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Understanding Opposition to Apartment Buildings

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Abstract: Development of apartment buildings can help reduce housing costs in expensive cities. Yet these developments often face intense local opposition. This article explores why citizens oppose apartment buildings using a vignette survey experiment. We ask respondents whether they would oppose or support a new development in their neighborhood, varying its size, height and type. Height is by far the most important factor. Seven-story developments face twice as much opposition as one-story developments. There is no difference in opposition to rental, social or owner-occupied housing. In line with this, we do not find that taller buildings trigger concerns over congestion or undesirable new residents. Instead, respondents say that tall buildings do not fit in to the neighborhood. To substantiate the importance of apartment buildings ‘fitting in’, we zoom in on areas with at least one five story building. Here, respondents agree that taller buildings fit in and oppose them less. This points to a strong local preservationist sentiment among our respondents. This sentiment translates into opposition to apartment buildings, because most neighborhoods have no apartment buildings. These results help explain why cities sprawl rather than densify, and why it is difficult to build affordable housing in expensive areas.

If “cities are primarily labor markets” (Bertaud, 2018, 19), then access to this labor market is governed by whether one can find somewhere to live in and around this city. Across the world, access to some of the world’s most productive cities—those with the best job opportunities—has been limited by rising housing costs, forcing people to commute for longer distances or opt for cheaper, less productive cities (Hoxie, Shoag and Veuger, 2023), reducing overall prosperity Hsieh and Moretti (2019) and increasing regional inequality Ganong and Shoag (2017).²

One way to lower housing costs and increase access to the city is to build more apartment buildings in place of single family housing. The decision to do so is in the hands of

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local governments, who control housing supply through zoning and permitting (Fischel, 2015). However, using detailed data on local government hearings and policy discussions, existing research has found that such densification projects often face intense local opposition from citizens (Einstein, Glick and Palmer, 2020; Sahn, 2022; Yoder, 2020). Moreover, using conjoint experiments, researchers have found that, across contexts, citizens exhibit a strong preference for single family homes over apartment housing. (Trounstine, 2021; Wicki and Kaufmann, 2022; O’Grady, 2020). In this article, we build on these findings by exploring *why* citizens oppose new apartment buildings.

We present three potential explanations for why citizens prefer single family homes over apartment buildings. First, if citizens are concerned with congestion of public goods, then opposition to apartment buildings might stem from the fact that an apartment building contains more units, and therefore also more people, than a single family home. Second, citizens might think that apartment buildings attract less well-off citizens or minorities, who they want to keep out of their neighborhood (Trounstine, 2009; Danielson, 1976). Third, citizens might sincerely want to preserve the physical character of their neighborhood, and since most neighborhoods presently consist of single family homes, and have zero tall apartment buildings, these buildings engender more opposition.

To adjudicate empirically between these different explanations, we use a vignette survey experiment with approximately 13,000 Danish respondents, which we couple with detailed administrative data on the build environment in respondent’s neighborhoods. Each respondent is asked whether they support or oppose a hypothetical development project in their neighborhood, which varies in its type—e.g., owner-occupied or social housing—its size, and its height. We place this proposed development somewhere within ten-kilometers of the respondents home, and show respondents a individually tailored map of where the proposed development is going to be built. This allows us to record the height of other buildings near the proposed development.

Using this design, we identify a strong aversion to taller buildings. Seven-story developments face about twice as much opposition as a one-story development. The overall size and type of the development has negligible effects. As such, citizens are equally (un)enthusiastic

about social, rental and owner-occupied housing. The number of square meters the project takes up at ground level only has limited effects on opposition. Respondents also don't believe that tall buildings will cause much more congestion or attract undesirable residents, but they do believe that tall buildings do not 'fit in' to their neighborhood. To explore whether concerns over neighborhood fit is a rationalization, or whether it moves opposition, we zoom in on areas where there already is at least one five-story building. In this context, citizens do not oppose taller buildings, unless they are five-stories or more. Citizens also say that five story buildings do fit in. Taken together, these results suggest that citizen opposition to apartment buildings is driven by a genuine desire to to preserve the physical character of their neighborhood, rather than concerns over congestion or over who moves into apartment buildings.

This pattern of opposition might explain two salient features of urban politics. First, the consistent backlash against taller buildings might explain why cities tend to sprawl rather than densify even in the face of high commuting costs. Second, opposition to high-rise buildings might explain why it is so difficult to build affordable housing. As such, even if citizens like the idea of affordable housing in their neighborhood, they may not be willing to accept the aesthetic cost of high-rise buildings. And it is just very difficult to build housing that is low-rise and affordable. Our findings have somber implications for activists and policymakers who want to reduce housing costs through densification. They will likely face much public opposition, and this opposition will not be overcome by addressing concerns over congestion or by attenuating out-group animosity. It is the very physical presence of tall apartment buildings that citizens oppose.

Three Reasons Why Citizens Might Oppose Apartment Buildings

Prior work has found that citizens prefer less dense developments, choosing single family homes over apartment buildings (Wicki, Hofer and Kaufmann, 2022; Trounstein, 2021; Hankinson and de Benedictis-Kessner, 2022; O'Grady, 2020). Understanding why citizens are more likely to oppose apartment buildings is complicated by the fact that apartment building differs from a single family home along several dimensions. First, it contains more than one family, meaning that it attracts more people than a single family home. Second, it attracts a different

type of resident than single family homes, because of lower housing costs. Third, it is usually taller than a single family home, meaning that it will be noticeable from greater distances and has the potential to stick out in some neighborhood.. There are reasons to suspect that each of these features might engender opposition.

First, if citizens have a general aversion towards new construction in their local area, because of not-in-my-backyard attitudes (Fischel, 2001) or concerns over congestion of public goods (Bertaud, 2018), then it makes sense that they prefer single family homes to apartment buildings, simply because an apartment building requires is larger and serve more people than a single family home. That is, opposition might simply be tied to the size of the project, and since the construction of apartments are large projects, citizens might oppose them.

Second, independent of how many people they attract, it could be that apartment buildings attract a type of person that residents don't want in their neighborhood. Land use politics is often conceptualized as a politics of exclusion, where the well-off majority uses zoning to exclude poor people and underprivileged ethnic or racial minorities (Danielson, 1976; Trounstein, 2018; Fischel, 2015; Sahn, 2021). We know that housing costs tend to be lower for apartments than for single family housing. Therefore, opposing apartment buildings makes sense if you want to keep out these groups.

A third explanation is that opposition to apartment buildings has less to do with who lives in them, but with the buildings themselves. Citizens arguably select into areas based in part on the existing physical environment, and the longer they live in a place, the more they may acculturate, developing a preference for how the area currently looks and feels. This might translate into an opposition towards apartment buildings, because most people reside in neighborhoods without apartment buildings. While a third of Americans and half of all EU citizens live in apartments, more people are housed within each apartment building than within each single family home, and they tend to be more spatially concentrated than single family homes.³ Therefore, if people want to preserve the physical character of their neighborhood, then, for most people, this means opposing apartment buildings. Moreover, even for the minority who live in an areas where there are apartment buildings, it is less clear that a preservationist sen-

³For example, in Denmark, one-third of the population lives in apartments, but multi-story apartment buildings are less than five percent of the housing stock.

time will lead to a strong preference for apartment buildings over single family homes. In a low-rise neighborhood, a single apartment building is visible throughout the neighborhood, but a single-family home will not have the same impact on how a high-rise neighborhood looks and feels, as it will be figuratively and literally overshadowed by its neighbors.

It is hard to know from existing studies which of these features of apartment buildings underlie citizen opposition. For one, previous work tends to use a conjoint set-up where respondents need to choose between housing projects that vary in how dense they are. When choosing between single family homes and apartment buildings, respondents might reasonably infer that apartment buildings will lead to more housing, conflating opposition to apartments with opposition to more housing in general.⁴ Generally, existing studies are not able to tell whether opposition to apartment buildings is driven by the height of the building, the size of the project, or the type of people who tend to live in the apartments, because these features are not varied independently of each other. One exception is (Trounstine, 2021) who use the expected income and racial composition of a new housing development as a set of conditions in the conjoint task. She finds that they have limited impact on support for the housing development, which aligns with what we find below.

Experimental Design

We examine the empirical viability of these different explanations for citizen aversion to apartment buildings using a vignette survey experiment, which presents respondents with a hypothetical development project, where the different features of an apartment building that might engender opposition vary independently of each other. We design this experiment with an eye to overcoming three methodological challenges. First, to accurately measure opposition to apartment buildings. Second, to distinguish opposition to apartment buildings from opposition to more housing, and from opposition to the kind of people who might live in apartment buildings. Third, to gauge whether respondents care about whether the project deviates from the existing build environment.

Sample: Respondents were recruited from Statistics Denmark's population registry, giving

⁴One exception is a study by Marble and Nall (2021) which uses a within-subject comparison to show that both liberals and conservatives have a stronger preference for single family housing.

us access to their home addresses. We use this information to construct a map of their neighborhood and to get information from the Danish Building and Housing Registry (BBR) on the built environment in their neighborhood. We recruited 200 participants from each Danish municipality, except the two largest municipalities, where we included 500 and 1000 respondents respectively. This approach ensures diverse representation across various types of neighborhoods. Recruitment was conducted by the survey company Epinion which contacted respondents using their government-issued email address ‘E-boks’, which you are legally required to check regularly. Participation in the study was encouraged through a lottery offering 10 vouchers, each valued at 1,000 DKK (approximately 135 EUR). In total, we gathered 28,850 survey responses, achieving an overall response rate of 27 percent. This data collection was pre-registered at `osf.io`, however, the analyses we present below were not pre-registered. In the analyses below we only use a subset of the data, leaving us with an effective sample of 13,040 respondents. We do this because we have some experimental treatments unrelated to housing and because some respondents were not presented with complete information about the location of the development. In Appendix A we present more details on the omitted conditions.

Treatments: We randomly varied information about the height, type, size, and location of the hypothetical project across respondents. The exact wording of the vignette and the level for each attribute is presented in Table 1. We include both the height and the size attributes so that we can distinguish citizens’ views on taller housing projects, that stick out, from projects that simply include more units. We include the different types of projects to gauge whether citizens are particularly attuned to who will live in these projects, including projects that attract those who are less well off (i.e., social and rental housing) and that attract those who are better off (i.e., offices and owner-occupied housing).

To manipulate the location, we provided the respondents with an individually tailored map of the area where the project was located. Figure 1 shows an example of such a map. To create the maps we, we picked a random spot within 10 km of the respondents’ home address as the site of the development project. To ensure realism, we excluded placements outside the respondent’s municipality, in the ocean, on lakes, or on tiny sandbars. We centered each map around the location of the proposed development, zoomed out so that the map covered

Table 1: Experimental Treatments

The city council is considering whether to allow construction of [building of type function] on a plot of land in the municipality. It will be a construction project covering [size] square meters and have [height].

The project will be located at the red dot in the map below. [The construction site will be about [X] km from your home.]

| Type of project | Size of project | Height of project | Distance |
|--|---------------------------------|---|----------|
| a. social housing b. owner-occupied housing c. rental housing d. retail e. offices | a. 500 b. 1,000 c. 10,000 | a. one story b. three stories c. five stories d. seven stories | 1–10 KM |

an area of 8 x 8 km, and created a red dot with a radius of 300 m around the location of the hypothetical development. Half of respondents also received a prompt directly telling them what the approximate distance was from their home, however, since results do not differ across this condition, we omit it from subsequent analyses.

By mapping the approximate site of the development project, we can determine whether a tall apartment building actually would fit into the area where it is being proposed. To do so, we use the BBR registry which includes geographic coordinates and detailed information for all buildings in Denmark. For each respondent, we isolated the buildings that existed within the red dot where respondents were told the project was to be located (an area of 282.743 sqm. or about 53 football fields). Based on this information, we constructed an indicator variable of whether there was at least one apartment building that was five stories or taller at the location assigned to each respondent. We use this variable as a moderator below.

Outcome Measures: Following the presentation of the projects to the participants, we asked them about their stance toward the project with the question: "Do you support or oppose the proposed development project?" The degree of opposition to the project was measured using a seven-point Likert scale from strongly oppose to strongly support. Respondents could also answer Don't know. Note that this way of measuring opposition sidesteps some of the issues in prior work which relied on citizens deciding on pairs of developments. In our setup, anti-housing citizens can reject both apartments and single family homes alike, and are not forced to prefer any development projects. In our analyses, we use a dichotomous version of this variable

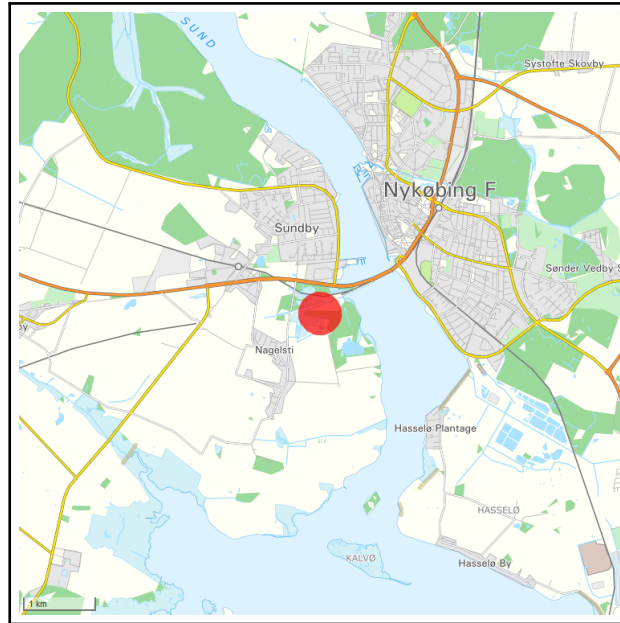


Figure 1: Example of map treatment

indicating whether respondents oppose or do not oppose the project. This approach makes it easier for us to interpret the results and prevents situations where transitioning from 'for' to 'predominantly for' a project might be misconstrued as increasing opposition.

In addition to this outcome variable, we also asked respondents to agree or disagree with a set of statements about what would happen if the municipality permitted the construction project. These include 'The project will increase congestion', 'The project will attract people to my neighborhood I wish to avoid', and 'The project would not fit well into the area'. These questions map onto the different explanations for why citizens might oppose apartment buildings, and we use these questions to understand how our treatment worked, further contextualizing the effect on the main outcome variable. Similar to the main outcome variable, we dichotomize these variables in our analyses, focusing on the proportion who agree. Descriptive statistics on all variables can be found in Appendix B.

Results

Figure 2 shows the share of respondents that oppose the proposed project across its type, size, and height. Concerns over height dominate. Seven-story buildings face twice as much opposition as one-story buildings. A difference of 21 percentage points (CI 19.1-23.7). Conversely,

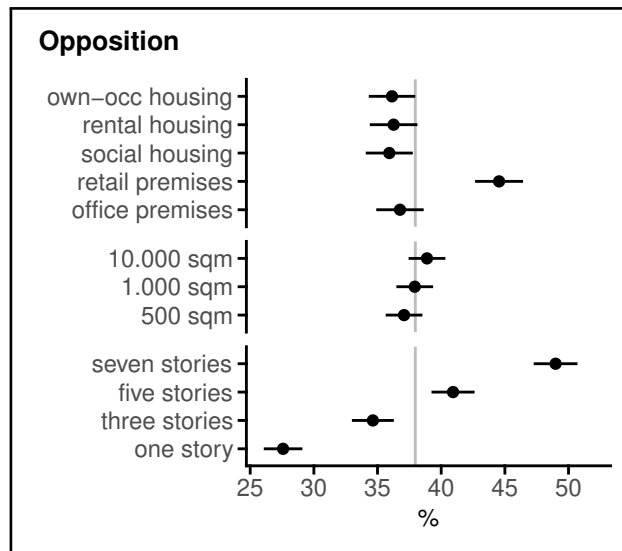


Figure 2: Opposition across the type, size, and height of the development. Means across experimental conditions with 95 pct. confidence intervals. The gray line indicates the overall level of opposition.

the square meter size has negligible and non-statistically significant effects. Project type also has limited effects. There is no difference between offices, owner-occupied, rental, or social housing. However, retail premises do face more opposition than the other project types.⁵

The relative importance of height over the type or size of the development, suggests that apartment buildings are unpopular because they are tall. Not because they attract more residents of the type that people want to avoid. If the number of residents mattered, then it should have made a difference whether the project was 500 or 10,000 square meters. If the type of resident mattered, it should have made a difference whether the development was social housing or owner-occupied housing. Yet these things made little or no difference to citizen opposition. Consistent with the notion that height matters independently of whether the project attracts undesirable residents and independently of the overall size of the development, we find no interaction between the number of stories and project type or between the number of stories and size of the project (for these analyses, see Appendix C).

Could it be that height is viewed as a strong proxy for the number and type of residents over and above the type and size of the development? We explore this in Figure 3, where we look at respondents' beliefs about whether the new development will increase congestion

⁵Anecdotal evidence from responses to an open-ended question asking respondents to explain their opposition seems to suggest that people are concerned about whether new retail would out-compete local businesses.

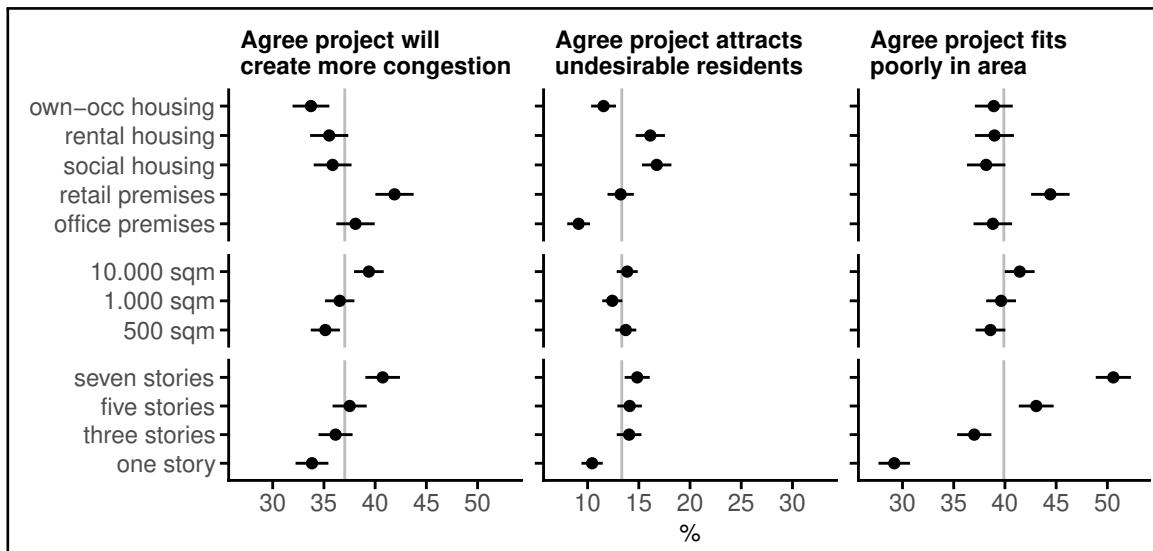


Figure 3: Beliefs about the effects of the development on the local area across the type, size, and height of the development. Means across experimental conditions with 95 pct. confidence intervals. The gray line indicates the overall level of opposition.

and attract undesirable residents. Respondents do believe that larger projects will increase congestion. This is true for both the development size and the number of stories. This suggests that respondents did recognize that more square meters would lead to more people in their neighborhood. Yet as was evident from 2, this only translates into opposition when it comes to the height of the project. Citizens also believe that rental and social housing will attract more undesirable residents than owner-occupied housing and office premises. However, when it comes to the effect of building height on attracting undesirable residents, only one-story buildings stand out. There is no difference between three and seven-story buildings in terms of how many undesirable residents citizens believe they attract, but, as is clear from Figure 2, there is a large difference in opposition to three and seven-story buildings.

In summary, citizens seem to dislike tall buildings regardless of who lives in them. Above we suggested that such an aversion to tall buildings might stem from a desire to protect the existing physical environment of their neighborhood. Most people live in neighborhoods with no or few tall buildings. A preservationist sentiment could thus translate into a fairly general opposition to taller buildings. Consistent with this, we show in Figure 3 that there is a very strong relationship between the height of a development and citizens' belief that this development does not 'fit in to the neighborhood'. Conversely, there is no effect on this outcome of overall project size, and in terms of project type, citizens only single out retail as having a poor

fit with the neighborhood.

If opposition to tall buildings is driven by a preservationist sentiment, then opposition should disappear in areas where taller buildings are already part of the neighborhood. In such a neighborhood, a tall apartment building will not break from the status quo. We explore this in Figure 4 where we analyze areas with at least one five-story building separately from areas with no five-story buildings. As expected, there is no aversion to five-story buildings in these areas, and they are just as popular as three or one-story buildings. In areas with at least one five-story building, respondents are also more likely to say that one-, three-, and five-story buildings fit into the neighborhood.

Seven-story buildings remain more unpopular in areas with five-story buildings, which makes sense since they still break with the status quo. Seven-story+ buildings are also extremely rare in Denmark (less than 0.1% of the total housing stock), so they will tend to stand out no matter what. Consistent with this, we also find that opposition to seven story buildings remain high even in the few ca there is a single seven story building near the proposed site.

While five-story buildings are naturally much more prevalent in urban areas, our finding does not simply reflect a difference in attitudes towards developments across respondents who live in different areas of the country (i.e., between rural and urban areas). As we show in Appendix D, the differences in opposition between sites with a five-story building and sites without a five-story building remain largely unchanged in models where we include fixed effects at the zip-code level.

Conclusion

This study tries to understand why citizens oppose apartment buildings. To this end, we empirically examine three potential explanations for this opposition: that they lead to congestion, that they attract less well-off citizens or minorities, and that they are tall, which makes them stand out from the existing built environment in most neighborhoods.

Employing a vignette survey experiment with 13,040 respondents we uncover a strong aversion to taller buildings, with seven-story developments facing about twice as much opposition as one-story housing. This opposition is not meaningfully affected by development types, such

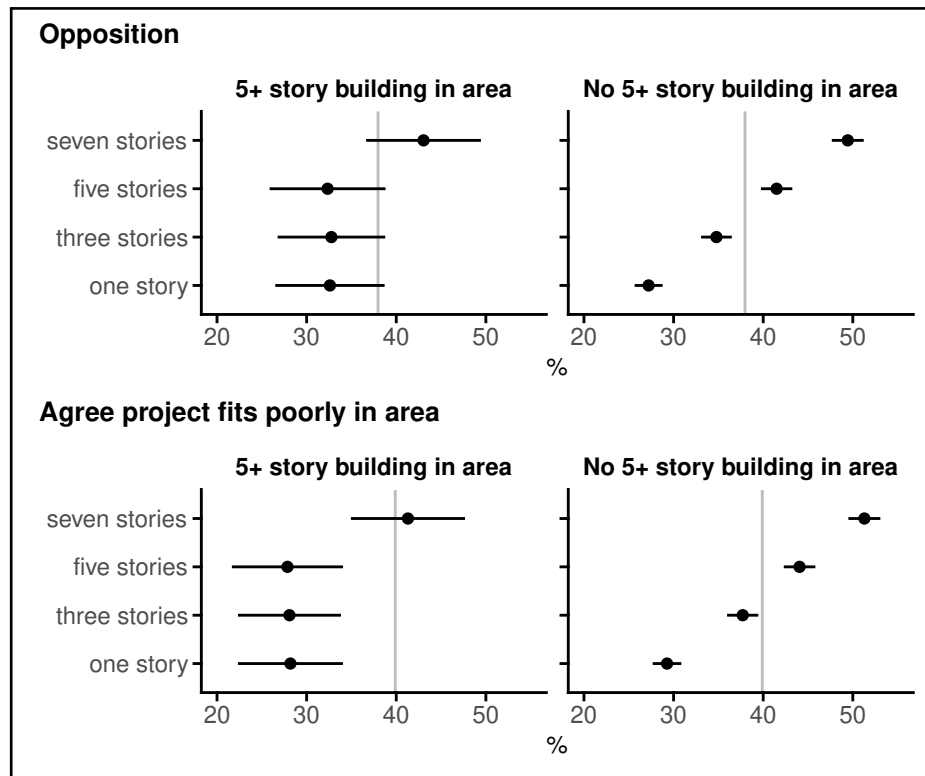


Figure 4: Opposition across the height for areas where apartments fit in and areas where they do not. Means across experimental conditions with 95 pct. confidence intervals. The gray line indicates means across conditions.

as offices, owner-occupied, rental, or social housing. The importance of height in driving opposition suggests that citizens dislike apartment buildings primarily because they are tall, rather than due to concerns over the type or number of residents that live in them.

Citizens also tend to think that tall buildings don't fit into the neighborhood. They do not say the same about large projects or different type of projects. Moreover, examining areas with at least one five-story building reveals that citizens in these neighborhoods are more accepting of taller buildings buildings, highlighting the role of neighborhood fit in shaping citizen opposition.

In conclusion, citizen opposition to tall buildings appear to be rooted in a general aversion to changes in the physical character of their neighborhoods. This key finding turn some of the established wisdom on opposition to affordable housing on its head. Traditionally, political observers have interpreted opposition to affordable housing as a reflection of an aversion to poor people and minorities. However, based on our findings it is more likely that opposition to affordable housing reflects a fear that affordable housing means high rises, and high-rises clash

with neighborhood character. This is also consistent with findings from (Mummolo and Nall, 2017) and (Trounstone, 2018), who show that holding the type of housing constant, people tend to prefer housing for the poor and the middle class. In our survey, we also find no difference in opposition to social, rental, or owner-occupied housing. In real life, of course, most social housing is developed as high-rises and most owner-occupied housing is single family homes, and therefore the latter will tend to be more popular than the former.

While these findings do not provide an easy guide for how to make housing more affordable, our study might provide some insight as to what type of multi-story development projects might face less opposition. Let us for instance say that a city is considering building apartments on a vacant lot in the already dense city centre or an near transit in the suburb. Here, our findings suggest the former location will engender less opposition.

Finally, a potential avenue for future research could be to see whether it is possible for developers to design multi-family housing that citizens believe fit into the neighborhood. This is obviously not easy, but our findings suggest it might be worth while to explore whether it is possible.

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Appendix A: Sample and treatment material

The full sample consisted of 28,850 respondents from all Danish municipalities. All respondents were presented with one hypothetical development project in their local area. Table A1 details the full treatment. The treatment included a number of attributes related to the distance between the respondent and the development site. In addition to the map, this included a line of text informing respondents of the approximate distance between the site and their home. To measure how the presence of the map itself affected respondents' attitudes toward the project, we excluded it from a random 20 percent sample of respondents.

Because these attributes are randomly assigned, they should be unrelated to the height of the project and thus not affect the main findings of the study. However, because we cannot link respondents who did not receive a map to the BBR registry, we excluded these responses from the analysis.

While distance is not the primary focus of this study, it is worth noting that both the map and, in particular, the distance are highly relevant to respondents' opposition to the development project.

We also included four additional project types in the original sample. These types include "a public institution", "factory premises", "a biogas plant", and "a sewage plant". None of these are related to housing, and therefore it would confound the analysis to include them in the final sample. Therefore, these respondents were excluded.

This left us with a sample of 13,040 valid responses that both received the map treatment and received a project type related to housing. Table A2 provides an overview of the different subsets of the sample.

Table A1: Vignette, attributes and levels

| The city council is considering whether to allow construction of [type] on a plot of land in the municipality. It will be a development project of [size] square meters in floor plan and approximately [height]. | | | |
|---|-----------------|-------------------|----------|
| <i>For 80 pct:</i> | | | |
| The project will be located at the red dot in the map below. | | | |
| <i>Insert map like figure 1 below text.</i> | | | |
| <i>For 50 pct:</i> | | | |
| The construction site will be about [distance] from your home. | | | |
| Type of project | Size of project | Height of project | Distance |
| a. social housing | a. 500 | a. one story | 1 km |
| b. private housing | b. 1,000 | b. three stories | 2 km |
| c. rental housing | c. 10,000 | c. five stories | 3 km |
| d. a public institution | | d. seven stories | ... km |
| e. offices | | | 10 km |
| f. factory premises | | | |
| g. a biogas plant | | | |
| h. a sewage plant | | | |
| i. retail premises | | | |

Table A2: Sample and subsets by treatment status

| Subset | N | Part of analysis |
|-------------------------------|--------|------------------|
| Total sample | 28,850 | |
| No map | 5,589 | Not included |
| With map and type of project: | | |
| a public institution | 2,530 | Not included |
| factory premises | 2,549 | Not included |
| a biogas plant | 2,611 | Not included |
| a sewage plant | 2,531 | Not included |
| own-occ housing | 2,665 | Included |
| rental housing | 2,537 | Included |
| social housing | 2,586 | Included |
| retail premises | 2,676 | Included |
| office premises | 2,576 | Included |
| Total with a map | 23,261 | |
| Total included in analysis | 13,040 | Included |

Appendix B: Descriptive statistics

Table B1: Descriptive statistics

| Variable | N | Mean | SD |
|--|--------|-------|-------|
| Do you support or oppose the proposed development project? (0-1) | 13,040 | 0.380 | 0.485 |
| The project will increase congestion (0-1) | 13,040 | 0.370 | 0.483 |
| The project will attract people to my neighborhood I wish to avoid (0-1) | 13,040 | 0.133 | 0.340 |
| The project would not fit well into the area (0-1) | 13,040 | 0.399 | 0.490 |
| 5+ story building in area (0-1) | 13,040 | 0.068 | 0.253 |

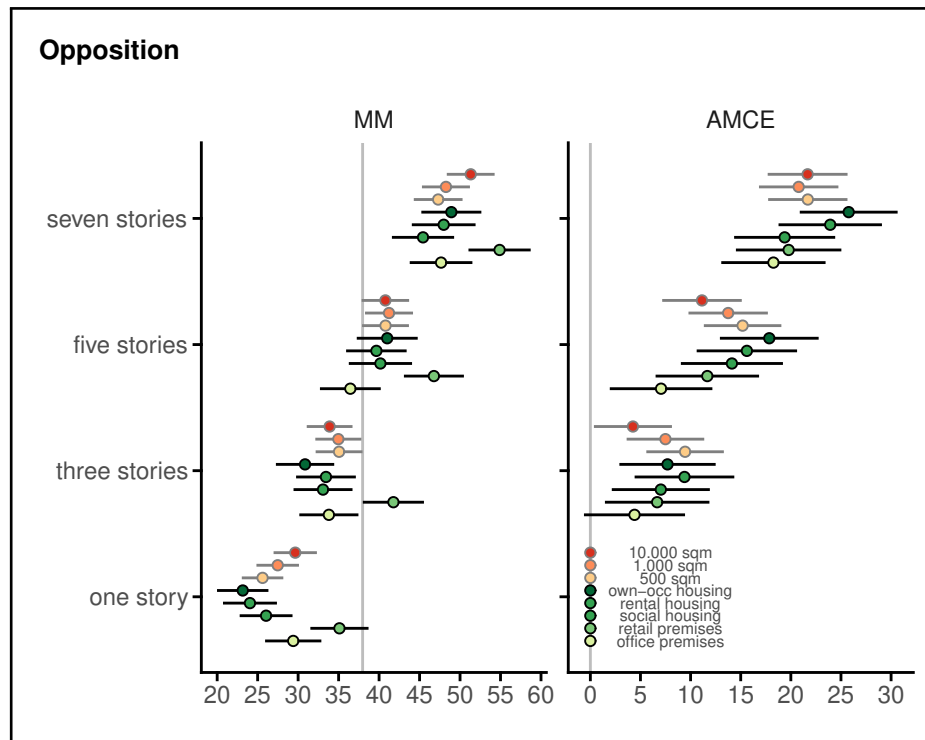


Figure C1: Opposition across the height for different project sizes and types Left panel: Means across experimental conditions with 95 pct. confidence intervals. Right panel: Average marginal component effects with 95 pct. confidence intervals.

Appendix C: Interaction between the size and type of the development project and its height

We find that the importance of project height for citizen opposition is largely independent of other project attributes. As shown in the left panel figure C1 (and figure 2), citizen opposition to projects varies with project type and size. This is particularly evident for retail projects, where opposition is consistently higher. However, as shown in the right panel, the causal effect of changing the height of a project from one to three, five, or seven stories is fairly consistent across project sizes and project types. Thus, height appears to matter fairly independently of the other project attributes.

Appendix D: Fixed effects models

Table D1: Fixed effects models

| Dependent Variables: Model: | Opposition | | Fits poorly in area | |
|---|------------------|----------------------------|----------------------------|----------------------------|
| | (1) | (2) | (3) | (4) |
| Constant | 27.2*** (0.9) | | 29.3*** (0.9) | |
| <i>Ref: One story</i> | | | | |
| Three stories | 7.6*** (1.2) | 7.0*** (1.4) | 8.4*** (1.2) | 7.8*** (1.3) |
| Five stories | 14.3*** (1.2) | 13.6*** (1.3) | 14.8*** (1.2) | 14.4*** (1.3) |
| Seven stories | 22.2*** (1.2) | 21.7*** (1.3) | 22.0*** (1.2) | 22.0*** (1.2) |
| <i>Ref: No 5+ story building in area</i> | | | | |
| 5+ story building in area | 5.4 (3.3) | 5.6 (3.5) | -1.1 (3.3) | 5.2 (3.6) |
| Three stories × 5+ story building in area | -7.4 (4.6) | -7.4 [†] (4.4) | -8.6 [†] (4.7) | -8.4 [†] (4.3) |
| Five stories × 5+ story building in area | -14.5** (4.8) | -12.5* (6.4) | -15.1** (4.8) | -13.9** (5.1) |
| Seven stories × 5+ story building in area | -11.8* (4.6) | -11.8* (4.7) | -8.9 [†] (4.7) | -9.7* (4.3) |
| Fixed Effects: zip | | ✓ | | ✓ |
| Observations | 13,040 | 13,040 | 13,040 | 13,040 |
| R ² | 0.03 | 0.11 | 0.03 | 0.10 |
| Within R ² | | 0.03 | | 0.03 |

*Signif. Codes: ***: 0.001, **: 0.01, *: 0.05, †: 0.1*