



Understanding How Racism and Affect Impact Public Opinions toward Affordable Housing in the United States

Journal of Planning Education and Research
1–19

© The Author(s) 2024

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/0739456X241230002

journals.sagepub.com/home/jpe



Isabella P. Douglas¹ , Deland Chan^{1,2} ,
Lucy Zhang Bencharit³, and Sarah L. Billington¹

Abstract

Using a nationwide online survey ($N = 534$), we investigate how individual-level characteristics and past actions are related to support of affordable housing at the neighborhood level. Several demographic characteristics, past actions, federal government trust, personal exposure, racism (symbolic racism scale), and affect (emotional connotation) are found to be significant predictors of support. We provide evidence for racism and affect being mediating factors acting in series to shape support of affordable housing. In addition to racism, individuals' affect can potentially help explain the shift from support of hypothetical scenarios to opposition of real affordable housing development proposals and warrants continued study.

Keywords

affordable housing, bias, housing, demographic analysis, emotion, mediation analysis, public opinion, racism, survey, United States

Resumen

Utilizando una encuesta en línea representativa a nivel nacional ($N = 534$), investigamos cómo las características a nivel individual y las acciones pasadas se relacionan con el apoyo a viviendas asequibles a nivel de vecindario. Varios datos demográficos, acciones pasadas, confianza en el gobierno federal, exposición personal, racismo y afecto (connotación emocional) fueron predictores importantes de apoyo. Mostramos que el racismo y el afecto son factores mediadores que actúan en serie para dar forma al apoyo a la vivienda asequible. Además del racismo, el afecto de los individuos puede potencialmente ayudar a explicar el cambio del apoyo a escenarios hipotéticos a la oposición a propuestas reales de desarrollo de viviendas asequibles y justifica un estudio continuo.

Palabras clave

vivienda asequible, sesgo, vivienda, análisis demográfico, emoción, análisis de mediación, opinión pública, racismo, encuesta, Estados Unidos

摘要

本文通过一项具有全国代表性的在线调查（样本 = 534个），我们研究了个人层面的特征和过去的行为与邻里层面的经济适用房支持之间的关系。一些人口统计数据、过去的行为、联邦政府的信任、个人暴露、种族主义和情感（情感内涵）是对经济适用房是否持支持态度的重要预测因素。我们的研究表明，种族主义和情感是一系列中介因素，共同影响对经济适用房的支持态度。除了种族主义之外，个人的影响可能有助于解释从支持假设情景到反对真正的经济适用住房开发提案的转变，并值得继续研究。

关键词

经济适用房; 偏见; 住房; 人口统计分析; 情感; 中介分析; 舆论; 种族主义; 调查; 美国

Introduction

Personal and community well-being is affected by the quality and accessibility of available housing (e.g., Bratt 2002), which has been especially apparent with the current health and financial crisis brought on by COVID-19 (e.g., Stacy et al. 2019; Toussaint 2020). In particular, there is evidence for the positive impacts of affordable housing on well-being (see reviews by Carnemolla and Skinner 2021; Mueller and Tighe 2007), such as physical health (Pollack, Griffin, and Lynch 2010), psychological distress (Fenelon et al. 2017), education (Silva et al. 2017), and diet (Bottino et al. 2019). Conversely, there is evidence of the negative impacts of a lack of affordable housing on well-being aspects including physical (Jenkins Morales and Robert 2022) and mental health (Bentley et al. 2022).

These well-being implications make addressing the ongoing affordable housing crisis in the United States even more crucial. Currently, there is a seven million unit deficit for extremely low-income households¹ with all of the fifty largest metropolitan areas having 50 percent or less of the extremely low-income units needed (National Low Income Housing Coalition [NLIHC] 2022). A major contributor to this deficit has been the underbuilding of all housing types, and especially housing types key for renters such as small multifamily buildings, for the past two decades (Rosen et al. 2021).

There is broad and growing awareness of this crisis by the public with 49 percent of Americans reporting that the lack of affordable housing in their community is a major problem² (Schaeffer 2022). Additionally, a strong majority of those polled in public opinion surveys self-report support of hypothetical increases to affordable housing stock (American Strategies 2017; Hart Research 2019). However, despite this high-level awareness and support, proposed affordable housing developments still face many roadblocks. Local public opposition has been identified as one of the main drivers of housing unaffordability through blocking proposed developments and thus limiting the housing supply (Lee, Kemp, and Reina 2022). A survey of affordable housing developers in New York found that formal and informal negative public comments lead to costly construction delays, design rework, and denied approvals (Sally and Tighe 2015). Public opposition also can eventually shape other affordable housing roadblocks like zoning (Fischel 2015) that can result in reduced rental housing stock (Pendall 2000) and racial

segregation (Trounstein 2020). In summary, there is not just an affordable housing crisis but a public participation crisis in the planning process.

Overall, there is a need to understand what individual-level demographics and characteristics predict affordable housing opinions and how conscious and unconscious biases could be acting as intermediaries that shape affordable housing opinions. As these biases could be activated to varied degrees in different scenarios, they could help explain the shift from support of hypothetical affordable housing to opposition of actual affordable housing development proposals. We designed an online survey that probed a nationwide, broad demographic sample of participants ($N = 534$) on their support, perceptions, and knowledge of affordable housing. The survey included measures to capture personal exposure to and past actions around affordable housing. To gauge potential biases, we included (1) a measure of symbolic racism, which has been reported to be significant in past work on public opinion of affordable housing (e.g., Tighe 2012), and (2) a measure of participants' emotional connotation, referred to herein as affect (Barrett and Bliss-Moreau 2009), with the term "affordable housing." We analyze how these individual demographic factors and additional characteristics are predictive of support of affordable housing, and we investigate potential causal pathways shaping public opinion involving symbolic racism and affect. Our findings have the ability to inform a more nuanced understanding of public participation in affordable housing development, and how it may be shaped by a variety of biases, including racism.

Past Research on Public Opinions of Housing

For over thirty years, there has been continuous research on locally unwanted land uses (LULU) (e.g., Dear 1992; Schively 2007) including affordable housing (e.g., Pendall 1999), often associated with the phrase "not in my backyard" and accompanying acronym NIMBY. Previous research suggests the need to go beyond a simplistic, binary understanding of public opposition, such as NIMBYism, and take a more granular perspective (e.g., Burningham 2000; McClymont and O'Hare 2008). As further reviewed below, discussions at local planning meetings and ballot measures are not always representative of the community at large, and many public opinion surveys find that people with assumed

Initial submission, March 2023; revised submission, August 2023; final acceptance, December 2023

¹Stanford University, Stanford, CA, USA

²University of Oxford, Oxford, UK

³California Polytechnic State University, San Luis Obispo, CA, USA

*Deland Chan is also affiliated to Chinatown Community Development Center, San Francisco, CA, USA

*Lucy Zhang Bencharit is currently affiliated to Chinatown Community Development Center, San Francisco, CA, USA

Corresponding Author:

Isabella P. Douglas, Department of Civil & Environmental Engineering, Stanford University, 439 Panama Mall, Stanford CA 94305, USA.
Email: douglasi@stanford.edu

demographic labels do not always act consistently. In examining additional factors beyond demographics, we review past literature on the role of racial attitudes and biases in public opinion of affordable housing.

Local Planning Meetings, Ballot Measures, and Political Participation

The majority of comments made at public planning meetings regarding housing, and especially affordable housing, have consistently been oppositional. A study examining 141 housing development proposals in the San Francisco Bay Area found that projects with affordable housing were 38 percent more likely to receive complaints classified as NIMBY (Pendall 1999). A thirty-year longitudinal study of development proposals in a suburban county of Virginia found that an increase in the community's racial diversity or multifamily housing stock (both of which are often outcomes of affordable housing) was associated with higher opposition to subsequent housing rezoning proposals (Whittemore and BenDor 2019a).

Scholars have also observed that the attendees at local planning meetings are not representative of the community at large (Yoder 2020). One recent study of planning and zoning board meetings in ninety-seven Massachusetts municipalities found that the most active community members are predominantly white, male homeowners (Einstein, Palmer, and Glick 2019). Similarly, a study of planning commission meetings in San Francisco found that the majority of participants are older, white, and financially stable (McNee and Pojani 2021). The same type of participants are also seen in online meeting formats (Einstein et al. 2022).

Ballot measure voting outcomes have also been used to study housing opinions. Einstein, Palmer, and Glick (2019) examined town-level voting patterns and found them to be more supportive of affordable housing than respective planning meeting comments. However, given that voting results are anonymized and aggregated, it is not possible to identify what individual-level factors might be linked to the support levels seen in these voting patterns. Additionally, while capturing a wider demographic than planning meetings, the voting population is still not representative of the broader public. Compared with renters, homeowners have higher political participation including voting in local elections (Jiang 2018) and donating to candidates (Yoder 2020). Furthermore, homeowner political participation has been observed to double when housing issues like zoning are involved (Hall and Yoder 2022). Overall, these studies provide an understanding of the disproportionate impact of certain demographics and accompanying housing opinions. While not the focus of the research presented here, these articles highlight the need for continued work on local-level approval processes and, specifically, how the unrepresentative subset of the population that they engage with can create unfair and high barriers for new housing.

Public Opinion Surveys

Public opinion surveys with representative samples can be used to estimate the general public's views on housing and investigate differences linked to individual-level demographics. Numerous studies have found that new housing opposition (e.g., upzoning or high-density infill to allow for greater density) is significantly associated with conservative political ideology (Lewis and Baldassare 2010; Manville and Monkkonen 2021; O'Grady 2020; Whittemore and BenDor 2019b). The same trend was also observed for affordable housing (Tighe 2012). Findings around liberal political ideology are less consistent. A survey of California residents found that, while liberal political ideology had a significant association with support of affordable housing, it also was linked to a neutral stance on new housing in general and even opposition when involving environmental deregulation (Manville 2021). Kahn (2011) found that if their liberal population share had increased, California cities issued fewer new housing permits.

Another demographic factor found to influence housing opinions is homeownership. Multiple studies have found that homeowners oppose proposed new housing more than renters (Manville and Monkkonen 2021). Furthermore, Marble and Nall (2021) conclude that homeownership might be more influential than political ideology for many individuals when forming opinions around housing issues. Additionally, in expensive cities, renters behave more like homeowners and oppose proposed new housing in close proximity. However, these renters still support new housing when affordable housing is explicitly mentioned (Hankinson 2018). Similarly, Matheis and Sorens (2022) report that renters, but not homeowners, in New Hampshire were more likely to prefer a development if it included some low-income units compared with no low-income units. While Tighe (2012) did not find any significant relationship between homeownership and opposition to affordable housing, the study did report that individuals who reported living in a suburban environment or a neighborhood with only single-family homes had a trend of higher opposition.

Affordable Housing's Racial and Emotional Associations

Affordable housing's racial associations can be explicit. For example, Nguyen, Basolo, and Tiwari (2013) reviewed a ten-year period (November 1996 through December 2006) of California newspapers for articles opposing affordable housing and found that 40 percent of the articles directly discussed the tenants' race or ethnicity. Racial associations may also be implicit. Many scholars have posited that the often used argument that affordable housing is unattractive or poorly maintained (Belden, Shashaty, and Zipperer 2004; Tighe 2010) has developed as a more socially acceptable way to voice fears rooted in racism (Clingermayer 2004;

Dear 1992; Nguyen, Basolo, and Tiwari 2013). In addition, related terms such as “public housing” and “section 8” have been subverted to racial slurs (e.g., Badger 2015).

Four studies have explicitly tried to understand the role of racial attitudes and biases in the public’s opinions. Using over thirty years of data from the National Opinion Research Center (NORC’s) General Social Survey (GSS), Manville (2012) showed that an individual’s attitudes on race predicted their attitudes on urban issues providing support that people associate cities with black Americans. Pearson-Merkowitz and Lang (2020) leveraged an exit poll of 1,535 Rhode Island voters to examine differences in support for two state-level bond referendums for smart growth (one funding environmental preservation and the other funding affordable housing). They found that, compared with individuals who voted for both bonds, individuals more likely to vote for neither bond or only the environmental preservation bond viewed the poor and minorities as undeserving. Tighe (2012) found that racism, classism, and trust in the government had significant relationships with her proposed NIMBY Index, which was designed to indicate affordable housing acceptance. Finally, Motley and Perry (2013) found that an individual’s diversity-seeking tendencies³ and prior knowledge of affordable housing were both related to their attitudes toward public housing residents.

While recent work has illustrated the importance of acknowledging and engaging with the public’s emotional responses to planning (e.g., Sandberg and Rönnblom 2016; Skrede and Andersen 2022), to the best of the authors’ knowledge, no studies have directly examined affordable housing’s emotional connotations and the resulting potential impacts. There are two related past findings to note. First, when developing a public opinion survey, the National Association of Realtors pre-tested the term “affordable housing” and found the results so overwhelmingly negative that they switched to the phrase “housing that is affordable” because they observed it had less stigmas (Koebel, Lang, and Danielsen 2004). Second, in a between-subjects survey ($N = 1,447$), when presented with an identical definition, 55 percent of respondents supported or strongly supported the term “lifecycle housing” while 43 percent supported or strongly supported the term “affordable housing” (Goetz 2008). This observed drop in support highlights the importance of the public’s connotations with specific terms related to affordable housing.

In summary, much of the recent public opinion research has focused on related but broader housing topics such as densification (e.g., Manville and Monkkonen 2021; Marble and Nall 2021; Whittemore and BenDor 2019b). Within the studies that had a specific focus on affordable housing, there was a majority of limited geographic (city- or state-wide) scope samples (Goetz 2008; Manville 2021; Matheis and Sorens 2022; Pearson-Merkowitz and Lang 2020) and one smaller ($N = 285$) nationwide sample (Tighe 2012). Two of these studies examined the role of racism in predicting

support (Pearson-Merkowitz and Lang 2020; Tighe 2012) and there is no known comparable research looking at affect as a predictor. Tighe (2012) called for future work to look further into the indirect and direct effects on affordable housing support and this research helps to fill this gap by conducting mediation analysis with structural equation modeling (SEM).

Research Design and Methods

To understand current public opinions around affordable housing, we designed and deployed an online survey nationwide to probe participant support, perceptions, and knowledge of affordable housing. The survey included both quantitative and qualitative measures, and this paper reports on the design of and findings from the quantitative measures.

Data Collection and Participants

We used the online survey platform Qualtrics to collect participants’ responses to all questions. We also used the online participant recruitment platform Prolific to collect a participant sample that was representative of the U.S. population based on the demographics of gender, race, and age. Our survey collected data from May 4 to 20, 2021 with 540 participants. In total, we excluded six participants resulting in a removal rate of ~1 percent and a final sample size of 534. Further technical details on the data collection process and data quality checks are provided in Supplemental Technical Appendix A.

Table 1 summarizes the demographic information for our survey participants. As stated previously, the sample was constructed to be representative of the U.S. population based on the three demographic variables of gender, race, and age. While not controlled for in data collection, the household income and geographic distribution of participants aligned with the national population as well. Specifically, the 2021 national median household income was \$70,784 (Semega and Kollar 2022) and the median household income reported by participants was \$50,000 to \$75,000. When asked to describe the location of their primary residence, 18.9 percent of participants selected rural while 80.5 percent selected urban or suburban. Similarly, the 2020 Census classified 80 percent of the U.S. population as living in urban areas and 20 percent as living in rural areas (U.S. Census Bureau 2022). Finally, Supplemental Figure A1 shows the state-level geographic distribution of participants. The four states with the most number of participants (in decreasing order: California, Florida, New York, and Texas) are the same four states with the largest share of the U.S. population (in decreasing order: California, Texas, Florida, and New York).

The demographic variables of education, children, voting, political affiliation, and ideology differ from the U.S. population at large. Compared with the total population, our

Table 1. Survey Participants' Demographic Characteristics.

Variable	Attribute	Number	Percent
Gender ^a	Female	265	49.6
	Male	258	48.3
	Other ^a	8	1.5
	Prefer not to say	3	0.6
Race	Asian	31	5.8
	Black	72	13.5
	Hispanic	13	2.4
	Middle Eastern	2	0.4
	Native American	2	0.4
	White	375	70.2
	Other	3	0.6
	2+ races	31	5.8
	Prefer not to say	5	0.9
Age	18–24	47	8.8
	25–34	99	18.5
	35–44	103	19.3
	45–54	85	15.9
	55–64	104	19.5
	65 or older	92	17.2
	Prefer not to say	4	0.7
	Mean (Std. Dev.)	47.1 (16.1)	—
	Range	20–82	—
Education	Less than a bachelor's degree	203	38.0
	Bachelor's degree or higher	328	61.4
	Prefer not to say	3	0.6
Household income	\$50,000 or less	224	41.9
	\$50,001–\$100,000	168	31.5
	\$100,001 to \$150,000	79	14.8
	Greater than \$150,000	50	9.4
	Prefer not to say	13	2.4
Children	0	377	70.6
	1	68	12.7
	2	58	10.9
	3+	24	4.5
	Prefer not to say	7	1.3
Neighborhood	Rural	101	18.9
	Suburban	281	52.6
	Urban	149	27.9
	Prefer not to say	3	0.6
Housing payment	Free	59	11.0
	Rent	161	30.1
	Own/mortgage	299	56.0
	Other	3	0.6
	Prefer not to say	12	2.2
Housing type	Single-family house or townhouse	373	69.9
	Multi-family house	14	2.6
	Apartment or condo	110	20.6
	Mobile home or trailer	17	3.2
	Other	6	1.1
	Prefer not to say	14	2.6

(continued)

Table 1. (continued)

Variable	Attribute	Number	Percent
Residency	Less than 1 year	39	7.3
	1 to 4 years	132	24.7
	5 to 10 years	104	19.5
	Greater than 10 years	252	47.2
	Prefer not to say	7	1.3
Geographic region	West	111	20.8
	Midwest	105	19.7
	Northeast	96	18.0
	South	221	41.4
	Prefer not to say	1	0.2
Voted in most recent election	No	61	11.4
	Not eligible	1	0.2
	Yes	464	86.9
	Prefer not to say	8	1.5
Political affiliation	Democrat	273	51.1
	Independent	125	23.4
	Republican	108	20.2
	Other	20	3.7
	Prefer Not to Say	8	1.5
Ideology	Liberal	283	53.0
	Moderate	122	22.8
	Conservative	123	23.0
	Prefer Not to Say	6	1.1
Number of participants after exclusions (excluded)		534 (6)	—

^aNon-binary, non-conforming, Demigirl (provided by participants).

sample was more educated, democratic, and liberal with a higher proportion of voters and childless individuals. Affordable housing deficits are often largest in urban areas with populations that lean more educated, democratic, and liberal than surrounding suburban and rural areas (Kaufman 2021; Parker et al. 2018), making understanding this subset of the population's attitudes important. Additionally, recent findings show the views of liberal individuals on housing to be variable depending on other demographic characteristics or situational context (Marble and Nall 2021), and thus this research may contribute to a greater understanding around what is causing this inconsistent behavior. Overall, our survey captures a wide range of participants across various demographics, but given the sample size and differences from the national population in certain demographic variables, the overall support and past action descriptive findings should not be extrapolated to the entire U.S. population.

Measures and Variables

Our survey asked participants about their support, perceptions, and knowledge of affordable housing with no specific definition of affordable housing provided because we wanted their responses to best match how they might respond when presented with the term outside of a survey setting and only have their own existing construct of the topic. We selected

the measures used for support of affordable housing (Goetz 2008; Tighe 2012), trust (Gallup Poll, Pew Research, GSS), and racism (Modified Symbolic Racism 2000 Scale from Henry and Sears 2002) from past research and created the measures for personal exposure, affect, and past actions. Table A1 summarizes the questions and accompanying answer choices used to operationalize these concepts.

Analyses

Our dependent variable of interest is support of proposed affordable housing at the neighborhood level (see section "Affordable Housing Support" for a comparison of support at state, city/town, and neighborhood levels). The independent variables we considered are participants' demographic characteristics, trust, personal exposure, symbolic racism, affect, and past actions. We checked all the independent variables for their correlation with each other and the dependent variable of support. The one correlation that crossed the conservative multicollinearity threshold of 0.7 was between state and local trust levels. To address this, we created a composite "state and local government" trust variable by averaging the two original measures. We also created two categorical demographic variables: region (baseline: West) and income (baseline: less than \$50,000). Finally, we created the following binary demographic variables: male, white, bachelor's

Table 2. Multiple Linear Regression Results Based on Demographic, Trust, and Personal Exposure Independent Variables for the Dependent Variable of Affordable Housing Support at the Neighborhood Level.

	B	SE	β	t	p
Intercept	6.33	0.46	—	13.87	<.001***
Male	0.10	0.15	.024	0.63	.53
White	−0.19	0.18	−.044	−1.10	.27
Age	< 0.001	0.0058	< .001	0.002	1.00
Bachelor's degree or above	−0.32	0.17	−.080	−1.91	.057†
Income \$50,001 to \$100,000	−0.28	0.19	−.066	−1.46	.15
Income \$100,001 to \$150,000	−0.26	0.27	−.048	−0.99	.33
Income >\$150,000	−1.03	0.29	−.16	−3.58	< .001***
Children	0.17	0.19	.039	0.93	.36
Suburban	−0.31	0.16	−.078	−1.95	.051†
Home owner	−0.29	0.20	−.073	−1.50	.14
Single-family home	−0.32	0.20	−.074	−1.64	.10
Long-term resident	0.29	0.16	.073	1.77	.077†
Midwest region	0.13	0.24	.027	0.55	.59
Northeast region	0.19	0.25	.036	0.74	.46
South region	−0.22	0.20	−.056	−1.09	.27
Republican	−0.096	0.25	−.01970	−0.38	.70
Ideology	−0.64	0.088	−.38	−7.26	< .001***
Federal government trust	0.19	0.085	.11	2.23	.026*
State and local government trust	0.11	0.10	.060	1.15	.25
Trust in people	0.061	0.066	.038	0.93	.35
Personal exposure	0.45	0.157	.114	2.90	.0039**
df = 21, 476					
R ² = .32					
Adj. R ² = .29					
F = 10.44					
p ≤ .001***					

†p ≤ .10. *p ≤ .05. **p ≤ .01. ***p ≤ .001.

degree or above, high income (greater than \$150,000 income), children (one or more children), suburban, home owner, single-family home, long-term resident (greater than ten years), and Republican. We conducted all analyses using the software R.

Multiple linear regressions. We ran multiple linear regressions to check for significant associations between the various independent predictor variables and the dependent outcome variable of interest neighborhood-level support of affordable housing. We then used a hierarchical regression framework for model comparison, which uses analysis of variance (ANOVA) to compare between models, to determine if the addition of the independent variables racism and affect significantly improved the performance of the linear regression model. For all the analyses, we checked that the normality, linearity, and homoscedasticity assumptions were met (Supplemental Technical Appendix C). We detected outliers through Mahalanobis Distance, Cook's Distance, and leverage. We designated any observation that failed two or more of these criteria as an outlier. Tables 2 to 4 present the results with the outliers removed and, unless noted, the significant findings with the outliers included match (Table B2).

Mediation analysis. We conducted mediation analyses (MacKinnon, Fairchild, and Fritz 2007) to understand if racism and affect were operating as intermediate variables (mediators) in the causal pathway between the independent variables of demographics, trust, and personal exposure and the dependent variable of neighborhood-level support of affordable housing. We implemented our analyses through SEM using the R package “lavaan.” Our mediations included covariate controls throughout the causal path. We estimated the standard error and confidence intervals using bootstrapping with 5,000 draws.

Results and Discussion

Affordable Housing Support

As seen in Figure 1, our online survey found that the majority of participants supported proposed affordable housing at the state, city/town, and neighborhood level, which aligns with findings from past phone (Tighe 2012) and paper (Goetz 2008) surveys. The most selected response was the extreme choice of “Strongly support” for all three geographic levels. These responses highlight the impact of proximity even in a

Table 3. Hierarchical Regression Framework Results for Three Additive Models: Condensed Demographics + Federal Government Trust + Personal Exposure (Model 1), Model 1 + Symbolic Racism (Model 2), and Model 2 + Affect (Model 3).

	Model 1			Model 2			Model 3		
	B	SE	p	B	SE	p	B	SE	p
Intercept	6.59	0.35	< .001***	7.04	0.34	< .001***	3.89	0.35	< .001***
White	−0.16	0.17	.36	−0.020	0.16	.90	−0.027	0.14	.84
Bachelor's degree or above	−0.26	0.17	.11	−0.27	0.16	.09†	−0.24	0.13	.065†
\$50,001 to \$100,000	−0.26	0.18	.16	−0.24	0.18	.18	0.0060	0.15	.97
\$100,001 to \$150,000	−0.15	0.24	.54	−0.11	0.23	.65	−0.063	0.19	.74
> \$150,000	−0.98	0.28	< .001***	−1.00	0.27	< .001***	−0.61	0.22	.0058**
Suburban	−0.28	0.16	.074†	−0.30	0.15	.045*	−0.059	0.12	.63
Home owner	−0.31	0.18	.082†	−0.31	0.17	.072†	−0.14	0.14	.32
Single-family home	−0.30	0.19	.12	−0.34	0.18	.062†	−0.41	0.15	.0072**
Long-term resident	0.31	0.15	.04*	0.26	0.15	.082†	0.20	0.12	.11
Ideology	−0.64	0.064	< .001***	−0.25	0.084	.003**	−0.21	0.069	.0026**
Federal government trust	0.27	0.065	< .001***	0.22	0.063	< .001***	0.064	0.053	.230
Personal exposure	0.43	0.15	.0054**	0.35	0.15	.017*	0.30	0.12	.015*
Symbolic racism				−0.44	0.064	< .001***	−0.32	0.054	< .001***
Affect							0.61	0.040	< .001***
	df = 12, 493			df = 13, 492			df = 14, 491		
	R ² = .30			R ² = .36			R ² = .56		
	Adj. R ² = .28			Adj. R ² = .34			Adj. R ² = .55		
	F = 17.30			ΔAdj. R ² = .06			ΔAdj. R ² = .21		
	p ≤ .001***			ΔF = 47.65			ΔF = 226.26		
				Δp ≤ .001***			Δp = < .001***		

†p ≤ .10. *p ≤ .05. **p ≤ .01. ***p ≤ .001.

hypothetical scenario, with opposition more than doubling from 11 percent at the city/town level to 24 percent at the neighborhood level.

For our subsequent analyses, we focus on the dependent variable of the support at the neighborhood level as it has the lowest overall support and is the equivalent geographic scale of the local community opposition that affordable housing projects often face (Nguyen, Basolo, and Tiwari 2013; Scally and Tighe 2015). For the independent variables, we start with considering demographics, trust, and personal exposure. We then incorporate variables capturing the constructs of symbolic racism and affect. These two construct variables are also tested as mediators as they have the potential to act as an intermediary along the casual path between each independent variable and the dependent variable of support. Finally, we examine if an individual's recalled past actions have any ability to predict their stated current levels of support, to begin to probe what might ultimately shape future and especially pro-affordable housing action.

Demographics, Trust, and Personal Exposure

Table 2 shows the results of a multiple linear regression model with the independent variables of demographics, trust levels (Supplemental Figures B1 and B2), and personal

exposure (Table B1) and the dependent variable of support of affordable housing at the neighborhood level. Thirty-six participants were removed as they did not provide their full demographic information and no outliers were identified giving a final sample size of 498. The overall multiple linear regression is significant with an adjusted R² of .28, indicating that the independent variables are able to predict over one-fourth of the variance in the outcome variable of affordable housing support.

The variables related to lower support were: bachelor's degree or above, household income greater than \$150,000, suburban neighborhood, and ideology (increasing from liberal to conservative). The variables related to higher support were: long-term residency (greater than ten years), federal government trust, and personal exposure. As seen in the standardized coefficients (β), a shift in ideology is related to the largest change in support with the next closest variable, household income greater than \$150,000, having less than half the coefficient value.

Our findings for ideology, government trust, and suburban context confirm prior findings by Tighe (2012). Our finding on individuals with household high incomes being less likely to support affordable housing at the neighborhood level is also aligned with relevant recent studies that focused on housing affordability more broadly (Ortiz and Johannes

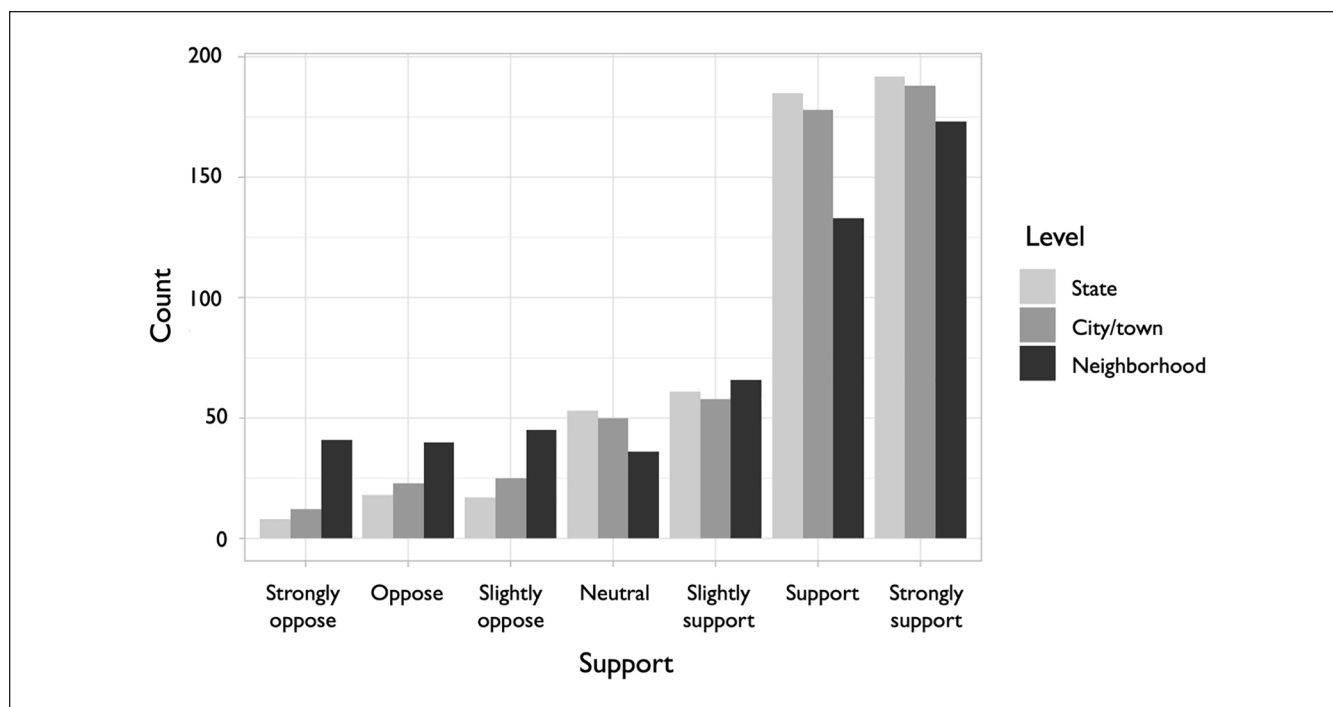


Figure 1. Participants' self-reported support for hypothetical proposed affordable housing at the state, city/town, and neighborhood levels. While a majority of participants report supporting affordable housing at all three geographic levels, there is a drop in support and accompanying increase in opposition with increased proximity, especially from the city/town level to the neighborhood level.

2018) and as one part of smart growth (Pearson-Merkowitz and Lang 2020). Additionally, our finding of individuals with personal exposure to affordable housing having higher support aligns with Motley and Perry's (2013) finding around prior knowledge of affordable housing predicting accompanying attitudes.

Other findings were more unexpected and novel. The strong trend we observed of bachelor's degree or above being associated with lower support of proposed affordable housing has not been directly reported in prior research, but Pearson-Merkowitz and Lang (2020) did find that similar levels of education resulted in a higher likelihood of voting for just a bond supporting land preservation rather than voting for both the land preservation bond and an affordable housing bond. Finally, the strong trend of long-term residency being associated with higher support of affordable housing has not been reported in prior research.

Symbolic Racism and Affect

Two constructs that we test for being predictive of individuals' attitudes toward affordable housing are racism (as captured through the symbolic racism scale, see Supplemental Figures B3 and B4), and affect associated with the concept of affordable housing (as captured through their emotional connotation with the term "affordable housing," see Supplemental Figures B5 and B6). Past research has found a strong

predictive link between affordable housing opposition and racism (Tighe 2012) and we wanted to observe whether or not this same relationship holds a decade later. We also wanted to look at affect's relationship with affordable housing support as there have been calls for researchers and planners to more directly acknowledge and address the public's emotional reactions to planning proposals and designs (e.g., Sandberg and Rönnblom 2016; Skrede and Andersen 2022).

We are further interested in investigating the mental process our survey participants would go through when asked to explicitly select their support (or opposition) to proposed affordable housing. In particular, the racism and affect variables capture two potentially biased perspectives that might be framing these attitudes toward affordable housing and are accordingly tested as mediators. We posited that the casual path runs from broad to specific as well as unconscious to conscious. We deemed racism the most broad and unconscious concept as symbolic racism is a "single logically and psychologically consistent belief system" (Tarman and Sears 2005), which results in a biased frame of reference that shapes opinions about topics beyond explicitly race (Winter 2008). Affect would then be the second mediator following symbolic racism as it would be triggered upon reading the term affordable housing prior to consciously deciding one's opinions on it. Based upon a review of thirty-five years of psychology research on emotions and decision-making, Lerner et al. (2015) conclude that "that emotions constitute

potent, pervasive, predictable, sometimes harmful and sometimes beneficial drivers of decision making. Across different domains, important regularities appear in the mechanisms through which emotions influence judgments and choices.” Similar conclusions were previously reached by Clore and Huntsinger (2007) and Izard (2009). Additionally, Rocklage and Luttrell (2021) found that emotion-evoking persuasive messages result in more stable, lasting attitudes, which they state supports the casual path from emotions to attitudes.

Prediction. A hierarchical regression framework approach was used to investigate if including the two additional variables of racism and affect resulted in a more accurate model in predicting the variance in the outcome variable of affordable housing support at the neighborhood level. In total, three regression models were run with one additional variable being added with each subsequent model (Table 3). Twenty-eight participants were removed as they did not provide the necessary demographic information and no outliers were identified giving a final sample size of 506.

Model 1 was a reduced version of the model presented in Table 2. Model 2 then adds the variable of symbolic racism, and Model 3 adds the variable of affect. Compared with the larger model with demographics, trust, and personal exposure (Table 2), Model 1’s ability to predict affordable housing support is comparable (.01 decrease in the adjusted R^2 , 50 percent increase in the F value). Overall, the ANOVA results ($\Delta\text{Adj. } R^2$, ΔF , and Δp in Table 3) show that the inclusion of both the variables of symbolic racism and affect leads to a statistically significant increase in prediction performance by the model.

The negative regression coefficient for symbolic racism indicates that there was a significant decrease in support of affordable housing as the symbolic racism score increased (higher score = greater racism). Tighe (2012) similarly found that racism was a highly significant predictor for participants’ affordable housing attitudes. Conversely, the positive regression coefficient for affect reflects that there was a significant increase in support of affordable housing as affect increased (shifted from negative to positive emotional connotation), which is aligned with the drop in support between the term’s lifecycle housing and affordable housing reported by Goetz (2008).

Mediation. The multiple linear regression models (Tables 2 and 3) assumed that there were only direct relationships between all the independent variables and the dependent variable of support. However, we wanted to further test for potential indirect relationships between support and the independent variables associated with participants (demographics, trust, and personal exposure) through the hypothesized mediators of symbolic racism and affect. While the regression results allow us to predict affordable housing support, these mediation results provide insight into potential causal pathways, which can help inform strategies for

both reducing resistance to and increasing support for affordable housing.

As seen in Table 3, the introduction of symbolic racism and affect in regression Models 2 and 3 reduced or made non-significant the coefficients for the five variables: household income greater than \$150,000, suburban, ideology, federal government trust, and personal exposure. The reduction of these independent variables’ significance supports the idea that symbolic racism and affect are acting as mediators. The tested causal pathway included serial mediation from the broader concept of racism to the narrower concept of the affect of the term “affordable housing.” All the independent variables that were found to be significant in Models 1 to 3 were tested for mediation by symbolic racism and affect.

For all the mediation figures (Figures 2–4), the “c” and “e” paths have the same highly significant coefficient values as these capture the direct effects of the mediators on support. The “b” path between the mediators themselves is also always significant indicating an indirect effect of symbolic racism through affect in addition to its direct effect (“e” path). The signs of all these significant path coefficients are as expected. The rest of the mediation findings are grouped into the three potential types of mediation: no mediation, partial mediation, and full mediation.

Variables undergoing no mediation. The independent variables of bachelor’s degree or above, single-family home, and long-term resident were checked for mediation even though their relationship with support was not greatly altered by the addition of symbolic racism and affect in the regressions. As expected, no mediation was found. Additionally, personal exposure was checked as it did have a reduced coefficient and significance with the addition of the potential mediators. As seen in Figure 2, no significant mediation was found. However, looking at the results for the “ae” path, there is a strong trend of personal exposure reducing symbolic racism and a resulting indirect effect of increasing support. While these independent variables are not being mediated by symbolic racism or affect, there is still the possibility of them being mediated by another intermediate variable that we are not considering in this research.

Variables undergoing partial mediation. The independent variables of high income and ideology were found to be partially mediated (Figure 3), meaning that both variables have a significant direct path to the outcome of affordable housing support in addition to a significant indirect path through the mediators. High income has a significant indirect effect through affect (“dc” path) with high income being associated with a more negative affect and consequently a lower support. Ideology has a significant indirect effect through symbolic racism (“ae” path) and through symbolic racism and affect in series (“abc” path). As ideology goes from liberal to conservative (increases), so does symbolic racism resulting in a positive coefficient for the “a” path.

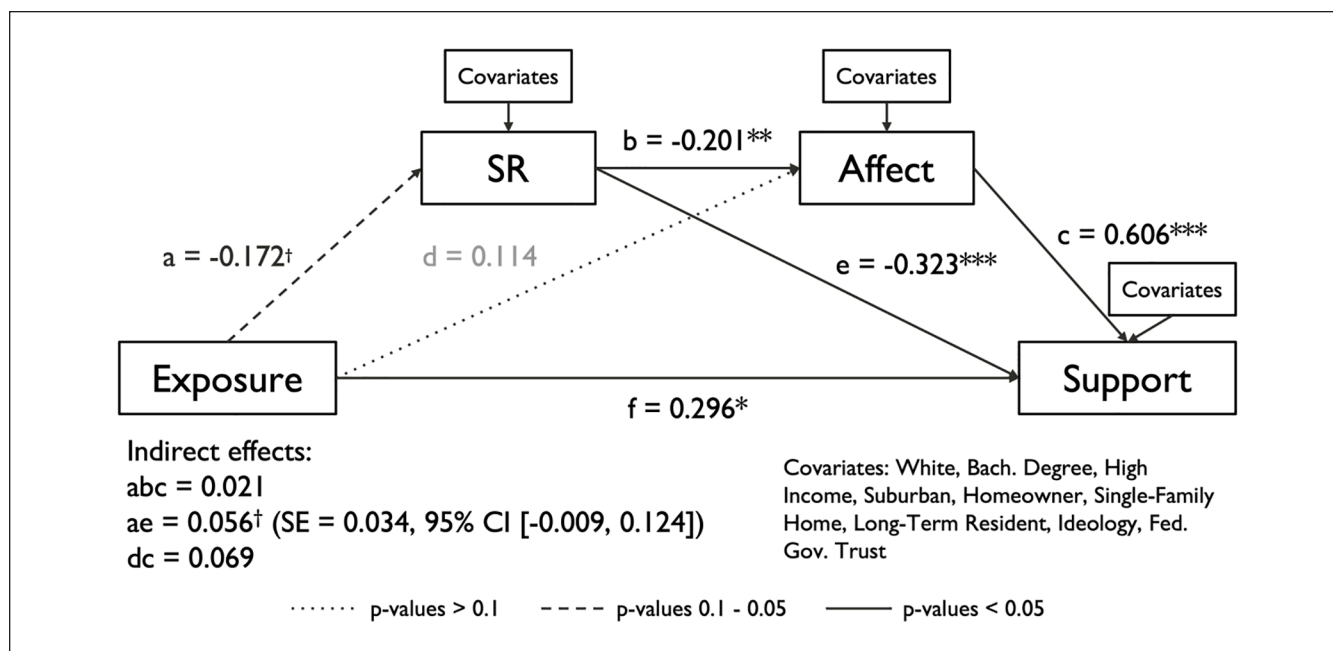


Figure 2. No mediation of the variable of personal exposure through symbolic racism (SR) and affect.

Variables undergoing full mediation. The independent variables of suburban and federal government trust were found to be fully mediated, which means they only have significant indirect effects on support for affordable housing at the neighborhood level (Figure 4). Suburban is fully mediated through affect (“dc” path), which indicates that individuals who identify with living in a suburban setting have a more negative emotional connotation (negative “d” path coefficient) with the topic, resulting in less support for the proposed affordable housing. Federal government trust is fully mediated through symbolic racism (“ae” path), affect (“dc” path), and symbolic racism and affect in series (“abc” path). Overall, as federal government trust increases, symbolic racism decreases (negative “a” path coefficient) and affect becomes more positive (positive “d” path coefficient).

Overall, racism and affect partially or fully mediated half of the individual-level variables tested. This highlights the central role of biases accompanying racism and affect in shaping affordable housing opinions even in hypothetical scenarios. While our affect measure does not directly mention race, it could be reflecting some portion of the implicit racial biases associated with affordable housing. In their “Challenging Race as Risk: Implicit Bias in Housing” report, Olinger, Capatosto, and McKay (2017) explain that unconscious implicit racial biases, which are shaped by things like structural racism, govern “real-world behavior” more than self-reported beliefs. Therefore, if implicit racial biases are contributing to affect, the impact of affect would be exacerbated in real settings. Further research is needed to confirm if implicit racial biases and any other biases are associated with affect. Overall, mediation is a tool to start investigating

scoped causal paths accepting that the human thought process is incredibly complex (Agler and De Boeck 2017).

Exploratory Analysis of Reported Past Actions

In this section, we share participants’ reported past actions (and inaction) in support and opposition of affordable housing. Through an exploratory analysis, we then seek to observe how these actions may be linked with opinions around affordable housing because the, often oppositional, actions taken in communities by a non-representative subset of the population greatly shape the affordable housing landscape (e.g., Einstein, Palmer, and Glick 2019).

Overall, 47 percent of participants reported taking none of the twelve different possible actions in support or opposition of affordable housing in their community (Figure 5). The most reported action overall was “Discussed issue with another person,” which 45 percent (37% in support and 8% in opposition) of participants reported. The other top five actions for or against affordable housing that participants reported having taken were: “Voted on a relevant issue,” “Signed a petition,” “Posted on an online platform,” and “Attended an event or meeting.” For the other remaining past actions, 10 percent or less of participants combined reported having taken that action either for or against affordable housing. These less reported past actions included three of the actions most influential in shaping the current affordable housing landscape: contacted elected officials, attended a public hearing, and spoke at a public hearing. Having spoken at a public hearing was also the past action with the lowest ratio of participants reporting the action in support (2%)

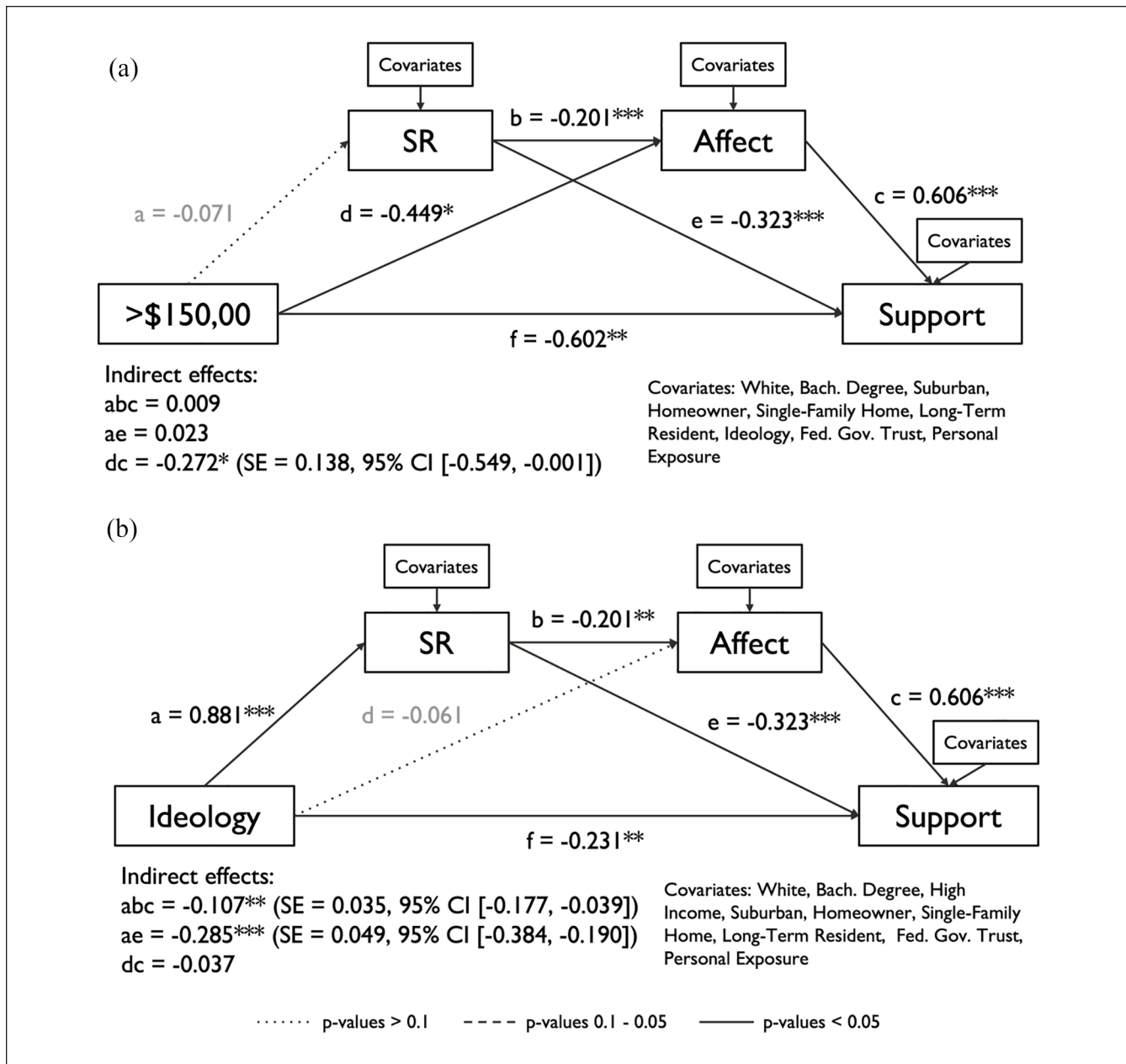


Figure 3. Partial mediation of the variables of (a) high income and (b) ideology through symbolic racism (SR) and affect.

versus opposition (1%). Contrastingly, there was a much higher ratio of individuals who reported contacting an elected official and attending a public hearing in support (both 7%) versus opposition (both 1%).

We analyzed the top five past actions from Figure 5 in a multiple linear regression model to test their relationship with participant's stated support of affordable housing at the neighborhood level (Table 4). We input each support and opposition action as a binary indicator variable with a baseline of no action taken. We removed fifteen outliers resulting in a final sample size of 519. The significance and sign of these findings hold when these outliers are included (Table B2).

The past actions model is overall significant with an adjusted R^2 of .23. Both discussion variables ended up being significant with discussion in opposition lowering stated support and discussion in support increasing stated support as would be expected. Participants who reported voting in opposition also had a significantly lower stated support than those who reported not voting at all and participants who reported posting online in support of affordable housing had a significantly higher stated support than those who reported not posting at all. The respective contrasting actions, voting in support and posting in opposition of affordable housing, were not significant compared with the baseline of inaction. Given that this model is only composed of binary indicator

Table 4. Multiple Linear Regression Results for the Independent Variables of the Top Five Past Actions and the Dependent Variable of Affordable Housing Support at the Neighborhood Level.

	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Intercept	4.85	0.10	—	48.12	<.001***
Discussed in opposition	−1.73	0.35	−.22	−4.93	<.001***
Discussed in support	0.88	0.19	.22	4.56	<.001***
Voted in opposition	−1.85	0.72	−.132	−2.56	.011*
Voted in support	0.21	0.22	.046	0.95	.34
Signed petition in opposition	−0.91	1.34	−.041	−0.68	.50
Signed petition in support	0.0017	0.27	<.001	0.0070	.99
Posted online in opposition	−0.23	1.10	−.0090	−0.21	.84
Posted online in support	0.59	0.27	.11	2.19	.03*
Attended event in opposition	0.89	1.33	.040	0.67	.50
Attended event in support	0.23	0.29	.035	0.78	.43
<i>df</i> = 10, 508					
<i>R</i> ² = .25					
Adj. <i>R</i> ² = .23					
<i>F</i> = 16.56					
<i>p</i> ≤ .001***					

†*p* ≤ .10. **p* ≤ .05. ***p* ≤ .01. ****p* ≤ .001.

variables that can only take the values 0 and 1, we can directly compare their unstandardized coefficients *B*. The largest magnitude regression coefficient was for having voted in opposition followed closely by having discussed in opposition. The regression coefficients for the two remaining significant actions, both actions taken in support, are less than half in magnitude. These descriptive summaries and analyses of past actions highlight the need for future research around what might motivate individuals to take voluntary present or future actions, especially positive actions, around affordable housing.

Conclusion

The objectives of our research were to (1) identify the factors that predict support of affordable housing at the neighborhood level and (2) understand how the concepts of racism and affect are operating as intermediaries to affordable housing support. We compared our significant prediction variables with those from a research survey with data collected over ten years prior (2009 dissertation research survey in Tighe 2012) to identify factors that hold over time or are new to emerge through our 2021 data. We also explored how past actions around affordable housing related to stated opinions of support.

As expected, support for affordable housing decreased as proposed geographic proximity increased (i.e., affordable housing proposed in city/town versus in neighborhood). Through multiple linear regressions, we determined the individual-level variables of high income, education (bachelor's degree or higher), suburban neighborhood, single-family home, conservative ideology, and racism predict lower

support of affordable housing at the neighborhood level. Conversely, the variables of long-term residency, federal government trust, personal exposure, and affect predict higher support at the neighborhood level. Through SEM, we provided support that racism and affect were acting as serial mediators for support of affordable housing at the neighborhood level. Regarding past actions, discussing and voting in opposition to affordable housing were negatively associated with support while the actions of discussing and posting online in support of affordable housing were positively associated with support.

We have identified three limitations that can be addressed in future research. First, our survey participant sample, while large and diverse, only included individuals who were fluent in English and had access to the Internet. To capture other important community viewpoints, follow-up surveys should be translated into multiple languages and available in online, telephone, and paper versions. Second, our participant sample was nationwide, which means some of the nuances that are crucial to understanding state- or local-level issues facing affordable housing might not be salient. Additional research should focus on participant samples from a singular state or metropolitan area to capture what components might be related to variations in opinions on these smaller geographic scales. Finally, the data presented in this paper were generated from self-report, closed-ended questions, which may have been skewed by social desirability bias. As mentioned in section "Measures and Variables," our survey also collected semi-structured text data generated from multiple free-response questions, which can be used to further explore social desirability bias. An additional area of future work would be to build conclusive evidence for causality in our

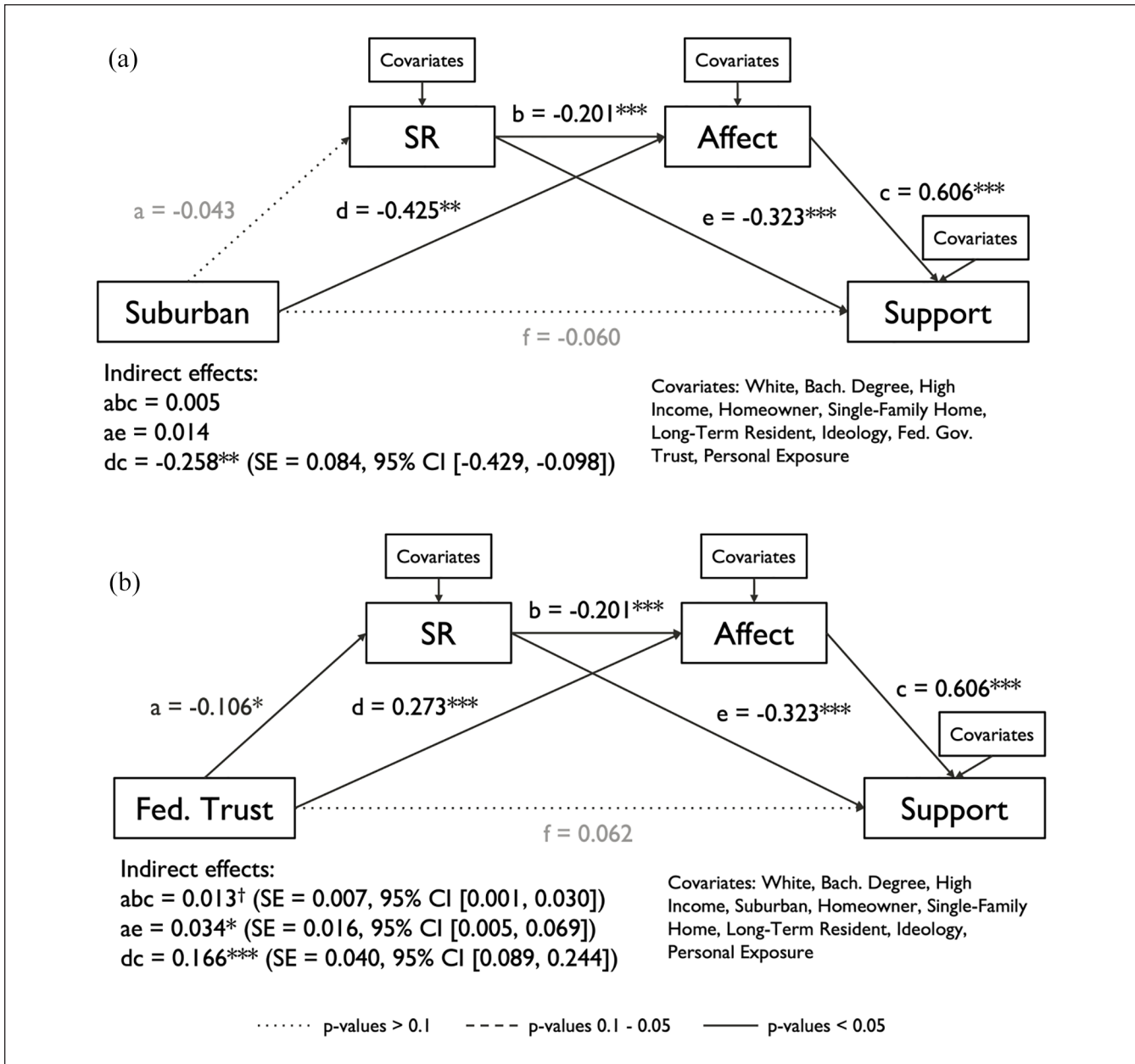


Figure 4. Full mediation of the variables of (a) suburban and (b) federal trust through symbolic racism (SR) and affect.

finding that the serial mediators of symbolic racism and affect are significantly linked to support of affordable housing. Additional research could include experimental studies that directly manipulate the proposed mediators to explicitly probe this causality.

Overall, our research is a start in understanding how racism and affect, which may be partially due to implicit racial bias, are involved in the shift from support of hypothetical scenarios of proposed affordable housing locations to opposition of real affordable housing development proposals. Given the known negative well-being impacts and magnitude of the ongoing affordable housing crisis, solutions

should target both the process (e.g., Einstein, Palmer, and Glick 2019) and public attitudes (this research) aspects of barriers to new affordable housing. Current and future research could investigate the motivations of individuals, and particularly how voluntary public participation can lead to more positive actions and support for affordable housing. While there might not be significant changes to the approval process in the immediate future and shifting racism and affect is a similarly difficult undertaking, these efforts can allow for targeted and effective incremental progress.

From the process side, planners can also leverage technology to allow for remote, asynchronous, and non-verbal forms

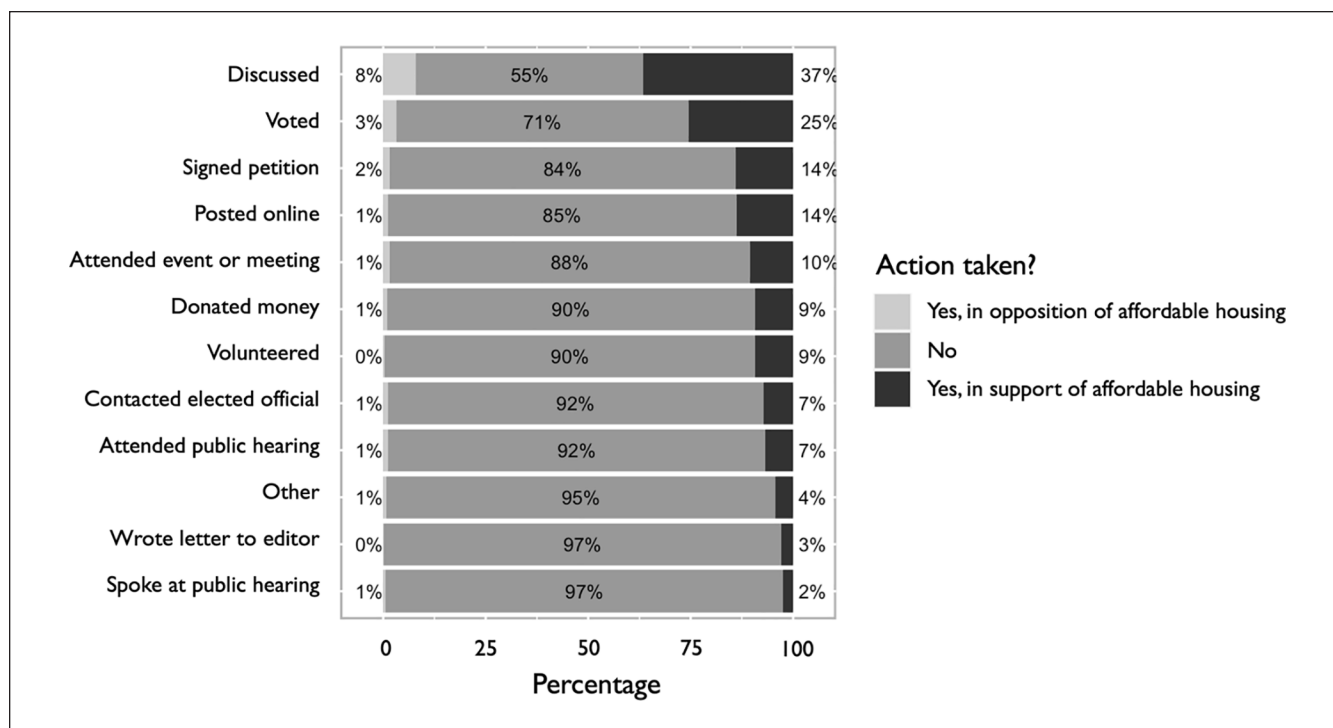


Figure 5. Breakdown of participants' past actions taken in support and in opposition of affordable housing listed in decreasing percent of action taken in support.

of participation (e.g., J. Mueller et al. 2018; Wensaas, Pettersen, and Smørdal 2020) to engage a larger and more representative subset of the community. Additionally, deliberative polling (Fishkin 2011), which measures a random representative sample's views on a contentious or poorly understood issue before and after engaging in an intervention aimed at increasing understanding on the topic, could provide supplemental data to better approximate the broader public's opinion. From the attitudes side, strategies to reduce affordable housing opposition, and relatedly increase affordable housing support, in communities should include targeting the causal path mediating factors of racism and affect. As part of addressing the legacy of racial disadvantages and advantages in planning (Goetz, Williams, and Damiano 2020), planners and scholars can engage in direct conversations with the public about the cyclical relationship between the built environment and racism, both salient and hidden. Taking it further, more work is needed to address the structural racism that undergirds the logic of public participation, particularly as it relates to affordable housing and the American planning tradition as a whole (Williams 2020). There have been promising examples of interdisciplinary teams of scholars, professionals, and various community groups coming together to leverage local data (Murray, Falkenburger, and Saxena 2015), maps (Walker and Derickson 2022), and historical narratives (Martin 2022) to better understand how racism has shaped our built environment and foster a productive dialogue with community members. When possible, planners

can engage the community earlier and give them an active role in the planning and development process (e.g., Forsyth, Nicholls, and Raye 2010) in shaping projects in ways that foster connection and reflection and allow for counteracting initial negative emotional reactions. Doing so would invite the re-imagining of public participation, which to date has predominantly limited perspectives to those with pre-existing racial biases, and would introduce a world where we tackle head-on the long-standing structural inequities that have hindered its possibilities.

Acknowledgments

The authors would like to thank our survey participants, research assistants (Maddie Connelly, Sage Crosby, Paula Garza, Sahir Qureshi, Colleen Sharp, and Antonio Skillicorn), colleagues who helped review the survey design (Prof. Bruce Cain, Prof. Tomás Jiménez, Joe Mernyk, Dr. Alesia Montgomery, Dr. Stan Oklobdzija, Natasha Patel, and Prof. Gabrielle Wong-Parodi), and the Billington Lab Group.

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) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research is supported by the UPS Endowment Fund and Stanford

Impact Labs at Stanford University and the National Science Foundation Graduate Research Fellowship under Grant No. DGE-1656518. Funders had no part in the conceptualization, design, data collection, analysis, decision to publish, or preparation of the manuscript.

ORCID iDs

Isabella P Douglas  <https://orcid.org/0000-0002-5104-8480>

Deland Chan  <https://orcid.org/0000-0003-0079-9572>

Supplemental Material

Supplemental material for this article is available online.

Notes

1. Extremely low income households are defined as having a household income at or below the poverty level or 30 percent of the area median income.
2. Lack of affordable housing was the top most reported major problem with the following top issues including drug addiction, COVID-19 impacts, and crime.
3. Motley and Perry define diversity-seeking tendencies as “a propensity to seek out cultural diversity in products, services, and experiences” and measure it with a scale from Brumbaugh and Grier (2013).

References

- Agler, Robert, and Paul De Boeck. 2017. “On the Interpretation and Use of Mediation: Multiple Perspectives on Mediation Analysis.” *Frontiers in Psychology* 8 (November): 1984. doi:10.3389/fpsyg.2017.01984.
- American Strategies. 2017. “2017 PULSE National Survey.” National Association of Realtors. https://cdn.nar.realtor/sites/default/files/migration_files/reports/2017/national-pulse-report-2017-07-12.pdf.
- Badger, Emily. 2015. “How Section 8 Became a ‘racial Slur.’” *The Washington Post*, June 15. <https://www.washingtonpost.com/news/wonk/wp/2015/06/15/how-section-8-became-a-racial-slur/>.
- Barrett, Lisa Feldman, and Eliza Bliss-Moreau. 2009. “Affect as a Psychological Primitive.” *Advances in Experimental Social Psychology* 41:167–218. doi:10.1016/S0065-2601(08)00404-8.
- Belden, Nancy, Andre Shashaty, and John Zipperer. 2004. “What We Know about Public Attitudes on Affordable Housing: A Review of Existing Public Opinion Research.” *The Campaign for Affordable Housing*. http://www.tcuh.org/pdf/Public_Attitudes.pdf.
- Bentley, Rebecca, Emma Baker, Richard Ronald, Aaron Reeves, Susan J. Smith, Koen Simons, and Kate Mason. 2022. “Housing Affordability and Mental Health: An Analysis of Generational Change.” *Housing Studies* 37 (10): 1842–57. doi:10.1080/02673037.2022.2108380.
- Bottino, Clement J., Eric W. Flegler, Joanne E. Cox, and Erinn T. Rhodes. 2019. “The Relationship Between Housing Instability and Poor Diet Quality among Urban Families.” *Academic Pediatrics* 19 (8): 891–98. doi:10.1016/j.acap.2019.04.004.
- Bratt, Rachel G. 2002. “Housing and Family Well-Being.” *Housing Studies* 17 (1): 13–26. doi:10.1080/02673030120105857.
- Brumbaugh, Anne M., and Sonya A. Grier. 2013. “Agents of Change: A Scale to Identify Diversity Seekers.” *Journal of Public Policy & Marketing* 32 (Suppl. 1): 144–55. doi:10.1509/jppm.12.035.
- Burningham, Kate. 2000. “Using the Language of NIMBY: A Topic for Research, Not an Activity for Researchers.” *Local Environment* 5 (1): 55–67. doi:10.1080/135498300113264.
- Carnemolla, Phillippa, and Vivienne Skinner. 2021. “Outcomes Associated with Providing Secure, Stable, and Permanent Housing for People Who Have Been Homeless: An International Scoping Review.” *Journal of Planning Literature* 36 (4): 508–25. doi:10.1177/08854122211012911.
- Clingermayer, James C. 2004. “Heresthetics and Happenstance: Intentional and Unintentional Exclusionary Impacts of the Zoning Decision-Making Process.” *Urban Studies* 41 (2): 377–88. doi:10.1080/0042098032000165307.
- Clare, Gerald L., and Jeffrey R. Huntsinger. 2007. “How Emotions Inform Judgment and Regulate Thought.” *Trends in Cognitive Sciences* 11 (9): 393–99. doi:10.1016/j.tics.2007.08.005.
- Dear, Michael. 1992. “Understanding and Overcoming the NIMBY Syndrome.” *Journal of the American Planning Association* 58 (3): 288. doi:10.1080/01944369208975808.
- Einstein, Katherine Levine, David Glick, Luisa Godinez Puig, and Maxwell Palmer. 2022. “Still Muted: The Limited Participatory Democracy of Zoom Public Meetings.” *Urban Affairs Review* 59: 1279–91. doi:10.1177/10780874211070494.
- Einstein, Katherine Levine, Maxwell Palmer, and David M. Glick. 2019. “Who Participates in Local Government? Evidence from Meeting Minutes.” *Perspectives on Politics* 17 (1): 28–46. doi:10.1017/S153759271800213X.
- Fenelon, Andrew, Patrick Mayne, Alan E. Simon, Lauren M. Rossen, Veronica Helms, Patricia Lloyd, Jon Sperling, and Barry L. Steffen. 2017. “Housing Assistance Programs and Adult Health in the United States.” *American Journal of Public Health* 107 (4): 571–78. doi:10.2105/AJPH.2016.303649.
- Fischel, William A. 2015. *Zoning Rules! The Economics of Land Use Regulation*. Lincoln Institute of Land Policy. https://www.amazon.com/gp/product/B01185VTOG/ref=db_s_a_def_rwt_bibl_vppi_i0.
- Fishkin, James S. 2011. *When the People Speak: Deliberative Democracy and Public Consultation*. Oxford: Oxford University Press. doi:10.1093/acprof:osobl/9780199604432.001.0001.
- Forsyth, Ann, Gretchen Nicholls, and Barbara Raye. 2010. “Higher Density and Affordable Housing: Lessons from the Corridor Housing Initiative.” *Journal of Urban Design* 15 (2): 269–84. doi:10.1080/13574801003638079.
- Goetz, Edward G. 2008. “Words Matter: The Importance of Issue Framing and the Case of Affordable Housing.” *Journal of the American Planning Association* 74 (2): 222–29. doi:10.1080/01944360802010251.
- Goetz, Edward G., Rashad A. Williams, and Anthony Damiano. 2020. “Whiteness and Urban Planning.” *Journal of the American Planning Association* 86 (2): 142–56. doi:10.1080/01944363.2019.1693907.
- Hall, Andrew B., and Jesse Yoder. 2022. “Does Homeownership Influence Political Behavior? Evidence from Administrative Data.” *The Journal of Politics* 84 (1): 351–66. doi:10.1086/714932.

- Hankinson, Michael. 2018. "When Do Renters Behave Like Homeowners? High Rent, Price Anxiety, and NIMBYism." *The American Political Science Review* 112 (3): 473–93. https://ideas.repec.org/a/cup/apsrev/v112y2018i03p473-493_00.html.
- Hart Research. 2019. "The Need for Action on Housing Affordability." *Opportunity Starts at Home*. <https://www.opportunityhome.org/resources/poll2019/>.
- Henry, P. J., and D. O. Sears. 2002. "The Symbolic Racism 2000 Scale." *Political Psychology* 23:253–83. doi:10.1111/0162-895X.00281.
- Izard, Carroll E. 2009. "Emotion Theory and Research: Highlights, Unanswered Questions, and Emerging Issues." *Annual Review of Psychology* 60:1–25. doi:10.1146/annurev.psych.60.110707.163539.
- Jenkins Morales, Meghan, and Stephanie A. Robert. 2022. "Housing Cost Burden and Health Decline Among Low- and Moderate-Income Older Renters." *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 77 (4): 815–26. doi:10.1093/geronb/gbab184.
- Jiang, Boqian. 2018. "Homeownership and Voter Turnout in U.S. Local Elections." *Journal of Housing Economics* 41 (September): 168–83. doi:10.1016/j.jhe.2018.06.006.
- Kahn, Matthew E. 2011. "Do Liberal Cities Limit New Housing Development? Evidence from California." *Journal of Urban Economics* 69 (2): 223–28. doi:10.1016/j.jue.2010.10.001.
- Kaufman, Chelsea N. 2021. "Where Are the Values Voters? Ideological Constraint and Stability among Rural, Suburban, and Urban Populations in the United States." *Journal of Rural Studies* 88 (December): 169–80. doi:10.1016/j.jrurstud.2021.10.019.
- Koebel, C., R. Lang, and K. Danielsen. 2004. "Community Acceptance of Affordable Housing." *National Association of Realtors*. https://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=1349&context=sea_fac_articles#:~:text=A%20community's%20acceptance%20of%20affordable,a%20diverse%20and%20growing%20population.
- Lee, Yeonhwa, Peter A. Kemp, and Vincent J. Reina. 2022. "Drivers of Housing (un)affordability in the Advanced Economies: A Review and New Evidence." *Housing Studies* 37 (10): 1739–52. doi:10.1080/02673037.2022.2123623.
- Lerner, Jennifer S., Ye Li, Piercarlo Valdesolo, and Karim S. Kassam. 2015. "Emotion and Decision Making." *Annual Review of Psychology* 66 (January): 799–823. doi:10.1146/annurev-psych-010213-115043.
- Lewis, Paul G., and Mark Baldassare. 2010. "The Complexity of Public Attitudes toward Compact Development." *Journal of the American Planning Association* 76 (2): 219–37. doi:10.1080/01944361003646471.
- MacKinnon, David P., Amanda J. Fairchild, and Matthew S. Fritz. 2007. "Mediation Analysis." *Annual Review of Psychology* 58:593–614. doi:10.1146/annurev.psych.58.110405.085542.
- Manville, Michael. 2012. "People, Race and Place: American Support for Person- and Place-Based Urban Policy, 1973–2008." *Urban Studies* 49 (14): 3101–19. doi:10.1177/0042098011432556.
- Manville, Michael. 2021. "Liberals and Housing: A Study in Ambivalence." *Housing Policy Debate* 33:844–64. doi:10.1080/10511482.2021.1931933.
- Manville, Michael, and Paavo Monkkonen. 2021. "Unwanted Housing: Localism and Politics of Housing Development." *Journal of Planning Education and Research*. Published electronically March 25. doi:10.1177/0739456X21997903.
- Marble, William, and Clayton Nall. 2021. "Where Self-Interest Trumps Ideology: Liberal Homeowners and Local Opposition to Housing Development." *The Journal of Politics* 83 (4): 1747–63. doi:10.1086/711717.
- Martin, Malea. 2022. "Taking a Closer Look at How a History of Racism Shaped Mountain View's Housing." *Mountain View Voice*, July 28. <https://mv-voice.com/news/2022/07/28/taking-a-closer-look-at-how-a-history-of-racism-shaped-mountain-views-housing>.
- Matheis, Mike, and Jason Sorens. 2022. "Framing Affordable Housing: An Experimental Test of Changing Attitudes." *Housing Studies*. Published electronically August 1. doi:10.1080/02673037.2022.2101630.
- McClymont, Katie, and Paul O'Hare. 2008. "'We're Not NIMBYs!' Contrasting Local Protest Groups with Idealised Conceptions of Sustainable Communities." *Local Environment* 13 (4): 321–35. doi:10.1080/13549830701803273.
- McNee, Georgina, and Dorina Pojani. 2021. "NIMBYism as a Barrier to Housing and Social Mix in San Francisco." *Journal of Housing and the Built Environment* 37: 553–73. doi:10.1007/s10901-021-09857-6.
- Motley, Carol M., and Vanessa Gail Perry. 2013. "Living on the Other Side of the Tracks: An Investigation of Public Housing Stereotypes." *Journal of Public Policy & Marketing* 32 (Suppl. 1): 48–58. doi:10.1509/jppm.12.029.
- Mueller, Elizabeth J., and J. Rosie Tighe. 2007. "Making the Case for Affordable Housing: Connecting Housing with Health and Education Outcomes." *Journal of Planning Literature* 21 (4): 371–85. doi:10.1177/0885412207299653.
- Mueller, Johannes, Hangxin Lu, Artem Chirkin, Bernhard Klein, and Gerhard Schmitt. 2018. "Citizen Design Science: A Strategy for Crowd-Creative Urban Design." *Cities* 72 (February): 181–88. doi:10.1016/j.cities.2017.08.018.
- Murray, Brittany, Elsa Falkenburger, and Priya Saxena. 2015. "Data Walks: An Innovative Way to Share Data with Communities." *The Urban Institute*. <https://www.urban.org/sites/default/files/publication/72906/2000510-data-walks-an-innovative-way-to-share-data-with-communities.pdf>.
- National Low Income Housing Coalition. 2022. "The Gap: A Shortage of Affordable Homes." *National Low Income Housing Coalition*. <https://nlihc.org/gap>.
- Nguyen, Mai Thi, Victoria Basolo, and Abhishek Tiwari. 2013. "Opposition to Affordable Housing in the USA: Debate Framing and the Responses of Local Actors." *Housing, Theory and Society* 30 (2): 107–30. doi:10.1080/14036096.2012.667833.
- O'Grady, Tom. 2020. "NIMBYism as Place-Protective Action: The Politics of Housebuilding." doi:10.31235/osf.io/d6pzy.
- Olinger, Jill, Kelly Capatosto, and Mary Ana McKay. 2017. "Challenging Race as Risk: How Implicit Bias Undermines Housing Opportunity in America—and What We Can Do about It." *Kirwan Institute for the Study of Race and Ethnicity*. <http://clevelandnp.org/implicit-bias-housing.pdf>.
- Ortiz, Selena E., and Bobbie L. Johannes. 2018. "Building the Case for Housing Policy: Understanding Public Beliefs about

- Housing Affordability as a Key Social Determinant of Health.” *SSM—Population Health* 6 (December): 63–71. doi:10.1016/j.ssmph.2018.08.008.
- Parker, Kim, Juliana Horowitz, Anna Brown, Richard Fry, Dvera Cohn, and Ruth Igielnik. 2018. “What Unites and Divides Urban, Suburban and Rural Communities.” *Pew Research Center*. <https://www.pewresearch.org/social-trends/wp-content/uploads/sites/3/2018/05/Pew-Research-Center-Community-Type-Full-Report-FINAL.pdf>.
- Pearson-Merkowitz, Shanna, and Corey Lang. 2020. “Smart Growth at the Ballot Box: Understanding Voting on Affordable Housing and Land Management Referendums.” *Urban Affairs Review* 56 (6): 1848–75. doi:10.1177/1078087419861430.
- Pendall, Rolf. 1999. “Opposition to Housing: NIMBY and Beyond.” *Urban Affairs Review* 35 (1): 112–36. doi: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. doi:10.1080/01944360008976094.
- Pollack, Craig Evan, Beth Ann Griffin, and Julia Lynch. 2010. “Housing Affordability and Health among Homeowners and Renters.” *American Journal of Preventive Medicine* 39 (6): 515–21. doi:10.1016/j.amepre.2010.08.002.
- Rocklage, Matthew D., and Andrew Luttrell. 2021. “Attitudes Based on Feelings: Fixed or Fleeting?” *Psychological Science* 32 (3): 364–80. doi:10.1177/0956797620965532.
- Rosen, K. T., D. Bank, M. Hall, S. Reed, and C. Goldman. 2021. “Housing Is Critical Infrastructure: Social and Economic Benefits of Building More Housing.” *National Association of Realtors*. <https://www.nar.realtor/sites/default/files/documents/Housing-is-Critical-Infrastructure-Social-and-Economic-Benefits-of-Building-More-Housing-6-15-2021.pdf>.
- Sandberg, Linda, and Malin Rönblom. 2016. “Planning the New City-Emotional Reaction and Positions.” *Emotion, Space and Society* 21 (November): 50–57. doi:10.1016/j.emospa.2016.10.005.
- Scally, Corianne Payton, and J. Rosie Tighe. 2015. “Democracy in Action? NIMBY as Impediment to Equitable Affordable Housing Siting.” *Housing Studies* 30 (5): 749–69. doi:10.1080/02673037.2015.1013093.
- Schaeffer, Katherine. 2022. “A Growing Share of Americans Say Affordable Housing Is a Major Problem Where They Live.” *Pew Research Center*, January 18. <https://www.pewresearch.org/fact-tank/2022/01/18/a-growing-share-of-americans-say-affordable-housing-is-a-major-problem-where-they-live/>.
- Schively, Carissa. 2007. “Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Base and Informing Future Research.” *Journal of Planning Literature* 21 (3): 255–66. doi:10.1177/0885412206295845.
- Semega, Jessica, and Melissa Kollar. 2022. “Income in the United States: 2021.” U.S. Census Bureau. <https://www.census.gov/library/publications/2022/demo/p60-276.html>.
- Silva, Meghan R., Whitney L. Kleinert, A. Victoria Sheppard, Kathryn A. Cantrell, Darren J. Freeman-Coppadage, Elena Tsoy, Tangela Roberts, and Melissa Pearrow. 2017. “The Relationship Between Food Security, Housing Stability, and School Performance Among College Students in an Urban University.” *Journal of College Student Retention: Research, Theory & Practice* 19 (3): 284–99. doi:10.1177/1521025115621918.
- Skrede, Joar, and Bengt Andersen. 2022. “The Emotional Element of Urban Densification.” *Local Environment* 27 (2): 251–63. doi:10.1080/13549839.2022.2034769.
- Stacy, Christina Plerhoples, Joseph Schilling, Ruth Gourevitch, Jacob Lowy, Brady Meixell, and Rachel L. J. Thornton. 2019. “Bridging the Housing and Health Policy Divide: Lessons in Community Development from Memphis and Baltimore.” *Housing Policy Debate* 29 (3): 403–20. doi:10.1080/10511482.2018.1539858.
- Tarman, Christopher, and David O. Sears. 2005. “The Conceptualization and Measurement of Symbolic Racism.” *The Journal of Politics* 67 (3): 731–61. doi:10.1111/j.1468-2508.2005.00337.x.
- Tighe, J. Rosie. 2010. “Public Opinion and Affordable Housing: A Review of the Literature.” *Journal of Planning Literature* 25 (1): 3–17. doi:10.1177/0885412210379974.
- Tighe, J. Rosie. 2012. “How Race and Class Stereotyping Shapes Attitudes toward Affordable Housing.” *Housing Studies* 27 (7): 962–83. doi:10.1080/02673037.2012.725831.
- Toussaint, Kristin. 2020. “The Coronavirus Is Exposing How Vital Stable Housing Is to Healthcare.” *Fast Company*, April 9. <https://www.fastcompany.com/90487625/the-coronavirus-is-exposing-how-vital-stable-housing-is-to-health-care>.
- Trounstein, Jessica. 2020. “The Geography of Inequality: How Land Use Regulation Produces Segregation.” *The American Political Science Review* 114 (2): 443–55. doi:10.1017/S0003055419000844.
- U.S. Census Bureau. 2022. “Nation’s Urban and Rural Populations Shift Following 2020 Census.” December 29. <https://www.census.gov/newsroom/press-releases/2022/urban-rural-populations.html>.
- Walker, Rebecca H., and Kate D. Derickson. 2022. “Mapping Prejudice: The Limits and Opportunities of Data for Anti-Racist Planning.” *Journal of the American Planning Association* 89: 459–71. doi:10.1080/01944363.2022.2112743.
- Wensaas, Kristina Ebbing, Ida Nilstad Pettersen, and Ole Smørdal. 2020. “The Case Study ‘Framtidsbilder Trondheim Sentrum 2050’: A Collaborative Case Study of Participation between the 3C Project and Trondheim Municipality’s Planning Office.” *Norconsult*. <https://ntnuopen.ntnu.no/ntnu-xmlui/handle/11250/2641285>.
- Whittemore, Andrew H., and Todd K. BenDor. 2019a. “Opposition to Housing Development in a Suburban US County: Characteristics, Origins, and Consequences.” *Land Use Policy* 88 (November): 104158. doi:10.1016/j.landusepol.2019.104158.
- Whittemore, Andrew H., and Todd K. BenDor. 2019b. “Reassessing NIMBY: The Demographics, Politics, and Geography of Opposition to High-Density Residential Infill.” *Journal of Urban Affairs* 41 (4): 423–42. doi:10.1080/07352166.2018.1484255.
- Williams, Rashad Akeem. 2020. “From Racial to Reparative Planning: Confronting the White Side of Planning.” *Journal of Planning Education and Research*. Published electronically August 5. doi:10.1177/0739456X20946416.
- Winter, Nicholas J. G. 2008. *Dangerous Frames: How Ideas about Race and Gender Shape Public Opinion*. Chicago: University of Chicago Press. <https://play.google.com/store/books/details?id=IkXZLcl6HqWC>.
- Yoder, Jesse. 2020. “Does Property Ownership Lead to Participation in Local Politics? Evidence from Property Records and

Meeting Minutes.” *The American Political Science Review* 114 (4): 1213–29. doi:10.1017/S0003055420000556.

Author Biographies

Isabella P. Douglas is a PhD candidate in the Department of Civil & Environmental Engineering (CEE) at Stanford University.

Deland Chan is a graduate researcher at Stanford University, a DPhil candidate in Sustainable Urban Development at the

University of Oxford, and the Director of Research at the Chinatown Community Development Center.

Lucy Zhang Bencharit is an assistant professor in the Department of Psychology and Child Development at California Polytechnic State University, San Luis Obispo.

Sarah L. Billington is the Department Chair and UPS Foundation Professor of CEE and a Senior Fellow in the Woods Institute for the Environment at Stanford University.