Supplementary Online Appendix

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1   Exit Poll Process

To conduct the study, 65 pollsters were hired and given a one-hour training session on how to administer the paper survey. Workers were instructed to approach every voter leaving their polling station, shifting to a 1/n format in periods of high turnout to avoid surveyor bias. Voters agreeing to complete the survey were asked if they were a homeowner or a renter, then handed the appropriate survey on a clipboard. Respondents were instructed to complete the survey in private, then directly submit the survey to a closed ballot box, mitigating the social desirability bias of handing responses back to the pollster.

2   Proposition I Wording

"Proposition I: Shall the City suspend the issuance of permits on certain types of housing and business development projects in the Mission District for at least 18 months; and develop a Neighborhood Stabilization Plan for the Mission District by January 31, 2017?"
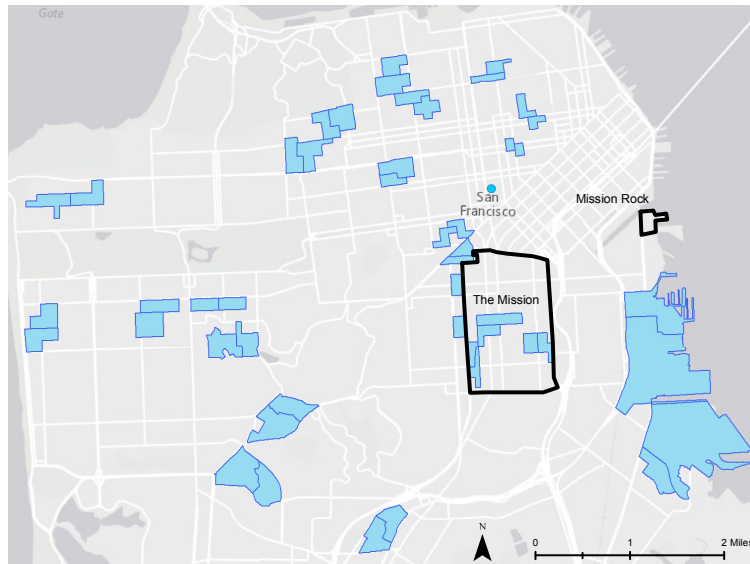
3   Polling Locations Map

Figure 1: Polling locations sampled in San Francisco, CA.

4   Exit Poll Survey

This is an excerpt of the survey questions pertaining to this paper.

- Proposition A is a $310 million bond for affordable housing. How did you vote on Prop A?

    - Yes, I voted in favor of Prop A.

    - No, I voted against Prop A.

    - Did not vote on Prop A.

- Proposition D increases building heights for the Mission Rock waterfront development, which will include 40% affordable housing. How did you vote on Prop D?

    - Yes, I voted in favor of Prop D.

    - No, I voted against Prop D.

    - Did not vote on Prop D.

- Proposition I is an 18 month ban on building market-rate housing in the Mission District. How did you vote on Prop I?

    - Yes, I voted in favor of Prop I.

    - No, I voted against Prop I.

    - Did not vote on Prop I.

- If a similar ban were proposed **for your neighborhood**, how would you vote?

    - Yes, I would vote in favor of a similar ban.

    - No, I would vote against a similar ban.

    - I am unsure of how I would vote.

- If there were a proposition to build 10% more housing in San Francisco (and all of that housing would be affordable/luxury), how would you vote on that proposition?

    - Yes, I would vote in favor of that proposition

    - No, I would vote against that proposition

    - I am unsure of how I would vote.

- Thinking about the best interest **San Francisco is a whole**, by next year, housing prices **citywide** need to...?

    - Increase a lot (+15%)

    - Increase some (+5%)

    - Stay the same

    - Decrease some (-5%)

    - Decrease a lot (-15%)

5 Survey Instrument, National Sample

This is an excerpt of the survey questions pertaining to this paper.

- Think about the best interest of (INSERT CITY). Would it be best for average housing prices in (INSERT CITY) to increase, decrease, or stay the same over the next five years? Assume that (INSERT CITY)'s economy would stay the same.

    - Increase (+15%)
    - Increase (+10%)
    - Increase (+5%)
    - Stay the same
    - Decrease (-5%)
    - Decrease (-10%)
    - Decrease (-15%)

- From your ZIP code, you live in (INSERT CITY), which has (INSERT UNITS) housing units (homes and apartments).

    Imagine (INSERT CITY) lowers development restrictions, making it easier to build new housing units. As a result, (INSERT 10 PCT of UNIT) more units, with a similar mix of homes and apartments, will be built over the next five years,

- Would you support the lowering of development restrictions in (INSERT CITY) to allow the construction of (INSERT 10 PCT of UNITS) more housing units over the next five years?

    - Strongly Oppose
    - Oppose
    - Somewhat Oppose
    - Neutral/Uncertain
    - Somewhat Support
    - Support
    - Strongly Support

- Would you support a ban on the construction of new housing (homes and apartments)

in your neighborhood?

  - – Strongly Oppose

  - – Oppose

  - – Somewhat Oppose

  - – Neutral/Uncertain

  - – Somewhat Support

  - – Support

  - – Strongly Support

6 Sampling for National Survey

The survey firm GfK is able to sample respondents within specific ZIP codes. To define the sampling frame, I created a list of ZIP codes within a municipality without and incorporated body within them (see text description of justification). Two counties, Honolulu, HI, and Arlington, VA were included as having the powers of municipalities and having no incorporated municipalities within. Next, I subsetted to ZIP codes which intersect one of these incorporated bodies. Out of roughly 43,000 ZIP codes, 37,269 are contained within or overlap with an incorporated body. However, were I to sample a respondent within one of these 'straddling' ZIP codes but also outside of the border of an incorporated area, they may be more willing to support new housing in the incorporated area because they will not suffer any change in tax burden. To insure that respondents live within the boundaries of the municipality, I subsetted to only those ZIP codes fully contained within the municipality, leaving me with 4,069 ZIP codes. This is a relatively small share of the population, or roughly 6 percent of the US population. Had I relaxed the restrictions so that only 95 percent of ZIP code needed to be within the municipality, I could have sampled from 5,678 ZIPs. Still, these restrictions ensure that the respondents understand a clear relationship between their interests and where the housing would be built.

7   Attribute Level Selection for Conjoint

Attributes were selected to provide respondents with information commonly used to form opinions on new development. For each attribute, only a limited number of values, or 'levels', could be randomly shown to respondents without diluting statistical power. Selecting levels began with the baseline attribute, against which the change in support for the building is measured.

To select the baseline level, I used pilot interviews to choose the value least likely to stimulate opposition towards the attribute. These included contacting over a dozen respondents in different urban, suburban, and rural contexts, then having them verbally walk-through several hypothetical conjoint prompts. Through this work, I found that most respondents who claimed sensitivity to building height did not show aversion to a 2 story building. As a result, a 2 story building served a good baseline against which to measure 3 story, 6 story, and 12 story buildings.

For spatial proximity, I found that a building 1 mile away would almost never activate NIMBYism in a large city. However, it may in a suburban context with some neighborhoods and subdivisions extending a mile before reaching a major thoroughfare. To avoid any NIMBY response, I chose 2 miles away as the baseline level, where even respondents in very rural communities said they would not be sensitive to the building's location.

After setting the baseline, the most extreme value in the other direction was chosen to trigger a response among even those only slightly sensitive to the attribute. For those who do not like tall buildings, a 12 story building will generally elicit a negative response. For NIMBYism, 1/8 mile away is almost certain to generate some degree of opposition.

For values in between, the goal was to select significant cutpoints where the mechanism may change. The designation of 25 percent of units as affordable may gain support for a proposal, but increasing the value to 50 percent is likely to see diminishing returns. The limiting factor to internal cutpoints is sample size, as each additional cutpoint decreases the statistical power of the attribute level. Consequently, the number of levels is capped at four

per attribute. For future research, I would recommend even fewer cutpoints to maximize statistical power.

8   Rent Burden

One measure commonly discussed regarding housing affordability is 'rent burden', the share of income devoted to paying rent. Because the survey data do not include each respondent's rent, the best estimate of rent burden comes from dividing the average rent of the respondent's city by their self-reported annual income. Given unemployment may represent a transitory phase and not reflect an individual's resources, rent burden figures are only pulled from employed respondents (Sample of employed renters = 620 respondents). Figure 2 shows that spatial sensitivity towards both market rate and affordable housing may be correlated with rent burden, but the effect is primarily in support of affordable housing rather than opposed to market rate housing. However, this relationship stems from both categorical income data and average rent citywide. Future research should collect more precise measures of the share of each respondent's income devoted to housing costs. Consideration was also given to price appreciation, in that renters experiencing dramatic increases in prices would feel threatened by new development. However, both at the city and ZIP code level, price appreciation over the past 5 years does not have a linear relationship with NIMBYism.
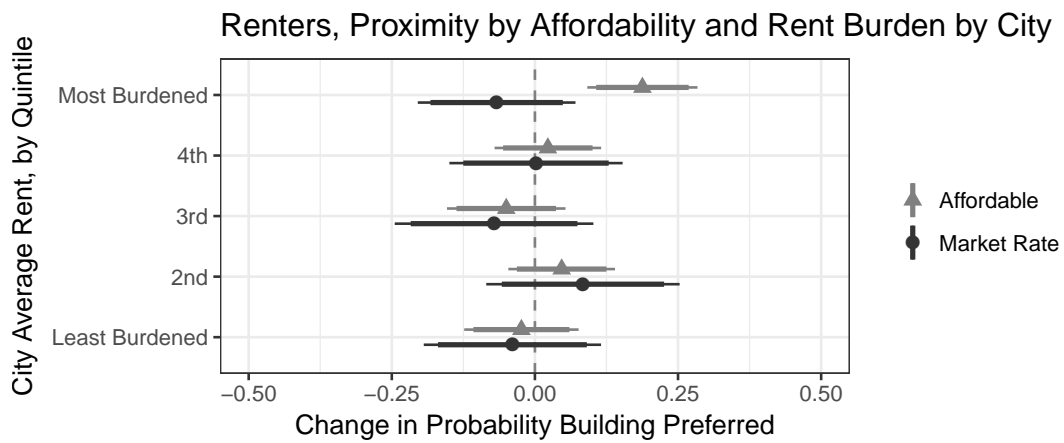
Figure 2: Effect of proximity on employed renters by affordability of proposed housing, grouped by rent burden. Displayed effect is shift from 2 miles away (baseline) to 1/8 mile away. Quintile cutpoints for estimated share of income devoted to rent based on average rent by city at 33%, 48%, 68%, and 103%.