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Exclusionary Zoning: Policy Design Lessons From the Mount Laurel Decisions

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ABSTRACT

Exclusionary zoning takes many forms, but always aims to limit economic integration within certain communities. Understanding the effectiveness of programs designed to reduce exclusionary zoning yields insight for future policy design, and the program that followed the Mount Laurel decisions in New Jersey remains relatively unexplored. The program created the Council on Affordable Housing (COAH), which used an incentive-based structure to implement affordable housing requirements. Municipalities that volunteered to meet their requirement received legal protection from zoning lawsuits. They could also engage in a regional contribution agreement (RCA), which allowed them to pay another municipality to complete up to 50% of their affordable housing obligation. Using probit and multinomial logit models, I investigate two questions concerning the program's design: (a) Did COAH's incentive-based structure succeed in attracting those municipalities with the greatest need for affordable housing? And (b) Did RCAs exhibit a pattern of high-income municipalities sending their affordable housing obligations to low-income municipalities? I find that the program succeeded in attracting high-income municipalities to participate, but that these municipalities were also likely to use RCAs to send housing units to low-income municipalities. I argue that the program's design undermined the Mount Laurel decision's original intent by limiting economic integration in high-income municipalities.

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Recent years have seen a growing interest by researchers, journalists, and policymakers in how towns and cities use exclusionary zoning to reflect different economic and political interests, and the potential adverse impact this can have on area development (Dougherty, 2016). Although many have examined how towns and cities use zoning laws to reflect different economic and political interests, no single policy can prevent all cases of exclusionary zoning in one fell swoop. Exclusionary zoning may take different forms (e.g., density laws, homeownership agreements, etc.), and although all involve creating structural barriers and incentives intended to limit the ability of lower income residents to live in an area, the policy remedies will vary from case to case and region to region (Mukhija, Das, Regus, & Tsay, 2015). Nationally, these types of housing constraints can create spatial misallocations of labor that Hsieh and Moretti (2018) estimate could be reducing U.S. output by as much as \$1.27 trillion per year. Locally, this can lead to segregation in neighborhoods and communities by both income and race, and research has shown that people living in segregated communities have less economic opportunity (Fraser, Chaskin, & Bazuin, 2013; Levy, McDade, & Bertumen, 2013) than those living in high- or mixed-income communities (Ludwig et al., 2008). Further, although there have been federal, state, and local policies aimed at reducing instances of exclusionary zoning, their long-run effects and degree of

success remain unclear (e.g., see Marnatz & Zheng, 2018). Hence, it is necessary to understand why such policies have or have not successfully combated exclusionary zoning to promote better future policy design.

In this article, I argue that the state-wide affordable housing program created in New Jersey following the Mount Laurel decisions is an example of both the success and the failure of incentive-based programs designed to combat exclusionary zoning and promote inclusionary zoning (IZ). The program focused on soliciting the participation of municipalities across the state by offering them several benefits in exchange for their participation. This article shows that, on the one hand, the incentive structure of the program succeeded in attracting those municipalities with the greatest need for new affordable housing. On the other hand, because the program permitted municipalities to trade some of their affordable housing requirements through regional contribution agreements (RCAs), this allowed high-income municipalities to buy their way out of constructing new affordable housing. Both RCAs and limited compliance among participating municipalities limited opportunities for economic and racial integration and undermined the original intent of the Mount Laurel decisions. To my knowledge, although other studies have examined the impact of the Mount Laurel decisions from a legal perspective (Bailin & Eisdorfer, 1996; Dantzler, 2016; Fox, 1988), have done cursory social and economic analysis (Massey, Albright, Casciano, Derickson, & Kinswy, 2013), or have broadly compared state-wide affordable housing programs and their policy designs (Karki, 2015), no study has done a full analysis of how New Jersey municipalities responded to their affordable housing obligations following the decisions. As such, this article contributes to the growing literature on the impact of zoning laws by critically examining one of the largest state-wide policies to limit exclusionary zoning to date.

1. Exclusionary and Inclusionary Zoning

A. Previous Research

Housing prices in both urban and suburban areas have been increasing dramatically over the past few decades, with this rapid gentrification leaving many low-income families with few housing options (Mangin, 2014). In addition, potential “not in my backyard” (NIMBY) attitudes from homeowners in these gentrified communities wishing to protect their home values can make this problem even worse (Fischel, 2005; Schively, 2007). In response, there has been much research on how policies can take a more proactive approach to preventing exclusionary zoning by requiring some form of IZ.

IZ policies were developed to promote community integration through the construction of market-rate housing units, which would in turn subsidize the construction of new affordable housing units (Pendall, 2009; Schuetz, Meltzer, & Been, 2009). Studies have found that these IZ programs have a great potential to create more affordable housing (Mukhija et al., 2015; Talbert & Costa, 2004). Moreover, researchers have found that the creation of mixed-income neighborhoods can have positive social and economic benefits, such as increased social interaction among income groups, lower unemployment for low-income residents, and fewer instances of racial segregation (Cutler, Glaeser, & Vigdor, 1999; Rosenbaum, Stroh, & Flynn, 1998; Schwartz & Tajbaksh, 1997). Lerman (2006) goes so far as to recommend that some form of IZ be mandatory in every state. Others, however, have pointed out that many IZ policies can exacerbate segregation by race (Quillian, 2002), that they are not effective at distributing affordable housing in a way that creates mixed-income neighborhoods (Kontokosta, 2015), or that other legitimate zoning concerns may be unaddressed through long-term, state-wide zoning policies (Span 2001–2003).

Although a number of states have tried some version of an IZ program to encourage the development of more mixed-income neighborhoods (Talbert & Costa, 2004), few studies have conducted an in-depth policy design analysis of each program from an economic perspective. Following the Mount Laurel decisions, New Jersey’s IZ program opted to create an organization

that calculated a fair share of affordable housing for each municipality in the state (Lerman 2006). This article will focus on the choices made by New Jersey municipalities under the design of this program, and their potential long-term consequences.

B. The Mount Laurel Decisions

Following a series of lawsuits that claimed New Jersey municipalities were zoning in such a way that poor, and often black, families could not afford to live there, New Jersey implemented a new plan in the 1980s to prevent exclusionary zoning.¹ As a result of the Mount Laurel decisions by the Supreme Court of New Jersey, municipalities across the state were told that they could not engage in exclusionary zoning, and had a constitutional obligation to make “realistically possible an appropriate variety and choice of housing.”² A follow-up supreme court decision, Mount Laurel II, specifically outlined parameters for what constituted an appropriate variety of housing. What made these decisions unique at the time was their basis in state constitutional grounds, instead of federal constitutional grounds (Dantzler, 2016). To help bolster these decisions, the New Jersey State Legislature enacted the Fair Housing Act in 1985, which created the Council of Affordable Housing (COAH). COAH then set yearly affordable housing requirements for municipalities that were released in two rounds, the first covering 1987 to 1993 and the second covering 1994 to 1999.

A crucial design choice of COAH’s program was its voluntary, incentive-based structure. As a result, both soliciting participation and enforcing these affordable housing requirements became difficult. Municipalities that wished to participate were required to submit their funding and building plans to COAH to receive substantive certification. The work of creating these plans was generally delegated by a town council and ultimately approved (or not) at a town hall meeting, which meant that there was likely much variation in the efficiency of this process.³ If a municipality’s plans were approved by COAH, it would in return be given several benefits.

First, these municipalities would receive substantial protection from builder’s remedy lawsuits, in which developers could sue municipalities for not zoning an appropriate amount of land for affordable housing. A successful lawsuit would allow developers to build large, multifamily housing structures so long as affordable housing units made up 20% of the total number of units. A municipality that was granted substantive certification would have the burden of proof shifted away from the municipality during any exclusionary zoning litigation, and would be given access to state funds from the Department of Community Affairs and the New Jersey Housing and Mortgage Finance Agency to help implement its affordable housing plan. If a municipality did not submit a plan to meet its affordable housing obligation, or did not have a plan approved, it left itself much more vulnerable to a builder’s remedy lawsuit.⁴

The second benefit municipalities would receive from joining COAH was the ability to freely choose where, within their borders, their affordable houses would be built.⁵ This would be an advantage for municipalities since affordable housing required as the result of a lawsuit would instead be zoned in an area determined by the courts. As a final benefit, these municipalities would be able to engage in RCAs, by which one municipality could transfer up to 50% of its new affordable housings requirement to another at a fixed price per housing unit, so long as it did not infringe upon a municipality’s “indigenous need” for affordable housing as outlined by Mount Laurel II.⁶ Additionally, these funds did not necessarily have to be spent on new construction, and many approved RCAs involved the receiving municipality using the funds for rehabilitation projects instead (New Jersey Council on Affordable Housing, 2003).

These benefits certainly created an incentive for New Jersey municipalities to follow COAH’s affordable housing requirements, yet they also raise several pertinent questions about the policy’s ability to prevent the creation of segregated communities. Only a few studies have looked at the design of RCAs as a state policy and discussed the adverse effects that RCAs could have on communities (Bailin & Eisdorfer, 1996; Fox, 1988). These studies, however, focus on the legality of RCAs rather than evaluating their potential economic and social impacts. The most well-known

impact study, Massey et al. (2013), examines the lives of residents in the Ethel Lawrence Homes building complex, which was created as a result of the Mount Laurel decisions. Since there was not enough space to accommodate everyone who applied to live in the building complex, they compare changes in the lives of accepted and rejected applicants and find that accepted applicants had a higher employment rate and lower levels of stress.

I am aware of no study to date that has explored the effect of municipality choice and the self-selection issue regarding which municipalities applied for substantive certification with COAH (which I will refer to as joining COAH) or engaged in an RCA. Moreover, when the use of RCAs was repealed in 2008, the legislature wrote that this transfer of housing obligations had proved to be an unreliable way to ensure an adequate supply and variety of housing.⁷ Part of the reason for this lack of success could be that wealthy towns used RCAs as an escape from their affordable housing requirements, preventing affordable housing from being built in areas where it was needed most. Housing prices, a rough proxy for area wealth, have been strong predictors of income segregation across the United States (Rothwell & Massey, 2010). This segregation can be persistent if NIMBY attitudes prevent the economic and racial integration of neighborhoods (Fischel, 2005; Schively, 2007), and income inequality, in turn, creates more potential for segregation (Watson, 2006). However, whether wealthy New Jersey municipalities were likely to engage in RCAs, and in particular sought to reduce their fair share obligation, has yet to be proven empirically. Lastly, the shortcomings of the past and plans for the future are still being discussed by the New Jersey Supreme Court and state leaders, highlighting that New Jersey's affordable housing issues are an ongoing concern (Dantzler, 2016; Rizzo, 2017), amplified by the fact that New Jersey met only 40% of its new affordable housing construction goals during the first and second rounds (New Jersey Council on Affordable Housing, 2003). Using data on COAH's housing requirements, this article will examine two questions of interest: First, did COAH's incentive-based structure succeed in attracting those municipalities with the greatest need for affordable housing? And, second, did RCAs exhibit a pattern of high-income municipalities sending their affordable housing obligations to low-income municipalities? Answering these questions will shed some light on how municipalities respond to these types of incentives, informing future policy design of both incentive-based and mandatory state-wide affordable housing programs.

I find that high-income municipalities and those with large new construction requirements were the most likely to join COAH, indicating that the incentives offered by the program succeeded in attracting the municipalities in the greatest need of affordable housing. However, the state failed to capitalize on this success. According to COAH's 2002–2003 report (New Jersey Council on Affordable Housing, 2003), only a handful of the municipalities that joined built most of the required affordable housing, and nearly one quarter of participating municipalities had no units built or zoned for by 2003. I also find a clear pattern of higher income municipalities using RCAs to pay their way out of their affordable housing requirements, by transferring these requirements to lower income municipalities. This allowed wealthy municipalities to actively work against economic integration within their communities and undermined the original intent of the Mount Laurel decisions.

2. Data

To answer this article's questions of interest, I use data on the affordable housing requirements of New Jersey municipalities for COAH's First Round and Second Round requirements. These data come from COAH's own published reports, which I currently have covering 6 years, all published as annual reports between 1987 and 2003.⁸ Of particular importance is the 2002–2003 report, which lists the required new construction and rehabilitation obligations for all New Jersey municipalities from 1987 through 1999 (the First Round and the Second Round). *New construction* could be 100% new affordable housing, or it could be inclusionary development in which affordable housing was mixed with newly constructed market-value units. *Rehabilitation* involved no new construction; instead, it involved updating housing units that were considered substandard in terms of local building code requirements. The 2002–2003 report also lists which municipalities applied for

certification with COAH during either the First Round or the Second Round, which municipalities were under the court's jurisdiction from a housing lawsuit during this period, and which municipalities were considered urban aid municipalities (qualifying them for certain state aid). Since the 2002 report only lists the total new construction and rehabilitation requirements, the data set will be treated as a cross section of building requirements covering 1987 through 1999.

I supplement this information with New Jersey municipality data from the 1990 and 2000 Decennial Census accessed through the National Historical Geographic Information System (NHGIS), maintained by the Minnesota Population Center at the University of Minnesota (Manson et al., 2019). These data include median household income, population demographics, and unemployment rates. Since information for this time period is only available from the decennial census, 1990 was chosen as the representative year, although as a robustness check, I also conducted each of the analyses in this article using the 2000 census data. The results remain largely the same. A few select descriptive statistics on the Annual Report 2002–2003 data can be found in Table 1.

Information on RCAs comes from COAH and the New Jersey Department of Community Affairs. Although data are available on all RCAs from 1987 until their repeal in 2008, I limit my analysis to only those RCAs that took place during the 1987–1999 period covered by COAH's 2002 Annual Report. This allows me to focus on RCAs that took place while active COAH requirements existed, before the entire program went into limbo starting in the 2000s. This also allows me to use new construction and rehabilitation obligations as effective predictors while these numbers were relevant in a given municipality's decision-making process. For each RCA, I observe which municipality was the sender and which was the receiver of affordable housing units, how many housing units were to be transferred, and the price per housing unit. I also observe whether these funds were spent on new construction or on rehabilitation projects.

3. Methodology

A. Joining the COAH

To answer my first question concerning how successfully the program attracted those municipalities with the greatest need for affordable housing, I examine participation decisions during both the First Round (1987–1993) and the Second Round (1994–1999). COAH divided New Jersey into six regions, then calculated affordable housing requirements for each round at a regional level based on the guidelines outlined by Mount Laurel II. Although these requirement calculations involved several details,⁹ a simple regression of a municipality's new construction obligation on the demographic variables in the data (such as median income) can explain about 31.6% of the variation based on the R^2 value (dropping to 13.6% when omitting a municipality's total population). This, however, leaves about two thirds of its variation unexplained. It is noteworthy that this obligation is positively correlated with median income, highlighting that high-income municipalities were in fact a large target of this program and of the participation incentives. The same regression carried out using a municipality's rehabilitation obligation as the dependent variable reveals that 73.4% of its variation is explained by total population alone and that there is a positive relationship between a municipality's rehabilitation obligation and its total population.

Table 1. Descriptive statistics.

	Mean	SD	Min	Max
Median household income (\$)	46,343.94	16,221.66	16,775	150,001
New construction obligation	151.456	258.552	0	2459
Rehabilitation obligation	56.931	168.114	0	2431
Observations	566			

Note. SD = standard deviation.

Source: Annual report 2002–2003, 6–25, by New Jersey Council on Affordable Housing, 2003, Trenton, NJ: New Jersey State Library Archives; Decennial Census, by U.S. Census Bureau, 1990.

Given that all New Jersey municipalities were aware of their calculated new construction and rehabilitation requirements, the first key question is why some municipalities valued joining COAH more than others did, given the promised benefits and protections. Presumably, higher income municipalities would have a greater incentive to join if they believed the probability of facing a builder's remedy lawsuit was sufficiently high, although this is difficult to empirically measure with the available data (although I briefly examine the court towns in [Section 4A](#)). It is worth remembering, however, that municipalities would have much more freedom in determining where they build new affordable housing when going through COAH as opposed to after losing a builder's remedy lawsuit, which could have served as a powerful incentive to join. To answer the question of which municipalities joined COAH, I use the building requirements information from COAH's 2002–2003 Annual Report, as well as municipality-level demographic information taken from the 1990 Decennial Census. Of the 566 municipalities in New Jersey, 317 (about 56%) of them joined COAH during either the first or second round.

I estimate a municipality's predicted probability of joining COAH using a binary probit model:

$$P(y_i = 1 | X_i, \text{Region}_i) = \phi(\beta_i X_i + \delta_i \text{Region}_i) \quad (1)$$

Where: $\begin{cases} y = 1, & \text{if } i\text{-th municipality joined COAH} \\ y = 0, & \text{otherwise} \end{cases}$

Municipalities are considered to have joined COAH if they applied for and received substantive certification during either the First Round or the Second Round. These municipalities are denoted in COAH's 2002 Annual Report. X is a vector of explanatory variables including a municipality's median household income, new construction obligation, rehabilitation obligation, persons per square mile, and black share of the population.¹⁰ These variables will allow me to get a basic sense of any demographic patterns related to a municipality's decision to join COAH. In particular, persons per square mile (population density) can help in exploring whether space availability played a role in the decision to join. This could stem from logistical concerns regarding where new affordable housing would be built, or a NIMBY concern over the proximity of potential low-income neighbors. Past studies have found that there is a strong relationship between zoning laws that prevent too much population density and income segregation (Rothwell, 2011; Rothwell & Massey, 2010). Moreover, a measure of the black share of the population in a municipality could highlight whether race played a role in this decision even after controlling for income. Again, previous studies have shown that exclusionary zoning laws disproportionately affect minorities (Rothwell, 2011; Shertzer, Twinam, & Walsh, 2016), and it is worth exploring whether that pattern holds with regards to municipality decisions within this program. Because of its high correlation with a municipality's rehabilitation obligation, total population is excluded.

The model also includes two dummy variables regarding the classification of municipalities. First, *urban aid* indicates whether the municipality was considered an urban aid municipality, meaning that it met a set of requirements (mostly population density and median income) to qualify for additional state aid. COAH's own 1987 report highlighted the importance of having such municipalities join COAH, and that urban aid municipalities were a priority for funding from the Department of Community Affairs according to the Fair Housing Act. As such, this could have impacted municipalities' incentive to join COAH, depending on whether these municipalities felt they already qualified for sufficient aid or were seeking further aid. Second, *court town* denotes whether the municipality was ever under a court's jurisdiction during this time period and was required to provide an affordable housing plan to a superior court in response to a court-ordered judgment of repose (New Jersey Council on Affordable Housing, 1997). Considering that these municipalities were involved in some form of affordable housing litigation, it is of interest whether they ultimately resigned to join COAH or continued to resist creating an affordable housing plan. Lastly, to control for differences across COAH regions, a vector of fixed effects (*region*) is included but omitted from the output.¹¹ The full results using 1990 census data are shown in [Table 2](#).

Table 2. Probability of joining the Counsel on Affordable Housing (COAH).

	(1)	(2)
	MLEs	AMEs
Log(median income)	0.572** (0.291)	0.153** (0.0771)
Log(new construction)	0.0911** (0.0463)	0.0244** (0.0122)
Log(rehabilitation)	0.259*** (0.0568)	0.0693*** (0.0145)
Persons per square mile (hundreds)	– 0.00918*** (0.00197)	– 0.00246*** (0.000507)
Black share of population	– 0.00539 (0.00602)	– 0.00144 (0.00161)
Urban aid	– 0.0635 (0.267)	– 0.0171 (0.0725)
Court	– 2.035*** (0.236)	– 0.534*** (0.0375)
Constant	– 6.384** (3.139)	
Observations	566	566
Pseudo R ²	0.309	

Note. Standard errors are given in parentheses. Regional dummies are included. MLE = Maximum Likelihood Estimate. AME = Average Marginal Effect.

Source: Annual report 2002–2003, 6–25, by New Jersey Council on Affordable Housing, 2003, Trenton, NJ: New Jersey State Library Archives; Decennial Census, by U.S. Census Bureau, 1990.

* $p < .10$. ** $p < .05$. *** $p < .01$.

B. Regional Contribution Agreements

Municipalities that wished to engage in an RCA filed the appropriate paperwork with COAH, who could then authorize the transaction. The agreement also specified how the received funds would be spent. It is worth noting that whereas sending municipalities received affordable housing credit for sending away their new construction obligations, receiving municipalities could end up spending these funds on rehabilitation regardless of whether that plan was approved by COAH. Hence, it was possible for new construction obligations to disappear if they were converted into rehabilitation projects in receiving municipalities. In fact, about three quarters of the RCAs between 1987 and 1999 allocated funds to rehabilitation projects instead of new construction (New Jersey Council on Affordable Housing, 2003).

Between 1987 and 1999, 98 municipalities sent affordable housing units to another municipality through an RCA, whereas 42 municipalities received units. In this way, 8,650 units were transferred in total (a bit more than 10% of the total stock of new construction obligations), resulting in the transfer of \$170,876,720 worth of funds (New Jersey Council on Affordable Housing, 2003). Of the six COAH regions, Region 6 was the only one in which no municipality engaged in an RCA; it was also the poorest region in terms of average median household income. As a result, there might have been little incentive for any of those municipalities to engage in an RCA, especially if other regions exhibited a pattern of higher income municipalities sending affordable housing units to lower income municipalities.

To investigate this trend further, I again use the 1987–1999 fair share obligation data found in COAH's 2002 Annual Report and utilize a multinomial random utility model in the spirit of McFadden (1974). Municipalities will decide to either send housing units or receive housing units, or do neither. I estimate the predicted probability of these options using a multinomial logit model that takes the following form¹²:

$$P(y_i = j | X_i, \text{Region}_i) = \Lambda(\beta_j X_i + \delta_j \text{Region}_i) \quad (2)$$

Where $\begin{cases} y = 2, & \text{if } i\text{-th municipality sent units} \\ y = 1, & \text{if } i\text{-th municipality received units} \\ y = 0, & \text{otherwise} \end{cases}$

In Equation (2), Λ is the logistic function. Constructing the dependent variable in this way allows for a comparison of municipalities that engaged in an RCA with those that did not (as a reference group). This will help in examining, for example, whether the richest and poorest municipalities were the most likely to engage in an RCA. The independent variables from Equation (1) are included in the model (median household income, new construction obligation, rehabilitation obligation, persons per square mile, black share of the population, urban aid, and court town). Similarly to their inclusion in Equation (1), these variables will allow for the identification of basic demographic patterns in the RCA decision, and control for differences in incentives based on being a municipality receiving other state funding (urban aid) or having been involved in affordable housing litigation (court town).

An additional control variable is needed to account for municipalities that decided to join COAH. Although on paper, joining COAH was a requirement for engaging in an RCA, the data tell a different story. A number of municipalities, both senders and receivers, engaged in an RCA without receiving substantive certification from COAH. Hence, it is likely that COAH made individual judgments on proposed RCAs to determine whether they were needed or justified. This means the sample of municipalities that were potential RCA candidates is not limited to those that joined COAH, but is instead all municipalities in New Jersey. However, this means some municipalities that engaged in an RCA went through the certification process with COAH, whereas others did not; therefore, another control variable (*joined*) is included in Equation (2) to account for differences between municipalities that joined COAH and those that did not. The results of Equation (2) are presented in [Table 3](#).

4. Results and Discussion

A. Joining COAH

Column 1 of [Table 2](#) reports the unaltered maximum likelihood coefficients of the model from Equation (1), whereas column 2 reports the average marginal effects (AMEs) of the same model. The AMEs show the average impact of a 1-unit increase in a dependent variable on the probability of joining COAH across the sample, without the need to substitute specific values for other variables.¹³ For instance, looking at the AME of median income we see that every 10% increase in a municipality's median income increases the probability that it will join COAH by roughly 1.53%. This result highlights that municipalities with higher median household incomes were in fact more likely to join COAH, which is important given that high-income municipalities were the original target of the Mount Laurel decisions. Yet the program did not attract all high-income municipalities, whereas a mandatory participation program would have ensured their participation. However, a mandatory program would have had its own set of challenges, and these results illustrate that it is possible to attract target municipalities with an incentive-based program.

In addition to the effect of income, the results indicate that municipalities with higher new construction and rehabilitation obligations were more likely to join COAH. From the AMEs we see that a 10% increase in new construction requirements led to an increase of about 0.24% in the probability of joining, and a 10% increase in rehabilitation requirements led to an increase of about 0.7% in the probability of joining. Hence, municipalities that were given the largest program requirements were among the most likely to join, illustrating that the incentives offered by this program succeeded in attracting the municipalities in the greatest need of affordable housing (at least in numerical terms). How much of this decision was guided by altruism versus fear of a builder's remedy lawsuit (around which the incentives of the program revolved) is difficult to tell empirically from the available data, since the timing of court involvement is not reported. However, a quick look at the 77 court town municipalities compared with the others reveals several differences in the available variables. Municipalities that were involved in affordable housing litigation at some point during this period had higher average median incomes (\$51,741 vs. \$45,493), higher average new construction obligations (280 vs. 131), and fewer people per square mile (22.8 vs. 34.9).¹⁴ This provides at least some evidence that higher income municipalities, those with a large need for

Table 3. Engaging in a regional contribution agreement (RCA).

	(1)	(2)
	MLEs	AMEs
Received		
Log(median income)	- 2.603** (1.230)	- 0.108** (0.048)
Log(new construction)	- 0.361*** (0.132)	- 0.016*** (0.00501)
Log(rehabilitation)	0.581*** (0.207)	0.023*** (0.008)
Persons per square mile (hundreds)	- 0.00281 (0.00370)	- 0.00008 (0.00015)
Black share of population	0.0345** (0.0158)	0.0013** (0.00061)
Urban aid	1.018* (0.599)	0.0599 (0.0411)
Court	- 0.739 (0.901)	- 0.027 (0.025)
Joined	0.347 (0.498)	0.0104 (0.0193)
Constant	23.51* (12.88)	
Sent		
Log(median income)	2.689*** (0.712)	0.241*** (0.058)
Log(new construction)	0.721*** (0.145)	0.064*** (0.011)
Log(rehabilitation)	- 0.136 (0.136)	- 0.013 (0.012)
Persons per square mile (hundreds)	- 0.0136 (0.00989)	- 0.0012 (0.00086)
Black share of population	0.00327 (0.0272)	0.00021 (0.00238)
Urban aid	- 17.46 (3216.2)	- 0.179*** (0.013)
Court	1.155** (0.557)	0.110** (0.0542)
Joined	1.891*** (0.544)	0.149*** (0.034)
Constant	- 34.99*** (7.952)	
Observations	566	566

Note. Standard errors are given in parentheses. Regional dummies are included. MLE = Maximum Likelihood Estimate. AME = Average Marginal Effect.

Source: Annual report 2002 -2003, 6-25, by New Jersey Council on Affordable Housing, 2003, Trenton, NJ: New Jersey State Library Archives; Decennial Census, by U.S. Census Bureau, 1990.

* $p < .10$. ** $p < .05$. *** $p < .01$.

new affordable housing, and less population-dense communities were more likely targets of a lawsuit. This, in turn, could explain why these same types of municipalities were more likely to join COAH.

Lower income municipalities, on the other hand, might have been less worried about the possibility of a builder's remedy lawsuit. This might have discouraged them from joining COAH. These municipalities may have also believed that since high-income, not low-income, municipalities were the main targets of the program, they did not have the same incentive or obligation to join COAH. In fact, some of the state's lower income municipalities seemed at the time to believe that COAH's building requirements should not apply to them. In a 2000 interview with Darren Atzert, then the Mayor of Edgewater Park (which had a below-average median household income), he explained that he believed his town should not have to comply with COAH's building requirements, stating

that “We have our fair share of affordable housing.”¹⁵ However, some low-income municipalities may still have wanted to join COAH to be able to engage in an RCA, although as previously mentioned this was not as strict a requirement as it first appeared.

Interestingly, the model also shows that municipalities with a lower population density were more likely to join COAH. This suggests that besides high-income municipalities, those with a large but diffuse population were most likely to join COAH.¹⁶ There are several possible explanations for this trend. On the one hand, these municipalities likely had more unused space available for new affordable housing construction, and perhaps they wished to put it to good use. On the other hand, given that municipalities with some sort of court involvement during this period had lower average population densities, these municipalities may have predicted that they were high-probability targets for a builder’s remedy lawsuit. These low-density municipalities may also have felt at risk from the new low-income neighbors that a builder’s remedy lawsuit could bring. Recall that if a municipality lost a builder’s remedy lawsuit, then it would have to zone for new units at a 4:1 (market value to affordable housing) ratio, in an area determined by the courts. This possibility may not have been looked upon favorably by residents who wanted to prevent economic integration within their communities. As previously mentioned, studies have shown that density laws tend to create income segregation (Rothwell, 2011; Rothwell & Massey, 2010), and that most IZ programs do not successfully distribute affordable housing units in a way that creates mixed-income neighborhoods (Kontokosta, 2015).

A final interesting result is that municipalities that were under a court’s jurisdiction were substantially less likely to join COAH. Given that these were municipalities that had undergone or were currently undergoing some form of a housing lawsuit, it is unexpected that these same municipalities would not want to join COAH to receive protection from further litigation. This is also surprising given that these municipalities, as outlined above, had the same characteristics as municipalities that were more likely to join COAH, including higher incomes, higher new construction obligations, and lower population densities. It is possible, however, that if these municipalities were given court-ordered remedies for their lack of affordable housing, they viewed joining COAH as an unnecessary step. Although the exact timing of these court involvements is not listed in the COAH reports, they at least serve as a good control variable in the model.

As a robustness check of the results, I also ran several alternative specifications. Although the original version of the models above used both income and unemployment rates as independent variables, they are highly correlated within the model and are likely capturing the same phenomenon. Neither variable is statistically significant when they are both included, although they should theoretically be important predictors of joining. Hence, unemployment rates were omitted from the model. Another robustness check used was to replace the logged version of median income with a second-order term to test whether there was a disincentive to join COAH at the highest levels of income. Although the coefficients of the second-order income term are statistically significant at the 5% level, closer inspection reveals that the predicted turnaround point in the data occurs around a median income of \$80,000. Hence, although it may be true that there was a diminishing likelihood of joining as income increased, it is possible that this result was generated by a lack of data at the extreme high end of the income spectrum, since only a handful of municipalities had median incomes this high. I also tested the inclusion of several interaction terms, but neither the interaction of income with new construction nor its interaction with rehabilitation proved statistically significant, indicating that these three variables played separate roles in the decision-making process of whether to join COAH.

Final robustness checks included running the model using the 2000 census data for median income, population density, and black share of the population, as well as using the logit function in Equation (1) rather than a probit function. In both cases, the statistical significance of the coefficients remained largely unchanged. The only difference worth noting is that new construction obligation was no longer statistically significant in the logit compared with the probit model, but it became significant again when dropping the two municipalities with a new construction obligation greater than 2000 (well above the average). Overall, the conclusions drawn from the

results remain the same. To see the results of the robustness checks mentioned, refer to [Table A1](#) in the Appendix.

B. Regional Contribution Agreements

Although high-income municipalities were more likely to join COAH and receive the accompanying legal protection, one of the key stated benefits of joining COAH was the ability to engage in an RCA. As a reminder, a municipality that engaged in an RCA could transfer up to 50% of its new affordable housing obligation to another municipality within the same COAH region, with a minimum price of \$10,000 per housing unit. Sending municipalities would receive affordable housing credits for those units it sent, absolving them of the requirement to build those units, whereas receiving municipalities would receive additional funds to aid in their new construction and rehabilitation. However, as highlighted by my second question of interest, it is also possible that this gave wealthier municipalities an escape route from meeting their affordable housing requirements. To date, no empirical model has examined this possibility. Hence, the RCA program may have provided wealthier municipalities with a means to prevent economic integration from occurring within their existing communities, worsening the geographic separation between the rich and poor across the state and undermining the original intent of the Mount Laurel decisions.

Column 1 of [Table 3](#) reports the maximum likelihood coefficients, whereas column 2 reports the AMEs. A Wald test of joint significance between the column 1 coefficients from *sent units* and the additive inverse of the column 1 coefficients from *received units* rejects the null hypothesis that their sum is equal to 0. This indicates that there were multiple dimensions to the decision to engage in an RCA, and that the variables included did not equally affect the probability of sending versus receiving.

Based on the results, we can see that the richest and poorest municipalities were most likely to engage in an RCA. Furthermore, high-income municipalities and those with large new construction obligations were very likely to send units, whereas low-income municipalities and those with small new construction obligations were very likely to receive units. This confirms that higher income municipalities used RCAs as an affordable housing escape route. The AMEs show that if the median income of a given municipality doubled, it would be about 24% more likely to send units, while being about 10.8% less likely to send units. Similarly, doubling a municipality's new construction obligation would increase the probability of sending units by about 6.4%, while decreasing the probability of receiving units by about 1.6%. It is worth mentioning that receiving municipalities had larger rehabilitation obligations (and hence larger populations), although, interestingly, population density is not statistically significant, indicating that it was not simply densely packed cities that were only on the receiving end of an RCA.

Additionally, receiving municipalities had relatively larger black populations. On the one hand, perhaps an argument could be made that these municipalities were in greater need of development funds, but it also meant that these RCAs were actively preventing racial integration across municipalities by limiting pathways to certain communities, and previous studies have already demonstrated the trend for exclusionary zoning to disproportionately affect minority neighborhoods (Rothwell, 2011; Shertzer et al., 2016). If municipalities were instead mandated to complete their new construction obligations within their own borders, then over time this could have encouraged the creation of more mixed-income and mixed-race communities.

Lastly, the results show that municipalities under a court's jurisdiction were more likely to send units, although without exact data on the timing it is unclear whether the court's jurisdiction was imposed before or after the RCA. Hence, it is best used as a control variable. Furthermore, the *joined* control variable indicates that municipalities that joined COAH were much more likely to send housing units but not receive housing units. As already seen from the results in [Table 2](#), those who joined COAH were likely to be the municipalities with higher incomes and higher new construction obligations, so it not surprising that these municipalities were also more likely to

send units, given the results in Table 3. Most importantly, the presence of the *joined* variable in the model allows for a cleaner interpretation of median income and new construction obligation, capturing latent differences between those municipalities that sought COAH certification and those that did not. As a final note of interpretation, the extremely large standard error on *urban aid* is likely present because no urban aid municipalities were RCA senders, and the statistical significance of the marginal effect may be safely ignored. As a final robustness check, when the 2000 decennial census data is used in place of the 1990 data, the results remain the same (see Table A2 in the Appendix).

5. Conclusion and Policy Discussion

The original goal of the Mount Laurel decisions was to prevent municipalities from engaging in exclusionary zoning, which allows municipalities to perpetuate segregation in their communities directly by income and indirectly by race. However, although the goal was noble, the implementation of that goal as carried out by COAH appears to have been flawed. By design, municipalities were given an escape route from building at least some of the affordable housing that was required of them by COAH.

Although the Mount Laurel decisions and the program that followed are only one example of an affordable housing program implemented in one state, several important policy design lessons may be learned from this one case. On the one hand, the incentive-based structure of the program succeeded in soliciting the participation of higher income municipalities and those with large new affordable housing obligations. This is most likely because these municipalities believed that they were the most vulnerable targets of a potential builder's remedy lawsuit, so legal protection from these suits was an attractive prospect. However, these same municipalities were the most likely to send affordable housing units to another municipality using an RCA, and the poorest municipalities were the most likely to receive those units, confirming the suspicion of New Jersey policymakers. Not only did this prevent richer municipalities from having to construct as much affordable housing, but there was no guarantee the received funds would be spent on new construction. Instead, the more than \$170 million in transferred funds from the period examined could have been used to develop more affordable housing in the wealthier municipalities whom COAH's own calculations determined needed more affordable housing.

Although the use of RCAs was repealed in 2008, this still allowed for 20 years' worth of these transactions, and New Jersey has not made any final decisions since then regarding how to revamp its affordable housing requirements. From these shortcomings, we have seen that using a voluntary, incentive-based program to promote IZ and encourage municipalities to construct more affordable housing will always face an incentive problem, as those municipalities that desire affordable housing the least (and are likely most in need of affordable housing) will require an extremely strong incentive to participate. In the case of New Jersey's program, we have observed that municipalities will in fact pay to forgo having to build affordable housing. Moreover, COAH's 2002–2003 report shows that even among those municipalities that joined, most of the affordable housing was built by only a handful of them, and nearly one quarter of participating municipalities had no units built or zoned for by 2003.

If, instead, COAH had forgone the use of RCAs and strictly enforced the building requirements in each municipality that joined, there might have been more opportunities for economic integration for the lower income families of New Jersey. Of all of the state programs that have tried some form of IZ, only New Jersey allowed the transfer of housing obligations (Lerman, 2006), and by the New Jersey legislature's own admission it was deemed an inadequate way to provide affordable housing to municipalities in need.¹⁷ A mandatory participation program might have overcome the participation and compliance issues; however, it would have presented its own set of challenges. Admittedly, coercing economic integration across geography is difficult, and even largely successful programs such as the Low-Income Housing Tax Credit have struggled with this issue (Ellen, Horn, & Kuai, 2018).

In New Jersey's case, however, the design of its policy provided little chance that this type of integration would occur. Considering that a municipality was able to send up to 50% of its affordable housing share to another municipality, in addition to being able to allocate up to 25% of its affordable housing share to senior housing (New Jersey Council on Affordable Housing, 2003), a substantial amount of a municipality's new construction requirement could be allocated in such a way as to avoid serving the low- and moderate-income population. As such, the target demographic of the Mount Laurel decisions could remain largely unserved, and high-income municipalities had many avenues to avoid having to build affordable housing within their borders.

Another point to consider is where the newly constructed affordable housing units created through this program were built. Although it is not possible to study this here with the available data, researchers have investigated this question in other areas. Kontokosta (2015) found that affordable housing units built through IZ policies in Montgomery County, Maryland, and Suffolk County, New York, were much more likely to be clustered in low-income and minority neighborhoods. He explains that this could stem either from NIMBY attitudes (Fischel, 2005; Schively, 2007) or from a reluctance of local government to change their land-use plans to accommodate more affordable housing. Hence, whereas it cannot be tested empirically, it is possible that this type of clustering occurred with these units in New Jersey, although perhaps their inclusion in developments with market-rate units helped offset this. Even without RCAs, however, allowing municipalities to decide where they would build their affordable housing if they joined COAH could very easily have led to more segregation, and the state should have considered removing this benefit or at least providing some restrictions or guidance on where new affordable housing could be built. Future research in this area may be able to shed more light on this particular issue with New Jersey's program.

In short, as highlighted by other works, low-income families have better long-term economic and social outcomes if they are integrated into higher income neighborhoods. However, this is unlikely to occur without a carefully designed policy. This article has shown that an incentive-based program can attract the participation of towns that need affordable housing, but left to their own devices, towns will find a way to minimize these obligations while maximizing their own benefit. As such, policymakers overseeing these types of programs should ensure that each town is responsible for its own share of affordable housing and that there are clear consequences for failing to meet a construction timeline, and should consider a more direct approach to where affordable housing is built. Only when we consider the long-term effects of a policy on the geographic distribution of poverty can exclusionary zoning be limited and IZ be successful.

Notes

1. For more background information, refer to: Mount Laurel Doctrine. *Fair Share Housing Center*. Retrieved from <http://fairsharehousing.org/mount-laurel-doctrine/>
2. *So. Burl. Cty. NAACP v. Tp. of Mt. Laurel*, 67 N.J. 151 (1975).
3. This general pattern was confirmed by a telephone conversation with a representative of the New Jersey Department of Community Affairs.
4. For more on the design on the program, refer to the New Jersey Council on Affordable Housing (1987) Annual Report.
5. NJSA 52:27D-312.
6. *So. Burl. Cty. NAACP v. Mt. Laurel Tp.*, 92 N.J. 158 (1983).
7. Assembly Committee Substitute for Assembly, No. 500, State of New Jersey, 213th Legislature (2008).
8. I attempted to find more reports, as they are titled annual reports. However, I was unable to find evidence of any reports other than the six years listed.
9. For a summary of some of these details and a proposed alternative methodology moving forward, refer to Econsult (2015).
10. Since there were a number of municipalities for which new construction and rehabilitation obligations were 0, I log transformed these variables using $\ln(x + 1)$.
11. Given the small number of regions and the difficulty in correcting for heteroskedasticity in maximum likelihood models with simple robust standard errors, I report unclustered, nonrobust standard errors.

12. As noted by Keane (1992), identification in the multinomial probit model is difficult without an exclusion restriction. Moreover, Long and Freese (2014) discuss the conflicting results of Independence of Irrelevant Alternative (IIA) tests and highlight multinomial logit's usefulness when the alternatives are distinct and not simply substitutes for each other, which I believe is an easy case to make here. As such, I believe the multinomial logit model is the best model to answer this question with the available data.
13. For more information on AMEs and average partial effects, refer to Wooldridge (2012).
14. The first two differences are confirmed by a t-test of means to be statistically significant at the 1% level, and the third is statistically significant at the 5% level.
15. T. Murakami (2000, May), Going to Court over Housing "Builder's Remedy" Suits Force the Issue with Towns that Won't Plan for Affordable Housing. Retrieved from philly.com
16. Recall that a municipality's rehabilitation obligation and its total population are highly correlated, and that almost 74% of the variation in rehabilitation obligation is explained by total population, which is why population is omitted from the model.
17. Assembly Committee Substitute for Assembly, No. 500, State of New Jersey, 213th Legislature (2008).

Disclosure Statement

No potential conflict of interest was reported by the author.

Notes on Contributor

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References

- Assembly Committee Substitute for Assembly. (2008). *No. 500, state of New Jersey, 213th legislature*.
- Bailin, N., & Eisdorfer, E. (1996). *The impact of the Mt. Laurel initiatives: An analysis of the characteristics of applicants and occupants*. West Orange, NJ: Seton Hall University Center for Public Service.
- Cutler, D. M., Glaeser, E. L., & Vigdor, J. L. (1999). The rise and decline of the American Ghetto. *Journal of Political Economy*, 107(3), 455–506.
- Dantzler, P. (2016). Exclusionary zoning: State and local reactions to the "Mount Laurel" Doctrine. *The Urban Lawyer*, 48(3), 653–673.
- Dougherty, C. (2016, July) How anti-growth sentiment, reflecting in zoning laws, thwarts equality. *New York Times*. Retrieved from <http://www.nytimes.com>
- Econsult Solutions. (2015). *New Jersey affordable housing need and obligations*. Retrieved from <http://www.southbrunswicknj.gov>
- Ellen, I. G., Horn, K. M., & Kuai, Y. (2018). Gateway to opportunity? Disparities in neighborhood conditions among low-income housing tax credit residents. *Housing Policy Debate*, 28(4), 572–591.
- Fischel, W. A. (2005). *The homeowner hypothesis: How home values influence local government taxation, school finance, and land-use policies*. Cambridge, MA: Harvard University Press.
- Fox, R. (1988). The selling out of Mount Laurel: Regional contribution agreements in New Jersey's fair housing act. *Fordham Urban Law Journal*, 16, 535.
- Fraser, J. C., Chaskin, R. J., & Bazuin, J. T. (2013). Making mixed-income neighborhoods work for low-income households. *Cityscape*, 15(2), 83–100.
- Hsieh, C. T., & Moretti, E. (2018). Housing constraints and spatial misallocation. *American Economic Journal: Macroeconomics*, 11(2), 1–39.
- Karki, T. K. (2015). Mandatory versus incentive-based state zoning reform policies for affordable housing in the United States: A comparative assessment. *Housing Policy Debate*, 25(2), 234–262.
- Keane, M. P. (1992). A note on identification in the multinomial probit model. *Journal of Business & Economic Statistics*, 10(2), 193–200.

- Kontokosta, C. E. (2015). Do inclusionary zoning policies equitably disperse affordable housing? A comparative spatial analysis. *Journal of Housing and the Built Environment*, 30(4), 569–590.
- Lerman, B. R. (2006). Mandatory inclusionary zoning – The answer to affordable the affordable housing problem. *Boston College Environmental Affairs Law Review*, 33(2), 383–416.
- Levy, D. K., McDade, Z., & Bertumen, K. (2013). Mixed-income living: Anticipated and realized benefits for low-income households. *Cityscape*, 15(2), 15–28.
- Long, J. S., & Freese, J. (2014). *Regression models for categorical dependent variables using Stata* (3rd ed.). College Station, TX: Stata Press.
- Ludwig, J., Liebman, J. B., Kling, J. R., Duncan, G. J., Katz, L. F., Kessler, R. C., & Sanbonmatsu, L. (2008). What can we learn about neighborhood effects from the Moving to Opportunity experiment? *American Journal of Sociology*, 114(1), 144–188.
- Mangin, J. (2014). The new exclusionary zoning. *Stanford Law & Policy Review*, 25, 91.
- Manson, S., Schroeder, J., Van Riper, D., & Ruggles, S. (2019). *IPUMS National Historical Geographic Information System: Version 14.0*. Minneapolis, MN: IPUMS.
- Marantz, N. J., & Zheng, H. (2018). Exclusionary zoning and the limits of judicial impact. *Journal of Planning Education and Research*, 1–14.
- Massey, D., Albright, L., Casciano, R., Derickson, E., & Kinswy, D. (2013). *Climbing Mount Laurel: The struggle for affordable housing and social mobility in an American Suburb*. Princeton, NJ: Princeton University Press.
- McFadden, D. (1974). Conditional logit analysis of qualitative choice behavior. In P. Zarembka (Ed.), *Frontiers in econometrics* (pp. 105–142). New York: Academic Press.
- Mukhija, V., Das, A., Regus, L., & Tsay, S. S. (2015). The tradeoffs of inclusionary zoning: What do we know and what do we need to know? *Planning Practice & Research*, 30(2), 222–235.
- Murakami, T. (2000, May). Going to court over housing “Builder’s Remedy” suits force the issue with towns that won’t plan for affordable housing. Retrieved from <http://www.articles.philly.com>
- New Jersey Council on Affordable Housing. (1987). *Annual report*. Trenton, NJ: New Jersey State Library Archives.
- New Jersey Council on Affordable Housing. (1997). *People places & progress: The COAH story 1996–1997*. Trenton, NJ: New Jersey State Library Archives.
- New Jersey Council on Affordable Housing. (2003). *Annual report 2002 – 2003. N.J.S.A 52:27D-312*. Trenton, NJ: New Jersey State Library Archives.
- Pendall, R. (2009). How might inclusionary zoning affect urban form? In N. Pindus, H. Wial, & H. Woman (Eds.), *Urban and regional policy and its effects* (Vol. 2, pp. 223–256). Washing DC: Brookings Institution Press.
- Quillian, L. (2002). Why is Black–White residential segregation so persistent?: Evidence on three theories from migration data. *Social Science Research*, 31(2), 197–229.
- Rizzo, S. (2017, January). N.J. Supreme Court: Towns must have affordable housing. Retrieved from <https://www.northjersey.com>
- Rosenbaum, J. E., Stroh, L., & Flynn, C. (1998). Lake Parc Place: A study of mixed-income housing. *Housing Policy Debate*, 9(4), 703–740.
- Rothwell, J. T. (2011). Racial enclaves and density zoning: The institutionalized segregation of racial minorities in the United States. *American Law and Economics Review*, 13(1), 290–358.
- Rothwell, J. T., & Massey, D. S. (2010). Density zoning and class segregation in U.S. metropolitan areas. *Social Science Quarterly*, 91(5), 1123–1143.
- Schively, C. (2007). Understanding the NIMBY and LULU phenomena: Reassessing our knowledge base and informing future research. *Journal of Planning Literature*, 21(3), 255–266.
- Schuetz, J., Meltzer, R., & Been, V. (2009). 31 flavors of inclusionary zoning: Comparing policies from San Francisco, Washington, DC, and Suburban Boston. *Journal of the American Planning Association*, 75(4), 441–456.
- Schwartz, A. F., & Tajbaksh, K. (1997). Mixed-income housing: Unanswered questions. *Cityscape*, 3, 71–92.
- Shertzer, A., Twinam, T., & Walsh, R. P. (2016). Race, ethnicity, and discriminatory zoning. *American Economic Journal. Applied Economics*, 8(3), 217–246.
- So. Burl. Cty. (1975). *NAACP v. Tp. of Mt. Laurel*, 67 N.J. 151.
- So. Burl. Cty. (1983). *NAACP v. Mt. Laurel Tp.*, 92 N.J. 158
- Span, H. A. (2001–2003). How the courts should fight exclusionary zoning. *Seton Hall Law Review*, 32, 1.
- Talbert, C. T., & Costa, N. L. (2004). Current issues in inclusionary zoning. *The Urban Lawyer*, 36(3), 557–569.
- Watson, T. (2006). Inequality, metropolitan growth, and residential segregation by income. In G. Burtless, Janet Rothenberg Pack (Ed.), *Brookings-Wharton papers on urban affairs* (pp. 1–52). Washington, DC: Brookings Institution Press.
- Wooldridge, J. (2012). *Introductory econometrics a modern approach 5e*. Mason, OH: South-Western Cengage Learning.

Appendix

Table A1 contains the results of the various robustness checks performed on the results of Table 2, as mentioned in Section 4A. Because the average marginal effects were the focus of interpretation in Table 2, and to stress that the main findings of the article remain the same, only the average marginal effects of the models run are presented in Table A1. Column (1) presents the marginal effects of the logit results (excluding the two municipalities with new construction obligations greater than 2000 units). Column (2) shows the marginal effects from a model with a squared term for income. Column (3) displays the marginal effects from a model with an interaction of log of income with both new construction obligation and rehabilitation obligation. Column (4) shows the marginal effects of a model that includes the unemployment rate of municipality. Column (5) displays results of the original model from Table 2 using 2000 Decennial Census data instead of the 1990 data. Overall, when comparing the robustness checks with the main probit model, the main findings remain consistent.

Table A2 presents the results of the same model shown in Table 3 using the 2000 Decennial Census data instead of the 1990 data. Column (1) reports the maximum likelihood coefficients, whereas Column (2) reports the average marginal effects. The results and conclusions remain the same.

Table A1. Robustness checks of the probability of joining the Counsel on Affordable Housing (COAH).

	(1)	(2)	(3)	(4)	(5)
Log(median income)	0.139* (0.0791)		0.193** (0.0836)	0.134 (0.0919)	
Log(new construction)	0.0215* (0.0127)	0.0326*** (0.0114)	0.0243* (0.0130)	0.0249** (0.0123)	0.0200* (0.0121)
Log(rehabilitation)	0.0724*** (0.0148)	0.0637*** (0.0147)	0.0663*** (0.0145)	0.0695*** (0.0145)	0.0707*** (0.0143)
Persons per square mile (hundreds)	- 0.00284*** (0.000593)	- 0.00254*** (0.000510)	- 0.00242*** (0.000504)	- 0.00244*** (0.000510)	
Black share of population	- 0.00113 (0.00162)	- 0.00198 (0.00159)	- 0.000978 (0.00166)	- 0.00123 (0.00171)	
Urban aid	- 0.0407 (0.0757)	- 0.0117 (0.0729)	0.00672 (0.0732)	- 0.0135 (0.0731)	- 0.0339 (0.0737)
Court	- 0.522*** (0.0390)	- 0.534*** (0.0377)	- 0.531*** (0.0376)	- 0.534*** (0.0375)	- 0.532*** (0.0375)
Median income (thousands)		0.000784 (0.000930)			
Unemployment rate				- 0.00468 (0.0124)	
Log(Median income 2000)					0.204*** (0.0754)
Persons per square mile (hundreds), 2000					- 0.00224*** (0.000480)
Black share of population, 2000					- 0.000127 (0.00163)
Observations	564	566	566	566	566

Note. Standard errors are given in parentheses. Regional dummies are included. MLE = Maximum Likelihood Estimate. AME = Average Marginal Effect.

Source: Annual report 2002 -2003, 6-25, by New Jersey Council on Affordable Housing, 2003, Trenton, NJ: New Jersey State Library Archives; Decennial Census, by U.S. Census Bureau, 1990; Decennial Census, by U.S. Census Bureau, 2000.

* $p < .10$. ** $p < .05$. *** $p < .01$.

Table A2. Robustness checks for engaging in a regional contribution agreement (RCA).

	(1)	(2)
	MLEs	AMEs
Received		
Log(median income)	- 2.384** (1.074)	- 0.0991** (0.042)
Log(new construction)	- 0.365*** (0.130)	- 0.0159*** (0.005)
Log(rehabilitation)	0.601*** (0.204)	0.030*** (0.0079)
Persons per square mile (hundreds)	- 0.00286 (0.0032)	- 0.00008 (0.00013)
Black share of population	0.0295* (0.0164)	0.0011** (0.00064)
Urban aid	0.95* (0.601)	0.0548 (0.0399)
Court	- 0.848 (0.919)	- 0.030 (0.025)
Joined	0.305 (0.494)	0.009 (0.0192)
Constant	21.902* (12.532)	
Sent		
Log(median income)	2.752*** (0.673)	0.242*** (0.053)
Log(new construction)	0.760*** (0.145)	0.066*** (0.011)
Log(rehabilitation)	- 0.182 (0.132)	- 0.017 (0.012)
Persons per square mile (hundreds)	- 0.0152 (0.01005)	- 0.0013 (0.00086)
Black share of population	0.0120 (0.0221)	0.00098 (0.0019)
Urban aid	- 18.305 (5127.02)	- 0.179*** (0.013)
Court	0.996* (0.554)	0.093* (0.0528)
Joined	1.777*** (0.534)	0.140*** (0.035)
Constant	- 36.45*** (7.725)	
Observations	566	566

Note. Standard errors are given in parentheses. Regional dummies are included. MLE = Maximum Likelihood Estimate. AME = Average Marginal Effect.

Source: Annual report 2002 -2003, 6-25, by New Jersey Council on Affordable Housing, 2003, Trenton, NJ: New Jersey State Library Archives; Decennial Census, by U.S. Census Bureau, 2000.

* $p < .10$. ** $p < .05$. *** $p < .01$.