

You Won't be My Neighbor: Opposition to High Density Development

Urban Affairs Review

1–15

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DOI: 10.1177/10780874211065776

journals.sagepub.com/home/uar

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Abstract

Virtually every city in the United States bans multifamily homes in at least some neighborhoods, and in many cities most residential land is restricted to single family homes. This is the case even though many metropolitan areas are facing skyrocketing housing costs and increased environmental degradation that could be alleviated by denser housing supply. Some scholars have argued that an unrepresentative set of vocal development opponents are the culprits behind this collective action failure. Yet, recent work suggests that opposition to density may be widespread. In this research note, I use a conjoint survey experiment to provide evidence that preferences for single-family development are ubiquitous. Across every demographic subgroup analyzed, respondents preferred single-family home developments by a wide margin. Relative to single family homes, apartments are viewed as decreasing property values, increasing crime rates, lowering school quality, increasing traffic, and decreasing desirability.

Keywords

land use, development, experiment, survey

The 1926 Supreme Court decision *Euclid versus Ambler* upheld the right of cities to use their police powers to regulate how and where development would occur within their borders. In his opinion, Justice Sutherland famously

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described the apartment house as, “often a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district.” Today, many communities throughout the United States appear to agree with Justice Sutherland’s assessment. Virtually every city in the United States bans multifamily homes in at least some neighborhoods, and in many cities most residential land is restricted to single family homes (Badger and Bui 2019). This is the case even though many metropolitan areas are facing skyrocketing housing costs and increased environmental degradation that could be alleviated by denser housing supply. Some scholars have argued that an unrepresentative set of vocal development opponents are the culprits behind this collective action failure. Yet, recent work suggests that opposition to density may be widespread. In this research note, I provide evidence that preferences for single-family development are ubiquitous. I provide evidence that communities seek to block apartment buildings as a way to prevent a host of perceived negative outcomes from befalling their community.

I use a conjoint survey experiment to investigate the attributes of development that are most (and least) likely to be selected by a representative sample of residents from metropolitan areas in the United States. Estimates of marginal means from the conjoint reveal that respondents have a strong preference for single-family homes and a clear dis-preference for apartments, even after accounting for the racial and income makeup of the proposed development. I explore potential demographic differences in priorities over development attributes. While I identify some variation, the overall picture that emerges is that *all* subgroups prefer single-family development. Then, I investigate the rationale behind these preferences. Relative to single family homes, apartments are viewed as decreasing property values, increasing crime rates, lowering school quality, increasing traffic, and decreasing desirability.

Development Preferences

One of the most significant policy making arenas for local governments is land use regulation. In regulating the uses of land, cities can dictate what (if anything) gets built, where it gets built, what the buildings look like, and the quality of the buildings. Starting in the 1970s municipalities began to use land use regulations more forcefully to limit and exclude development (Been 2018; Elmendorf 2019; Fischel 2001).

Scholars have endeavored to determine who opposes development and to theorize about their reasons for doing so. Cross-sectional survey data reveals that housing consumers prefer “suburban developments with large lots and wide streets,” (Myers and Gearin 2001). Some research links land use

regulation and the share of low-income residents and residents of color in a community. A lack of poor and/or minority residents is taken as *prima facie* evidence of exclusion. Pendall (2000) shows that communities that restrict residential development to fewer than eight units per acre, have lower amounts of rental housing and lower shares of Black and Latino residents than communities that do not restrict density. Bates and Santerre (1994) find that restrictive residential zoning is more likely in cities that abut a central city with a large share of poor residents. Pogodzinski and Sass (1994) find that communities with higher median incomes are more likely to have minimum lot size requirements for residential development. They conclude from this evidence that exclusionary zoning is likely a tool used by higher income residents to maintain economic homogeneity. Consistent with these findings, Rothwell and Massey (2010) and Trounstine (2018) show that when suburbs restrict the density of development, metropolitan areas have higher levels of income segregation. Yet, the intent behind these strategies is difficult to uncover with aggregate, observational data because the outcome (restricting development to low density housing) is consistent with several possible motivations, including a preference for single-family development.

Other research is focused on residents' attitudes toward development. Pendall (1999) reviews letters voicing concerns over specific development projects in the Bay Area and finds that multifamily projects and those containing affordable units generated more objection than did single-family developments and market rate proposals. Analyzing minutes from planning and zoning board meetings, Einstein, Glick and Palmer (2020) find that community participants overwhelmingly opposed new housing. They show that these objectors were more likely to be male, longtime residents, voters, homeowners, and older than the general public. Trounstine (2020) finds that neighborhoods with more homeowners, wealthy, and white residents are more likely to vote for development restriction. Tighe (2012) demonstrates that negative race and class stereotypes are correlated with opposition to affordable housing. So, the research seems clear that higher socio-economic status residents, who are the most vocal and active participants in local politics, generally oppose higher density development.

However, while advantaged residents may dislike development more intensely, it is not clear that making the process more representative would increase development of multifamily housing. Indeed, Hankinson and Magazinnik (2020) show that in segregated cities where electoral rules expand representation for minority neighborhoods, new housing supply decreased overall, and particularly decreased in neighborhoods that gained representation. Other scholars have shown that both renters and homeowners, and liberals and conservatives dislike spatially concentrated higher density development (Hankinson 2018; Marble and Nall 2019).

We still have more to learn about how development preferences vary across subgroups and whether high density development serves as a proxy for other features of development (such as the racial or poverty composition of the residents). I use new experimental survey data to reveal that the preference for single family development is widespread. I find no significant differences in the likelihood of selecting single-family developments by race, partisanship, education, income, political participation, age, or housing density at the zip code level. I do find that the preference for single-family development is stronger among people who live in suburbs as opposed to central cities, ideological conservatives as opposed to liberals, people who currently live in single-family homes compared to apartment dwellers, respondents with larger families, and homeowners versus renters. However, all subgroups prefer single-family housing to apartments.

Experimental Design

To uncover priorities among residents' views on development, I conducted a survey experiment through Qualtrics in the spring of 2019.¹ The survey was restricted to adults who live in Census defined metropolitan areas. I have a total of 645 respondents who made more than 5,000 choices. Participants were recruited to a research panel through website intercept recruitment, member referrals, targeted email lists, gaming sites, customer loyalty web portals, permission-based networks, and social media. Participants were verified through a double-opt-in process and were invited to take part in surveys for an incentive. Qualtrics used quotas to ensure that the final panel was representative of aggregate metropolitan demographics among adults along race, gender, and educational lines. Table 1 presents descriptive statistics for the sample compared to the 2010 Census for all census tracts contained within metropolitan areas. Although these demographics were not used for panel recruitment quotas, Table 1 also includes descriptive statistics for renters, central city residency, and partisanship.

Table 1 reveals that demographics of the sample of 645 respondents is similar to the demographics of adults in metropolitan areas in the United States.

Respondents were told that researchers are interested in how people evaluate housing developments and that they would be asked to select between two hypothetical developments and also to say how they expect several housing developments to affect their neighborhood. The survey utilized a conjoint design. According to recent work by Abramson, Kocak and Magazinnik (2019), conjoint designs capture both intensity and ranking of choices by respondents. This is ideal in an analysis of housing preferences – because a vocal, intense minority can play an outsized role in land use politics (Einstein, Glick and

Table 1. Representativeness of Survey Demographics.

	Qualtrics Sample	Census
% Male	48%	48%
% White	69%	68%
% Black	11%	12%
% Latino	13%	14%
% Other Race	7%	6%
% College Graduate	27%	28%
% Renter	26%	35%
% Central City	42%	40%
% Democrat	46%	46% ¹
% Independent	12%	14%
% Republican	42%	39%

¹These data are from the 2012 American National Election Study.

Palmer 2020). I asked respondents to select between Development A and Development B, where developments varied across six characteristics: type, size, racial composition, share reserved for low-income residents, monthly cost, and parking. Attributes for development characteristics were randomly populated. Table 2 summarizes the experimental design.

My primary focus here is on to the selection or rejection of a development based on the *type* of housing.² The other five characteristics are included to

Table 2. Conjoint Survey Design.

Development Characteristic	Randomly Assigned Attributes
Development Type	Apartments/Condos ² Townhomes or duplexes Single-family houses
Number of units	18; 40; 150
Expected Racial Makeup	50% white; 50% people of color 75% white; 25% people of color 96% white; 4% people of color
% Reserved for Low Income residents	0%; 10%; 25%
Expected Monthly Cost (Rent/Mortgage + Taxes)	\$282-\$4,002
Planned Parking for Residents	No; Yes

²A mixed-use (apartments/condos and business spaces) attribute was also included but revealed no difference from the apartment/condo treatment. For presentation purposes these categories are combined.

account for possible alternative explanations. That is, residents might reject apartment complexes because they imagine that they are likely to house low-income residents or encourage street parking. By adding these potential rationales for rejection, I endeavor to separate rejection of multi-family development from these other explanations. To increase the plausibility of the survey, I tied the values shown in expected monthly rent/mortgage costs to respondents' area median income (AMI).³ The mean monthly cost shown was \$1,457. I allowed all combinations of profiles to occur.⁴

Before being shown any developments, respondents were asked their race, gender, education level, and their opinion on housing costs in their area. Next, respondents read a prompt about housing shortages and development trade-offs.⁵ They were instructed to "Imagine that your city government is considering a proposal to build new residential homes near your neighborhood. You will be presented with different development scenarios. Pick the one that you prefer." After being presented with a pair of development proposals, respondents were required to choose one.⁶ They repeated this task 4 times. Then, respondents were presented with a single development and asked to evaluate how it would affect various neighborhood outcomes. They repeated this task 3 times. The survey ended with a set of questions probing their political participation and affiliation, opinions on several policy areas, and demographics.

Development Preferences

To determine whether housing type is associated with selection/rejection of developments, I utilize data from the portion of the experiment in which respondents were asked to choose (4 times) between Development A and Development B, where the attributes of the two developments were randomly varied. I analyze whether a particular development was *Selected or Not Selected*. I regress this *Development Selection* variable on the characteristics presented for each development, including *Type*, *Racial Makeup*, *Low-Income Reservation*, *Size*, *Planned Parking*, and unit *Cost* in thousands of dollars.

I estimate ordinary least squares regression with errors clustered by respondent. Figure 1 plots the Average Marginal Component Effect (AMCE) for each attribute value among all respondents (Hainmueller, Hopkins and Yamamoto 2014). The AMCE is the average change in the probability that the respondent selected the development when it featured a given attribute value compared to the baseline attribute value. Coefficients are statistically significantly different from the baseline when the confidence interval does not cross the vertical line at zero.⁷

The figure makes clear that respondents revealed a strong tendency to select developments comprised of single-family homes. However, as Leeper, Hobolt

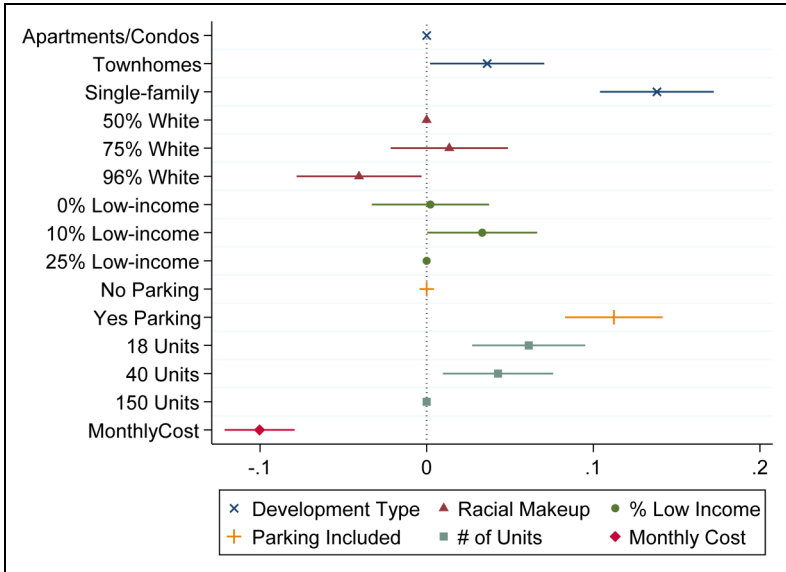


Figure 1. Aggregate preferences over development attributes.

and Tilley (2020) explain, a positive AMCE on a development attribute does not reveal overall levels of support or opposition to the attribute. In order to recover preferences, it is necessary to compute marginal means. I find that respondents demonstrate a strong preference for single-family developments. Predicted probabilities reveal that a single-family development had about a 59 percent chance of being selected, compared to a 45 percent chance for apartments.⁸ The preference for single-family homes (and dis-preference for apartments) holds even when the racial and poverty makeup of the development is made explicit. Respondents also revealed a strong dis-preference for expensive housing and for developments that lacked parking. Developments with the highest monthly costs only had a 24 percent chance of selection, while developments with the median monthly cost were selected about 51 percent of the time. Developments lacking parking were selected about 44 percent of the time, compared to 56 percent for developments with parking.

Group Differences

To explore how different subgroups view single-family homes and apartments, I regress selection on an interaction between respondents' demographic traits and the development type. As shown in on-line Appendix

Tables A2–A10, I find no significant interaction effect for racial group, party id, age, income, education, racial resentment, voter registration, paying attention to politics, or zip code level housing unit density.⁹ Table 3 presents the marginal means for the interaction effects that *were* significant (full regression results presented in Appendix Tables A11–A15). It shows the predicted probability of selecting a development if the development type was apartments/condos versus single-family homes, with all other variables held at their mean values (standard errors are shown in parentheses).

The results in – Table 3 are consistent with existing research that shows stronger preferences against dense development among high socio-economic status residents (e.g., home-owners, those who live in single family, suburban homes). But the bigger story is that NO group selected apartments more than 50 percent of the time; all groups preferred single-family developments by a considerable margin. The same is true for the subgroups that did not produce significant interaction effects. For instance (as shown in Appendix Table A16), Black, Latino, and lower-income residents all preferred single family developments greater than 50 percent of the time.

Theoretical Mechanisms

Why do respondents overwhelmingly prefer single family home developments? Existing literature offers several possible rationales. One possibility

Table 3. Significant Differences in Preferences Across Demographic Groups.

Group	Predicted Probability of Selecting Development: Apartment	Predicted Probability of Selecting Development: Single Family Home
Suburban location	0.45 (0.01)	0.63 (0.02)
Central City Location	0.46 (0.01)	0.54 (0.02)
Live in single-family home	0.44 (0.01)	0.62 (0.01)
Live in multi-family home	0.49 (0.01)	0.53 (0.02)
Conservative ideology	0.44 (0.01)	0.63 (0.02)
Liberal ideology	0.46 (0.01)	0.56 (0.02)
Homeowner	0.45 (0.01)	0.61 (0.01)
Renter	0.48 (0.01)	0.55 (0.02)
Household Size: 3 +	0.45 (0.02)	0.63 (0.03)
Household Size: 1	0.47 (0.01)	0.54 (0.02)

is that residents seek to restrict development in order to “cartelize housing supply,” (Ellickson 1973). By limiting the density of housing, residents who currently own houses may benefit from increased prices for their properties (Gyourko, Saiz and Summers 2008; Saiz 2010). A second possibility is that prohibiting apartments is a means to limit congestion. As local public goods are only available to the people who buy or rent housing in the community proximate to their provision, land use regulations can prevent congestion and maintain the quality of public goods by restricting the density of housing in a community (Banzhaf 2014; Banzhaf and Mangum 2020). Finally, the preference for single-family homes may be an attempt to shape the *who* has access to a community. Local taxes are largely derived from property; and poorer households may have an incentive to buy or rent small houses in rich communities (Hamilton 1975). Their entry into the community equates to a transfer of funds from richer households because the benefits they receive in public goods are worth more than they pay in property taxes. Thus, public goods financing becomes a redistributive transfer. The preference for single-family homes may be a mechanism to prevent redistribution by requiring a minimum level of housing consumption. Furthermore, the quality of many local public goods, like education, public health, and public safety, are affected by the characteristics of one’s neighbors (Oates 1981; Schwab and Oates 1991). Even a service as mundane as code inspection will yield higher quality outcomes the fewer violators there are in a community. If residents believe that people who live in high-density housing are more likely to produce negative peer effects than people who live in low-density housing, they are likely to want to restrict high density housing.

In this section, I turn to assessing respondents’ perceived effect of development attributes on neighborhood outcomes to clarify the underlying reasons for support/opposition. Is it the maintenance of property values? An effort to limit congestion? A means to prevent redistribution? An attempt to minimize negative peer-effects? Or perhaps, some combination of these motives? Respondents were presented with a single development (with randomly populated attributes) and then asked to agree or disagree with six statements intended to gauge different possible mechanisms. They repeated this task 3 times. Table 4 provides the details of this design.

Respondents could Strongly Disagree, Somewhat Disagree, Neither Disagree nor Agree, Somewhat Agree, or Strongly Agree with each statement and their responses were rescaled to vary from 0 to 1. Neighborhood outcome assessments were regressed on the characteristics presented for each development. I estimate ordinary least squares regression with errors clustered by respondent. Figure 2 plots the Average Marginal Component Effect for each attribute value among all respondents. Here, the AMCE represents the

Table 4. Testing Mechanisms.

Statement	Theoretical Concept
This Development will Lead to More Crime in My Neighborhood	Peer effects
This Development will Lower the Quality of Schools in My Neighborhood	Peer effects
This Development will Lower Property Values in My Neighborhood	Property values
This Development will Increase Traffic in My Neighborhood	Congestion
This Development will make Housing More Affordable in My Neighborhood	Redistribution
This Development will Make my Neighborhood Less Desirable	All

average change in the probability that the respondent strongly agrees (as opposed to strongly disagrees) with the neighborhood outcome statement when the development featured apartments compared to single-family homes. Coefficients are statistically significantly different from the baseline when the confidence interval does not cross the vertical line at zero.

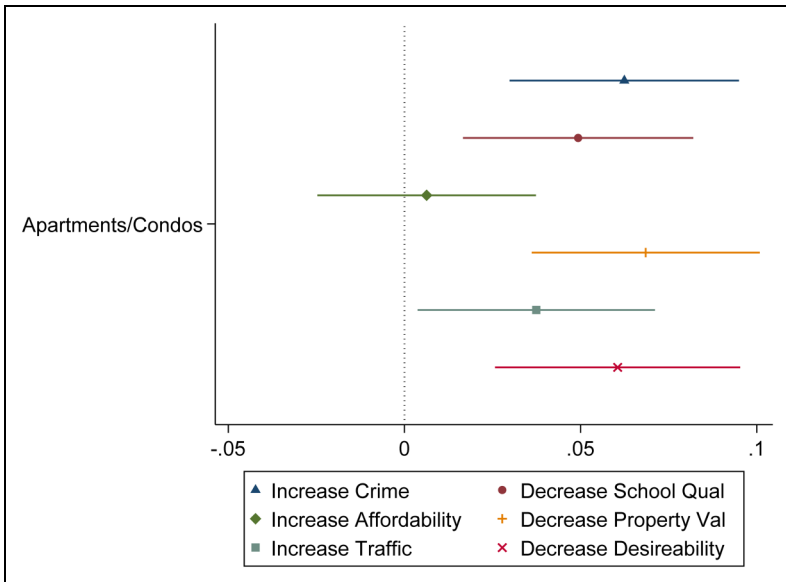


Figure 2. Perceived effect of apartments/condos on neighborhood quality.

Figure 2 reveals that relative to single family development, apartments are viewed as likely to increase crime, decrease school quality, increase traffic, decrease property values, and decrease desirability.¹⁰ Perhaps equally important, there is no single neighborhood effect that stands apart from the others. It appears that apartments are disliked for a variety of reasons, even after accounting for their racial makeup, low-income set-asides, and number of units. It is possible, perhaps even likely, that respondents reacted negatively to developments with apartments, and then simply rated these developments lower for all six statements.

The Politics of Land Use

The findings in this research note advance our understanding of the underlying drivers of restrictive local land use regulation. Respondents view the presence of apartments as bringing down their property values, increasing crime, decreasing school quality, and decreasing the desirability of their neighborhoods. When offered the opportunity to choose, respondents preferred single-family homes across *all* demographic subgroups analyzed. The preference for low-density appears clear. Contrary to conventional wisdom, it is not just the preferences of advantaged residents that drive the preponderance of single-family home development. In fact, the hurdles to building multifamily housing appear to be complex and intractable. More than 3/4ths of the respondents in the study asserted that residents should have to approve major new developments considered by city governments. These results indicate that restrictions on growth, stringent land use regulation, and high housing costs are all likely consequences of these preferences.

Yet, puzzles remain. The revealed preferences of white and wealthy Americans clearly suggest a strong dis-preference for mixed race and class communities as segregation levels remain high. This might lead us to expect the race and poverty composition of developments to be the most powerful driver of development preferences. Although I find that white respondents prefer whiter developments and wealthier respondents prefer fewer units reserved for low-income families, development type is a much stronger driver of choices for these respondents. So, why do people have these negative views of apartment complexes and those who inhabit them? One attribute not studied in this experiment is the expectation of the housing tenure of the future residents. That is, I did not specify whether the development would be comprised of owners or renters. Research indicates that owner occupied housing is maintained at a higher quality than renter occupied housing (Hilber 2005; Iwata and Yamaga 2008); what economists call the renter externality (Henderson and Ioannides 1983). It is possible that residents prefer their neighbors to be owners rather than renters and believe that this is

most likely to be ensured when their neighborhood is comprised of single-family homes rather than apartments/condos. The results showing that respondents feel that apartments will make their neighborhood less desirable may point in this direction. Future research should determine the degree to which opposition to renters underlies housing preferences and could help build a better understanding of the appropriate policy remedies for a lack of multifamily housing development.


Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship and/or publication of this article.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. This survey was based on a prior survey piloted on Mturk in the spring of 2018. The experimental protocol was approved by the IRB at University of California, Merced; IRB #UCM2018-83. The dataset is arranged so that the unit of observation is the choice made by a respondent.
2. The initial hypotheses for the Mturk pilot survey focused on the expected racial makeup of the developments. Respondents behaved as predicted – with a dispreference for developments that were 50% people of color (See on-line appendix). However, the Mturk data made clear that the driving force behind development preferences was development type, not racial makeup. This follow-up survey was intended to evaluate the earlier exploratory finding. The design in the two surveys was identical.
3. The federal government has defined affordable housing as that which does not cost more than 30% of a household's income and many low-income housing programs require that recipients earn no more than 60% of the AML. I combined these thresholds to calculate a low, middle, and high monthly housing cost for every zip code in every metro-area in the United States using data from the 2016 American Community Survey. Low cost is equivalent to one twelfth of 30% of the income that equates to 60% of the county's median annual household income. Housing in this cost range represents a redistributive transfer. Middle

cost is equivalent to one twelfth of 30% of the area income. High cost is equivalent to one twelfth of 30% of 140% of the area income. Respondents entered their zip code at the start of the survey and were then randomly assigned to see low, middle, or high monthly costs for their zip code for each development.

4. While it might seem unlikely that an apartment could rent for the highest cost shown, in America's highest priced housing markets this is indeed possible. For example, 2-bedroom apartments in San Francisco regularly list for more than \$4000/month. One of the reasons that the experiment did *not* offer a detailed breakdown of race was to allow respondents the freedom to imagine any plausible community that might reasonably fit in their neighborhood.
5. The prompt read: "Housing is becoming increasingly expensive in a wide range of cities. Many places face a chronic shortage of housing for their least advantaged residents, and in some cases, for the working and middle classes as well. Experts contend that building more housing will reduce housing costs. But development can alter the look, feel, or character of a neighborhood. We are interested in your views."
6. I did not allow respondents to opt out or select no development because I presumed that this would be the overwhelming response. For the most part, residents oppose any development in their neighborhood.
7. Survey data were transformed so that each choice made by a respondent is a row of data. The AMCE estimates are given by regressing *Selected* on attributes encoded as factor variables. Errors are clustered by respondent.
8. Marginal means estimated in Stata 16 using the "margins" command.
9. Of course, it is possible that these null effects are the result of my relatively limited sample size.
10. Developments that are 50% people of color, those that have 25% of units reserved for low-income residents and those with 150 units are also viewed as generating negative neighborhood effects. However, the results in the previous section indicate that these attributes are not the primary determinants of support for a development.

References

- Abramson, Scott, Korhan Kocak, and Asya Magazinnik. 2019. What do we Learn about Voter Preferences from Conjoint Experiments. https://scholar.princeton.edu/sites/default/files/kkocak/files/conjoint_draft.pdf.
- Badger, Emily and Quoctrung Bui. 2019. "Cities Start to Question an American Ideal: A House with Yard on Every Lot," *New York Times Upshot*, June 18, 2019. <https://www.nytimes.com/interactive/2019/06/18/upshot/cities-across-america-question-single-family-zoning.html>
- Banzhaf, H. Spencer. 2014. "The Market for Local Public Goods." *Case Western Law Review* 64 (4): 1441–80. <https://scholarlycommons.law.case.edu/caselrev/vol64/iss4/4/>
- Banzhaf, H. Spencer, and Kyle Mangum. 2020. "Capitalization as a Two-Part Tariff: The Role of Zoning." *FRB of Philadelphia Working Paper No. 19–20*.

- Bates, Laurie, and Rexford Santerre. 1994. "The Determinants of Restrictive Residential Zoning: Some Empirical Findings." *Journal of Regional Science* 34 (2): 253–63. <https://doi.org/10.1111/j.1467-9787.1994.tb00866.x>
- Been, Vicki. 2018. "City NIMBYS." *Journal of Land Use* 33 (3): 217–50. <https://www.jstor.org/stable/26895803>
- Einstein, Katherine Levine, David Glick, and Maxwell Palmer. 2020. *Neighborhood Defenders: Participatory Politics and America's Housing Crisis*. New York: Cambridge University Press.
- Ellickson, Robert. 1973. "Alternatives to Zoning: Covenants, Nuisance Rules, and Fines as Land use Controls." *University of Chicago Law Review* 40 (4): 681. <https://chicagounbound.uchicago.edu/uclrev/vol40/iss4/2>
- Elmendorf, Christopher. 2019. "Beyond the Double Veto: Land use Plans as Preemptive Intergovernmental Compacts." UC Davis Legal Studies Research Paper Series.
- Fischel, William. 2001. *The Homevoter Hypothesis: How Home Values Influence Local Government Taxation, School Finance, and Land-Use Policies*. Cambridge, MA: Harvard University Press.
- Gyourko, Joseph, Albert Saiz, and Anita Summers. 2008. "A New Measure of the Local Regulatory Environment for Housing Markets: The Wharton Residential Land use Regulatory Index." *Urban Studies* 45 (3): 693–729. <https://doi.org/10.1177/0042098007087341>
- Hainmueller, Jens, Daniel J. Hopkins, and Teppei Yamamoto. 2014. "Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices Via Stated Preference Experiments." *Political Analysis* 22 (1): 1–30. <https://doi.org/dx>. <https://doi.org/10.1093/pan/mpt024>.
- Hamilton, Bruce W. 1975. "Zoning and Property Taxation in a System of Local Governments." *Urban Studies* 12 (2): 205–11. <https://doi.org/10.1080/00420987520080301>
- Hankinson, Michael. 2018. "When do Renters Behave Like Homeowners? High Rent, Price Anxiety, and NIMBYism." *American Political Science Review* 101 (3): 393–408. <https://doi.org/10.1017/S0003055418000035>
- Hankinson, Michael, and Asya Magazinnik. 2020. "The Supply-Equity Trade-off: The Effect of Spatial Representation on the Local Housing Supply," *Working Paper*. http://mhankinson.com/documents/supply_equity_working.pdf
- Henderson, J. V., and Y. M. Ioannides. 1983. "A Model of Housing Tenure Choice." *American Economic Review* 73: 98–113. <https://www.jstor.org/stable/1803929>
- Hilber, Christian. 2005. "Neighborhood Externality Risk and the Homeownership Status of Properties." *Journal of Urban Economics* 57 (2): 213–41. <https://doi.org/10.1016/j.jue.2004.10.006>
- Iwata, Shinichiro, and Hisaki Yamaga. 2008. "Rental Externality, Tenure Security, and Housing Quality." *Journal of Housing Economics* 17 (3): 201–11. <https://doi.org/10.1016/j.jhe.2008.06.002>
- Leeper, Thomas, Sara Hobolt, and James Tilley. 2020. "Measuring Subgroup Preferences in Conjoint Experiments." *Political Analysis* 28 (2): 207–21. <https://doi.org/10.1017/pan.2019.30>

- Marble, William, and Clayton Nall. 2019. "Where Self-Interests Trumps Ideology: Liberal Homeowners and Local Opposition to Housing Development." *The Journal of Politics* 83(4): 1747-1763. <https://doi.org/10.1086/711717>
- Myers, Dowell, and Gearin Elizabeth. 2001. "Current Preferences and Future Demand for Denser Residential Environments." *Housing Policy Debate* 12(4): 633-659.
- Oates, Wallace E. 1981. "On Local Finance and the Tiebout Model." *The American Economic Review* 71 (2): 93-8. <https://www.jstor.org/stable/pdf/1815699.pdf>
- Pendall, Rolf. 1999. "Opposition to Housing NIMBY and Beyond." *Urban Affairs Review* 35 (1): 112-36. <https://doi.org/10.1177/10780879922184310>
- Pendall, Rolf. 2000. "Local Land Use Regulation and the Chain of Exclusion." *Journal of the American Planning Association* 66 (2): 125-42. <https://doi.org/10.1080/01944360008976094>
- Pogodzinski, J. M., and Tim Sass. 1994. "The Theory and Estimation of Endogenous Zoning." *Regional Science and Urban Economics* 24 (5): 601-30. [https://doi.org/10.1016/0166-0462\(94\)02059-0](https://doi.org/10.1016/0166-0462(94)02059-0)
- Rothwell, Jonathan, and Douglas Massey. 2010. "Density Zoning and Class Segregation in U.S. Metropolitan Areas." *Social Science Quarterly* 91 (5): 1123-43. doi: 10.1111/j.1540-6237.2010.00724.x.
- Saiz, Albert. 2010. "The Geographic Determinants of Housing Supply." *Quarterly Journal of Economics* 125 (3): 1253-96. <https://doi.org/10.1162/qjec.2010.125.3.1253>
- Schwab, Robert, and Wallace Oates. 1991. "Community Composition and the Provision of Local Public Goods: A Normative Analysis." *Journal of Public Economics* 44 (2): 217-37. [https://doi.org/10.1016/0047-2727\(91\)90027-Y](https://doi.org/10.1016/0047-2727(91)90027-Y)
- Tighe, Rosie. 2012. "How Race and Class Stereotyping Shapes Attitudes Toward Affordable Housing." *Housing Studies* 27 (7): 962-83. <https://doi.org/10.1080/02673037.2012.725831>
- Trounstine, Jessica. 2018. *Segregation by Design: Local Politics and Inequality in American Cities*. New York: Cambridge University Press.
- Trounstine, Jessica. 2020. "The Geography of Inequality: How Land Use Regulation Produces Segregation." *American Political Science Review* 114 (2): 443-55. <https://doi.org/10.1017/S0003055419000844>

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