Managing Aggrievement

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Abstract

Aggrievement occurs when groups have grounds for complaint due to unfair treatment. Although theory suggests central planners manage aggrievement when allocating resources, empirical evidence is scarce. We address this gap by examining governors' selections of Opportunity Zones (OZs)—investment tax breaks for eligible low-income tracts. We develop a structural model, validated by a national survey of local officials. Incorporating county aggrievement improves model fit in 38 states. Managing aggrievement affects three million OZ residents, leading to OZs with 28,110 fewer poor families and 637,983 (371,667) fewer Black (Hispanic) residents. OZs selected to manage county aggrievement generate 47% less investment.

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1. Introduction

Formally, aggrievement occurs when a group has grounds for a complaint due to unfair treatment.[1] Theory suggests that central planners may compromise between policy objectives and minimizing the aggrievement of pressure groups when distributing resources (e.g. Passarelli and Tabellini, 2017). Becker (1983) defines pressure groups as groups of individuals - often defined by geography or other characteristics - that are assumed to use political influence to improve the well-being of their members. Empirically identifying the importance of managing aggrievement for allocations is difficult because researchers often do not observe pressure groups, the resources such groups receive, or the allocations that give groups grounds for complaints. We address this gap with a structural model, validated with data from the 2019 Menino Survey (Einstein et al., 2023) of local officials about the OZ program.

Established under the 2017 Tax Cuts and Jobs Act, the OZ program aims to spur "economic development" in "distressed communities" by providing federal tax incentives for investments in designated low-income census tracts. The U.S. Treasury identified eligible tracts, and state governors were tasked with selecting 25% of these for OZ designation. The program is extensive, encompassing approximately 30 million residents in OZs.

The OZ program provides an ideal setting, for at least two reasons, to identify the importance of managing aggrievement for policy implementation and outcomes. First, in the Menino Survey, most respondents with eligible tracts believe "that the influence of local officials" was the most important factor that affected the OZ allocations of governors. Accordingly, we show that most governors mention "county" in discussing OZ allocations. Therefore, in the OZ program, we observe one particular pressure group (counties) and the resources they receive (number of OZs).[2] Second, when directing governors to select 25% of their state's eligible tracts, the federal government established a public reference point (25%) that counties could use as grounds for a complaint that an OZ allocation is unfair.

To understand what OZ allocations would look like absent managing aggrievement, we build a structural model in which governors manage aggrievement by designating at least 25% of a county's eligible census tracts as OZs. We quantify county aggrievement as the square of the shortfall between the percentage of eligible tracts designated as OZs and the reference point 25%. This mirrors the aggrievement function in the model of Passarelli and Tabellini (2017).

[1] Complaints are public expressions of dissatisfaction, which can be anonymous or identified, as seen in sources like survey results and press articles. Complaints can be calculated evaluations of an allocation's fairness (e.g. legal actions) or emotional responses (e.g. protests) as in Passarelli and Tabellini (2017).

[2] Following the Becker (1983) definition of pressure groups, counties as pressure groups include constituents, officials, and businesses in the county and in its cities.

In addition to being theoretically grounded, our aggrievement function is validated by the 2019 Menino Survey. The survey supports the hypothesis that 25% is the reference point by which counties judged an OZ allocation as fair. Regressing counties' reported dissatisfaction on our predicted aggrievement shows a significant nonlinear relationship around the 25% threshold: reported dissatisfaction increases as OZ allocations drop below 25%, providing grounds for complaints, but remains unchanged for counties above this threshold. The coefficient on predicted aggrievement is significant at the 1% level, with an adjusted R^2 of 22.4%. In contrast, using the simple proportion of designated OZs yields an insignificant coefficient and a much lower adjusted R^2 of 2.2%. Therefore, incorporating the non-linearity around the 25% reference point is crucial for explaining county aggrievement. Press articles further support the hypothesis that 25% is the reference point. A county official stated, "Richland County got its fair share...we're pretty close to 25%" (Geibel, 2018). A deputy mayor said Summit County "received our fair share of OZs"—about 25% (Karabin, 2018).

Our empirical focus is on the structural model and its counterfactual analysis, with survey validation as a supportive component. In the model, governors balance managing counties' aggrievement with other factors such as census tracts' poverty rates, investment potential, and political leanings. The key parameter is a governor's aversion to aggrieving counties, which quantifies how they weigh county aggrievement against other considerations. This parameter ranges from zero to one. At zero, governors ignore aggrievement and focus on census-tract characteristics. At one, governors allocate OZs lexicographically: first minimizing county aggrievement, then allocating OZs within counties based on tract characteristics.

Estimating the model using simulated maximum likelihood, we find that governors frequently allocated OZs *across counties* to manage aggrievement. The parameter representing governors' aversion to aggrieving counties is well-identified. In states where governors exhibited a high (above-median) aversion to county aggrievement, allowing them to manage aggrievement reduced the root mean square error (RMSE) of the county distribution of OZs by 32.1%. Also, likelihood ratio tests indicate that in 38 states, allowing governors to manage aggrievement significantly improves the model's fit of tract-level OZ designations.

Consistent with established practices (Strebulaev and Whited, 2012; Kahn and Whited, 2017), we describe the OZ allocation patterns that underpin the estimation of our parameter of interest. Any omitted variable potentially biasing the estimate of aversion to aggrievement would need to replicate the OZ allocation patterns crucial for identifying such aversion. To manage aggrievement, governors shift OZs from large counties—defined as counties with more than three eligible tracts—to small counties with three or fewer eligible tracts, assigning them *exactly one* OZ each. Additionally, governors transfer OZs from certain large counties to other large counties that would otherwise receive less than the reference point of 25%.

Their objective is to achieve an OZ allocation where large counties have approximately 25% of their eligible tracts designated as OZs (*uniformity*) and all counties receive at least one OZ (*universalism*). The model's distinct predictions closely align with the actual OZ allocations across counties, explaining why incorporating governors' efforts to manage aggrievement improves the model's fit to the data.

The 2019 Menino survey further strengthens our identification of aversion to aggrievement by validating several model assumptions that drive the distinct predictions. Therefore, any omitted variable that could confound the identification of aversion to aggrievement would need to replicate the "exactly one," universalistic, and uniform allocation patterns, as well as align with the survey results indicating that counties were important pressure groups and that a 25% reference point was used to judge an allocation as fair. For instance, if governors were simply favoring small and rural counties, they would designate all or most eligible tracts in small counties as OZs, rather than just one per small county. Furthermore, allocating more OZs to rural counties does not account for the more uniform OZ distribution across large counties observed in states where governors manage aggrievement. Moreover, favoring small counties does not explain the findings of the Menino survey. Therefore, favoring rural counties cannot confound our identification of aversion to aggrieving counties.

Our estimated model enables us to quantify the distortions caused by managing aggrievement through two counterfactual analyses. First, governors managing aggrievement directed more OZs to wealthier, predominantly White tracts. Governors shifted 772 OZ designations, affecting 10% of OZ residents—about three million people. The heterogeneity of eligible tracts and OZ reallocations to manage aggrievement shifted the profile of OZ beneficiaries. Specifically, 28,110 fewer families below the poverty line reside in OZs than if governors ignored county aggrievement. In states with high aversion to county aggrievement, managing aggrievement reduced Black (Hispanic) OZ residents by 637,983 (371,667), a 10.1% (4.8%) decline relative to OZ averages. Thus, shifting OZs between counties to manage aggrievement decreased the expected number of poor and minority people in OZs.

Second, managing aggrievement shifted OZs from high-economic activity cities (Rossi-Hansberg and Wright, 2007) to tracts with lower investment potential—characterized by lower population density, less proximity to infrastructure, and lower investment scores from the Urban Institute—ultimately diminishing the program's actual investment impact. We use Form D filings from the Securities and Exchange Commission to measure equity investments in a census tract, as the OZ program's tax incentives apply only to equity investments. The Council of Economic Advisers (2020) and Xu (2022) similarly use Form D filings to study the OZ program. Using a *triple* differences design comparing OZs by their estimated probability of managing aggrievement, we find no difference in investment activity before the

program. Following the OZ program, OZs with a standard deviation higher likelihood of selection to manage aggrievement attracted 47% less additional investment. Thus, the heterogeneous investment potential of eligible tracts, together with changes in the allocation of OZs to manage aggrievement, resulted in the OZ program stimulating less investment.

These large counterfactual effects of managing aggrievement are robust and supported by several findings. First, the counterfactual results depend on the quality of our estimates of governors' aversion to aggrieving counties, and we show that our estimator successfully recovers known parameters when simulating the model. Second, alternative estimators, such as the simulated method of moments, give similar results. Third, an alternative measure of investments in a census tract – new building permits – also shows a significantly smaller increase in investment activity in OZs chosen to manage aggrievement. Fourth, estimating the structural model over both governors' aversion to aggrievement and counties' entitlement levels, rather than just aversion to aggrievement alone, reveals that the 25% reference point best fits the data, supporting the notion that the federal government established a common benchmark for evaluating the fairness of OZ allocations.

Intriguingly, while governors' efforts to manage county aggrievement shifted OZs across counties to wealthier tracts with less investment potential, within counties they selected tracts with higher poverty rates and investment potential. Thus, within counties, governors selected OZs in line with the stated policy objective to "spur economic development" in "distressed communities." Moreover, efforts to manage county aggrievement shifted OZs across counties to tracts with fewer minority residents, while, within counties, governors selected tracts with higher Black populations.[3]

Becker (1983) helps explain this contrasting behavior. Specifically, Becker (1983) models policy outcomes as the result of pressure groups using political influence to benefit their members. A key takeaway is that a pressure group's political effectiveness is determined by its relative efficiency compared to other groups, rather than by its absolute efficiency. This principle applies to the OZ setting since counties are likely better organized than the poorer inner-city tracts with larger minority populations that lost OZs due to governors managing county aggrievement.[4] Additionally, local officials in counties with many eligible tracts represent diverse interests, which reduces their motivation to advocate for individual tracts, particularly if their county receives an allocation perceived as fair. In contrast,

[3]In line with the possibility that the OZ program also aimed to address racial disparities, the architect of the program, Senator Tim Scott, highlighted the high proportion of non-whites in OZs and their poverty. See https://www.scott.senate.gov/issues/opportunity-zones/.

[4]Counties, with judicial, legislative, and executive roles, can put pressure on governors (Hamilton and Wells, 1990; Menzel, 1996).

officials in counties with fewer eligible tracts may be better motivated to exert pressure to have a specific tract designated as an OZ. This dynamic explains why governors may shift OZ designations from large to small counties.

Our paper contributes to the literature examining central planners' motivations in resource distribution. The idea that central planners manage the aggrievement of pressure groups when distributing resources goes back to at least Oates (1972, 1999), who posit that central planners may tend to distribute resources uniformly to manage political pressures. In the model by Passarelli and Tabellini (2017), a benevolent central planner manages aggrievement to reduce the emotional response that lowers the costs of participating in riots. Public dissatisfaction with OZ allocations in the Menino Survey and press articles lacks strong emotions. However, our findings do not rule out the possibility that governors may have managed aggrievement to prevent emotional responses. The theoretical literature also frequently discusses central planners' self-serving motivations, such as electoral concerns or catering to donors (e.g., Lindbeck and Weibull, 1987; Besley and Case, 1995; Persson, 1998; Dixit and Londregan, 1998; Brollo et al., 2019; Dahlberg and Johansson, 2002; Bursztyn et al., 2021). The OZ program was highly transparent, with the governor's 25% budget constraint, eligible tracts, and final allocations publicly observable. This transparency may have discouraged governors from pursuing self-serving motivations in OZ allocations. Additionally, it enabled local officials to assess whether they received fewer OZs compared to the 25% reference point. Our counterfactual magnitudes and the absence of evidence that governors catered to voters and donors suggest that transparency can deter self-serving motivations in resource distribution. However, it may also establish reference points that influence perceived entitlements, potentially causing allocations to diverge from policy objectives. Future research could explore the relation between self-serving motivations, managing aggrievement, and transparency in resource allocation.

Our work contributes to the broad theoretical public economics literature as the outcomes we observe are consistent with one of its most common predictions: As districts become more heterogeneous, a universalistic (the vast majority receive resources) or uniform (the same amount of resources is given to all) distribution of resources by a central planner leads to inefficiencies (Oates, 1972; Weingast et al., 1981; Baron and Ferejohn, 1989; Persson and Tabellini, 1994; Seabright, 1996; Besley and Coate, 2003; Harstad, 2007; Inman and Rubinfield, 2020). Our counterfactual analyses show that heterogeneity in eligible tracts leads the universalistic and uniform allocation of OZs to significantly alter the characteristics of selected OZs and decrease stimulated investment.

This paper adds to the literature on reference points. First, a long literature indicates that reference points matter in many contexts (Kahneman, Knetsch, and Thaler, 1986; Falk,

Fehr, and Zehnder, 2006; Hart and Moore, 2008; Herweg and Schmidt, 2015). Our paper shows that reference points (25% in our case) can provide grounds for complaining that an allocation is unfair in distributive programs. Second, in principle, our structural model can be used to examine how reference points affect the allocation of resources outside the political system. For example, Reeves and Russell (1932) note that universities often allocate equal budgets to different departments' libraries to ensure no department can claim discrimination. Third, if reference points provide grounds for determining the fairness of an OZ allocation, behavioral economics tools may help policy design (Chetty, 2015). Nudges, such as anchors and framing, may guide perceptions of fairness (Thaler and Sunstein, 2008).

Lastly, our study contributes to the literature on place-based policies, particularly the Opportunity Zone (OZ) program.[5] In the OZ context, some studies (Sage et al. (2023), Atkins et al. (2023), Arefeva et al. (2021), Bekkerman et al. (2022)) observe a response to OZ incentives, while others (Chen et al. (2022), Feldman and Corinth (2023), Freedman et al. (2023)) find none. Our finding that investment increased significantly more in OZs not selected to manage aggrievement highlights the importance of accounting for selection effects when evaluating the impacts of the OZ program. Our work also extends Glaeser and Gottlieb (2008)'s argument that focusing subsidies exclusively on large cities with higher investment potential is politically infeasible, as we show that governors redistributed OZs not only from large counties to small ones to manage aggrievement but also across large counties to achieve a more uniform allocation. Furthermore, we contribute to the literature on OZ selection. While Alm et al. (2021), Frank et al. (2022), and Eldar and Garber (2023) suggest governors favored politically affiliated areas, the influence of political allies ranked only fifth in the Menino Survey, and Glick and Palmer (2022) show that the evidence for favoritism is not robust. Instead, Glick and Palmer (2022) observe that governors often gave at least one OZ to many counties (universalism). We contribute by showing that managing aggrievement explains why governors often allocated *exactly one* OZ to most counties with fewer than four eligible tracts (universalism) and distributed OZs proportionally across larger counties (uniformity). Most importantly, we quantify how managing aggrievement distorts OZ resident characteristics and stimulated investment.

The paper is organized as follows. Section 2 describes our OZ allocation model and its estimation. Section 3 details the variables. Section 4 discusses the estimation results. Section 5 addresses identification. Sections 6 and 7 show the effect of managing aggrievement on which communities receive OZs and stimulated investment. Section 8 concludes.

[5]Most studies focus on identifying the effects of such policies; see Busso et al. (2013), Briant et al. (2015), Neumark and Simpson (2015), Gaubert (2018), Criscuolo et al. (2019), Lu et al. (2019), and Ku et al. (2020).

2. Model and Estimation Strategy

2.1. Modeling County Aggrievement

We parameterize county aggrievement with OZ allocations using the component of the model by Passarelli and Tabellini (2017) that captures a group's aggrievement. They define group aggrievement with a resource allocation q by the central planner as $max[0, R-V(q)]^2$, where R is the expected entitlement and $V(q)$, the utility derived from the actual allocation. We assume counties ground the fairness of their OZ allocation relative to the governor's budget constraint R_s. Thus we parameterize county aggrievement as

$$A\left(\#OZ_i, E_i\right) = \max\left[0, \left(R_s - \frac{\#OZ_i}{E_i}\right)\right]^2. \tag{1}$$

We define R_s as the actual number of low-income tracts designated as OZs by a governor in state s divided by the number of eligible tracts, $Eligible_s$.[6] Each county i compares its entitlement R_s to the ratio of its number of OZ-designated tracts $\#OZ_i$ to eligible tracts E_i.

Equation 1 applies to any regional group, but we use counties for several reasons: First, it is more convenient to work empirically with counties rather than cities because each eligible tract belongs to one county, whereas cities might share tracts. Second, except for Georgia and South Dakota, all states discuss OZ allocations using local geographies, with 41 states specifically outlining county allocations.[7] Third, counties, as pressure groups, encompass constituents, officials, and businesses within both the county and its cities. For instance, in Appendix A.4, the governors of Arizona and New Mexico tasked county managers with representing their entire counties, navigating and balancing the demands of all interested stakeholders.

We use the 2019 Menino Survey of Mayors (Einstein et al., 2023) to validate the assumption that counties were important pressure groups in the OZ allocation. The survey asked sitting mayors and county officials about the OZ program. Of the 119 respondents, 115 have eligible tracts. The 115 respondents, from 95 counties in 38 states with 33 million residents in 2017, represent 12.3% of eligible tracts.

Table I Panel A shows counties were important pressure groups. It displays the responses to the Menino Survey question: "How much influence do local officials think each of the following had on their governor's opportunity zone designations?" About 30% of local officials answered that "Mayors and other local officials" were the group with the greatest influence

[6] Appendix A has a detailed description of the OZ program. Appendix Table A2 shows values of R_s, generally close to 25%. The OZ program allots 25 OZs for the seven states with fewer than 100 eligible tracts (AK, DE, ND, RI, SD, VT, WY), with an average R_s of 43%.

[7] Appendix A.4 presents all state disclosures.

on their governor's decisions. Naturally, local officials may overestimate how much governors considered their entitlements, but governors' disclosures described above usually support the notion that counties were important pressure groups in the OZ allocation.

In addition to the theoretical support of Passarelli and Tabellini (2017), the survey also validates the assumption that Equation 1 reflects a county's aggrievement with its OZ allocation. Table I Panel B shows some county officials expressed dissatisfaction with their OZ program allocation. It displays the responses to the Menino survey question: "How happy should each of the following be with your governor's OZ designations?" About 10% of the surveyed local officials indicated that their city/county was somewhat to extremely unhappy with the allocation of OZs that they received. We regress an indicator variable that equals one when local officials express dissatisfaction with their OZ allocation on the aggrievement predicted by Equation 1.[8] The outcome variable (*Actual Aggrievement*) is a binary representation of the aggrievement reported by local officials in Table I. *Actual Aggrievement* equals zero when officials do not complain about the received OZ allocation, indicating that their city or county is 'somewhat' or 'extremely happy' with the OZ allocation, and one otherwise. Table II, Column (1) uses our model's predicted aggrievement as the explanatory variable. For comparison, column (2) uses the proportion of eligible tracts designated as OZs in a local official's region i ($\#OZ_i/E_i$) as the explanatory variable. We standardize the variables.

The results in Table II indicate that counties complained about their OZ allocation when it was smaller than the entitlement R_s, a public benchmark for a fair allocation and basis for complaints, and not when their allocation exceeded this threshold. Therefore, the survey supports our model's assumption that county aggrievement is nonlinear around the reference point as approximated by Equation 1. Column (1) shows the model effectively captures counties' complaints. In fact, the coefficient on *Model Aggrievement* is significant at the 1% level, with an adjusted R^2 of 22.4%. In contrast, Column (2) shows that the proportion of eligible tracts designated as OZs does not explain the variation in local officials' expressed dissatisfaction. The difference in Columns (1) and (2) of Table II highlights the nonlinear relation between local constituents' aggrievement and their OZ allocations.

Indeed, Figure I shows *Model Aggrievement* is closely linked to *Actual Aggrievement*, as officials are more likely to complain in the survey about their city or county OZ allocation when receiving a much lower proportion of OZs to eligible tracts ($\#OZ_i/E_i$) than the perceived entitlement R_s. For the bottom 10% of counties that received no OZs, the narrow

[8] We conduct this regression on the set of local officials who reported their city or county's satisfaction with OZ allocations in the 2019 Menino Survey. As mentioned earlier, we primarily use county-level data, but the Menino Survey includes both mayors and county officials. In Table II regressions, we determine the proportion of eligible tracts designated as OZ based on the city or county of the mayor or official.

90% confidence interval indicates that their aggrievement is both significant and widespread. In contrast, there are no significant differences in *Actual Aggrievement* for locations that received an OZ allocation around or above R_s. The model aggrievement function captures this non-linearity, unlike the alternative function based solely on the proportion of eligible tracts designated as OZs.[9]

In addition to the survey, governors' statements provide motivation to consider county aggrievement. Many of the state governors describe the objective of a geographically fair distribution. For instance, Arkansas' governor put a lot of emphasis on fairness, and New Jersey focused on geographic fairness and a transparent selection process (Appendix A.4). However, there are many ways to model fairness in the literature (Fehr and Schmidt, 2003). Equation 1 resembles one type of fairness – a self-centered fairness model where counties focus on the fairness of their own OZ allocation compared to R_s, disregarding inequities in other counties (e.g., Fehr and Schmidt, 1999). There are some reasons from governors' statements to conclude that governors favor this specific type of fairness over alternatives, such as distributing to the poorest census tracts. For instance, Michigan Governor Rick Snyder said the state initially designated 25% of each county's eligible tracts as OZs.[10] Moreover, Frank et al. (2022) summarize state-disclosed selection criteria and find that 15 states discuss proportional selection across counties explicitly.

The theoretical specification from Passarelli and Tabellini (2017), the Menino survey, and governors' statements support the idea that governors considered county aggrievement as parameterized in Equation 1. Our structural model presented in the next section formalizes that governors in fact trade off county aggrievement with the other considerations mentioned in the survey and public disclosures. Importantly, counterfactual analysis with this structural model quantifies the resulting distortion of managing county aggrievement.

2.2. Governor's Problem

We hypothesize that governors balance aggrieving counties with OZ allocations below perceived entitlements R_s against other factors. Each governor solves the following objective:

$$\begin{aligned} \max_{I_{i,j}} \Bigg[(1-\alpha_s) \times \sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} I_{i,j} \times S_{s,i,j} - \alpha_s \times \sum_{i=1}^{\#County_s} A(\#OZ_i, E_i) \Bigg] \\ s.t. \sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} I_{i,j} = R_s \times \#Eligible_s \text{ and } \#OZ_i = \sum_{j=1}^{E_i} I_{i,j}, \end{aligned} \tag{2}$$

[9] Appendix Figure H1 shows a similar figure with "Extremely unhappy" coded as 5, "Somewhat unhappy" as 4, and so on. Appendix Figure H2 uses only the 101 non-"NA" responses.

[10] https://www.michigan.gov/opportunityzones/about

where s denotes states, i denotes counties, and j denotes the eligible census tracts in county i. $I_{i,j}$ is an indicator function equal to one if tract j in county i becomes an OZ. Hence, $\#OZ_i = \sum_{j=1}^{E_i} I_{i,j}$ is the number of OZs that county i receives. E_i is the number of eligible tracts in county i. $\#Eligible_s$ and $\#County_s$ are the number of eligible tracts and the number of counties in state s, respectively. $S_{s,i,j}$ is the score that a governor assigns to census tract j based on characteristics unrelated to managing county aggrievement. We assume that $S_{s,i,j} = \Psi_s \times X_{i,j} + \epsilon_{i,j}$, where $X_{i,j}$ is a vector representing all observable characteristics of census-tracts considered in governors' choices. The vector $X_{i,j}$ captures the welfarist and political reasons that a governor had to nominate the tract j as an OZ (e.g., poverty rate and county political leaning); the vector Ψ_s contains the weights that the governor places on each of these characteristics; and $\epsilon_{i,j}$ proxies for those census tract characteristics not observable by the econometrician that governors considered when scoring census tracts. Section 3 describes all the census tract variables $X_{i,j}$ entering the model estimation.

The model's key parameter, α_s, quantifies the governor's focus on managing county aggrievement. Ranging from zero to one, α_s reflects the trade-off between addressing aggrievement and balancing other considerations. When governors disregard county aggrievement ($\alpha_s = 0$), they consider only census tract characteristics when allocating OZs. Conversely, when prioritizing county aggrievement ($\alpha_s = 1$), they allocate OZs lexicographically. They first distribute OZs to minimize county aggrievement and only consider other factors when selecting OZs within a county.

Our main objective is to estimate α_s for each state and, using counterfactual analysis, quantify the policy distortions due to managing county aggrievement. The theoretical literature suggests that α_s is greater than zero (Oates, 1972, 1999; Passarelli and Tabellini, 2017). If empirically true, counterfactual analysis assuming governors ignore county aggrievement identifies the economic and social distortions due to managing aggrievement.

Governors often relied on county input to select OZ tracts, so the weights Ψ_s reflect the combined preferences of both governors and counties for the characteristics of eligible tracts. Indeed, the Menino Survey shows that 49.8% of local officials with eligible tracts reported that the governor requested a list of local recommended tracts and used it. Another 38.8% said they would have generated a similar or somewhat similar list. Importantly, county officials could not recommend OZs outside their borders, giving them little control over parameter α_s. The parameter α_s, therefore, controls how much governors deviate from the welfarist and private reasons that determine the allocation of OZs within counties, to avoid OZ allocations that fall short of counties' perceived entitlements.

Naturally, the governor's objective function is simple with limitations. Formalizing the microfoundations of α_s is not the objective of our simple model. Instead, we follow the

tradition of structural estimation (Holmes and Sieg, 2015) with a "model that helps us understand the real world and is consistent with observed outcomes." Indeed, the simplicity of Equation 2 allows us to take the model to the data. Thus, regardless of why governors manage county aggrievement, our model identifies the extent to which governors manage aggrievement in allocating OZs and compares counterfactual allocations (when α_s is zero or one) to observed allocations.

Moreover, the model does not consider all factors that may influence a governor's OZ allocation. While we include many tract-level characteristics in the model ($X_{i,j}$) that account for factors influencing OZ allocations (see Section 3), not all factors considered by governors may be controlled. This becomes a concern if an omitted variable could confound the interpretation of the estimated α_s, intended to capture the extent to which governors manage aggrievement. In Section 5, we discuss various characteristics of the allocation patterns associated with managing county aggrievement that any unobserved variables must also imply to confound our identification of α_s as reflecting governors' aversion to aggrieving counties.

2.3. Estimation Procedure

The model suggests a natural two-stage estimation procedure: under the model, governors sort census tracts by their scores $S_{s,i,j}$ within counties (see Section Appendix B for proof). Thus, the parameters Ψ_s can be estimated in the first stage with a probit model that accounts for county-level differences related to managing aggrievement. We use the tract-level OZ designations from all governors to estimate the weights, Ψ_s. That is, $\Psi_s = \Psi$, where Ψ is obtained from a probit regression estimated using all OZ designations across the U.S. To control for county-level differences related to managing aggrievement, we add fixed effects for the number of eligible tracts in the county and state fixed effects. The only county characteristics in the aggrievement function in Equation 1 are the number of eligible tracts in the county and R_s. Therefore, the eligible-tract fixed effects adequately control for county differences related to aggrievement in the first stage.

In the second stage, we estimate the extent to which governors manage aggrievement, α_s, using simulated maximum likelihood (SML). This procedure identifies the α_s^* that maximizes the likelihood that the model's OZ choices reflect the governor's actual selections.

$$\log\mathcal{L}(\alpha_s) = \sum_{i=1}^{\#\text{County}_s} \sum_{j=1}^{E_i} \left[I_{i,j}^{Actual} \log\left(\mathrm{P}_{i,j}(\alpha_s)\right) + (1 - I_{i,j}^{Actual}) \log(1 - \mathrm{P}_{i,j}(\alpha_s)) \right]. \tag{3}$$

In this equation, $I_{i,j}^{Actual}$ is an indicator that equals one if tract j in county i is an actual OZ, and $\mathrm{P}_{i,j}$ is the model's predicted probability that census tract j in county i becomes an OZ.

The SML procedure generates K draws of $\epsilon_{i,j}$ in the score function $S_{s,i,j} = \Psi \times X_{i,j} + \epsilon_{i,j}$, where Ψ is the estimate from the first stage. The governor's problem in Equation 2 is solved for each k-th draw and α_s, resulting in a selection of OZs ($I^k_{i,j}(\alpha_s) = 1$) and non-OZs ($I^k_{i,j}(\alpha_s) = 0$) for each draw k and value of α_s. $\mathrm{P}_{i,j}(\alpha_s)$ is the average of $I^k_{i,j}(\alpha_s)$ across all K draws. We set $K = 100,000$ for each state, and $\epsilon_{i,j}$ follows a standard normal distribution, as is conventional in probit models (e.g., Korteweg and Sorensen, 2016). See Lockwood (2018) for a similar two-stage estimation. Appendix B details each step of the estimation procedure.

We perform a series of procedures to examine and enhance the quality of our estimation. These procedures are briefly listed here and are described in detail in the appendix.

First, we apply a LASSO variable selection procedure. As we describe in Section 3, we have a set of 25 tract-level characteristics ($X_{i,j}$ in Equation 2) as potential predictors for explaining OZ allocations. Many of these variables are highly correlated, which may raise issues of multicollinearity. The LASSO variable selection procedure reduces the number of characteristics to 11 for use in the first stage of the estimation procedure. Although not selected by LASSO, we add two favoritism proxies from the OZ literature to arrive at 13 covariates. Appendix A.6 details the LASSO selection.

Second, we estimate the first stage using selections from all governors, relying on the assumption that $\Psi_s = \Psi$. We use this approach because estimating Ψ_s separately for each state would be unreliable in states with few eligible tracts (e.g., Wyoming, with only 33 eligible tracts), as small sample sizes would limit accurate estimation of Ψ_s across many census tract characteristics in OZ selection. Furthermore, fixed-effect estimators of probit models can be severely biased (e.g., Cruz-Gonzalez et al., 2017) when the number of observations per group is small. Estimating the probit at the national level provides a large number of census tracts for each number of eligible tracts fixed effect, addressing this potential bias. In Appendix F, we show that the α^*_s estimates are largely robust to estimating the first-stage weights Ψ by state with a more limited set of characteristics, rather than using the 13 characteristics for our primary estimates, and applying county random effects instead of fixed effects. Importantly, we also demonstrate that the counterfactual results remain robust when using state-level Ψ_s values.

Third, although the assumption that county entitlements is equal R_s is supported by the Menino Survey (see Figure I), we assess its impact on our results by jointly estimating α^*_s and the entitlement amount R. Appendix D shows that the optimal combination of R and α_s is mostly close to R_s.[11]

[11] We assume county entitlements are uniform across counties, grounded by the budget constraint R_s. Although county entitlements may vary, such variation would likely lead governors to adjust allocations accordingly, which contrasts with the observed uniformity of OZ allocations across counties.

Fourth, a potential concern with the simulated maximum likelihood procedure is that $P_{i,j}(\alpha_s)$ may be equal to zero (or one) when $I_{i,j}^{Actual} = 1$ (or $I_{i,j}^{Actual} = 0$), resulting in logs of zero in Equation 3 (e.g., McFadden, 1989). To ameliorate this issue from affecting our α_s^* estimates, we use a large number of simulations ($K = 100,000$) for each state, which reduces the likelihood that $P_{i,j}(\alpha_s)$ is either zero or one. Our estimates are stable in K as Appendix H shows that we obtain similar results when $K = 150,000$ or $K = 25,000$. See Appendix B for additional details. Additionally, to further examine the impact of this issue on the quality of the α_s^* estimates, we re-estimate them using an alternative simulated method of moments (SMM) procedure in the second stage. In Appendix E, we demonstrate that the α_s^* estimates using SMM and all counterfactual estimates are consistent with those obtained using the SML approach.

Finally, and most importantly, we verify in Appendix C that our estimation strategy reliably recovers Ψ and α_s from simulated data generated with known parameter values. By estimating the model on 100 simulated sets of OZ allocations, we are able to accurately recover these parameters.

3. Data and Variable Construction

In our model, the governor weighs counties' aggrievement against other tract-level considerations ($X_{i,j}$ in Equation 2). We categorize tract-level characteristics into three themes: (1) poverty and demographics; (2) investment potential; and (3) electoral concerns. Controlling for these variables helps estimate the main factors impacting the governor's tract-level decisions. Despite having 25 tract-level controls, we cannot account for all factors the governor may have considered in OZ allocations. In Section 5, we discuss the allocation consequences when governors manage aggrievement; any unobservable variables must also produce these consequences to confound our identification of the parameter of interest (α_s^*).

Table III defines the primary input and output variables. We discuss the Panel A output variables in Section 4. Panels B to C describe the model input variables. To proxy for a tract's poverty and demographics (Panel B), we use the 18 tract-level characteristics compiled by the Urban Institute for the eligible tracts. The Urban Institute released these data before the OZ selection process, and there is evidence states used this information.[12]

To proxy for a tract's investment potential (Panel C), we use an index of investment activity (based on past lending to real estate projects) from the Urban Institute and two agglomeration economy proxies motivated by the literature and state disclosures about the

[12]For example, in Nevada, Derek Armstrong, Office of Economic Development, stated "We looked at a couple of national studies that incorporated social need, as well as the likelihood of investment, and that was through the Urban Institute." Source https://vimeo.com/307169668.

OZ selection process: population density and proximity to infrastructure. The literature on place-based policies indicates that policies such as the OZ program are more likely to have an effect in places with higher agglomeration economies (Glaeser and Gottlieb, 2008; Kline and Moretti, 2013; Austin et al., 2018). Theory posits that agglomeration economies arise from shareable inputs to production, such as the proximity of businesses and labor, reflected in investment activity and population density (Ciccone and Hall, 1996; Combes et al., 2008; Liu et al., 2018). Another is public infrastructure (Eberts and McMillen, 1999). Furthermore, some states disclosed that they prioritized areas with proximity to airports (LA, OH, PA), ports (LA, OH, WA), hospitals (MI, PA), or colleges (LA, MI, TN). For each census tract, we count the number of airports, ports, hospitals, and colleges within five miles of a tract's center. We calculate a tract's population density using its population from the Urban Institute and its area from ArcGIS.

To proxy for a governor's electoral concerns (Panel D), we add two controls for the favoritism channel proposed in Frank et al. (2022) and Alm et al. (2021) but refuted by Glick and Palmer (2022). Following these studies, we use an indicator variable – set to one if a tract is represented by a state legislator aligned with the governor's party – to capture favoritism. These data come from Ballotpedia. Also, Glick and Palmer (2022) considers the proportion of county voters who supported the governor responsible for assigning OZs. We also add a measure of swing voters, using the traditional standard deviation of the Democratic vote share in a county from 1990 to 2017 to estimate voters whose partisan biases are weak (Lindbeck and Weibull, 1987; Dixit and Londregan, 1998; Strömberg, 2004). County-level gubernatorial voting data are from Dave Liep's Election Atlas. Lastly, we add a control for the total donations per capita in a county to the presidential candidate of the same party as the governor, although Ansolabehere et al. (2003) surveys the literature and finds little evidence that donations affect outcomes critical to donors.

Our sample comprises 30,835 eligible tracts in the 50 states.[13] About 42% of U.S. census tracts were eligible for the OZ designation, and governors designated 11.8% as OZs.

Table IV shows summary statistics on key variables. Panel A characterizes the counties with at least one eligible tract. Although governors generally designated about 25% of the eligible tracts of a state as OZs, governors designated, on average, 31% of a county's eligible tracts as OZs. This difference is partly because many counties with fewer than four eligible tracts get one OZ, resulting in an allocation above 25%. Panel B shows that 46% of counties (1,242) have fewer than four eligible tracts and 17% (465) have only one.

Table IV, Panel C, shows the average poverty and unemployment rates in eligible tracts

[13] Appendix A provides additional details about the sample construction.

are 26.3% and 10.9%, respectively. Table IV, Panel D, shows characteristics of OZs and eligible tracts not designated as OZs. Panel D shows that the average poverty rate in OZs (non-OZs) is 30.5% (25.0%). The average unemployment rate in OZs (non-OZs) is 12.6% (10.3%). The proportion of residents who are Black in OZs (non-OZs) is 26.9% (20.8%). By contrast, proxies for governors' electoral concerns are similar in OZs and non-OZs.

To examine how managing aggrievement affects the *actual* amount of investment stimulated (a policy outcome), we built a data set of tract-level investment activity before and after the OZ program. Because the OZ tax incentives apply to equity investments, our proxy for investment activity is equity issues by private and public firms. We use Form D filings with the Securities and Exchange Commission to identify equity issues in specific eligible tracts, as businesses must notify the SEC of exempt securities offerings. The Council of Economic Advisers (2020) and Xu (2022) also use Form D filings to study the OZ program's investment effects. These data include the issuer's address and the issuance date. Addresses on Form D filings are for headquarters, but small operations have a single location.[14] Our Form Ds are filed by operating businesses because we exclude Form Ds filed by pooled investment funds that must file a Form D when raising capital since these funds are likely to invest in other tracts. In untabulated findings, our investment results are robust to keeping these funds raising capital in eligible tracts. Thus, in our sample, an increase in Form D offerings in OZs is consistent with operating businesses in OZs selling more private stock to pooled investment funds.

Table IV, Panel E, shows the statistics on equity issues from Form D filings. In eligible tracts, 12,638 businesses used a Form D exemption to raise capital from 2014 to Q3 2019. Within this period, at least one Form D filing occurred in 3,539 (11.5%) of the eligible tracts. The median amount raised is about $1.0 million, typical for small, early-stage businesses seeking seed funding. For comparison, Crunchbase and PitchBook report the average seed funding round from 2010 to 2019 was approximately $1.3 million.

4. Model Estimation Results

As described in Section 2.3, we estimate the model using a two-stage procedure.

Table V presents the weights, Ψ, estimated in the first stage using a probit model. This model explains OZ selection with tract-level characteristics, state fixed effects, and fixed effects for the number of eligible tracts. We standardize all characteristics for easier magnitude comparison. Although we started the first-stage estimation with the full set of

[14] We randomly sampled 100 Form D issuers and found websites for 71. Examining their "about us" and "contact us" pages revealed 59 (83%) had only one establishment. Appendix A.5 provides further discussion of the proxy with examples.

25 tract-level characteristics as potential predictors for explaining OZ allocations, LASSO variable selection reduced the number of characteristics to 11. The variables selected by LASSO are the first 11 characteristics listed in Table V. Interestingly, LASSO did not select the proxies for favoritism—specifically, "Core Voters" and "Affiliated State Legislator"—as significant predictors. Nevertheless, prior research suggests these factors may be important (Alm et al., 2021; Frank et al., 2022; Eldar and Garber, 2023), even though Glick and Palmer (2022) shows that the favoritism results are not robust.[15] Therefore, we included these two favoritism proxies in our first stage despite their exclusion by LASSO and their lack of significance, bringing the total number of characteristics used in our first-stage analysis to 13. Additionally, the LASSO results indicate that county donations per capita are not a significant predictor of OZ allocations, consistent with Ansolabehere et al. (2003) who surveys the literature and finds little evidence that donations affect outcomes critical to donors. Moreover, the proportion of swing voters is unrelated to governors' OZ allocations, consistent with the mixed findings in the literature on whether presidents allocate more resources to swing states (Larcinese et al., 2006; Kriner and Reeves, 2015). Appendix A.6 details the LASSO selection.

Table V shows that within a county, governors preferred tracts for the OZ program with higher investment potential (investment score, proximity to infrastructure), higher poverty rates, higher unemployment, and larger Black populations.

We use the first-stage estimates in the second stage to estimate the unobservable parameter of interest: a governor's aversion to aggrieving counties when allocating OZs (α_s^*). Table VI lists our α_s^* state estimates for Equation 2, with an average (median) of 0.88 (0.95).

Table VI shows p-values indicating that the estimates α_s^* differ significantly from zero at 1%, 5%, and 10% levels for 35, 36, and 38 states, respectively. The p-values in Table VI are from log-likelihood ratio tests which determine if allowing governors to manage county aggrievement significantly improves the model's fit of OZ allocations. Appendix Figure H3 shows how the log-likelihoods vary with α_s for each state. Appendix C shows that for states with significant α_s^* estimates, if we simulate the model with known parameters, we can recover them well. Appendix G shows that the main results are robust to using only the states with significant α_s^* estimates.

Additionally, allowing governors to manage aggrievement improves the fit of cross-county OZ allocations. Specifically, the model's cross-county OZ allocation root mean square error

[15] While the literature discusses favoritism (Kramon and Posner, 2016; Lin et al., 2018; Baltrunaite, 2019; Chen et al., 2020; Lévêque, 2020; Khalil et al., 2021), the transparency of the OZ program may have dissuaded governors from extracting private benefits (e.g., Banerjee, Mullainathan, and Hanna, 2012).

(RMSE) improves by 16.1% compared to ignoring entitlements.[16] The RMSE improvement is 32.1% (6.2%) in high (low) α_s^* states.

The variation of α_s^* between states is noteworthy. The α_s^* estimates are generally high. For the 40 states above the mean α_s^*, the average α_s^* is 0.97. Only ten states are below the mean of 0.88. Five of these ten states have fewer than 100 eligible tracts (Alaska, North Dakota, South Dakota, Vermont, Wyoming). As stated in Section 2.1, these states each received 25 OZs. In none of these states is α_s^* statistically different from zero according to the likelihood ratio test, suggesting that it is difficult to identify aversion to aggrieving counties with such a small number of observations. For the five low α_s^* states (Georgia, Missouri, Mississippi, Nevada, Pennsylvania) with over 100 eligible tracts, public descriptions do not indicate allocating at least one OZ to all counties or proportionally across counties. Their descriptions show these governors prioritized OZ allocations that address poverty by stimulating investments. For example, analysis of the state disclosures for Georgia (see Appendix A.4) indicates that the governor prioritized the state's poorest areas, as evidenced by Poverty achieving an adjusted R^2 of 31% in explaining OZ selections. Understanding why these five large states exhibit low α_s^* values and consequently adopt a different approach is challenging and presents an intriguing avenue for future research. Appendix Figure H4 shows no clear α_s^* pattern across U.S. regions. Overall, the α_s^* estimates are mostly high, and allowing governors to manage aggrievement significantly improves the model's ability to explain OZ allocations.[17]

5. Identifying Governors' Aversion to Aggrieving Counties (α_s^*)

In this section, we demonstrate how the model identifies governors' aversion to aggrieving counties. We show that the model's key predictions are observed in the actual allocations of OZs. The distinct predictions are especially present in states where governors exhibited a high aversion to aggrieving counties (high α_s^* states).

[16] To calculate the model's RMSE improvement, for each county, we first compute two squared differences: one between the actual and predicted OZ proportions when governors manage aggrievement, and another when governors disregard them. We average these squared errors across counties, compute the RMSE, and find the difference in RMSE between the two scenarios.

[17] Extant literature has long recognized that local representatives exert pressure on planners for resources, often leading to inefficiencies such as overspending (e.g. Weingast et al., 1981). Moreover, studies predict that enhancing the bargaining power of central planners relative to local representatives can mitigate these inefficiencies (Fitts and Inman, 1992; Weingast, 1994; Inman and Rubinfield, 2020). In the context of the OZ program, Duarte et al. (2024) find that governors with greater bargaining power compared to county representatives allocate resources to 22% fewer small counties and distribute resources 36% less uniformly between large counties. This evidence of political bargaining may help explain the variation in our estimates of aversion to aggrieving counties, α_s^*, across different states.

5.1. Distinct Model Predictions

The model predicts that governors managing aggrievement shift OZs from some large counties with many eligible tracts to give *exactly one* OZ to counties with three or fewer eligible tracts. Governors also shift OZs from some large counties to other large counties that would otherwise receive fewer OZs than R_s. They shift OZs so all counties get at least one OZ (universalism) and large counties receive a proportional share of OZs (uniformity). Table VII presents the model's predictions.

Panel A of Table VII shows that governors minimizing aggrievement are predicted to give exactly one OZ to most counties with one-to-three eligible tracts. Columns (1) to (3) of Table VII compare the average across states of county OZ allocations predicted by the model: when governors minimize county aggrievement ($\alpha_s^* = 1$) versus when governors ignore county aggrievement ($\alpha_s^* = 0$). Panel A column (1) shows that for counties with one, two, and three eligible tracts, governors managing aggrievement designate as OZs 99.6%, 49.6%, and 33.4% of their eligible tracts, respectively. By contrast, column (2) shows that governors ignoring county entitlements allocate OZs to approximately 21.2% of counties with one eligible tract, leaving many of the 465 counties with a single eligible tract without an OZ.[18] The rationale for these OZ shifts is that taking an OZ from a large county with many tracts causes less aggrievement than not giving one OZ to each county with three or fewer eligible tracts. Additionally, allocating more than one OZ to counties with two-to-three eligible tracts does not reduce aggrievement because designating one OZ already raises their proportion above the 25% reference point (R_s).

Panel B of Table VII shows that reallocating OZs to smaller counties to manage aggrievement results in a seemingly universalistic distribution, with most counties receiving OZs. Panel B, column (1) indicates a predicted 98.2% of counties receive at least one OZ when $\alpha_s = 1$, compared to 63.6% when $\alpha_s = 0$ in column (2). Thus, the model predicts a 34.6 percentage point (54.4%) increase in counties receiving at least one OZ when a governor manages aggrievement (using $\alpha_s = \alpha_s^*$) versus when a governor ignores county aggrievement (using $\alpha_s = 0$). The increase is driven by a 187.9% (99.6/34.6-1) rise for counties with fewer than four eligible tracts.

[18] In each state, the average probability of a tract being designated as an Opportunity Zone (OZ) is denoted by R_s. Across all states, the mean of these probabilities is 0.269. Interestingly, when $\alpha_s = 0$, the proportions shown in column (2) consistently fall below the average R_s. We have verified that these values are accurate. This pattern arises because, although the average probability of selection is R_s, the tracts with the highest probabilities when $\alpha_s = 0$ are typically located in large counties with many eligible tracts. Consequently, when we calculate the average probability at the county level, these high-probability tracts are averaged together with numerous low-probability tracts in the same county. This averaging dilutes the impact of high probabilities, resulting in a county average less than R_s.

Panel C shows that reshuffling OZs among large counties to manage aggrievement ensures each large county receives a similar proportion of OZs (uniformity). Since aggrievement increases quadratically with OZ shortfalls relative to R_s, governors distribute OZs more evenly across large counties to prevent any large county from receiving many fewer OZs. Panel C, column (3), shows the standard deviation of eligible tracts designated as OZs in large counties is 9.7 percentage points lower (a 65% decrease) when governors manage aggrievement ($\alpha_s = 1$) versus ignoring county aggrievement ($\alpha_s = 0$).

5.2. Distinct Model Predictions Align With Actual Allocations

Table VII confirms the model's predictions in the actual OZ allocation in high α_s^* states. Columns (4) to (6) of Table VII compare the actual OZ allocation in high and low α_s^* states. However, we cannot compare extremes $\alpha_s = 1$ and $\alpha_s = 0$ in the data, so the empirical results are similar but less extreme than the predictions.

Consistent with governors allocating exactly one OZ to counties with one-to-three eligible tracts, in high (low) α_s^* states, approximately 66% (43%) of counties with one-to-three eligible tracts receive exactly one OZ, less than 10% (8%) receive more than one OZ, and 24% (49%) receive none. Table VII Panel A shows that in states with high (low) aversion to aggrieving counties, counties with one, two, and three eligible tracts have 64.6% (35.2%), 46.7% (32.5%), and 37.2% (27.2%) of their tracts designated as OZs.

Related to the prediction of universalism, Panel B shows that in states with high estimated α_s^*, governors allocated at least one OZ to 91.6% of counties compared to 69.9% with low estimated α_s^*. The 21.7 (91.6-69.9) percentage point difference is statistically significant. For counties with one-to-three (four-or-more) eligible tracts, the proportion receiving at least one OZ is 27.7 (6.8) percentage points higher when α_s^* is high compared to when α_s^* is low.

Consistent with the prediction of uniformity, Panel C of Table VII shows that in states with high estimated α_s^*, the standard deviation of the OZ allocation across counties with four-or-more eligible tracts is 6.1 percentage points lower (a 36% decrease), a statistically significant difference.[19]

An unobservable variable can only confound our identification if it influences OZ allocations in a manner similar to how governors manage aggrievement, as predicted by the model.

[19]The Appendix provides more results supporting that the universalistic and uniform OZ allocation in the data helps identify parameter α_s^*. We show the model's fit improves for various counties — small and large — predicted to gain or lose OZs due to governors managing aggrievement. Appendix Figures H5 and H6 display gain and loss distributions of OZs by eligible tracts in counties E_i using $\alpha_s = 1$ and α_s^*. Figure H7 breaks down the root mean square error improvement in county allocations, highlighting better model fit for those predicted to gain or lose OZs. State disclosure evidence in Appendix A.4 shows that mentions of universalism and uniformity are significantly higher in high α_s^* states, with a 26 percentage point increase for uniformity ($t - statistic = 2.29$) and a 39 percentage point increase for universalism ($t - statistic = 3.02$).

Additionally, the omitted variable would need to align with the 2019 Menino Survey results indicating that counties were important pressure groups and that a 25% reference point was used to judge an allocation as fair. For example, a desire to spread OZs across the state does not explain why governors with high α_s^* often designated exactly one OZ per small county, as our model predicts.[20] Indeed, if governors with high α_s^* were maximizing geographic dispersion of OZs statewide, they would allocate OZs to achieve a small Herfindahl-Hirschman Index (HHI) of OZs. They would achieve a lower HHI than what is observed by simply designating all or most eligible tracts in small counties as OZs. The average HHI across states for an allocation that designates all eligible tracts in small counties as OZs—while taking OZs away from large counties—is 0.0198. This is smaller than the average HHI of 0.0316 for an allocation where all governors have $\alpha_s = 1$, and significantly smaller than the actual HHI of OZ allocations, which is 0.061.[21]

The Menino survey also helps identify α_s^* as aversion to aggrievement. For instance, governors may have allocated OZs proportionally across counties because it is "less work." This strategy would not require the busy governor to research every tract that is eligible or proposed. But this strategy would not explain why local officials reported in the Menino Survey that they were important pressure groups and assumes that the expressed dissatisfaction of those receiving less than 25% is unimportant to the governor.[22]

6. Who Lost because Governors Manage County Aggrievement?

This section examines whether governors' management of county aggrievement distorts the types of communities receiving OZs. Our structural model determines the probability ($\mathrm{P}_{i,j}(\alpha_s)$) that each county tract i becomes an OZ when governors manage ($\alpha_s = \alpha_s^*$) or ignore ($\alpha_s = 0$) county aggrievement. Thus, the model reveals which eligible tracts are more likely ($\mathrm{P}_{i,j}(\alpha_s^*) > \mathrm{P}_{i,j}(0)$) to be selected as OZs and which eligible tracts are less likely

[20] Table I indicates that local officials reported a "Desire to spread OZs across the state" as a factor influencing governors' OZ designations.

[21] The distribution of our observed tract characteristics does not support the tendency to allocate significantly more OZs to counties with fewer than four eligible tracts or to distribute OZs uniformly. For example, Appendix Figure H8 shows no sharp change in affiliated state legislators or core voters between counties with one-to-three tracts and those with four or more. As the number of eligible tracts increases, the variation in these characteristics also increases. Therefore, favoritism cannot explain the universalism and uniformity allocation tendencies. See Appendix Figure H9 for similar analysis using demographic and investment tract characteristics.

[22] Also, communications regarding the OZ selection process in Appendix A.4 often show significant gubernatorial effort. For example, the New Jersey Governor collaborated closely with the Department of Community Affairs and an expert firm to develop a formula for selecting zones that align with policy priorities, focusing on "geographic fairness" (every county gets at least one tract) and economic distress. The governor consulted mayors statewide for feedback, engaged the New Jersey Congressional delegation for transparency, and received input from various departments (e.g., DOLWD, NJRA).

$(P_{i,j}(\alpha_s^*) < P_{i,j}(0))$ to be selected as OZs when governors manage aggrievement. Thus, these probabilities and our tract characteristics allow us to calculate the expected socioeconomic and demographic traits of OZ residents based on whether governors manage aggrievement.[23]

The expected number of OZs shifted to avoid county aggrievement when $\alpha_s = \alpha_s^*$, relative to the allocation when $\alpha_s = 0$, is 772. These shifts changed the OZ status of about 3.1 million people, approximately 10% of the 30 million OZ residents.

Heterogeneity in tract characteristics coupled with a large shift in the people in OZs results in significant changes in the demographic and socioeconomic characteristics of the population living in OZs. Panel A of Table VIII shows that managing county aggrievement in OZ allocations results in an expected decrease of 28,110 families living in poverty in OZs. Moreover, OZs have 41,648 fewer unemployed people, 1,149,601 more White residents, 637,983 fewer Black residents, and 371,667 fewer Hispanic residents. We also determine these changes for high and low α_s^* states and compare them with the total populations of Whites, Blacks, and Hispanics in OZs within the high (low) α_s^* states. In high (low) α_s^* states, managing aggrievement results in an 11.8% (5.5%) rise in White residents, 10.1% (6.8%) drop in Black residents, and 4.8% (4.5%) decline in Hispanic residents in OZs.

To better understand the differences in Panel A of Table VIII, we compare the expected characteristics of the 772 OZs selected to address aggrievement with the characteristics of an alternative set of 772 OZs that would have been chosen had governors disregarded county-level aggrievement. Panel B of Table VIII shows that managing aggrievement shifted OZs to eligible tracts with 8.7 percentage points lower poverty rates and 3.1 percentage points lower unemployment rates, compared to tracts selected ignoring county entitlements. This represents a 28.5% (24.6%) *decrease* relative to the mean poverty (unemployment) rate in OZs. Managing aggrievement also shifted OZs to eligible tracts with 26.7 percentage points more Whites, a 61.8% *increase* in the mean proportion of White residents in OZs. Consequently, managing aggrievement shifted OZs to eligible tracts with 19.9 percentage points fewer Blacks and 5.6 percentage points fewer Hispanics, a 74.0% (24.7%) *decrease* from the mean Black (Hispanic) resident proportion in OZs. Thus, governors managing aggrievement direct more OZs to less-impoverished areas with more White residents, supporting Heikkila (2001)'s observation that spatial equality does not ensure racial equality.

The significant changes in the demographic and socioeconomic characteristics of the population living in OZs arise from governors both allocating a higher number of OZs to smaller counties and distributing OZs more uniformly across larger counties. Panel B of Table VIII, columns (2) and (3), present the impact of managing aggrievement on the demographics

[23] Appendix I shows the formulas used to compute the expected values shown in this section.

of OZ census tracts for counties with one-to-three eligible tracts versus those with four or more. Eligible tracts in small and large counties selected as OZs to manage aggrievement have lower poverty and unemployment rates, and fewer Blacks and Hispanics.

The size of these distortions is robust to using the SMM estimator for α_s^* (Appendix E) and to using state-level estimates in the first stage of our estimation procedure (Appendix F). As a plausibility check, we estimate a linear probability model with county fixed effects, comparing predicted OZ demographic traits when governors include county-level factors (e.g., entitlements) versus only within-county tract characteristics (see Appendix Table H2). This linear probability model incorporates a comprehensive set of census tract characteristics, including all 25 variables listed in Table III and the averages of these characteristics for neighboring tracts. While the OZ program is highly local, the neighboring tract characteristics help account for spillover effects. While the fixed-effects model estimates cannot be entirely attributed to managing aggrievement, the findings suggest that similarly large demographic differences among OZ residents would arise if governors applied the same criteria for selecting OZs across counties as they do within counties. The findings also suggest that incorporating a wide range of observed census tract characteristics including the neighboring tract characteristics in the first stage of our model estimation does not alter the magnitude of the counterfactual results.

7. OZs Selected to Manage Aggrievement Stimulate Less Investment

Managing county aggrievement results in OZs with lower investment potential. As in the case of the demographic characteristics in Section 6, this counterfactual analysis is possible because our model determines the probability ($\mathrm{P}_{i,j}(\alpha_s)$) that each tract j in county i becomes an OZ, depending on whether governors manage aggrievement ($\alpha_s = \alpha_s^*$) or not ($\alpha_s = 0$). These probabilities and each tract's characteristics help us calculate the expected investment potential of OZs with or without managing aggrievement.

Table IX shows that to manage aggrievement, governors allocated OZs to tracts with investment scores that are 1.1 points lower, 2,019 fewer people per square kilometer, and 2.5 fewer infrastructure pieces within five miles, a reduction of 21%, 51%, and 15% compared to the OZ average. Thus, regardless of whether the OZ program actually stimulated investment, governors managing aggrievement allocated more OZs to areas with less investment potential.

We next show that managing aggrievement reduced actual investment stimulated by the OZ program. We estimate a triple-differences specification. The first difference captures investment changes in eligible tracts before and after the OZ program began in Q1 2018. The second difference compares investment changes between tracts designated as OZs and those eligible but not designated. The third difference looks at how investment activity

differs between OZs based on their likelihood of selection to manage county aggrievement.

$$\begin{aligned}\text{Investment}_{i,j,q} = &\beta_1 \times \text{Post}_q \times \text{I}_{i,j}^{\text{Actual}} \\ &+ \beta_2 \times \text{Post}_q \times (\text{P}_{i,j}(\alpha_s^*) - \text{P}_{i,j}(0)) \\ &+ \beta_3 \times \text{Post}_q \times \text{I}_{i,j}^{\text{Actual}} \times (\text{P}_{i,j}(\alpha_s^*) - \text{P}_{i,j}(0)) \\ &+ \mu_{i,j} + \gamma_{s,q} + \epsilon_{j,q}.\end{aligned} \tag{4}$$

The outcome variable is the amount of investment in tract j in quarter q in county i in state s. As described in Section 3, our investment proxy is SEC Form D equity issuance data from Q1 2014 to Q3 2019. We use an indicator for any investment occurrence and the natural logarithm of 1 plus the investment amount. In both cases, we scale the outcome by 100 to express coefficients as percentage points. $I_{i,j}^{\text{Actual}}$ is an indicator for whether an eligible census tract j in county i is actually designated as an OZ. $Post_q$ indicates all quarters after Q1 2018 when governors started selecting eligible OZ tracts. $(\text{P}_{i,j}(\alpha_s^*) - \text{P}_{i,j}(0))$ is the difference in a tract's probability of becoming an OZ when a governor manages aggrievement (using $\alpha_s = \alpha_s^*$) versus ignores county aggrievement (using $\alpha_s = 0$). $\mu_{i,j}$ is a census tract fixed effect accounting for all fixed investment determinants (absorbs $\text{P}_{i,j}(\alpha_s^*) - \text{P}_{i,j}(0)$ and $I_{i,j}^{Actual}$). $\gamma_{s,q}$ controls for state investment trends (absorbs $Post_q$). Standard errors are clustered by state.

Figure II(a) illustrates that both designated and non-designated eligible tracts exhibited similar investment activity prior to the OZ program, with investment activity in OZ tracts increasing after the program's implementation. This pattern supports the standard identification assumption of pre-shock parallel trends in the difference-in-differences strategy. The plot shows the β_1 coefficient in Equation 4 by quarter. Although not statistically significant, there is a slight increase in Q1 of 2018, which is when some governors announced the tracts for OZ nominations. The significant increase occurs in Q2 of 2018 when the U.S. Treasury ratified the governors' nominations.

While Figure II(a) shows that the OZ program resulted in increased investment activity in the OZ, the results of the triple-difference analysis in Figure II(b) are the most pertinent to our research. Specifically, Figure II(b) shows that after the OZ program starts, OZs more likely to have been selected to manage aggrievement stimulate significantly less investment than those less likely to do so. Specifically, the plot shows the β_3 coefficient in Equation 4 by quarter.[24] Importantly, Figure II(b) supports the standard identification assumption of pre-shock parallel trends in the difference-in-differences strategy. Indeed, differences in OZs'

[24]Note that the decline in Figure II(b) after the OZ program starts does not mean that investment rates fell due to the OZ program. Figure II(b) indicates that the positive effect on investment from OZ designations (Figure II(a)) is reduced by the amount in Figure II(b) for OZs selected to meet county entitlements.

likelihood of being selected to manage aggrievement are unrelated to their pre-OZ program investment activity.

Table X shows the results for equation 4. The outcome in columns (1) to (3) is an indicator equal to one if the investment proxy is above zero, and the outcome in columns (4) to (6) is the natural logarithm of one plus the investment proxy.

Consistent with the results in Figure II(a), the coefficient on $\mathrm{I}_{i,j}^{\mathrm{Actual}} \times \mathrm{Post}_q$ in column (1) shows that an OZ designation increased investment activity by 51 basis points per tract-quarter. Column (4) shows that the OZ designation raised investment by 7.6%. These results control for state-quarter fixed effects, accounting for state-level variations like economic trends. The results also hold when accounting for census tract fixed effects, which control for tract-specific characteristics like investment attractiveness.[25]

Consistent with the results in Figure II(b), Table X, columns (2) and (5), show that OZs designated by governors to manage aggrievement attracted significantly less investment. The standardized change in the probability of OZ selection to manage aggrievement means the coefficient on $\mathrm{I}_{i,j}^{\mathrm{Actual}} \times \mathrm{Post}_q$ reflects the effect for tracts with an average change in selection likelihood. The interaction with $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$ indicates that a one-standard-deviation increase in the likelihood of becoming an OZ to manage aggrievement reduces the investment propensity by 49.1% (0.26/0.53) and the investment amount by 46.9% (3.68/7.84). Thus, managing aggrievement shifts OZs to counties with less investment impact.

We break down the investment results in Table X, columns (2) and (5), by county size to determine whether the observed effects arise from universalism, uniformity, or a combination of both allocation strategies linked to managing aggrievement. This helps examine Glaeser and Gottlieb (2008)'s supposition that it is politically costly to subsidize urban areas, leading to more resources for less productive rural areas. Relatedly, in our setting, one predicted consequence of governors considering county entitlements is that they give OZs to more counties (universalism) by allocating one OZ to counties with fewer than four eligible tracts. This transfer of OZs to small counties may explain our observed investment outcomes. Alternatively, a second predicted change is that they allocate OZs more uniformly across counties with four-or-more eligible tracts. To decompose the investment effects by each of these predicted consequences of managing aggrievement, we interact $\mathrm{I}_{i,j}^{\mathrm{Actual}} \times \mathrm{Post}_q \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$ with an indicator variable equal to one if a county has fewer than four eligible tracts (1-3 Eligible Tracts_i).

Columns (3) and (6) of Table X show that managing aggrievement reduces the OZ pro-

[25] Appendix Table H3 shows the main OZ program's positive effects on investment are robust across various fixed-effect specifications. Appendix Table H4 confirms consistency over different sample periods.

gram's effectiveness in stimulating investment due to universalism and uniformity. Specifically, the interaction with *1-3 Eligible Tracts*$_i$ is not statistically significant, indicating a similar drop in investment activity in OZs used to manage aggrievement, regardless of whether the counties have one-to-three or four-or-more eligible tracts. Thus, the tendency for governors managing aggrievement to allocate OZs across large counties more uniformly also tends to reduce the amount of investment stimulated by the program. This result extends the concern in Glaeser and Gottlieb (2008), showing that managing aggrievement reduces investment from place-based policies due to more uniform allocations.

For robustness, Appendix Table H5 confirms that OZ designations to manage aggrievement increased new construction permit filings in OZs to a lesser extent. These data cover the 25 most active counties from 2014 Q1 to 2020 Q1. Additional data details are in the caption of Appendix Table H5. Thus, the permit data confirm that shifting OZs across large counties to achieve a more uniform distribution reduces the investment effects of OZ designations. Because permit data do not cover small counties, we cannot use the permit data to characterize the effects of managing aggrievement in small counties. Appendix Figure H11 confirms that prior to the OZ program, OZs selected to manage aggrievement have similar permit filing trends relative to OZs selected for other considerations.

8. Conclusion

Our results show that efforts to manage group aggrievement can significantly affect resource allocation and policy outcomes. Governors sensitive to county aggrievement allocated OZs to more counties and more uniformly across large counties. Our counterfactual analysis reveals that, as a result, a larger share of OZs was allocated to areas with lower poverty rates and higher White populations. Moreover, managing county aggrievement led governors to allocate OZs to areas with lower investment potential, resulting in less new investment.

The implications of our findings extend well beyond the OZ program. The federal government regularly charges state governors with responsibility for distributing resources. For example, state governors played key roles in distributing federal aid from the CARES Act ($150 billion in 2020) and the American Rescue Plan Act ($350 billion in 2021). More generally, funds from the federal government make up a quarter of state and local revenues (Urban-Brookings Tax Policy Center, 2020).

Studying the impact of institutional and policy design on central planners' efforts to manage aggrievement is a promising area for future research. The five large states that do not manage county aggrievement in their OZ allocations show that there is some variation in governors' aversion to county aggrievement. Concerns about local aggrievement may vary by political system. Centralized governments (e.g., dictatorships) may be less concerned than

democracies. Moreover, the fact that investors make the final investment decisions may have reduced governors' incentives to manage county aggrievement, as poor allocations might attract fewer resources to the state. Furthermore, while efforts to increase transparency can help foster trust and deter self-serving behavior, they can inadvertently establish benchmarks that invite complaints, amplify the influence of organized groups, or prioritize uniformity over targeted impact.

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Figure I: Actual vs Predicted Local Aggrievement with OZ allocations

This figure shows a comparison of actual local aggrievement with OZ allocations from the 2019 Menino Survey, along with two predicted values. The horizontal axis is the proportion of eligible tracts in a county designated as OZs, $\#OZ_i/E_i$, where E_i denotes the number of eligible tracts in the city/county of a local official i. We group the 115 survey respondents with eligible tracts into 10 bins based on $\#OZ_i/E_i$. Each bin contains about 12 respondents. The vertical axis captures the average aggrievement of the respondents in each bin. *Actual Aggrievement* is represented by black dots. *Actual Aggrievement* equals zero when a local official does not complain about the city/county allocation in the 2019 Menino Survey by indicating that their city/county is "somewhat happy" or "extremely happy" with its OZ allocation; it equals one otherwise. 90% confidence intervals are shown. The long-dash line labeled "Predicted Aggrievement - Model" shows the local aggrievement predicted in the regression of *Actual Aggrievement* on *Model Aggrievement* displayed in Table II. We follow Passarelli and Tabellini (2017), defining *Model Aggrievement* as $[\max[0, (R_s - \#OZ_i/E_i)]]^2$. Our *Model Aggrievement* definition assumes that local constituents have grounds for complaint when their city/county receives less than an R_s proportion of eligible tracts designated as OZs. We set R_s equal to the actual number of low-income tracts a governor designated as OZs divided by the number of eligible tracts in the state s. The vertical line labeled $R_s = 0.247$ shows the average R_s in the sample. The short-dash line labeled "Predicted Aggrievement - $\#OZ_i/E_i$" shows the local aggrievement predicted in the regression of *Actual Aggrievement* on $\#OZ_i/E_i$ shown in Table II. Appendix Figure H1 shows a similar figure with "Extremely unhappy" coded as 5, "Somewhat unhappy" as 4, and so on. Appendix Figure H2 uses only the 101 non-"NA" responses.

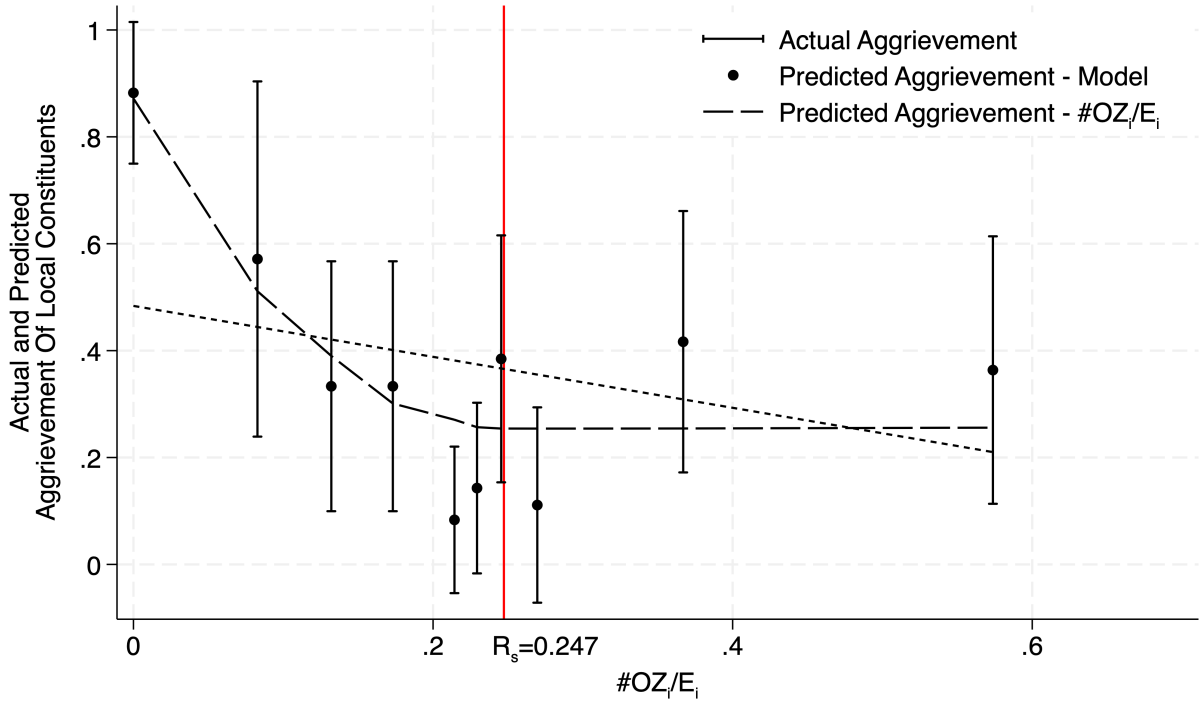
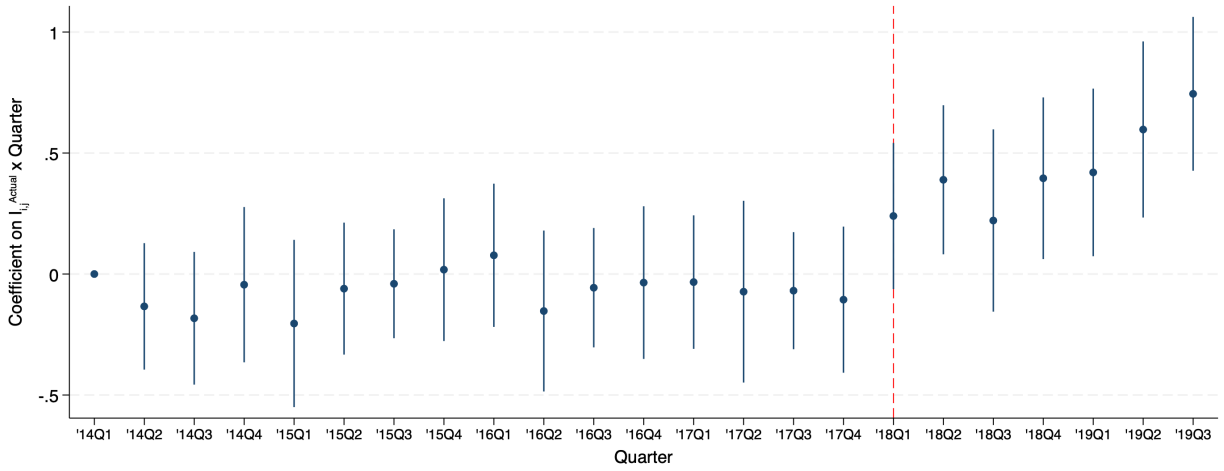
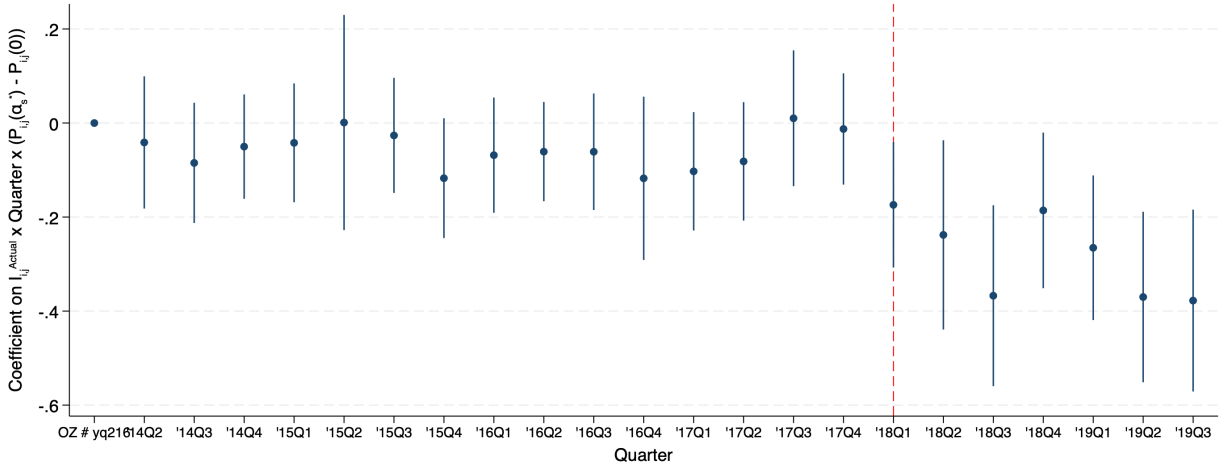


Figure II: Aversion to county aggrievement and the OZ program's investment effects

This figure examines whether aversion to county aggrievement distorted OZ selections and thereby reduced investment stimulated by the OZ program. The panels show the difference-in-differences dynamics in Table X, column (1), and the triple difference in column (2). The outcome variable equals 100 if a firm in the tract issues equity in the quarter. Panel A examines the OZ program's impact on investment by comparing activity in designated OZ tracts with eligible but non-designated tracts. Specifically, we regress the issuance indicator for a tract quarter on quarterly dummy interactions with $I_{i,j}^{Actual}$, which equals one if tract j in county i is designated as an OZ. The plotted coefficients on the interaction terms show the quarterly differences between investments in OZs and non-OZs. Panel B compares investment flows into OZs selected to manage aggrievement with those chosen for other reasons, such as investment potential. To do so, we examine the triple interaction of quarterly dummies, the OZ indicator $I_{i,j}^{Actual}$, and the standardized probability difference that a tract j in a county i is selected as an OZ based on whether the governor manages aggrievement $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$. $\mathrm{P}_{i,j}(\alpha_s^*)$ is the probability a governor designates the tract j as an OZ when managing aggrievement, while $\mathrm{P}_{i,j}(0)$ is the probability of designation ignoring county aggrievement. Tract j in county i is more likely to be chosen as an OZ to manage aggrievement when this probability difference is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. We include state-by-quarter fixed effects to capture state-level trends and census-tract fixed effects. The first quarter has been omitted. The red line marks when governors began designating eligible tracts as OZs. Standard errors are clustered by state. We show 90% confidence intervals.



(a) Investment in OZs vs. non-OZs. OZs stimulated investment.



(b) OZs selected to manage aggrievement attract less investment than those chosen for other reasons.

Table I: Local officials' views about the OZ program

The 2019 Menino Survey asked 119 mayors and county officials their opinions on the OZ program. We limit our analysis to the 115 officials with eligible tracts. Each panel shows survey question answers. The NA column shows the percentage of local officials who did not respond to the survey question. Other columns show the percentage of responses per category. See Einstein et al. (2023) for details on the Menino Survey of Mayors.

Panel A: How much influence did each of the following have on your governor's OZ designations

	A Great Deal (1)	A Lot (2)	A Moderate Amount (3)	A Little (4)	Not at All (5)	NA (6)
Mayors and other local officials	30.4	19.1	14.8	13.0	10.4	12.2
Desire to spread OZs across the state	29.6	27.0	12.2	10.4	0.9	20.0
State bureaucracies	14.8	21.7	22.6	10.4	7.8	22.6
Business interests	9.6	18.3	27.8	13.9	9.6	20.9
The governor's political allies	6.1	21.7	20.0	18.3	14.8	19.1
Other political considerations	4.4	20.9	21.7	16.5	14.8	21.7
Independent analysts	2.6	9.6	18.3	18.3	20.9	30.4

Panel B: How happy should each of the following be with your governor's OZ designations?

	Extremely Happy (1)	Somewhat Happy (2)	Neither happy nor unhappy (3)	Somewhat unhappy (4)	Extremely unhappy (5)	NA (6)
Your city/county	31.3	33.0	13.0	7.0	2.6	13.0
Other cities in the state	11.3	27.8	20.9	1.7	0.0	38.3
Rural areas in the state	7.8	20.0	21.7	8.7	1.7	40.0
Suburban areas in the state	6.1	17.4	26.1	12.2	0.9	37.4

Table II: Model aggrievement and actual aggrievement

This table explores the link between actual aggrievement reported by local officials regarding their OZ allocation in the 2019 Menino Survey and the assumed functional form of local aggrievement in our model. The outcome variable (*Actual Aggrievement*) is a binary version of the city/county aggrievement reported by local officials in Table I. *Actual Aggrievement* equals zero when a local official does not complain about their city/county allocation in the 2019 Menino Survey by indicating that their city/county is "somewhat happy" or "extremely happy" with its OZ allocation; it equals one otherwise. Our explanatory variable in column (1) is the standardized predicted aggrievement from our model function. We follow Passarelli and Tabellini (2017), defining *Model Aggrievement* as $[\max[0, (R_s - \#OZ_i/E_i)]]^2$, where $\#OZ_i$ is the number of OZs received by the local official's region i, E_i is the number of eligible tracts in the official's city/county i, and $\#OZ_i/E_i$ is the proportion of eligible tracts in the official's region designated as OZs. Our *Model Aggrievement* definition assumes that local constituents have grounds for complaint when their city/county receives less than an R_s proportion of eligible tracts designated as OZs. We set R_s as the fraction of low-income tracts designated as OZs by a governor to eligible tracts in state s. The explanatory variable in column (2) is the standardized proportion of eligible tracts designated as OZs in a local official's region i ($\#OZ_i/E_i$). ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Actual Aggrievement with OZ allocations	
	(1)	(2)
Model Aggrievement	0.231***	
	(0.034)	
$\#OZ_i/E_i$		-0.083
		(0.070)
Constant	0.357***	0.357***
	(0.040)	(0.044)
% Adjusted R^2	22.39	2.15
Observations	115	115

Table III: Variable Definitions

Panel A describes the main model estimation outcomes. Panels B to D describe the characteristics used in the model estimation (the $X_{i,j}$ in Equation 2).

Variable	Source	Definition
Panel A: Model Estimates		
α_s^*	Model Estimate	Measures a governor's aversion to county aggrievement vs. other factors (e.g., poverty, agglomeration economies).
$\mathrm{P}_{i,j}(\alpha_s^*)$	Model Estimate	Probability governor designates tract j in county i as OZ when managing aggrievement at α_s^* level.
$\mathrm{P}_{i,j}(0)$	Model Estimate	Prob. governor designates tract j in county i as OZ, ignoring aggrievement.
$\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)$	Model Estimate	Difference in the tract's OZ probability when a governor manages ($\mathrm{P}_{i,j}(\alpha_s^*)$) vs. ignores ($\mathrm{P}_{i,j}(0)$) county aggrievement. Tract j in county i is more likely to be selected for managing aggrievement when this difference is positive.
Panel B: Tract's Poverty and Demographic Characteristics		
% Asian	Urban Institute	Proportion of Asian American/Pacific Islander population in a tract.
% Bachelors or Higher	Urban Institute	Proportion of tract population with a bachelor's degree or higher.
% Black	Urban Institute	Proportion of Black population in a tract.
% High Sch. or Lower	Urban Institute	Proportion of tract population with a high school degree or lower.
% Hispanic	Urban Institute	Proportion of Hispanic population in a tract.
Home Value	Urban Institute	Median home value, 2012–16 American Community Survey (ACS).
Household Income	Urban Institute	Median household income of a tract in the 2012–16 ACS.
% $\geq$ 64 years of age	Urban Institute	Proportion of a tract's population older than 64 years 2012-16 ACS.
% Own Home	Urban Institute	% home ownership in the 2012–16 ACS.
Population	Urban Institute	Population of a tract in the 2012–16 ACS.
% Poverty Rate	Urban Institute	Proportion of a tract's population in poverty, as defined by Census Bureau income thresholds, varies by family size and composition but not geographically. Uses pre-tax money income, excluding capital gains and noncash benefits like Medicaid and food stamps.
Rent	Urban Institute	Median rent of a tract in the 2012–16 ACS.
% Severe Rent Burden	Urban Institute	Measure averages z-scores from two ratios: (1) change in tract median home value to metro median household income and (2) change in tract median gross rent to metro median household income. For rural tracts, county income is used. Tracts with fewer than 100 rental units are scored by home value, and those with fewer than 100 owner-occupied units are scored by rent.
Socioeconomic Change Flag	Urban Institute	Flagged if Urban Institute composite index, measuring changes from 2000 to 2016, exceeded one standard deviation above the national mean. The index includes four indicators: (1) change in the share of residents with a bachelor's degree or higher, (2) change in median family income, (3) change in the share of non-Hispanic white residents, and (4) changes in housing burden (ratios of home value and rent to household income).
% Unemployment Rate	Urban Institute	% adults unemployed and looking for work, per the Census Bureau.
Vacancy Rate	Urban Institute	Vacancy rate in the 2012-16 ACS.
% White	Urban Institute	% White residents in 2012-16 ACS.
% Younger than age 18	Urban Institute	Proportion of population < age 18.
Panel C: Investment Potential		
Investment Score	Urban Institute	The score comprises commercial, multifamily, single family, and small business lending, measured with CoreLogic data (2011-2015) and Community Reinvestment Act data. Urban Institute calculates z-scores for each category, averages them, and ranks low-income census tracts within a state by decile.
Proximity to infrastr.	ArcGIS	# airports, hospitals, universities, colleges, and ports $\leq$ 5 miles of tract center.
Population Density	ArcGIS	People per square kilometer.
Panel D: Governor's Electoral Concerns		
Affiliated State Legislator	Ballotopedia	Indicator equals one if tract was represented during OZ allocations by lower-house state legislator of the governor's party.
Core Voters	Dave Liep's Election Atlas	% county votes in the election before 2018 for party of governor selecting OZs.
Swing Voters	Dave Liep's Election Atlas	The standard deviation of the fraction of a county voting for the Democratic gubernatorial candidate in elections from 1990 to 2017.
Donations Per Capita	Federal Election Commission	Log of total donations per capita in a county to federal candidates from 2010 to 2017, aligned with the governor's party selecting OZs.

Table IV: Summary statistics

Panel A characterizes counties with at least one tract eligible for the OZ program. Panel B shows the distribution of eligible tracts per county. Panel C characterizes the tracts eligible for the OZ program. Panel D compares eligible tracts with and without OZ designation, using regression with state-clustered standard errors to examine mean characteristic differences. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Panel E summarizes the proxy for tract-level investment flows: equity issuances reported via Form D filings with the Securities and Exchange Commission.

Panel A: County Characteristics

	Obs.	Mean	Std. Dev.	P25	P50	P75
# Eligible Tracts	2,678	11.5	38.2	2	4	8
# OZs	2,678	2.8	9.2	1	1	2
# OZs/# Eligible×100	2,678	31.2	29.4	9	25	50

Panel B: Distribution of # Eligible Tracts in a County

Bucket	# Eligible Tracts	# Counties	Percent
1	1	465	17.4%
2	2	428	16.0%
3	3	349	13.0%
4	4	272	10.2%
5	5-6	335	12.5%
6	7-10	325	12.1%
7	11+	504	18.8%
		2,678	100.0%

Panel C: Tract characteristics

Poverty and Demographic	Obs.	Mean	Std. Dev.	P25	P50	P75
% Asian	30,835	4.0	8.6	0.0	0.9	3.8
% Bachelors or Higher	30,835	18.5	13.0	10.0	15.0	22.8
% Black	30,835	22.3	27.6	1.8	9.9	33.0
% High School Diploma or Lower	30,835	53.0	14.7	44.3	54.3	63.1
% Hispanic	30,835	23.3	26.8	2.9	11.1	36.2
Home Value (Median)	30,835	158,747.4	131,132.8	80,200.0	116,000.0	178,100.0
Household Income (Median)	30,835	38,343.4	12,343.3	30,236.0	37,500.0	45,476.0
% Older than 64 years of age	30,835	13.4	7.2	8.6	12.5	17.0
% Own Home	30,835	49.2	22.1	33.2	50.8	66.7
Population	30,835	4,043.5	1,891.8	2,675.0	3,810.0	5,129.0
% Poverty Rate	30,835	26.3	12.4	17.7	24.1	32.8
Rent (Median)	30,835	848.4	275.5	655.0	796.0	987.0
% Severe Rent Burden	30,835	26.7	11.3	18.9	26.1	33.8
% Socioeconomic Change Flag	30,835	2.7	16.1	0.0	0.0	0.0
% Unemployment Rate	30,835	10.9	6.3	6.6	9.6	13.6
% Vacancy Rate	30,835	14.3	10.3	7.3	12.0	18.4
% White	30,835	46.8	32.0	15.9	46.5	75.9
% Younger than 18 years of age	30,835	23.6	7.4	19.5	23.8	28.2
Investment Potential						
Investment Score	30,835	5.3	2.9	3.0	5.0	8.0
Population Density (persons/km^2)	30,835	2,871.5	5,311.2	229.9	1,288.0	2,910.7
Proximity to Infrastructure	30,835	16.3	20.7	3.0	9.0	22.0
Governor's Electoral Concerns						
Affiliated State Legislator	30,835	47.5	49.9	0.0	0.0	100.0
Core Voters	30,835	54.4	15.2	43.8	53.7	66.2
Swing Voters	30,835	9.6	3.8	7.1	9.4	11.5
Donations Per Capita	30,835	9.5	8.6	3.1	7.2	12.8

Table IV: Summary statistics (continued)

Panel D: The mean characteristics of OZs and Non-OZs				
	All	OZ	Non-OZ	Diff
	(1)	(2)	(3)	(4)
1–3 Eligible Tracts	7.7	11.0	6.6	4.4***
1 Eligible Tract	1.5	2.8	1.1	1.7***
2 Eligible Tracts	2.8	4.1	2.4	1.7***
3 Eligible Tracts	3.4	4.2	3.1	1.0**
Poverty and Demographic Characteristics				
% Asian	4.0	3.3	4.3	−1.0***
% Bachelors or Higher	18.5	16.8	19.0	−2.3***
% Black	22.3	26.9	20.8	6.1***
% High School Diploma or Lower	53.0	55.1	52.3	2.8***
% Hispanic	23.3	22.7	23.5	−0.7
Home Value (Median)	158,747.4	146,468.0	162,751.9	−16,283.9***
Household Income (Median)	38,343.4	34,308.9	39,659.1	−5,350.2***
% Older than 64 years of age	13.4	13.0	13.5	−0.5*
% Own Home	49.2	44.1	50.9	−6.7***
% Poverty Rate	26.3	30.5	25.0	5.5***
Population	4,043.5	4,002.7	4,056.8	−54.1
Rent (Median)	848.4	794.0	866.2	−72.2***
% Severe Rent Burden	26.7	27.7	26.4	1.3***
% Socioeconomic Change Flag	2.7	3.3	2.4	0.9**
% Unemployment Rate	10.9	12.6	10.3	2.2***
% Vacancy Rate	14.3	15.3	13.9	1.4***
% White	46.8	43.2	48.0	−4.8***
% Younger than 18 years of age	23.6	24.0	23.5	0.5
Investment Potential				
Investment Score	5.3	5.3	5.3	0.0
Population Density (persons/km^2)	2,871.5	2,539.3	2,979.9	−440.6***
Proximity to Infrastructure	16.3	16.8	16.1	0.7
Governor's Electoral Concerns				
Affiliated State Legislator	47.5	48.8	47.1	1.8
Core Voters	54.4	54.8	54.3	0.5
Swing Voters	9.6	9.7	9.6	0.1
Donations Per Capita	9.5	9.2	9.7	−0.5

Panel E: Form-D Issuances in Eligible Census Tracts (2014 Q1 to 2019 Q3)						
	Obs	Mean	Std. Dev.	P25	P50	P75
Unique Firms Raising Equity	12,638					
Dollars Sold in Most Recent Offering	12,638	4,131,397	7,733,061	100,000	990,000	4,253,142

Table V: First-stage estimates

Our model implies that governors do not consider county aggrievement when allocating OZs within counties. Specifically, the model assumes governors score census tracts as $\Psi \times X_{i,j} + \epsilon_{i,j}$ within counties. Vector $X_{i,j}$ represents the set of observable census-tract characteristics unrelated to county aggrievement considered by governors. Vector Ψ contains the weights governors assign to each characteristic, and $\epsilon_{i,j}$ proxies for unobservable characteristics considered by governors. The first stage of our model estimates a probit regression of OZ selection on tract-level characteristics using data from all 50 states. We include state fixed effects to account for fixed differences across states in the budget constraint R_s and other state-specific factors that determine selection. The probit model includes fixed effects for the number of eligible tracts in a county. The only county characteristics in the aggrievement function in Equation 1 are the number of eligible tracts in the county and R_s. Therefore, the eligible-tract fixed effects adequately control for county differences related to aggrievement in the first stage. In the probit model, parameters are identified up to scale. The scale is normalized by setting the variance of $\epsilon_{i,j}$ to one. We standardize all tract characteristics in the probit regression for easier comparison. The tract-level characteristics are selected using LASSO variable reduction from the 19 Urban Institute controls, proxies for agglomeration economies (population density and proximity to infrastructure), and proxies for a governor's electoral concerns (core voters, affiliated state legislature, swing voters, and county donations per capita). Only the first 11 characteristics in the table are selected by LASSO. We add the two favoritism controls (core voters and affiliated state legislator) given the OZ literature. Variables are described in Table III. We cluster the standard errors by state. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Characteristic ($X_{i,j}$)	Coefficient (Ψ)	Std. err.
	(1)	(2)
Investment Score	0.119***	0.014
% Poverty Rate	0.118***	0.039
% Unemployment Rate	0.108**	0.047
Median Rent	−0.088***	0.027
% Own Home	−0.261***	0.035
% White	0.022	0.048
% Black	0.155***	0.049
% Asian	−0.055***	0.017
% HS or Lower	0.100***	0.023
Population Density	−0.143***	0.038
Proximity to Infrastructure	0.093***	0.028
Core Voters	0.016	0.029
Affiliated State Legislator	0.025	0.018

Table VI: State estimates of governors' aversion to county aggrievement

This table shows the second-stage model estimation results using simulated maximum likelihood. The parameter α_s^* estimates a governor's aversion to county aggrievement from Equation 2. *P-Value* is the p-value of the log-likelihood ratio test for the estimated α_s^*, testing if the likelihood of α_s^* is significantly better than that of $\alpha_s = 0$.

State	α_s^*	P-Value	State	α_s^*	P-Value
Alabama	0.959	< 0.001	Montana	0.964	0.002
Alaska	0.620	0.564	Nebraska	0.926	0.009
Arizona	0.993	0.008	Nevada	0.001	0.991
Arkansas	0.923	0.009	New Hampshire	1.000	< 0.001
California	0.998	< 0.001	New Jersey	1.000	< 0.001
Colorado	0.968	< 0.001	New Mexico	0.932	0.054
Connecticut	0.995	0.082	New York	0.999	< 0.001
Delaware	0.990	0.352	North Carolina	0.978	< 0.001
Florida	0.999	< 0.001	North Dakota	0.759	0.166
Georgia	0.688	0.352	Ohio	0.966	< 0.001
Hawaii	0.999	0.035	Oklahoma	0.939	< 0.001
Idaho	0.967	< 0.001	Oregon	0.951	0.005
Illinois	0.981	< 0.001	Pennsylvania	0.828	0.241
Indiana	0.952	< 0.001	Rhode Island	0.970	0.001
Iowa	0.965	< 0.001	South Carolina	1.000	< 0.001
Kansas	0.954	< 0.001	South Dakota	0.868	0.125
Kentucky	0.942	< 0.001	Tennessee	0.952	< 0.001
Louisiana	0.942	< 0.001	Texas	0.953	< 0.001
Maine	0.921	0.386	Utah	0.950	0.002
Maryland	0.997	< 0.001	Vermont	0.744	0.421
Massachusetts	1.000	< 0.001	Virginia	0.930	< 0.001
Michigan	0.996	< 0.001	Washington	0.972	< 0.001
Minnesota	0.953	< 0.001	West Virginia	0.950	0.008
Mississippi	0.002	0.962	Wisconsin	0.947	< 0.001
Missouri	0.000	1.000	Wyoming	0.595	0.225
			Mean	0.876	
			Median	0.953	
			Standard Deviation	0.242	

Table VII: Managing county aggrievement leads to universalistic & uniform OZ allocations

Columns (1)-(3) compare model-predicted OZ allocations with and without governors managing county aggrievement. Columns $\alpha_s = 1$ and $\alpha_s = 0$ show predicted characteristics when governors minimize county aggrievement and ignore aggrievement, respectively. Columns (4)-(6) compare actual OZ allocations in states with high and low estimated aversion to county aggrievement (α_s^*). Columns *High* α_s^* and *Low* α_s^* split the counties by the median estimate of governors' aversion to county aggrievement (α_s^*=0.95). We analyze by county size (E_i): the average proportion of eligible tracts designated as OZs (Panel A), the proportion of counties with at least one OZ (Panel B), and the standard deviation of the proportion of eligible tracts designated as OZs (Panel C). In Panel B, columns (1) and (2), counties are predicted to receive at least one OZ if they do so in 99% of the simulations. We first calculate the proportion or standard deviation of predicted and actual OZ allocations within each state. We then average them across states. In column (6), we use a t-test to check if the average differences between states with high and low aversion to county aggrievement are significant. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels.

Panel A: Mean percentage of counties' eligible tracts designated as OZs, μ(# $\text{OZ}_i/\text{E}_i \times 100$)

	Predicted			Actual		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff	High α_s^*	Low α_s^*	Diff
	(1)	(2)	(3)	(4)	(5)	(6)
E_i=1	99.6	21.2	78.4	64.6	35.2	29.4***
E_i=2	49.6	20.1	29.5	46.7	32.5	14.2***
E_i=3	33.4	20.0	13.5	37.2	27.2	10.0**
E_i=4	24.9	19.8	5.1	28.6	26.8	1.8
E_i=5-6	29.8	20.1	9.6	23.5	28.0	-4.5
E_i=7-10	25.6	21.4	4.2	25.2	27.2	-2.0
E_i=11+	22.2	23.6	-1.4	23.2	23.8	-0.6

Panel B: Percentage of counties with one or more OZs (Universalism)

	Predicted			Actual		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff	High α_s^*	Low α_s^*	Diff
	(1)	(2)	(3)	(4)	(5)	(6)
All	98.2	63.6	34.6	91.6	69.9	21.7***
4+ Eligible Tracts	92.3	88.3	4.0	96.9	90.0	6.8***
1-3 Eligible Tracts	99.6	34.6	65.0	81.7	54.0	27.7***

Panel C: Standard deviation of counties' OZ allocations, $\sigma(\#OZ_i/E_i$ in County $i \times 100)$ (Uniformity)

	Predicted			Actual		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff	High α_s^*	Low α_s^*	Diff
	(1)	(2)	(3)	(4)	(5)	(6)
All	23.9	23.7	0.2	25.4	28.5	-3.1
4+ Eligible Tracts	5.3	15.0	-9.7	10.9	17.0	-6.1***
1-3 Eligible Tracts	27.8	30.8	-3.0	34.1	34.1	0.0

Table VIII: Effect of governors managing county aggrievement on OZ demographics

Panel A shows the expected impact of managing county aggrievement on the counts of various demographic and socioeconomic characteristics of OZ residents. The model estimated probabilities that tract j in county i is selected as an OZ when governors manage and ignore county aggrievement are $P_{i,j}(\alpha_s^*)$ and $P_{i,j}(0)$, respectively. These probabilities are used to calculate the differences in expected values in this table. Specifically, Panel A, column (1) shows the difference between the expected values of the counts calculated with $P_{i,j}(\alpha_s^*)$ and $P_{i,j}(0)$. A positive (negative) number in column (1) is an increase (decrease) in the expected count due to managing aggrievement. Column (2) displays the units of each of the counts. Panel B shows the expected changes in OZ characteristics due to managing aggrievement. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $P_{i,j}(\alpha_s^*) > P_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected with and without managing aggrievement. Columns (2) and (3) show this contrast for counties with fewer than four eligible tracts and those with four or more. We first calculate expected characteristic differences for each state. Then, we take their averages across states. We use a t-test to check if the difference in state averages is statistically significant. To make columns (1), (2), and (3) comparable, Panel B is calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Effect of managing county aggrievement on OZ populations by demographic

	(1)	(2)
	Diff. in Expected Counts	Units
Population	110,719	All persons
Poverty	-28,110	Families
Unemployed	-41,648	Civilian persons 16 years or over in labor force
Own Home	300,597	Total occupied housing units
White	1,149,601	All persons
Black	-637,983	All persons
Hispanic	-371,667	All persons
Asian	-43,116	All persons
Under 18	-32,468	All persons
Over 64	179,530	All persons

Panel B: Effect of managing aggrievement on expected OZ demographics

	(1)	(2)	(3)
	All	1–3 Eligible	4+ Eligible
% Poverty Rate	-8.7^{***}	-11.6^{***}	-7.6^{***}
% Unemployment Rate	-3.1^{***}	-4.0^{***}	-2.8^{***}
% Own Home	20.3^{***}	27.4^{***}	18.1^{***}
% White	26.7^{***}	33.6^{***}	25.1^{***}
% Black	-19.9^{***}	-21.6^{***}	-19.6^{***}
% Hispanic	-5.6^{*}	-9.3^{**}	-4.1
% Asian	-1.6	-2.6^{**}	-1.4
% Under 18	-1.1^{**}	-1.7^{***}	-0.9^{*}
% Over 64	5.1^{***}	6.6^{***}	4.0^{***}

Table IX: Effect of governors managing aggrievement on OZ investment potential

The table shows expected changes in OZ investment potential due to governors managing county aggrievement. The model estimated probabilities that tract j in county i is chosen as an OZ are $P_{i,j}(\alpha_s^*)$ with, and $P_{i,j}(0)$ without, governors managing aggrievement. These probabilities are used to calculate the differences in expected values in this table. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $P_{i,j}(\alpha_s^*) > P_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected based on managing aggrievement or not. Columns (2) and (3) contrast counties with fewer than four eligible tracts and those with four or more. We first calculate the expected differences in characteristics for each state. Then, we take their averages across states. We use a t-test to check if the state averages differ significantly. To make columns (1), (2), and (3) comparable, these changes are calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
	All	1-3 Eligible	4+Eligible
Investment Score	-1.1***	-1.4***	-0.9***
Population Density (persons / km^2)	-2,019***	-2,643***	-1,871***
Proximity to Infrastructure	-2.5***	-3.0***	-2.4***

Table X: Managing aggrievement reduced the amount of investment stimulated

This table examines the consequences of managing aggrievement for the amount of investment stimulated by the OZ program. We measure investment by analyzing the equity issued by private and public businesses in census tract j, county i, in quarter q. The data are from the SEC Form D database. $Post_q$ is one after Q1 2018, when governors started designating OZs. $I_{i,j}^{Actual}$ equals one if the governor designated the census tract j in county i as an OZ. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage county aggrievement are $\mathrm{P}_{i,j}(\alpha_s^*)$ and $\mathrm{P}_{i,j}(0)$ respectively. The term $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$ is the difference in the probability that a tract becomes an OZ when a governor manages county aggrievement versus when a governor ignores aggrievement. A tract j in county i is more likely chosen as an OZ to manage aggrievement when the probability difference is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. *1–3 Eligible*$_i$ equals one if a county has fewer than four eligible tracts. Standard errors are clustered by state. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels.

	I(Issuance$_{i,j,q}$>0)×100			Ln(1+Issuance)$_{i,j,q}$×100		
	(1)	(2)	(3)	(4)	(5)	(6)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}}$	0.51***	0.55***	0.52***	7.56***	8.16***	7.76***
	(0.10)	(0.10)	(0.10)	(1.46)	(1.57)	(1.47)
$\mathrm{Post}_q \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-0.04	-0.04		-0.68	-0.69
		(0.04)	(0.04)		(0.63)	(0.63)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-0.26***	-0.35**		-3.77***	-4.92**
		(0.07)	(0.14)		(1.04)	(1.95)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)) \times$ 1-3 Eligible$_i$			0.16			2.04
			(0.14)			(1.98)
State × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Tract FE	Yes	Yes	Yes	Yes	Yes	Yes
% Adjusted R^2	24.05	24.06	24.06	26.76	26.77	26.77
Observations	709205	709205	709205	709205	709205	709205

Internet Appendix for
Managing Aggrievement
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This Internet Appendix contains supplementary discussion and analyses. These include the following:

1. Appendix A gives details about the OZ program and our sample construction.
    - Appendix A.1 discusses the investment incentives associated with an OZ designation.
    - Appendix A.2 provides details about the criteria used by the U.S. Department of the Treasury to determine the set of eligible tracts for the OZ program.
        - Table A1 shows the factors determining the eligibility of census tracts for the OZ program.
        - Table A2 shows the fraction of state-eligible tracts designated as OZs (R_s).
        - Figure A1 maps eligible census tracts and highlights those designated as OZs.
    - Appendix A.3 discusses sample selection.
    - Appendix A.4 provides disclosures for each state related to OZ selection.
    - Appendix A.5 details the Form-D investment proxy.
    - Appendix A.6 explains the use of LASSO for choosing covariates in predicting OZ selection.
2. Appendix B shows the method to solve the governor's problem and the steps for our simulated maximum likelihood estimation approach.
3. Appendix C shows that if we simulate the model with Ψ from Table V and α_s^* from Table VI that we can recover these known parameters with our simulated maximum likelihood procedure.
    - Table C1 shows recovery of first-stage estimates Ψ.
    - Table C2 shows recovery of second-stage estimates α_s^*
4. Appendix D jointly estimates the entitlement R and α_s
    - Figure D1 shows the likelihood versus R, optimized over α for each R.
5. Appendix E shows our results are robust to a simulated method of moments (SMM) estimator.
    - Table E1 compares the second stage estimates (α_s^*).
    - Table E2 reproduces Table VII.
    - Table E3 reproduces Table VIII.
    - Table E4 reproduces Table IX.
    - Table E5 reproduces Table X.
6. Appendix F shows our results are robust to estimating first-stage weights Ψ by state.
    - Table F1 compares the second state estimates (α_s^*).
    - Table F2 reproduces Table VII.
    - Table F3 reproduces Table VIII.
    - Table F4 reproduces Table IX.
    - Table F5 reproduces Table X.
7. Appendix G shows our results are robust to using only the significant α_s^* estimates.
    - Table G1 reproduces Table VII.
    - Table G2 reproduces Table VIII.
    - Table G3 reproduces Table IX.
    - Table G4 reproduces Table X.

8. Appendix H includes additional robustness tests.
    - Figure H1 refines Figure I with a detailed coding of aggrievement from the Menino Survey.
    - Figure H2 repeats Figure I with only the 101 non-"NA" responses.
    - Figure H3 shows how the log likelihoods vary with α_s for each state.
    - Figure H4 shows a U.S. map of governors' aversion to county aggrievement α_s^*.
    - Figure H5 depicts counties expected to gain/lose OZs when governors manage aggrievement.
    - Figure H6 predicts the number of OZs affected by manage county aggrievement using α_s^*.
    - Figure H7 shows modeling county aggrievement improves the fit of OZ allocations for counties of various sizes and those expected to gain/lose OZs when governors manage county aggrievement.
    - Figure H8 shows that county voting and state legislator affiliation do not vary with the number of eligible tracts in a way that aligns with the predictions of universalism and uniformity as predicted when governors manage county aggrievement.
    - Figure H9 shows that the average poverty rate, unemployment rate, investment potential, and proportion of White residents do not vary with the number of eligible tracts in a way that aligns with the predictions of universalism and uniformity as predicted when governors manage county aggrievement.
    - Table H1 shows the estimates of governors' county aggrievement aversion (α_s^*) in Table VI are consistent for various numbers of simulations in the simulated maximum likelihood estimation.
    - Table H2 demonstrates that the magnitudes in Table VIII align with statewide OZ selection using within-county criteria.
    - Section Appendix H.1 provides robustness for the uniformity result. Figure H10 shows two mechanisms for why higher sensitivity to county aggrievement leads to more uniform allocations.
    - Robustness for Table X
        - Table H3 shows the OZ investment effect is consistent across fixed-effect specifications.
        - Table H4 shows the OZ's investment effect is robust across sample periods.
        - Figure H11 shows Figure II is robust to using CoreLogic new construction permit data.
        - Table H5 confirms OZ's investment effect using CoreLogic new construction permit data.
9. Appendix I shows the formulas used to compute the expected characteristics of the census tracts that are appointed (or not appointed) as OZs because of governors managing county aggrievement.

Appendix A. Details about the OZ Program and Sample Construction

Appendix A.1. The OZ program's investment incentives

The OZ program offers investors substantial tax benefits to promote OZ investments.[26] First, investors can defer taxes on prior capital gains reinvested in an OZ. Capital gains can originate from any investment, anywhere. Taxes on capital gains reinvested in an OZ can be deferred until the investment is sold or December 31, 2026, whichever comes first. Holding the investment for over five years grants a 10% exclusion on the deferred gain. Holding the investment for over seven years increases the exclusion benefit to 15% of the deferred gains. This exclusion encourages early OZ investments. An additional tax benefit arises upon selling an OZ investment. If held for at least 10 years, the investor pays no taxes on new capital gains from the OZ investment. This encourages a long-term investment perspective.

The OZ program imposed minimal restrictions on investments. The few restrictions are primarily intended to ensure that new investment stays local. Specifically, investors must buy qualifying business property, such as stock, partnership interests, and tangible assets. Property qualifies if substantially used in an OZ and either its use started or it was substantially improved after the tract's OZ designation (improvements worth at least the purchase price). A qualifying business must have 70% of its tangible property and earn 50% of its gross income within an OZ. Qualifying businesses include public operations like stores and apartments. Unlike other place-based policies (e.g., New Markets Tax Credit), the OZ program has no investment cap on tax breaks. Governors chose which regions received OZ benefits, rather than the government selecting project proposals for limited tax benefits. Specifically, the U.S. Treasury Department asked each governor to select 25% of their state's eligible low-income tracts for OZ designation.

Appendix A.2. Details about the Eligible Tract Selection

Low-income communities must meet one of four criteria to qualify as an eligible tract. First, the poverty rate is at least 20% (the "poverty test"). Second, for non-metropolitan census tracts, median family income is no more than 80% of the statewide median. Third, for metropolitan census tracts, median family income is no more than 80% of the greater of statewide or metropolitan median family income (the "income test"). Fourth, the community includes "targeted populations," such as those lacking access to loans or equity, or those displaced from their homes or jobs due to natural disasters.

Table A1 confirms that poverty is the main determinant of eligibility. Adjusted R^2 is 42.4%. Moreover, the U.S. Treasury allowed certain contiguous non-low-income tracts to be designated as OZs if a neighboring low-income tract is designated as an OZ.

The federal government tasked the governors with selecting 25% of the eligible tracts in their states for designation as OZs. Table A2 shows that the governors maximized OZ allocations subject to the 25% budget constraint. However, the federal government allowed governors of states with fewer than 100 eligible tracts to designate 25 as OZs. Therefore, in seven states (Alaska, Delaware, North Dakota, Rhode Island, South Dakota, Vermont, Wyoming), more than 25% of eligible tracts were designated as OZs.

Figure A1 shows a map of eligible census tracts; those with stripes were ultimately designated as OZs. The map shows that much of the U.S.—about 42% of all census tracts—was eligible for the OZ designation and that governors designated 11.8% of all census tracts as OZs.

[26] See www.irs.gov/credits-deductions/opportunity-zones-frequently-asked-questions

Table A1: Factors determining eligibility for the OZ program

This table examines which tract characteristics the federal government used to determine eligibility for the OZ program. Standard errors are clustered by state. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively.

	I(Eligible Low Income Tract)×100				
	(1)	(2)	(3)	(4)	(5)
Poverty Rate	0.47***				0.42***
	(0.00)				(0.00)
Poverty Rate^2	-0.13***				-0.12***
	(0.00)				(0.00)
Unemployment Rate		0.25***			0.05***
		(0.01)			(0.00)
Unemployment Rate^2		-0.04***			-0.02***
		(0.00)			(0.00)
% White			-0.21***		-0.03***
			(0.01)		(0.01)
% White^2			-0.03***		-0.01***
			(0.01)		(0.00)
Tract Population				-0.08***	-0.04***
				(0.01)	(0.00)
Tract Population^2				0.00	0.00
				(0.00)	(0.00)
Constant	0.70***	0.69***	0.60***	0.57***	0.74***
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)
% Adjusted R^2	43.27	17.21	13.36	4.37	44.51
# States	51	51	51	51	51
State FE	Yes	Yes	Yes	Yes	Yes
# Census Tracts	72144	72144	72144	72144	72144

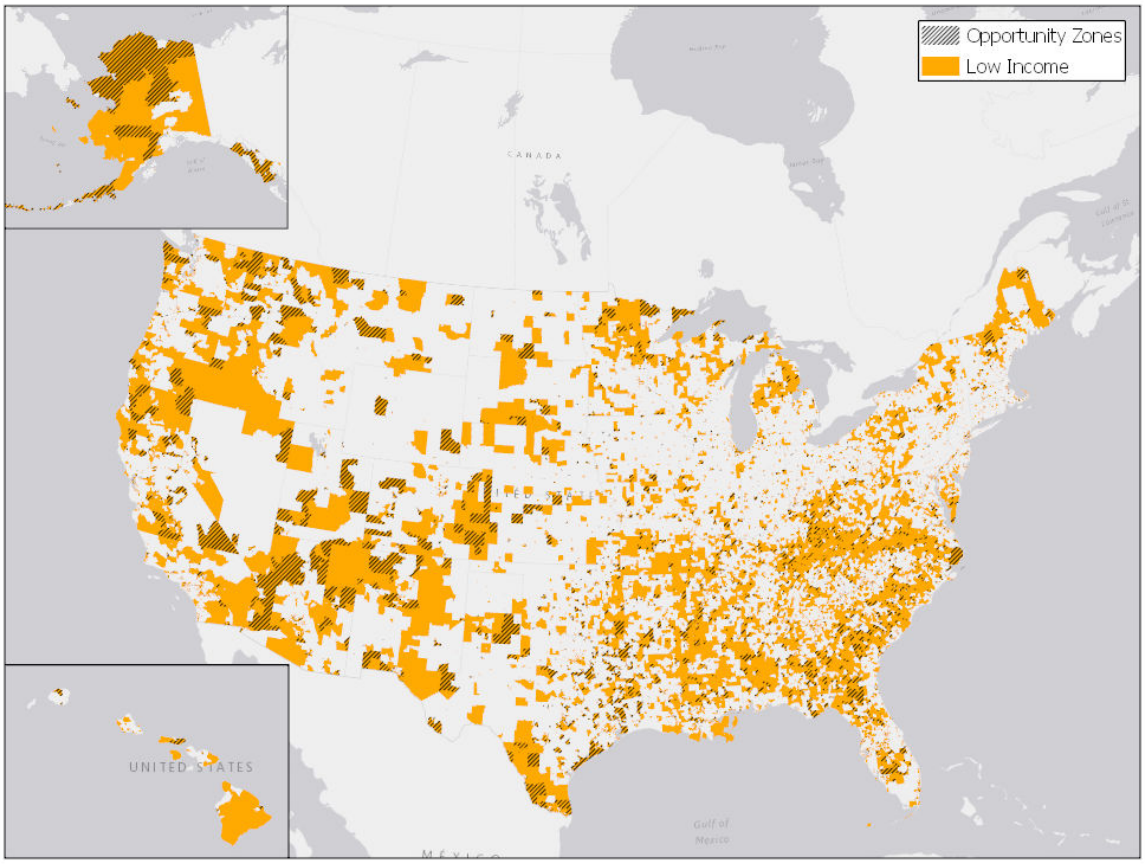
Table A2: The values of R_s for each state

R_s is the fraction of a state's low-income eligible tracts designated by its governor as OZs. In the model, R_s is a state's budget constraint. R_s may differ from 25% for several reasons: (1) the number of eligible tracts in a state may not be divisible by four; (2) states were guaranteed at least 25 OZs so that states with few eligible tracts are less constrained; and (3) we drop all tracts contiguous to eligible low-income tracts, which may become eligible if the low-income tract is designated as an OZ. We drop these because while there are 10,312 such contiguous tracts, restrictions limited the number of contiguous tracts that governors could designate as OZs, and in practice, governors only designated about 200 contiguous tracts nationwide as OZs.

State	R_s	State	R_s
Alabama	0.242	Montana	0.278
Alaska	0.418	Nebraska	0.233
Arizona	0.235	Nevada	0.247
Arkansas	0.244	New Hampshire	0.257
California	0.247	New Jersey	0.246
Colorado	0.232	New Mexico	0.237
Connecticut	0.248	New York	0.242
Delaware	0.300	North Carolina	0.239
Florida	0.250	North Dakota	0.460
Georgia	0.250	Ohio	0.246
Hawaii	0.232	Oklahoma	0.241
Idaho	0.239	Oregon	0.231
Illinois	0.250	Pennsylvania	0.241
Indiana	0.246	Rhode Island	0.308
Iowa	0.247	South Carolina	0.238
Kansas	0.237	South Dakota	0.333
Kentucky	0.243	Tennessee	0.232
Louisiana	0.243	Texas	0.250
Maine	0.234	Utah	0.254
Maryland	0.245	Vermont	0.458
Massachusetts	0.240	Virginia	0.236
Michigan	0.246	Washington	0.238
Minnesota	0.250	West Virginia	0.236
Mississippi	0.233	Wisconsin	0.251
Missouri	0.239	Wyoming	0.727
		Mean	0.269
		Median	0.244
		Standard Deviation	0.084

Figure A1: Eligible set and final selection

This map shows the low-income census tracts eligible for the opportunity zone (OZ) designation. The final selection of OZs is shown with stripes.



Appendix A.3. Sample construction

We collect the list of census tracts eligible for OZ designation from the U.S. Department of the Treasury's Community Development Financial Institutions Fund. From this list, we keep the 31,848 eligible low-income census tracts from which governors made the bulk of their OZ selections. Our main sample excludes contiguous tracts for a number of reasons. First, while contiguous tracts are large in number (10,312), governors could only select a tiny number of them. More specifically, at most, 1.25% of a state's eligible tracts can be contiguous OZs. Second, such a tract can only be chosen if its neighboring qualifying low-income tract is designated as an OZ. These constraints greatly limited their importance. In practice, governors only designated about 200 contiguous tracts as OZ, which is about 0.5% of all eligible tracts. Third, by excluding these contiguous tracts, we simplify the construction of our model and algorithm, and focus our analyses on the factors that explain the bulk of OZ designations from among the eligible tracts.

The sample of low-income eligible tracts shrinks to 30,835 when we remove territories and a few areas with missing data. We eliminated the 835 low-income eligible tracts in Puerto Rico because no selection was made there, since the federal government allowed Puerto Rico to designate all eligible tracts as OZs. Due to poor data availability, we also exclude the Virgin Islands (13 eligible tracts), Northern Mariana Islands (20 tracts), Guam (31 tracts), American Samoa (16 tracts), and the District of Columbia (97 tracts).

Appendix A.4. State disclosures of their OZ selection process

The table below summarizes state disclosures of their OZ selection process. For all 50 states, we compiled and examined the discussion of the OZ selection process. Column (1) shows that 41 governors mention "county" in discussing the allocation of OZs. Column (2) takes the value of "X" if the discussion mentions the proportional allocation of OZs across counties. Column (3) takes the value of "X" if the discussion mentions allocating OZs to all counties. Note that many states mention "geographic diversity" or say that the OZ program will bring benefits "statewide". We did *not* classify these statements as "Universalism." The sources and relevant text are provided in the subsequent table. Table 3 of Frank et al. (2022) codes 15 states as using a proportional method, while we code 10 states. Examining their sources, for the 5 states that differ, there is no mention of proportional but rather giving an OZ to all counties, which we distinctly label "Universalism."

State	**Mention County** (1)	**Uniformity** (2)	**Universalism** (3)
Alabama	X		X
Alaska	Boroughs		
Arizona	X	X	X
Arkansas	X		
California	X	X	X
Colorado	X		
Connecticut	Towns and Cities		
Delaware	X		
Florida	X	X	X
Georgia			
Hawaii	X		
Idaho	X		
Illinois	X	X	X
Indiana	X		
Iowa	X		
Kansas	X		X
Kentucky	X		X
Louisiana	X		
Maine	Towns and Cities		
Maryland	X		X
Massachusetts	Towns and Cities		
Michigan	X	X	X
Minnesota	X		
Mississippi	X		
Missouri	X		X
Montana	X		
Nebraska	X		
Nevada	X		
New Hampshire	Regional Councils		X
New Jersey	X		X
New Mexico	X		
New York	Regional Councils		
North Carolina	X	X	X
North Dakota	X		
Ohio	X	X	X
Oklahoma	X		
Oregon	X		X
Pennsylvania	X		
Rhode Island	Towns and Cities		
South Carolina	X		X
South Dakota			
Tennessee	X		
Texas	X		
Utah	X		
Vermont	X	X	X
Virginia	X	X	X
Washington	X	X	X
West Virginia	X		
Wisconsin	X		
Wyoming	X		
Total	41	10	18

State	Excerpt
Alabama	UNIVERSALISM & COUNTY: Governor's press release on 3/21/2018 stated, 'I serve all 67 **counties** as governor of this great state, and **it was very important to me to ensure that every county had an Opportunity Zone**, thereby giving each county a chance at spurring economic growth,' Governor Ivey said. 'These zones were selected through a deliberative process to ensure that Alabama communities get the most benefit out of the designation.' https://governor.alabama.gov/newsroom/2018/03/governor-ivey-submits-opportunity-zone-nominations/
Alaska	BOROUGH: The primary basis for selecting areas for Opportunity Zone designation was categorization as a low-income community census tract, as defined by federal regulation. When selecting from among the eligible tracts, the State weighed numerous considerations based on available information, including: • Community support • Project feasibility • Workforce readiness • Alignment with existing initiatives • Economic hardship • **Geographic representation** • Investment opportunity https://www.commerce.alaska.gov/web/ded/DEV/OpportunityZones.aspx BOROUGH: Press article from April 25, 2018 stated, 'The Treasury Department identified 60 low-income tracts in Alaska out of 167 tracts overall. The state Division of Economic Development then was asked to whittle the list down to 25 that are now qualified as federal Opportunity Zones. Letters of application came from community leaders and investors.... Anchorage's census tracts 10, 14, 19, 20 and 21, known as Fairview, Midtown and Spenard neighborhoods, were identified in **'numerous community plans,'** wrote Emma Kelly, the business and economic development director for the Anchorage Economic Development Corp., in the application.' Other text stated, '**Fairbanks North Star Borough Mayor** Karl Kassel wrote of the hardship the area has endured,' and 'City Mayor Pat Branson, in her letter nominating Kodiak, listed the need for 'redevelopment' projects for seafood and tourism, expanded wind capacity on Pillar Mountain and a new seafood processing plant.' https://www.alaskajournal.com/2018-04-25/jber-downtown-fairbanks-among-opportunity-zone-selections"

State	Excerpt
Arizona	UNIFORMITY & UNIVERSALISM & COUNTY: From transcript of a Webinar held November 2, 2018, a representative from the Arizona Commerce Authority stated, 'Governors could nominate 25% of qualifying tracts for OZ status.... Governor Ducey asked ACA to collect recommendations from across the state and for us to make recommendations about which to nominate. So we did that. **The decision was made that we would operate on a principle of inclusion and a principle of proportionality**. So we tried to balance those. And said, 'okay, if a state gets 25% of its qualifying tracts, **we're going to ask jurisdictions to recommend 25% of their qualifying tracts**.' So, in Maricopa or Pima counties, communities of 10,000 or more were asked to make their recommendations, and the county spoke for small and unincorporated areas. In the rest of the counties, **we asked the county to speak for the entirety of the county and recommend 25% of the qualifying tracts**. We also have tribal areas that have tracts, and we asked if they had tracts centered on their property for them to make recommendations from their own areas. So we received those recommendations and because we had rounded up (say a jurisdiction was entitled to receive 7.5 tracts, we let them recommend 8). And so we had a few more than we could take, which meant that we had to make cuts. Not too many, fortunately. Tried as much as we could to adhere to recommendations of community. And so that was our job to do that. We submitted those in March.' https://www.youtube.com/watch?v=S-ud7cQcyVU&feature=youtu.be
Arkansas	COUNTY: This picture shows how the selection of OZs was discussed across counties in Arkansas and that each county with an eligible tract was given an OZ. https://www.arkansasedc.com/images/default-source/blog-images/img_3500.jpg?sfvrsn=d232145a_0 Blogpost dated 6/1/2018 from State Government analyst stated, 'Arkansas' nomination of 85 census tracts was initially submitted on April 20th, and the Department of Treasury approved Arkansas' revised nomination on May 18th. The effort of nominating these zones was led by the Arkansas Economic Development Commission (AEDC)...From mid-March to mid-April, we were supposed to nominate a quarter of the census tracts from the list of 337 eligible tracts. During this time, we needed to be educated on the program, develop well-rounded methodology that suits Arkansas, work with experienced analysts and advisers, and **stay in open communication with local communities**....this project pulled in professionals that do not normally collaborate frequently. For example, I had the opportunity to work with our business finance, community development and research division directors, as well as economists from Arkansas Development Finance Authority and external consultants. **Geographic-driven analysis** was at the core of the Opportunity Zones nomination process. Translating layers of information and visualizing these on maps helped the project move along efficiently. It was a memorable moment when the Governor made a trip to AEDC to hear the first round of recommendations by our team through the help of maps. His revision and further guidance based on our initial recommendations largely shaped the final nomination of the zones. **I remember he put a lot of emphasis on 'fairness' and 'potential' when making suggestions**. From an analyst's eyes, the work that the team, led by the Governor and AEDC's Executive Director, Mike Preston, was thorough, thoughtful and diligent.'

State	Excerpt
	The task team felt relieved when Arkansas' nomination was submitted and approved. There was a "high-five moment." From an analyst's eyes, the work that the team, led by the Governor and AEDC's Executive Director, Mike Preston, was thorough, thoughtful and diligent. Although only one quarter of the eligible census tracts were selected, the positive effect that can be derived from the attracted investment because of this will impact much broader areas **throughout the entire state**. https://www.arkansasedc.com/news-events/arkansas-inc-blog/post/active-blogs/2018/06/01/map-of-the-month-arkansas-opportunity-zones
California	UNIVERSALISM & UNIFORMITY & COUNTY: Powerpoint presentation dated 3/2/2018 from state authorities stated on Slide 6, 'Areas with business activity - at least 30 business establishments in each tract as defined by EDD. Tracts must have a poverty rate of at least 20 percent. These designation criteria cover 51 of 54 eligible counties with eligible tracts.' Slide 7 states, **'Geographic diversity: every county has at least two eligible tracts designated**. Tracts must be in the top 30 percent by poverty of all tracts in the county (if more than two). These designation criteria ensure 54 of 54 counties with eligible tracts.' Slide 8 states, 'Threshold Selection Rationale: Requiring a minimum number of business establishments helps identify those that are zoned for business to encourage more investment. If a higher number of establishments per tract is required, more rural areas will be eliminated. / Raising the minimum poverty threshold to 25 percent would result in tracts in only 46 counties. / **If statewide (rather than county) thresholds are set, urban areas would represent a higher proportion of tracts; Southern California would also have a disproportionate number of eligible tracts.'** https://web.archive.org/web/20180312140712/https://dof.ca.gov/Forecasting/Demographics/opportunity_zones/index.html
Colorado	COUNTY: The state's website stated, 'When the U.S. Tax Cuts and Jobs Act of 2017 passed, the federal government asked each state and territory to nominate up to 25% of its low-income community census tracts to be opportunity zones. We consulted with **mayors, county commissioners, and local economic development** organizations to ensure that our state's nominations matched local priorities. A commission **reviewed local submissions**, and the governor submitted final 126 opportunity zone nominations to the federal government. The federal government certified Colorado's opportunity zones in April 2018.' https://oedit.colorado.gov/colorado-opportunity-zone-program From 3/23/2018 press release, 'Nominated zones are the result of a thorough, data-driven process that included an analytical evaluation of need and opportunity, balanced with extensive community discussions, to identify eligible economically distressed areas of Colorado that are well positioned for investment and offer meaningful potential to invigorate local economies. OEDIT partnered with the Department of Local Affairs and other state agencies to collaborate with a broad group of stakeholders, including economic developers, community partners, local governments, state legislators and investors before selecting areas to be nominated for Colorado's Opportunity Zones. 'By engaging Colorado communities and potential investors, we've identified Opportunity Zones that complement local efforts to create economic momentum in areas where growth has been slow,' said OEDIT Executive Director Stephanie Copeland. 'Our holistic approach ensures we've selected zones where this incentive can be catalytic for investment.' Colorado's statewide approach to locating its Opportunity Zone locations was informed by its existing economic transformation efforts underway including Blueprint 2.0 recipients, Creative Districts, Main Streets, Rural Jump Start, Certified Small Business Communities, Enterprise Zones and rural economic development initiatives.' https://www.novoco.com/sites/default/files/atoms/files/colorado_press_release_gov_announces_oz_nominations_032318.pdf

State	Excerpt
Connecticut	TOWNS: Press release dated 4/20/2018 states, 'One of my administration's top priorities has been the revitalization, reinvention and growth of our cities,' said Governor Malloy, who in February announced an application process for municipalities in the state that were interested in participating in the program. 'These opportunity zone nominations we have made will go a long way in encouraging new investment and development in areas that will be critical to Connecticut's future. I'd like to thank all of the **towns** that submitted applications, and congratulate those chosen for this exciting new program.' 'We thank all of the participating municipalities for the hard work and careful planning that went into these applications,' said Commissioner Catherine Smith of the Department of Economic and Community Development, the state agency that is overseeing the application process.' https://web.archive.org/web/20181204011050/https://portal.ct.gov/Office-of-the-Governor/Press-Room/Press-Releases/2018/04-2018/Gov-Malloy-Announces-Opportunity-Zone-Nominations
Delaware	A 12/7/2018 news article states 'Carney announced Delaware's 25 zones in April after a painstaking selection process that **included many stakeholders around the state.'** However, no other information was available on who these parties were or what role they played despite an extensive search. https://www.udel.edu/udaily/2018/december/biden-delaware-opportunity-zones/ COUNTY: We obtained a list of entities nominating tracts to the governor's office for OZ designation. These nominations came primarily from city and county managers.“
Florida	UNIFORMITY & UNIVERSALISM & COUNTY: An FAQ document from 5/8/2018 stated, 'DEO's economists used a combination of data and project requests to determine the Zones. A statistical model was created using census tract data and other economic indicators, such as poverty level, unemployment rates and population density. **DEO used a proportional method of nominating tracts so that every county received at least one census tract nomination.** Finally, DEO incorporated into the model requests from city and county governments, regional planning councils, nonprofits, investors, developers and others. Q: Why were some requests not included as an Opportunity Zone? A: DEO received requests for more than 1,200 census tracts, which is more than the 427 the state can nominate. Feedback was incorporated as much as possible, and balanced with the economic analysis. For example, a request in an area with very low unemployment may not have been chosen.'
Georgia	LIMITED LOCAL INVOLVEMENT: The only evidence about Georgia's selection came from a slide presentation from Atlanta states, 'The Mayor and Invest Atlanta strategically selected OZs primed for economic growth and comprehensive economic development.' https://static1.squarespace.com/static/5cda2e2434c4e27ea379be2e/t/5d28d39959514c0001ba3cef/1562956702304/Invest+Atlanta+FOZ+Presentation-compressed.pdf CRITERIA: https://www.dca.ga.gov/community-economic-development/incentive-programs/state-opportunity-zones Poverty and income criteria were used to determine eligibility of census tracts. The Census Tracts with some of the highest poverty levels in the state were recommended to the U.S. Department of Treasury for designation.“
Hawaii	COUNTY: 'Well, that would have been nice, but we had to make the assumption that **county planners** and economic development folks had already done a lot of outreach with the counties, not specifically for Opportunity Zones, but for the type of investment and investment plans they wanted in certain areas.

State	Excerpt
Idaho	COUNTY: A 4/9/2018 press release stated, 'The governor of each state is permitted to designate 25 percent of its low-income census tracts as Opportunity Zones. Census tracts are deemed 'low-income' when the poverty rate is 20 percent or greater and/or family income is less than 80 percent of the area's median income. After issuing a call to Idaho cities, **counties** and tribes to apply on behalf of eligible low-income census tracts in their areas, the Idaho Department of Commerce received 59 applications from 24 public entities. 'As the lead economic development agency for the State, I am excited about the potential this program could have in stimulating new investments **across all areas of Idaho**,' Commerce Director Bobbi-Jo Meuleman said. https://commerce.idaho.gov/press-releases/united-states-treasury-approves-idaho-opportunity-zone-nominations/
Illinois	UNIFORMITY & UNIVERSALISM & COUNTY: A 5/18/2018 press release states the following, 'To determine the most effective tracts for nomination, a three-phase approach was implemented to identify need and potential, adequately represent the entire state, and account for local input. Phase one involved need-based indexing depending on factors like poverty rates, specifically those among children, unemployment rates, crime rates and population. These standards highlight the goal of the program in Illinois which is to cultivate potential within disadvantaged communities and invest in our future generations across the state. Phase two and three were used to further identify the allotted 327 tracts Illinois could nominate under the federal program guidelines. **To ensure a statewide benefit, each county with qualifying tracts received at least one zone and towns and cities across the state were limited on the number of zones included.** 1,305 qualifying low-income census tracts were available for selection, of which only 25% could be nominated by the Governor for inclusion in the program.' https://www.novoco.com/sites/default/files/atoms/files/illinois_gov_announce_ozs_051818.pdf
Indiana	COUNTY: A 4/19/2018 press release states 'Gov. Eric J. Holcomb has submitted Indiana's 156 Opportunity Zone nominations to the U.S. Secretary of the Treasury...These selections were made after much public input and careful consideration, looking at both community need and potential opportunity for investment. The state collected extensive economic data on all eligible census tracts and received close to 2,000 recommendations, including input from 357 local officials, stakeholders and citizens via an online portal. With support from the Governor's Office and several state agencies, an external advisory group convened by Gov. Holcomb provided the final list of recommendations to the governor. That advisory group was comprised of five geographically diverse members: Ann Murtlow from Indianapolis (presidentand CEO, United Way of Central Indiana), Don Villwock from Edwardsport (former president, Indiana Farm Bureau), Leigh Morris from La Porte (former mayor, LaPorte), Brenda Gerber Vincent from Fort Wayne (chief development officer,Lifeline Youth & Family Services) and Keeley Stingel from Salem in Washington County (executive director, Homeless Coalition of Southern Indiana). **The 156 nominated census tracts are located in 58 counties covering all or portions of 83 cities and towns throughout the state**. Upon approval of the Secretary of the U.S. Treasury, these Opportunity Zones will cover over 1,000 square miles and the residences of over 500,000 Hoosiers. The average poverty rate in these census tracts is 31 percent.' https://events.in.gov/event/gov-holcomb-nominates-156-opportunity-zones

State	Excerpt
Iowa	COUNTY: 4/20/2018 Press release stated, 'Gov. Kim Reynolds and Lt. Gov. Adam Gregg, along with the Iowa Economic Development Authority (IEDA), announced the 62 Iowa census tract nominations for Opportunity Zones designation on Friday...Iowa has 247 eligible LICs, of which a maximum of 62 can be nominated... **Cities, counties and communities with eligible LICs in Iowa were invited to apply** in late February. A seven-member committee reviewed and scored the 108 tract applications received by the IEDA based on the communities' past successes, unemployment rate, economic hardship and importantly, their vision for leveraging the program to make meaningful improvements... The list of 62 finalists was submitted by the committee to the governor's office and will now be forwarded to the U.S. Treasury for review and final certification.' https://www.novoco.com/sites/default/files/atoms/files/iowa_press_release_gov_announces_oz_nominations_042018.pdf
Kansas	COUNTY: An FAQ document states, 'How were Kansas' Opportunity Zones selected? Zones Designated: The Governor was tasked with designating up to 25 percent of census tracts that either have poverty rates of at least 20 percent or median family incomes of no more than 80 percent of statewide or metropolitan area family income as Opportunity Zones by April 30, 2018. Commerce reached out to communities to request Letters of Interest for designation as an opportunity zone. Commerce reviewed each submission and reviewed economic data on each census tract across Kansas. Each submission was evaluated for both the need present in the community as well as the opportunity present to attract investment to those areas. After reviewing the submissions and analysis, Commerce made recommendations to the Governors Economic Growth Subcabinet for final selections. Commerce worked with community leaders to communicate about the selection process and confirm the final nominations would best serve the interests of the local economy.' (We obtained communications with the governors office, which came from city and county officials.) https://www.novoco.com/sites/default/files/atoms/files/ks_opportunity_zones_faq.pdf UNIVERSALISM: Jeff Jewell (Director of National Development Council) and Jordan Bickford (Deputy Chief Counsel Kansas Development Corp.) discussed Opportunity Zones, with Bickford specifically discussing the selection process. "Because this is a really community-led program and market led, and because the timelines were really tight for reaping all of the benefits, it was important that the communities put up their hands and said that we are a community that is ripe to benefit. So the communities who came in, we were fortunate and had 39 communities participating, and **we were able to provide at least 1 census tract in each of these communities across the state.**" Source: https://lawrencechamber.com/video-opportunity-zone-forum/

State	Excerpt
Kentucky	UNIVERSALISM & COUNTY: A 2018 Fact Sheet states, 'The federal Tax Cuts and Jobs Act of 2017 allowed each state's governor to nominate certain census tracts as Opportunity Zones. Governors were required to submit nominations by March 21, 2018 or request a 30-day extension by that date. Gov. Bevin submitted Kentucky's nominations on March 21. On April 9 the Treasury Department certified those nominations, designating 144 Kentucky census tracts as Opportunity Zones. Per the Department of Treasury, Kentucky has 573 low income census tracts. Up to 25 percent of those, or 144 tracts, could be designated as Opportunity Zones. Of those 144 tracts, 5 percent, or 8 tracts, could be certain non-low-income tracts that are contiguous to low-income tracts designated as Opportunity Zones. How were OZs selected? Step 1: The Enterprise Mapping Tool was used to determine the 'ideal' Opportunity Zones based on capturing the qualified census tracts that fell between the 0-60 percent markers in five economic indicators: housing stability, education, mobility,economic security and health. Step 2: The Cabinet sent a Request for Information (RFI) to all judge-executives and mayors in Kentucky seeking information regarding preferred census tracts for designation, the current use of those tracts, and proposed usage of those tracts should investments be available. The Cabinet received 67 responses to the RFI. Many of those responses were regional, and the responses included information about hundreds of census tracts from across Kentucky. The RFI responses were overlaid on the 'ideal' map to account for local input and preferences. Step 3: The Enterprise Mapping Tool was used to identify and add eligible tracts that had received New Market Tax Credit Investments. On a call with the White House regarding Opportunity Zones, it was conveyed that these Opportunity Zones were intended to be complimentary to NMTC. These tracts have also demonstrated that they can attract investments. Step 4: Proposed tracts that were identified in Steps 1 and 3 for which no RFI was received were removed. These were replaced with tracts from counties who did submit RFI responses but did not yet have a selected tract included in the proposal. **Every county who submitted an RFI response has at least one census tract designated.** This was to again account for local input and preferences.' https://www.novoco.com/sites/default/files/atoms/files/kentucky_oz_factsheet_2018.pdf
Louisiana	COUNTY: We obtain the names of those nominating tracts for the OZ designation. Nominations came primarily from city and county officials.
Maine	CITY and TOWNS: We obtained a list of the local communities nominating tracts for the OZ designation, and these were predominately city and town officials.
Maryland	UNIVERSALISM & COUNTY: '**Each county in the state has at least one Opportunity Zone.** Opportunity Zones were designated by the U.S. Treasury based on eligible census tracts nominated by the Governor.' https://www.novoco.com/sites/default/files/atoms/files/maryland_opportunity_zones_at_a_glance_101119.pdf
Massachusetts	TOWNS: Massachusetts administered a competitive process for communities to apply for Opportunity Zone designation, and engaged with all 110 communities that had eligible tracts. Zone nominations were evaluated by HED against three major criteria: • Opportunities: sites and businesses that are opportunities for private investment and development • Planning: community describes the planning work done in the tract or tracts identified in the application • Demographics: poverty rate, median family income, and unemployment rate in the tract or tracts in the application, and in the wider communities https://www.mass.gov/opportunity-zone-program

State	Excerpt
Michigan	UNIFORMITY & UNIVERSALISM & COUNTY : The state's website lists the following details: 'How Opportunity Zone designations were made: **The first step determined the geographic distribution of the state's 288 Opportunity Zone designations using an area's proportional share of the statewide total of eligible low-income tracts (1,158). If a county had 25% of the state's eligible tracts, it was initially given 25% of the state's eligible tract designations. Then, designation considerations and any necessary modifications were made to account for original Rising Tide communities and each rural county that had at least one low income census tract.** Step 2: A set of data driven economic indicators were then used to determine the initial set of Opportunity Zones around the state. Both Congress and the Economic Innovation Group guided policymakers charged with creating these zones. According to these guidelines, Opportunity Zones should: be the targets of already-existing community development programs at all levels of government; demonstrate success in receiving investments from other geographically-targeted programs; be named in areas of sudden employment losses (plant closings or mass layoffs); take into account area attributes that will attract the attention of capital, such as habitability for prospective entrepreneurs and good linkages to population centers and anchor institutions such as hospitals or colleges/universities; be able to attract a number of different types of investments, since the classes of qualified activities range from investment in local Opportunity Zones companies to real estate transactions—both residential and commercial. To make the designations, the following geographic attributes were chosen because they align with these guidelines: Qualified Census Tract (QCT) designations: Projects located in these areas receive incentives under the Low Income Housing Tax Credit program; Michigan State Housing Development Authority (MSHDA) / Michigan Economic Development Corporation (MEDC) investments: Tracts with these investments have proven their ability to attract development activity in commercial and real estate transactions; Worker Adjustment and Retraining Notification (WARN) locations: These show where plant closings or mass layoffs have been announced over the last two years; Dun and Bradstreet business listings: These are used to delineate different types of business activity, including manufacturing concentrations (automotive, agricultural, and other industrial activity, retail and commercial centers, and other such nodes); Redevelopment Ready Communities and Rising Tide communities: Tracts within municipalities with these MEDC designations are acquiring the capacity to manage larger community and economic development projects; Walk-UP zones: These areas show highly walkable areas in Michigan's larger cities; Downtown or commercial center: In areas not covered by the Walk-UP research, aerial photos were used to delineate land uses and identify downtowns or commercial centers; Natural and/or man-made amenities: Tracts with these attributes (which include lake/river frontage) are generally attractive for investments and entrepreneurial activity; Proximity to universities, colleges or hospitals: Tracts with these features can attract a broad range of investments, are usually located in dense population centers, and are prime areas for tech transfer and research and development activity; Other qualitative elements: Aerial photos of all eligible tracts were inspected to determine the nature of their transportation network, land use patterns, residential density, and other factors; The designation of Opportunity Zones used all of these data sources. Each was considered to be a factor, but none individually were of overriding importance in this process. All eligible tracts were evaluated on all of these points (although not every point was present in each evaluated tract.)' https://miopportunityzones.com/about/

State	Excerpt
Minnesota	COUNTY: A 1/7/2019 press article covered concerns about the selections, stating, ' 'Opportunity Zones have the potential to bring much needed investment to some of Minnesota's lowest-income areas to spur economic development,' Shawntera Hardy, the state's commissioner of the Department of Employment and Economic Development (DEED), said when Minnesota submitted its choices among eligible census tracts to Washington last year. The list included some of the poorest communities around the state, such as Minneapolis' Phillips area and the Red Lake Indian Reservation. But the nation's largest mall and its 'South Loop' environs — boasting five new hotels and four more on the way — also made the cut. DEED spokesman Shane Delaney said the agency submitted tracts that local leaders, like Hennepin County, ranked as a priority. The agency declined to make an official available for an interview....**DEED last year asked counties and some cities to rank their top Opportunity Zone choices**. Hennepin County, after consulting with cities, ranked the Bloomington tract second among its seven 'first-choice' tracts. Officials said the amount of land ready for redevelopment — 140 acres — made it an attractive choice. 'What we were trying to do is figure out what both serves the economically challenged census tract and provides the opportunity at a scale that the private market might react to,' said Kevin Dockry, the county's director of community works. https://www.startribune.com/tax-break-for-poor-areas-boosts-mall-of-america-district/503952002/

State	Excerpt
Mississippi	COUNTY: A 7/2/2020 press article on Opportunity Zone selection stated, 'A Clarion Ledger investigation into COUNTY: Opportunity Zones found that some areas got a special tax designation meant for the low-income Mississippians when they didn't need it — and sometimes didn't ask for it. In Mississippi, Gov. Phil Bryant had to pick 100 census tracts, 95 of which had to qualify as low-income. The other five simply had to be touch another census tract that qualified as low-income. Bobby Morgan, who was the point person on the Opportunity Zone selection process, said Bryant followed every rule in picking which neighborhoods would get this special designation. Morgan pointed out that Bryant, unlike other governors, set up an online portal so anyone in Mississippi could apply for the special tax. **Developers, mayors and local officials submitted hundreds of applications through the portal.** Some areas were selected even though no application was submitted on their behalf. Morgan said that's because the governor's office assembled a committee that made individual recommendations on what areas should get. The vast majority of the census tracts ultimately selected to be Opportunity Zones – 95 of 100 – are low-income areas spread throughout the state, as required by the program rules. The Clarion Ledger first began looking into Bryant's selection of Opportunity Zones in late 2019, eventually requesting every application the state received for an Opportunity Zone designation. **Many who applied for the Opportunity Zone program did not get the designation. There simply weren't enough Opportunity Zones for every low-income census tract in Mississippi.** However, some of the tracts selected by Bryant, like an area of Flowood, were not low-income and they already had major developments ongoing. Morgan said that the governor's office was under a time crunch to get a full list of Opportunity Zones to the U.S. Department of the Treasury and worked hard to ensure that areas from every part of the state were selected for the program. Rather than scrutinize a handful of Opportunity Zones, Morgan said it's important to promote all 100 of these special tax-advantaged investment areas in Mississippi. 'We did the best job we could. We care about economic development in the state. **I'm disappointed not everyone could be selected but that's not what the legislation called for,' Morgan said. '... Gov. Bryant pored over those applications.**' Contact Giacomo 'Jack' Bologna at 601-961-7282 or gbologna@gannett.com. Follow him on Twitter @gbolognaCL. https://www.clarionledger.com/story/news/politics/2020/07/02/what-opportunity-zone-how-were-they-selected-mississippi/3177239001/ We obtained a list of entities nominating tracts for the OZ designation. The nominations primarily came from city and county officials.“

State	Excerpt
Missouri	UNIVERSALISM & COUNTY: In a 9/26/18 presentation, Sallie Hemenway, Division Director, Business and Community Services, Missouri Department of Economic Development, stated,'We ended up with 161 zones designated in Missouri. That was the maximum amount that we were allowed based on the federal law. Those 161 zones represent 47 different cities and counties. **And we had cities and counties vote on sponsoring an application**. The first obvious point: many of those 47 different cities and counties selected more than 1 zone for us to come up with the 161 total. But every applicant that DED received that had an eligible zone listed received their first choice. **So we were able to provide at least the first choice to everybody that submitted an interest in the program.** And I think that bodes well. You can find the complete list of cities, those 47 cities and counties, on our website at the link provided...Interestingly, each one of the opportunities presented to us through the application process also listed projects, potential investments, and projects that are ready but for the lack of capital. In our analysis, we looked at a variety of things. We used resources from the census, from various places on the web to look at the demographics but also we tried to balance that with the element of distress and economic opportunities to see if we agreed and could acheive our overall goals at the same time.' Video posted at: https://ded.mo.gov/content/opportunity-zones
Montana	COUNTY: A 4/23/2018 press release stated, 'Governor Steve Bullock has nominated 25 areas of Montana for designation as an Opportunity Zone, after communities submitted proposals for consideration. The federal Tax Cuts and Jobs Act of 2017 established a new economic development program called Opportunity Zones designed to encourage long-term private investment in low-income communities. The program provides a federal tax incentive for taxpayers who reinvest unrealized capital gains into 'Opportunity Funds,' which are specialized investment vehicles dedicated to certain low-income areas called 'Opportunity Zones.' **'We asked cities, towns, counties, tribes, and economic development organizations to** nominate areas that are most likely to realize development which benefits communities,' said Governor Bullock. 'I'm confident that the final zones I've nominated to the U.S. Treasury Department represent both high-needs communities and areas that are ripe for investment in rural and urban corners of our state.' While Montana has 106 eligible Low-Income Community Census tracts, the federal government has limited Montana to identifying just 25 of those tracts for Opportunity Zone designation. More than 60 Census tracts were proposed for Opportunity Zone designation by communities. The Montana Department of Commerce has committed to assisting communities in areas where Census tracts were not nominated. This includes continued conversation based on the information and indications of the needs in those communities and resources that may be available. The financing tool has the potential to direct private capital toward distressed communities and serve as a catalyst for long-term, inclusive economic development. This may include downtown revitalization, workforce development, affordable housing, infrastructure, and business startup and expansion. https://marketmt.com/News/governor-bullock-sends-opportunity-zone-nominations-to-us-treasury

State	Excerpt
Nebraska	COUNTY: An application form released 2/15/18 states, 'Each submission of census tracts proposed for nomination as an Opportunity Zone **must be made on local government letterhead, signed by the Chief Elected Official of the submitting city or county,** or his/her official representative. The submission must be scanned and emailed no later than Friday, March 9, 2018 to: ded.opportunityzones@nebraska.gov. Proposals Should Contain: Name of city or county, List of census tracts proposed for nomination (attach map with clear boundaries marked), Brief explanation of local decision process resulting in this tract or tracts, Prioritization of proposed census tracts (if more than one), Description of proposed census tracts by current land use, Description of proposed census tracts by proposed land use, Description of public and private activities previously undertaken to encourage private investment, Description of recent private investments made in the proposed area. Posted on general website: https://opportunity.nebraska.gov/program/opportunity-zones/
Nevada	COUNTY: We obtained a list of entities nominating tracts for the OZ designation to the governor's office. The nominations primarily came from city and county officials.
New Hampshire	UNIVERSALISM & REGIONAL COUNCILS: The website states, 'New Hampshire's Criteria for Nominating Opportunity Zones: Opportunity Zones were established by Congress in the Tax Cuts and Jobs Act of 2017 to encourage long-term investments in low-income urban and rural communities nationwide... When enacted in late 2017, governors were required to submit their Opportunity Zone designations within 90 days. There was no guidance or restrictions on process other than the maximum number of zones being limited to 25 percent of all federally designated low income census tracts (LICTs). The Department of Business and Economic Affairs was tasked with taking New Hampshire's 106 federally-defined low income census tracts (LICTs) and working quickly to develop a list of 27 recommended tracts to be nominated by the governor as Opportunity Zones. All tracts were considered without any formal community request. BEA utilized the experience and knowledge of the members of the Council of Partner Agencies (New Hampshire Community Development Finance Authority; New Hampshire Business Finance Authority; New Hampshire Housing Finance Authority, and the Community College System of New Hampshire) seeking input on existing or planned development into which Opportunity Funds might be persuaded to invest. **In addition, BEA briefed and sought input from the New Hampshire Alliance of Regional Development Corporations and other economic development organizations from around the state.** Because of the short deadline, outreach was limited, with the following taken into consideration: Could the eligible projects in the eligible tract compete for investment funds? This demonstrates 'investability' within the zone and distinguishes one LICT over another, helping attract the maximum amount of resource to the state as a whole. Are there existing investments made with state and/or federal funding sources for Opportunity zone eligible projects in the eligible tract? This would demonstrate leverage of other publc funding, maximizing benefit to taxpayers Could the potential Opportunity Zone be managed and/or marketed locally and be integrated into local development priorities? This would demonstrate an ability to utilize the zone effectively **We considered geography (all areas of the state have eligible LICTs) and paid particular attention in communities that had more than one LICT to ensure the preferred tract was chosen**.' https://www.nheconomy.com/getattachment/grow/Opportunity-Zones/OppZone.pdf?lang=en-US "

State	Excerpt
New Jersey	UNIVERSALISM & COUNTY: General OZ website states, 'Selection process: DCA worked closely with the Governor's Office and an experienced firm with knowledge and expertise on the selection process. State working group convened to bring in perspectives from representatives of multiple state agencies. Developed a sophisticated tool to select geographically diverse zones aligned with the Governor's policy priorities based on a formula. Relied on 2012-16 Census data, unemployment data from DOLWD, and property tax list data from the Division of Taxation. Selection formula: Formula-based approach: **Focus on geographic fairness; every county get at least one tract, counties with larger populations in poverty get more; Geographic diversity within counties;** Focus on truly distressed communities; Municipalities distressed on the Municipal Revitalization Index; Neighborhoods with low incomes, high unemployment rates, low property values; Focus on transit-friendly communities: NJ Transit Villages, Proximity to transit hubs, Focus on leveraging existing investments, MODIV property value data; Validated formula-based selections: Governor's Office held meetings and roundtables with mayors throughout the state to receive feedback and input; Met with the New Jersey Congressional delegation to ensure a fair and transparent selection process; Obtained feedback from multiple departments and agencies (i.e. DOLWD, NJRA); Final selections were made on March 20th and approved by US Treasury on April 9th - https://nj.gov/governor/njopportunityzones/local/index.shtml
New Mexico	COUNTY: Excerpted transaction from webinar 3/8/18 called 'Opportunity Zones: Undertanding the Process' by the New Mexico Economic Development Department. During the webinar, the representation states, 'Our role is simple. we are working with the governor's office to create a list of recommended Opportunity Zones **by gathering the inputs of all the county managers and stakeholders. We are asking that everybody work with the county managers to get their list of nominated census tracts through the county manager's office so that we can manage the flow of information easier.** But we are very, very much hoping and asking that all county managers work very closely with economic development organizations, county leaders, the council of governments, tribal leaders; all interested stakeholders should participate and prioritize the qualified census tracts that they are trying to nominate. County manager (or his/her designee) will submit application and a prioritized list to us on our website no later than March 21, 2018. This is the deadline dictated by the federal government, so we are mindful of the short time period, but nonetheless, we encourage everyone to get the information up as soon as possible. I don't know that there is a whole lot of value in waiting until March 21. If you spent the time to prioritize and feel comfortable, then upload as soon as ready. We are willing to give you feedback if you need that. Once we have all of the nominations for designation of Opportunity Zones, we'll get those to the Governor for her review and submission at the Department of the Treasury for the deadline currently at April 20. Please know that this deadline reflects the extension period, which we anticipate will be requested in the near future through the governors office. We are currently waiting on instructions and directions from the Department of Treasury on how to execute those extension requests and we've been told that information is coming.' https://www.youtube.com/watch?v=0MC4DUwN-Ig&feature=youtu.be
New York	REGIONAL ECONOMIC DEVELOPMENT COUNCILS: In New York, Governor Andrew Cuomo tasked Empire State Development Corporation (ESD), the state's economic development entity, and New York State Homes and Community Renewal, its housing agency, with designating OZs. **After informal consultations with the Regional Economic Development Councils (REDCs) and local officials,** ESD and the Governor selected 514 tracts. Of these 496 were qualified low-income tracts and 17 were non-low-income contiguous tracts. Unlike some states, the selection of zones in New York was not subject to public discussion or review. https://cbcny.org/research/opportunity-zones-new-york-state-and-city

State	Excerpt
North Carolina	UNIVERSALISM & UNIFORMITY & COUNTY: Website states the following, 'Guided by data and driven by local priorities, North Carolina's process to identify these tracts, coordinated by the North Carolina Department of Commerce, included an extensive review of census data, public input collected from the Department's website and direct outreach, and close collaboration with local officials from across the state. A multi-phase process led to the nomination of these 252 areas as potential zones. First, census tracts that could meet the qualifications were determined by the same poverty and income criteria that determine eligibility for New Markets Tax Credits – as defined by Internal Revenue Code Section 45D(e). Eligibility was first based on 2011-2015 Census American Community Survey data with a given census tract having either (1) Median Family Income at or below 80% of Area Median Income (AMI) in the period of 2011-2015 or (2) Poverty Rate of 20% or greater in the period of 2011-2015. Up to 5% of census tracts that do not meet the definition of a low-income community can be designated under a Contiguous Census Tract exemption. Exempt tracts must be contiguous with low-income community census tracts that are designated as Opportunity Zones, and the median family income of the exempt tract must not exceed 125% of the median family income of the designated low-income community census tract with which it is contiguous. Using these criteria, North Carolina had just over 1,000 low-income census tracts to consider. Then, to select the number of zones called for in the federal law, the state followed these guiding principles: An open submission process: Solicit tract and program recommendations through N.C. Commerce's website and direct outreach; **Opportunity for all: Aim for at least one Opportunity Zone in every county;** Accommodate as many submissions as possible: **Aim to allow each county 25% of their total low-income tracts;** Prioritize local recommendations and development goals; Prioritize state industrial site development initiatives; February 13, 2018 - Public notice regarding Opportunity Zones is released; March 27, 2018 - Suggestion period closed; April 20, 2018 - Formal recommendations to US Treasury; May 18, 2018 - Federal certification by the US Treasury.' https://public.nccommerce.com/oz/#section-overview

State	Excerpt
	In a 6/19/18 presentation, Napoleon Wallace from NC Department of Commerce stated the following (transcript of discussion): 'We felt like we had to have some parameters or framework. This came in at the end of December. There are a lot of folks trying to figure out at the national level how to approach this, what are the ways we should be thinking about it, and how do we try to make the most of it. At the state level, the thing we really wanted to do was to prioritize a few areas. Issues that we thought were important and and in addition important things we thought would help to channel resources to the right places. One of the first we were thinking about was that every county deserved a census tract. From the federal level, we heard a lot of different ideas about how to approach this. We think that this is the right approach because in North Carolina, our rural is probably a little different than in some of the other areas. One of the stats we like to give out is that our 7th largest city in NC is Fayetteville, but there are 26 states across the country that don't have a city as large as Fayetteville. What that means to us is that regionalism is a big thing here. Rural can be a little ways out of a metropolitan area, or a long way out. And we felt like, in order to try and hit all of those areas and have some broad application in these tracts across the state. In addition, we wanted to get 25% of every county's low income census tract. In addition, we prioritized large sites, specifically megasites, 1,000 contigous acres and above, and so if those were not picked by locals, we wanted to be sure we highlighted those. In addition, there was Hurricane Matthew, where the approach we were taking is if the local area did not designate one of the hardest hit tracts then we wanted to designate that as well. And then lastly, but most importantly, we really relied on local recommendations. Folks that we got feedback from, it was pretty broad. We got feedback and prioritization from local planners, local economic developers, community officials, the whole gamut to help us think about where these tracts were most useful and where deals were cleanest and easiest for investors. ... Again, one of the big priorities we had was how to make sure every area in the state had some opportunity for investment. The thought is that there is opportunity in each of these areas.' https://www.youtube.com/watch?v=VD6QydoNrFI"
North Dakota	COUNTY : A 4/20/2018 press release stated, 'Out of a total of 88 census tracts eligible for the Opportunity Zone designation, 59 applications were submitted by leaders within the tracts. Applications were reviewed by a cross-agency team within state government that included the Governor's Office, Department of Commerce, Bank of North Dakota, Housing Finance Agency and Indian Affairs Commission. 'We're deeply grateful for all who applied and showed interest in establishing these Opportunity Zones, which will help communities and rural areas achieve their full potential and create healthy, vibrant communities to attract and retain a 21st century workforce,' Burgum said.' https://www.governor.nd.gov/news/burgum-designates-25-opportunity-zones-under-program-created-federal-tax-bill We obtained a list of who nominated tracts for the OZ designation to the governor's office. The nominations primarily came from city and county officials."
Ohio	UNIVERSALISM & UNIFORMITY & COUNTY: Census tracts are located within county boundaries and determined by population. **Development started by calculating 25% of each county's eligible census tracts. Then, submissions were reviewed by county.** • If the number of submitted tracts in a county was less than 25% of the county's eligible tracts, eligibility was confirmed, and the tracts were marked "Yes", in preliminary evaluation. • For most counties, the number of submitted tracts exceeded 25% of eligible tracts. In preliminary evaluation "Yes" was assigned to 25% of the tracts in the county, with the remaining tracts assigned "Maybe", based on the following criteria.

State	Excerpt
	• Local/Regional Cooperation –In most circumstances, a group submission would duplicate a tract submitted by a single governmental entity, nonprofit organization, development or economic council, etc. Priority was given to tracts where local cooperation was demonstrated. • Local/Regional Prioritization – under the theory that local or regional submitters know more about a tract within their county, the submitters' identified priorities were considered. • Single Tract/Multiple Submissions – a single tract submitted by multiple submitters, was given priority over a single tract submitted by a single submitter. • Tract Descriptions – Job creation potential, history of public/private investment within the tract, future commitments of public/private • investment, available land for development, existing businesses/employers within the region, and sector specific lines (i.e., medical, airport, deep water ports, housing, recreational waterfront, etc.), as identified by submitters, were prioritized. • Next, Development further reviewed the "Maybe" tracts for strong and persuasive input and to assure counties, regions, Appalachia, and large population metropolitan areas received as close to 25% of their eligible tracts selected as possible. **All 73 counties, in which eligible tracts were submitted, have tracts designated by the U.S. Treasury.** " https://development.ohio.gov/bs/bs_censustracts.htm
Oklahoma	COUNTY: A 3/2/2019 article stated, 'The tax law gave states' governors complete autonomy, as long as they met certain income or poverty requirements. Oklahoma had 90 days to select the opportunity zone tracts last year. Through the Oklahoma Department of Commerce, Fallin's office consulted with chambers of commerce, tribal leaders and economic development officials to make the designations, said Leslie Blair, a spokeswoman for the Commerce Department. At least 34 states had some type of public input on the designations of opportunity zones, according to the Economic Innovation Group, which helped develop the policy and is monitoring its implementation. Both California and Colorado published draft maps of zones, which were then refined with public input. Oklahoma did not hold any public meetings because they weren't required, Blair said. Holt, who took office in April, said the zones were designated before he took office and the state led much of the process. ... 'We took a look at all of the eligible tracts and then from there tried to figure out the areas of this city where there was a planned public investment for now or in the near future that could potentially spur additional private investment,' said Kian Kamas, Tulsa's chief of economic development. For example, Tulsa picked census tracts along a new bus rapid transit route that extends to North Tulsa with a plan to attract a major employer to the area. The View is one of the city's first housing developments to take advantage of the incentive and has designated 20 percent of its units for affordable housing, Kamas said. 'They're still very much distressed areas where there's a lot of work to do, but we knew that we already had strategies in place that would allow the city to make public investments or where we knew there were already planned philanthropic investments that could really help encourage and maybe reduce the risk or perceived risk of a private investor,' Kamas said. The **Commerce Department is contacting city and counties with opportunity zones to** see what kind of investments could be marketed to investors, said Jon Chiappe, director of research and economic analysis. It also plans to reach out to qualified opportunity funds, which allow investors to pool their money in funds that invest in the zones.' https://nondoc.com/2019/03/02/oklahoma-has-117-opportunity-zones/

State	Excerpt
Oregon	UNIVERSALISM & COUNTY: 5/21/2018 Video transcript about Opportunity Zones to state senators featured Jason Lewis-Berry, Governor's advisor for Economic Policy; Nick Batts, Government Affairs Manager for Businss Oregon; Rehanna Answery, Metro Regional Solutions Coordinator. Lewis-Berry first stated, 'It is a federal program. We, at the state level, have minimal influence on it. The main part that some of you may have heard of over the last couple of months was the selection process to determine which zones around Oregon would be designated. And that is the main moment at which the state has some influence over this program...The governor in each state is allowed to designate up to 25% of the eligible, low-income census tracts in their state. So, as an example, in Oregon, of our around 800 census tracts in Oregon, 366 meet the low-income community standards...so, 366 meet the criteria, 25% of those would equal 86. So that was the selection task for the Governor. And she did submit the nomination of the 86 zones about one month ago. Those were actually officially just approved by the U.S. Treasury last week.' Answery stated, 'I'll speak to how we went about conducting some community outreach. So Regional Solutions Coordinators and Business Oregon Regional Development Officers reached out to contacts in our regions about Opportunity Zones, helped answer questions, and directed stakeholders to Business Oregon website to make public comment. **Business Oregon received approximately 350-400 comments from cities, counties, community organizations, and individuals about Opportunity Zones over a 3-4 week period.** Many expressed that they wanted Opportunity Zones and identified certain low income census tracts that they desired. Few others expressed not wanting Opportunity Zones due to concerns over the potential for increasing housing costs and displacement. We Regional Solutions Coordinators and Business Oregon Regional Development Officers reviewed the public comments received for our respective regions and helped to validate requests for OZ with on-the-ground knowledge of projects, plans, and efforts underway within our regions by having follow-up conversations with our regions and asking them to prioritize requests. The governor's 86 nominations are the result of a thoughtful and methodical approach that was well informed by public input and stakeholder engagement.' From Lewis-Berry: 'We were looking for Zones that had some kind of a mix between a real ability to attract investment as well as a real need. We know all of the low-income zones met that low-income standard, of a 20% poverty rate, for example, some of them had a greater need than others for this kind of investment. We tried to balance those two things, and that is where we came out in the selection of these zones. **I think you'll see that there is great geographic diversity across the state. We had almost every county represented.** There's a slightly higher percentage of rural eligible zones over urban.' https://www.kgw.com/article/money/business/oregon-picks-prime-portland-real-estate-for-opportunity-zone-program/283-556720559 COUNTY: A website post from 3/1/2018 stated, '**The state of Oregon is also partnering with the Association of Oregon Counties**, League of Oregon Cities, and each of Oregon's nine federally-recognized Tribal Governments to solicit local and tribal government feedback... To ensure Oregon meets nomination deadlines, all input is due by 5:00 pm on March 14, 2018. For more information please go to the Business Oregon Opportunity Zones webpage.' https://www.novoco.com/sites/default/files/atoms/files/aoc_oregon_oz_input_030118.pdf"

State	Excerpt
Pennsylvania	COUNTY: A 4/22/2018 website post states, 'There are nearly 1,200 eligible census tracts and the governor designated 300 tracts based on economic data, recommendations from local partners, and the likelihood of private-sector investment in those tracts. Collection of Recommendations: DCED received robust feedback following the posting of the Opportunity Zones web page. Comments and recommendations were received from a total of 132 individuals, cities, **counties**, legislators, and organizations. A total of 734 eligible low-income census tracts were recommended to the state for designation, which is 61% of the entire eligible pool. Tracts were Recommended Based Primarily on the Following: Potential to Eliminate Poverty Special consideration was given to some of the poorest areas of the state: 120 tracts or 40% above 35% poverty rate, 198 or 66% of tracts have a median family income lower than the average of all eligible tracts, 202 or 67% of tracts have unemployment rate higher than 10%; Areas with Business Activity; **Geographic Diversity**; Recommended Final Designation: On April 20, 2018, 300 tracts were submitted for designation as Opportunity Zones. List of tracts by county; Interactive map of the designated tracts; Timeline for Qualified Opportunity Zones for 2018; March 30 – Deadline for Public Recommendations; April 20 – Governor's Submission of Tracts to U.S. Department of Treasury; Mid May (estimated) – Federal Approval of Designations; June (estimated) - Guidance from IRS.' http://web.archive.org/web/20180422201338/ https://dced.pa.gov/programs-funding/federal-funding-opportunities/qualified-opportunity-zones/
Rhode Island	In making the decision in consultation with stakeholders and community partners, factors such as potential for development, communities served, synergy with state and local efforts, **geographic diversity**, and others may be considered. (Source: FOIA RI-Letter)
South Carolina	UNIVERSALISM & COUNTY: A 3/26/2018 article states, 'SC Gov. Henry McMaster sent a list of 135 sites from around the state to the U.S. Treasury Department on Friday, March 23, to be eligible to receive investments as 'Opportunity Zones,' under a portion of the Tax Cuts and Jobs Act sponsored by Republican U.S. Sen. Tim Scott. Of South Carolina's 1,097 census tracts, 538 were designated by the Treasury as eligible for the Opportunity Zone status. The law required McMaster to narrow the list to a quarter of that number. Ninety-six of the 135 sites qualify as urban areas, according to McClatchy. **At least one Opportunity Zone is proposed for each of South Carolina's 46 counties.**' https://www.scacpa.org/gov-mcmaster-submits-list-of-135-sc-sites-for-sen-scotts-opportunity-zones/
South Dakota	LACK OF EXTERNAL INVOLVEMENT IN OZ SELECTION: A discussion of a Fall 2018 'Road Show' revealed the lack of external involvement in the selection. The 2018 report from South Dakota Economic Development stated, 'Twenty-five locations in South Dakota designated as Opportunity Zones received special attention in fall 2018 when GOED's Interim Commissioner Aaron Scheibe and other staff went on tour to educate and promote the zones, which were designated by Governor Dennis Daugaard in 2018 as part of a program created by Congress in the federal Tax Cuts and Jobs Act of 2017. The Opportunity Zone program is designed to encourage growth in low-income metro and rural areas across the country by attracting private capital for projects through federal capital gains income tax benefits. In South Dakota, there are 25 zones, impacting 18 governmental entities. 'We want to gain some exposure for these sites and leverage this program to benefit areas of South Dakota ripe for development,' said Scheibe. 'Not only did our presentations bring the existence of these zones into the public eye, but we were also able to encourage investment in the zones by explaining the details and tax benefits the program offers.' ' https://sdgoed.com/wp-content/uploads/2019/10/2018-AnnualReport.pdf

State	Excerpt
Tennessee	COUNTY: State's OZ website says: 'Tennessee's 176 tract recommendations were determined based on a strategic and data-driven review of **county** mayor feedback in addition to consideration of state priorities and initiatives including: Business development and brownfield redevelopment opportunities; Retail, commercial and tourism development opportunities; Community and rural development initiatives; Low-income housing development opportunities; Proximity to entrepreneur centers, technology transfer offices, and colleges and universities.' https://www.tn.gov/ecd/opportunity-zones.html
Texas	COUNTY: A 4/1/2019 Dallas presentation stated: 'The act allowed each state's governor to designate up to 25% of all eligible census tracts as Opportunity Zones eligible for investment under the Act. Mayor Rawlings proposed 62 census tracts in the City of Dallas to the State of Texas Office of the Governor. Governor **Abbott nominated 628 census tracts in 145 counties of Texas.** All 628 were confirmed by the U.S. Department of Treasury. The Governor's Office analysis was weighted toward three factors: 1) areas of chronic unemployment, 2) areas with lower population density, 3) areas experiencing significant economic disruptors such as natural disasters within the past two years.' https://dallascityhall.com/government/Council%20Meeting%20Documents/edh_4_dallas-opportunity-zones-briefing_040119.pdf

State	Excerpt
Utah	COUNTY: A 4/2/2018 article states, 'Governors of each state can nominate 25 percent of their states' low-income census tracts, meaning Gov. Gary Herbert can nominate up to 46 areas, ranging from **rural counties to pockets of undeveloped areas within thriving counties** along the Wasatch Front. Herbert has until April 20 to submit nominations to the federal government. Leading up to that deadline, the state has asked Utah's seven associations of governments to **collect information from counties and cities to help inform his decision**, said Ginger Chinn, managing director of urban and rural business services at the Governor's Office of Economic Development. 'This (program) could equate to trillions of dollars of investment for the nation,' Chinn said. 'Now what that means to Utah, we don't know. But what we are really excited about is we have taken a bottom-up approach on this, **going to cities and counties** for (recommendations).' ... 'It really could be the tipping point for investing in (low-income) areas,' said Salt Lake County Mayor Ben McAdams. On Friday, Salt Lake County received its first list of recommendations from cities, minus Murray and Sandy, which opted not to submit any areas. McAdams said he intends to review the list and forward recommendations to the Wasatch Front Regional Council by Monday. On Tuesday, Salt Lake County is also holding a public meeting from 5:30 p.m. to 7 p.m. at the Salt Lake County Government Center, 2001 S. State, to take public input on recommendations. The list of city recommendations, which Salt Lake County compiled and provided to the Deseret News, includes areas in Kearns, Magna, Midvale, Millcreek, South Salt Lake, Taylorsville, West Jordan, West Valley and Salt Lake City. While other cities and townships submitted between one to four areas each, Salt Lake City submitted 10 areas with seven alternatives — most of which lie on the city's west side, including the northwest quadrant. 'We think the west side has great opportunity,' said Lara Fritts, Salt Lake City's economic development director, adding the area could benefit from an infusion of cash that could revitalize neighborhoods and attract even more investment. Fritts said Salt Lake City also included the northwest quadrant because of already high interest for investment, since Salt Lake City has heard from a number of companies including Amazon and Stadler Rail that have committed to investment. It also comes at a time with high state interest to develop a global trade area or inland port. 'Being able to build upon that success we felt was important,' Fritts said. McAdams previously told the Deseret News that Salt Lake City's northwest quadrant has the potential to be 'on the top of the list' of areas considered to be Opportunity Zones. In an interview on Thursday, McAdams, not wanting to step ahead of the process, was reluctant to specifically state that the county will be recommending the area in its list to the Wasatch Front Regional Council, but he did say the northwest quadrant 'is a place where all stakeholders are looking at the possible job creation and investment.' 'So we think that it looks like it could be a prime candidate,' McAdams said. Chinn said it's too soon to say whether the governor and his team will select the northwest quadrant as one of the opportunity zones, but 'we're definitely not ruling it out.' Noting it's size and already high-profile desire for development, Chinn added: 'My guess it will be a priority.' Stimulating growth in economically-disadvantaged communities is a provocative aspiration — one that requires collaboration and support from the foremost experts in community development.' https://www.deseret.com/2018/4/2/20642664/utah-leaders-hope-to-use-new-tax-law-to-create-opportunity-zones-in-poor-areas
Vermont	The Agency used both 2011-2015 American Community Survey data and 2016 ACS data to inform decisions (**in addition to geographic equity**): • Poverty Rates • Unemployment Rates • Population Counts • Number of Businesses • Number of Private Sector Jobs

State	Excerpt
	• Available Infrastructure • State Designation Programs • Public Comment https://accd.vermont.gov/sites/accdnew/files/ documents/DED/OZonepresentation612.pdf COUNTY: We obtained a list of who nominated tracts for the OZ designation to the governors' office. The nominations primarily came from town, city, and county officials.“
Virginia	UNIVERSALISM & UNIFORMITY: A 4/18/2018 map shows zones **selected proportionately** based on GO Virginia Regions. https://www.novoco.com/sites/default/files/atoms/files/virginia_map _opportunity_zone_nominations_regions_041818.pdf COUNTY: A webinar was held on 9/11/2018 related to Opportunity Zones. The powerpoint slides available from the webinar state, 'The state's role in the program was to nominate low income census tracts to be designated as Opportunity Zones. Virginia nominated 212 out of 901 low income census tracts for OZ designation. Approved & certified by U.S. Treasury in may. This represents the maximum number of low income census tracts that could be nominated in Virginia. Virginia's nominations were data-driven and were based on local priorities. The Governor considered factors such as Enterprise Zones, proximity to a major highway, access to incubators and accelerators, near a university or reserach institution, and a locality's fiscal stress.' Furthermore, Kristen Dahlman, Senior Policy Analyst DHCD discussed the OZ selection process. A transcript of her remarks includes the following, 'The Department of Housing and Community Development, our role in the Opportunity Zone program right now as it currently stands. We were first involved in the nomination process. The Governor asked us and the Virginia Economic Development Partnership to help craft the nominations for Governor Northam. We had 901 census tracts to pick from, low income census tracts as defined by the US census. They had to be 20% or more in poverty, or the median income had to be 80% statewide median income. Per the IRS code, we were only able to nominate 25%, so 212 out of 901. The Governor made those nominations and they were approved by US Treasury in May. It represents the maximum number of low-income census tracts that could be nominated in Virginia. As part of those 212, we had a few contiguous tracts; those were qualified based on the fact they were adjacent to tract that we also nominated. So there are a few contiguous tracts throughout the Commonwealth. Nominations were data driven and were based on local priorities. **So back in February, we sent out a survey to all of our local governments that had a U.S. census tract that qualified under the program. We asked everyone for their input. If they had more than one OZ, we asked them to rank them.** We knew that, because we could only pick 25% of our 901 census tracts, not everyone was going to be able to get all of them. So we wanted to know what your priorities were. **We had a very high response rate from all of our local governments**. It really helped craft our nominations for the Governor. We considered other factors: Enterprise Zones, near a university or research institution, a locality's fiscal stress, access to incubators and accelerator, proximity to a major highway, military installation, ag research center. So we really tried to consider a whole bunch of different factors that would be a good climate for investment in the area. The Governor's office was pleased with the response as well and pleased with nominations.' https://www.dhcd.virginia.gov/sites/default/files/Docx/oz/oz-webinar-9-11-18.pdf“

State	Excerpt
Washington	UNIVERSALISM & UNIFORMITY & COUNTY: The state's general Opportunity Zones website states, 'The governor of each state could designate up to 25 percent of the total number of eligible census tracts as Opportunity Zones. In Washington, this came out to a total of 139 tracts. How did Washington Decide Which Areas to Designate as Opportunity Zones? Governor Inslee directed Commerce to develop a procedure for nominating tracts. Commerce consulted with a diverse group of stakeholders, and as a result, set the following goals: Transparent process, Created a process that helps strengthen communities, Created ability for tribes to directly access some portion of the available census tracts, Created ability for each county, in conjunction with the applicable associate development organization (ADO) to access some portion of the available census tracts, Created a competitive portion of tracts that were awarded to areas that would most likely result in new investment and job creation. To accomplish these goals, Commerce requested that cities, towns, counties, tribes, associate development organizations, port districts and housing authorities nominate tracts through one or more of the following three options. (1) Opportunity Zone Pools: County/ADO Set-Aside (69 tracts total): **Each county, through the applicable ADO, may nominate a certain number of eligible census tracts within the county for designation. The number of tracts per county is allocated based on the total number of eligible tracts in the county, and is shown in Appendix A. Counties will receive a minimum of one and a maximum of five tracts through this formula.** If fewer than 69 tracts are nominated, any remaining tracts will be added to competitive process. (2) Federally recognized Tribe Set-Aside: Up to 29 tracts total: Each of the state's federally recognized tribes may nominate one eligible census tract for designation. The tract may, but need not, include lands owned or controlled by the nominating tribe. If fewer than 29 tracts are nominated, any remaining tracts will be added to the competitive process. (3) Competitive Process: 31 or more tracts (total will depend on the number of set-aside tracts that are returned to the competitive pool): Eligible entities (cities, towns, counties, tribes, ADOs, housing authorities, and port districts) may submit applications to nominate tracts for designation based on criteria specified below. Each application may nominate as many as three tracts, and entities may submit more than one application. A review team will score each application, and the top-scoring areas will be nominated for designation.' https://www.commerce.wa.gov/growing-the-economy/opportunity-zones/
West Virginia	COUNTY: The proposal forms for submitting OZ recommendations asks for "Name of Sponsor (city, county, agency)".
Wisconsin	COUNTY: A 5/21/2018 press release states, 'Governor Walker recommended the maximum number of Economic Opportunity Zones: **120 recommendations within 44 counties in rural, urban and tribal areas**. These designations were made based on recommendations from an interagency working group comprised of WHEDA, WEDC, DOA, and DCF; public comment; and an independent analysis conducted by a nationally respected consulting firm.' Despite mentioning public comment, there was no additional evidence beyond this page as to how or when this public comment was accepted. https://www.novoco.com/sites/default/files/atoms/files/ wisconsin_oz_press_release_032118.pdf

State	Excerpt
Wyoming	COUNTY: A 4/28/2018 article covers the selection process, with the state providing little details of a formal process. The article states, 'Gov. Matt Mead has recommended 25 neighborhoods and regions across Wyoming for special tax benefits under the federal Republican tax plan passed by Congress a few months ago. If approved by the Treasury Department, individuals and companies would be allowed to defer tax on any earnings invested in the designated areas, which are all low-income, until 2027. The governor based his list off a proposal from the Wyoming Business Council, which worked with local economic development organizations and other groups to identify promising communities. Officials are holding off discussing how the roughly two dozen areas were chosen and what benefits are expected until the Treasury either approves or rejects the list, a process that should be complete in mid-May. 'We are going to wait until the Department of Treasury Secretary Steven T. Mnuchin has officially designated the nominated zones and those designated communities are notified,' Mead spokesman Chris Mickey said in an email. However, **Mead's office agreed to release the list of communities. Mead's list includes five locations in Albany County, four in Natrona, three in Fremont, two in Goshen, two in Laramie County and two in Platte, as well as one each in Hot Springs, Park, Sweetwater, Uinta and Washakie**. The selected neighborhoods include the downtowns in Laramie, Casper and Worland, along with several sites on the Wind River Indian Reservation. According to the Wyoming Business Council, the zones were required to have a poverty rate of at least 20 percent or a median family income less than 80 percent of the statewide number. WBC's web page on Opportunity Zones explains that the tax benefit can be attained by placing funds into an 'opportunity fund' that holds at least 90 percent of total assets in one of the designated zones. The money can be invested in business, real estate, infrastructure and other projects.' https://trib.com/news/state-and-regional/govt-and-politics/mead-nominates-opportunity-zones-across-wyoming-for-special-federal-tax-benefits/article_aba25856-be93-5018-b30e-bc3f465f85d3.html

Appendix A.5. Details about the Investment Proxy

To identify investment in tracts, we use Form D filings from the Securities and Exchange Commission (SEC). Federal securities laws require that Form Ds be filed by any company that sells securities without registration under the Securities Act of 1933 in an offering made under Rule 504 or 506 of Regulation D or Section 4(a)(5) of the Securities Act. Most issuers (more than 95%) rely on Rule 506 exemptions, which allow a company to offer securities to an unlimited number of accredited investors and up to 35 non-accredited investors, because these exemptions preempt other state requirements and allow the issuer to avoid having to register in various states. (Congress mandated that states cannot impose additional requirements on such issuers.) Because a firm may file multiple Form Ds during a single offering as securities are progressively sold, we keep only the last Form D for a firm. Form D data include issuer information, such as name, street address, year of incorporation, and industry. The offering data include the sale date, whether the offering is equity or debt, the total amount offered, and the total amount sold. We match each issuer to a census tract using the issuer's street address. Because the OZ program's tax incentives target equity investments, we keep only equity issuances. We remove fundraising by financial businesses because we cannot credibly assign capital raised by these pooled investment vehicles to specific census tracts. Form D issuers comprise clothing businesses (e.g., Flood Tide Co Enterprises, LLC and Anatomie Corp), restaurants and bars (e.g., Old Crow Smokehouse Orange, LLC, Sage Vegan Bistro Echo Park LLC, Blue Moose of Boulder, LLC and Peak Beverage Holdings, Inc.), health care businesses (e.g. PillPack, Inc., Edumedics LLC, Medcorder, Inc., Ascension Health Care Network, Inc.), and technology firms (e.g., Axium Nano, LLC).

Appendix A.6. Predicting OZ selection using LASSO

To select the most robust set of covariates predicting OZ selection, we employed LASSO (Least Absolute Shrinkage and Selection Operator) regression. LASSO is particularly useful for high-dimensional datasets, where it helps reduce the number of covariates, shrinking coefficients that do not contribute meaningfully to prediction accuracy to zero. The LASSO objective function is:

$$\underset{\beta}{\text{minimize}} \left(\frac{1}{2n} \sum_{i=1}^{n} (y_i - X_i\beta)^2 + \lambda \sum_{j=1}^{p} |\beta_j| \right), \tag{A.1}$$

where y is an indicator that equals one when an eligible census tract is chosen as an OZ. X_i represents the vector of county and census tract characteristics, β is the vector of coefficients, and λ is the penalty term that determines how much to shrink the coefficients on characteristics. The penalty prevents the model from relying too heavily on any one characteristic, which can improve its ability to make accurate predictions on new data.

To pick λ, we use cross-validation (CV) to find the λ that minimizes the out-of-sample mean squared error (MSE), which measures how far off the model's predictions (the likelihood that a census tract is chosen as an OZ) are from the actual outcomes. To make such out-of-sample predictions, we split our sample into training (75%) and validation (25%) subsets. CV allows us to identify the most appropriate λ by testing a range of values.

Initially, we included all the covariates listed in Table IV. Based on the CV function (with λ set to 0.01), we selected the following covariates: Poverty Rate, Unemployment Rate, Investment Score, Median Rent, % Own Home, % White, % Black, % Asian, % HS or Lower, Population Density, and Proximity to Infrastructure. The CV function selects λ such that additional covariates no longer provide significant improvements in out-of-sample predictions (the 25% validation sample). The cross-validation plot (Figure A2) below shows that the minimum MSE is achieved at $\lambda = 0.00012$, with 20 covariates selected. However, we opted for $\lambda = 0.01$, as the MSE is flat at higher values of λ, which allows us to reduce the model's complexity while maintaining predictive accuracy. This resulted in the 11 covariates we selected, balancing parsimony and predictive performance.

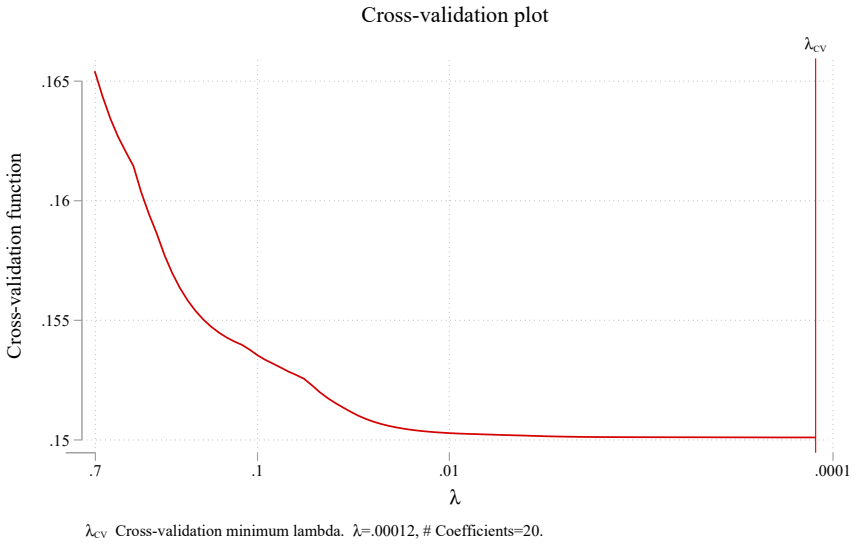


Figure A2: Cross-validation plot showing the relationship between λ and the out-of-sample mean squared error (MSE).

Appendix B. Solution to the Governor's Problem and Simulated Maximum Likelihood Estimation Procedure

Before describing the estimation procedure, we note that the solution to the governors' problem is achieved with a simple sort. Without loss of generality, assume that census tracts are sorted within counties so that $S_{s,i,j} > S_{s,i,j+1}$. This sorting implies that census tract j is preferred to census tract $j+1$, which, in turn, implies that for any allocation of n OZs to county i that solves the governor's problem, $I_{i,j} = 1$ for $1 \leq j \leq n$ and $I_{i,j} = 0$ for $j > n$. That is, the model implies that governors sort census tracts according to their scores $S_{s,i,j}$ within counties. As a result, the total aggrievement of a county can be written as the level of aggrievement for zero OZs plus the marginal decrease in aggrievement for each additional OZ, $A(\#OZ_i, E_i) = A(0, E_i) + \sum_{j=1}^{E_i}[A(j, E_i) - A(j-1, E_i)] \times I_{i,j}$. Substituting this equality in Equation 2 results in the following maximization:

$$\begin{aligned} \max_{I_{i,j}} & \left[\sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} \{(1-\alpha_s) \times S_{s,i,j} + \alpha_s \times [A(j-1, E_i) - A(j, E_i)]\} \times I_{i,j} \right] \\ s.t. & \sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} I_{i,j} = R_s \times \#Eligible_s. \end{aligned} \tag{B.1}$$

Equation B.1 is solved by selecting as OZs the census tracts that are in the top R_s^{th} percentile of $\{(1-\alpha_s) \times S_{s,i,j} + \alpha_s \times [A(j-1, E_i) - A(j, E_i)]\}$ because the marginal benefit for a governor to name census tract j in county i as an OZ is $\{(1-\alpha_s) \times S_{s,i,j} + \alpha_s \times [A(j-1, E_i) - A(j, E_i)]\}$.

The steps of our estimation procedure are as follows:

1. We use a probit model to predict the likelihood of a tract being designated as an OZ by state governors. According to the model in Section 2.2, a governor selects tract j in county i based solely on its score $S_{s,i,j} = \Psi_s \times X_{i,j} + \epsilon_{i,j}$, with $X_{i,j}$ and $\epsilon_{i,j}$ representing observable and unobservable characteristics, respectively. Parameters are identified up to scale, with error variance $\epsilon_{i,j}$ set to one (e.g., Korteweg and Sorensen, 2016). We add fixed effects for the number of eligible tracts in a county, as the only county characteristics in the aggrievement function in Equation 1 are the number of eligible tracts in the county and R_s. To mitigate bias in fixed-effect estimators of probit models with small group sizes (e.g., Cruz-Gonzalez et al., 2017), we estimate Ψ using all OZ selections nationwide so that there are many census tracts for each eligible tracts fixed effect, yielding covariate estimates Ψ_0. In Table F1 of the appendix, Ψ_s is estimated for each state, resulting in $\Psi_{s,0}$.
2. For each simulation k, we draw census-tract specific errors $\epsilon_{k,i,j}$ from a normal with mean zero and standard deviation one. (The probit model is equivalent to a latent variable model with errors derived from a standard normal distribution.)
3. For a given value of α_s, we compute for each simulation (k) and census tract (i,j) the governor's marginal benefit of designating the census tract as an OZ, $(1-\alpha_s) \times [\Psi_k \times X_{i,j} + \epsilon_{k,i,j}] + \alpha_s \times [A(j-1, E_i) - A(j, E_i)]$. We use these marginal benefits to solve the governor's problem as in Equation B.1.
4. The probability that a tract is chosen is the average number of times the tract is an OZ across all simulations, K. (We set $K = 100,000$ for each state and show the numerical stability of our estimates for different numbers of simulations in Internet Appendix Table H1.) We estimate the probability of becoming an OZ for tract j in county i as:

$$\mathrm{P}_{i,j}(\alpha_s) = \frac{1}{K} \sum_{k=1}^{K} I_{k,i,j}(\alpha_s),$$

   where $I_{k,i,j}(\alpha_s)$ is one if tract i,j is chosen as an OZ in simulation k.
5. Given $\mathrm{P}_{i,j}(\alpha_s)$, we find, with a grid search, the α_s^* that maximizes the likelihood that the model choices of OZs reflect the governor's actual choices:

$$\log\mathcal{L}(\alpha_s) = \sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} \left[I_{i,j}^{Actual} \log\left(\mathrm{P}_{i,j}(\alpha_s)\right) + (1 - I_{i,j}^{Actual}) \log(1 - \mathrm{P}_{i,j}(\alpha_s)) \right]. \tag{B.2}$$

In this equation, $I_{i,j}^{Actual}$ is an indicator equal to one if the tract j in county i is an actual OZ. To avoid the log of zero, we add or subtract a very small probability for tracts whose probability of being chosen is either one (subtract) or zero (add). (See, e.g., McFadden (1989) for a similar implementation).

6. We constrain $\alpha_s < 1$ throughout the analysis in the paper. The results in the paper in which $\alpha_s = 1$ are based on $\alpha_s = 0.999$. This choice of α_s results in a lexicographic solution for the governors problem as α_s becomes closer to one.

We make some choices regarding the model's error structure to keep it parsimonious. First, the errors $\epsilon_{i,j}$ are independent across census tracts. This implies that there is no complementarity between two different tracts becoming OZs built in $\epsilon_{i,j}$. This assumption possibly matches the reality of the benefits of OZs which are inherently local. Also, we have no errors added to the county aggrievement function ($A(\#OZ_i, E_i)$). One possible way to add errors to the aggrievement function is to assume that governors' perceived aggrievement of county i is $\epsilon_i A(\#OZ_i, E_i)$, where ϵ_i is a strictly positive random variable that captures a county-specific aggrievement disturbance that is unobserved to us. This error disturbance is similar to the consumer-specific utility disturbance in models of consumer demand (Dubé, 2019). This specific error disturbance would still keep some of the simplifying characteristics of the model such as its suitability to a two-stage estimation procedure and its convergence to a lexicographic model as α_s goes to one. Yet, it would make the model less parsimonious without a clear gain on its economic interpretation. So, we chose to not model any error in the aggrievement. Also, note that the model errors $\epsilon_{i,j}$ do not disappear as α_s goes to one. Instead, the errors $\epsilon_{i,j}$ only matter in the within-county choices of OZs when α_s gets closer to one.

Appendix C. Recovery of Key Parameters

The quality of the α_s^* estimates is important for our counterfactual analysis, which reveals large changes in OZ characteristics and investment stimulated because governors manage aggrievement. To support the quality of the α_s^* estimates, we verify that our estimation strategy is capable of recovering Ψ and α_s reliably in simulated data with known parameter values. This appendix shows that if we simulate the model with Ψ from Table V and α_s^* from Table VI that we recover these known parameters with our simulated maximum likelihood procedure. Specifically, we show that when we estimate the model on 100 sets of simulated data with $K = 100,000$ and known Ψ and α_s, we can recover these parameters.

The results are in Appendix Tables C1 and C2. Table C2 shows that only seven states recover a mean alpha that is more than 0.1 away from the known target alpha. Each of these seven states had an insignificant α_s^* estimate. For example, PA has a bias of 0.285 and a relatively flat likelihood function around the estimate α_s^*. Also, because of the truncation at the boundaries of zero and one, the bias is positive (negative) when α_s is very close to zero (and very close to one). Importantly, we also report the Mean Square Error (MSE), which is the square of the bias and the variance of the simulated estimates. Our MSE values are low for the 43 states with α_s^* within 0.10 of the target, indicating that our estimator is accurately recovering the target alpha with minimal total error.

Table C1: Recovery of First-stage Estimates in Model Simulations

We simulate the model 100 times with known Ψ from Table V and α_s from Table VI. For each simulation, we draw census tract specific errors $\epsilon_{k,i,t}$ from a normal with mean zero and standard deviation one. (The probit model is equivalent to a latent variable model with errors derived from a standard normal distribution.) The result is 100 sets of OZs. Then, we run our first stage probit regression for each of the 100 sets of OZs and report the mean of the recovered coefficients.

Characteristic ($X_{i,j}$)	Target Coefficient (Ψ) (1)	Recovered Coefficient (Ψ) (2)	Difference (1)-(2)
Investment Score	0.119***	0.116	0.003
% Poverty Rate	0.118***	0.112	0.006
% Unemployment Rate	0.108**	0.103	0.004
Median Rent	−0.088***	−0.078	−0.010
% Own Home	−0.261***	−0.252	−0.008
% White	0.022	0.043	−0.021
% Black	0.155***	0.154	0.001
% Asian	−0.055***	−0.048	−0.007
% HS or Lower	0.100***	0.107	−0.008
Population Density	−0.143***	−0.135	−0.008
Proximity to Infrastructure	0.093***	0.091	0.002
Core Voters	0.016	−0.012	0.028
Affiliated State Legislator	0.025	0.033	−0.009

Table C2: Recovery of Second-Stage Aversion to County Aggrievement (α_s^*)

We simulate the model 100 times using the Ψ weights in Table V and the target α_s^* in Table VI. For each simulation, we produce a set of OZs. Then, we run the estimator on these 100 sets of simulated OZs with $K = 100,000$. We report the mean and variance of the recovered α_s^* across the 100 simulations. We also calculate the bias or difference between the mean recovered α_s^* and the target α_s^*. The MSE is the square of the bias added to the variance. When MSE is high, the last column shows that the the target α_s^* estimates in Table VI were not statistically significant, or well-identified.

	Mean Recovered α_s^*	Target α_s^*	Bias	Variance Recovered α_s^*	MSE	P-Value of Target α_s^*
State	(1)	(2)	(3)	(4)	(5)	(6)
Alabama	0.963	0.959	0.004	0.000	0.000	<0.001
Alaska	0.519	0.620	-0.101	0.109	0.119	0.564
Arizona	0.991	0.993	-0.002	0.000	0.000	0.008
Arkansas	0.902	0.923	-0.021	0.003	0.003	0.009
California	1.000	0.998	-0.000	0.000	0.000	<0.001
Colorado	0.966	0.968	-0.002	0.000	0.000	<0.001
Connecticut	0.985	0.995	-0.010	0.000	0.000	0.082
Delaware	0.966	0.990	-0.024	0.010	0.011	0.352
Florida	0.999	0.999	-0.000	0.000	0.000	<0.001
Georgia	0.502	0.688	-0.186	0.104	0.139	0.352
Hawaii	0.995	0.999	-0.004	0.000	0.000	0.035
Idaho	0.967	0.967	-0.000	0.000	0.000	<0.001
Illinois	0.982	0.981	0.001	0.000	0.000	<0.001
Indiana	0.951	0.952	-0.001	0.000	0.000	<0.001
Iowa	0.965	0.965	-0.000	0.000	0.000	<0.001
Kansas	0.951	0.954	-0.003	0.000	0.000	<0.001
Kentucky	0.940	0.942	-0.002	0.000	0.000	<0.001
Louisiana	0.929	0.942	-0.013	0.001	0.001	<0.001
Maine	0.755	0.921	-0.166	0.122	0.149	0.386
Maryland	0.997	0.997	-0.000	0.000	0.000	<0.001
Massachusetts	1.000	1.000	0.000	0.000	0.000	<0.001
Michigan	0.996	0.996	-0.000	0.000	0.000	<0.001
Minnesota	0.951	0.953	-0.002	0.000	0.000	<0.001
Mississippi	0.292	0.002	0.290	0.131	0.215	0.962
Missouri	0.329	0.000	0.329	0.122	0.230	1.000
Montana	0.960	0.964	-0.004	0.000	0.000	0.002
Nebraska	0.915	0.926	-0.011	0.002	0.002	0.009
Nevada	0.370	0.001	0.369	0.172	0.308	0.991
New Hampshire	1.000	1.000	0.000	0.000	0.000	<0.001
New Jersey	1.000	1.000	0.000	0.000	0.000	<0.001
New Mexico	0.901	0.932	-0.031	0.013	0.014	0.054
New York	0.999	0.999	-0.000	0.000	0.000	<0.001
North Carolina	0.979	0.978	0.001	0.000	0.000	<0.001
North Dakota	0.662	0.759	-0.097	0.064	0.074	0.166
Ohio	0.965	0.966	-0.001	0.000	0.000	<0.001
Oklahoma	0.935	0.939	-0.004	0.000	0.000	<0.001
Oregon	0.946	0.951	-0.005	0.001	0.001	0.005
Pennsylvania	0.513	0.828	-0.315	0.124	0.224	0.241
Rhode Island	0.982	0.970	0.012	0.001	0.001	0.001
South Carolina	1.000	1.000	-0.001	0.000	0.001	<0.001
South Dakota	0.806	0.868	-0.062	0.040	0.043	0.125
Tennessee	0.947	0.952	-0.005	0.000	0.000	<0.001
Texas	0.954	0.953	0.001	0.000	0.000	<0.001
Utah	0.949	0.950	-0.001	0.000	0.001	0.002
Vermont	0.595	0.744	-0.149	0.123	0.145	0.421
Virginia	0.915	0.930	-0.015	0.000	0.001	<0.001
Washington	0.974	0.972	0.002	0.000	0.000	<0.001
West Virginia	0.944	0.950	-0.006	0.001	0.001	0.008
Wisconsin	0.944	0.947	-0.003	0.000	0.000	<0.001
Wyoming	0.588	0.595	-0.007	0.099	0.100	0.225

Appendix D. Jointly estimating entitlements R and α_s

The quality of our counterfactual analysis depends on the quality of the assumption that county entitlements equal R_s, an assumption supported by the Menino Survey (see Figure I). However, we can go further and jointly estimate α_s and the entitlement amount R to determine which combination best fits the data. Figure D1 shows that the optimal combination of R and α_s is often achieved near R_s. In 27 states, there is less than 0.1 difference between optimal R and R_s. A log likelihood ratio test that compares the log likelihood under the more restricted model using R_s and the less restricted model optimizing over R is only significant for 7 states at the 0.05 level (CA, CO, IL, MA, MD, NJ, TX). Of these 7 states, half have a distance between the optimized R and R_s less than 0.1. Also, the distance of R from R_s helps explain the data. That is, if we regress the best log-likelihood for each R (optimizing over α_s) on the distance between R and R_s, with an interaction term for a positive distance, the R^2 is 34%.

Figure D1: Jointly estimating entitlement R and α_s

This figure shows by state the optimal log likelihood for each assumed entitlement R, incrementing in steps of 0.01. That is, for each possible R, we find the optimal α_s and determine the log likelihood. In this estimation, we set $K = 25,000$ since the result are stable at that point, see Table H1. The vertical line denotes the states R_s, which is our assumed county entitlement in the body of the paper. The next page has the next 25 states.

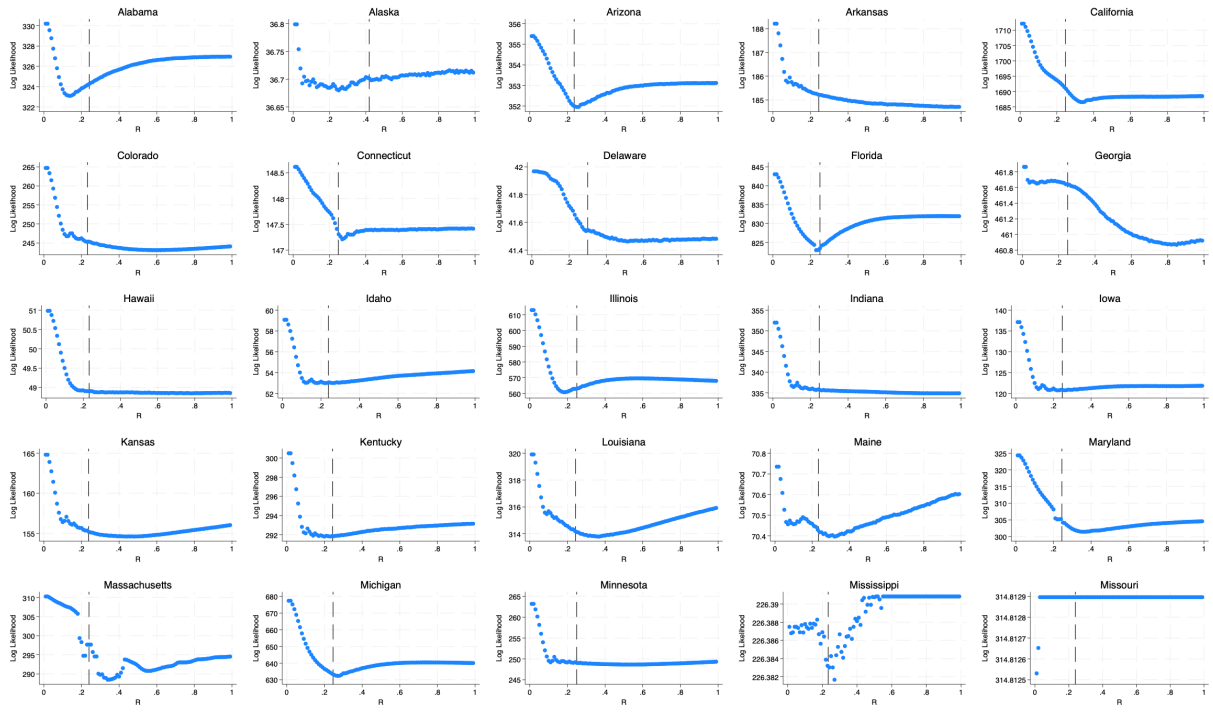
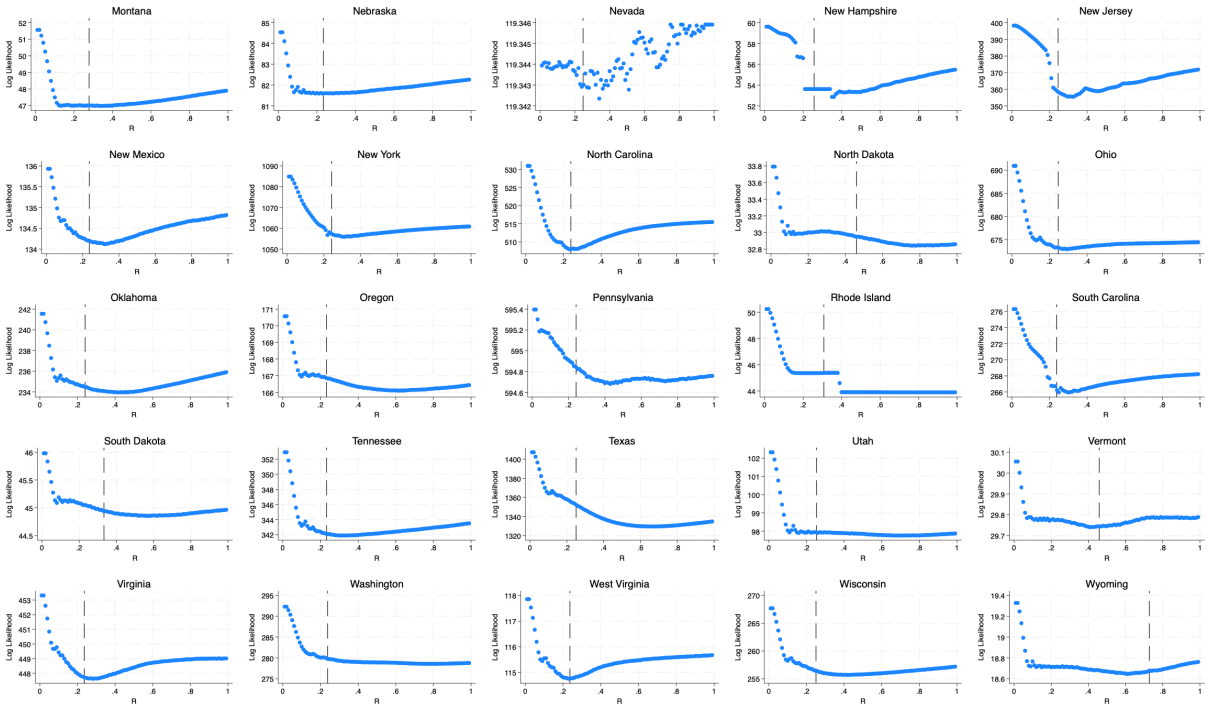


Figure D1 continued.



Appendix E. Alternative estimation procedure: SMM

To examine the robustness of our counterfactual estimates to variation in the estimation procedure, we also estimate α_s using an alternative simulated method of moments estimation procedure (SMM). The SMM approach addresses the potential concern with the simulated maximum likelihood SML procedure that $P_{i,j}(\alpha_s)$ may be equal to zero (or one) when $I_{i,j}^{Actual} = 1$ (or $I_{i,j}^{Actual} = 0$), resulting in logs of zero in Equation 3 (e.g., McFadden, 1989). For SML, we discuss how we address this issue in our numerical estimation in Appendix B and use a large number of simulations ($K = 100,000$) to reduce the likelihood that $P_{i,j}(\alpha_s)$ is either zero or one.

This alternative SMM estimation has the exact same first stage procedure.

In the second stage of the SMM procedure, we use a grid search across α_s. For each candidate α_s, we simulate the probability that each tract becomes an OZ. To do so, for each simulation $K = 100,000$, we compute a tract's score as $\{(1 - \alpha_s) \times S_{s,i,j} + \alpha_s \times [A(j-1, E_i) - A(j, E_i)]\}$. Sorting on the tract scores, we pick exactly the same number of eligible tracts as OZs that are actually picked as OZs in that state. We denote the OZs with 1s and the non-OZs with 0s. Then, we determine a tracts probability of selection by averaging across the $K = 100,000$ simulations the 1s and 0s.

Using these simulated probabilities of OZ selection for each tract, we construct our simulated moments - the proportion of eligible tracts designated as OZs in counties with a certain number of eligible tracts. For example, we compute the proportion of 1 eligible tracts counties that receive 1 OZ. Then, we compare the simulated proportion of OZs with the actual proportion. We choose α_s that minimizes this difference.

In the first iteration, the weighting matrix is the identity matrix. After the first pass, we estimate the standard errors of the moments, and then we run the estimation procedure again.

Table E1 shows that the α_s^* estimated with SMM and SML are generally very similar, with 45 (42) states having a difference of less than 0.1 (0.05). The larger differences in α_s^* estimated in five states highlight that managing county aggrievement has consequences for specific tracts designated as OZ, which are captured in the SML based on census tract characteristics but missed in the SMM, which is based only on the average fraction of OZs that counties with the same number of eligible tracts receive. Despite these few differences, Table E2 shows that the distinct predictions of uniformity and universalism are present in the actual allocation of OZs in high α_s^* states. And, Tables E3 to E5 show that all of our counterfactual estimates are similar.

Table E1: Second Stage Estimates using SMM vs SML

State	SML Alpha	SMM Alpha	Difference
Alabama	0.959	0.985	-0.026
Alaska	0.620	0.701	-0.081
Arizona	0.993	0.990	0.003
Arkansas	0.923	0.938	-0.015
California	0.998	0.986	0.012
Colorado	0.968	0.966	0.002
Connecticut	0.995	0.958	0.037
Delaware	0.990	0.987	0.003
Florida	0.999	0.990	0.009
Georgia	0.688	0.727	-0.039
Hawaii	0.999	0.984	0.015
Idaho	0.967	0.970	-0.003
Illinois	0.981	0.984	-0.003
Indiana	0.952	0.953	-0.001
Iowa	0.965	0.971	-0.006
Kansas	0.954	0.948	0.006
Kentucky	0.942	0.947	-0.005
Louisiana	0.942	0.003	0.939
Maine	0.921	0.001	0.920
Maryland	0.997	0.998	-0.001
Massachusetts	1.000	0.002	0.998
Michigan	0.996	0.995	0.001
Minnesota	0.953	0.954	-0.001
Mississippi	0.002	0.001	0.001
Missouri	0.000	0.001	-0.001
Montana	0.964	0.967	-0.003
Nebraska	0.926	0.935	-0.009
Nevada	0.001	0.001	0.000
New Hampshire	1.000	0.999	0.001
New Jersey	1.000	0.999	0.001
New Mexico	0.932	0.899	0.033
New York	0.999	0.967	0.032
North Carolina	0.978	0.973	0.005
North Dakota	0.759	0.704	0.055
Ohio	0.966	0.963	0.003
Oklahoma	0.939	0.914	0.025
Oregon	0.951	0.938	0.013
Pennsylvania	0.828	0.734	0.094
Rhode Island	0.970	0.968	0.002
South Carolina	1.000	0.999	0.001
South Dakota	0.868	0.726	0.142
Tennessee	0.952	0.934	0.018
Texas	0.953	0.947	0.006
Utah	0.950	0.951	-0.001
Vermont	0.744	0.745	-0.001
Virginia	0.930	0.943	-0.013
Washington	0.972	0.965	0.007
West Virginia	0.950	0.966	-0.016
Wisconsin	0.947	0.924	0.023
Wyoming	0.595	0.179	0.416

Table E2: Reproducing Table VII with SMM estimates

Columns (1)-(3) compare actual OZ allocations in states with high and low estimated aversion to county aggrievement (α_s^*), estimated with SMM. Columns *High* α_s^* and *Low* α_s^* split the counties by the median estimate of governors' aversion to county aggrievement (α_s^*=0.952). We analyze by county size: the average proportion of eligible tracts designated as OZs (Panel A), the proportion of counties with at least one OZ (Panel B), and the standard deviation of the proportion of eligible tracts designated as OZs (Panel C). We first calculate the proportion or standard deviation of actual OZ allocations within each state. We then average them across states. In column (3), we use a t-test to check if the average differences between states with high and low aversion to county aggrievement are significant. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels.

Panel A: Mean percentage of counties' eligible tracts designated as OZs, $\mu(\#\ \text{OZ}_i/\text{E}_i \times 100)$

	Predicted		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff
	(1)	(2)	(3)
E_i=1	65.5	32.6	32.9***
E_i=2	44.2	31.7	12.4***
E_i=3	35.8	27.1	8.6**
E_i=4	27.4	27.4	-0.0
E_i=5-6	23.7	28.1	-4.4
E_i=7-10	23.7	28.8	-5.1
E_i=11+	22.9	24.1	-1.2

Panel B: Percentage of counties with one or more OZs (Universalism)

	Predicted		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff
	(1)	(2)	(3)
All	97.1	63.6	33.5***
4+ Eligible Tracts	94.1	88.3	5.8***
1-3 Eligible Tracts	97.5	34.6	62.9***

Panel C: Standard deviation of counties' OZ allocations, $\sigma(\#OZ_i/E_i$ in County $i \times 100)$ (Uniformity)

	Predicted		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff
	(1)	(2)	(3)
All	25.7	28.3	-2.5
4+ Eligible Tracts	10.5	17.7	-7.3***
1-3 Eligible Tracts	34.2	34.1	-0.0

Table E3: Reproducing Table VIII with SMM estimates

Panel A shows the expected impact of managing county aggrievement on the counts of various demographic and socioeconomic characteristics of OZ residents. The model estimated probabilities that tract j in county i is selected as an OZ when governors manage and ignore county aggrievement are $P_{i,j}(\alpha_s^*)$ and $P_{i,j}(0)$, respectively. These probabilities are used to calculate the differences in expected values in this table. Specifically, Panel A, column (1) shows the difference between the expected values of the counts calculated with $P_{i,j}(\alpha_s^*)$ and $P_{i,j}(0)$. A positive (negative) number in column (1) is an increase (decrease) in the expected count due to managing aggrievement. Column (2) displays the units of each of the counts. Panel B shows the expected changes in OZ characteristics due to managing aggrievement. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $P_{i,j}(\alpha_s^*) > P_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected with and without managing aggrievement. Columns (2) and (3) show this contrast for counties with fewer than four eligible tracts and those with four or more. We first calculate expected characteristic differences for each state. Then, we take their averages across states. We use a t-test to check if the difference in state averages is statistically significant. To make columns (1), (2), and (3) comparable, Panel B is calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Effect of managing county aggrievement on OZ populations by demographic

	(1) Diff. in Expected Counts	(2) Units
Population	112,735	All persons
Poverty	-18,937	Families
Unemployed	-34,874	Civilian persons 16 years or over in labor force
Own Home	247,765	Total occupied housing units
White	962,587	All persons
Black	-539,170	All persons
Hispanic	-266,378	All persons
Asian	-51,162	All persons
Under 18	-19,900	All persons
Over 64	158,427	All persons

Panel B: Effect of managing county aggrievement on expected OZ demographics

	(1) All	(2) 1–3 Eligible	(3) 4+ Eligible
% Poverty Rate	-8.7^{***}	-11.3^{***}	-7.7^{***}
% Unemployment Rate	-3.2^{***}	-4.0^{***}	-2.9^{***}
% Own Home	21.0^{***}	27.2^{***}	18.9^{***}
% White	28.1^{***}	33.8^{***}	26.8^{***}
% Black	-20.7^{***}	-22.1^{***}	-20.4^{***}
% Hispanic	-6.4^{**}	-9.5^{***}	-5.0
% Asian	-1.9	-2.6^{**}	-1.7
% Under 18	-1.2^{**}	-1.9^{***}	-1.0^{**}
% Over 64	5.1^{***}	6.7^{***}	4.1^{***}

Table E4: Reproducing Table IX with SMM estimates

The table shows expected changes in OZ investment potential due to governors managing county aggrievement. The model estimated probabilities that tract j in county i is chosen as an OZ are $P_{i,j}(\alpha_s^*)$ with, and $P_{i,j}(0)$ without, governors managing aggrievement. These probabilities are used to calculate the differences in expected values in this table. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $P_{i,j}(\alpha_s^*) > P_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected based on managing aggrievement or not. Columns (2) and (3) contrast counties with fewer than four eligible tracts and those with four or more. We first calculate the expected differences in characteristics for each state. Then, we take their averages across states. We use a t-test to check if the state averages differ significantly. To make columns (1), (2), and (3) comparable, these changes are calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
	All	1-3 Eligible	4+Eligible
Investment Score	-1.0***	-1.3***	-0.8***
Population Density (persons / km^2)	-2,178***	-2,610***	-2,046***
Proximity to Infrastructure	-2.6***	-2.9***	-2.5***

Table E5: Reproducing Table X with SMM estimates

This table examines the consequences of managing aggrievement for the amount of investment stimulated by the OZ program. We measure investment by analyzing the equity issued by private and public businesses in census tract j, county i, in quarter q. The data are from the SEC Form D database. $Post_q$ is one after Q1 2018, when governors started designating OZs. $I_{i,j}^{Actual}$ equals one if the governor designated the census tract j in county i as an OZ. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage county aggrievement are $\mathrm{P}_{i,j}(\alpha_s^*)$ and $\mathrm{P}_{i,j}(0)$ respectively. The term $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$ is the difference in the probability that a tract becomes an OZ when a governor manages county aggrievement versus when a governor ignores aggrievement. A tract j in county i is more likely chosen as an OZ to manage aggrievement when the probability difference is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. *1–3 Eligible*$_i$ equals one if a county has fewer than four eligible tracts. Standard errors are clustered by state. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels.

	I(Issuance$_{i,j,q}$>0)×100			Ln(1+Issuance)$_{i,j,q}$×100		
	(1)	(2)	(3)	(4)	(5)	(6)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}}$	0.51***	0.56***	0.50***	7.56***	8.23***	7.44***
	(0.10)	(0.10)	(0.10)	(1.46)	(1.55)	(1.49)
$\mathrm{Post}_q \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-0.06*	-0.06*		-1.01*	-1.03**
		(0.03)	(0.03)		(0.51)	(0.51)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-0.24***	-0.43**		-3.50***	-6.10**
		(0.07)	(0.18)		(0.99)	(2.55)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)) \times$ 1-3 Eligible$_i$			0.28			4.02
			(0.18)			(2.61)
State × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Tract FE	Yes	Yes	Yes	Yes	Yes	Yes
% Adjusted R^2	24.05	24.06	24.06	26.76	26.77	26.77
Observations	709205	709205	709205	709205	709205	709205

Appendix F. Estimating Ψ at state level

The results below show that the α_s^* estimates are largely robust to estimating the first-stage weights Ψ by state with a more limited set of characteristics instead of using all states. We find that 42 (40) states have a α_s^* estimate that differs by less than 0.1 (0.05). For the states with larger differences, 63% of the α_s^* estimates in the baseline estimation are not significant. Importantly, we also show that the counterfactual results are robust to using the state-level Ψ_s.

Table F1: α_s^* estimates when estimating the first stage weights Ψ_s for each state

Column (1) presents the α_s^* estimating Ψ_s for each state using % Own Home, % Poverty Rate, % Unemployment Rate, % Black, Population Density, % HS or Lower, and Investment Score. Column (3) provides the estimated α_s^* in Table VI, and column (5) computes the difference.

	Individual States		All States		
	(1)	(2)	(3)	(4)	(5)
State	α_s^*	P-Value	α_s^*	P-Value	(1)-(3)
Alabama	0.948	0.001	0.959	0.000	-0.011
Alaska	0.000	1.000	0.620	0.564	-0.620
Arizona	1.000	0.027	0.993	0.008	0.007
Arkansas	0.889	0.087	0.923	0.009	-0.034
California	0.997	0.000	0.998	0.000	-0.001
Colorado	0.926	0.029	0.968	0.000	-0.042
Connecticut	0.993	0.463	0.995	0.082	-0.002
Delaware	0.979	0.521	0.990	0.352	-0.011
Florida	1.000	0.000	0.999	0.000	0.001
Georgia	0.823	0.043	0.688	0.352	0.135
Hawaii	1.000	0.000	0.999	0.035	0.001
Idaho	0.935	0.118	0.967	0.000	-0.032
Illinois	0.982	0.000	0.981	0.000	0.001
Indiana	0.883	0.041	0.952	0.000	-0.069
Iowa	0.951	0.000	0.965	0.000	-0.014
Kansas	0.810	0.388	0.954	0.000	-0.144
Kentucky	0.908	0.019	0.942	0.000	-0.034
Louisiana	0.920	0.010	0.942	0.000	-0.022
Maine	0.931	0.314	0.921	0.386	0.010
Maryland	0.989	0.000	0.997	0.000	-0.008
Massachusetts	0.902	0.647	1.000	0.000	-0.098
Michigan	0.983	0.000	0.996	0.000	-0.013
Minnesota	0.938	0.000	0.953	0.000	-0.015
Mississippi	0.002	0.973	0.002	0.962	0.000
Missouri	0.261	0.828	0.000	1.000	0.261
Montana	0.960	0.019	0.964	0.002	-0.004
Nebraska	0.974	0.000	0.926	0.009	0.048
Nevada	0.000	1.000	0.001	0.991	-0.001
New Hampshire	0.985	0.175	1.000	0.001	-0.015
New Jersey	0.995	0.017	1.000	0.000	-0.005
New Mexico	0.913	0.193	0.932	0.054	-0.019
New York	0.964	0.000	0.999	0.000	-0.035
North Carolina	0.973	0.000	0.978	0.000	-0.005
North Dakota	0.742	0.268	0.759	0.166	-0.017
Ohio	0.937	0.007	0.966	0.000	-0.029
Oklahoma	0.927	0.002	0.939	0.000	-0.012
Oregon	0.944	0.012	0.951	0.005	-0.007
Pennsylvania	0.652	0.654	0.828	0.241	-0.176
Rhode Island	0.964	0.157	0.970	0.001	-0.006
South Carolina	0.994	0.000	1.000	0.000	-0.006
South Dakota	0.902	0.016	0.868	0.125	0.034
Tennessee	0.929	0.002	0.952	0.000	-0.023
Texas	0.840	0.014	0.953	0.000	-0.113
Utah	0.746	0.652	0.950	0.002	-0.204
Vermont	0.788	0.243	0.744	0.421	0.044
Virginia	0.882	0.046	0.930	0.000	-0.048
Washington	0.966	0.000	0.972	0.000	-0.006
West Virginia	0.958	0.000	0.950	0.008	0.008
Wisconsin	0.938	0.000	0.947	0.000	-0.009
Wyoming	0.993	0.000	0.595	0.225	0.398
				Mean	-0.019
				Median	-0.010

Table F2: Reproducing Table VII with state level Ψ_s estimates

Columns (1)-(3) compare actual OZ allocations in states with high and low estimated aversion to county aggrievement (α_s^*). Columns *High* α_s^* and *Low* α_s^* split the counties by the median estimate of governors' aversion to county aggrievement (α_s^*=0.95). We analyze by county size (E_i): the average proportion of eligible tracts designated as OZs (Panel A), the proportion of counties with at least one OZ (Panel B), and the standard deviation of the proportion of eligible tracts designated as OZs (Panel C). In we first calculate the proportion or standard deviation of actual OZ allocations within each state. We then average them across states. In column (3), we use a t-test to check if the average differences between states with high and low aversion to county aggrievement are significant. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels.

Panel A: Mean percentage of counties' eligible tracts designated as OZs, $\mu(\#\ \text{OZ}_i/\text{E}_i \times 100)$

	Predicted		
	High α_s^*	Low α_s^*	Diff
	(1)	(2)	(3)
E_i=1	58.9	37.7	21.1**
E_i=2	44.6	32.3	12.3**
E_i=3	36.2	27.2	9.0*
E_i=4	29.3	26.3	2.9
E_i=5-6	24.6	27.3	-2.7
E_i=7-10	23.9	28.3	-4.4
E_i=11+	23.2	23.6	-0.4

Panel B: Percentage of counties with one or more OZs (Universalism)

	Actual		
	High α_s^*	Low α_s^*	Diff
	(1)	(2)	(3)
All	90.0	70.7	19.2***
4+ Eligible Tracts	96.5	90.1	6.4***
1-3 Eligible Tracts	83.4	51.5	31.9***

Panel C: Standard deviation of counties' OZ allocations, $\sigma(\#OZ_i/E_i$ in County $i \times 100)$ (Uniformity)

	Actual		
	High α_s^*	Low α_s^*	Diff
	(1)	(2)	(3)
All	25.3	28.8	-3.5
4+ Eligible Tracts	11.6	16.6	-5.0***
1-3 Eligible Tracts	33.2	34.9	-1.8

Table F3: Reproducing Table VIII with State Ψ_s estimates

Panel A shows the expected impact of managing county aggrievement on the counts of various demographic and socioeconomic characteristics of OZ residents. The model estimated probabilities that tract j in county i is selected as an OZ when governors manage and ignore county aggrievement are $\mathrm{P}_{i,j}(\alpha_s^*)$ and $\mathrm{P}_{i,j}(0)$, respectively. These probabilities are used to calculate the differences in expected values in this table. Specifically, Panel A, column (1) shows the difference between the expected values of the counts calculated with $\mathrm{P}_{i,j}(\alpha_s^*)$ and $\mathrm{P}_{i,j}(0)$. A positive (negative) number in column (1) is an increase (decrease) in the expected count due to managing aggrievement. Column (2) displays the units of each of the counts. Panel B shows the expected changes in OZ characteristics due to managing aggrievement. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $\mathrm{P}_{i,j}(\alpha_s^*) > \mathrm{P}_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $\mathrm{P}_{i,j}(0) > \mathrm{P}_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected with and without managing aggrievement. Columns (2) and (3) show this contrast for counties with fewer than four eligible tracts and those with four or more. We first calculate expected characteristic differences for each state. Then, we take their averages across states. We use a t-test to check if the difference in state averages is statistically significant. To make columns (1), (2), and (3) comparable, Panel B is calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Effect of managing county aggrievement on OZ populations by demographic

	(1)	(2)
	Diff. in Expected Counts	Units
Population	83,862	All persons
Poverty	-13,798	Families
Unemployed	-24,111	Civilian persons 16 years or over in labor force
Own Home	165,662	Total occupied housing units
White	643,969	All persons
Black	-359,794	All persons
Hispanic	-175,714	All persons
Asian	-20,125	All persons
Under 18	-20,125	All persons
Over 64	105,352	All persons

Panel B: Effect of managing county aggrievement on expected OZ demographics

	(1)	(2)	(3)
	All	1–3 Eligible	4+ Eligible
% Poverty Rate	-7.0^{***}	-9.6^{***}	-5.8^{***}
% Unemployment Rate	-2.3^{***}	-3.0^{***}	-2.2^{***}
% Own Home	17.9^{***}	24.8^{***}	14.5^{***}
% White	22.5^{***}	28.1^{***}	20.8^{***}
% Black	-15.7^{***}	-17.3^{***}	-15.2^{***}
% Hispanic	-4.9	-8.2^{***}	-2.7
% Asian	-2.0	-2.9^{**}	-1.6
% Under 18	-0.9^{*}	-1.4^{**}	-0.7
% Over 64	4.2^{***}	5.7^{***}	2.9^{***}

Table F4: Reproducing Table IX with State Ψ_s estimates

The table shows expected changes in OZ investment potential due to governors managing county aggrievement. The model estimated probabilities that tract j in county i is chosen as an OZ are $P_{i,j}(\alpha_s^*)$ with, and $P_{i,j}(0)$ without, governors managing aggrievement. These probabilities are used to calculate the differences in expected values in this table. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $P_{i,j}(\alpha_s^*) > P_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected based on managing aggrievement or not. Columns (2) and (3) contrast counties with fewer than four eligible tracts and those with four or more. We first calculate the expected differences in characteristics for each state. Then, we take their averages across states. We use a t-test to check if the state averages differ significantly. To make columns (1), (2), and (3) comparable, these changes are calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
	All	1-3 Eligible	4+Eligible
Investment Score	-1.1***	-1.4***	-0.8***
Population Density (persons / km^2)	-1,672***	-2,233***	-1,482***
Proximity to Infrastructure	-1.8***	-2.4***	-1.6***

Table F5: Reproducing Table X with State Ψ_s estimates

This table examines the consequences of managing aggrievement for the amount of investment stimulated by the OZ program. We measure investment by analyzing the equity issued by private and public businesses in census tract j, county i, in quarter q. The data are from the SEC Form D database. $Post_q$ is one after Q1 2018, when governors started designating OZs. $I_{i,j}^{Actual}$ equals one if the governor designated the census tract j in county i as an OZ. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage county aggrievement are $\mathrm{P}_{i,j}(\alpha_s^*)$ and $\mathrm{P}_{i,j}(0)$ respectively. The term $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$ is the difference in the probability that a tract becomes an OZ when a governor manages county aggrievement versus when a governor ignores aggrievement. A tract j in county i is more likely chosen as an OZ to manage aggrievement when the probability difference is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. *1–3 Eligible*$_i$ equals one if a county has fewer than four eligible tracts. Standard errors are clustered by state. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels.

	I(Issuance$_{i,j,q}$>0)×100			Ln(1+Issuance)$_{i,j,q}$×100		
	(1)	(2)	(3)	(4)	(5)	(6)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}}$	0.51***	0.53***	0.54***	7.56***	7.84***	8.02***
	(0.10)	(0.10)	(0.10)	(1.46)	(1.55)	(1.49)
$\mathrm{Post}_q \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		0.00	0.00		0.06	0.06
		(0.06)	(0.06)		(0.94)	(0.95)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-0.26***	-0.22*		-3.68***	-3.23*
		(0.08)	(0.12)		(1.20)	(1.71)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)) \times$ 1-3 Eligible$_i$			-0.06			-0.89
			(0.11)			(1.66)
State × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Tract FE	Yes	Yes	Yes	Yes	Yes	Yes
% Adjusted R^2	24.05	24.06	24.06	26.76	26.76	26.76
Observations	709205	709205	709205	709205	709205	709205

Appendix G. Excluding states where α_s^* is not well identified

Table G1: Reproducing Table VII with only significant α_s^* states

Columns (1)-(3) compare actual OZ allocations in states with high and low estimated aversion to county aggrievement (α_s^*), limiting the states to those with α_s^* p-values less than 0.1. Columns *High* α_s^* and *Low* α_s^* split the counties by the median estimate of governors' aversion to county aggrievement (α_s^*=0.952). We analyze by county size: the average proportion of eligible tracts designated as OZs (Panel A), the proportion of counties with at least one OZ (Panel B), and the standard deviation of the proportion of eligible tracts designated as OZs (Panel C). We first calculate the proportion or standard deviation of actual OZ allocations within each state. We then average them across states. In column (3), we use a t-test to check if the average differences between states with high and low aversion to county aggrievement are significant. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels.

Panel A: Mean percentage of counties' eligible tracts designated as OZs, μ(# OZ$_i$/E$_i$×100)

	Predicted		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff
	(1)	(2)	(3)
E$_i$=1	78.4	40.6	37.8***
E$_i$=2	52.7	35.3	17.5***
E$_i$=3	40.4	30.0	10.4**
E$_i$=4	28.6	27.3	1.3
E$_i$=5-6	24.0	27.6	-3.6
E$_i$=7-10	26.2	25.8	0.3
E$_i$=11+	23.3	23.5	-0.2

Panel B: Percentage of counties with one or more OZs (Universalism)

	Predicted		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff
	(1)	(2)	(3)
All	95.6	72.1	23.5***
4+ Eligible Tracts	97.9	90.3	7.7***
1-3 Eligible Tracts	86.0	59.1	26.9***

Panel C: Standard deviation of counties' OZ allocations, $\sigma(\#OZ_i/E_i$ in County $i \times 100)$ (Uniformity)

	Predicted		
	$\alpha_s = 1$	$\alpha_s = 0$	Diff
	(1)	(2)	(3)
All	24.8	29.1	-4.3*
4+ Eligible Tracts	10.6	14.6	-4.0**
1-3 Eligible Tracts	33.2	35.4	-2.1

Table G2: Reproducing Table VIII with only significant α_s^* states

Panel A shows the expected impact of managing county aggrievement on the counts of various demographic and socioeconomic characteristics of OZ residents. The model estimated probabilities that tract j in county i is selected as an OZ when governors manage and ignore county aggrievement are $P_{i,j}(\alpha_s^*)$ and $P_{i,j}(0)$, respectively. These probabilities are used to calculate the differences in expected values in this table. Specifically, Panel A, column (1) shows the difference between the expected values of the counts calculated with $P_{i,j}(\alpha_s^*)$ and $P_{i,j}(0)$. A positive (negative) number in column (1) is an increase (decrease) in the expected count due to managing aggrievement. Column (2) displays the units of each of the counts. Panel B shows the expected changes in OZ characteristics due to managing aggrievement. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $P_{i,j}(\alpha_s^*) > P_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected with and without managing aggrievement. Columns (2) and (3) show this contrast for counties with fewer than four eligible tracts and those with four or more. We first calculate expected characteristic differences for each state. Then, we take their averages across states. We use a t-test to check if the difference in state averages is statistically significant. To make columns (1), (2), and (3) comparable, Panel B is calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Effect of managing county aggrievement on OZ populations by demographic

	(1)	(2)
	Diff. in Expected Counts	Units
Population	113,007	All persons
Poverty	-27,770	Families
Unemployed	-40,468	Civilian persons 16 years or over in labor force
Own Home	295,080	Total occupied housing units
White	1,130,780	All persons
Black	-623,381	All persons
Hispanic	-367,614	All persons
Asian	-40943	All persons
Under 18	-31681	All persons
Over 64	175,475	All persons

Panel B: Effect of managing county aggrievement on expected OZ demographics

	(1)	(2)	(3)
	All	1–3 Eligible	4+ Eligible
% Poverty Rate	-9.2^{***}	-11.9^{***}	-8.1^{***}
% Unemployment Rate	-3.2^{***}	-3.9^{***}	-2.9^{***}
% Own Home	20.9^{***}	27.7^{***}	18.7^{***}
% White	27.3^{***}	34.4^{***}	25.7^{***}
% Black	-20.3^{***}	-21.6^{***}	-20.2^{***}
% Hispanic	-5.8^{*}	-9.8^{***}	-4.2
% Asian	-1.7	-2.7^{**}	-1.5
% Under 18	-1.1^{**}	-2.0^{***}	-0.9^{**}
% Over 64	5.3^{***}	7.0^{***}	4.1^{***}

Table G3: Reproducing Table IX with only significant α_s^* states

The table shows expected changes in OZ investment potential due to governors managing county aggrievement. The model estimated probabilities that tract j in county i is chosen as an OZ are $P_{i,j}(\alpha_s^*)$ with, and $P_{i,j}(0)$ without, governors managing aggrievement. These probabilities are used to calculate the differences in expected values in this table. Eligible tract j in county i is more likely to be selected when the governor manages aggrievement if $P_{i,j}(\alpha_s^*) > P_{i,j}(0)$ and is more likely to be selected when the governor ignores aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) compares the expected characteristics of OZs likely selected based on managing aggrievement or not. Columns (2) and (3) contrast counties with fewer than four eligible tracts and those with four or more. We first calculate the expected differences in characteristics for each state. Then, we take their averages across states. We use a t-test to check if the state averages differ significantly. To make columns (1), (2), and (3) comparable, these changes are calculated only with states that have both small counties with one to three eligible tracts and large counties with four or more eligible tracts. The results are qualitatively the same when all states are included. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)
	All	1-3 Eligible	4+Eligible
Investment Score	-1.1***	-1.5***	-1.0***
Population Density (persons / km^2)	-2,081***	-2,718***	-1,927***
Proximity to Infrastructure	-2.5***	-2.9***	-2.4***

Table G4: Reproducing Table X with only significant α_s^* states

This table examines the consequences of managing aggrievement for the amount of investment stimulated by the OZ program. We measure investment by analyzing the equity issued by private and public businesses in census tract j, county i, in quarter q. The data are from the SEC Form D database. $Post_q$ is one after Q1 2018, when governors started designating OZs. $I_{i,j}^{Actual}$ equals one if the governor designated the census tract j in county i as an OZ. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage county aggrievement are $\mathrm{P}_{i,j}(\alpha_s^*)$ and $\mathrm{P}_{i,j}(0)$ respectively. The term $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$ is the difference in the probability that a tract becomes an OZ when a governor manages county aggrievement versus when a governor ignores aggrievement. A tract j in county i is more likely chosen as an OZ to manage aggrievement when the probability difference is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. *1–3 Eligible*$_i$ equals one if a county has fewer than four eligible tracts. Standard errors are clustered by state. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels.

	I(Issuance$_{i,j,q}$>0)×100			Ln(1+Issuance)$_{i,j,q}$×100		
	(1)	(2)	(3)	(4)	(5)	(6)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}}$	0.52***	0.57***	0.53***	7.62***	8.32***	7.89***
	(0.10)	(0.11)	(0.10)	(1.58)	(1.72)	(1.60)
$\mathrm{Post}_q \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-0.04	-0.04		-0.70	-0.71
		(0.05)	(0.05)		(0.68)	(0.68)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-0.29***	-0.38**		-4.05***	-5.27**
		(0.08)	(0.15)		(1.12)	(2.10)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)) \times$ 1-3 Eligible$_i$			0.16			2.13
			(0.15)			(2.10)
State × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Tract FE	Yes	Yes	Yes	Yes	Yes	Yes
% Adjusted R^2	24.72	24.73	24.73	27.63	27.64	27.64
Observations	617619	617619	617619	617619	617619	617619

Appendix H. Additional Results and Robustness

Figure H1: Actual vs Predicted Aggrievement (Using Granular Measure of Expressed Dissatisfaction with the OZ Allocation)

This figure shows the actual aggrievement with the OZ allocation, along with two predictions of aggrievement. The horizontal axis is the proportion of eligible tracts in a county designated as OZs, $\#OZ_i/E_i$, where E_i denotes the number of eligible tracts in the city / county of a local official i. We group the 115 respondents into 10 bins based on $\#OZ_i/E_i$. Each bin contains about 12 respondents. The vertical axis captures the average aggrievement of the respondents in each bin. *Actual aggrievement* is represented by large black dots. *Actual aggrievement* equals 5 when a local official responds in the 2019 Menino Survey that his city/county is"Extremely unhappy", 4 if "Somewhat unhappy", 3 if "Neither happy nor unhappy" or "NA", 2 if "Somewhat happy", and 1 if "Extremely happy". 90% confidence intervals shown. The long-dashed line labeled "Predicted Aggrievement - Model" shows the predicted aggrievement from a regression of *Actual Aggrievement* on *Model Aggrievement*. We follow Passarelli and Tabellini (2017) defining *Model Aggrievement* as $[\max[0,(R_s - \#OZ_i/E_i)]]^2$. Our *Model Aggrievement* definition assumes that local constituents have grounds for complaint when their city/county receives less than an R_s proportion of eligible tracts designated as OZs. We set R_s equal to the actual number of low-income tracts a governor designated as OZs divided by the number of eligible tracts in the state s. The vertical line labeled $R_s = 0.247$ shows the average R_s in the sample. The line labeled "Predicted Aggrievement - $\#OZ_i/E_i$" shows the predicted local aggrievement from a regression of *Actual Aggrievement* on $\#OZ_i/E_i$.

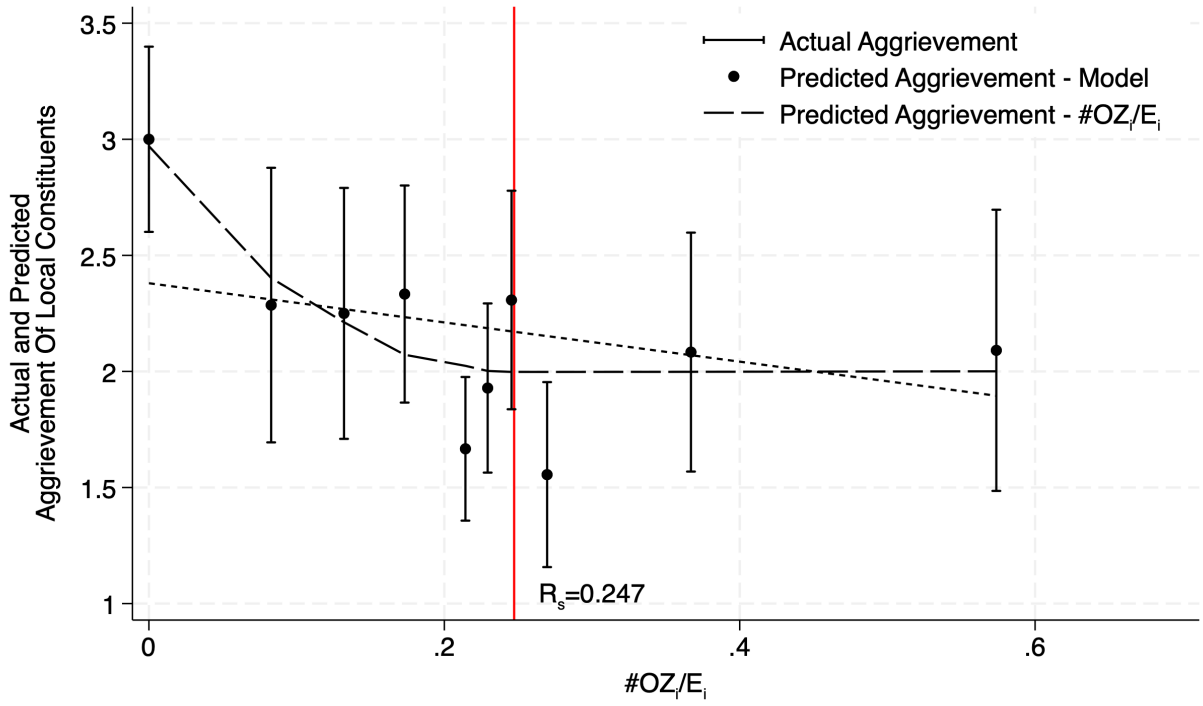


Figure H2: Actual vs Predicted Aggrievement (Dropping "NA" responses)

This figure shows the actual aggrievement with the OZ allocation, along with two predictions of aggrievement. The horizontal axis is the proportion of eligible tracts in a county designated as OZs, $\#OZ_i/E_i$, where E_i denotes the number of eligible tracts in the city / county of a local official i. We group the 101 respondents who did not answer "NA" into 7 bins based on $\#OZ_i/E_i$. Each bin contains about 10 respondents. The vertical axis captures the average aggrievement of the respondents in each bin. *Actual aggrievement* is represented by large black dots. *Actual aggrievement* equals 5 when a local official responds in the 2019 Menino Survey that his city/county is"Extremely unhappy", 4 if "Somewhat unhappy", 3 if "Neither happy nor unhappy" or "NA", 2 if "Somewhat happy", and 1 if "Extremely happy". The long-dashed line labeled "Predicted Aggrievement - Model" shows the predicted aggrievement from a regression of *Actual Aggrievement* on *Model Aggrievement*. We follow Passarelli and Tabellini (2017) defining *Model Aggrievement* as $[\max[0, (R_s - \#OZ_i/E_i)]]^2$. Our *Model Aggrievement* definition assumes that local constituents have grounds for complaint when their city/county receives less than an R_s proportion of eligible tracts designated as OZs. We set R_s equal to the actual number of low-income tracts a governor designated as OZs divided by the number of eligible tracts in the state s. The vertical line labeled $R_s = 0.247$ shows the average R_s in the sample. The line labeled "Predicted Aggrievement - $\#OZ_i/E_i$" shows the predicted local aggrievement from a regression of *Actual Aggrievement* on $\#OZ_i/E_i$.

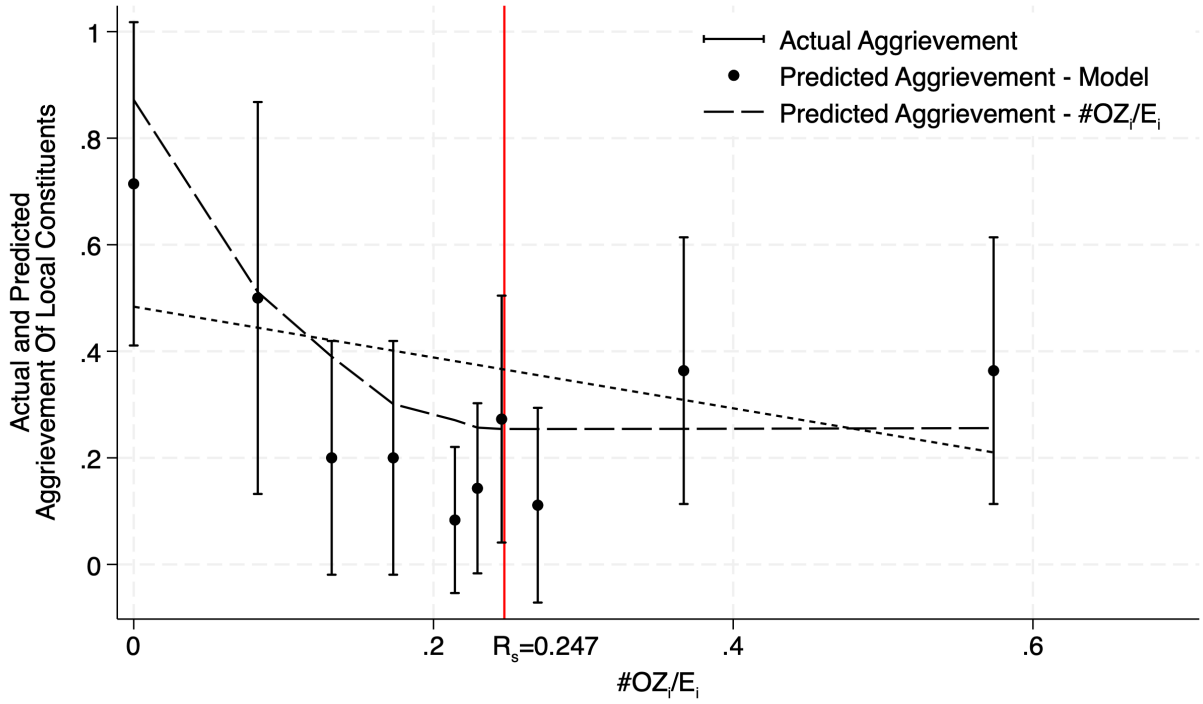


Figure H3: Log likelihoods by α_s by state

This figure shows the winsorized log-likelihoods calculated as in Equation B.2 for the grid search over α_s in Equation 2.

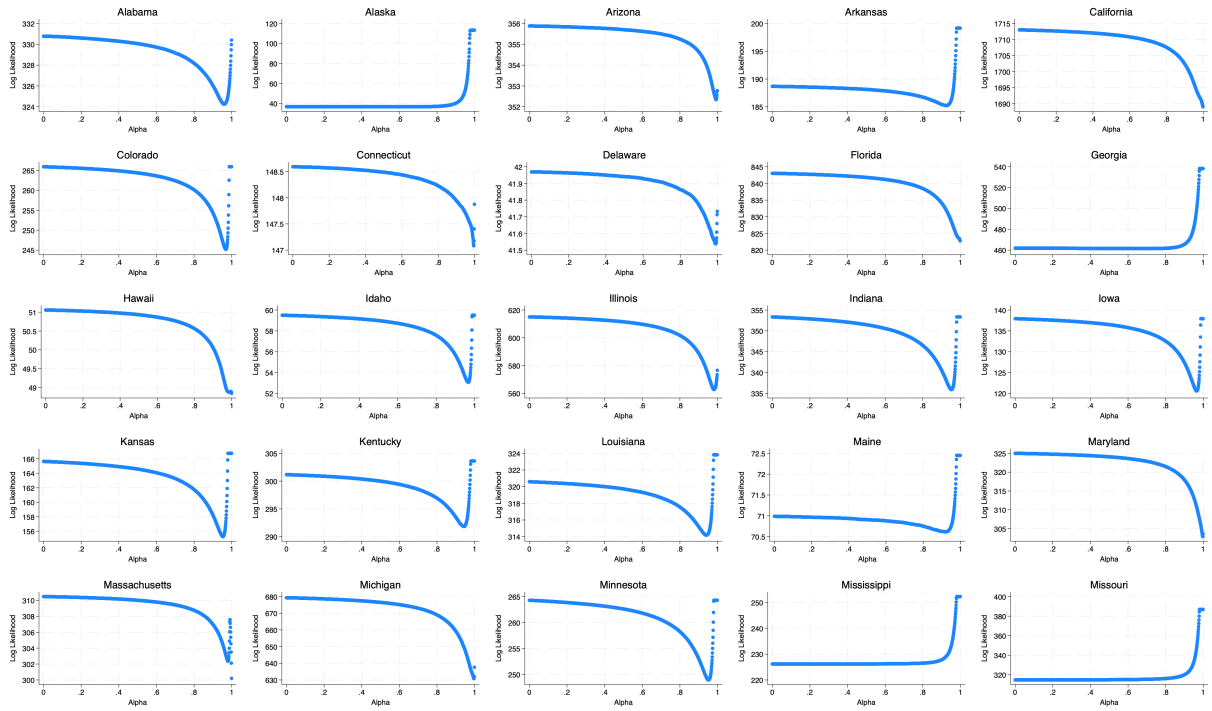


Figure H3 continued

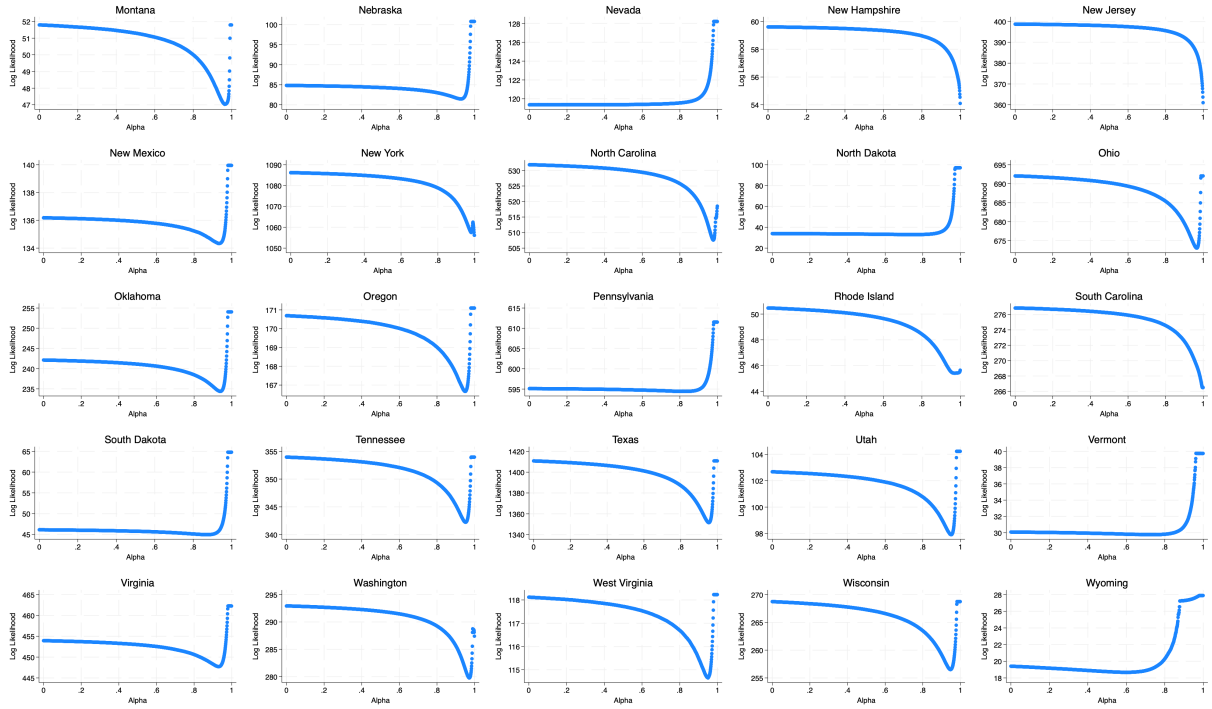


Figure H4: Governor aversion to local aggrievement

This map illustrates our estimates of governors' aversion to county aggrievement. Specifically, we plot the estimated α_s^*s from Equation 2.

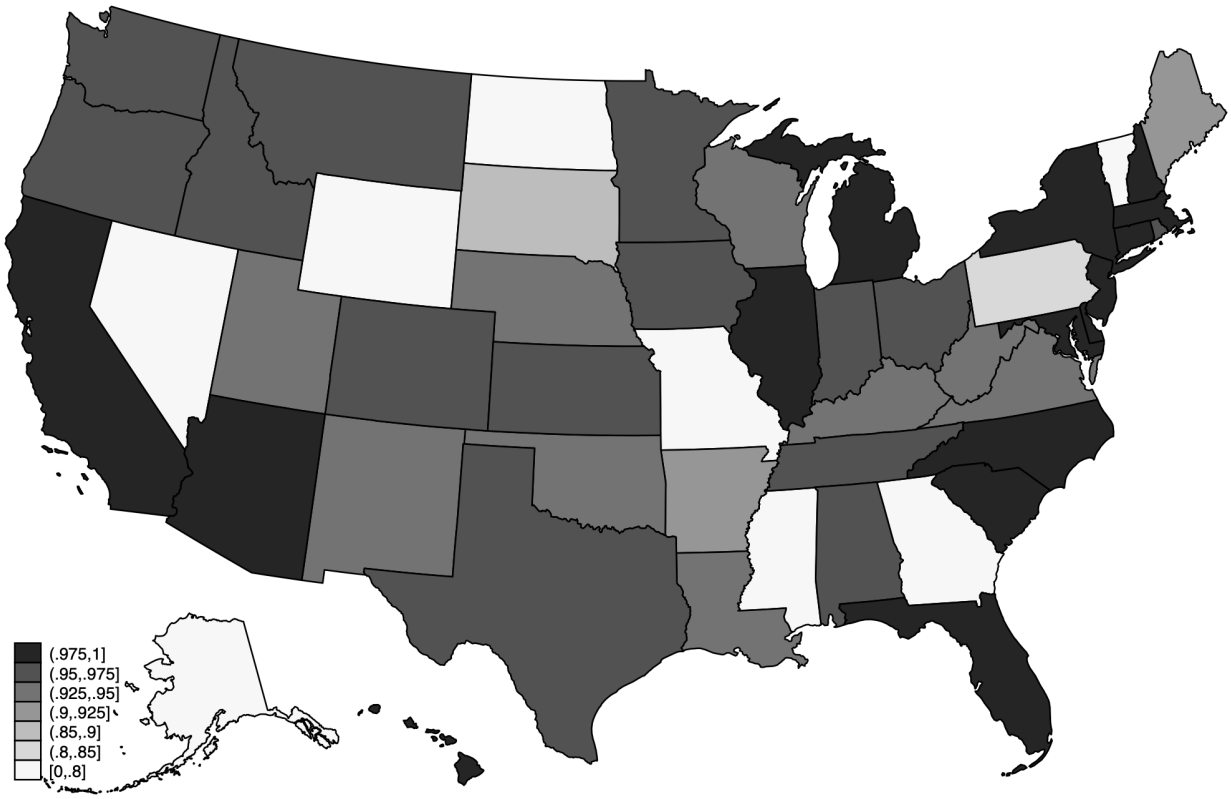


Figure H5: Predicted number of OZs affected by governors managing county aggrievement for $\alpha_s = 1$

The figure displays the overall difference in the number of OZs the model predicts counties receive when governors manage aggrievement ($\alpha_s = 1$) and when governors ignore aggrievement ($\alpha_s = 0$). Some counties are expected to have more OZs when governors manage aggrievement ($\alpha_s = 1$), while others are expected to have fewer. "OZs Lost" is the total expected loss of OZs for all counties that receive fewer OZs when governors manage aggrievement. "OZs Gained" is the total expected gain of OZs for all counties receiving more OZs when governors manage aggrievement. We calculate the total expected OZs lost and gained for each of seven bins based on a county's number of eligible tracts. The seven size bins correspond to counties with 1 eligible tract (1), 2 eligible tracts (2), 3 eligible tracts (3), 4 eligible tracts (4), 5–6 eligible tracts (5), 7–10 eligible tracts (6), and 11+ eligible tracts (7).

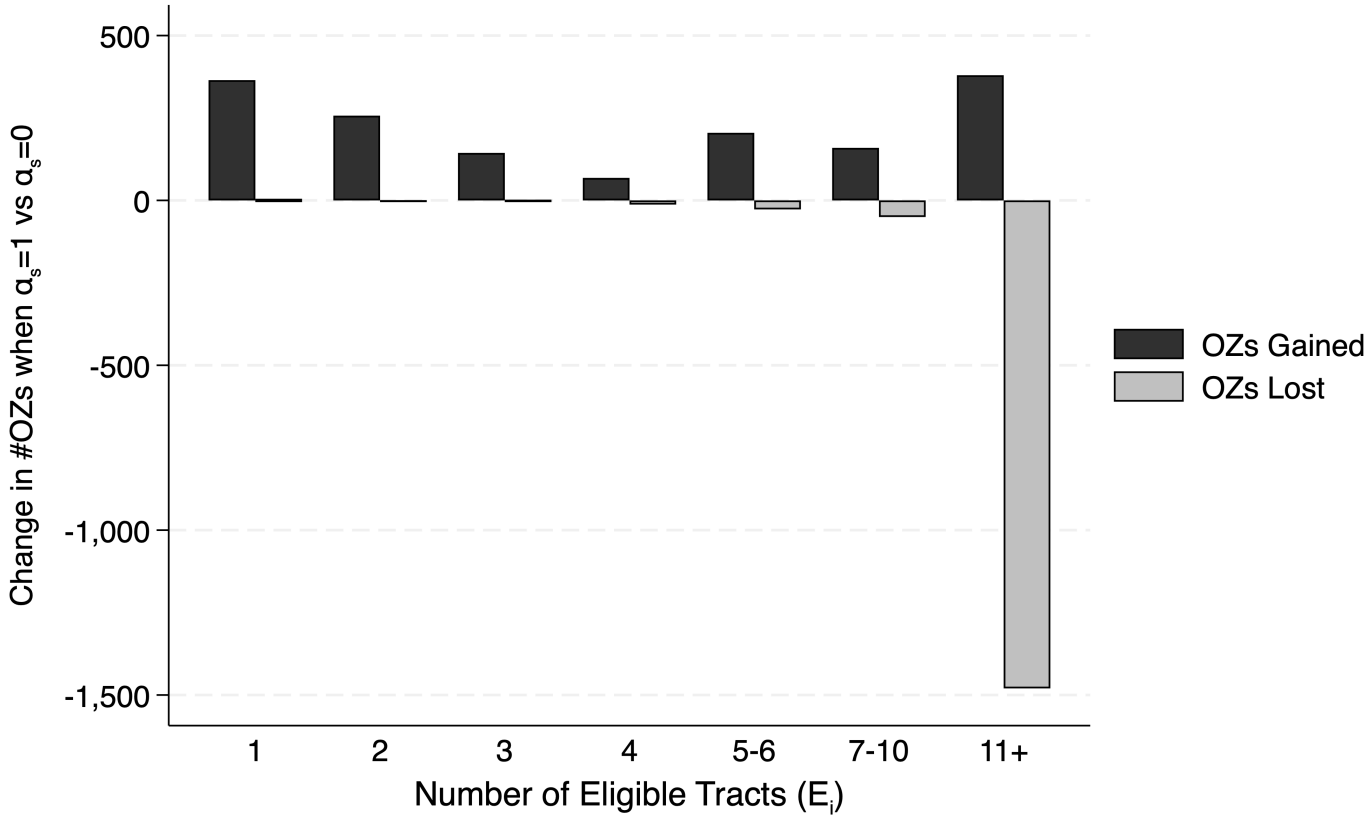


Figure H6: Predicted number of OZs affected by governors managing aggrievement for α_s^*

The figure displays the overall difference in the number of OZs the model predicts counties receive when governors manage aggrievement at the estimated level ($\alpha_s = \alpha_s^*$) and when governors ignore aggrievement ($\alpha_s = 0$). Some counties have more OZs when governors manage aggrievement, while others have fewer OZs. To determine a county's expected proportion of eligible tracts designated as OZs, we sum up the probability that each eligible tract in a county becomes an OZ and divide by the number of eligible tracts. "OZs Lost" is the total loss of OZs for all the counties receiving fewer OZs when governors manage aggrievement. "OZs Gained" is the total gain of OZs for all the counties receiving more OZs when governors manage aggrievement. We calculate the total OZs lost and gained for each of the seven bins based on a county's number of eligible tracts. The seven-size bins correspond with counties with 1 eligible tract (1), 2 eligible tracts (2), 3 eligible tracts (3), 4 eligible tracts (4), 5–6 eligible tracts (5), 7–10 eligible tracts (6), and 11+ eligible tracts (7)). In total, 772 OZ designations shift because of governors managing aggrievement.

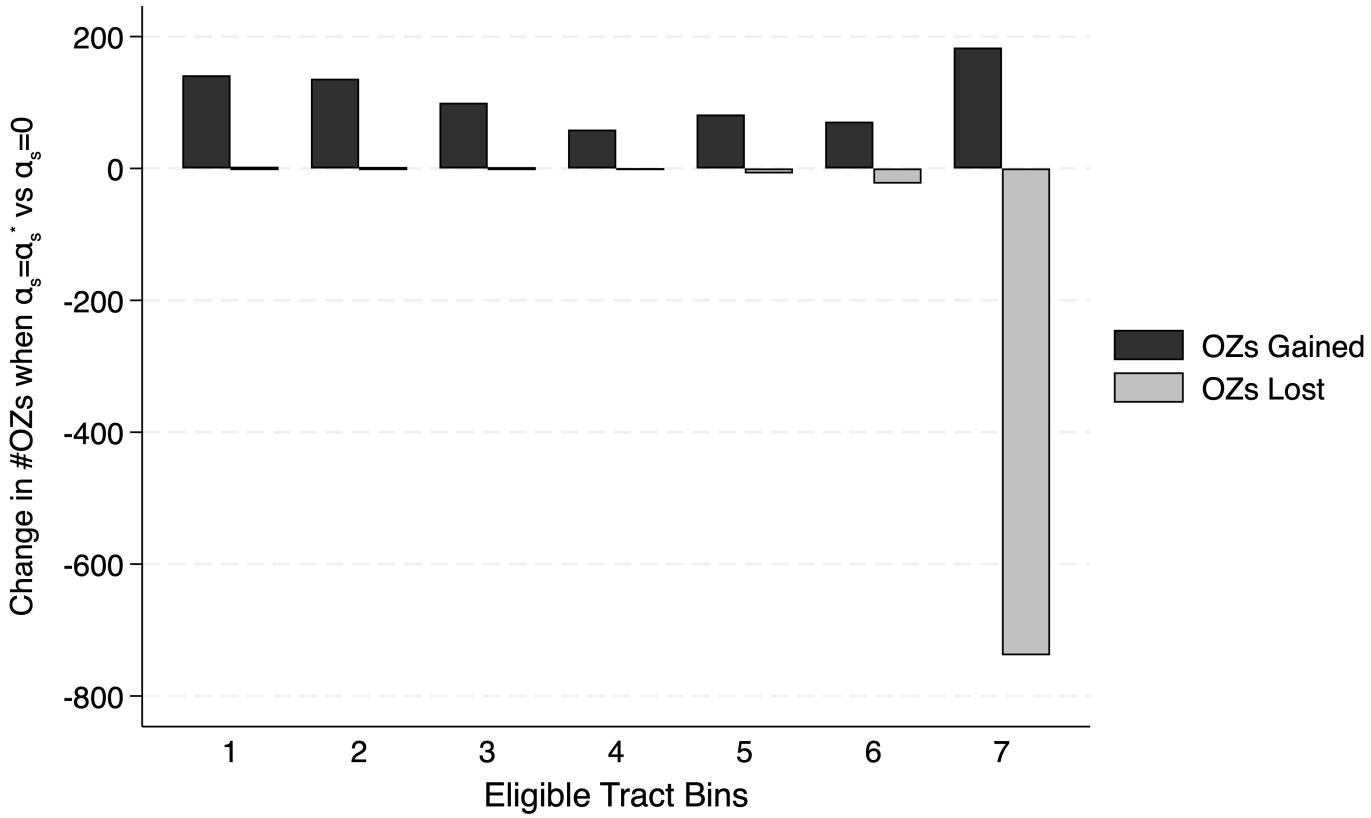
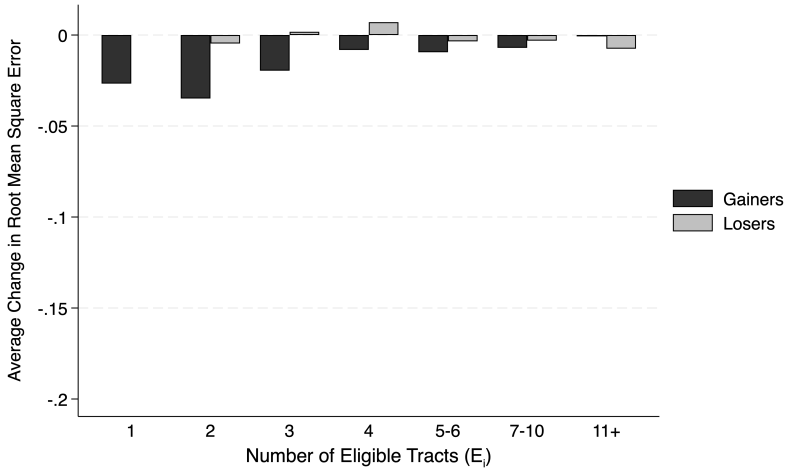
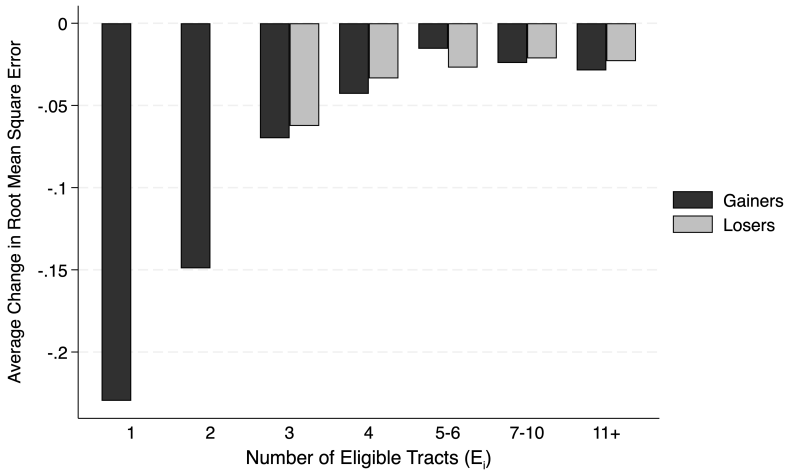


Figure H7: Modeling county aggrievement helps fit the data

This figure shows that allowing governors to manage aggrievement improves the model's ability to explain the actual allocation of OZs across counties of different sizes and across counties predicted to gain ("Gainers") or lose ("Losers") OZs when governors manage aggrievement. We examine the model's improved fit of the county-level OZ allocations using the change in the root mean square error (RMSE). For each county, we first calculate the expected fraction of eligible tracts designated as OZs when governors manage aggrievement (using α_s^*) and when governors ignore aggrievement (using $\alpha_s = 0$). Then, separately for α_s^* and $\alpha_s = 0$, we calculate the squared difference between the predicted and actual proportions of eligible tracts designated as OZs. Separately for α_s^* and $\alpha_s = 0$, we then calculate the square root of the mean squared error (RMSE) for the "Gainers" and "Losers" in each of the seven-size binds of county size. Lastly, we take the difference in the RMSEs for α_s^* and $\alpha_s = 0$ to see whether allowing governors to manage aggrievement improves accuracy (a decrease in RMSE). The seven-size bins correspond to counties with 1 eligible tract (1), 2 eligible tracts (2), 3 eligible tracts (3), 4 eligible tracts (4), 5–6 eligible tracts (5), 7–10 eligible tracts (6), and 11+ eligible tracts (7). We classify governors as having a high (low) aversion to county aggrievement when the estimated aversion to county aggrievement α_s^* is above (below) the 50^{th} percentile across states. Panel A (B) displays the results for states with low (high) α_s^*.



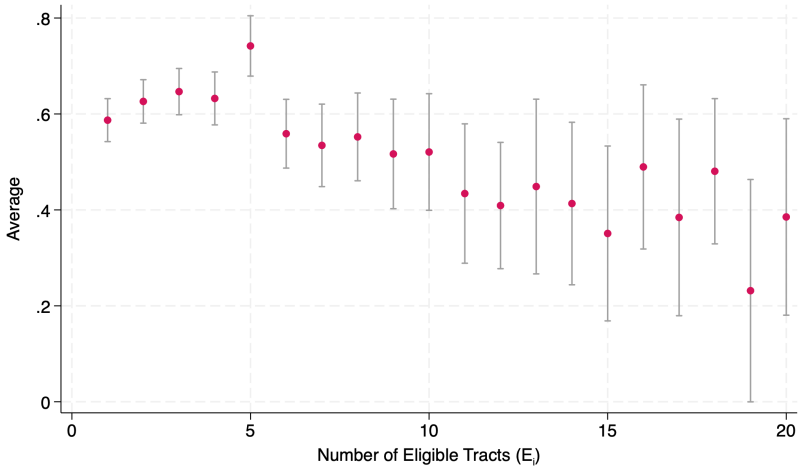
(a) Low α_s^*



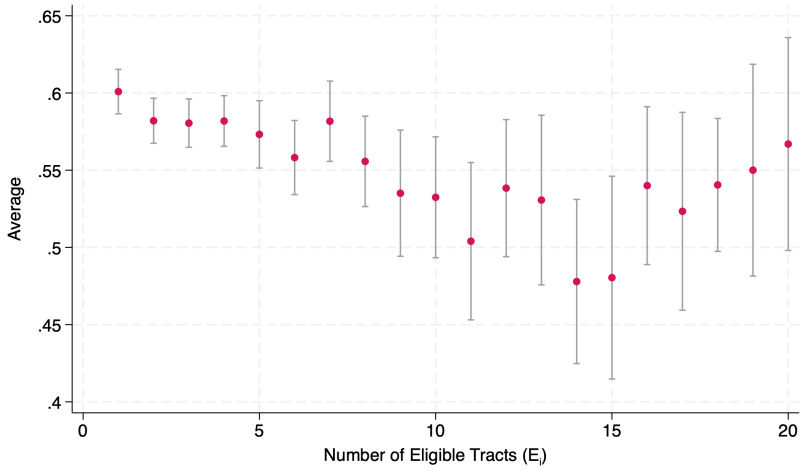
(b) High α_s^*

Figure H8: Spread of governors' electoral interests in counties

Panel A examines the proportion of state legislators representing eligible tracts in a county that are of the same political party as the governor who is responsible for assigning OZs. Panel B examines the proportion of county residents who vote for the governor. See Table III for additional descriptions of these variables. None of these characteristics can explain the sharply higher allocation of OZs to counties with one to three eligible tracts compared to counties with four or more eligible tracts, as shown in Table VII Panel A. Also, we find no evidence of less variation in these variables between larger counties with four or more eligible tracts that could explain the tendency of governors to allocate OZs more uniformly across counties, as shown in Table VII Panel C.



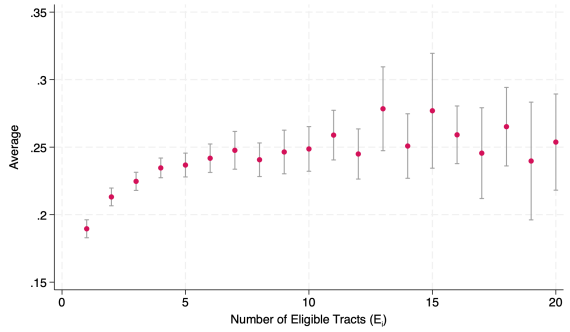
(a) Affiliated State Legislators



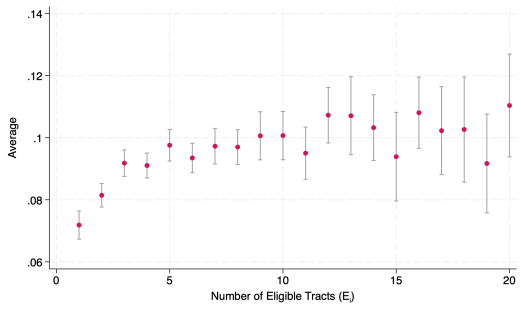
(b) Votes for Governor

Figure H9: Spread of policy-related characteristics

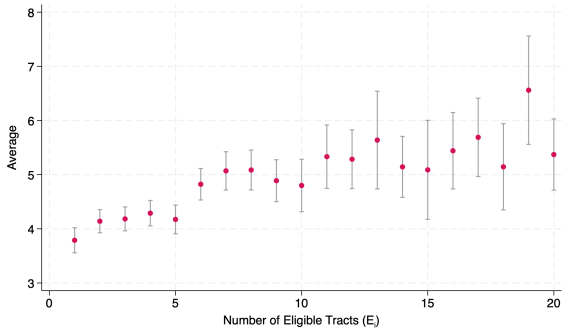
This figure shows no sharp difference in policy variables for the OZ program across small counties with 1–3 eligible tracts and larger counties with 4+ eligible tracts. See Table III for descriptions of these variables. The variables cannot explain the sharply higher allocation of OZs to counties with 1–3 eligible tracts as opposed to counties with 4+ eligible tracts as shown in Table VII Panel A. Also, we find no evidence of less variation in these variables between larger counties with four or more eligible tracts that could explain the tendency for governors to allocate OZs more uniformly across counties, as shown in Table VII Panel C.



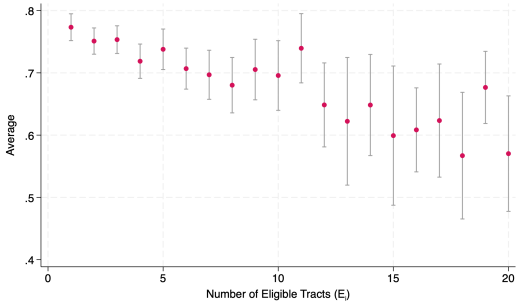
(a) % Poverty Rate



(b) % Unemployment Rate



(c) Investment Potential



(d) % White

Table H1: Estimated aversion to county aggrievement (α_s^*) by number of simulations K

In this table, we show the estimated α_s^* varying the number of simulations used in the simulated maximum likelihood. α_s^* is the model estimate of a governor's sensitivity to county aggrievement.

State	K=150,000	K=100,000	K=25,000	(1)-(2)	(2)-(3)
	(1)	(2)	(3)	(4)	(5)
Alabama	0.962	0.959	0.956	0.003	0.003
Alaska	0.610	0.620	0.619	-0.010	0.001
Arizona	0.993	0.993	0.993	0.000	0.000
Arkansas	0.923	0.923	0.925	0.000	-0.002
California	0.998	0.998	0.998	0.000	0.000
Colorado	0.969	0.968	0.969	0.001	-0.001
Connecticut	0.995	0.995	0.996	0.000	-0.001
Delaware	0.989	0.990	0.987	-0.001	0.003
Florida	0.999	0.999	0.999	0.000	0.000
Georgia	0.688	0.688	0.712	0.000	-0.024
Hawaii	1.000	0.999	0.996	0.001	0.003
Idaho	0.966	0.967	0.966	-0.001	0.001
Illinois	0.981	0.981	0.982	0.000	-0.001
Indiana	0.953	0.952	0.955	0.001	-0.003
Iowa	0.965	0.965	0.965	0.000	0.000
Kansas	0.953	0.954	0.954	-0.001	0.000
Kentucky	0.942	0.942	0.946	0.000	-0.004
Louisiana	0.941	0.942	0.941	-0.001	0.001
Maine	0.906	0.921	0.894	-0.015	0.027
Maryland	0.997	0.997	0.997	0.000	0.000
Massachusetts	1.000	1.000	1.000	0.000	0.000
Michigan	0.996	0.996	0.996	0.000	0.000
Minnesota	0.953	0.953	0.952	0.000	0.001
Mississippi	0.406	0.002	0.053	0.404	-0.051
Missouri	0.001	0.000	0.000	0.001	0.000
Montana	0.965	0.964	0.966	0.001	-0.002
Nebraska	0.926	0.926	0.928	0.000	-0.002
Nevada	0.005	0.001	0.075	0.004	-0.074
New Hampshire	1.000	1.000	1.000	0.000	0.000
New Jersey	1.000	1.000	1.000	0.000	0.000
New Mexico	0.932	0.932	0.935	0.000	-0.003
New York	0.999	0.999	0.998	0.000	0.001
North Carolina	0.978	0.978	0.978	0.000	0.000
North Dakota	0.754	0.759	0.742	-0.005	0.017
Ohio	0.965	0.966	0.965	-0.001	0.001
Oklahoma	0.938	0.939	0.937	-0.001	0.002
Oregon	0.951	0.951	0.950	0.000	0.001
Pennsylvania	0.831	0.828	0.846	0.003	-0.018
Rhode Island	0.970	0.970	0.971	0.000	-0.001
South Carolina	1.000	1.000	1.000	0.000	0.000
South Dakota	0.871	0.868	0.877	0.003	-0.009
Tennessee	0.951	0.952	0.951	-0.001	0.001
Texas	0.953	0.953	0.953	0.000	0.000
Utah	0.952	0.950	0.950	0.002	0.000
Vermont	0.740	0.744	0.739	-0.004	0.005
Virginia	0.928	0.930	0.931	-0.002	-0.001
Washington	0.972	0.972	0.971	0.000	0.001
West Virginia	0.948	0.950	0.947	-0.002	0.003
Wisconsin	0.947	0.947	0.947	0.000	0.000
Wyoming	0.608	0.595	0.584	0.013	0.011

Table H2: Comparing the effects in Table VIII column (1) estimated using our structural model to the effects estimated using a county fixed effects estimation model

This table contrasts the changes in demographics of OZ residents due to managing aggrievement as estimated by our model and presented in Table VIII with the changes in demographics estimated using a county fixed effects estimation. The descriptions of column (1) in panels A and B are identical to those in Table VIII. For column (2), we estimate two probabilities of a tract becoming an OZ using a county fixed effects linear regression specification. The first probability uses the estimated coefficients and the county fixed effects ($P_{i,j}$(Yes FE)). The second probability uses only the coefficients and ignores the estimated county fixed effects ($P_{i,j}$(No FE)). That is, $P_{i,j}$(No FE) considers how governors would select OZs in the entire state if they used the same criteria that they used to select OZs within counties. In panel A, column (2) displays the difference between the expected values of the counts calculated with $P_{i,j}$(Yes FE) and $P_{i,j}$(No FE). A positive (negative) number in column (2) is an increase (decrease) in the expected count. Column (3) displays the units of each of the counts. Panel B presents the expected changes in the characteristics of the OZs that shift because of all county-level determinants of OZ selection. Eligible tract j in county i is more likely to be selected when governors consider county-level characteristics if $P_{i,j}$(Yes FE) $>$ $P_{i,j}$(No FE) and is more likely to be selected when the governor ignores county-level characteristics if $P_{i,j}$(No FE) $>$ $P_{i,j}$(Yes FE). Column (2) displays the difference between the expected characteristics of the OZs that are more likely to be selected when governors consider county-level characteristics and the expected characteristics of the OZs that are more likely to be selected when governors ignore county-level characteristics. We first calculate the expected differences in characteristics for each state. Then, we take their averages across states. We test whether the difference in these averages across states is statistically significant using a t-test. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Managing aggrievement's effect on demographic populations living in OZs

	Using County Aggrievement Model (1)	Using County Fixed Effects (2)	Units (3)
Population	110,719	384,118	All persons
Poverty	-28,110	-22,596	Families
Unemployed	-41,648	-36,672	Civilians 16+ in labor force
Own Home	300,597	315,085	Total occupied housing units
White	1,149,601	1,222,080	All persons
Black	-637,983	-605,379	All persons
Hispanic	-371,667	-321,119	All persons
Asian	-43,116	32,853	All persons
Under 18	-32,468	-17,198	All persons
Over 64	179,530	224,213	All persons

Panel B: Managing aggrievement's effect on expected OZ demographics

	(1) Using County Aggrievement Model	(2) Using County Fixed Effects
% Poverty Rate	-8.7^{***}	-6.0^{***}
% Unemployment Rate	-3.1^{***}	-2.8^{***}
% Own Home	20.3^{***}	11.0^{***}
% White	26.7^{***}	15.0^{***}
% Black	-19.9^{***}	-12.8^{***}
% Hispanic	-5.6^{*}	-2.9
% Asian	-1.6	-0.8
% Under 18	-1.1^{**}	-0.8
% Over 64	5.1^{***}	2.7^{***}

Appendix H.1. Two mechanisms leading to lower variation in OZ allocations when governors manage aggrievement

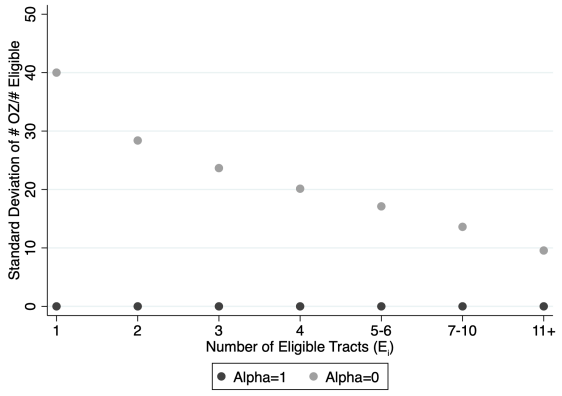
We discuss two specific mechanisms that contribute to the lower variation in the proportion of eligible tracts designated as OZs when governors manage aggrievement.

One mechanism is that a governor minimizing county aggrievement designates the same proportion of eligible tracts as OZs for all counties in that state with the same number of eligible tracts. This prediction occurs because, when $\alpha_s = 1$, the governor does not consider differences in tract characteristics across counties of the same size when allocating OZs between counties. Designating the same number of eligible tracts as OZs in counties with the same number of eligible tracts minimizes county aggrievement because the marginal benefit of an additional OZ is declining in the number of OZs a county receives. Appendix Figure H10(a) shows this prediction, and Appendix Figure H10(b) confirms the prediction in the data.

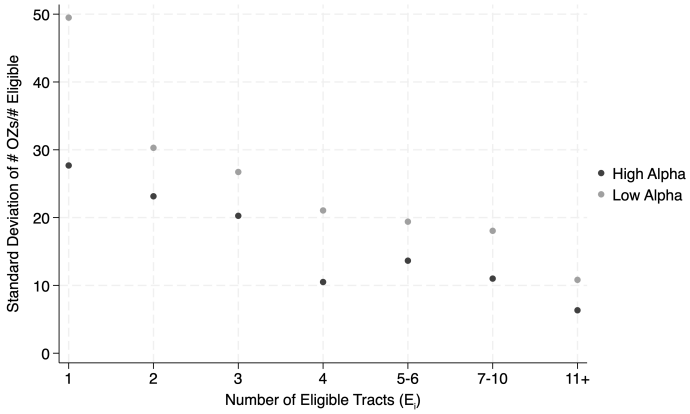
A second mechanism is that, in the model, granting a county a higher proportion of OZs than expected provides no additional benefit in terms of reducing county aggrievement. This upper bound reduces the variation in allocations between counties of different sizes. Appendix Figure H10(c) shows this prediction, and Appendix Figure H10(d) confirms the prediction in the data.

Figure H10: Managing aggrievement and *variation* in the proportion of counties' eligible tracts designated as OZs

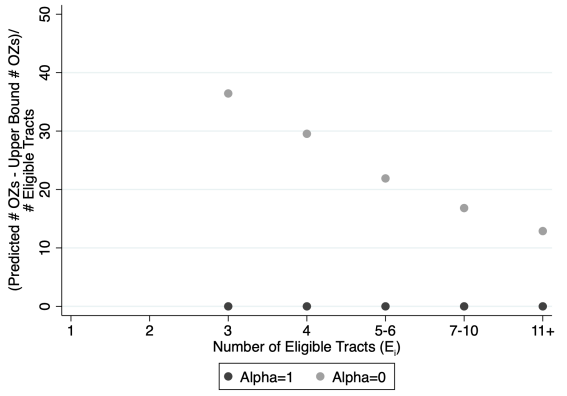
Panel A shows the predicted effect of governors managing aggrievement on the variation in the proportion of eligible tracts in a county that a governor designates as OZs. To do so, for each state and each of the K=100,000 simulations, we calculate the standard deviation of the proportion of eligible tracts in a county designated as OZs for counties with the same number of eligible tracts. Then, we calculate the average standard deviation across all simulations for that county size. Then, we sort counties into bins based on the number of eligible tracts E_i and take the average standard deviation. For each simulation, $\#OZ_i^{Predicted}$ is the number of OZs that the model predicts that county i receives. $\#OZ_i^{Actual}$ is the actual number of OZs that county i receives. E_i is the number of eligible tracts in county i. Panel B shows the average variation in the actual proportion of eligible tracts in a county designated as OZs. Specifically, for each state, we compute the variation in the proportion of eligible tracts designated as OZs across counties with the same number of eligible tracts. Then, we average this variation in each of the seven bins. In Panels C and D, *Upper Bound* is the model-implied maximum number of OZs a governor would grant a county when minimizing county aggrievement. Our model assumes that there is no additional benefit in terms of reducing county aggrievement from allocating more OZs to counties than what they expect. For example, a county with five eligible tracts expecting its proportional share of OZs (25%) would expect 1.25 OZs. Thus, there is no benefit of giving that county more than two OZs. Panel C shows the effect of managing aggrievement on the extent to which governors grant a county more OZs than the *Upper Bound*. If crossing the *Upper Bound* occurs, the figure shows the average amount of crossing predicted. Panel D shows the actual extent of crossing the *Upper Bound* in the data, when crossing does occur, for governors exhibiting high versus low aversion to county aggrievement.



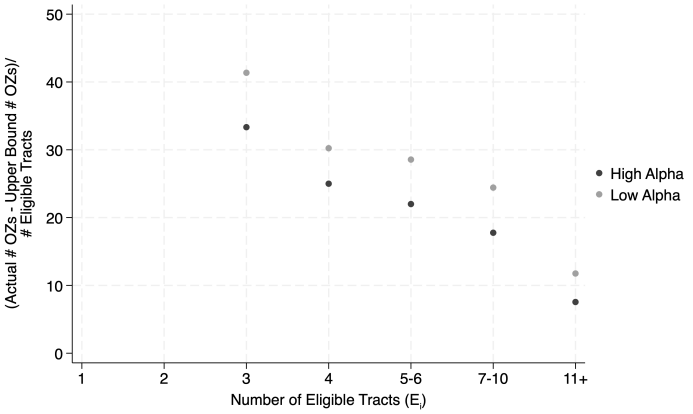
(a) Predicted, $\sigma\left(\frac{\sum_{j=1}^{E_i}\left(I_{i,j}^{\text{Predicted}}\right)}{E_i}\right)$



(b) Actual, $\sigma\left(\frac{\sum_{j=1}^{E_i}\left(I_{i,j}^{\text{Actual}}\right)}{E_i}\right)$



(c) Predicted, $\mu\left(\frac{\sum_{j=1}^{E_i}\left(I_{i,j}^{\text{Predicted}}\right)-\text{Upper Bound}}{E_i}\right)$



(d) Actual, $\mu\left(\frac{\sum_{j=1}^{E_i}\left(I_{i,j}^{\text{Actual}}\right)-\text{Upper Bound}}{E_i}\right)$

Table H3: Robustness of the OZ program's effect on investment in Table X

This table complements Table X and examines the consequences of managing county aggrievement for the amount of investment stimulated by the OZ program. To measure investment, we analyze the amount of equity issued by private and public businesses in census tract j in county i in quarter q. The data are from the SEC Form D database. In columns (1) to (4), the outcome is an indicator for whether a tract-quarter contains a Form D equity issuance. In columns (5) to (8), the outcome is the dollar amount of Form D equity issuances by operating businesses in a tract-quarter. $Post_q$ is an indicator variable equal to one after the first quarter of 2018, when the governors began designating OZs. $I_{i,j}^{Actual}$ is an indicator variable equal to one if the governor designated the census tract j in county i an OZ. Standard errors are clustered by state. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively.

	I(Issuance$_{i,j,q}$>0)×100				Ln(1+Issuance)$_{i,j,q}$×100			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post$_q$ × I$^{\text{Actual}}_{i,j}$	-0.27***	0.52***	0.52***	0.51***	-3.43***	7.66***	7.66***	7.56***
	(0.08)	(0.10)	(0.10)	(0.10)	(1.13)	(1.47)	(1.47)	(1.46)
I$^{\text{Actual}}_{i,j}$	1.19***	0.40***			16.56***	5.46**		
	(0.03)	(0.15)			(0.43)	(2.11)		
Post$_q$	1.12***				16.20***			
	(0.03)				(0.41)			
Tract FE	No	No	Yes	Yes	No	No	Yes	Yes
Quarter FE	No	Yes	Yes	No	No	No	Yes	Yes
State × Quarter FE	No	No	No	Yes	No	No	No	Yes
% Adjusted R^2	0.77	0.12	24.02	24.05	0.76	0.12	26.73	26.76
Observations	709205	709205	709205	709205	709205	709205	709205	709205

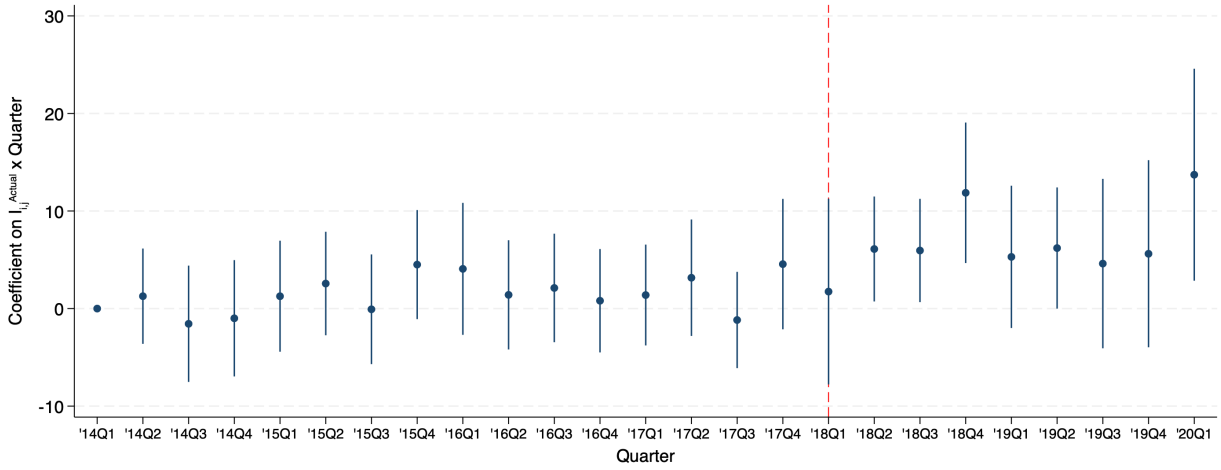
Table H4: Robustness of the OZ program's effect on investment to the sample period

This table complements Table X by progressively restricting the sample period when estimating the effect of the opportunity zone (OZ) program on investment. To measure investment, we analyze the amount of equity issued by private and public businesses in census tract j in county i in quarter q. The data are from the SEC Form D database. In columns (1) to (4), the outcome is an indicator for whether a tract-quarter contains a Form D equity issuance. In columns (5) to (8), the outcome is the dollar amount of Form D equity issuances by operating businesses in a tract-quarter. $Post_q$ is an indicator variable equal to one after the first quarter of 2018, when the governors began designating OZs. $I_{i,j}^{Actual}$ is an indicator variable equal to one if the governor designated the census tract j in county i an OZ. Standard errors are clustered by state. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels, respectively.

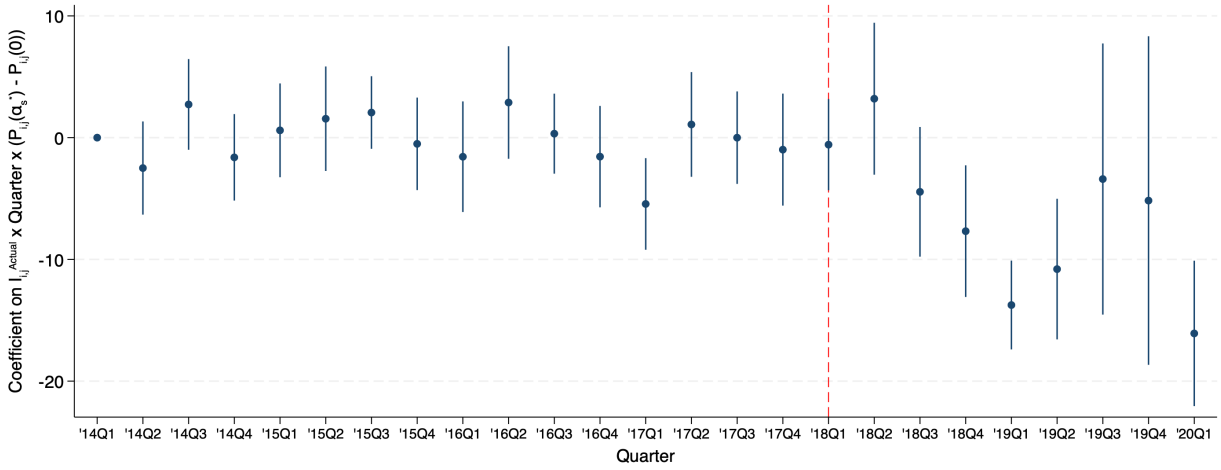
	$\mathbb{1}$(Equity Issued>0)×100				Log(1+Equity Issued)×100			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\text{Post}_q \times \text{I}_{i,j}^{\text{Actual}}$	0.51***	0.51***	0.51***	0.51***	7.56***	7.56***	7.56***	7.56***
	(0.10)	(0.10)	(0.10)	(0.10)	(1.46)	(1.46)	(1.46)	(1.46)
Specification	'14-'19	'15-'19	'16-'19	'17-'19	'14-'19	'15-'19	'16-'19	'17-'19
Tract FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State x Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
% Adjusted R^2	24.05	24.05	24.05	24.05	26.76	26.76	26.76	26.76
Observations	709205	709205	709205	709205	709205	709205	709205	709205

Figure H11: Repeating Figure II with New Construction Permit Filings from CoreLogic

This figure examines whether aversion to county aggrievement distorted OZ selections and thereby reduced investment stimulated by the OZ program. The panels show the difference-in-differences dynamics in Table H5, column (1), and the triple difference in column (2). The outcome is the log number of new construction permits issued in a quarter. We measure investment by analyzing the number of new construction permits filed in census tract j, county i, in quarter q. The data are from the CoreLogic permit database. CoreLogic permit data is primarily available in large counties. To ensure data quality, we limit the sample to counties reporting at least 750 new construction permits in a quarter across all tracts, eligible and non-eligible. These are the top 25 most active counties in the data. Each permit record includes the street address for the new construction and the date the permit is issued. The sample consists of 98,852 new construction permits in eligible tracts. The sample period is 2014 Q1 to 2020 Q1. About 80% of permits are for residential development, which includes multifamily housing. $Post_q$ is one after Q1 2018, when governors started designating OZs. Panel A examines the OZ program's impact on investment by comparing activity in designated OZ tracts with eligible but non-designated tracts. Specifically, we regress the issuance indicator for a tract quarter on quarterly dummy interactions with $I_{i,j}^{Actual}$, which equals one if tract j in county i is designated as an OZ. The plotted coefficients on the interaction terms show the quarterly differences between investments in OZs and non-OZs. Panel B compares investment flows into OZs selected to manage aggrievement with those chosen for other reasons, such as investment potential. To do so, we examine the triple interaction of quarterly dummies, the OZ indicator $I_{i,j}^{Actual}$, and the standardized probability difference that a tract j in a county i is selected as an OZ based on whether the governor manages aggrievement $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$. $\mathrm{P}_{i,j}(\alpha_s^*)$ is the probability a governor designates the tract j as an OZ when managing aggrievement, while $\mathrm{P}_{i,j}(0)$ is the probability of designation ignoring county aggrievement. Tract j in county i is more likely to be chosen as an OZ to manage aggrievement when this probability difference is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. We include county-by-quarter fixed effects to capture state-level trends and census-tract fixed effects. The first quarter has been omitted. The red line marks when governors designated OZs. Standard errors are clustered by county-quarter. Showing 90% confidence intervals.



(a) Investment in OZs vs. non-OZs. OZs stimulated investment.



(b) Investments in OZs chosen to manage aggrievement vs. in OZs chosen for other reasons.

Table H5: Repeating Table X using New Construction Permit Filings from CoreLogic

This table examines the consequences of managing local aggrievement for the amount of investment stimulated by the OZ program. We measure investment by analyzing the number of new construction permits filed in census tract j, county i, in quarter q. The data are from the CoreLogic permit database. CoreLogic permit data is primarily available in large counties. To ensure data quality, we limit the sample to large counties (reporting at least 750 new construction permits) in a quarter across all tracts, eligible and non-eligible. These are the top 25 most active counties in the data. Each permit record includes the street address for the new construction and the date the permit is issued. The sample consists of 98,852 new construction permits in eligible tracts. The sample period is 2014 Q1 to 2020 Q1. About 80% of permits are for residential development, which includes multifamily housing. $Post_q$ is one after Q1 2018, when governors started designating OZs. $I_{i,j}^{Actual}$ equals one if the governor designated the census tract j in county i as an OZ. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage county aggrievement are $\mathrm{P}_{i,j}(\alpha_s^*)$ and $\mathrm{P}_{i,j}(0)$ respectively. The term $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$ is the difference in the probability that a tract becomes an OZ when a governor manages county aggrievement versus when a governor ignores aggrievement. A tract j in county i is more likely chosen as an OZ to manage aggrievement when the probability difference is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. Standard errors are clustered by county-quarter. ***, **, and * represent statistical significance at the 1%, 5%, and 10% levels.

	Ln(1 + New Construction Permits)×100	
	(1)	(2)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}}$	6.08***	3.19*
	(2.06)	(1.76)
$\mathrm{Post}_q \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-2.03
		(1.90)
$\mathrm{Post}_q \times \mathrm{I}_{i,j}^{\mathrm{Actual}} \times (\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0))$		-5.19***
		(1.98)
County × Quarter FE	Yes	Yes
Tract FE	Yes	Yes
% Adjusted R^2	50.90	50.93
Observations	78,908	78,908

Appendix I. Expected characteristics of OZs appointed and not appointed because of managing county aggrievement

Let $I_{i,j}$ be an indicator variable with value one if census tract j in county i is appointed as an OZ. Let $Y_{i,j}$ be a counting characteristic of census tract j (e.g. the number of families below poverty line residing in j). The effect of managing county aggrievement on the characteristic Y of the OZs is:

$$E^{\alpha_s=\alpha_s^*}[I_{i,j} \times Y_{i,j}] - E^{\alpha_s=0}[I_{i,j} \times Y_{i,j}] = \sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} Y_{i,j}(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)) \tag{I.1}$$

The results in Table VIII, Panel A are computed with Equation I.1 using the parameters estimated for each state and adding up across states.

Let $G_{i,j}$ be an indicator variable with value one in case managing aggrievement increases the probability of census tract j becoming an OZ ($\mathrm{P}_{i,j}(\alpha_s^*) > \mathrm{P}_{i,j}(0)$). That is, if $G_{i,j} = 1$, then census tract j benefits from governors managing aggrievement.

The expected number of census tracts that become OZ when governors manage aggrievement and benefit from governor's managing aggrievement is $E^{\alpha_s=\alpha_s^*}[I_{i,j} \times G_{i,j}]$. While the expected number of census tracts that become OZ when governors ignore aggrievement and would benefit from governor's managing aggrievement is $E^{\alpha_s=0}[I_{i,j} \times G_{i,j}]$. The expected number of OZs that become OZ because of managing aggrievement and would not become OZ if governors ignored aggrievement is:

$$E^{\alpha_s=\alpha_s^*}[I_{i,j} \times G_{i,j}] - E^{\alpha_s=0}[I_{i,j} \times G_{i,j}] = \sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} G_{i,j}(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)) \tag{I.2}$$

As we point out in the paper, the sum across states of Equation I.2 computed with the estimated parameters is 772. That is, managing aggrievement resulted in 772 eligible tracts switching OZ status because governors manage aggrievement.

Let $X_{i,j}$ be a characteristic of census tract j in county i (e.g. poverty rate). We wish to compute the expected value of the characteristic $X_{i,j}$ of the census tracts that are appointed as OZs to manage county aggrievement. Bayes' rule implies:

$$E^{\alpha_s=\alpha_s^*}[X_{i,j}|I_{i,j}=1, G_{i,j}=1] = \frac{\sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} X_{i,j} I_{i,j} G_{i,j} \mathrm{P}_{i,j}(\alpha_s^*)}{\sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} I_{i,j} G_{i,j} \mathrm{P}_{i,j}(\alpha_s^*)} \tag{I.3}$$

$L_{i,j}$ is an indicator variable with value one in case managing aggrievement decreases the probability of census tract j becoming an OZ ($\mathrm{P}_{i,j}(\alpha_s^*) < \mathrm{P}_{i,j}(0)$). The expected value of the characteristic $X_{i,j}$ of the census tracts that are appointed as OZs because governors ignore aggrievement is:

$$E^{\alpha_s=0}[X_{i,j}|I_{i,j}=1, L_{i,j}=1] = \frac{\sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} X_{i,j} I_{i,j} L_{i,j} \mathrm{P}_{i,j}(0)}{\sum_{i=1}^{\#County_s} \sum_{j=1}^{E_i} I_{i,j} L_{i,j} \mathrm{P}_{i,j}(0)} \tag{I.4}$$

The results in column (1) of Table VIII, Panel B and of Table IX are:

$$E^{\alpha_s=\alpha_s^*}[X_{i,j}|I_{i,j}=1, G_{i,j}=1] - E^{\alpha_s=0}[X_{i,j}|I_{i,j}=1, L_{i,j}=1] \tag{I.5}$$

Let $S_{i,j} = 1$ if census tract j is in a county i with one-to-three eligible tracts. In column (2) of Table VIII, Panel B and of Table IX, we compute:

$$E^{\alpha_s=\alpha_s^*}[X_{i,j}|I_{i,j}=1, G_{i,j}=1, S_{i,j}=1] - E^{\alpha_s=0}[X_{i,j}|I_{i,j}=1, L_{i,j}=1, S_{i,j}=1] \tag{I.6}$$

In column (3) of Table VIII, Panel B and of Table IX, we compute:

$$E^{\alpha_s=\alpha_s^*}[X_{i,j}|I_{i,j}=1, G_{i,j}=1, S_{i,j}=0] - E^{\alpha_s=0}[X_{i,j}|I_{i,j}=1, L_{i,j}=1, S_{i,j}=0] \tag{I.7}$$