit poll of voters in the 2016 Rhode Island General Election. This election was a unique opportunity to study attitudes toward the discrete components of smart growth policies because it contained two bond referendum questions pertaining to each unique aspect of smart growth. One referendum sought approval for bonds for environmental purposes explicitly including land preservation/acquisition; the other referendum sought approval for bonds to build affordable housing. These two distinct referendums, occurring on the same ballot, offer a unique opportunity to understand the competing factors that influence opinions on smart growth proposals, specifically voters’ concerns about target groups and the geographic nature of state expenditures.

The Context of the Rhode Island Exit Poll

Unlike sunbelt cities, where affordable housing has come at the cost of land preservation, Rhode Island voters have been very active over the last few decades in preserving the environment. Several studies have focused on attitudes toward land preservation in New England and, specifically, Rhode Island (e.g. Altonji et al 2016; Johnston et al. 2003; Swallow and McGonagle 2006). The state has had sixty-one local and statewide ballot questions to preserve undeveloped land since 1998 (LandVote 2019). As a result, the land available for the building of new homes has become relatively scarce. Rhode Island also has had quickly increasing housing costs while simultaneously experiencing fairly stagnant economic growth (e.g. Housing Works 2016).
The 2016 ballot in Rhode Island reflected both of these pressures. Question 6, titled “Green Economy,” (GE) sought approval for the state to issue a bond for 35 million dollars which included eight million dollars in open space land acquisition in addition to money for the beautification of or restoration of existing open space (such as building of bike paths and park restoration). Question 7, titled “Housing Opportunity,” (HO) sought approval for the state to issue a bond for 50 million dollars to build affordable housing (40 million) and support urban redevelopment (10 million). A copy of the ballot for these items is included in Appendix B.

Most existing research on “NIMBY” and “YIMBY”-ism focus on the small group of citizens who actively come and either work for or against a proposed project. However, these highly engaged citizens are usually quite different from the average voter. Our survey is an improvement over existing research because we are able to capture the views of a cross-section of voters focusing on two ballot initiatives in the real world.

To harness the uniqueness of this election, in which both issues were on the ballot simultaneously, the authors conducted a survey of voters exiting the polls on Election Day about their voting choices on these two bonds. A full description of the exit poll and its methods is included in the supplementary appendix. The questions were field tested prior to the election and the survey was offered in both Spanish and English.\(^1\) Polling locations were determined to reflect the racial, ethnic and political distribution of the state. However, Democratic voters agreed to take the survey more than Republican voters, as is quite common in exit polls (Best and Krueger 2012), despite attempts to oversample areas with high Republican voting. White voters were also slightly overrepresented. To account for these issues, weights are used to reflect the state’s demographics according to the 2010 census,\(^2\) the actual presidential vote and the actual outcome
for the two bond referendums. Although we present weighted data throughout this paper, the results are substantively equivalent if weights are not included in the models.

Another benefit of this design is that ballot referendums offer a unique opportunity to study public opinion in practice—where the rubber meets the road—instead of when there are no real consequences to a voter’s opinion on an issue. While public opinion polls do very well at gauging public support for broad ideas, things often change when voters are actually asked to approve specific measures, designed to achieve broad goals, on the ballot (e.g. Bowler and Donovan 2004; Dyck and Lascher 2009). By focusing on real ballot questions, our research provides a better measure of popular attitudes because we ask about actual decisions that voters made, just moments before, about what their tax dollars will pay for as well as the direction their state will take in terms of growth management. The survey is an improvement over existing research because we are able to capture the views of a cross-section of voters focusing on two ballot initiatives in the real world instead of either a) using demographic variables which may present ecological fallacy problems as many studies of referendums do or b) studying only very actively engaged citizens that show up at town hall meetings and protests as many case studies do. That said, one drawback of studying these bond referendums is that while they asked voters to approve funds for general programs, the referendums do not specify where these funds will be spent. Considerable evidence suggests that voters may approve of these types of programs in general but reject them when they get “closer to home.” For example, Gerber and Phillips (2003) find that voters who vote for pro-growth ballot referendums are more likely to vote in favor the further away they are from the project. Whereas research on open space, bike paths, and other conservation efforts suggests local voters desire these projects to be in their neighborhood (e.g. Romero and Liserio 2002). Thus, while voters may have voted for these issues on the ballot,
there may not be the same acceptance of the actual programs these bonds will pay for once
locations are proposed. Nevertheless, given the strong external validity of our research and the
fact that we capture views of actual voters across a state, this research offers an original and
important contribution.

**Variables**

The second and third questions on the survey asked the respondents how they voted on
each of the two bonds of interest. The answer options included: “approve,” “reject,” and “I left
this question blank.” Following the method employed by Mohamed (2008) to measure the
differences between voters on open space preservation and voters who supported urban
revitalization, we combined the voters’ responses on these two referendums to place respondents
into one of four categories of a multinomial variable:

1) Voted to approve neither bond question (Group 1)
2) Voted to approve “Housing Opportunity” only (Group 2)
3) Voted to approve “Green Economy” only (Group 3)
4) Voted to approve both bond questions (Group 4—comparison group)

Table 1 shows the weighted percentage of respondents who fell into each group. A
majority voted in favor of both bonds. For those who chose to vote for only one, more voters
supported “Green Economy” (GE) than “Housing Opportunity” (HO): Only about 7% of voters
cast a ballot approving HO bonds but rejecting GE bonds, whereas just over 14% said they voted
to approve GE bonds but rejected the HO bonds.³

[Table 1 about here]
The combination of these four groups into one multinomial variable allows us to utilize multinomial regression so that we can compare voters in each group to a common reference group. In this case, that reference group is Group 4 (respondents voting to approve both GE bonds and HO bonds). This group was chosen because it is the coalition group necessary for smart growth and the voters that vote in favor of both elements. It is those who voted for one bond but not the other who are the focus of our study. Multinomial regression coefficients can be interpreted as representing the log-odds of a respondent falling into that category versus the reference category when all other variables in the model are held constant. Thus, the results present the log-odds that a voter belongs to Groups 1, 2 or 3 relative to Group 4.

The independent variables of interest fall into several categories to test our hypotheses and control for other factors. The first hypothesis asserts that voter decision-making on these bonds will be correlated with views of the deservingness of minorities and the poor (e.g. views of the “undeserving poor”). For this variable, we utilize an additive index of two questions that capture views towards minorities and the poor. The survey asked voters the extent to which they agreed or disagreed with a series of statements. The two statements we utilize to tap into respondents’ views of the deservingness of the poor are “Low income residents are a burden on the local school system” and “If minorities would only try harder they could be just as well off as Whites.” These two variables were specifically designed to capture how people view the target groups most associated with affordable housing and those that would benefit from increased growth in residential units. We used both a measure of minorities and the poor because the literature (e.g. Katz 1989; Gilens 1999) points to the fact that minorities have been widely portrayed by the media as overrepresented among the poor, and when the poor are presented negatively they are overwhelmingly presented as also from a marginalized racial/ethnic group.
However, these two views should be additive in nature—those who are the most negative toward both minorities and the poor should be the most likely to reject affordable housing but approve of land regulations that decrease access to new groups of residents.

Our first hypothesis expects higher values on this variable to be positively correlated with a respondent’s likelihood of being in Group 3—supporting “Green Economy” bonds only (e.g. voting for “Green Economy” and against “Housing Opportunity”) compared to voting for both bonds.

The next two hypotheses assert that voters will vote based on where they expect the money from the bonds will be spent, comparing their town to other towns in the state. We test these hypotheses by utilizing two questions on the survey. For both bonds, the survey included the question “If approved, how much of the money from the [Green Economy/Housing Opportunity] Bonds do you think will be spent in your city/town?” Respondents could choose “similar to other towns”, “more than other towns” or “less than other towns.” Given the research on NIMBY responses to affordable housing and YIMBY responses to environmental preservation reviewed above, we expect that those who think their town will receive more money than others on GE bonds will be more likely to vote in favor of GE bonds and those who think their town will get more money on HO bonds will be more likely to vote against HO bonds. As a result, those who believe their town will get more GE money and more HO money will be more likely to “break the coalition” and cast their ballot in favor of only the GE bonds compared to voting for both (and so, more likely to be in Group 3). Whereas those who think they will get more GE and less HO should be more willing to support both bonds.

These hypotheses are consistent with Gerber and Phillip’s (2003) findings that voters tend to support pro-growth policies if voters perceive the growth as far away and so the negative
externalities of the development would be felt by other areas than their own while believing that they will benefit by the positive externalities (employment and economic growth) as well as many studies’ findings that voters are willing to pay for local land acquisition as they perceive it as having a direct positive effect on their housing prices (e.g. Fischel 2017).

Our fourth hypothesis posits that those who are the most concerned about the environment will also be the most likely to fall into Group 3, and vote for GE bonds but against HO bonds. However, if Fischel (2017) and Schmidt and Paulsen (2009) are correct that environmentalism is only a justification for supporting exclusionary, home value-increasing regulatory practices, we should see that environmentalism is unassociated with being in Group 3. We test this hypothesis utilizing two questions regarding people’s attitudes toward climate change and population growth. Again, these attitudes are measured utilizing two agreement statements. The first stated “Climate change is a major concern” and the second stated “We are approaching the limit of the number of people the earth can support.”

There is the chance that voter preferences on statewide ballot referendums, unlike local initiatives, may be a reflection more of voters’ general ideological attitudes and their attitudes toward government in general than of their views about the specific policy. To account for this, we include a host of control variables meant to capture general ideological preferences that could affect voting on these bond referendums. The first set of control variables generate from a set of agree/disagree statements regarding the economy that are likely correlated with attitudes toward the government’s role in building homes and preserving land. These include: (1) “The government should not be involved in regulating the economy,” (2) “Building more homes in my community would benefit the local economy,” and (3) “I trust the state government to do what is right most of the time.” We expect those who believe building homes to be beneficial to the
economy to be positively correlated to voting for HO bonds and against GE bonds (Group 2). In regard to building homes (2) and government trust (3), the effect of building homes should increase the likelihood of the voter being in group 1, 2 or 4 and decrease the likelihood of the voter being in group 3. Government trust should lead voters to vote for neither and does not have a clear association with voting for one bond over the other, which is our primary interest.

We also include two indicators of the voter’s financial situation. The statement “My family struggles to meet expenses each month” taps into the level of financial security felt by the respondent. We expect those who are struggling to meet expenses will be more likely to support HO bonds (Group 2 or 4). In addition, we asked “When housing prices in your area increase, how does it affect you?” (with response options of very beneficial, somewhat beneficial, somewhat harmful, or very harmful). Intuitively, we expect that people who perceive housing price increases as harmful to be more likely to support HO bonds over both (Group 2) and those who perceive it as beneficial to support GE bonds over both (Group 3).

We also include a standard set of control variables including a 5-point party ID scale, homeownership, income, education, age, gender, and racial/ethnic identification. Given the prominence of the presidential election, we also control for having voted for Donald Trump. Based on the literature to date on both environmental preservation and affordable housing, we expect Republicans to be more likely to vote against both bonds (Group 1), but HO bonds in particular (Group 3), renters to be more likely to vote in favor of HO bonds than homeowners (Group 2), and White voters to be less likely to support HO bonds but to vote in favor of GE bonds (Group 3).

Looking beyond the individual level, we also include a set of controls for the neighborhood in which the respondent lives based on the location of the precinct. These include
median household income, percentage White, and percentage with a college education. To calculate these, we geo-referenced and matched the precinct voting location addresses in ArcGIS with census-tract level demographic statistics from the 2008-2012 American Community Survey 5-Year estimates. Each of these variables have been re-scaled to range from 0 to 1 where 0 is the precinct with the lowest value and 1 is the precinct with the highest value. In general, several demographic variables have been found to correlate with attitudes toward affordable housing: High income and education areas tend to be the most opposed to affordable housing (Dear 1992; Koebel et al. 2004; Wilton 2002). Likewise, most research on open space preservation and land-use planning that protects the environment focuses on demographic variables (e.g. York et al 2013; Wassman and Lascher 2006; Lowry and Krummenacher 2016; Lowry 2018) and finds White, upper income, higher education areas support environmental preservation.

The estimation equation takes the following form:

\[
Bond \ Support_{ijk} = \alpha_j + \beta_1(Views \ of \ Undeserving \ Poor)_i + \\
\beta_2(Views \ of \ Distribution \ of \ Spending)_i + \beta_3(Attitudinal \ Controls)_i + \\
\beta_4(Demographics)_i + \beta_5(Neighborhood \ Demographics)_k + \epsilon_{ijk}
\] (3)

where \( Bond \ Support_{ij} \) is the support voter \( i \) in precinct \( k \) gave to the two bonds indexed by \( j \). \( \beta_1 \) is the coefficient of interest in this model as it signifies the impact of the measure of attitudes toward minorities and the poor and \( \beta_2 \) is a vector of coefficients on how the views of the distribution of spending affects the likelihood a respondent would support the bonds. \( Attitudinal \ Controls_i \) is a vector of individual level attitudes toward government, housing and the economy, \( Demographics_i \) is a vector of individual level demographic and political variables, and \( Neighborhood \ Demographics_k \) is a vector of demographics for neighborhood \( k \).

**Results**
A brief review of some descriptive statistics shows some interesting findings in terms of people’s attitudes toward the bonds and where the money would likely be spent. About 45% of the sample said that their town would likely receive similar GE bonds as other towns and another 42% of respondents said their town would get less than other towns. Only about 13% said they would receive more funds. Similarly, in terms of the HO bonds, 48% of respondents said their town would get less of the money from these bonds. About 39% said they would receive the same, and again, 14% said that their town would likely receive more of the funds. This finding suggests that voters in Rhode Island perceive their towns as having a competitive disadvantage against other towns when it comes to state spending. In terms of perceptions of the undeserving poor, respondents who voted against both bonds had a mean response of 2.79 on the undeserving poor additive measure, very similar to those who voted for the GE bonds only, with a mean of 2.58. Those who voted for only HO bonds had a mean score of 2.1. The lowest average score on this variable was by those who voted for both bonds (1.54). We now turn to our full models.

In order to test our hypotheses, we employ a multinomial probit model. The standard errors are clustered at the precinct level to account for the nested nature of the responses due to the survey collection methodology (e.g. collection at selected polling stations). Multinomial probit is utilized because it provides information on the odds that a citizen will fall into one of the groups as a function of the independent variables. Like binary logistic regressions, the odds are relative to a reference group. Again, the reference is Group 4 (respondents who voted “yes” to both bond referendums). Thus, the results present the odds that someone will belong to Groups 1 (voted for neither), 2 (yes on Housing Opportunity Bonds only) or 3 (yes on Green Economy Bonds only) relative to Group 4. We focus on the odds of a respondent falling into Group 2 or 3 (voted for one of the bonds only) relative to Group 4 because these two groups
consist of people who are interpreted as willing to pay for one element of smart growth but not the other. Because multinomial probit coefficients are very difficult to interpret, we have graphically presented marginal effects for each of the primary independent variables that test our hypotheses and are statistically significant.

[Table 2 about here]

Group 1: Opposing Affordable Housing and Environmental Preservation

Group 1 represents those who are opposed to both elements of smart growth. What we cannot know is if this group simply opposes bonds altogether or if they oppose specifically these types of bonds. What we can tell from this is that compared to voters who supported both bonds, Group 1 voters were more likely to view minorities and the poor as undeserving. They were also more likely to think that the money from the GE bonds would not go to their town. Thus, this group, compared to Group 4 voters, does seem to have a large amount of racial and economic resentment and some concern over government distribution of resources to jurisdictions. They are also less likely to be concerned about Climate Change and more likely to think that the government should not be involved in the economy than Group 4 voters. Finally, voters in Group 1 were less likely to believe that building homes is good for the economy or that housing is too expensive and much more likely to distrust the government and to be Republican and of higher income than Group 4 voters.

Group 2: Supporting Affordable Housing, But Opposing Environmental Preservation

As is clear in Table 1, very few people fall into Group 2. However, for those who do, only a few things correlate with the likelihood of being in Group 2 (compared to Group 4). We see no evidence supporting Hypothesis 3. Perceptions of where money would be spent on the HO
bonds and GE bonds were not correlated with being in Group 2 compared to Group 4. This may be due to the fact that most respondents said the spending on the HO bond was unlikely to come to their town (only 11.67% responded their town was likely to get more funding than other towns for HO bonds). Further, there may be heterogeneity between groups about how HO spending could influence the town. For example, residents in neighborhoods in need of investment could see the building of new affordable homes as beneficial, whereas suburban residents likely view it negatively based on the extant literature. This heterogeneity could lead to statistical zeros but is beyond the scope of this study to determine.

What the model does show is that compared to Group 4 voters, the more concerned respondents are about climate change, the less likely they are to have voted to approve HO bonds only. This indicates that for those who do support bonds, if they are not concerned about climate change, they are less likely to vote to invest state resources in “Green” projects. Several control variables are significant as well. Respondents who voted for HO bonds only were more likely to be against government involvement in the economy and to struggle financially compared to respondents who voted for both. Both of these make intuitive sense. Being a Democrat and being Black also increased the odds of being in this category, compared to Group 4. All these correlates are in the expected direction and none of the other demographic variables, including income and age, were statistically significant.

**Group 3: Opposing Affordable Housing, Supporting Environmental Preservation**

Group 3 is our primary outcome of interest. It is this group of voters that smart growth planners bemoan because their actions support efforts to preserve open space and beautify natural resources, but do not support offsetting the home price increases of these efforts that limit
housing choices and increase segregation and commute times for low income workers. These voters also make up a larger percentage of the public.

As hypothesized, views of minorities and the poor strongly predict the likelihood of a voter being in Group 3 (as well as Group 1). However, there is no evidence that concerns over state funding distributions or concern over climate change is correlated with being in Group 3. Only believing minorities and the poor are “undeserving” and concern over population growth are correlated with being in Group 3. In order to see the substantive effects of being in different categories on these variables, we have predicted marginal effects for each category of the independent variable on the likelihood of being in Group 3. We present these marginal effects in Figure 1.

Figure 1 illustrates that moving from the lowest category (strongly disagree with both statements) to the highest category (strongly agree with both statements) results in a 19 percentage point increase in the likelihood of a voter being in Group 3. Simply put, viewing the poor and minorities as undeserving is highly related to breaking the coalition for smart growth planning, lending strong support for our hypothesis. A 19 percentage point change is both statistically and substantively very large.

[Figure 1 about here]

We also see limited evidence, even though it is statistically significant in the model, that the effect of concern over population growth has a strong connection with the likelihood of being in Group 3. Figure 1 illustrates that moving from strongly disagreeing to strongly agreeing on the population growth statement results in a 7 percentage point increase in the likelihood of
supporting GE bonds only. However, the standard errors on the marginal effects overlap, so we cannot be sure these results are substantive.

Several other variables are statistically significant. Those with high trust in government, Democrats, and younger voters are less likely to vote for only GE bonds compared to voting for both bonds. Residents of towns with a larger share of White voters are also somewhat less likely to vote for GE bonds only. In addition, those who view building homes as having a positive benefit on the economy are less likely to be in Group 3 and those who struggle financially are somewhat more likely to be in this category compared to Group 4, although this finding is counterintuitive. Voters with higher levels of education are also more likely to be in Group 3. However, while these variables are statistically significant, for several of them the standard errors around the marginal effects overlap between the lowest and highest categories, calling into question how substantive the effects are. The marginal effects for government trust, family financial struggles, party ID, and income all have confidence intervals that overlap for the lowest and highest categories of the variables. Only attitudes about building homes, education, age, and precinct level education do not overlap. Figures displaying these effects are presented in Appendix C.

The model presented from the 2016 Rhode Island Exit Poll suggests the extant literature is correct: Challenges to smart growth that includes both land preservation and affordable housing are often driven by negative views of minorities and the poor. Homeowners in particular are happy to adopt land preservation policies as they both retain open space and lead to the economic gain of their investments (e.g. Fischel 2017), but views of minorities and the poor dampen support for social policies that help offset the societal impact of those economic gains. While this is not full evidence in favor of Fischel’s (2017, 21) argument that “Environmental
justification for policies that just happen to increase existing home values is a shield against outside criticism of exclusion and a source of unification among homeowners with otherwise unequal interest in the policies,” the model does suggest that environmentalism is not the reason voters break the coalition needed for truly “smart growth” and vote for only the policy that has the potential to drive up housing costs.

One potential reason why the results are not stronger is that these bonds have such a large potential geographic impact. Thus, people had the ability to vote in favor of affordable housing but be confident that their neighborhood and home value would not be impacted by the investment as its highly likely the affordable housing would be built nowhere near them. We would expect this finding to be larger if people were voting on the same issue in their own town or if the bonds had specified where projects would be built, and this is a result that future research should investigate.

However, clearly, much of the opposition to smart growth that includes affordable housing is based on views of minorities and the poor. While, again, we cannot tell the difference between voters in Group 1 who simply oppose bonds and those who oppose these land-use bonds in particular, the fact that the marginal effect of the variable on views of minorities and the poor is large and substantive in both conditions suggests that land planning opposition generates from concern over “who” benefits from government investment in land use.

No studies that we know of study voter support specifically for the disaggregated elements of smart growth including affordable housing and environmental preservation. However, our findings can be compared somewhat to several articles that investigate voter support for growth control policies. Recent evidence by Prendergast et al. (2019) found that demographic variables that are determinants of open space and land-use preferences in aggregate
studies were not all statistically significant in their national public opinion survey of open space preferences. They found that while racial identification and homeownership were related to increased support for open space, income and education were not. However, attitudinal variables such as perceptions of land use, concern about climate change and concern over traffic were related to support for land preservation. Wassmer and Lascher (2006) find concern over sprawl to be the largest predictor of support for state intervention in growth planning, as well as inconsistent evidence of the impact of demographic variables. Lewis and Baldassare’s (2010) study of support for compact development is perhaps the most comparable, and while they find that race, income, age, and the presence of children in the household are strongly associated with some views of different types of compact development, only conservative political ideology is consistently associated with opposition to compact development. We also find that conservative political ideology has a consistent impact on opposition to both environmental preservation and funding affordable housing. However, conservatives are also more likely to vote for open space preservation but against affordable housing. Mohamed’s (2007) study is also informative as his is the only study to look at smart growth in a way that looks at the coalition that supports the different elements at an individual level. His study focuses on those who support open space preservation as opposed to urban redevelopment. He finds that those who support open space but oppose urban redevelopment are more likely to be Democrats and those who are very satisfied with their neighborhood services compared to those who oppose both elements. Schmidt and Paulsen (2009, 95-96) suggest there are three ways to interpret voter behavior for open space preservation: (1) as “an intensification of or widespread acceptance of environmental awareness in response to the rapid pace of suburban development and its attendant degradation or destruction of landscapes;” (2) as “local land use planning tools as designed to protect the real
estate interests of existing homeowners;” or (3) a “changing legal environment.” Their findings suggest evidence of the second: Voters support land preservation and oppose affordable housing as a way to make their neighborhoods more exclusive. Our evidence here suggests that their findings are supported by individual level survey data. Perhaps the largest contribution of this analysis is that individual level attitudes toward target groups are highly significant, which is a large improvement over previous literature which suggests this to be true, but has not been able to test these hypotheses using a large dataset.

**Conclusion**

Between 1991 and 2013, the percentage of renter households in America paying at least half of their income to housing costs rose from 21% of renters to 30% of renters, despite the fact that the general standard for what families should pay is no more than 30% of income. In many rental markets the availability of affordable housing is so scarce that housing vouchers go unused because eligible renters cannot find rental units they can afford (Sullivan and Anderson 2017). For poor and moderate income families, purchasing a home has also become increasingly difficult. As both rent and home prices have increased, for those on a fixed budget saving for a down payment or affording monthly mortgage and tax payments is close to impossible. Median home prices have increased from $173,376 in 1975 (adjusted for inflation to 2017 dollars) to $315,100 (FRED 2017) in 2017 while median incomes have been basically stagnant (Piketty and Saez 2003).

Most economic models suggest that physical houses can be supplied almost perfectly to meet demand except for the availability of land (Glaeser and Gyourko 2003, 28). And land, while in large supply theoretically, is quite constrained when local populations pass exclusionary land-use regulations that limit uses for available land, prevent building dense and/or multi-family
units, curtail growth, or purchase open spaces to specifically prevent the building of residential and commercial real estate. At this point, there is significant evidence that the preservation of open space through land management policies drives up housing prices both locally and regionally (Irwin 2002; Geoghegan et al 2003; e.g., Geoghegan 2002; Luttik 2000; Sander and Polasky 2009; Irwin and Bockstael 2004; Lang 2018) and leads to economic segregation (Pendall 2000; Rothwell and Massey 2010; Lens and Monkkonen 2016). Thus, regional planning should, from a theoretical standpoint, deal with these two basic problems—the limited nature of environmental resources and the lack of affordable housing—together (Downs 2004). But, as Downs argues, “experience to date indicates that most growth management … efforts have not paid a lot of attention to providing more affordable housing” (Downs 2004, 2). In this paper, we take an important first step in building on the work of these scholars as well as at the different influences of voter decision making on land planning at the ballot box. While case studies focusing on affordable housing have argued that racism and wealth preservation were important drivers of voter opinion, and work on open space preservation adoption have argued the same, no one to date has conducted a large N survey of actual voters facing these land planning decisions. Our analysis finds that, indeed, voters are heavily influenced by their views of minorities and the poor, and that these views can break the coalition needed for “smart” land planning that takes into account housing affordability.

Our research corroborates the views of many that the reason so many smart growth plans seem to drive up housing costs and exacerbate inequality (e.g. Downs et al. 2004) is not because smart growth per se does not include affordable housing, but because many homeowners reject that element of the equation—supporting land protections, walkability and other beautification efforts but not supporting proposals that include economic inclusivity.
However, while our study documents this connection and supports the arguments of Fischel (2017) and Schmidt and Paulsen (2009), future research could improve upon this by surveying voters on paired smart growth proposals and experimenting to see how support differs based on the inclusion or exclusion of various elements including affordable housing. Moreover, future research should investigate what increases support for smart growth proposals that include housing equity.

A specific limitation of our study is the nature of the statewide referendum. As is clear from our results, voters in statewide referendums may not be as concerned over the impact of these policies on their daily lives because they may believe that they can vote for a public good (e.g. affordable housing) without the danger of it being located “in their backyard.” Future research would be well served to investigate voter attitudes on smart growth proposals where the affordable housing element in particular is more clearly proposed geographically. We would expect our findings to be stronger in these cases as the immediate impact is closer to home, but this is a research question beyond the scope of our study and one deserving of further testing.

Notes

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1 Polling teams assigned to high-Spanish speaking areas always included at least one bilingual native Spanish speaking pollster

2 While we know that voters are not reflective of the population, there is no way to know the race, class or gender distribution of the actual electorate as the Board of Elections does not collect this information. Thus, using census data is the best available. However, using a weight for just the outcome of the election does not change the substantive results.
The actual election results were 58% in favor of the Housing Opportunity Bonds and 67.6% in favor of the Green Economy Bonds. However, in the unweighted exit poll results 66.21% of respondents responded in favor of Housing Opportunity bonds and 78% responded in favor of the Green Economy Bonds. The numbers on the Housing Opportunity bonds are remarkably close to Tighe’s (2012) phone survey which asked respondents if they would approve of affordable housing in their neighborhood.

Although agree/disagree statements are not ideal, given the space allowed on an exit poll, they were the best available with space constraints.

These two variables are correlated at .44 (p-value .0000). Exploratory factor analysis also showed that they load well onto a single factor (eigen value of 1.4 and factor loadings of 8.4) and that the other attitudinal variables in the survey load on separate factors (or no factors); however, with just two variables factor analysis is considered inappropriate. The new variable additive scale has a mean of 1.7 (SD= 1.69) and ranges from 0 to 6 where 6 is those with the most negative views of the poor and minorities and 0 are those who feel most positively. We also ran the models with the two variables included separately, it does not change the nature of the effects. These models are included in the supplemental appendix. However, because we believe that these two variables are additive in nature and that they are both measures tapping into the concept of the “undeserving poor”, we include them as a single item in our primary models.

There is an argument to be made that these two variables should also be additive in nature. However, they only correlate at .24 and do not load well on a factor score. The results are also unchanged if adding them together or keeping them separate. As a result, we have decided to keep them separate in the analysis.
Descriptive statistics of all the variables presented in the model are included in Appendix Table A 1.

To check for robustness across modeling strategies we also ran the model as a multinomial logit and as a biprobit. The results are unchanged based on modeling strategy.

References


http://www.npr.org/2017/05/10/527660512/section-8-vouchers-help-the-poor-but-only-if-housing-is-available


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