Managing Aggrievement

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Abstract

Theory predicts that central planners manage the aggrievement of pressure groups when distributing resources. However, empirical evidence of managing aggrievement is rare. We fill this gap using the Opportunity Zone (OZ) program, in which governors selected low-income census tracts to become OZs and receive investment incentives. Using governors' OZ selections, we estimate a model that identifies governors' aversion to aggrieving counties. The model fits the aggrievement reported by local officials and reveals managing local aggrievement results in OZs that stimulate 38% less investment and contain 20-thousand fewer poor families and 347-thousand (223-thousand) fewer Black (Hispanic) residents.

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1. Introduction

Aggrievement is an emotion that results from an allocation that falls short of expectations of fairness. Theory suggests that central planners may compromise between policy objectives and minimizing the aggrievement of pressure groups when distributing resources (Passarelli and Tabellini, 2017). Empirically identifying the importance of managing aggrievement for allocations is difficult because researchers often do not observe pressure groups, the resources such groups receive, groups' aggrievement with the allocation they receive, or the allocations groups consider fair. We tackle this difficult empirical problem with a structural model validated with data from the 2019 Menino Survey (Einstein et al., 2023) – a nationwide survey of county and city officials about the OZ program.

The OZ program was established by the 2017 Tax Cuts and Jobs Act. The U.S. Treasury Department determined the set of eligible low-income census tracts and then tasked governors with selecting 25% of those tracts to receive the OZ designation. This designation grants widely funded federal tax breaks for investments made in the tract.[1] The OZ program provides a unique laboratory to identify the importance of managing aggrievement for policy implementation and outcomes for at least three reasons. First, in the Menino Survey, the majority of respondents believe "that the influence of local officials" was the most important factor that affected the OZ allocations of governors. Therefore, in the OZ program, we observe one particular pressure group (counties) and the resources they receive (number of OZs).[2] Second, the Menino Survey also gives direct evidence that some counties and cities are upset with their OZ allocation. This is important because to identify aggrievement, one needs direct measures of pressure groups' unhappiness with the allocation of resources they receive. Such direct measures of aggrievement are rare possibly because aggrievement and its consequences (e.g. backlashes) are not often observed if central planners manage aggrievement. Third, when directing governors to select 25% of their state's eligible tracts, the federal government established a reference point (25%) by which each county could determine its fair share of OZs.[3]

Our main hypothesis is that governors managed county aggrievement when allocating OZs. In our structural model, we use the same functional form for aggrievement as in Passarelli and Tabellini (2017). Specifically, we model aggrievement as the square of the *shortfall*

[1] Appendix A has a detailed description of the OZ program. Confidential IRS filings show that $18.9 billion of aggregate equity investments qualified for OZ tax benefits in 2019 (Kennedy and Wheeler, 2021).

[2] Counties as pressure groups include constituents, officials, and businesses in the county and in its cities.

[3] We use the Menino Survey to examine the hypothesis that 25% is the reference point by which counties judged an OZ allocation as fair. Furthermore, casual observations support this hypothesis. A county official said, "Richland County (Ohio) got its fair share...we're pretty close to 25%" (Geibel, 2018). And a deputy mayor remarked that Summit County (Ohio) "received our fair share of OZs"—about 25% (Karabin, 2018).

of the county's percentage of eligible tracts designated as OZs relative to the proportion that counties judge as fair (i.e., 25%). This nonlinear functional form of aggrievement fits well the actual local aggrievement with OZ allocations in the 2019 Menino Survey. About 10% of the local officials surveyed reported that their city or county was somewhat to extremely unhappy with their allocation of OZs. We regress their actual reported aggrievement on their predicted aggrievement. The results indicate that model aggrievement captures the variation in the counties' actual aggrievement well because actual aggrievement is similarly nonlinear in OZ allocations around the 25% threshold. Indeed, the coefficient on *Model Aggrievement* is significant, and the adjusted R^2 is 19%. These results are important because they validate the assumed functional form for aggrievement as a measure of counties' actual aggrievement.

In our structural model, the governor trades off managing counties' aggrievement with other considerations, such as census tracts' poverty rate, investment potential, and political leaning. The parameter of particular interest in our model is a governor's aversion to aggrievement, which is the extent to which a governor trades off managing county aggrievement with the other considerations. Aversion to aggrievement is bounded between zero and one. When aversion to aggrievement is equal to zero, governors only consider census-tract characteristics when allocating OZs and disregard the aggrievement of counties. On the other hand, when aversion to aggrievement is equal to one, governors allocate OZs lexicographically; governors first determine the number of OZs each county receives to minimize aggrievement, and then allocate OZs within counties weighting the tract characteristics.

We estimate the model using simulated maximum likelihood. Estimation reveals that the governors allocated OZs *across counties* to manage aggrievement. Governors' aversion to county aggrievement is a well-identified parameter in our estimation. In states where governors had a high (above-median) aversion to county aggrievement, allowing them to manage aggrievement resulted in a 53.3% reduction in the root mean square error (RMSE) of the proportion of counties' eligible tracts designated as OZs. Furthermore, the likelihood ratio tests indicate that for 37 states, the model performs significantly better at explaining tract-level OZ designations when allowing governors to manage aggrievement.

The model identifies aversion to aggrievement because it predicts very distinct patterns in the allocations of OZs that are present in the actual allocations across most states. To manage aggrievement, governors shift OZs away from some large counties with many eligible tracts to give *exactly one* OZ to small counties with three or fewer eligible tracts. Governors also shift OZs away from certain large counties to give OZs to other large counties that would otherwise receive a smaller proportion of OZs than the reference point of 25%. They do so to achieve an OZ allocation in which large counties get the same proportion (around

25%) of their eligible tracts as OZs (uniformity), and all counties receive at least one OZ (universalism). The model's distinct predictions line up with the actual allocation of OZs across counties, which is why managing aggrievement helps to improve the fit of the model to the data. For any other variable to confound our identification of governors' aversion to aggrievement, it would need to produce the same model predictions across most states and be consistent with the local aggrievement concerning the OZ program reported by local officials in the 2019 Menino Survey.

We conduct two analyses to examine the consequences of managing aggrievement. First, we use a counterfactual analysis to show that the way governors managed aggrievement across counties resulted in more OZs going to wealthier and more predominantly White tracts on average. Essentially, the heterogeneity of the population living in eligible tracts, coupled with the changes in the allocation of OZs to manage aggrievement, resulted in a shift in the characteristics of those who benefit from the OZ program. Specifically, our analysis shows that there are 20,223 fewer families below the poverty line living in OZs relative to if governors had ignored counties' aggrievement. Similarly, managing aggrievement decreases the number of Black (Hispanic) residents in OZs by 347,507 (223,293). The decrease in the population of Black (Hispanic) residents living in OZs is 5.7% (3.5%) in states where governors exhibited a high aversion to county aggrievement. Therefore, the shifting of OZs between counties to manage aggrievement results in a decrease in the expected number of poor and minority people living in OZs.[4]

Second, we show that managing aggrievement shifted OZs to tracts with lower investment potential (lower population density, less proximity to infrastructure, and less investment activity), which in turn decreased the actual amount of investment that the OZ program was able to stimulate. We determine the amount of equity investments in a census tract using Form D filings reported to the Securities and Exchange Commission.[5] We show using a *triple* differences design that the OZs our model predicts are one-standard-deviation more likely to be selected to manage aggrievement stimulate 38% less investment than the OZs less likely to be selected to manage aggrievement. Thus, the heterogeneity of the investment potential of eligible tracts, together with changes in the allocation of OZs to manage aggrievement,

[4]We subject all our findings to an extensive robustness analysis, which is presented in the Internet Appendix. Our estimates of aversion to aggrievement are robust to different estimation methodologies. In addition, we obtain similar magnitudes in a counterfactual analysis using a county fixed effects regression and then contrasting the selection of OZs using county-level characteristics with the selection of OZs based only on the criteria used within counties.

[5]Form D filings are suitable to examine the OZ program because OZ tax incentives apply only to equity investments. The Council of Economic Advisers (2020) also examines the OZ program using Form D filings.

resulted in less stimulated investment.[6]

Intriguingly, due to heterogeneity, governors' attempts to meet counties' expectations of fairness result in OZs shifting to wealthier tracts with less investment potential and fewer minority residents, which is apparently unfair. However, within a county, there is a clear inclination to designate tracts that have higher poverty rates and greater investment potential, without any preference for tracts with more White or minority inhabitants. This contrasting behavior may occur because of the common pool problem in which counties do not internalize that other counties may benefit more from OZs. Counties may perceive their eligible tracts as poorer and with greater investment potential than tracts in other counties.[7] Or they may have a stronger preference for equality between counties than for overall wealth equality. Indeed, the literature emphasizes that the form of redistribution is determined by perceptions and preferences that depend on the characteristics of those who receive resources (Luttmer, 2001; Stantcheva, 2021; Hvidberg et al., 2022). Additionally, counties may be better organized pressure groups than minorities and the poor residing in census tracts that did not receive the OZ designation and, as a result, have more influence (Becker, 1983). (See Persson and Tabellini (2000) for a review of the literature on special-interest politics.)

This paper adds to the literature on fairness in several ways. First, a long literature indicates that reference points are used to judge fairness in many contexts (Kahneman, Knetsch, and Thaler, 1986; Falk, Fehr, and Zehnder, 2006; Hart and Moore, 2008; Herweg and Schmidt, 2015). Our paper adds to this literature because it shows that reference points (25% in our case) are important in distributive programs. Second, in principle, our structural model can be used to examine how fairness affects the allocation of resources outside the political system. For example, Reeves and Russell (1932) observe that universities often allocate the same budget to libraries in different departments to manage aggrievement so that "no department [is] able to prove that it has been discriminated against." Third, our approach to modeling county aggrievement is similar to the self-centered inequity aversion described in Fehr and Schmidt (1999, 2003).[8] In contrast to this literature, we do not assume that governors are endowed with inequity aversion. Instead, our structural model is silent with regard to why governors are averse to aggrieving counties. Perhaps the transparency and public scrutiny of the OZ program made governors feel a greater need to appear fair when making OZ selections (Jin and Leslie, 2003; Christensen et al., 2017; Johnson, 2020).

[6]Consistent with the parallel trends assumption, we find similar trends in investment activity across OZs more or less likely to be selected to manage aggrievement prior to the OZ program.

[7]The Menino Survey suggests that local officials in general were overly optimistic regarding the OZ program. Three quarters believed that residents and small businesses would benefit (Einstein et al., 2023).

[8]In our functional form for aggrievement, counties are not concerned with an inequitable distribution of OZs to other counties, but rather with the fairness of their own OZ allocation compared to 25%.

In addition, governors repeatedly interact with local officials (Hamilton and Wells, 1990) and may benefit from building a reputation for geographical fairness (Levitt and List, 2007). We contribute to this literature because we show in a high-stakes national program that central planners take into account the judgments of those receiving resources about the fairness of their allocations. Moreover, we show that aversion to aggrievement can impact the effectiveness of distributive programs and who in a society receives resource.

The strength of our findings motivates at least two potential avenues for further exploration in the literature on distributive programs. First, theoretical and empirical work identifying why central planners manage emotions is a promising direction to better explain policy outcomes. Passarelli and Tabellini (2017) is the first to formalize that emotions, and aggrievement in particular, may reduce the costs for pressure groups to organize protests. As a result, in the Passarelli and Tabellini (2017) model, a benevolent central planner manages aggrievement to decrease the likelihood of costly riots. In our case, as in Passarelli and Tabellini (2017), the governors' need to manage aggrievement may have resulted because aggrieved groups are more likely to engage in backlash activities such as protests, cutting political donations or going to the polls to vote (e.g., Besley and Case, 1995; Brollo et al., 2019). In this sense, governors' aversion to aggrieving counties may have resulted from the same self-serving motivations (e.g., electoral concerns or catering to donors) as in the theoretical literature on distributive programs (Lindbeck and Weibull, 1987; Persson, 1998; Dixit and Londregan, 1998; Dahlberg and Johansson, 2002). Our findings suggest that future research could examine whether these self-serving motivations are accentuated when emotions are involved because aggrievement decreases the cost of organizing pressure groups to influence political outcomes. Second, the prevalence of managing emotions in distributive programs opens up the possibility that tools based on behavioral economics may help design distributive programs (Chetty, 2015). For example, nudging interventions, such as anchors and framing, may help establish reference points and reduce self-centered emotional responses (Thaler and Sunstein, 2008).

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). We contribute to this literature because our model empirically identifies that the universalistic and uniform allocation of OZs results in large changes in the characteristics of the tracts that become OZs and in the amount of investment stimulated by the program

due to the heterogeneity in the eligible tracts.

Lastly, our study adds to the literature on place-based policies and on the OZ program in particular.[9] Sage et al. (2023), Atkins et al. (2023), Arefeva et al. (2021), and Bekkerman et al. (2022) observe a response to OZ incentives, while Chen et al. (2022), Feldman and Corinth (2023), and Freedman et al. (2023) find no response. Our results highlight the importance of considering selection when analyzing the investment response. Glaeser and Gottlieb (2008) point out that inequity aversion may matter for place-based policies because even though investment incentives may be more effective in large cities, subsidizing such areas would appear "inequitable" and be politically costly. Our finding that governors managing aggrievement shifted OZs away from some large counties, which tend to contain large cities, to give them to small counties supports this point. We extend the point in Glaeser and Gottlieb (2008) by showing that managing aggrievement also shifts OZs across large counties to achieve a more uniform allocation. Alm et al. (2021), Frank et al. (2022), and Eldar and Garber (2023) show evidence that governors allocated more OZs to areas affiliated with their political party; therefore, in our model estimation, we allow governors to practice favoritism. However, the influence of governors' political allies ranked only fifth in the Menino Survey. Moreover, with a battery of empirical tests, Glick and Palmer (2022) shows that the evidence of favoritism is not robust. Instead, Glick and Palmer (2022) observes that governors often gave at least one OZ to many counties (universalism). We contribute to this literature by identifying that one simple mechanism - managing county aggrievement - can explain why governors often allocated *exactly one* OZ to many small counties with fewer than four eligible tracts (universalism) and distributed OZs proportionally across larger counties (uniformity). In addition, we show empirically that managing aggrievement has large effects on the characteristics of OZ residents and the amount of investment stimulated by the program.

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

[9]The empirical literature on place-based policies is predominantly concerned with identifying the effect of such policies (e.g., 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 Aggrievement

To parameterize the aggrievement of counties, we use the same functional form for the aggrievement function as in Passarelli and Tabellini (2017). Specifically, Passarelli and Tabellini (2017) parameterize the aggrievement arising from a certain allocation of resources q by the central planner as $max[0, R - V(q)]^2$, where R is the expected entitlement from individuals and $V(q)$ is the actual utility that individuals derive from the allocation. We assume that counties feel entitled to have an R_s proportion of their eligible tracts be designated as OZs, and therefore, we parameterize 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 set R_s equal to the actual number of low-income tracts that a governor designated as OZs in state s divided by the number of eligible tracts, $Eligible_s$.[10] Each county i compares its entitlement R_s with the ratio of the county's number of eligible tracts designated as OZs, $\#OZ_i$, to the county's number of eligible tracts, E_i. In principle, Equation 1 could be written for any regional group within a state. We choose the county-level unit of analysis because all eligible tracts are within counties, but not all eligible tracts are within cities. Aggrievement as defined in Equation 1 resembles a self-centered fairness model in which counties are not concerned with an inequitable distribution of OZs to other counties, but rather with the fairness of their own OZ allocation compared to R_s (e.g., Fehr and Schmidt, 1999).

We use the 2019 Menino Survey of Mayors (Einstein et al., 2023) to validate that counties were an important pressure group influencing governors, that some counties were, in fact, aggrieved with their allocation of OZs, and that Equation 1 captures the actual aggrievement of counties. The 2019 Menino Survey asked sitting mayors and county officials questions about their opinions on the OZ program. The 119 respondents in 38 states are from 98 counties with 81.4 million residents in 2017 and represent 12.3% of eligible tracts.

The Menino Survey suggests that counties were the most important pressure groups that affected how governors allocated OZs. Panel A of Table I displays the responses to the 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 on their governor's decisions. Naturally, local officials may overestimate their influence in the OZ allocation process.

[10] Internet Appendix Table A2 shows the values of R_s, which are generally close to 25%. The OZ program allocates 25 OZs for the seven states with fewer than 100 eligible tracts (AK, DE, ND, RI, SD, VT, WY). For these states, the average R_s is 43%.

However, disclosures by governors' offices on the OZ selection process generally support this statistic. With the exception of Georgia and South Dakota, all states discuss the allocation of OZs across local geographies (boroughs, counties, towns, and cities), and 41 states discuss the allocation of OZs across counties.[11] Anecdotal evidence also supports the idea that local officials pressured governors. For example, in a letter to New York's governor, the state representative Higgins pushed the governor to designate at least 25% of the eligible tracts in Erie and Niagara counties (Higgins, 2018). In North Carolina, the city liaison McEwen stated to the press that he aggressively pursued OZ designations for Wilmington (Featherston, 2019).

The survey not only indicates that local officials were the most important group influencing governors' OZ decisions but also shows that some local constituents were aggrieved with their OZ allocation. Indeed, Panel B of Table I displays the responses to the 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. In addition to the survey, news articles illustrate local disappointment with OZ allocations. For example, a local official said that she expected at least three OZs in her district and called the final allocation a "betrayal" in the press (Swanson, 2018). Similarly, a search in "Access World News" for the year 2018 finds 49 articles in 2018 in which counties stated to the press their disappointment with their OZ allocations (e.g., Carpenter, 2018; Recorder, 2018; McGuire, 2018). However, with these levels of dissatisfaction, counties do not seem overwhelmingly aggrieved with the allocation of OZs. For comparison, the average dissatisfaction with the outgoing president is 44% (Gerhard, 2021), and the average dissatisfaction with the management of the COVID-19 pandemic by the governors is 25% (Mehta, 2020). Theory suggests that if governors manage aggrievement, the number of aggrieved groups should be sufficiently small to prevent major backlashes. Most importantly, direct evidence that some counties are aggrieved supports the idea that governors had a reason to manage county aggrievement when allocating OZs.

The survey also validates an important assumption of our model: that county aggrievement is properly parameterized by Equation 1. Table II shows evidence in support of this key assumption. Specifically, Table II shows the result of a regression that compares the assumed level of aggrievement in our model to the actual assessment by local officials of their constituents' aggrievement with their OZ allocation.[12] The outcome variable (*Actual*

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

[12] We estimate this linear regression on the subset of local officials that reported the level of aggrievement of their city or county in the 2019 Menino Survey. As discussed above, we chose the county-level unit for most of our analysis. In contrast, the Menino Survey asks both mayors and county officials. In the regressions in Table II, we use the city or county of the mayor or local official to determine the proportion of eligible tracts designated as OZ.

Aggrievement) is a binary version of the aggrievement reported by local officials in Table I. *Actual Aggrievement* equals zero when a local official indicates that their city or county is "somewhat happy" or "extremely happy" with their OZ allocation and one otherwise. The explanatory variable in column (1) is our model aggrievement function. For comparison purposes, the explanatory variable in column (2) is the proportion of eligible tracts designated as OZs in a local official's region i ($\#OZ_i/E_i$). We standardize the explanatory variables. The results in column (1) indicate that the model aggrievement function captures the variation in the actual aggrievement of counties well. In fact, the coefficient on *Model Aggrievement* is significant at the 1% level, and the adjusted-R^2 is 19.0%. In contrast, the results in column (2) indicate that the proportion of eligible tracts designated as OZs in a local official's region does not capture the variation in the aggrievement reported by local officials. Given that we have 119 observations, we address the possibility of outliers by winsorizing the data.

The difference between the results in columns (1) and (2) of Table II emphasizes the importance of the nonlinear relation between the aggrievement of local constituents and the allocation of OZs in their city or county. Indeed, Figure I shows the relation between *Model Aggrievement* and *Actual Aggrievement*. *Model Aggrievement* is closely linked to *Actual Aggrievement*, as officials are more likely to report that their city or county is somewhat or extremely unhappy with their OZ allocation when their county receives a much lower proportion of OZs to eligible tracts ($\#OZ_i/E_i$) than the proportion of eligible tracts designated as OZs in the state (R_s). In contrast, there are no significant differences in *Actual Aggrievement* across locations that received an allocation of OZs around or above R_s. The model aggrievement function captures this non-linear relation, while the alternative function using only the proportion of eligible tracts designated as OZs in a local official's region does not capture it. For robustness, Internet Appendix Figure C1 shows a similar figure when we code "Extremely unhappy" as 5, "Somewhat unhappy" as 4 and so on.

2.2. Governor's Problem

Our main hypothesis is that governors managed county aggrievement when allocating OZs. Accordingly, we specify that each state governor solves the following objective function:

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

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 the 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 not related to 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 $X_{i,j}$ used in the model estimation.

The key parameter of the model is α_s, which represents the governor's aversion to counties' aggrievement. The parameter α_s captures how the governor trades off managing county aggrievement with various other considerations when designating OZs. The parameter α_s is bounded between zero and one. When the aversion to aggrievement is equal to zero ($\alpha_s = 0$), the governors only consider census-tract characteristics when allocating OZs and disregard aggrievement. On the other hand, when the aversion to aggrievement is equal to one ($\alpha_s = 1$), we assume that the governors first allocate the number of OZs across counties to minimize aggrievement and only consider other factors when designating OZs within a county. That is, governors assign OZs lexicographically in this case.

Our main objective is to estimate α_s for each state and with counterfactual analysis understand the effect of managing aggrievement on the policy outcomes. The theoretical literature suggests that α_s is greater than zero (Oates, 1972; Passarelli and Tabellini, 2017). If true empirically, then the counterfactual analysis that assumes governors do not manage aggrievement identifies the economic and social consequences of managing aggrievement.

Although governors selected which tracts became OZs, many governors used county input to decide the OZ allocation within counties. As a result, the weights Ψ_s are the result of both the governors' and counties' welfarist and political preferences for the characteristics of the eligible tracts. Most importantly, county officials could not recommend appointing OZs outside their borders. Hence, each county had little control over the 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, so as to avoid aggrieving counties with an OZ allocation that falls short of counties' notion of fairness.

Naturally, the governor's objective function is simple and, as any other model, has limitations. First, the model is silent regarding why a governor manages county aggrievement. Governors may manage aggrievement either because they are concerned about backlash or

simply because they have a preference for fairness that matches Equation 2. Naturally, managing aggrievement because of a preference for fairness instead of a concern for backlashes is unlikely for many reasons including the fact that governors without concern for backlash could instead extract private benefits from their OZ allocation. For instance, they could allocate more OZs to their voters and donors instead of prioritizing managing county aggrievement. 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. Furthermore, data from the Menino Survey validate the functional form of aggrievement in Equation 1 and the hypothesis that counties are pressure groups and may be aggrieved with their OZ allocation. Therefore, regardless of the reasons why governors manage county aggrievement, our simple model allows us to identify the extent to which governors managed county aggrievement when allocating OZs and to compare counterfactual allocations, when α_s is zero or one, to observed allocations.

Second, the model does not consider all factors that may influence a governor's OZ allocation. Although we estimate the model with many tract-level characteristics ($X_{i,j}$) that capture many factors that influenced the OZ allocations (see Section 3), it is impossible to control for all the factors that governors may have considered in their OZ allocations. This is an issue if some omitted variable may confound the interpretation of α_s^* as aversion to county aggrievement. In Section 5, we discuss several allocation consequences of managing aggrievement that unobservable variables must also have to confound our identification of the parameter of interest (α_s^*).

2.3. Estimation Procedure

The model does not admit closed-form analytical solutions and needs to be estimated numerically. Doing so is feasible because a two-step procedure can be used to estimate the model parameters. This procedure works well because the weights Ψ_s in the score function $S_{s,i,j}$ can be estimated from the allocation of OZs within counties, as the model implies that the governors sort census tracts according to their scores $S_{s,i,j}$ within counties (see Internet Appendix B for a proof). Therefore, the parameters Ψ_s can be estimated in a first stage that controls for the differences between counties. Specifically, we estimate Ψ_s with a probit model of governors' tract-level OZ selections using county random effects in the first-stage estimation.[13]

[13]In the probit model, the parameters are only identified up to scale. Without loss of generality, the scale is normalized by fixing the variance of the errors $\epsilon_{i,j}$ to equal one (e.g., Korteweg and Sorensen, 2016). We

We estimate the weights, Ψ_s, using the OZ designations of all governors. That is, $\Psi_s = \Psi$, where Ψ is the result of a probit regression estimated with all OZ designations across the U.S. The primary benefit of using all states is that we can reliably estimate the importance of a large number of census-tract characteristics. In contrast, if we estimate Ψ_s separately for each state, then we would not be able to estimate the importance of many characteristics of census tracts in the selection of OZs due to sample size limitations, as several states have a small number of eligible tracts.

In the second stage, we estimate the governor's aversion to local aggrievement, α_s, using simulated maximum likelihood. This estimation procedure finds the α_s^* that maximizes the likelihood that the model's choices of OZs reflect the governor's actual OZ selections:

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

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. We set the number of simulations at $K = 100,000$ for each state. (See, e.g., McFadden (1989) and Lockwood (2018) for similar implementations.)[14]

3. Data and Variable Construction

In our model, the governor weighs the management of counties' aggrievement with other tract-level considerations ($X_{i,j}$ in Equation 2). We use a set of tract-level characteristics that we broadly categorize into three themes: (1) variables related to a tract's poverty and demographics; (2) variables related to a tract's potential to attract investments; and (3) variables related to a governor's electoral concerns. By controlling for these variables, we aim to approximate the primary factors that influence the governor's decision-making process at the tract level to the best of our ability. Although we have 23 controls for tract-level characteristics, it is impossible to control for all the factors that governors may have considered in their OZ allocations. In Section 5, we discuss several allocation consequences of managing aggrievement that unobservable variables must also have to confound our identification of the parameter of interest (α_s^*).

use a random effects model because fixed effect estimators of probit models can be severely biased (e.g., Cruz-Gonzalez et al., 2017).

[14] Internet Appendix B describes details about the estimation procedure. Internet Appendix C addresses the robustness of estimation results. Specifically, it shows that our estimates of α_s are very similar when estimating Ψ_s in the first stage for each state using a small set of tract-level characteristics. It also shows that estimation results are robust to different numbers of simulations K.

We list and describe the main output and input variables for the model estimation in Table III. We defer our discussion of the output variables listed in Panel A to Section 4. To proxy for a tract's poverty and demographics (Panel B), we use the full set of 18 tract-level characteristics that the Urban Institute put together specifically for the eligible tracts in the OZ program. The Urban Institute made these data publicly available in advance of the OZ selection process, and there is evidence that states incorporated these data.[15]

To proxy for a tract's investment potential (Panel C), we use an index of a tract's investment activity (based on past lending to residential and commercial real estate projects) from the Urban Institute and two proxies for a tract's agglomeration economies motivated by the literature and available state disclosures about the 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). The theory posits that agglomeration economies exist when there are shareable inputs to production. One type of shareable input is the close proximity of businesses and labor, captured by investment activity and population density, respectively (Ciccone and Hall, 1996; Combes et al., 2008; Liu et al., 2018). Another shareable input is public infrastructure. (See Eberts and McMillen (1999) for a review of the theoretical and empirical literature on agglomeration and public infrastructure.) Furthermore, some states disclosed that they prioritized areas with proximity to airports (LA, OH, PA), ports (LA, OH, WA), hospitals (MI, PA), or colleges and universities (LA, MI, TN). For each census tract, we count the number of airports, ports, hospitals, and colleges and universities within five miles of the center of the tract. We measure a tract's population density using the population of the tract from the Urban Institute and the area of the tract from ArcGIS.

To proxy for a governor's electoral concerns (Panel D), we also add two controls that proxy for the favoritism channel proposed in Frank et al. (2022) and Alm et al. (2021) but refuted by Glick and Palmer (2022). Specifically, we follow the measures of favoritism in these papers using an indicator variable that equals one if a tract is represented by a state legislator who is politically affiliated with the party of the governor. These data come from Ballotpedia. Also, Glick and Palmer (2022) considers the proportion of voters in a county who voted for the governor assigning OZs. Our county-level gubernatorial voting data come from Dave Liep's Election Atlas.

[15]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.

Our sample comprises 30,835 eligible tracts in the 50 states.[16] Much of the United States — about 42% of all census tracts — was eligible for the OZ designation, and the governors designated 11.8% of all census tracts as OZs.

Table IV summarizes our key variables. Panel A presents characteristics of the allocation of OZs across counties. 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 in part due to the fact that many counties with fewer than four eligible tracts receive exactly one OZ, resulting in allocations above 25%. Panel B shows that about 46% of counties (1,242 counties) have fewer than four eligible tracts and that about 17% of counties (465 counties) have only one eligible tract.

Table IV, Panel C, shows that the average poverty (unemployment) rate in eligible tracts is 26.3% (10.9%). Table IV, Panel D, presents the characteristics at the tract level separately for 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%).

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 start of 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. Private and public operating businesses must notify the Securities and Exchange Commission (SEC) of exempt offerings of securities by filing a Form D. To identify equity issues in a specific eligible tract, we use Form D filings from the SEC. The Council of Economic Advisers (2020) and Xu (2022) also examine the investment effects of the OZ program using Form D filings to proxy for investment flows into tracts. Importantly, these data include the street address of the issuer and the date the equity is raised, allowing us to determine the flow of equity investment into the businesses operating in each eligible tract.

Table IV, Panel E, shows the statistics on equity issues from Form D filings. A total of 12,638 unique operating businesses raised capital using a Form D exemption from 2014 to the third quarter of 2019 in eligible census tracts. During this sample period, we observe at least one Form D filing by an operating firm in 3,539 (approximately 11.5%) of the eligible tracts in our sample. The median amount raised is about $1.0 million, an amount consistent with these operating businesses being small, early-stage businesses raising seed funding. For comparison, according to Crunchbase and PitchBook, the average seed funding round from

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

2010 to 2019 was approximately $1.3 million. Although the address on the Form D filing is for an issuer's headquarters, most of these small operations have a single establishment.[17]

4. Model Estimation Results

As described in Section 2.3, the configuration of the model allows for a two-stage estimation procedure. Table V presents the weights, Ψ, estimated in the first stage using a probit model with county random effects and standardized tract-level characteristics. We standardize all the characteristics to make it easier to compare magnitudes. Within a county, governors were more likely to select tracts for the OZ program that have more investment potential (investment score), higher poverty rates, and higher unemployment. Interestingly, controls related to the demographics and educational attainment of a tract are largely insignificant. In other words, there is no evidence that governors preferred tracts within counties with more White or more minority residents, holding the other tract characteristics fixed. Also, as in Glick and Palmer (2022), we find no evidence of favoritism in the OZ program. The controls for county votes and the political party of the state legislator representing an eligible tract are both insignificant, with coefficients close to zero.[18]

We use the first-stage estimates in the second stage to estimate the unobservable parameter of interest: a governor's aversion to county aggrievement when allocating OZs (α_s^*). Table VI lists our α_s^* estimates for Equation 2 by state. The average (median) α_s^* is 0.82 (0.94).

We test whether an estimate α_s^* is significantly different from zero with log-likelihood ratio tests. The p-values of these tests in Table VI show that the estimates α_s^* are significantly different from zero at the levels 1%, 5%, and 10% for 23, 32, and 37 states, respectively.[19]

We would expect that allowing governors to manage county aggrievement would improve the model's fit of the proportion of eligible tracts designated as OZs across counties. Indeed, compared to a model without aversion to aggrievement, allowing governors to manage aggrievement leads to an 11.5% improvement in the model's overall root mean square error

[17] We randomly sampled 100 Form D issuers and tracked down 71 of their websites. We examine their "about us" and "contact us" pages. Of the 71 issuers, 59 (83%) had only one establishment. Internet Appendix A.5 provides an additional discussion of the proxy, including examples.

[18] Although the literature discuss 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 increased the costs for governors to extract private benefits from the OZ allocations (e.g., Banerjee, Mullainathan, and Hanna, 2012). Indeed, in Appendix Table C2, we show that the governors did not allocate more OZs to areas with more political donors or to areas with more swing voters.

[19] Internet Appendix Figure C2 shows how the log-likelihoods vary with α_s for each state. We also show that our estimates α_s^* are robust to the number of simulations (Internet Appendix Table C3) and to estimating the first-step weights for each state (Internet Appendix Table C4).

(RMSE) with regards to the cross-county allocation of OZs.[20] This improvement in the RMSE is 53.3% (5.6%) in high (low) alpha states.

An interesting question is why α_s^* varies between states. A close examination of the α_s^* estimates reveals that they are in general high. For the 40 states above the mean α_s^*, the average α_s^* is 0.95. Only ten states have α^* below the mean of 0.82. Of these ten states, five of them have fewer than 100 eligible tracts (AK, DE, ND, VT, WY). As we mentioned in Section 2.1, these states received 25 OZs each and have an average R_s of 47%. Therefore, their governors were much less constrained in their allocation of OZs than the other governors with an R_s of about 25%. For the five remaining low α_s^* states (GA, MO, MS, NV, PA) that have more than 100 eligible tracts, public descriptions of their OZ allocation do not mention allocating at least one OZ to all counties or proportionally across counties. In fact, their descriptions reveal that their governors prioritized allocating OZs to follow the objective of the policy of addressing poverty by stimulating investments. While it is difficult to identify why these five large states have low α_s^*, more generally, in untabulated results, we find small and insignificant correlations between α_s^* and whether the governor assigning OZs is Republican, the number of residents in a state, and the number of eligible tracts in a state. Overall, the α_s^* estimates are predominately high, and allowing governors to manage aggrievement significantly improves the model's ability to explain governors' OZ allocations.[21]

5. Identifying a Governor's Aversion to Aggrievement (α_s^*)

In this section, we demonstrate how the model identifies aversion to aggrievement. We do so by showing that the model's key predictions are observed in the actual allocations of OZs. The distinct predictions are especially present in the actual OZ allocation in states where governors exhibit high aversion to aggrievement (high α_s^* states).

5.1. Distinct Model Predictions

The model predicts that governors managing aggrievement shift OZs away 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 away from some large counties to give OZs

[20] To calculate the improvement in the model's RMSE, for each county i in state s, we first calculate two squared differences. The first squared difference is between the actual proportion of eligible tracts designated as OZs ($\#OZ_i^{Actual}/E_i$) and the proportion predicted by the model when governors manage aggrievement ($E^{\alpha_s=\alpha_s^*}[\#OZ_i/E_i]$). The second squared difference is between $\#OZ_i^{Actual}/E_i$ and the proportion predicted by the model when governors ignore aggrievement ($E^{\alpha_s=0}[\#OZ_i/E_i]$). We average these squared errors across all counties, take the square root to compute the RMSE, and then calculate the difference in the RMSE when governors manage and do not manage aggrievement.

[21] Appendix Figure C3 shows that there is no clear pattern in the α_s^*s across regions of the United States.

to other large counties that would otherwise receive a smaller proportion of OZs than R_s. They shift OZs between counties to achieve an OZ allocation in which all counties receive at least one OZ (universalism) and in which large counties get about the same proportion of their eligible tracts as OZs (uniformity).

Table XI shows the predictions of the model. Specifically, columns (1) to (3) of Table XI compare the average across states of county OZ allocations predicted by the model when governors minimize aggrievement ($\alpha_s^* = 1$) with the allocation when governors do not manage aggrievement ($\alpha_s^* = 0$). One of the model's predictions is that governors minimizing aggrievement often give *exactly one* OZ to counties with one-to-three eligible tracts. By contrast, governors ignoring aggrievement only allocate OZs to about 25% of the counties with one-to-three eligible tracts. Panel A presents results related to this prediction. Panel A of Table XI column (1) shows that governors minimizing aggrievement are predicted to give exactly one OZ to all counties with one-to-three eligible tracts. That is, for counties with one, two, and three eligible tracts, the governors designate as OZs 98.3%, 50%, and 34% of their eligible tracts, respectively. Collectively, when $\alpha_s = 1$, about 95% of the counties with one-to-three eligible tracts get exactly one OZ. By contrast, column (2) shows that governors ignoring aggrievement only allocate OZs to about 25% of the counties with one eligible tract, leaving many of the 1,242 counties with one-to-three eligible tracts without an OZ. The rationale for these shifts in OZs is that the marginal increase in aggrievement when a governor takes an OZ from a large county with many eligible tracts is relatively lower than the marginal decrease in aggrievement of ensuring that each county with few eligible tracts receives one OZ. Additionally, there is no reduction in aggrievement gained by allocating more than one OZ to counties with two-to-three eligible tracts because assigning them one OZ increases their proportion of eligible tracts designated as OZs above the reference point R_s, which is close to 25%.

Panel B of Table XI shows that a consequence of shifting OZs to small counties to manage aggrievement is an allocation that looks universalistic: most counties receive OZs. Specifically, Panel B column (1) shows that the predicted percentage of counties receiving at least one OZ when $\alpha_s = 1$ is 94.7% as opposed to 68.5% when $\alpha_s = 0$ in column (2). Thus, the model predicts a 26.2 percentage point increase (a 38% increase) in the proportion of counties receiving at least one OZ when governors manage versus ignore local aggrievement.

Panel C shows that the reshuffling of OZs from large counties to other large counties to manage aggrievement leads to an allocation in which all large counties get about the same proportion of their eligible tracts as OZs (uniformity). Specifically, Panel C column (3) shows that the standard deviation of the proportion of eligible tracts designated as OZs in large counties is 10.2 percentage points lower (a 65% decrease) when governors manage

aggrievement ($\alpha_s = 1$) versus when they ignore it ($\alpha_s = 0$).

5.2. Distinct Model Predictions Line Up With Actual Allocations

Table XI also shows that these predictions of the model are observed in the actual allocation of OZs in high α_s^* states. Columns (4) to (6) of Table XI compare the actual OZ allocation in high α_s^* states with the allocation in low α_s^* states.

Consistent with governors allocating exactly one OZ to counties with one-to-three eligible tracts, for high α_s^* states, about 70% of counties with one-to-three eligible receive exactly one OZ and less than 9% of them receive more than one OZ, the remainder do not receive an OZ. In contrast, for low α_s^* states, about 40% of counties with one-to-three eligible tracts receive one OZ and about 8% received more than one OZ, 52% do not receive an OZ. Panel A of Table XI shows that in states where governors exhibit a high (low) aversion to aggrievement, counties with one, two, and three eligible tracts have on average 66% (34%), 46% (32%), and 37% (27%) of their eligible tracts designated as OZs, respectively.

Related to the prediction of universalism, Panel B shows that when the model estimates that governors exhibit a high aversion to aggrievement, governors allocated at least one OZ to 91.1% of counties as opposed to only 69.6% of counties receiving an OZ when the estimated α_s^* is low. Thus, the actual difference in the proportion of counties receiving at least one OZ across governors with high versus low aversion to county aggrievement is 21.5 percentage points — a statistically significant difference. For counties with one-to-three (four or more) eligible tracts, the proportion of counties that receive at least one OZ is 29.6 (5.8) percentage points higher when α_s^* is high relative to when α_s^* is low.

Consistent with the prediction of uniformity, Panel C of Table XI shows that when the model estimates that the governors exhibit a high aversion to county aggrievement, the standard deviation of the allocation of OZs across counties with four or more eligible tracts is 5.7 percentage points lower, a statistically significant difference.[22]

[22]We show many additional results in the Internet Appendix. These results further the case that the universalistic and uniform allocation of OZs in the data allows the model to identify the parameter α_s^*. Specifically we show that the model fit of the allocation of OZs across counties improves for several types of counties — small and large counties predicted to gain or lose OZs because of managing aggrievement. Appendix Figures C4 and C5 show which counties gain and lose OZs because of managing aggrievement by the number of eligible tracts in the county E_i using $\alpha_s = 1$ and α_s^*, respectively. Figure C6 decomposes the improvement in the root mean square error of the county allocations. It shows that the model's fit of the OZ allocation with managing aggrievement improves for the counties predicted to gain and lose OZs by the number of eligible tracts in the county. Additionally, we provide evidence that disclosures discussing how governors allocated OZs mention these objectives of universalism and uniformity significantly more in high α_s^* states. Specifically, using the summary of the state disclosures in Internet Appendix Table C1, we create indicator variables that take the value one for the states in which governor's disclosure discuss uniformity and universalism. The uniformity indicator is 28 percentage points higher for high α^* states ($t - statistic = 2.71$) and the universalism indicator is 44 percentage points higher for high α^* states ($t - statistic = 3.63$).

For any unobservable variable to confound our identification of governors' aversion to aggrievement, it would have to affect OZ allocations in the several ways managing aggrievement affects allocations, as predicted by the model and described above. Furthermore, the omitted variable would have to also fit the local aggrievement regarding the OZ program reported by local officials in the 2019 Menino Survey. For instance, perhaps governors allocate more OZs to small counties because these counties are rural or perhaps governors are simply spreading OZs around the entire state. If governors with high α_s^* simply have a preference for small counties or are spreading OZs around the entire state, one might expect such governors to designate all or most of the eligible tracts in small counties as OZs rather than exactly one per small county. However, our model distinctly predicts that governors managing aggrievement allocate exactly one OZ to each county with one-to-three eligible tracts, and we find support for this prediction in the data. Furthermore, a larger allocation of OZs to rural counties cannot explain the more uniform allocation of OZs across large counties that we observe in states where governors displayed a high aversion to aggrievement.[23]

6. Who Lost due to Managing Aggrievement?

In this section, we examine whether a governor's concern for aggrievement altered the types of communities receiving OZs. This analysis is possible because our structural model allows us to determine the probability ($P_{i,j}(\alpha_s)$) that each tract j in county i becomes an OZ when the governors exhibit ($\alpha_s = \alpha_s^*$) and do not exhibit ($\alpha_s = 0$) aversion to aggrievement. These probabilities along with the characteristics of each eligible tract allow us to calculate the expected socioeconomic and demographic characteristics of the people living in OZs when governors exhibit and do not exhibit aversion to aggrievement.[24]

Table XII, Panel A indicates that, as a result of governors managing aggrievement, there is an expected decrease of 20,223 families living in poverty in OZs. There are 27,332 fewer unemployed people residing in OZs. Also, there are 628,591 more White residents in OZs, 347,507 fewer Black residents in OZs, and 223,293 fewer Hispanic residents in OZs. To

[23]Also, the distribution of our tract characteristics across counties of different sizes do not line up with either the tendency to give sharply more OZs to counties with fewer than four eligible tracts or the tendency to allocate OZs more uniformly. For example, Internet Appendix Figure C7 shows the distribution of affiliated state representatives and the distribution of votes for the governor across counties of different sizes. There is no sharp change in the presence of affiliated state legislators or voters for the governor between counties with one-to-three eligible tracts and counties with four or more eligible tracts. In addition, the variation in these characteristics increases as the number of eligible tracts increases rather than decreases. Therefore, favoritism cannot explain either the tendency to give sharply more OZs to counties with fewer than four eligible tracts or the tendency to allocate OZs more uniformly. Also refer to Internet Appendix Figure C8 for a similar analysis using poverty rates, unemployment, investment potential, and the proportion of White residents.

[24]Internet Appendix D shows the formulas used to compute the expected values shown in this section.

put these differences in context, we calculate these changes for the high and low α_s^* states separately and then compare these quantities with the total populations of Whites, Blacks, and Hispanics in the actual OZs in the high (low) α_s^* states. In high (low) α_s^* states, managing aggrievement leads to a 6.1% (3.2%) increase in White residents, a -5.7% (-3.5%) decrease in Black residents, and -2.6% (-3.3%) decrease in Hispanic residents living in OZs.

Heterogeneity in tract characteristics coupled with a large shift in the people in OZs results in very significant changes in the demographic and socioeconomic characteristics of the population living in OZs. Indeed, the model reveals which eligible tracts are more likely ($P_{i,j}(\alpha_s^*) > P_{i,j}(0)$) to be selected as OZs and which eligible tracts are less likely ($P_{i,j}(\alpha_s^*) < P_{i,j}(0)$) to be selected as OZs when governors manage aggrievement. The expected number of OZs shifted to manage aggrievement when $\alpha_s = \alpha_s^*$, relative to the allocation when $\alpha_s = 0$, is 476. These shifts changed the OZ status for approximately 1.9 million people, which is about 6.3% of the 30 million people living in OZs.

To better understand the differences in Panel A of Table XII, we use our counterfactual analysis to predict the changes in the characteristics of the 476 OZs that are expected to shift because of governors' aggrievement management. For example, we compare the expected poverty rate of the OZs that are appointed because governors manage aggrievement with the expected poverty rate of the OZs that would have been appointed instead if governors ignored county aggrievement.

Table XII Panel B shows that governors managing aggrievement shifted OZs to eligible tracts with 8.0-percentage-points (3.0-percentage-points) lower expected poverty rates (unemployment rates) relative to those measures in the eligible tracts that would have been designated if governors ignored county aggrievement. This decline represents a 26.2% (23.8%) *decrease* relative to the mean poverty rate (unemployment rate) in OZs. Also, governors managing aggrievement shifted OZs to eligible tracts with 22.4-percentage-points more Whites than the eligible tracts that would have been designated if governors ignored aggrievement. This increase represents a 51.8% *increase* relative to the mean proportion of White residents in OZs. Consequently, governors managing aggrievement shifted OZs to eligible tracts with 16.3-percentage-points (5.1-percentage-points) fewer Blacks (Hispanics) than the eligible tracts that would have been designated if governors ignored aggrievement. This decrease represents a 60.5% (22.4%) *decrease* relative to the mean proportion of Black (Hispanic) residents in OZs. Thus, when governors manage local aggrievement, more OZs go to less-poor areas with a higher proportion of White residents. These findings are consistent with the observation in Heikkila (2001) that spacial equality does not necessarily result in racial

equality.[25]

We also examine the effects of managing aggrievement on the demographic characteristics of census tracts designated as OZs separately for counties with one-to-three eligible tracts and counties with four or more eligible tracts. Table XII, Panel B, columns (2) and (3) present the results. The results show that the eligible tracts in small and large counties that are more likely to be selected as OZs when governors manage aggrievement have lower expected poverty rates, lower unemployment rates, fewer Blacks, and fewer Hispanics. Thus, the results in column (1) are driven by governors allocating more OZs to small counties and by governors allocating OZs more uniformly across larger counties.

7. OZs Selected to Manage Aggrievement Stimulate Less Investment

We next perform counterfactual analyses to examine whether a governor's concern for aggrievement affected the investment potential of OZs and the amount of investment stimulated by the OZ program.

We first show that managing aggrievement leads to a set of OZs with lower investment potential. As in the case of the demographic characteristics in Section 6, this analysis is possible because our structural model allows us to determine the probability ($P_{i,j}(\alpha_s)$) that each tract j in county i becomes an OZ when the governors exhibit ($\alpha_s = \alpha_s^*$) and do not exhibit ($\alpha_s = 0$) aversion to aggrievement. These probabilities along with the characteristics of each eligible tract related to the tract's investment potential allow us to calculate the expected investment potential of OZs when governors exhibit and do not exhibit aversion to aggrievement.

Table XIII shows that governors managing aggrievement shifted OZs to eligible tracts with 0.8 lower expected investment scores, to eligible tracts with 1,600 fewer persons per square kilometer, and to tracts with 1.8 fewer pieces of infrastructure within a five-mile radius of the census tract. This corresponds to a decrease of 15%, 63%, and 11% in investment score, population density, and proximity to infrastructure relative to the average of these

[25] Appendix Table C5 examines the robustness of these findings. Specifically, we estimate a linear probability model with county fixed effects and compare the predicted number of OZ residents by demographic characteristic when the governor chooses OZs considering county-level factors (e.g., aggrievement) with the characteristics when governors only consider the within-county tract characteristics. In other words, in our model, the counterfactual OZ allocation is predicted when we set $\alpha_s = 0$, while in this robustness exercise, the counterfactual OZ allocation is predicted when using only within-county tract characteristics to determine the state's OZ allocation. The results in Appendix Table C5 are similar in size to those described in Table XII. Naturally, the estimated changes with the fixed effects model cannot be attributed to managing local aggrievement. However, it points out that large demographic differences in those who reside in OZs would arise if governors had used the same criteria to choose OZs across counties as the criteria used to choose OZs within counties.

characteristics across OZs. Thus, regardless of whether the OZ program actually stimulated investment, our findings show that managing aggrievement results in governors allocating more OZs to areas with lower investment potential.

We next show that managing aggrievement lowered the amount of actual investment stimulated by the OZ program. To do so, we estimate a triple-differences specification. The first difference is the change in investment activity for each eligible tract before and after the start of the OZ program, which began in the first quarter of 2018. The second difference captures the differences in this change in investment activity before and after the OZ program for tracts that became OZs and eligible tracts that did not become OZs. The third difference examines how investment activity differs across OZs that are more or less likely to be selected to manage 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 the equity issuance data from the first quarter of 2014 to the third quarter of 2019 from the SEC Form D database. We estimate the specification using both an indicator for whether any investment occurred and the natural logarithm of one plus the amount of investment. In both cases, we multiply the outcome by 100 to express the coefficients in percentage points. $I_{i,j}^{\text{Actual}}$ is an indicator variable that equals one if an eligible census tract j in county i is actually designated as an OZ. $Post_q$ is an indicator variable that equals one for all quarters after the first quarter of 2018, which is when governors began selecting eligible tracts for the OZ designation. $(\text{P}_{i,j}(\alpha_s^*) - \text{P}_{i,j}(0))$ is the difference in the probability of a tract becoming an OZ when a governor manages aggrievement (using $\alpha_s = \alpha_s^*$) and when a governor ignores aggrievement (using $\alpha_s = 0$). $\mu_{i,j}$ is a fixed effect for the census tract that accounts for all fixed determinants of investment activity (absorbs $(\text{P}_{i,j}(\alpha_s^*) - \text{P}_{i,j}(0))$ and $I_{i,j}^{Actual}$). $\gamma_{s,q}$ is a state-by-quarter fixed effect that controls for different trends in investment activity across states (absorbs $Post_q$). We cluster standard errors by state.

The assumption underlying the difference-in-differences strategy to identify the effect of the OZ designation on investments is that eligible tracts designated as OZs and eligible tracts not designated as OZs would have had similar trends in investments if the OZ program were not in place. Figure II(a) plots the difference in investment between eligible tracts designated and not designated as OZs. It is clear that the two types of tracts had similar investment

activity prior to the OZ program, with no significant differences in investment rates prior to the OZ program. After the start of the OZ program, investment activity in tracts designated as OZs increased significantly.

The triple-difference analysis is more relevant to our research question. Our empirical strategy to determine the effect of managing aggrievement on the amount of stimulated investment is based on the assumption that OZs more or less likely to be selected because of managing aggrievement would have had similar trends in investments if the OZ program were not in place. Figure II(b) plots the difference in investment between the OZs that are more or less likely to be selected to manage aggrievement. Again, it is clear that differences in OZs' propensity to be selected to manage aggrievement are unrelated to differences in their investment activity prior to the OZ program. Only after the start of the OZ program do we see that OZs that are more likely to be selected to manage aggrievement stimulate significantly less investment than OZs less likely to be selected to manage aggrievement.[26]

Table XIV 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. Examining column (1), the coefficient on $\mathrm{I}_{i,j}^{\mathrm{Actual}} \times \mathrm{Post}_q$ indicates that an OZ designation increased the propensity for investment activity in a tract-quarter by 51 basis points. The results in column (4) indicate that an OZ designation increased the amount of investment by 7.6%. These results hold controlling for state-quarter fixed effects, which control for all state-level variation in non-observable variables, such as trends in a state's economic conditions. Additionally, these results hold controlling for census tract fixed effects, which control for differences across tracts, such as differences in their attractiveness for investment.[27]

Most importantly, we examine whether governors' efforts to manage aggrievement altered the investment effect of the OZ program we document above. The estimates in Table XIV, columns (2) and (5) indicate that the OZs governors designated to manage aggrievement stimulated significantly less investment. The change in the probability of selection as an OZ is standardized so that the coefficient on $\mathrm{I}_{i,j}^{\mathrm{Actual}} \times \mathrm{Post}_q$ is the effect of the OZ designation for the tracts with the average change in the probability of designation. 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

[26]Note that the decline in Figure II(b) after the OZ program begins does not indicate that investment rates declined because of the OZ program. What Figure II(b) shows is that the positive effect of OZ designations on investment shown in Figure II(a) is lower by the amount shown in Figure II(b) for OZs selected to manage aggrievement.

[27]In Internet Appendix Table C6, we show that these main positive effects of the OZ program on investment activity are robust to a variety of fixed effect specifications. In Internet Appendix Table C7, we show that the results are robust to the sample period.

becoming an OZ because governors manage aggrievement reduces the propensity of investment and the amount of investment stimulated by that OZ designation by 38.2% (0.21/0.55) and 36.6% (2.98/8.15), respectively. Thus, when governors manage local aggrievement, they shift OZs to counties in which the new designation stimulates little investment.

We decompose the investment results in Table XIV columns (2) and (5) by the size of the county where the eligible tract resides. Doing so allows us to examine the supposition in Glaeser and Gottlieb (2008) that inequity aversion makes it politically costly to subsidize large urban areas where place-based policies are more effective, resulting in more resources going to less productive rural areas. Relatedly, in our setting, one predicted consequence of governors managing aggrievement is that they give OZs to more counties (universalism) by allocating one OZ to counties with fewer than four eligible tracts. Perhaps this transfer of OZs to small counties explains our investment results. Alternatively, a second predicted change in OZ allocations when governors manage aggrievement 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 when a county has fewer than four eligible tracts (1-3 Eligible Tracts_i).

The results in columns (3) and (6) of Table XIV indicate that managing aggrievement adversely impacts the effectiveness of the OZ program in stimulating investment due to both universalism and uniformity. Specifically, the interaction with *1-3 Eligible Tracts*$_i$ is not statistically significant, which means that there is a similar drop in investment activity in the OZs used to manage aggrievement when those OZs are in counties with 1-3 eligible tracts and when those OZs are in counties with four or more eligible tracts. Thus, the tendency for governors managing aggrievement to allocate OZs across large counties more uniformly tends to reduce the amount of investment stimulated by the program. This result expands the concern in Glaeser and Gottlieb (2008) by showing that managing aggrievement also lowers the amount of investment stimulated by place-based policies due to more uniform allocations.

8. Conclusion

In summary, our results highlight that central planners' efforts to manage aggrievement may strongly impact resource allocations and policy outcomes. Our counterfactual analyses showed that governors who were more sensitive to aggrievement allocated a higher number of OZs to areas with lower poverty rates and higher proportions of White residents. Additionally, we also showed that managing aggrievement led governors to allocate OZs to areas with lower investment potential, and accordingly, these OZs stimulated less new investment.

In future research, it could be interesting to study the impact of institutional design and policy design on central planners' efforts to manage aggrievement. Aversion to aggrievement may vary across different political systems. For example, more centralized governments (e.g., dictatorships) may be less affected by aggrievement than democracies with close elections. In the OZ setting, transparency made it easier for counties' constituents and officials to see if they received relatively fewer OZs. Managing aggrievement may be less important in less transparent settings. Lastly, allowing investors to make the final investment decision may have limited governors' incentives to manage aggrievement, as bad decisions can result in fewer resources being attracted to the state.

In conclusion, our results emphasize the need to understand the mechanisms that lead central planners to balance welfare objectives with managing the aggrievement of pressure groups in the distribution of resources. More generally, the economic significance of our results indicates that models in which central planners manage the emotions of pressure groups are a promising direction for understanding political outcomes.

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Figure I: Actual vs Predicted Aggrievement

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 119 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 zero when a local official responds in the 2019 Menino Survey that his city/county is "somewhat happy" or "extremely happy" with its OZ allocation and equals one otherwise. 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 is based on the assumption that local constituents feel entitled to have an R_s proportion of eligible tracts in their city/county 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.

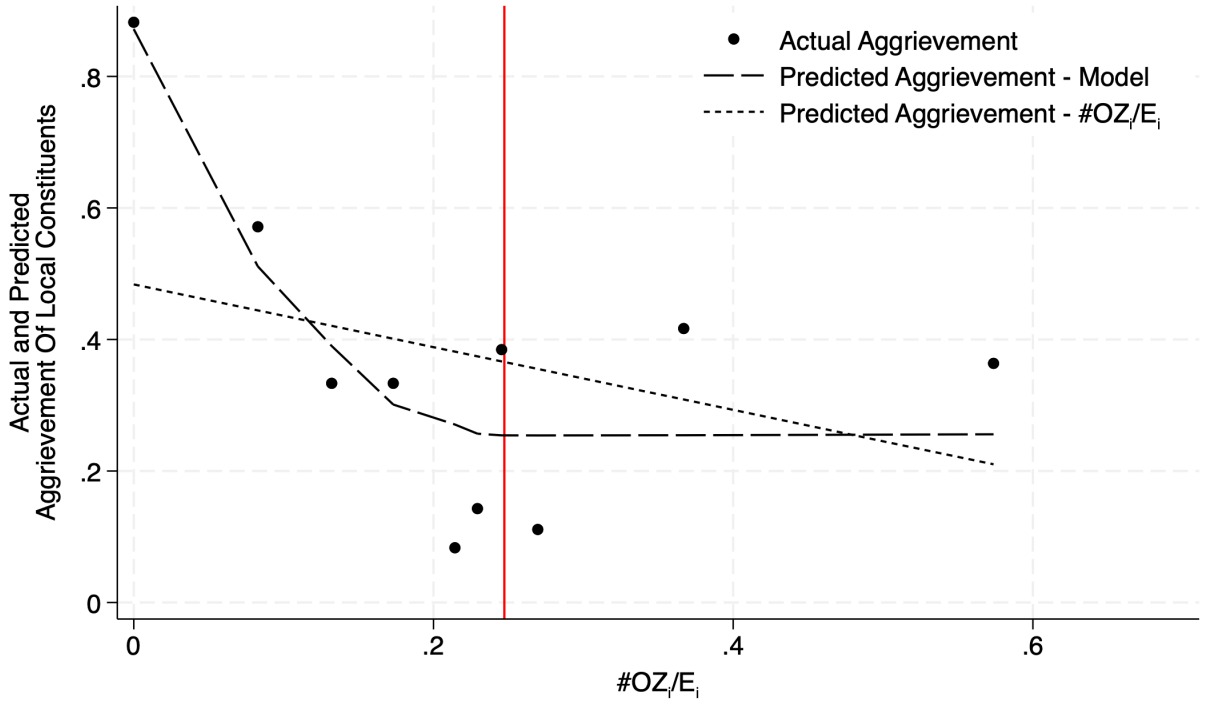
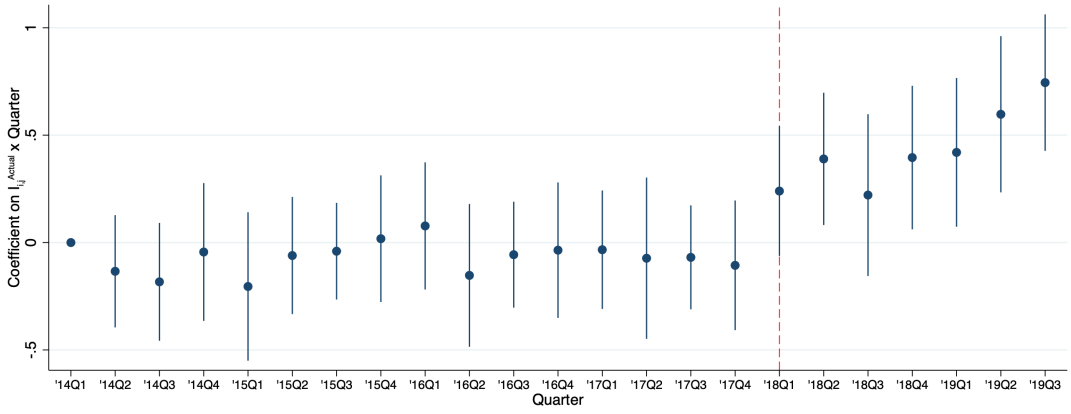
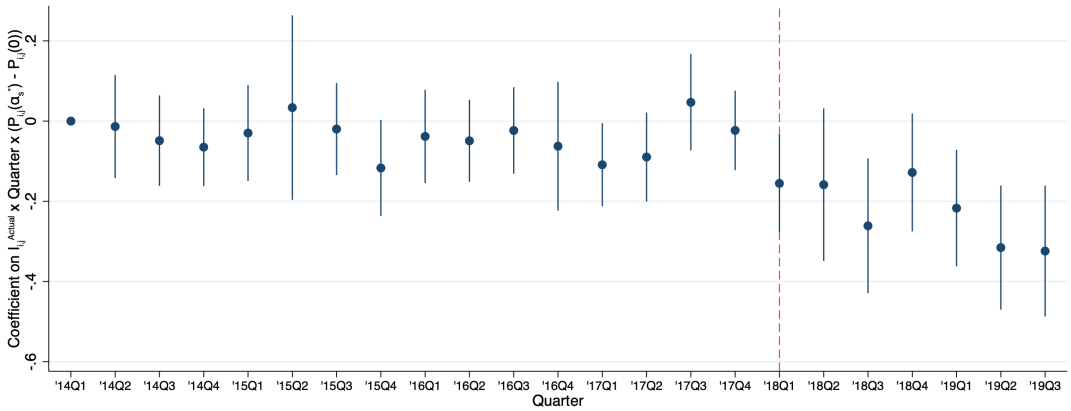


Figure II: Aversion to aggrievement and the OZ program's effect on investment activity

This figure examines whether managing aggrievement decreased the amount of investment stimulated by the OZ program. The two panels present the dynamics of the difference-in-differences specification in column (1) and the triple difference specification in column (2) of Table XIV, respectively. The outcome variable is an indicator that is equal to one for a tract if a firm in that tract issues equity in that quarter. Panel A investigates whether the OZ program had an effect on investment flows by comparing investment activity in tracts that were designated as OZs and in tracts that were eligible for the OZ designation but were not chosen. Specifically, we regress the indicator for issuance in a tract quarter on interactions of quarterly dummies with $I_{i,j}^{Actual}$, which is an indicator that equals one if tract j in county i is actually designated as an OZ. The plotted coefficients on the interaction terms represent the differences between investments in OZs and non-OZs in a quarter. Panel B compares investment flows into OZs more likely to be chosen because of managing aggrievement and investment flows into OZs likely chosen for other considerations (e.g., investment potential). To do so, we examine the triple interaction of the quarterly dummies, the OZ indicator $I_{i,j}^{Actual}$, and the *standardized* difference in the estimated probabilities of the model that the tract j in the county i is selected as an OZ when the governor does and does not manage aggrievement ($\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0$). $\mathrm{P}_{i,j}(\alpha_s^*)$ is the probability that a governor designates the tract j as an OZ when governors manage aggrievement, and $\mathrm{P}_{i,j}(0)$ is the counterfactual probability that the governor designates the tract j as an OZ when governors ignore county aggrievement. Tract j in county i is more likely to be selected as an OZ due to managing aggrievement when the difference in these probabilities 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. We omit the first time period. The red vertical line at the first quarter of 2018 indicates when governors began designating OZs. Standard errors are clustered by state. 90% confidence intervals are shown.



(a) Investment in OZs vs non-OZs



(b) Investment in OZs selected to manage aggrievement vs OZs selected for other considerations

Table I: Local officials' views about the OZ program

The 2019 Menino Survey of Mayors asked 119 sitting mayors and county officials questions about their opinions on the OZ program. Each panel displays the answers to a survey question. The column labeled NA displays the percentage of local officials that did not respond the survey question. The other columns display the percentage of responses in each multiple choice category. See Einstein et al. (2023) for details about 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 examines the connection between the functional form of aggrievement assumed in our model and the actual aggrievement of local citizens with their OZ allocation, as reported by local officials. 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 responds that his city/county is "somewhat happy" or "extremely happy" with its OZ allocation and equals one otherwise. Our explanatory variable in column (1) is the standardized amount of aggrievement predicted by our model aggrievement function. Specifically, 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 that the local official's region i actually received. E_i denotes the number of eligible tracts in the local official's city/county i, and $\#OZ_i/E_i$ denotes the proportion of eligible tracts in a local official's region designated as OZs. Our *Model Aggrievement* definition is based on the assumption that local constituents feel entitled to have an R_s proportion of the eligible tracts in their city/county be designated as OZs. We set R_s equal to the actual number of low-income tracts that a governor designated as OZs divided by the number of 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	0.216***	
	(0.034)	
$\#OZ_i/E_i$		-0.079
		(0.066)
Constant	0.378	0.378
	(0.040)	(0.044)
% Adjusted R^2	19.04	1.81
Observations	119	119

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 Parameter Estimate	The estimated parameter α in equation 2 for state s. Captures the concern of a governor for managing aggrievement relative to other considerations (e.g., poverty and agglomeration economies).
$\mathrm{P}_{i,j}(\alpha_s^*)$	Model Parameter Estimate	The probability that a governor designates the tract j in county i as an OZ when governors manage county aggrievement.
$\mathrm{P}_{i,j}(0)$	Model Parameter Estimate	The probability that a governor designates the tract j in county i as an OZ when governors ignore county aggrievement.
$\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0)$	Model Parameter Estimate	Difference in the probability that a tract becomes an OZ when a governor manages aggrievement ($\mathrm{P}_{i,j}(\alpha_s^*)$) versus when a governor ignores aggrievement ($\mathrm{P}_{i,j}(0)$). Tract j in county i is more likely to be selected as an OZ due to managing aggrievement when the difference in these probabilities is positive ($\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0$).
Panel B: Tract's Poverty and Demographic Characteristics		
% Asian	Urban Institute	Proportion of a tract's population that is Asian American or Pacific Islander.
% Bachelors or Higher	Urban Institute	Proportion of a tract's population with a bachelor's degree or higher.
% Black	Urban Institute	Proportion of a tract's population that is Black.
% High School Diploma or Lower	Urban Institute	Proportion of population with a high school degree or lower.
% Hispanic	Urban Institute	Proportion of a tract's population that is Hispanic.
Home Value (Median)	Urban Institute	A tract's median home value in the 2012—2016 American Community Survey.
Household Income (Median)	Urban Institute	A tract's median household income in the 2012—2016 American Community Survey.
% Older than 64 years of age	Urban Institute	Proportion of a tract's population that is older than 64 years of age.
% Own Home	Urban Institute	A tract's % ownership of their home in the 2012—2016 American Community Survey.
Population	Urban Institute	A tract's population in the 2012—2016 American Community Survey.
% Poverty Rate	Urban Institute	The proportion of a tract's population living in poverty as determined by the Census Bureau, which uses a set of income thresholds that vary by family size and composition. Official poverty thresholds do not vary geographically. The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps).
Rent (Median)	Urban Institute	A tract's median rent in the 2012—2016 American Community Survey.

Table III: Variable Definitions (continued)

Variable	Source	Definition
Panel B: Tract's Poverty and Demographic Characteristics (continued)		
% Severe Rent Burden	Urban Institute	The Urban Institute created the housing burden measure by calculating z scores for two housing measures and averaging them: (1) change in the median home value of the tract divided by the change in the median household income of the metropolitan statistical area and (2) change in the median gross rent of the tract divided by the change in the median household income of the metropolitan statistical area. For rural areas outside metropolitan or micropolitan statistical areas, the Urban Institute used the county median household income instead. Any tracts with fewer than 100 units of rental-occupied housing were scored by the home value measure alone, and any tracts with fewer than 100 units of owner-occupied housing were scored by the rent measure alone.
Socioeconomic Change Flag	Urban Institute	Tracts received a socioeconomic change flag if they were more than one standard deviation above the mean of all national census tracts on the composite socioeconomic change index developed by the Urban Institute. This index was composed of four indicators measuring the change in their respective values between 2000 and 2016: (1) percentage point change in the share of residents with a bachelor's degree or higher, (2) dollar change in median family income, (3) percentage point change in the share of non-Hispanic white residents, and (4) change in average housing burden ((a) change in the tract's median home value divided by change in the metropolitan statistical area's median household income, and (b) change in the tract's median gross rent divided by change in the metropolitan statistical area's median household income).
% Unemployment Rate	Urban Institute	The proportion of adults in a tract who are searching for work and unemployed as determined by the Census Bureau.
Vacancy Rate	Urban Institute	A tract's vacancy rate in the 2012—2016 American Community Survey.
% White	Urban Institute	Proportion of a tract's population that is White.
% Younger than 18 years of age	Urban Institute	Proportion of a tract's population that is 18 years old or younger.

Table III: Variable Definitions (continued)

Variable	Source	Definition
Panel C: Investment Potential		
Investment Score	Urban Institute	The score is based on four components: commercial lending, multifamily lending, single family lending, and small business lending. Lending is measured using data from CoreLogic for the period 2011–2015 and data from the Community Reinvestment Act. The Urban Institute researchers calculate z scores for each of the four categories and then compute the average. Then, for all eligible low-income census tracts within the same state, they create a decile ranking of the composite z-scores.
Proximity to infrastructure	ArcGIS	Self-constructed using ArcGIS. We determine the number of airports, hospitals, universities and colleges, and ports within five miles of the center of each eligible tract.
Population Density	Urban Institute and ArcGIS	Constructed using ArcGIS to determine the land area of each tract. Then we calculate the number of people residing per square kilometer in that tract.
Panel D: Governor's Electoral Concerns		
Affiliated State Legislator	Ballotopedia	An indicator that equals one if a tract was represented at the time of the OZ allocations by a state legislator of the lower house of the same political party as the governor.
Core Voters	Dave Liep's Election Atlas	The fraction of voters in a county that voted in the most recent election before 2018 for the governor selecting OZs.

Table IV: Summary statistics

Panel A provides the characteristics of counties with at least one tract eligible for the OZ program. Panel B shows the distribution of the number of eligible tracts in a county. Panel C provides the characteristics of the tracts eligible for the OZ program. Panel D splits the characteristics of the eligible tracts by whether the tract is designated as an OZ. We show differences in the means of these characteristics across OZs and non-OZs and perform a t-test. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively. Panel E summarizes the proxy for tract-level investment flows: equity issuances filed with the Securities and Exchange Commission on a Form D filing.

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

	Obs.	Mean	Std. Dev.	P25	P50	P75
Poverty and Demographic Characteristics						
% 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	131,133	80,200	116,000	178,100
Household Income (Median)	30,835	38,343	12,343	30,236	37,500	45,476
% 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	4,044	1,892	2,675	3,810	5,129
% Poverty Rate	30,835	26.3	12.4	17.7	24.1	32.8
Rent (Median)	30,835	848	275	655	796	987
% 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	23.58	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	2,872	5,311	230	1,288	2,911
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
Votes for Governor	30,835	54.4	15.2	43.8	53.7	66.2

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	3,9659.1	-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)	2,872	2,539	2,980	-441***
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**
Votes for Governor	54.4	54.8	54.3	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 aversion to aggrievement when allocating OZs within counties. Specifically, the model assumes that governors score census tracts as $\Psi \times X_{i,j} + \epsilon_{i,j}$ within counties, where $X_{i,j}$ is a vector representing all observable census-tract characteristics not related to county aggrievement considered in governors' choices; the vector Ψ contains the weights that the governors 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. The tract-level characteristics include the 19 Urban Institute controls, two additional agglomeration economies proxies (population density and proximity to infrastructure), and two additional proxies for a governor's electoral concerns. These variables are described in Table III. The first stage of our model estimation is a probit regression of OZ selection at the tract level on tract-level characteristics using all 50 states. To focus on the within-county allocation of OZs, the probit model allows for county-level random effects. In the probit model, the parameters are only identified up to scale. Without loss of generality, the scale is normalized by fixing the variance of $\epsilon_{i,j}$ equal to one. We standardize all tract characteristics included in the probit regression to facilitate comparisons. 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)
Social Change Flag	0.049***	0.010
Investment Score	0.076***	0.013
% Poverty Rate	0.087**	0.034
Population	0.073***	0.015
Median Household Income	-0.007	0.028
% Unemployment Rate	0.108**	0.050
Median Home Value	-0.030*	0.018
Median Rent	-0.097***	0.022
% Own Home	-0.308***	0.039
% Severe Rent Burden	0.044***	0.012
Vacancy Rate	-0.017	0.020
% White	-0.051	0.084
% Black	0.019	0.086
% Hispanic	-0.022	0.076
% Asian	-0.065**	0.026
% Under 18	-0.010	0.017
% Over 64	0.039**	0.018
% HS or Lower	0.042	0.039
% BA or Higher	-0.048	0.036
Population Density	-0.262***	0.033
Proximity to Infrastructure	0.069**	0.028
Core Voters	0.031	0.040
Affiliated State Legislator	0.016	0.021

Table VI: Aversion to aggrievement estimates by state

This table displays the results of the second stage of our model estimation which is performed with a simulated maximum likelihood method. The parameter α_s^* is the model estimate of a governor's aversion to aggrievement from Equation 2. *P-Value* is the p-value of the log-likelihood ratio test associated with the estimated α_s^*, which tests whether the likelihood associated with α_s^* is significantly better than the likelihood obtained when $\alpha_s = 0$.

State	α_s^*	P-Value	State	α_s^*	P-Value
Alabama	0.97	0.01	Montana	0.96	0.00
Alaska	0.56	0.62	Nebraska	0.91	0.07
Arizona	1.00	0.05	Nevada	0.00	1.00
Arkansas	0.91	0.07	New Hampshire	1.00	0.01
California	0.98	0.00	New Jersey	1.00	0.00
Colorado	0.97	0.00	New Mexico	0.93	0.05
Connecticut	1.00	0.14	New York	0.97	0.00
Delaware	0.05	0.98	North Carolina	0.98	0.00
Florida	1.00	0.00	North Dakota	0.73	0.22
Georgia	0.00	1.00	Ohio	0.94	0.00
Hawaii	1.00	0.03	Oklahoma	0.91	0.01
Idaho	0.97	0.00	Oregon	0.95	0.01
Illinois	0.98	0.00	Pennsylvania	0.00	1.00
Indiana	0.93	0.00	Rhode Island	0.97	0.01
Iowa	0.96	0.00	South Carolina	1.00	0.00
Kansas	0.94	0.00	South Dakota	0.87	0.15
Kentucky	0.91	0.01	Tennessee	0.90	0.05
Louisiana	0.91	0.04	Texas	0.94	0.00
Maine	0.91	0.48	Utah	0.94	0.02
Maryland	1.00	0.00	Vermont	0.75	0.41
Massachusetts	0.96	0.07	Virginia	0.89	0.02
Michigan	0.99	0.00	Washington	0.97	0.00
Minnesota	0.95	0.00	West Virginia	0.96	0.00
Mississippi	0.00	0.98	Wisconsin	0.91	0.01
Missouri	0.00	1.00	Wyoming	0.56	0.29
			Mean	0.82	
			Median	0.94	
			Standard Deviation	0.31	

Table VII: Aversion to aggrievement leads to a universalistic and uniform allocation of OZs

Columns (1)-(3) compare the model's predicted allocations of OZs when governors do and do not manage county aggrievement. Columns $\alpha_s = 1$ and $\alpha_s = 0$ present the predicted characteristics when governors first minimize county aggrievement and when governors ignore county aggrievement, respectively. Columns (4)-(6) compare the actual allocations of OZs in states with high and low model estimated aversion to county aggrievement (α_s^*). Columns *High* α_s^* and *Low* α_s^* split the sample of counties at the median model estimate of governors' aversion to county aggrievement (α_s^*=0.94). We examine the average proportion of eligible tracts designated as OZs by county size (Panel A), the proportion of counties that receive at least one OZ (Panel B), and the standard deviation across counties 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 in 99% of the simulations the county receives at least one OZ. When examining the predicted and actual OZ allocations, we first calculate the proportion or the standard deviation within each state. Then, we take their averages across states. In column (6), we test whether the difference in these averages across states with a high and low estimated aversion to aggrievement is statistically significant using a t-test. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

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

	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	98.3	26.7	71.6	66.0	34.0	32.0***
E_i=2	50.0	25.2	24.8	46.1	31.7	14.4***
E_i=3	34.0	25.1	8.9	36.6	26.8	9.8**
E_i=4	26.0	24.5	1.5	27.6	27.3	0.3
E_i=5-6	29.6	24.6	5.0	23.9	27.9	-4.0
E_i=7-10	25.8	24.6	1.2	24.3	28.3	-4.0
E_i=11+	22.3	24.1	-1.8	22.9	24.1	-1.2

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	94.7	68.5	26.2	91.1	69.6	21.5***
4+ Eligible Tracts	93.2	87.6	5.6	96.2	90.4	5.8**
1-3 Eligible Tracts	94.9	41.8	53.1	81.5	51.9	29.6***

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	23.1	25.2	-2.1	26.0	28.0	-2.0
4+ Eligible Tracts	5.5	15.7	-10.2	11.2	17.0	-5.7***
1-3 Eligible Tracts	26.8	33.9	-7.1	33.8	34.4	-0.6

Table VIII: Aversion to aggrievement leads to a universalistic and uniform allocation of OZs (1 set)

Columns (1)-(3) compare the model's predicted allocations of OZs when governors do and do not manage county aggrievement. Columns $\alpha_s = 1$ and $\alpha_s = 0$ present the predicted characteristics when governors first minimize county aggrievement and when governors ignore county aggrievement, respectively. Columns (4)-(6) compare the actual allocations of OZs in states with high and low model estimated aversion to county aggrievement (α_s^*). Columns *High* α_s^* and *Low* α_s^* split the sample of counties at the median model estimate of governors' aversion to county aggrievement (α_s^*=0.94). We examine the average proportion of eligible tracts designated as OZs by county size (Panel A), the proportion of counties that receive at least one OZ (Panel B), and the standard deviation across counties 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 in 99% of the simulations the county receives at least one OZ. When examining the predicted and actual OZ allocations, we first calculate the proportion or the standard deviation within each state. Then, we take their averages across states. In column (6), we test whether the difference in these averages across states with a high and low estimated aversion to aggrievement is statistically significant using a t-test. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

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

	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	98.3	26.7	71.6	56.2	34.7	21.5***
E_i=2	50.0	25.2	24.8	41.0	32.5	8.5*
E_i=3	34.0	25.1	8.9	35.2	27.3	7.9*
E_i=4	26.0	24.5	1.5	28.9	26.4	2.5
E_i=5-6	29.6	24.6	5.0	23.4	28.1	-4.7
E_i=7-10	25.8	24.6	1.2	23.1	28.9	-5.7
E_i=11+	22.3	24.1	-1.8	22.9	24.0	-1.1

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	94.7	68.5	26.2	83.9	76.8	7.1
4+ Eligible Tracts	93.2	87.6	5.6	95.4	91.2	4.2*
1-3 Eligible Tracts	94.9	41.8	53.1	74.5	58.6	15.9**

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	23.1	25.2	-2.1	27.6	26.5	-1.1
4+ Eligible Tracts	5.5	15.7	-10.2	13.2	15.2	-1.4
1-3 Eligible Tracts	26.8	33.9	-7.1	33.8	34.5	-0.7

Table IX: Aversion to aggrievement leads to a universalistic and uniform allocation of OZs (2nd set)

Columns (1)-(3) compare the model's predicted allocations of OZs when governors do and do not manage county aggrievement. Columns $\alpha_s = 1$ and $\alpha_s = 0$ present the predicted characteristics when governors first minimize county aggrievement and when governors ignore county aggrievement, respectively. Columns (4)-(6) compare the actual allocations of OZs in states with high and low model estimated aversion to county aggrievement (α_s^*). Columns *High* α_s^* and *Low* α_s^* split the sample of counties at the median model estimate of governors' aversion to county aggrievement (α_s^*=0.94). We examine the average proportion of eligible tracts designated as OZs by county size (Panel A), the proportion of counties that receive at least one OZ (Panel B), and the standard deviation across counties 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 in 99% of the simulations the county receives at least one OZ. When examining the predicted and actual OZ allocations, we first calculate the proportion or the standard deviation within each state. Then, we take their averages across states. In column (6), we test whether the difference in these averages across states with a high and low estimated aversion to aggrievement is statistically significant using a t-test. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

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	98.3	26.7	71.6	51.7	38.1	13.5*
E_i=2	50.0	25.2	24.8	40.2	32.9	7.3*
E_i=3	34.0	25.1	8.9	34.2	27.0	7.2
E_i=4	26.0	24.5	1.5	28.1	26.7	1.4
E_i=5-6	29.6	24.6	5.0	23.6	28.3	-4.7
E_i=7-10	25.8	24.6	1.2	23.7	28.4	-4.7
E_i=11+	22.3	24.1	-1.8	22.8	24.1	-1.3

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	94.7	68.5	26.2	81.5	79.1	2.4
4+ Eligible Tracts	93.2	87.6	5.6	94.2	92.4	1.8
1-3 Eligible Tracts	94.9	41.8	53.1	70.9	62.1	8.8

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	23.1	25.2	-2.1	27.5	26.5	-1.0
4+ Eligible Tracts	5.5	15.7	-10.2	14.2	14.1	-0.01
1-3 Eligible Tracts	26.8	33.9	-7.1	34.3	34.0	-0.3

Table X: Aversion to aggrievement leads to a universalistic and uniform allocation of OZs (3rd set)

Columns (1)-(3) compare the model's predicted allocations of OZs when governors do and do not manage county aggrievement. Columns $\alpha_s = 1$ and $\alpha_s = 0$ present the predicted characteristics when governors first minimize county aggrievement and when governors ignore county aggrievement, respectively. Columns (4)-(6) compare the actual allocations of OZs in states with high and low model estimated aversion to county aggrievement (α_s^*). Columns *High* α_s^* and *Low* α_s^* split the sample of counties at the median model estimate of governors' aversion to county aggrievement (α_s^*=0.94). We examine the average proportion of eligible tracts designated as OZs by county size (Panel A), the proportion of counties that receive at least one OZ (Panel B), and the standard deviation across counties 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 in 99% of the simulations the county receives at least one OZ. When examining the predicted and actual OZ allocations, we first calculate the proportion or the standard deviation within each state. Then, we take their averages across states. In column (6), we test whether the difference in these averages across states with a high and low estimated aversion to aggrievement is statistically significant using a t-test. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

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	98.3	26.7	71.6	50.6	36.3	14.4*
E_i=2	50.0	25.2	24.8	39.4	32.4	7.1*
E_i=3	34.0	25.1	8.9	33.5	27.3	6.2
E_i=4	26.0	24.5	1.5	30.6	24.7	6.0**
E_i=5-6	29.6	24.6	5.0	29.8	23.6	6.2
E_i=7-10	25.8	24.6	1.2	28.8	24.3	4.5
E_i=11+	22.3	24.1	-1.8	23.7	23.1	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	94.7	68.5	26.2	83.5	77.1	6.4
4+ Eligible Tracts	93.2	87.6	5.6	95.2	91.3	3.9
1-3 Eligible Tracts	94.9	41.8	53.1	69.0	64.1	4.8

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	23.1	25.2	-2.1	27.8	26.3	1.5
4+ Eligible Tracts	5.5	15.7	-10.2	12.6	15.8	-3.1*
1-3 Eligible Tracts	26.8	33.9	-7.1	35.7	33.0	2.7

Table XI: Aversion to aggrievement leads to a universalistic and uniform allocation of OZs (4th set)

Columns (1)-(3) compare the model's predicted allocations of OZs when governors do and do not manage county aggrievement. Columns $\alpha_s = 1$ and $\alpha_s = 0$ present the predicted characteristics when governors first minimize county aggrievement and when governors ignore county aggrievement, respectively. Columns (4)-(6) compare the actual allocations of OZs in states with high and low model estimated aversion to county aggrievement (α_s^*). Columns *High* α_s^* and *Low* α_s^* split the sample of counties at the median model estimate of governors' aversion to county aggrievement (α_s^*=0.94). We examine the average proportion of eligible tracts designated as OZs by county size (Panel A), the proportion of counties that receive at least one OZ (Panel B), and the standard deviation across counties 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 in 99% of the simulations the county receives at least one OZ. When examining the predicted and actual OZ allocations, we first calculate the proportion or the standard deviation within each state. Then, we take their averages across states. In column (6), we test whether the difference in these averages across states with a high and low estimated aversion to aggrievement is statistically significant using a t-test. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

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	98.3	26.7	71.6	51.2	35.6	15.7*
E_i=2	50.0	25.2	24.8	39.7	31.9	7.9*
E_i=3	34.0	25.1	8.9	33.5	27.2	6.4
E_i=4	26.0	24.5	1.5	30.1	24.8	5.3**
E_i=5-6	29.6	24.6	5.0	28.7	24.0	4.7
E_i=7-10	25.8	24.6	1.2	28.2	24.5	3.7
E_i=11+	22.3	24.1	-1.8	23.7	23.1	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	94.7	68.5	26.2	84.1	76.6	7.3
4+ Eligible Tracts	93.2	87.6	5.6	95.3	91.3	3.9
1-3 Eligible Tracts	94.9	41.8	53.1	69.8	63.4	6.4

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	23.1	25.2	-2.1	27.2	26.8	0.4
4+ Eligible Tracts	5.5	15.7	-10.2	12.4	16.0	-3.6*
1-3 Eligible Tracts	26.8	33.9	-7.1	35.1	33.4	1.7

Table XII: Effect of governors managing aggrievement on OZ demographics

Panel A shows the expected impact of managing aggrievement on the counts of various demographic and socioeconomic characteristics of the people living in OZs. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage 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, column (1) of Panel A displays 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 presents the expected changes in the characteristics of the OZs that shift because of governors' aggrievement management. 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 does not manage aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) contrasts the expected characteristics of the OZs that are more likely to be selected when governors do and do not manage aggrievement. Columns (2) and (3) present this contrast for the counties with fewer than four eligible tracts and four or more eligible tracts, respectively. 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. 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 aggrievement on the populations of various demographics living in OZs

	(1)	(2)
	Diff. in Expected Counts	Units
Population	21,145	All persons
Poverty	-20,223	Families
Unemployed	-27,332	Civilian persons 16 years or over in labor force
Own Home	162,157	Total occupied housing units
White	628,591	All persons
Black	-347,507	All persons
Hispanic	-223,293	All persons
Under 18	-33,529	All persons
Over 64	104,728	All persons

Panel B: Effect of managing aggrievement on the expected demographics of OZ residents

	(1)	(2)	(3)
	All	1–3 Eligible	4+ Eligible
% Poverty Rate	-8.0***	-11.2***	-7.0***
% Unemployment Rate	-3.0***	-4.1***	-2.8***
% Own Home	17.2***	25.3***	13.8***
% White	22.4***	30.1***	20.3***
% Black	-16.3***	-19.3***	-15.8***
% Hispanic	-5.1	-7.9**	-3.3
% Under 18	-0.9*	-1.4**	-0.7
% Over 64	4.2***	6.0***	2.9***

Table XIII: Effect of governors managing the aggrievement of local constituents on the investment potential of OZs

The table presents the expected changes in the tract characteristics related to the investment potential of the OZs that shift because governor manage aggrievement. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage 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. 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 does not manage aggrievement if $P_{i,j}(0) > P_{i,j}(\alpha_s^*)$. Column (1) contrasts the expected characteristics of the OZs that are more likely to be selected when governors do and do not manage aggrievement. Columns (2) and (3) present this contrast for the counties with fewer than four eligible tracts and four or more eligible tracts, respectively. 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. 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	-0.8***	-1.2***	-0.6***
Population Density (persons / km^2)	-1,600***	-2,223***	-1,436***
Proximity to Infrastructure	-1.8***	-2.5***	-1.7***

Table XIV: Managing aggrievement reduced the amount of investment stimulated

This table examines the consequences of managing local 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. $Post_q$ 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 opportunity zone. The model estimated probabilities that tract j in county i is selected as an OZ when governors do and do not manage 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 aggrievement versus when a governor ignores aggrievement. Tract j in county i is more likely to be selected as an OZ due to managing aggrievement when the difference in these probabilities is positive $(\mathrm{P}_{i,j}(\alpha_s^*) - \mathrm{P}_{i,j}(0) > 0)$. *1–3 Eligible*$_i$ is an indicator that 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, respectively.

	I(Issuance$_{i,j,q}$>0)×100			Ln(1+Issuance)$_{i,j,q}$×100		
	(1)	(2)	(3)	(4)	(5)	(6)
Post$_q$ × I$^{\text{Actual}}_{i,j}$	0.51***	0.55***	0.52***	7.56***	8.15***	7.74***
	(0.10)	(0.10)	(0.10)	(1.46)	(1.55)	(1.50)
Post$_q$ × (P$_{i,j}(\alpha_s^*)$ − P$_{i,j}(0)$)		-0.05	-0.05		-0.80	-0.81
		(0.03)	(0.03)		(0.53)	(0.52)
Post$_q$ × I$^{\text{Actual}}_{i,j}$ × (P$_{i,j}(\alpha_s^*)$ − P$_{i,j}(0)$)		-0.21***	-0.30*		-2.98***	-4.35*
		(0.07)	(0.18)		(1.01)	(2.58)
Post$_q$ × I$^{\text{Actual}}_{i,j}$ × (P$_{i,j}(\alpha_s^*)$ − P$_{i,j}(0)$) × 1-3 Eligible$_i$			0.07			1.00
			(0.17)			(2.44)
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

For Online Publication
Internet Appendix to Managing Aggrievement
Jefferson Duarte, Tarik Umar, and Emmanuel Yimfor

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 eligible tracts of a state designated as OZs (the model's R_s).
        - Figure A1 shows a map of eligible census tracts and indicates those tracts ultimately designated as OZs.
    - Appendix A.3 discusses our sample selection.
    - Appendix A.4 provides disclosures for each state related to OZ selection.
    - Appendix A.5 provides details about the Form-D investment proxy.
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 includes robustness tests.
    - Figure C1 repeats Figure I using a more granular coding of aggrievement in the Menino Survey.
    - Figure C2 shows how the log likelihoods vary with α_s for each state.
    - Figure C3 shows a U.S. map of the estimates of governors' aversion to aggrievement α_s^*.
    - Figure C4 shows which counties are predicted to gain or lose OZs when governors manage aggrievement.
    - Figure C5 shows the predicted number of OZs affected by managing aggrievement using α_s^*.
    - Figure C6 shows that modeling aggrievement improves the model's ability to explain the allocation of OZs across counties of different sizes and across counties predicted to gain or lose OZs when governors manage aggrievement.
    - Figure C7 shows that county voting and the affiliation of state legislators do not vary with the number of eligible tracts in the same way as predicted by managing aggrievement.
    - Figure C8 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 the same way as predicted by managing aggrievement.
    - Table C1 shows that 41 states mention the distribution of OZs between counties in the available disclosures about the OZ selection process. Many disclosures also discuss the uniformity and universalism of the OZ allocation.
    - Table C2 adds additional variables to the first stage estimation in Table V.
    - Table C3 shows that the estimates of governors' aversion to aggrievement (α_s^*) presented in Table VI are robust to the number of simulations used in the simulated maximum likelihood estimation procedure.
    - Table C4 compares the estimates of governors' aversion to aggrievement (α_s^*) when estimating the first step parameter weights Ψ_s using all states versus when the first step only uses OZ selections in that governor's state.
    - Table C5 repeats Table XII using a fixed effects specification.

- Section Appendix C.1 discusses the robustness of the uniformity result.
  - Figure C9 presents two mechanisms for why higher sensitivity to county aggrievement results in more uniform allocations across counties.
- Robustness for Table XIV
  - Table C6 shows that the investment effect of the OZ program is robust to different fixed-effect specifications.
  - Table C7 shows that the investment effect of the OZ program is robust to different sample periods.

4. Appendix D shows the formulas used to compute the expected characteristics of the census tracts that are appointed (or not appointed) as OZs because of aggrievement.

Appendix A. Details about the OZ Program and Sample Construction

Appendix A.1. Investment incentives of the OZ program

The OZ program provides investors with significant tax benefits to encourage investment in opportunity zones.[28] First, investors can defer taxes on any prior capital gains that are reinvested in an OZ. The capital gains can be from any type of investment and can be generated in any location. Taxes on the capital gains reinvested in an OZ can be deferred until either the date on which the investment is sold or December 31, 2026, whichever date occurs earlier. If the investment is held for more than five years, there is a 10% exclusion of the deferred gain. If the investment is held for more than seven years, the exclusion benefit increases to 15% of the deferred gains. This exclusion feature encourages investors to make investments earlier in the life of the OZ program. A second tax benefit occurs when an investment in an OZ is eventually sold. If the investor held the investment for at least 10 years, the investor does not need to pay taxes on any new capital gains generated by that investment in an OZ. This provision encourages investors to take a long-term view.

The OZ program imposed very few restrictions on OZ investments. The few restrictions are primarily intended to ensure that new investment stays local. Specifically, investors must purchase qualifying business property, including stock, partnership interests, and tangible property. Consistent with OZs being local goods by intent, property qualifies only if it is substantially used in an OZ and either its use commenced or the property was substantially improved after the tract was designated as an OZ (improvements worth at least the purchase price). A qualifying business must have at least 70% of its tangible property in an OZ and earn at least 50% of its gross income within an OZ. Qualifying businesses include public operations such as stores and apartments. Moreover, unlike other place-based policies (e.g., the New Markets Tax Credit), the OZ program does not limit the amount of investment that can benefit from its tax breaks. Instead of the government having to choose between project proposals for a limited pool of tax benefits, the governors selected which regions receive the OZ benefits. Specifically, the U.S. Treasury Department asked each governor to select 25% of his or her state's eligible low-income tracts for an OZ designation.

Appendix A.2. Details about the Eligible Tract Selection

To become an eligible tract, low-income communities must meet at least one of four criteria. First, the poverty rate is at least 20% (the "poverty test"). Second, for census tracts located outside of a metropolitan area, the median family income does not exceed 80% of the statewide median family income. Third, for census tracts located within a metropolitan area, the median family income does not exceed 80% of the greater of statewide median family income or metropolitan area median family income (the "income test"). Fourth, the community includes "targeted populations," such as people without adequate access to loans or equity investments or people who were displaced from their primary residence or who have lost their main source of employment as a result of a natural disaster.

Table A1 confirms that poverty is the main determinant of eligibility. Adjusted R^2 is 42.4%. Moreover, the U.S. Treasury also allowed certain contiguous tracts that are not low-income to be designated as OZs if a neighboring low-income eligible 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, for seven states (Alaska, Delaware, North Dakota, Rhode Island, South Dakota, Vermont, Wyoming), the proportion of eligible tracts in the state designated as OZs exceeds 25%.

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.

[28] 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	0.46***				0.42***
	(0.00)				(0.01)
Poverty Rate^2	-0.13***				-0.12***
	(0.00)				(0.00)
Unemployment Rate		0.24***			0.04***
		(0.01)			(0.00)
Unemployment Rate^2		-0.04***			-0.01***
		(0.00)			(0.00)
% White			-0.17***		-0.02**
			(0.02)		(0.01)
% White^2			-0.01		-0.00
			(0.01)		(0.00)
Tract Population				-0.07***	-0.04***
				(0.01)	(0.00)
Tract Population^2				0.00	0.00
				(0.00)	(0.00)
Constant	0.70***	0.69***	0.58***	0.57***	0.73***
	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
% Adjusted R^2	42.43	14.28	9.65	1.99	43.52
# States+DC	51	51	51	51	51
# Census Tracts	72144	72154	72159	72159	72144

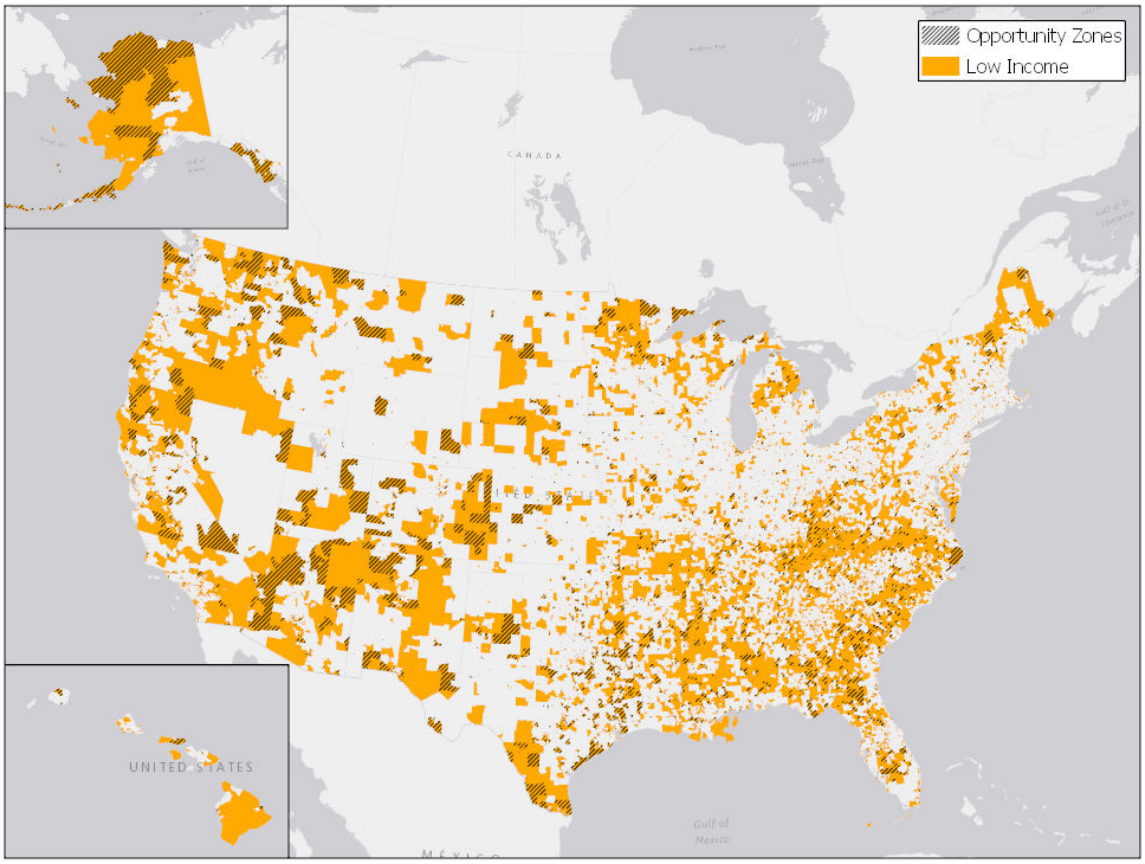
Table A2: The values of R_s for each state

R_s is the fraction of each state's low-income eligible tracts designated by its governor as opportunity zones. 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 opportunity zones 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 about 10,000 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 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 opportunity zones. 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-level disclosures of OZ selection process

The table below shows excerpts and source information for disclosures of the OZ selection process for each state. We note if the discussions mention the OZ allocation across counties with the *COUNTY* label. We note below if the discussion highlights the idea of universalism, or the tendency to give an OZ to all counties, with the *UNIVERSALISM* label. We also note if the discussion highlights the idea of uniformity, or the tendency to give the same proportion of OZs to all counties, with the *UNIFORMITY* label.

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

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 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 run a probit model that predicts the probability that a tract is selected as an OZ using the OZ designations of all state governors. An implication of the model in Section 2.2 is that a governor selects census tract j in county i as an OZ within a county only based on its score $S_{s,i,j} = \Psi_s \times X_{i,j} + \epsilon_{i,j}$, where $X_{i,j}$ contains tract and county characteristics and $\epsilon_{i,j}$ proxies tract characteristics that are not observed by the econometrician but matter in OZ selection. Therefore, we add county random effects to our probit model to estimate the parameter Ψ_s from the within-county allocation of OZs. In the paper, we estimate the probit model using data on all states. The outcome of the probit model is an estimate of the covariates Ψ_0 and their covariance matrix Ω_0. In the appendix (Table C4), we estimate Ψ_s for each state. In this case, the result of the probit model is $\Psi_{s,0}$ and its covariance matrix $\Omega_{s,0}$
2. For each simulation k, we draw a set of covariates Ψ_k from a normal distribution with mean Ψ_0 and covariance Ω_0 to reflect the uncertainty in the estimation of Ψ. We also 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 C3.) 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. Additional Results and Robustness

Figure C1: Actual vs Predicted Aggrievement (Using Granular Measure of Unhappiness)

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 119 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". 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 is based on the assumption that local constituents feel entitled to have an R_s proportion of eligible tracts in their city/county 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 $\#OZ_i/E_i$.

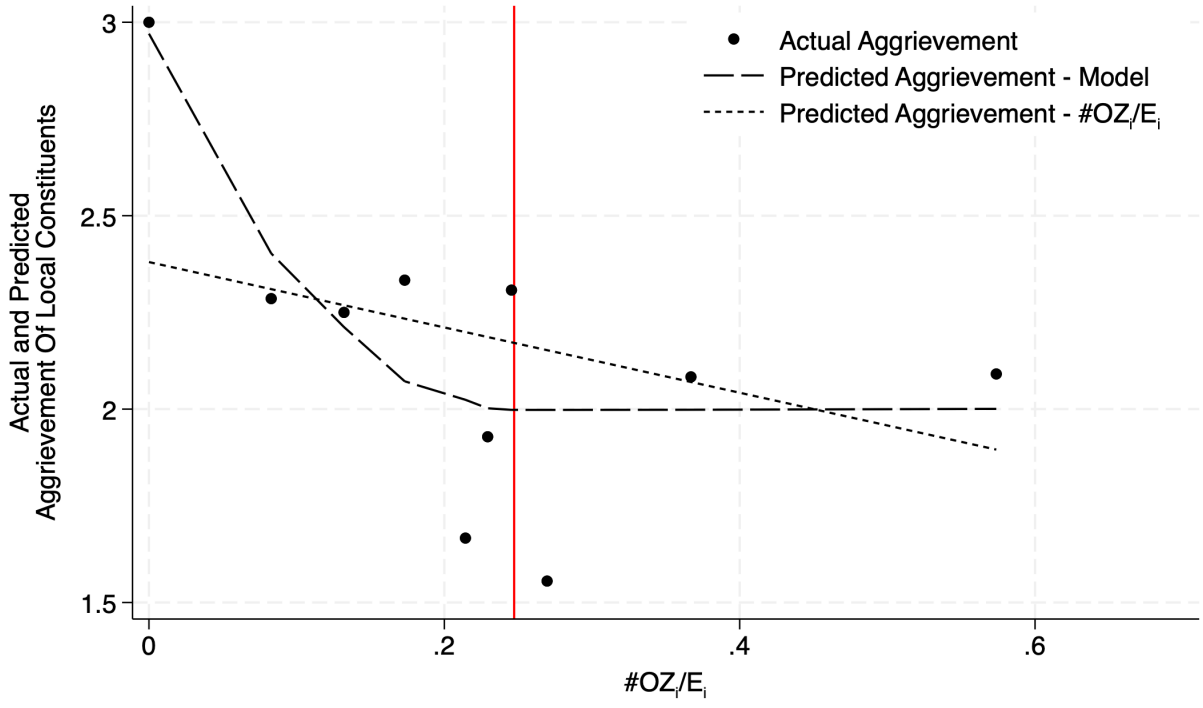


Figure C2: Log likelihoods by α_s by state

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

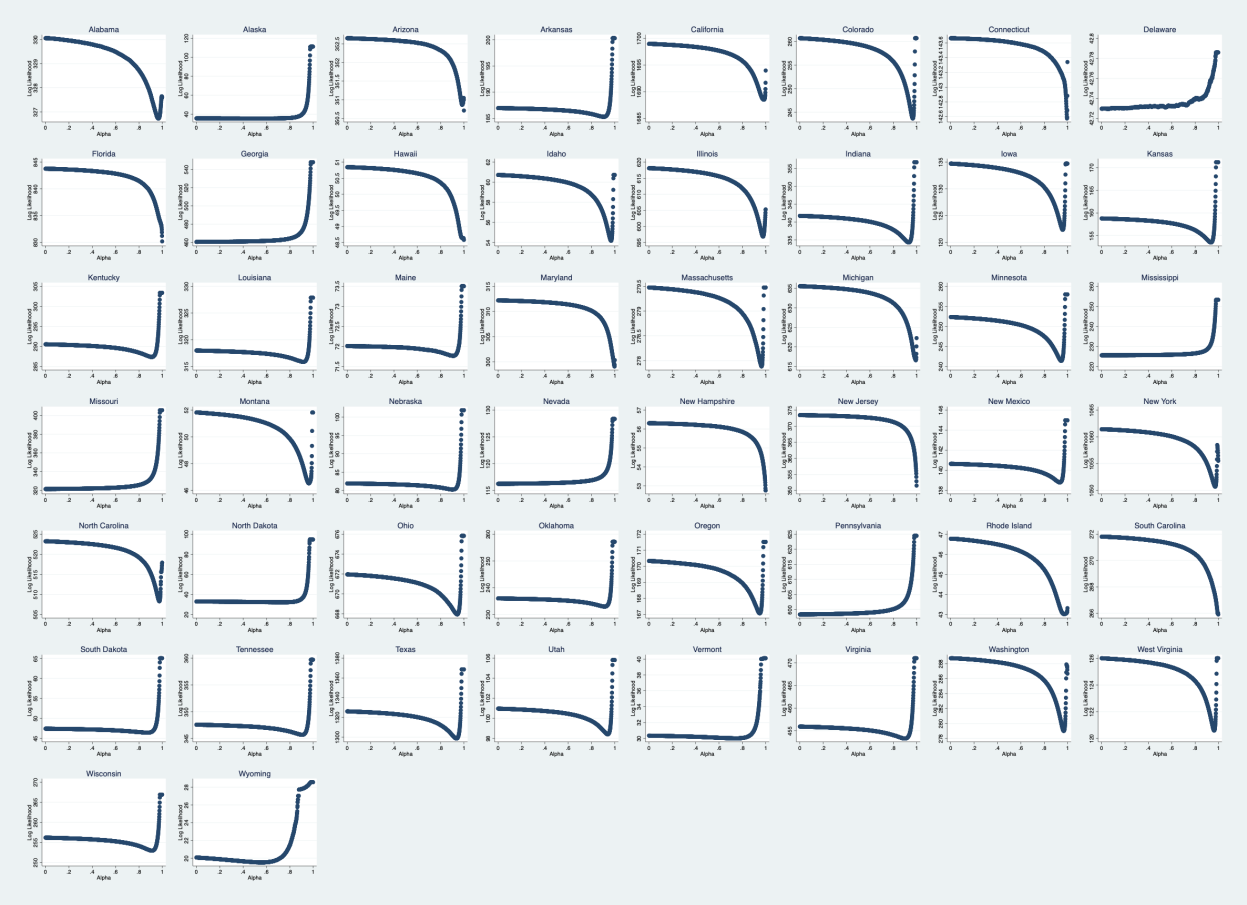


Figure C3: Governor aversion to local aggrievement

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

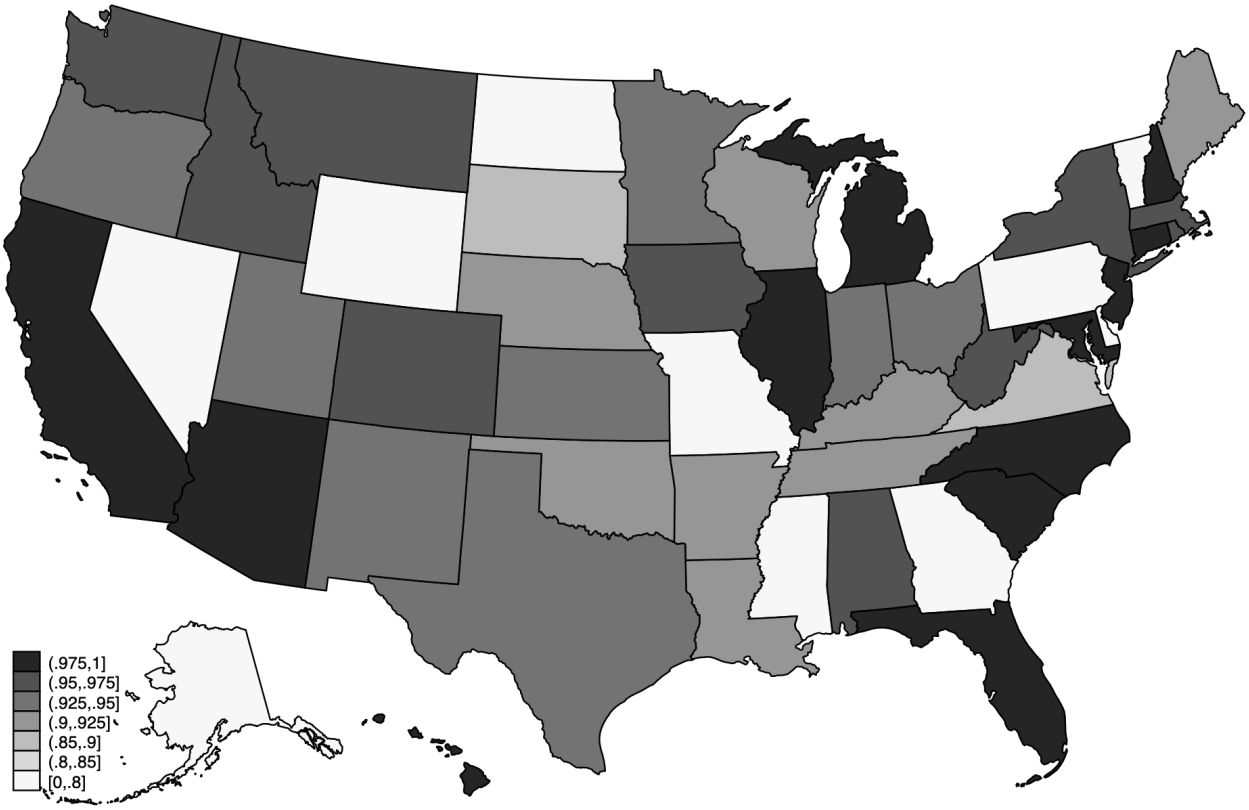


Figure C4: Predicted number of OZs affected by governors managing aggrievement for $\alpha_s = 1$

The figure displays the overall difference in the number of OZs the model predicts counties receive when governors manage county aggrievement ($\alpha_s = 1$) and when governors do not manage 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).

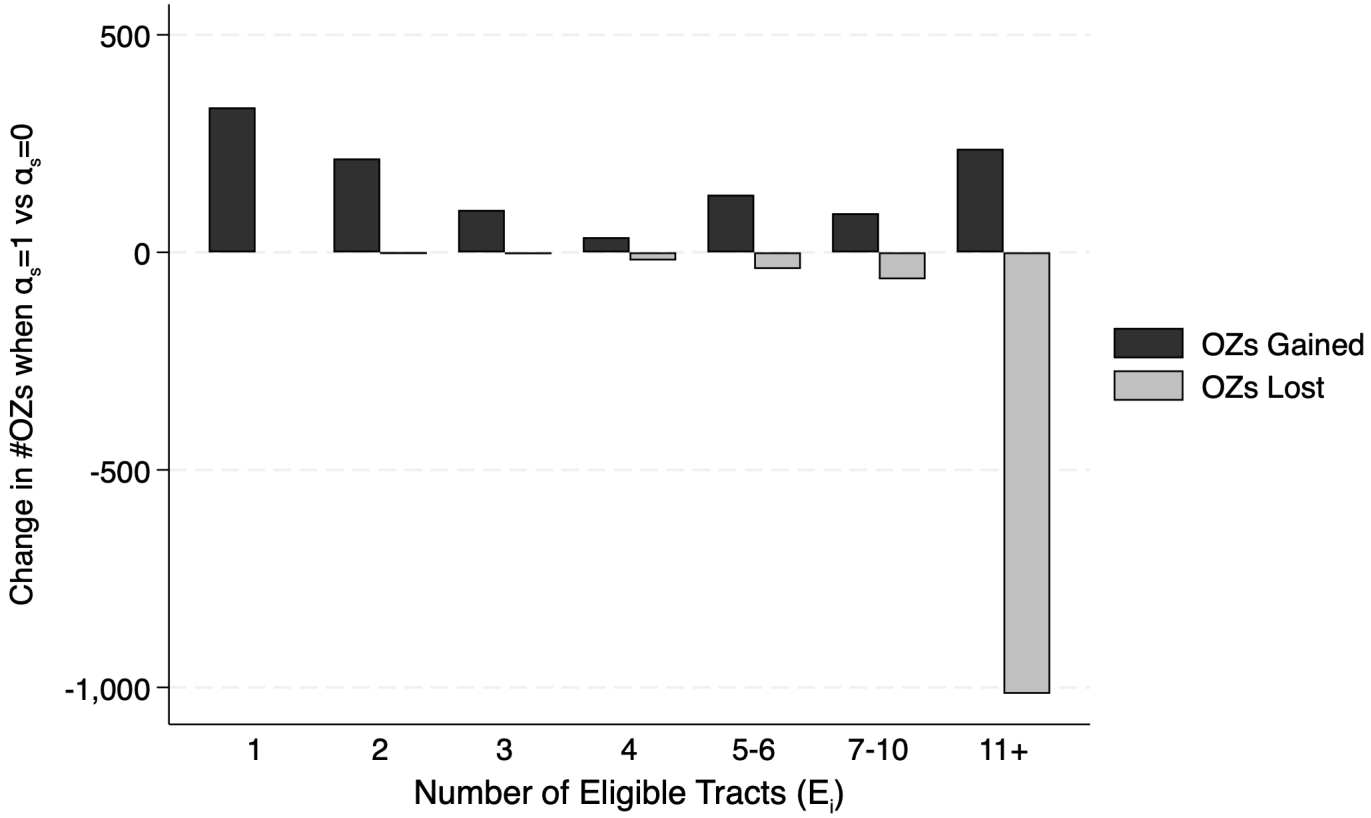


Figure C5: Predicted number of OZs affected by governors managing aggrievement for α_s^*

The figure displays the overall difference in the number of OZs the model predicts counties receive when governors manage county aggrievement at the estimated level ($\alpha_s = \alpha_s^*$) and when governors do not manage 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, 476 OZ designations shift because of governors managing aggrievement.

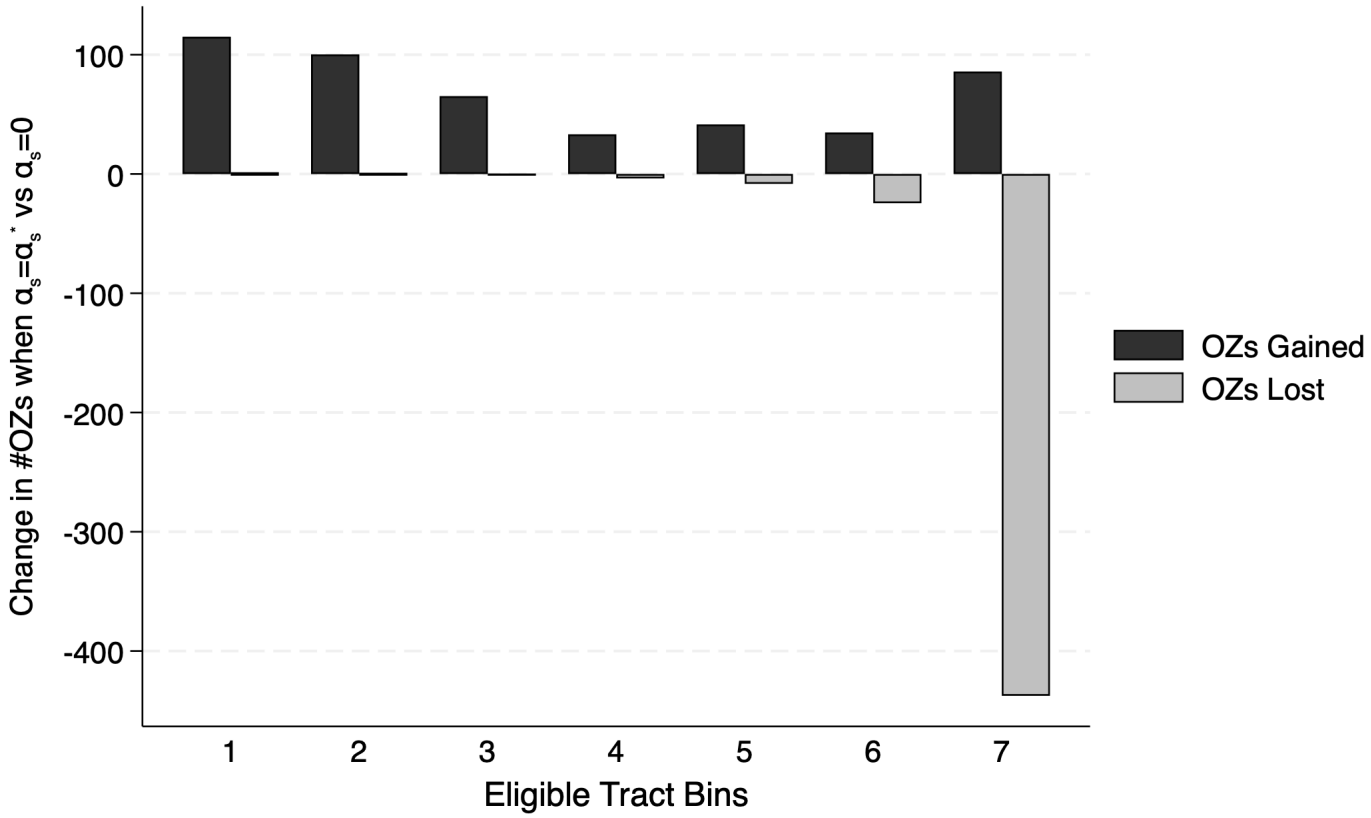
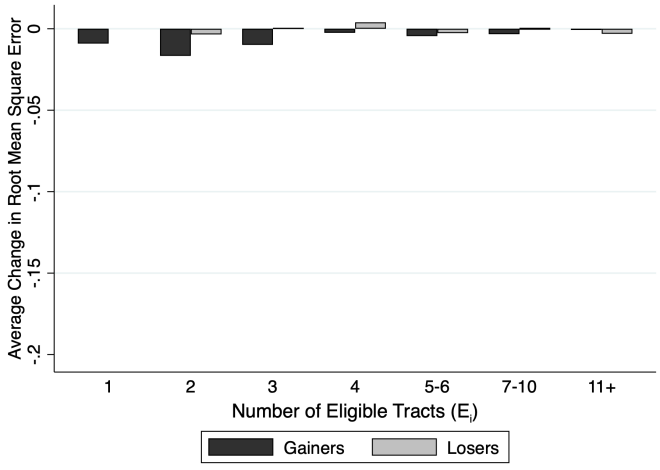
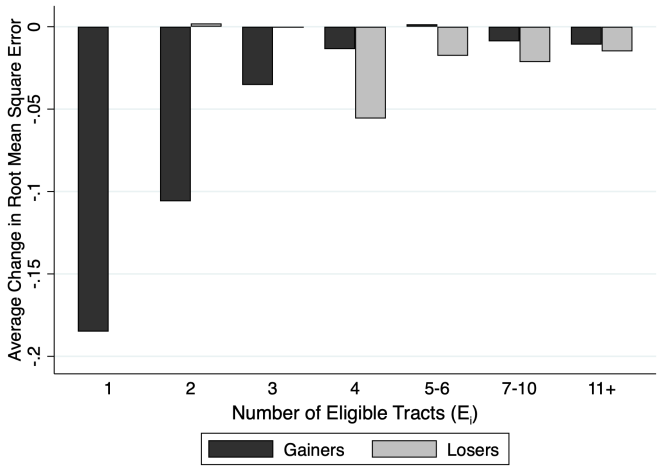


Figure C6: Modeling aggrievement helps fit the data

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 aggrievement when the estimated aversion to 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^*.



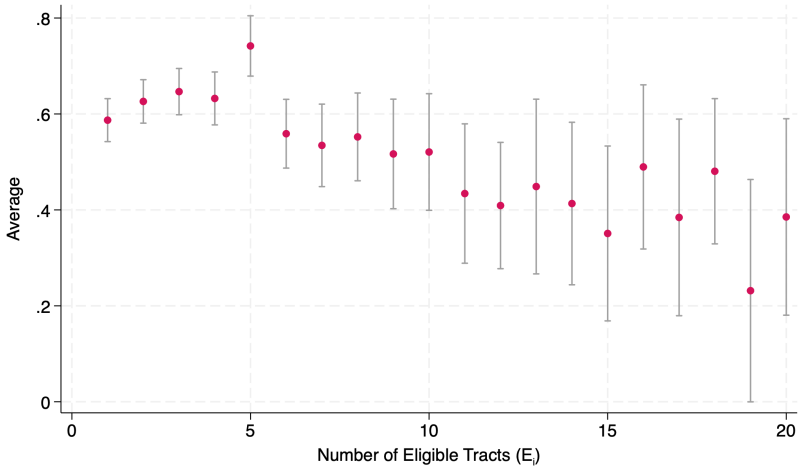
(a) Low α_s^*



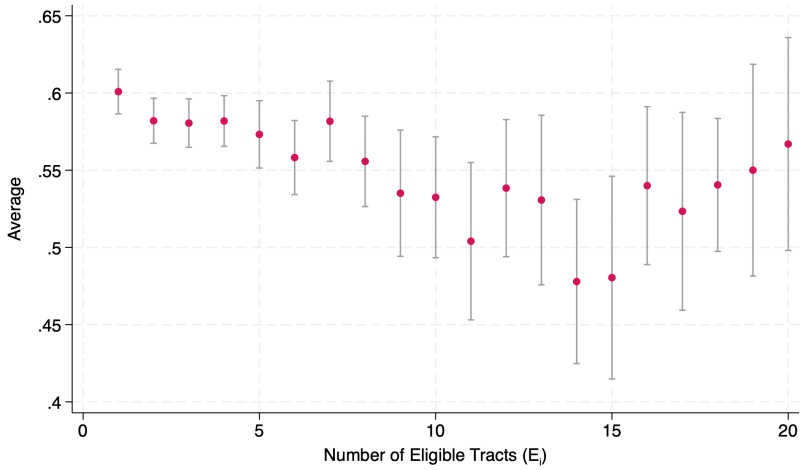
(b) High α_s^*

Figure C7: 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 XI 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 XI Panel C.



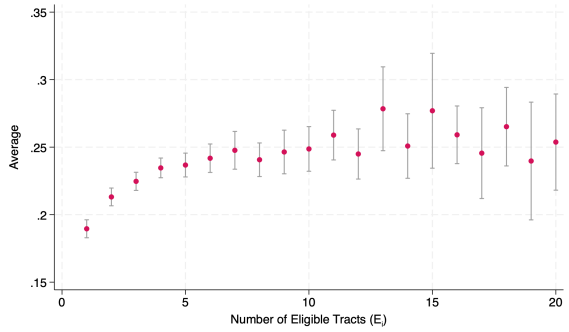
(a) Affiliated State Legislators



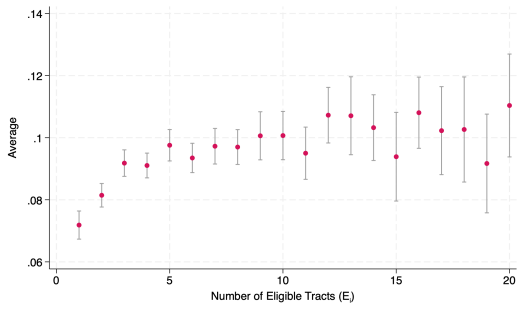
(b) Votes for Governor

Figure C8: Spread of policy-related characteristics

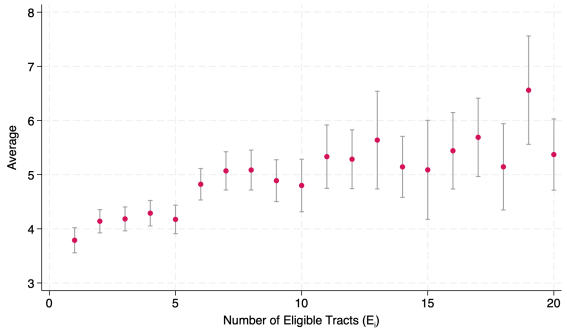
This figure shows no sharp difference in policy variables for the OZ program across small counties with 1–3 eligible tracts and larger counties with 4+ eligible tracts. See Table III for descriptions of these variables. The variables cannot explain the sharply higher allocation of OZs to counties with 1–3 eligible tracts as opposed to counties with 4+ eligible tracts as shown in Table XI 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 XI Panel C.



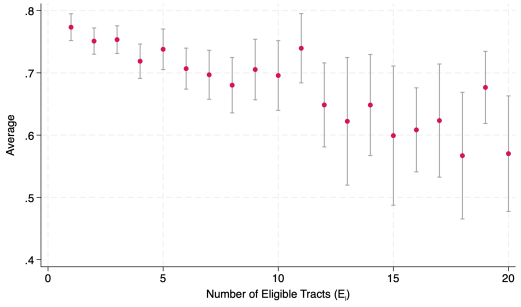
(a) % Poverty Rate



(b) % Unemployment Rate



(c) Investment Potential



(d) % White

Table C1: Governors often discuss the allocation of OZs across counties

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 Internet Appendix A.4.

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		
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

Table C2: First-stage estimates (Robustness)

We extend the list of predictors in the first-stage estimation in Table V . The new variables relative to Table V are *Swing Voters* and *Donors*. The variable "Swing Voters" is the standard deviation of a county's democratic vote share in all gubernatorial elections since 1990. "Donors" is the total donations to candidates in federal elections of the same political party as the governor. We standardize all tract characteristics included in the probit regression. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Characteristic ($X_{i,j}$)	Coefficient (Ψ)	Std. err.
	(1)	(2)
Social Change Flag	0.049***	0.010
Investment Score	0.076***	0.013
% Poverty Rate	0.087**	0.034
Population	0.073***	0.015
Median Household Income	-0.007	0.028
% Unemployment Rate	0.108**	0.049
Median Home Value	-0.030*	0.018
Median Rent	-0.097***	0.023
% Own Home	-0.308***	0.040
% Severe Rent Burden	0.044***	0.012
Vacancy Rate	-0.017	0.020
% White	-0.051	0.084
% Black	0.019	0.087
% Hispanic	-0.022	0.076
% Asian	-0.065**	0.026
% Under 18	-0.010	0.017
% Over 64	0.039**	0.018
% HS or Lower	0.042	0.040
% BA or Higher	-0.048	0.036
Population Density	-0.262***	0.033
Proximity to Infrastructure	0.069**	0.028
Core Voters	0.031	0.040
Affiliated Legislators	0.016	0.020
Swing Voter Density	-0.001	0.028
Donations Per Capita	0.003	0.013

Table C3: Estimated aversion to 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 aggrievement.

State	100,000 Simulations (1)	10,000 Simulations (2)	1,000 Simulations (3)	100k-10k (1)-(2)	100k-1k (1)-(3)
Alabama	0.97	0.96	0.98	0.01	-0.01
Alaska	0.56	0.56	0.64	0.00	-0.08
Arizona	1.00	1.00	1.00	0.00	0.00
Arkansas	0.91	0.91	0.92	-0.01	-0.01
California	0.98	0.98	0.99	0.00	-0.01
Colorado	0.97	0.97	0.97	0.00	0.00
Connecticut	1.00	0.99	0.99	0.00	0.00
Delaware	0.05	0.06	0.45	-0.01	-0.39
Florida	1.00	1.00	1.00	0.00	0.00
Georgia	0.00	0.00	0.01	0.00	-0.01
Hawaii	1.00	1.00	1.00	0.00	0.00
Idaho	0.97	0.97	0.97	0.00	0.00
Illinois	0.98	0.98	0.98	0.00	0.00
Indiana	0.93	0.94	0.94	0.00	-0.01
Iowa	0.96	0.96	0.96	0.00	0.00
Kansas	0.94	0.94	0.93	0.00	0.01
Kentucky	0.91	0.92	0.90	-0.01	0.01
Louisiana	0.91	0.91	0.93	0.01	-0.01
Maine	0.91	0.92	0.92	-0.01	-0.01
Maryland	1.00	1.00	1.00	0.00	0.00
Massachusetts	0.96	0.96	0.97	0.00	0.00
Michigan	0.99	0.99	0.99	0.00	0.00
Minnesota	0.95	0.95	0.95	0.00	0.00
Mississippi	0.00	0.02	0.15	-0.02	-0.15
Missouri	0.00	0.00	0.01	0.00	-0.01
Montana	0.96	0.96	0.96	0.00	0.00
Nebraska	0.91	0.90	0.90	0.01	0.01
Nevada	0.00	0.01	0.01	-0.01	-0.01
New Hampshire	1.00	1.00	1.00	0.00	0.00
New Jersey	1.00	1.00	1.00	0.00	0.00
New Mexico	0.93	0.93	0.93	0.01	0.00
New York	0.97	0.97	0.98	0.00	0.00
North Carolina	0.98	0.98	0.98	0.00	0.00
North Dakota	0.73	0.77	0.69	-0.03	0.05
Ohio	0.94	0.94	0.95	0.00	-0.01
Oklahoma	0.91	0.91	0.92	0.00	-0.01
Oregon	0.95	0.95	0.95	0.00	0.00
Pennsylvania	0.00	0.00	0.00	0.00	0.00
Rhode Island	0.97	0.97	0.97	0.00	0.00
South Carolina	1.00	1.00	1.00	0.00	0.00
South Dakota	0.87	0.88	0.86	-0.01	0.01
Tennessee	0.90	0.90	0.91	0.00	-0.01
Texas	0.94	0.94	0.94	0.00	-0.01
Utah	0.94	0.94	0.93	0.00	0.01
Vermont	0.75	0.77	0.77	-0.02	-0.02
Virginia	0.89	0.88	0.88	0.01	0.01
Washington	0.97	0.97	0.97	0.00	0.00
West Virginia	0.96	0.97	0.97	0.00	-0.01
Wisconsin	0.91	0.92	0.93	0.00	-0.02
Wyoming	0.56	0.54	0.51	0.02	0.05
				Mean	-0.01
				Median	0.00

Table C4: Comparison of the estimates of governors' aversion to aggrievement (α_s^*) when estimating the first step parameter weights Ψ_s using all states versus by state

Column (1) shows the estimated α_s^* when pooling all states to estimate the first-step loadings on the other considerations (e.g., poverty). These α_s^* are the same as those in Table VI and use all the considerations in Table III. Column (3) shows the estimated α_s^* when estimating the first-step loadings for each specific state for a smaller set of considerations: % Poverty Rate, % Unemployment Rate, % White, Investment Score, Core Voters, and Affiliated State Legislator.

	All States		Individual States		
	(1)	(2)	(3)	(4)	(1)-(3)
State	α_s^*	P-Value	α_s^*	P-Value	
Alabama	0.97	0.01	0.95	0.00	0.02
Alaska	0.56	0.62	0.01	0.98	0.55
Arizona	1.00	0.00	0.99	0.02	0.01
Arkansas	0.91	0.07	0.90	0.08	0.01
California	0.98	0.00	0.99	0.00	-0.01
Colorado	0.97	0.00	0.96	0.00	0.01
Connecticut	1.00	0.14	0.97	0.42	0.03
Delaware	0.05	0.98	1.00	0.59	-0.95
Florida	1.00	0.00	1.00	0.00	0.00
Georgia	0.00	1.00	0.90	0.00	-0.90
Hawaii	1.00	0.03	1.00	0.07	0.00
Idaho	0.97	0.00	0.97	0.00	0.00
Illinois	0.98	0.00	1.00	0.00	-0.02
Indiana	0.93	0.00	0.91	0.00	0.02
Iowa	0.96	0.00	0.94	0.00	0.02
Kansas	0.94	0.00	0.92	0.01	0.02
Kentucky	0.91	0.01	0.93	0.00	-0.03
Louisiana	0.91	0.04	0.93	0.01	-0.01
Maine	0.91	0.48	0.90	0.43	0.01
Maryland	1.00	0.00	1.00	0.00	0.00
Massachusetts	0.96	0.07	0.97	0.02	0.00
Michigan	0.99	0.00	0.98	0.00	0.01
Minnesota	0.95	0.00	0.95	0.00	0.00
Mississippi	0.00	0.98	0.00	0.98	0.00
Missouri	0.00	1.00	0.00	1.00	0.00
Montana	0.96	0.00	0.94	0.05	0.03
Nebraska	0.91	0.07	0.97	0.00	-0.06
Nevada	0.00	1.00	0.15	0.95	-0.15
New Hampshire	1.00	0.01	0.99	0.14	0.01
New Jersey	1.00	0.00	1.00	0.00	0.00
New Mexico	0.93	0.05	0.93	0.10	0.01
New York	0.97	0.00	0.97	0.00	0.01
North Carolina	0.98	0.00	0.97	0.00	0.00
North Dakota	0.73	0.22	0.74	0.20	0.00
Ohio	0.94	0.00	0.94	0.00	0.00
Oklahoma	0.91	0.01	0.94	0.00	-0.03
Oregon	0.95	0.01	0.96	0.00	-0.01
Pennsylvania	0.00	1.00	0.00	0.97	0.00
Rhode Island	0.97	0.01	0.96	0.03	0.01
South Carolina	1.00	0.00	1.00	0.00	0.00
South Dakota	0.87	0.15	0.93	0.00	-0.06
Tennessee	0.90	0.05	0.93	0.01	-0.02
Texas	0.94	0.00	0.96	0.00	-0.02
Utah	0.94	0.02	0.94	0.01	-0.01
Vermont	0.75	0.41	0.77	0.34	-0.02
Virginia	0.89	0.02	0.83	0.21	0.07
Washington	0.97	0.00	0.97	0.00	0.00
West Virginia	0.96	0.00	0.95	0.00	0.02
Wisconsin	0.91	0.01	0.91	0.01	0.00
Wyoming	0.56	0.29	0.95	0.00	-0.40
				Mean	-0.04
				Median	0.00

Table C5: Comparing the effects in Table XII 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 XII 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 XII. 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 Aggrievement Model (1)	Using County Fixed Effects (2)	Units (3)
Population	21,145	148,930	All persons
Poverty	-20,223	-24,527	Families
Unemployed	-27,332	-37,449	Civilians 16+ in labor force
Own Home	162,157	310,472	Total occupied housing units
White	628,591	1,176,444	All persons
Black	-347,507	-581,361	All persons
Hispanic	-223,293	-377,858	All persons
Under 18	-33,529	-40,957	All persons
Over 64	104,728	189,186	All persons

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

	(1) Using Aggrievement Model	(2) Using County Fixed Effects
% Poverty Rate	-8.0***	-5.8***
% Unemployment Rate	-3.0***	-2.5***
% Own Home	17.2***	9.8***
% White	22.4***	13.4***
% Black	-16.3***	-10.1**
% Hispanic	-5.1	-2.5
% Under 18	-0.9*	-0.8*
% Over 64	4.2***	2.5***

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

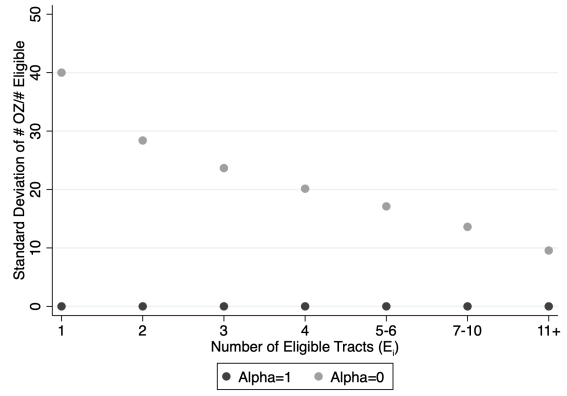
We discuss two specific mechanisms that contribute to the lower variation in the proportion of eligible tracts designated as OZs when governors manage the aggrievement of county officials.

One mechanism is that a governor minimizing 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 aggrievement because the marginal benefit of an additional OZ is declining in the number of OZs a county receives. Internet Appendix Figure C9(a) shows this prediction, and Internet Appendix Figure C9(b) confirms the prediction in the data.

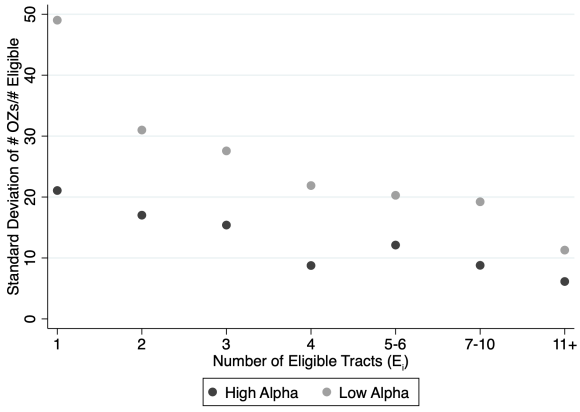
A second mechanism is that, in the model, granting a county a higher proportion of OZs than expected provides no additional benefit in terms of reducing aggrievement. This upper bound reduces the variation in allocations between counties of different sizes. Internet Appendix Figure C9(c) shows this prediction, and Internet Appendix Figure C9(d) confirms the prediction in the data.

Figure C9: Managing aggrievement and *variation* in the proportion of counties' eligible tracts designated as OZs

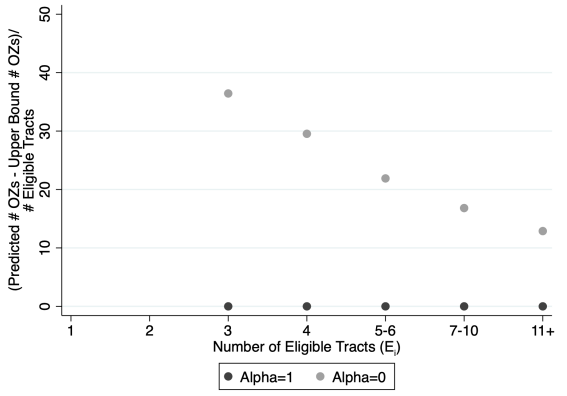
Panel A shows the predicted effect of governors managing aggrievement on the variation in the proportion of eligible tracts in a county that a governor designates as OZs. To do so, for each state and each of the K=100,000 simulations, we calculate the standard deviation of the proportion of eligible 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 aggrievement. Our model assumes that there is no additional benefit in terms of reducing 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 aggrievement.



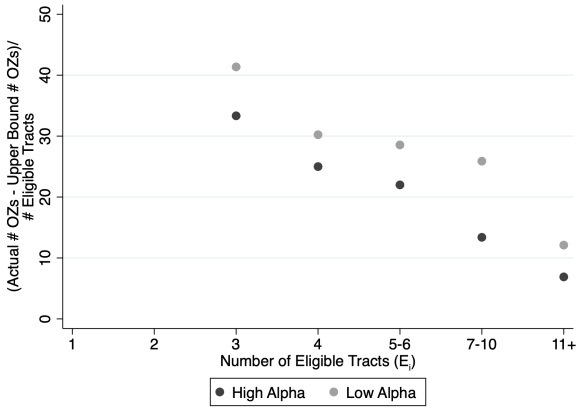
(a) Predicted, $\sigma\left(\frac{\sum_{j=1}^{E_i}\left(I_{i,j}^{\text{Predicted}}\right)}{E_i}\right)$



(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 C6: Robustness of the OZ program's effect on investment in Table XIV

This table complements Table XIV and examines the consequences of managing local 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 opportunity zone. 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 C7: Robustness of the OZ program's effect on investment to the sample period

This table complements Table XIV 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 opportunity zone. 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

Appendix D. Expected characteristics of OZs appointed and not appointed because of 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 the managing aggrievement on the characteristic Y of the the OZs is:

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

The results in Table XII, Panel A are computed with Equation D.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 aggrievement management 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 do not manage aggrievement and would benefit from governor's aggrievement management is $E^{\alpha_s=0}[I_{i,j} \times G_{i,j}]$. The expected number of OZs that become OZ because aggrievement management and would not become OZ if governors did not manage aggrievement is:

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

As we point out in the paper, the sum across states of Equation D.2 computed with the estimated parameters is 476. That is, managing aggrievement resulted in 476 OZ switching to becoming an OZ 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 because of aggrievement. Bayes' rule implies:

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

$L_{i,j}$ 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 do not manage aggrievement is:

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

The results in column (1) of Table XII, Panel B and of Table XIII are:

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

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 XII, Panel B and of Table XIII, we compute:

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

In column (3) of Table XII, Panel B and of Table XIII, we compute:

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