

**Is Inclusionary Zoning Inclusionary:  
A Study on the Racial and Socioeconomic Impacts of Housing Policy**

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## **Abstract**

Racial housing discrimination in the United States has created systemic segregation which precludes black Americans from living in the well-resourced suburbs of their white counterparts. Certain housing policies such as inclusionary zoning (IZ), a policy that offers real estate developers incentives in exchange for the creation of affordable housing, seek to counteract these injustices. Research on inclusionary zoning thus far has proven the policy's effectiveness in providing low-income groups access to high-performing schools in low-poverty neighborhoods, increasing children's academic and long-term economic outcomes. However, sparse research exists which examines if inclusionary zoning provides access to low-poverty settings specifically for black Americans, a goal that should be a priority for housing policies intended to make communities inclusive. Using data on inclusionary zoning policies from the Lincoln Institute and IPUMS NHGIS decennial census data, this study employs a difference in difference regression to analyze the changes in racial and socioeconomic composition of 420 jurisdictions across the United States as a result of their implementation of an IZ policy. This paper finds that while the effects on a jurisdiction's socioeconomic makeup are minimal, the implementation of an inclusionary zoning policy does significantly increase the percentage of black residents. When controlling for policy characteristics (i.e. whether a policy is mandatory, and what range of income it serves), IZ policies can increase the percentage of black residents by more than 0.8% over 10 years. However, this study also finds that when IZ policies are implemented voluntarily, without regard to the income range served or the location of the affordable units, the policies can have an adverse effect on the black population.

## **Introduction**

Inclusionary Zoning (IZ) refers to the broad set of housing policies that create dedicated affordable housing by encouraging or requiring developers to include below-market-rate “affordable” units as part of market-rate developments. By allowing developers to build at greater densities, inclusionary zoning leverages the private market to create low-income housing by offsetting the cost of including lower-rent units with the benefit of increasing the number of market-rate units. Inclusionary zoning policies can be mandatory or voluntary and can pertain to rental or homeownership developments. Since 1974 when the first of these policies was enacted, inclusionary zoning policies have been adopted across the country in an effort to address the affordable housing crisis while creating inclusive communities, an important objective in a country facing escalating inequality.<sup>1</sup> This paper will explore whether IZ policies increase the representation of black and low-income households in low-poverty neighborhoods and if so, which policy characteristics matter most in achieving this objective.

The affordable housing crisis in the United States is a serious issue. As of 2019, more than 38 million cost-burdened households—32% of all U.S. households—were paying more than 30% of their incomes on housing.<sup>2</sup> Further, 70% of all extremely low-income families<sup>3</sup> pay more than 50% of their income on rent. The high burden of scarce and costly housing is due to the fact that the U.S. has a shortage of 6.8 million rental homes available and affordable to low-income renters. The crisis has become so severe that there is no state or county where a full-time minimum-wage worker can afford to rent a two-bedroom apartment.<sup>4</sup> In an effort to evaluate the effectiveness of inclusionary zoning in creating affordable housing as a remedy for this crisis, the Lincoln Institute conducted the most comprehensive research on IZ to date.

Across 25 states and the District of Columbia, there are 886 jurisdictions with inclusionary zoning programs.<sup>5</sup> For a subset of these jurisdictions with comprehensive policy data available, the Lincoln Institute created a census of national IZ programs. In it, they identified each IZ program by census tract and noted its characteristics, such as whether it is a mandatory or voluntary policy, applies to rental or homeownership, and whether it is traditional IZ (building onsite affordable units) or a linkage fee program.<sup>6</sup> In total, they documented the production of 173,707 inclusionary units and the generation of \$1.8 billion in linkage fees.<sup>7</sup>

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<sup>1</sup> Chicago Metropolitan Agency for Planning. (2008). (rep.). *Inclusionary Zoning Strategy Report*.

<sup>2</sup> The 30% rule is a commonly accepted rule of thumb that a household should spend no more than 30 percent of its income on housing costs.

<sup>3</sup> Extremely low-income families are defined as households whose incomes are at or below the poverty guideline, or 30% of their area median income.

<sup>4</sup> NLIHC (n.d.). *The Problem*.

<sup>5</sup> Thaden, E., & Wang, R. (2017). *Inclusionary Housing in the United States: Prevalence, Impact, and Practices*.

<sup>6</sup> Linkage fees require developers to pay a fee towards off-site affordable housing. The rationale is that they mitigate the impact of commercial and/or residential development on the increased demand for affordable housing that will result from the development. Ibid.

<sup>7</sup> Due to missing data from the Lincoln Institute on many policies, these numbers likely underestimate the success of inclusionary zoning as a missing record of units or fees does not imply none, rather that the number failed to be identified.

While this study validated the ability of IZ to create affordable housing, it fell short in addressing whether the units produced had any impact on making a neighborhood more inclusive, as the policy intends. By analyzing the change in the share of black and low-income residents in jurisdictions with inclusionary zoning policies, this paper seeks to discern whether inclusionary zoning policies do in fact, create more inclusive communities.

In the United States, almost every city and county are “zoned” into geographic regions defined by a prescriptive—and often restrictive—zoning code. These codes specify what usage land is allowed to serve (i.e. commercial, residential, industrial) as well as what types of structures are allowed to be built on that land (i.e. specifications for building form, size, and scale).<sup>8</sup> This paper focuses on residential zoning codes, commonly referred to as single-family zoning codes because of minimum lot size (the smallest amount of land on which one structure can be built) or maximum building height requirements that are enacted by municipalities, preventing subdivisions and multifamily housing. Studies by Princeton University and the NY Fed (described in the next section) have found that the restrictive requirements of single-family zoning manufacture high housing costs in expensive areas, while also leading to higher housing prices in predominantly white areas.<sup>9</sup> However, these single-family zoning codes prevail across the country. Thus low-income residents, who are disproportionately black, have been systematically excluded from living in affluent neighborhoods.

By allowing developers to upzone in these wealthy, single-family neighborhoods in exchange for providing affordable housing, IZ increases the affordability of these neighborhoods in two key ways. First, it increases the overall supply of housing in an area, driving down prices for anyone seeking to move into the neighborhood.<sup>10</sup> Second, it conditions the development of larger residential buildings on the provision that certain units are “affordable” to people who make a specified percentage of area median income (AMI). Area median income, the midpoint of an area’s income distribution, is used as a benchmark to ensure that the affordable units built under IZ programs are affordable given their respective neighborhood. For example in 2019, a two-family household at 100% of AMI in San Francisco would be making \$98,500, while a two-person household at 30% of AMI would be making just \$29,550.<sup>11</sup> So by restricting the units built under IZ to families making a restricted percentage of AMI, inclusionary zoning increases the likelihood that residents who make far less than an area’s median income, can move into neighborhoods of opportunity.

Neighborhoods of opportunity is a term used in inequality research to describe places characterized by high-value properties and high-income residents whose resources lead to well-funded schools, enhanced healthcare facilities, higher quality food and green space, and general feelings of safety which benefit childhood development.<sup>12</sup> Having access to

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<sup>8</sup> Schuetz, J. (2019). *Is zoning a useful tool or a regulatory barrier?*

<sup>9</sup> Rothwell, J., & Massey, D. S. (2009). *The effect of density zoning on racial segregation in U.S. urban areas.*, FRBNY Economic Policy Review. (2003). *The impact of building restrictions on housing affordability.*

<sup>10</sup> Anagol, S., Ferreira, F. V., & Rexer, J. M. (2021). *Estimating the Economic Value of Zoning Reform.*

<sup>11</sup> Marzo, A. (2020). *Humanizing Data – Area Median Income (AMI) and Affordable Housing Policy.*

<sup>12</sup> *Keys Unlock Dreams* (2020). National Fair Housing Alliance.

neighborhoods of opportunity produces a waterfall of benefits. In his research on opportunity, economist Raj Chetty found that children who move to these lower-poverty neighborhoods benefit from a 31% increase in adult earnings, are more likely to live in better neighborhoods as adults, and are less likely to become single parents.<sup>13</sup> With children's outcomes so positively influenced by low-poverty settings, policies like IZ were invented to increase access to these affluent neighborhoods for all socioeconomic groups.

For reasons explored in depth in the next section of this paper, a history of housing segregation in the United States has suppressed the wealth of black Americans, while harming their prospects for economic mobility. The combination of suppressed wealth and the abnormally high prices of wealthy (often white) neighborhoods, has made it very difficult for blacks to leave the low opportunity areas to which they have been confined, in favor of the highly resourced, higher opportunity suburbs.<sup>14</sup> In an effort to counteract the detrimental effects that exclusionary zoning has had on keeping low-income and minority residents out of low-poverty settings, inclusionary zoning seeks to increase diversity in wealthy neighborhoods by providing much-needed affordable housing for the groups systemically excluded.

The paper proceeds as follows. First, a brief history of how U.S. housing policy has created an architecture of segregation perpetuated today by zoning codes that solidify and exploit the racial wealth inequalities that resulted from these historic policies is presented. Next, evidence of the positive impacts that low-poverty neighborhoods have on children's economic achievement is presented as motivation for why policies like inclusionary zoning need to address the segregation that has hindered the economic mobility of black children. Then, a brief literature review on inclusionary zoning presents evidence of the policy's successes in reversing this trend by helping low-income Americans access wealthy neighborhoods with higher-quality schools. However, while low-income residents in the United States are disproportionately black, the literature does not specifically look at IZ's ability to integrate black children, not just low-income children, into low-poverty neighborhoods.

The goal of this study is to discern if the inclusionary zoning policies to date in the United States have successfully integrated neighborhoods of opportunity by increasing both their share of black residents and families making under \$25,000 a year. As will be discussed later in this paper, if housing policy is to help level the playing field across socioeconomic classes, it must remedy racial segregation in the housing market which has precluded black Americans from accessing the economic opportunities prevalent in affluent (often white) neighborhoods. Using data on over 1,000 national IZ policies from the Lincoln Institute and demographic census data from NHGIS, a time and place fixed effects method is employed to analyze an area's change in racial and socioeconomic makeup as a result of an inclusionary zoning policy being implemented. The results indicate that inclusionary zoning does significantly increase an area's percentage of black residents and very slightly increases the percentage of families making under \$25,000 a year if the policy has certain characteristics.

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<sup>13</sup> NLIHC. (n.d.). *The Problem*. National Low Income Housing Coalition.

<sup>14</sup> *Ibid.*

## **Background**

This section discusses the history of housing policy in the U.S. It starts with formal methods of racial exclusion, followed by an explanation of the civil rights era reforms that were too little too late, and ends with current housing policies that opaquely perpetuate racial exclusion.

### *Redlining: Discriminatory Housing Policy in the United States*

The end of the Great Depression through Franklin D. Roosevelt's New Deal marked the beginning of a new depression in the United States: the intentional depression of black Americans' wealth and income through wide-scale federal housing policy. In 1933, in an effort to alleviate the worsening housing crisis, the U.S. government created the Home Owners Loan Corporation (HOLC) to rescue households on the verge of defaulting on their mortgages. By buying these mortgages subject to imminent foreclosure and issuing new longer-term amortized mortgages, the U.S. government gave homeowners principal and interest with each monthly payment. This meant that when the loan was paid off, the borrower would own the home. For the first time, working and middle-class homeowners could gradually gain equity while their properties were still mortgaged.

HOLC mortgages were not given to just anyone, however, because they required regular payments and thus involved some risk. To assess this risk, the HOLC hired local real estate agents to evaluate the conditions of homes and their surrounding neighborhoods to ensure that a property would maintain its value before they made a refinancing decision.<sup>15</sup> In an attempt to create a more systematic way of assessing homes so that not every house had to be evaluated individually, the HOLC created color-coded maps of each metropolitan area in the nation. White neighborhoods were outlined in green to denote that they were safe to lend to, while black neighborhoods were outlined in red to denote that they involved risk due to their racial composition.<sup>16</sup> This process, known as redlining, was the basis by which the federal government in the United States began a century-long process of systematically excluding blacks from the opportunity to own a home, acquire wealth, or live in a safe neighborhood.

Redlining was so inextricably linked to racial biases in the United States at the time that a neighborhood would be redlined (or deemed risky) simply if blacks lived there, even if the neighborhood was a middle-class neighborhood of single-family homes. For example, in St. Louis, the middle-class white suburb of Ladue was green because a HOLC appraiser in 1940 described it as having "not a single foreigner or negro," while the similarly middle-class suburb of Lincoln Terrace was red because the same appraiser decided it had "little or no value today... due to the colored element now controlling the district."<sup>17</sup> In this way, the fate of black

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<sup>15</sup> Rothstein, R. (2018). *The Color of Law*. pg. 64.

<sup>16</sup> Perry, A. M., & Harshbarger, D. (2019). *America's formerly redlined neighborhoods have changed, and so must solutions to rectify them*.

<sup>17</sup> Rothstein, *The Color of Law*. pg. 64.

Americans in the United States came to lay in the hands of racist real estate agents employed by the federal government.

For first-time homebuyers who didn't need HOLC loans for refinancing, congress created the FHA one year later to issue mortgages that covered 80% of a home's purchase price. Similar to a HOLC loan, to be eligible, the FHA insisted on doing its own appraisal of a property to make certain that the loans it granted had low risks of default. These appraisals were conducted by the same local real estate agents hired by the HOLC, using the same racially motivated redlining maps to assess risk and determine if a loan would be granted. To guide the real estate agents in this appraisal process, the Federal Housing Administration issued an underwriting manual in 1935 with the following instruction: "If a neighborhood is to retain stability it is necessary that properties shall continue to be occupied by the same social and racial classes. A change in social or racial occupancy generally leads to instability and reduction in values."<sup>18</sup> So not only were these appraisers instructed to determine a neighborhood's initial risk based on racial composition but they were also instructed to ensure that risk was set in stone, ensuring the neighborhood's socioeconomic status would not change for generations.

By far the most detrimental effect of redlining, however, was "not in its discriminatory evaluation of individual mortgage applicants, but in its financing of entire subdivisions, in many cases entire suburbs, as racially exclusive white enclaves."<sup>19</sup> Following the influx of veterans returning home after World War II, the U.S. government began a campaign to mass-produce housing across the country. Sponsored by FHA and Veteran Association (VA) loans, mass production builders began to create entire suburbs under these organizations' condition that the suburbs be all white. One notable example of a solution to housing returned veterans is Levittown, Long Island. The Levitt family, the developer, was given a mortgage from the FHA to build 17,500 two-bedroom homes which would sell for \$8,000 each, or after the G.I. bill was passed, a mere \$400 each with no down payments required.<sup>20</sup>

The FHA gave this loan on the condition that the development plan, like all the plans the FHA financed, would be reviewed by the agency first. This included the approval of construction materials, design, sale prices, zoning restrictions, and most importantly, the commitment not to sell to African Americans. In the case of Levittown, Black veterans were prevented from purchasing homes through a racially restrictive covenant (contractual agreements prohibiting the purchase, lease, or occupation of a piece of property by a particular group, most frequently, black Americans).<sup>21</sup> The Levitts justified this covenant by arguing that it maintained the value of the properties since most whites preferred not to live in mixed communities.<sup>22</sup> So while white families were able to buy a home for a substantially lowered price, black families were precluded altogether. Today, according to 2017 census estimates, the population of Levittown is a mere 1.4

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<sup>18</sup> Rothstein, *The Color of Law*. pg. 65.

<sup>19</sup> Ibid, pg. 70.

<sup>20</sup> Sheidlower, N. (2021). *The controversial history of Levittown, America's first suburb*.

<sup>21</sup> Fair Housing Center of Greater Boston. (n.d.). *1920s–1948: Racially Restrictive Covenants*.

<sup>22</sup> Sheidlower, N. (2021).

percent black. By 1948, most of the housing nationally was being constructed through this government financing.

The FHA's guiding principle that neighborhood integration was harmful to property values was so racially motivated that it was contradicted by statistical evidence which showed that racial integration caused property values to increase. Since policies and lending excluded black Americans from most suburbs, their desire to escape the dense urban conditions that they were restricted to spurred such demand for single-family or duplex homes that they were willing to pay prices far above fair market value to live in the places where their white counterparts could purchase homes for below fair market value. In 1942, the federal appeals court for the District of Columbia refused to uphold a restrictive covenant because the enforcement of the clause would depress property values by excluding African Americans who were willing to pay higher prices than whites. In 1948, 15 years after the HOLC began redlining, an FHA official published a report which stated that "the infiltration of Negro owner-occupants has tended to appreciate property values and neighborhood stability," but it was too little, too late.<sup>23</sup> Discriminatory FHA loans were well underway, and the damage was done: racial segregation was written into the landscape of the United States.

### *Fair Housing Act: The Civil Rights Movement and Housing Policy*

The Civil Rights Movement of the 1960s made significant strides toward changing the patterns of racial discrimination in the United States. Yet as Richard Rothstein argues in *The Color of Law*, moving from an urban area to a suburban area is incomparably more difficult than registering to vote, applying for a job, or changing seats on a bus.<sup>24</sup> What kept Black Americans out of suburbs was not only discrimination but unaffordability. The Federal Government's attempt to outlaw housing discrimination with the Fair Housing Act of 1968 was fifty years too late. Racially segregated living patterns in the United States reinforced an extreme socioeconomic inequality that would require more than the prevention of future discrimination to make amends for the past.

Homeownership is the foundation of economic prosperity for most Americans. Owning a home allows one to acquire equity that can be passed down through generations. In Rothstein's Levittown example from *The Color of Law*, 1948 Levittown homes sold for about \$8,000 each, or the equivalent to roughly \$75,000 today. Properties in Levittown now (without major remodeling) sell for upwards of \$350,000 in today's value. So the white working-class families who were not only allowed but subsidized to buy homes in the FHA financed suburb of Levittown have gained more than \$275,000 in wealth since 1948. On the other hand, the African Americans who were denied owning homes in Levittown and other similar suburbs across the United States remained renters or homeowners in depressed neighborhoods, gaining no equity

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<sup>23</sup> Rothstein, *The Color of Law*. pg. 94.

<sup>24</sup> *Ibid*, pg. 179.

over the generations and practically ensuring that the socioeconomic status of their kids would replicate their own.<sup>25</sup>

Black Americans' incomes haven't been able to keep up with housing prices in the United States. From 1973 to 1980, the median wage for Blacks fell by one percent while the price of a home grew by 43 percent.<sup>26</sup> While this harmful combination of wage stagnation in the face of rising housing costs is the case for many working Americans, the trend has a disparate effect on black Americans whose stagnant wages lag even further behind their white peers. A black worker at the 20th percentile of black wages earns 15% less than a white worker at the 20th percentile of white wages. This disparity holds across all income levels, with the median black worker earning 24% less than the median white worker.<sup>27</sup> In 2016, the Brookings Institute found that the \$171,000 net worth of a typical white family was nearly ten times greater than the typical black family's \$17,150 net worth.<sup>28</sup> In 2019, the median family wealth for black households increased slightly, to a staggering 13% of the median wealth for a white household.<sup>29</sup>

It is no wonder that with depressed incomes and wealth, black Americans are much more likely to remain renters in poverty-stricken neighborhoods. The discriminatory redlining of the 1930s prevented investment in black neighborhoods, creating areas of concentrated poverty across the United States that have trapped black Americans whose depressed wealth precludes them from moving to the once greenlined neighborhoods of their white counterparts. In his report "Architecture of Segregation," Public Policy Professor Paul Jargosky examines the trends in the population and characteristics of neighborhoods of extreme deprivation (defined as census tracts where the federal poverty rate is 40 percent or more). He finds that there has been a dramatic increase in the number of high-poverty neighborhoods since 2000, with a 76% overall increase in high-poverty census tracts, which has doubled the number of people living in high-poverty ghettos from 7.2 million to 13.8 million.<sup>30</sup> Even more concerning, is the increasingly unequal concentration of minorities in these high-poverty neighborhoods. More than one in four of the black poor and one in six of the Hispanic poor lives in a neighborhood of extreme poverty, compared to one in thirteen of the white poor. Put another way, a poor black person is more than three times as likely and a poor Hispanic person is more than twice as likely to reside in a high-poverty neighborhood as a poor white person.<sup>31</sup>

### *Exclusionary Zoning: Perpetuating Discriminatory Housing Policy*

According to Jarkosky, this nationwide return of concentrated poverty is no accident, "these neighborhoods are not the value-free outcome of the impartial workings of the housing

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<sup>25</sup> Rothstein, *The Color of Law*. pg. 182.

<sup>26</sup> *Ibid*, pg. 184.

<sup>27</sup> Aurand, A., Emmanuel, D., Rafi, I., Threet, D., & Yentel, D. (2021). *Out of Reach*.

<sup>28</sup> McIntosh, K., Moss, E., Nunn, R., & Shambaugh, J. (2020, February 27). *Examining the black-white wealth gap*.

<sup>29</sup> Aurand, A. et. al. (2021). *Out of Reach*.

<sup>30</sup> Jargowsky, P. (2015). *Architecture of Segregation*. The Century Foundation.

<sup>31</sup> *Ibid*.

market: they are the inevitable and predictable consequences of deliberate policy choices.”<sup>32</sup> Housing policies have built an architecture of segregation that has not only endured but expanded the concentration of poverty into the twenty-first century. One such policy that has been legally continuing the effects of the FHA’s now illegal redlining practices, is exclusionary zoning.<sup>33</sup> As aforementioned, exclusionary zoning makes it difficult– and often impossible –to build multi-family rental developments that would allow low-income residents to live in wealthy suburbs. This policy perpetuates the effects of redlining by confining minorities to the neighborhoods that were deemed risky and unsafe decades ago, preventing them from moving to safer neighborhoods with healthier living environments and better schools.<sup>34</sup>

One notable study by Princeton University on “The Effect of Density Zoning on Racial Segregation in U.S. Urban Areas” summarizes the results of an OLS regression predicting desegregation from zoning measures and controls. They found that between 1990 and 2000, inter-metropolitan variation in black-white segregation and black isolation was strongly predicted by an area’s relative openness to housing construction, as embodied in zoning regulations. Their results showed that the greater the allowable density, the lower the level of racial segregation and the greater the prospect for desegregation. “From 1980 to 2000, metropolitan areas that allowed higher density development moved more rapidly toward racial integration than their counterparts with strict density limitations, even after controlling for a battery of social, geographic, and economic characteristics and for potential reverse causality between segregation and zoning.”<sup>35</sup> The study also found that restrictive density zoning (or exclusionary zoning) produces higher housing prices in white areas, limiting opportunities for people with modest incomes to leave segregated areas, confirming that the patterns of racial segregation in America today are strongly affected by density zoning.

Another study by the New York Federal Reserve, “The Impact of Building Restrictions on Housing Affordability,” surveys housing costs in the United States to determine why expensive neighborhoods have such high housing costs. They find that in the majority of places, land costs are low and housing prices are close to or below the costs of new construction. Therefore they conclude (in accordance with the Princeton study) that in places where housing is quite expensive, building restrictions appear to have created the high prices.<sup>36</sup> These studies, along with many others, highlight the detrimental effect that exclusionary zoning laws have on housing affordability. They make it difficult for any working or middle-class family to purchase a home in an affluent suburb, especially black families, whose wealth and income are suppressed due to the predatory lending of the 1930s which excluded them from homeownership.

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<sup>32</sup> Jargowsky, P. (2015). *Architecture of Segregation*. The Century Foundation.

<sup>33</sup> CBS News. (2020). *Redlining was outlawed in 1968. here's how the practice is still hurting Black Americans*.

<sup>34</sup> Rigsby, E. A. (2016). *Understanding exclusionary zoning and its impact on concentrated poverty*.

<sup>35</sup> Rothwell, J., & Massey, D. S. (2009). *The effect of density zoning on racial segregation in U.S. urban areas*.

<sup>36</sup> FRBNY Economic Policy Review. (2003). *The impact of building restrictions on housing affordability*.

## **Motivation**

### *The Impact of Neighborhood on Opportunity*

Inclusionary zoning is a vital policy tool for alleviating inequality because it seeks to address economic inequality at the root of a person's development: where one grows up. Opportunity can be thought of as a cycle. Where one lives determines where they go to school, which determines the education that they receive. Children in overcrowded and underfunded schools (prevalent in many low-income districts) begin far behind children in well-funded schools with low student-to-faculty ratios (prevalent in many suburbs where the large lots ensure high property taxes and adequate resources). Primary education influences a child's odds of going to college as well as the caliber of the university where they matriculate, which determines their post-graduate job opportunities and income. Income determines the ability to accumulate wealth and to afford homes in certain neighborhoods, which determines where one's children will grow up. Thus the cycle repeats in the next generation, and children are either born with a headstart in a wealthy suburb, or with the odds stacked against them in a poverty-stricken neighborhood.

In the United States, the average low-income student attends a school that scores at the 42nd percentile on state exams, while the average middle/high-income student attends a school that scores in the 61st percentile. The gap is even wider between black and Latino students and white students. In his study, "Housing Costs, Zoning, and Access to High Scoring Schools," Jonathon Rothwell examines exclusionary zoning's implications on this differential academic achievement. He finds that in large metro areas with the least restrictive zoning, housing cost gaps are 40 to 63 percentage points lower than in metro areas with the most exclusionary zoning. Across the 100 largest metropolitan areas, housing costs an average of 2.4 times as much (\$11,000 more per year) near a high-scoring public school than near a low-scoring public school, reflecting home values that are \$205,000 more in high-scoring school districts versus low-scoring school districts.<sup>37</sup> His research finds that by eliminating exclusionary zoning in these places and reducing the area's housing cost gap, the school test-score gap would lower by an estimated 4 to 7 percentiles.<sup>38</sup> Rothwell argues that "as the nation grapples with the growing gap between rich and poor and an economy increasingly reliant on formal education, public policies should address housing market regulations that prohibit all but the very affluent from enrolling their children in high-scoring public schools in order to promote individual social mobility and broader economic security."<sup>39</sup>

A more recent 2015 Harvard Study conducted by Chetty and Henderson "The Impacts of Neighborhoods on Intergenerational Mobility," examined how the neighborhoods in which children grow up shape their economic opportunities, adding significant evidence to the fact that

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<sup>37</sup> Rothwell, J. (2012). *Housing Costs, Zoning, and Access to High-Scoring Schools*.

<sup>38</sup> A significant share of the observed gap between schools serving the average low-income versus middle/higher-income student.

<sup>39</sup> Rothwell, J. (2012).

places themselves matter. They found that one additional year of childhood in a one standard deviation better county (population-weighted), increases household income at age 26 by 0.17 percentile points, equivalent to an increase in mean income of approximately 0.5%. For example, growing up in Illinois DuPage County from birth would raise a child's income by 16% whereas growing up in Chicago's Cook County (one of the lowest-ranking counties in the U.S.) would reduce a child's income by approximately 13%. Hence, moving at birth from Cook County in the city to DuPage County in the western suburbs would increase a child's income by 30% on average. This underscores that growing up in the suburbs with access to better opportunities has a direct effect on children's long-term economic outcomes. Most importantly, the study concluded that areas that generate better outcomes for children in low-income families also generate slightly better outcomes on average for children in high-income families, suggesting that the success of poor children does not have to come at the expense of the rich.<sup>40</sup>

Another study, "The Pew Charitable Trusts' Economic Mobility Project," followed 5,000 families to determine whether children moved up or down the income ladder relative to their parents. The researchers found that the poverty rate in the neighborhood where children grew up predicted their economic mobility as adults even more strongly than differences in their parents' education levels or occupations.<sup>41</sup> This neighborhood predictor of economic outcome is exponentially more harmful to young blacks (ages 13-28) who are ten times as likely to live in poor neighborhoods than young whites, making them ten times as likely to be less economically mobile as adults regardless of their parent's educational attainment or income. Put differently, 66% of blacks as compared to merely 6% of whites will live in neighborhoods where 20% of the families have incomes below the poverty line.

This disparity between the races in terms of neighborhood wealth and conditions has persisted for generations. Of black families who resided in the poorest quarter of neighborhoods a generation ago, 67% still continue to live in such neighborhoods, while only 40% of white families who lived in the poorest quarter of neighborhoods a generation ago still do today. Further, 48% of black families at all income levels have lived in poor neighborhoods over at least two generations compared to only 7% of white families.<sup>42</sup> Without a policy response, there is no reason to believe that these unequal patterns which have persisted over generations, will suddenly disappear. Inclusionary zoning is one such policy response that seeks to break this harmful cycle of neighborhood segregation which is perpetuating unprecedented levels of inequality across the country.

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<sup>40</sup> Chetty, R., & Hendren, N. (2018). *The Impacts of Neighborhoods on Intergenerational Mobility II: County-Level Estimates*.

<sup>41</sup> Jacobus, R. (2015). *Inclusionary Housing Creating and Maintaining Equitable Communities*.

<sup>42</sup> Rothstein, R. (2018). *The Color of Law*. pg. 187.

## **Literature Review**

### *The Success of Inclusionary Zoning*

Inclusionary zoning policies attempt to integrate neighborhoods, providing educational opportunity and economic mobility for low-income residents. Extensive literature points to the potential benefits of inclusionary zoning, but because it is still a relatively new approach (most IZ programs were implemented after 2000)<sup>43</sup> not much literature exists measuring the progress of its proposed goals. One study, done by The Rand Corporation, sets out to test the potential of IZ as a tool to promote social inclusion by examining IZ programs in 11 jurisdictions across the U.S. to determine whether the policies provide recipients access to homes in low-poverty neighborhoods that are residentially assigned to high-performing schools. They find that IZ homes tend to serve low-income people, be located in low-poverty neighborhoods, and assigned to relatively low-poverty public schools and schools that perform better than schools in the same jurisdiction that do not serve IZ homes.<sup>44</sup> Thus their results support the idea that IZ can be used as a remedy for inequality by providing low-income children access to better education.

In another study on the topic, “Housing Policy Is School Policy: Economically Integrative Housing Promotes Academic Success in Montgomery County, Maryland,” Heather Schwartz confirms this conclusion. Focusing on the nation’s largest and oldest IZ policy, Schwartz examines the longitudinal school performance from 2001 to 2007 of approximately 850 students (76% of whom were black) who lived in and attended elementary schools assigned to their neighborhoods, which ranged from very low-poverty to moderate-poverty. She finds that children living in IZ units assigned to the district’s most-advantaged schools<sup>45</sup> far outperformed in math and reading the children in IZ units who attended the district’s least-advantaged schools. By the end of elementary school, the initial large achievement gap between subsidized housing children and their non-poor peers in the most advantaged school districts was cut in half for math and one-third for reading, proving that neighborhoods have a direct impact on children’s academic achievement. Lastly, she found that inclusionary zoning integrated children from highly disadvantaged families into low-poverty neighborhoods and low-poverty schools over the long term, as the families studied stayed in place for an average of eight years, which resulted in long term exposure of their children to low-poverty settings, improving their students’ academic outcomes.<sup>46</sup>

The Lincoln Institute’s report, “Inclusionary Housing Creating and Maintaining Equitable Communities,” reaches a similar conclusion about the social integration possibilities of inclusionary housing. The article focuses on IZ as superior to public housing, the Section 8 Housing Choice Voucher Program, and the Low Income Housing Tax Credit (LIHTC) in

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<sup>43</sup> Thaden, E., & Wang, R. (2017).

<sup>44</sup> Schwartz, H. L., Ecola, L., Leuschner, K. J., & Kofner, A. (2012). *Is Inclusionary Zoning Inclusionary?*

<sup>45</sup> As measured by either subsidized lunch status or the district’s own criteria.

<sup>46</sup> Schwartz, H. L. (2012). *Housing policy is school policy: Economically integrative housing promotes academic success in Montgomery County, Maryland.*

providing access for low-income residents to low-poverty neighborhoods. According to a 2012 New York University study that they cite, the vast majority of subsidized affordable housing in the U.S. is located in neighborhoods with poor-performing schools. Public housing projects are located near schools with a median state test score in the 19th percentile while LIHTC projects are located near schools in the 30th percentile. Even families who could choose their neighborhood with Section 8 portable vouchers ended up in locations with the nearest school ranking in the 26th percentile of test scores.<sup>47</sup> In contrast, The Rand Corporation found that 76% of homes created through IZ programs were located in dispersed, low-poverty neighborhoods, with 44% also located near low-poverty schools as compared to merely 7% of Voucher Choice units and 10% of LIHTC units being located near low-poverty schools.

While inclusionary zoning is not nearly as extensive as public housing, the Section 8 Voucher program, or the LIHTC (which has generated over 2.5 million units since its inception in 1987), what distinguishes IZ is its unique ability to locate affordable housing in neighborhoods of opportunity where these state and federal housing programs struggle to expand.<sup>48</sup> Data from the ACS and HUD find that tax-credit housing is more concentrated than other rental housing in census tracts with poverty rates above 30 percent and in tracts where minority households exceed 80 percent, with public housing and Section 8 Voucher Choice being concentrated even more so. The disproportionate percentage of federally funded affordable housing in low-income and minority neighborhoods has led these efforts to be criticized for perpetuating the racial and economic segregation that housing policy is intended to address.<sup>49</sup> In, 1990, 41% of rental housing was located in census tracts with poverty rates under 10%, and 34% was located in tracts where minorities were less than 10%. In 2017, those numbers dropped to 29% of rental housing located in low-poverty tracts and 22% located in low minority tracts. Further, 76% of all federally subsidized affordable units are located in census tracts with a surplus of affordable housing, while expensive housing markets (i.e. neighborhoods of opportunity) have a clear need for new housing for lower-income groups.<sup>50</sup>

On the other hand, the former mayor of Albuquerque and prominent urban policy consultant David Rusk estimates that 3.6 million low-and moderate-income units would have been built by 2000 in low-poverty, low minority settings with the greatest need for affordable housing if inclusionary zoning had been implemented before 1990 throughout the nation's 100 largest metro areas.<sup>51</sup> Thus, inclusionary housing has proven one of the few housing strategies that can effectively integrate lower-income households into higher-income, higher-opportunity neighborhoods.<sup>52</sup> The next section lays out the empirical approach of this study which tests if the implementation of an inclusionary zoning policy leads to a change in the respective racial and socioeconomic makeup of a jurisdiction.

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<sup>47</sup> Jacobus, R. (2015).

<sup>48</sup> Hickey, R. (2014). *Inclusionary Upzoning: Tying Growth to Affordability*.

<sup>49</sup> Schwartz, A. F. (2021). *Housing policy in the United States*. pg. 130.

<sup>50</sup> Ibid. pg. 136.

<sup>51</sup> Ibid. pg. 257.

<sup>52</sup> Jacobus, R. (2015).

## **The Study**

While some studies exist on the racial integration of a singular jurisdiction with an inclusionary zoning policy,<sup>53</sup> there is a lack of studies examining IZ's impact on the racial and economic integration of jurisdictions nationally. This study attempts to fix that.

### *The Data*

The analysis begins with the Lincoln Institute's dataset of 1,046 national inclusionary zoning policies, each linked to their respective jurisdiction by a "GEOID" adapted from the 2019 U.S. Census Bureau ID. The jurisdictions in this paper refer to census tracts of the county, county subdivision, or place level, allowing policies to be identified across the country. Of these 1,046 census tracts with policies, 424 had the Year Program Adopted variable missing, and thus were dropped (as this regression hinges on analyzing demographic composition before and after the date a policy was implemented). Of the 622 remaining, 222 were second policies implemented on top of an existing policy in the same jurisdiction, leaving 420 unique places with inclusionary zoning policies nationally.<sup>54</sup>

For the 420 GEOIDs remaining in the IZ policy dataset, decennial census data were merged to create a data set with demographic data on each place for the time period from 1970 to 2019. Demographic data on race and family income was retrieved from IPUMS NHGIS for the census years 1970, 1980, 1990, 2010, and 2020 (using ACS data from 2008-2012 as a proxy for 2010 and ACS data from 2015-2019 as a proxy for 2020).<sup>55</sup> Due to the expensive and bureaucratic nature of real estate development, multifamily housing takes a minimum of 5 to 10 years to be approved, constructed, and fully leased. On account of this, decennial census data was used rather than ACS yearly data.

Additionally, this time frame was chosen as the first IZ policy was implemented in the 1970s, allowing for the analysis of the evolution of an area's demographics before and after an IZ policy was implemented. The following table shows the distribution and frequency of policy implementation over the years of this analysis.

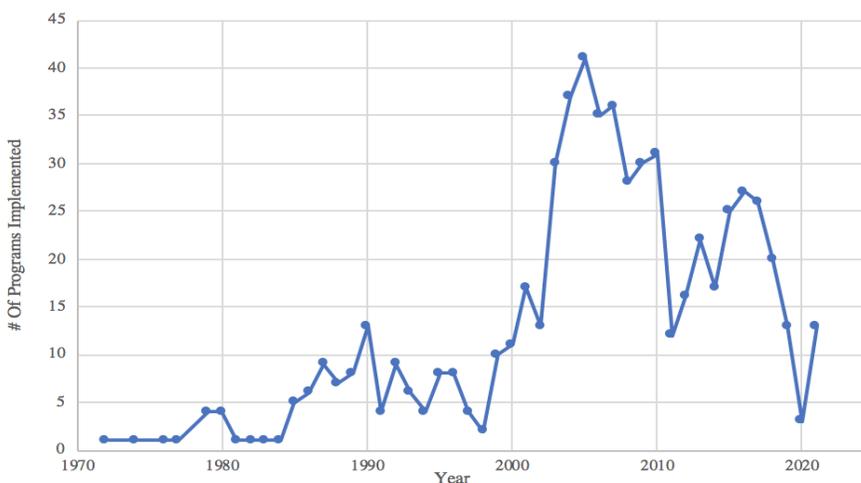
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<sup>53</sup> Pamuk, A., & Hill, J. (2019). *Inclusionary Housing in San Francisco: Mapping Racial Integration, Neighborhood Change, and Affordability*.

<sup>54</sup> Thaden, E., & Wang, R. (2017).

<sup>55</sup> IPUMS National Historical Geographic Information System: Version 16.0 [dataset].

**Figure 1: Number of IZ Programs Implemented by Year**



Data Source: Thaden, E., & Wang, R. (2017). *Inclusionary Housing in the United States: Prevalence, Impact, and Practices*. Lincoln Institute of Land Policy.

### *The Approach*

This study employs a difference in difference approach. DiD is typically used to estimate the effect of an intervention or treatment (such as a passage of law or enactment of a policy) by comparing the changes in outcomes over time between the population enrolled or affected (the treatment group) and the population that is not (the control group).<sup>56</sup> DiD approaches rely on cohort or panel data (individual-level data over time) or repeated cross-sectional data (individual or group level). In this study, the panel is of locations that implemented an IZ policy, with variation in the timing of implementation being used to identify the effect.

While in most DiD analyses, the time of implementation remains constant and the location of implementation varies, in this analysis the time of implementation varies while the locations remain constant. Thus, since this study only focuses on places where a policy was implemented, the control group is the jurisdiction’s demographic makeup in the years before the policy intervention, and the treatment group is the jurisdiction’s demographic makeup in the years following an IZ policy. In order to ensure that any demographic change in a jurisdiction is the direct result of an IZ policy (i.e. not attributed to some other change/trend in the 50-year period), this study employs place and time fixed effects.

Including fixed effects allows the regression to control for the characteristics of a place that might affect its level of racial or income-based diversity and might also be correlated with the timing of a policy. For example, if less diverse places attempted these policies earlier, failure to control for the place could bias the results. By including place and time fixed effects, this approach removes biases in the post-IZ policy comparisons between jurisdictions that could have

<sup>56</sup> Columbia School of Public Health. (2022). *Difference-in-Difference Estimation*.

resulted from permanent differences between those places, ensuring that any impact on demographic makeup is attributed solely to the implementation of an inclusionary zoning policy.

### *The Variables*

In this study, the primary dependent variable is the share of black residents as a percent of an area's total population. Of the 420 jurisdictions in this study, the average percent black is 5.59% with a standard deviation of 9.96, a minimum of 0%, and a maximum of 82.69%. The secondary dependent variable in this study is the percentage of families earning below \$25,000 per year. This income range was chosen to discern if IZ policies are making neighborhoods of opportunity affordable for extremely low-income families (those making 30% or less than AMI). According to the 2021 NLIHC report "Out of Reach," in a majority of U.S. states, making 30% or less of AMI translates to an income of \$25,000 a year or less. While these extremely low-income households account for only 25% of all renters, they account for 72% of all severely cost-burdened renter households; therefore, they were chosen as the focal group of this study.<sup>57</sup>

The main independent variable of interest is the number of years that have passed since an IZ policy was adopted. Due to the long time frame of real estate development, the impacts of a policy may take years to be realized, necessitating a focus on the years since a policy, rather than simply if a policy is in effect. Further, not all IZ policies are the same. Certain vital characteristics vary between policies which can impact how effectively a policy racially and socioeconomically integrates a community. To account for these policy differences, controls were included in the analysis to run a more detailed regression displaying which aspects of an IZ policy help it achieve the greatest effects on demographic integration. See Appendix A for details on the full array of IZ policy characteristics available in the data.

From the extensive list of policy characteristics, the ones deemed most important to a policy's success by inclusionary zoning policy researchers were: policy age, tenure type (rental/homeownership), whether the policy is mandatory, whether the policy applies to the entire jurisdiction, whether it is a single income requirement, whether the affordability term is longer than 50 years, the count of incentives, and the count of compliance options.<sup>58</sup> Policy age was accounted for by including the years since independent variable. As for tenure type, of the 420 places with IZ policies, 324 (77%) had policies applying to both homeownership and rental properties, while 62 were N/A, and only 34 applied to one type of property exclusively, so this variable was disregarded.

A dummy variable was created to control for mandatory policies, which were expected to have more significant demographic impacts. Of the 420 places with policies, 263 (63%) had mandatory policies, 90 (21%) had voluntary, 63 were not applicable (N/A), and 5 policies varied their requirements by rental vs. homeownership units. The program applicable characteristic was used to identify the policies which applied to certain zones (154 policies) versus the entire

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<sup>57</sup> Aurand, Rafi, Threet, & Yentel (2021). *Out of Reach*.

<sup>58</sup> Vince Wang, Director of Research, Grounded Solutions Network, personal communication, April 7th, 2022.

jurisdiction (264 policies).<sup>59</sup> The affordability term was not used in the analysis as many of the policies were implemented in the early to mid-2000s, so most programs' terms of affordability have not yet reached completion.<sup>60</sup>

The variable Affordable Housing Compliance Option details the different ways in which developers can comply with the requirement to provide affordable housing. The number of compliance options ranges from 1 to 7, with one key distinction. Some policies must comply by providing on-site affordable units in the same development as the market-rate units, while others allow the units to be off-site at some other location. This has important implications for the ability of an inclusionary zoning policy to integrate a community. Of the 420 places with policies, 356 (85%) had the option to include on-site units as a compliance option. Of those 356 places, 134 (38%) had on-site units as the only compliance option. For these, a control variable was created to identify the policies which forbid developers from outsourcing their affordable housing units.

### *Income Targeting*

The income requirement type proved to be the most important but also complex policy characteristic, as it was split by rental and homeownership, and single and multiple tiers. For rental units, of the 420 policies total, 111 had multiple tiers of income requirements,<sup>61</sup> 100 were N/A or don't know, and 208 had a single income targeting requirement.<sup>62</sup> For ownership, 106 had multiple tiers of targeting, 225 had a single tier, and the remaining 89 were N/A or don't know. Of the 208 rental policies with a single income requirement, 74% served a maximum of 80% of AMI, 17% served a maximum income ranging from 80-240% of AMI, and less than 1% served an income range that began above 0% of AMI. Of the 225 homeownership policies with a single income requirement, 65% served from 0-80% of AMI, and 13% served a minimum income beginning above 0%, setting a minimum ranging anywhere from 30-80% of AMI.

For 382 out of the 420 policies, regardless of single vs. multiple tiers of income targeting, details on the highest and lowest income served provided the minimum and maximum % of AMI that the policy served. Due to the small fraction of policies that set their minimum AMI above 0%, this variable was disregarded since practically all policies (especially for rental units), did not set a minimum income. What was more important for the ability of a policy to integrate a jurisdiction, is the highest income served variable. Without restricting the highest income served, while a policy's affordable units might be priced so that a family making 50% of AMI could afford them, nothing stops the units from going to a family making well above the AMI, harming the prospects of integration for black and low-income residents.

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<sup>59</sup> This variable was tried as a control but was not found to produce any significant effects. A complete version of the analysis including all control variables is available upon request.

<sup>60</sup> If this same study were to be conducted again in the future, the affordability term might be an important variable to include as some of the programs may start to expire, turning the affordable units back over to market rate.

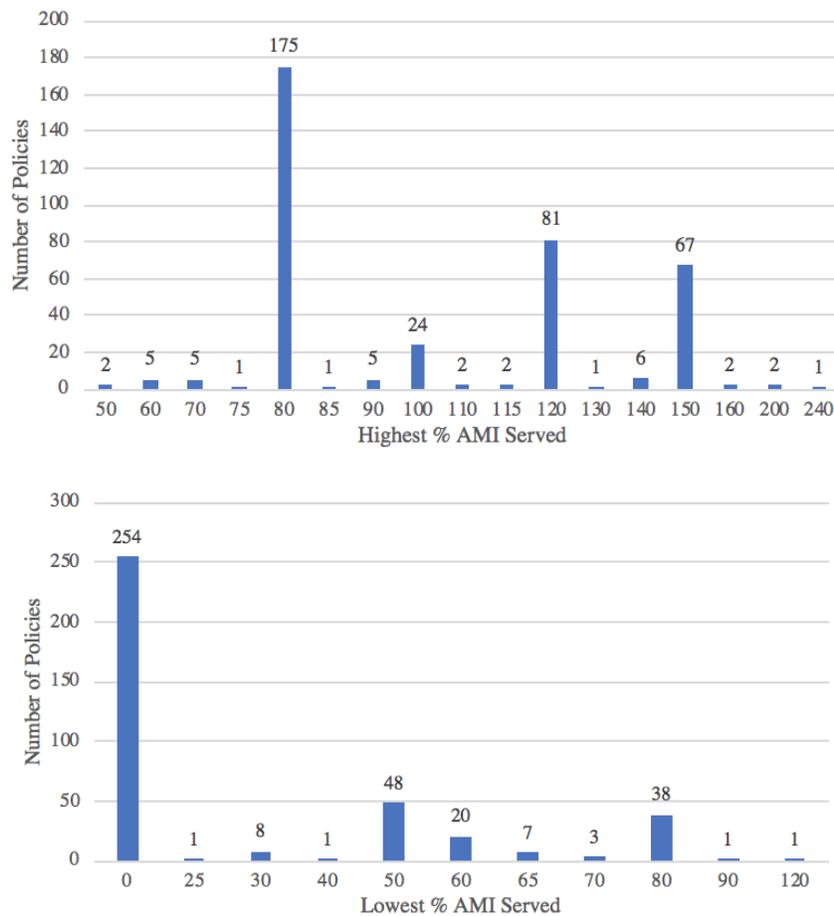
<sup>61</sup> For example, in Massachusetts, half of the affordable units serve up to 30% of AMI while half serve up to 60% of AMI.

<sup>62</sup> All affordable units serve the same income range; for example, from 0-80% of AMI.

Therefore, to account for the policies that created truly affordable units, a control variable was included to identify policies that adhered to the HUD threshold of “lower-income,” defined as incomes less than or equal to 80% of AMI.<sup>63</sup> By including this control, the analysis distinguished between policies that were affordable in name—while really allowing for residents making over 100% of AMI to move in— and those that were truly affordable.

The figures below present a breakdown of the number of IZ programs by the highest and lowest income groups that they serve. As shown in the first table, of the 382 policies which provide information on the highest and lowest incomes served, 175 (64%) serve a highest income of 80% AMI, while 164 (43%) served a highest income that exceeded 100% of AMI. For these latter policies, a negative control was included to identify the policies that serve over 100% of AMI, which would be expected to have an adverse effect on the share of black and low-income residents. In the results section that follows, the effects of controlling for policies that serve differing income groups are presented and explained.

**Figure 3: Number of IZ Programs by Highest and Lowest Income Served**



Data Source: Thaden, E., & Wang, R. (2017). *Inclusionary Housing in the United States: Prevalence, Impact, and Practices*. Lincoln Institute of Land Policy.

<sup>63</sup> *Hud's Public Housing Program*. HUD.gov / U.S. Department of Housing and Urban Development (HUD). (2021).

## The Regression

The following is the final equation<sup>64</sup> that was used to estimate the effects of an IZ policy on a jurisdiction's black population:

$$\% \text{ Black} = \beta_0 + \beta_1 \text{yearsince} + \beta_2 \text{yearsince}_{\text{mand}} + \beta_3 \text{yearsince}_{\text{incsub80}} + \beta_4 \text{yearsince}_{\text{onsite}} + \sum_{n=1}^n (P_i I) + \sum_{n=1}^n (T_i I) + \varepsilon$$

**Figure 4: Regression Variable Breakdown**

$\beta_1$ = Any policy in place $\beta_2$ = Mandatory policy in place $\beta_3$ = Policy serving a max of 80% AMI in place $\beta_4$ = Policy that had to build onsite in place	$\sum_{n=1}^n (P_i I)$ = Place fixed effects $\sum_{n=1}^n (T_i I)$ = Time fixed effects $\varepsilon$ = Error term
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The coefficients in this equation pick up the effects that implementing an inclusionary zoning policy with different characteristics has in changing a jurisdiction's black population.  $\beta_1$  picks up on the effect of a voluntary policy,  $\beta_2$  the effect of a mandatory policy,  $\beta_3$  the effect of a policy that serves a maximum of 80% of AMI, and  $\beta_4$  the effect of a policy that requires units to be built on-site. The time and place fixed effects are additional controls to standardize the results of the regression in order to compare effects that vary by a policy's implementation and specific characteristics, rather than effects due to differences in share black resulting from the place or time that an IZ policy was implemented.

**Sensitivity Analysis:** An important clarification is that not all of the policies in this study had data on "Total Affordable Units," the variable the Lincoln Institute used to track how many units of affordable housing<sup>65</sup> that each policy produced. Of the 1,046 policies, only 293 had data on Total Affordable Units (the number of units ranging anywhere from 1 to 42,406).<sup>66</sup> To account for the fact that some policies in the study may not have definitively produced affordable units (which would bias the regression results for those that did), a sensitivity analysis was conducted just for the policies that had data recorded on the number of units produced. Dropping all the policies for which Total Affordable Units was "N/A," "don't know," or "0," the same analysis on share black was conducted using the same fixed effects model. The following table shows the side by side results of both regressions:

<sup>64</sup> Other specifications of policy characteristics were tried, such as if the policy applies to certain zones versus entire jurisdictions, but were not found to be significant.

<sup>65</sup> Units were tracked and broken down by rental units, homeownership units, and total units.

<sup>66</sup> These units were the result of New York, NY: 421-a Exemption program implemented in 1981.

**Figure 5: Race Regression Results**

	<u>Original Model</u>	<u>Units Produced</u>
VARIABLES	percentblack	percentblack
yearsince	<b>-0.0545***</b> (0.0208)	<b>-0.0979***</b> (0.0343)
yearsince_mand	<b>0.0309</b> (0.0205)	<b>0.0483</b> (0.0305)
yearsince_highestincsub80	<b>0.0752***</b> (0.0224)	<b>0.0493*</b> (0.0294)
yearsince_onsiteonly	<b>0.0305</b> (0.0237)	<b>0.0872***</b> (0.0328)
Constant	7.905*** (1.256)	7.665*** (1.212)
Observations	2,223	808
R-squared	0.91	0.923
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1		

Note: All regressions also include year and place fixed effects.

**Discussion**

These results show that having a policy in place which is not mandatory, lacks the on-site requirement, and does not cap income, significantly decreases the percent black by -0.05% each year, or -0.5% over 10 years. However, making the policy mandatory, serving a maximum of 80% of AMI, and building the units on-site significantly increases the percentage of black residents. So while just having a policy in place can negatively impact the black population, adding these stricter characteristics can lead a policy to have a positive impact. When summing these four coefficients, the total effect of having a policy in place which is mandatory with on-site units that serve no more than 80% of AMI, is an 0.82% increase in the percentage of black residents over a ten-year period.

So places that implemented policies in the 1970s or early 1980s with this full set of controls may have seen as much as a 4% increase in their black population over the last 40-50 years. While this percentage may not seem very large, it is important to keep in mind that the mean percent black of each of these jurisdictions is only 5%, therefore a 4% increase implies that

implementing an IZ policy with the correct characteristics has the potential to almost double an area's black population.

When looking at the analysis of places with policies that definitively created affordable units, having a voluntary policy in place that lacks the on-site requirement and does not cap income decreases the black population in a jurisdiction by almost 1% over 10 years. On the contrary, having a mandatory policy in place increases the black population by 0.5% over 10 years, while having a policy that serves a maximum of 80% of AMI increases the percentage of black residents by an additional 0.5% in 10 years. So when summing these coefficients, having a mandatory policy in place that serves a maximum of 80% of AMI would have roughly no effect on the black population of a jurisdiction. However, building the units on-site significantly increases the black population by 0.9% over 10 years. When this coefficient is added to the sum, having a mandatory IZ policy that serves a maximum of 80% AMI and built the units on-site increases a jurisdiction's black population by 0.869% over 10 years, which is roughly the same (slightly larger) effect that policies in the full model have.

However, in comparing these models, it is important to note the switch in significance from controlling for policies serving a maximum of 80% of AMI in the full model to controlling for on-site units in the second. This result is important because, in the sensitivity analysis, on-site units do not just refer to the stipulation that hypothetical units must be on-site, rather it refers to actual units which were built on-site. This significant effect of an on-site requirement implies that when developers build the affordable units in the same building as the market-rate units, the percentage of black residents in the jurisdiction increases by almost one percent every ten years, at under a 10% significance.

For policymakers, these results present an important lesson. To extent that jurisdictions implementing IZ policies hope to racially integrate their communities, simply having a policy in place is not enough. Designing a policy with the right characteristics is vital to increasing the percentage of black residents. Mandatory policies help by requiring developers to create affordable housing. Policies that require compliance in the form of on-site units help integrate communities even more as the units, which make the jurisdiction affordable, are required to be in the same building as the market-rate units. Most importantly, to achieve a significant level of racial integration, IZ policies must restrict the highest income that the affordable units can serve to under 80% of AMI. Doing this can help ensure that the black residents historically excluded from these jurisdictions due to their high prices are not continuing to be outpriced by affluent residents who happen to find a great deal on housing.

### *Income Regression*

The following regression uses the same equation as the race regression. The only difference is that the dependent variable is the percentage of families making under \$25,000:

$$\% \text{ Under25k} = \beta_0 + \beta_1 \text{years since} + \beta_2 \text{years since}_{\text{mand}} + \beta_3 \text{years since}_{\text{incsub80}} + \beta_4 \text{years since}_{\text{onsite}} + \sum_{n=1}^n (P_i I) + \sum_{n=1}^n (T_i I) + \varepsilon$$

**Figure 7: Income Regression Results**

VARIABLES	<u>Original Model</u>	<u>Units Produced</u>
	percentunder25k	percentunder25k
yearsince	<b>0.00114***</b> (0.000394)	<b>0.000321</b> (0.00063)
yearsince_mand	<b>-0.000697*</b> (0.000388)	<b>-0.0000796</b> (0.000562)
yearsince_highestinc sub80	<b>0.00111***</b> (0.000424)	<b>0.000354</b> (0.000541)
yearsince_onsiteonly	<b>-9.52e-05</b> (0.000448)	0.000623 (0.000604)
Constant	<b>0.900***</b> (0.0238)	<b>0.908***</b> (0.0223)
Observations	2,223	808
R-squared	0.972	0.976
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1		

Note: All regressions also include year and place fixed effects.

**Discussion**

As shown in the results above, having an inclusionary zoning policy that is not mandatory, lacks the on-site requirement, and does not cap income significantly increases the percentage of families that make under \$25,000 by 0.011% in 10 years. Having a policy that is mandatory or only creates on-site units has virtually zero effect on the income distribution, while having a policy that serves a maximum of 80% of AMI significantly increases the families making under \$25k by another 0.011%. When summing these coefficients, the total effect of having a mandatory policy that builds on-site units which serve a maximum of 80% of AMI is a 0.02% increase in the percentage of families making under \$25,000 over ten years. In comparison, the effect of having this same type of policy increased the percentage of black residents in a jurisdiction by 40x as much.

In this analysis, the sensitivity model does not produce any significant results. However, this in itself is an important result. Because the sensitivity model is only run on places that produced units, the fact that there was no significant increase in the percent of families making under \$25,000 a year indicates that there was no increase in families of very low-income in jurisdictions for which affordable units were created. This result is important because while there is a need for affordable housing for many income groups, there is the greatest need for families considered very low-income.<sup>67</sup> If inclusionary zoning is to provide access to affluent neighborhoods for systemically excluded groups then its units must be affordable for those living at or below the poverty line (making at or below 30% of their area's median income).

There are a few reasons that could be attributed to why this study did not produce significant results in terms of providing access to low-income families. The first is that the majority of the policies in this study are located in Massachusetts, California, and New Jersey, as those are the three states with statewide programs. Those also happen to be three states with some of the highest costs of living in the United States. For example, the area median income in Massachusetts is \$113,300, 80% of which is \$90,640. Under Boston's IZ program, half of the affordable units are reserved for families making up to 60% of AMI and half for families making up to 30% of AMI. Even under this progressive structure which provides deeper affordability than many other programs, families making under \$25,000 a year would likely not be able to move in, as 60% of Massachusetts AMI is \$67,980 and 30% is \$33,990.

The second reason is that this study focused on very low-income families due to the availability of data on family income. For the years 1970-2000, census data lumps families making \$25,000-\$50,000 together, and families making \$50,000 and above together. For 2010 and 2020, the income ranges were broken up between \$25-50k, but all families making over \$50k were still grouped together. Had the data available been different, a better analysis on income may have been to look at the increase in the percentage of families making \$50,000-\$70,000, especially since many of the policies are not as deep as Boston's and serve a maximum of 80% of AMI. This presents another important clarification for policymakers. If inclusionary zoning is to be inclusionary to all demographics systemically excluded from expensive suburbs, then at least some of their units need to serve a deeper level of affordability, such as 30% of AMI.

### *Negative Controls Regression*

In the previous models, the controls included were all expected to have positive effects on the dependent variables. However, there are certain characteristics of IZ policies that may be expected to harm a jurisdiction's black and low-income populations, such as allowing for affordable units that serve higher-income groups.

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<sup>67</sup> NLIHC. (n.d.). *The Problem*.

The following equations display the regression analysis done on each dependent variable which includes a control for policies serving a highest income that is greater than or equal to 100% of AMI:

$$\% \text{ Black} = \beta_0 + \beta_1 \text{yearsince} + \beta_2 \text{yearsince}_{\text{mand}} + \beta_3 \text{yearsince}_{\text{incomeover100}} + \sum_{n=1}^n (P_i I) + \sum_{n=1}^n (T_i I) + \varepsilon$$

$$\% \text{ Under25k} = \beta_0 + \beta_1 \text{yearsince} + \beta_2 \text{yearsince}_{\text{mand}} + \beta_3 \text{yearsince}_{\text{incomeover100}} + \sum_{n=1}^n (P_i I) + \sum_{n=1}^n (T_i I) + \varepsilon$$

**Figure 8: Negative Control Model Results**

	<u>Full Model</u>	<u>Units Produced</u>	<u>Full Model</u>	<u>Units Produced</u>
VARIABLES	percentblack	percentblack	percentunder25k	percentunder25k
yearsince	0.0290 (0.0233)	-0.0188 (0.0368)	0.00211*** (0.000441)	0.000716 (0.000672)
yearsince_mand	0.0274 (0.0203)	0.0391 (0.0307)	-0.000684* (0.000384)	-9.57e-05 (0.000561)
yearsince_incomeover100	-0.0739*** (0.0200)	-0.0585** (0.0287)	-0.000964** (0.000378)	-0.000136 (0.000525)
Constant	7.893*** (1.258)	7.625*** (1.221)	0.900*** (0.0238)	0.907*** (0.0223)
Observations	2,223	808	2,223	808
R-squared	0.909	0.922	0.972	0.976
Standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				

Note: All regressions also include year and place fixed effects.

## **Discussion**

In this model, having any policy or even a mandatory policy in place does not significantly impact the percentage of black residents in a jurisdiction. However, having a policy in place which serves households making over 100% of AMI significantly decreases the share of black residents by 0.74% over 10 years, or almost 2% percent over twenty years. In the sensitivity analysis for which units were produced, these significant results hold true, although the decrease in the black population is slightly less, at a 0.59% decline in the share of black

residents over ten years. For the income regression, only the full model produced significant results. For families making below \$25,000, Having any policy in place significantly increases the percentage of families by 0.02% over ten years, while having a mandatory policy or one that serves over 100% of AMI has a significantly negative impact.

The results of this negative controls model present one final lesson for policymakers. If inclusionary zoning policies hope to integrate communities, then allowing the units to serve households that make over 100% of AMI will have the opposite effect. While the result that allowing units serving this high level of AMI will hurt low-income individuals may be intuitive, the less intuitive result, which is also much more pronounced, is it significantly harms the black population as well. Due to the wealth and income inequality discussed at length in this paper, white Americans are far more likely to make over 100% of AMI. Of the policies analyzed in this paper with their income requirements stated, 188 (49%) served incomes exceeding 100% of AMI, ranging in some cases, all the way up to 240% of AMI. For these policies, not only are the affordable units failing to integrate the community socioeconomically, they are creating a further racial divide by pricing blacks out and decreasing the overall black population.

## **Conclusions**

The results of this study provide policymakers with important information on the current state of inclusionary zoning as well as suggestions for how the policy can be best implemented to create inclusive communities. While the presence of an IZ policy alone is not enough to successfully integrate a jurisdiction, when designed appropriately, inclusionary zoning has proven its ability to increase access to affluent areas for black and extremely low-income Americans. As this study concludes, in order to significantly impact the share of these minority populations, a policy must be mandatory, serve a maximum of 80% of AMI, and build affordable units on-site. If a policy with this set of characteristics is implemented, the implications for racial integration, in particular, are large. Over a twenty-year period, a jurisdiction's share of black residents can increase by almost two percentage points as a result of this type of IZ policy. While this result may seem small, with 13% of the United States identifying as black, and an average black population of 5% in this study, a two percentage point increase from 5 to 7, implies a 40% increase in the black population.

These results are likely understated as well. Evidence that further supports the ability of IZ to create inclusive communities lies in the fact that this study only counted black residents who chose the census identifier "black, one race alone." Had people who identified as both black and of mixed race been counted as well, the data on black residents would have been more extensive, and the increase in the percentage of black residents likely would have been larger. Another important clarification that further promotes the findings of this paper, is that for the majority of the policies in this study twenty years haven't passed yet. Most of the IZ policies analyzed were implemented beginning in the 2000s (with the peak of program implementation in 2005). If this study were to be extrapolated forward another twenty years, allowing for more

passage of time since the implementation of these IZ policies, the effect of a policy on a jurisdiction's black population would likely turn out to be even greater than the two percentage point gain already seen in existing policies.

What this study did not find, however, in contrast to the hypothesis, was that inclusionary zoning has a significant effect on socioeconomic integration. This could be for many reasons but was likely because the income group examined was not representative of the incomes served by most IZ units. Since the census splits family income by those making under \$10,000, from \$10,000-15,000, from \$15,000-25,000, then \$25,000-50,000, and \$50,000 and over, the possibilities for isolating certain income groups which may have been more relevant to the study was difficult. The majority of units in this study serve from 0-80% of AMI. As previously mentioned, 80% of AMI in Massachusetts is \$90,640, which is over 3x the income of the families analyzed in this study. A future study looking at the socioeconomic impacts of inclusionary zoning might be better off focusing on family incomes that range from \$50,000-100,000.

While inclusionary zoning is a unique policy in its ability to address the housing crisis while creating more inclusive communities, on its own, it will not do enough to provide access for black and low-income Americans to neighborhoods of opportunity. Many housing analysts argue that the severe lack of affordable housing in the United States is deeply rooted in inadequate new construction— a major reason for this being that the supply of affordable and multifamily housing is limited through land use controls, like single-family zoning. Therefore, if the affordable housing crisis is really to be adequately addressed, exclusionary zoning needs to be addressed. The hopeful news is that this is starting to happen. After Minneapolis was the first city to abolish exclusionary (or single-family) zoning in 2018, Berkeley, CA is following suit.<sup>68</sup>

In his groundbreaking Build Back Better bill, President Biden is actually incentivizing a national pattern of banning exclusionary zoning in place of inclusionary housing policies. BBB's "Unlocking Possibilities Program" is dedicated to this purpose. Through this proposed program, HUD will give away grants for planning and implementing policies for communities to "develop new regulatory requirements and processes, reform zoning codes, or undertake other initiatives to reduce barriers to housing supply."<sup>69</sup> In Massachusetts, even stricter measures are being employed to address the housing crisis— the state is trying to force the suburbs into building apartments, at the risk of losing vital state grant programs. The mandate applies to places served by or adjacent to the state's transportation stations, with a goal of creating 344,000 new units. The highest burden will fall on Boston's suburbs, whose excellent transit infrastructure is underutilized because of exclusionary zoning rules. Currently, the median across all MBTA stations is 6.2 homes per acre; with this law, the state now requires MBTA communities to have at least one district with 15 homes per acre.<sup>70</sup>

While these stronger measures such as banning exclusionary zoning or penalizing communities for refusing to produce affordable housing would likely have more of an impact on

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<sup>68</sup> NLIHC. (2021, April 12). *Berkeley Ends Exclusionary Zoning*.

<sup>69</sup> McGahey, R. (2021). *Biden's Housing and Zoning Policies: "learning and listening" or "abolishing the suburbs?"*

<sup>70</sup> Grabar, H. (2022). *Massachusetts will now punish suburbs that refuse to build apartments*.

the production of affordable housing and subsequent integration of the suburbs, they also face far greater political, practical, and economic barriers. One of the most attractive aspects of inclusionary zoning is that politically, it is a relatively middle-of-the-road policy. Since IZ leverages the private market by allowing real estate developers to upzone in wealthy neighborhoods in exchange for providing some affordable units, it faces less opposition as a majority of the development would be market-rate, benefitting a jurisdiction's current and target demographic. This also means that the affordable units are being built in expensive markets with the greatest need for affordable housing, rather than in the high-poverty areas that public housing or LIHTC developments are typically relegated to. Finally, the private sector delivery makes the policy less bureaucratically complicated and more efficient in delivering high-quality housing in neighborhoods with better access to education, transit, and job opportunities.

Big picture, inclusionary zoning's most notable impact has been the creation of hundreds of thousands of affordable housing units. However, in this paper, I argue that the positive impacts of the policy go beyond its ability to deliver affordable housing because the policy also confers the socio-economic benefits of affluent neighborhoods to the minority groups who stand the most to benefit from them. If IZ policies with the right characteristics are mandated in high-income areas, black and low-income residents are given access to opportunities that accrue beyond just decent housing. Going forward, inclusionary zoning should continue to be adopted by states as a means of creating affordable housing while providing the associated societal benefits of integrating the suburbs and providing low-income and black residents the opportunity for upward mobility. However, if the policies are to truly be effective at integrating minorities into neighborhoods of opportunity, policymakers need to think critically about what types of IZ policies they are implementing. This study offers important insights into how inclusionary zoning can be best fashioned to address the pressing need for integrating the United States and leveling the playing field of opportunity.

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## Appendices

### Appendix A: Traditional Inclusionary Zoning Program Characteristics

Variable	Description
<b>Program Type</b>	<i>Mandatory/voluntary program</i>
<b>Development Type</b>	<i>Rental and/or ownership units</i>
<b>Incentive</b>	<i>List of incentives, or cost offsets, offered by the program to developers. Including: density bonus, other zoning variances, unit concessions, expedited permitting, fee/waiver reduction, direct subsidy/TIF, tax relief/abatement, or any combination of those incentives.</i>
<b>Affordable Housing Compliance Option</b>	<i>Ways in which developers may contribute to affordable housing. Including: on-site units, off-site units, in lieu fee, donate land, rehab regulated units, renovate unregulated units, or any combination of those compliance options.</i>
<b>Minimum Project Size</b>	<i>The minimum project size (often in terms of # of units) that triggers the affordable housing requirement</i>
<b>Minimum Set-aside</b>	<i>The minimum percentage of on-site development that must be affordable. Some programs vary in affordable housing set-aside requirement.</i>
<b>Highest Income Served</b>	<i>Ceiling of the highest income level according to program's income targeting requirements.</i>
<b>Lowest Income Served</b>	<i>Ceiling of the lowest income level according to program's income targeting requirements.</i>
<b>(Rental/Ownership) Income Requirement Type</b>	<i>The type of income requirement; including single income requirement (e.g. 50-80% AMI), multiple tiers of income targeting (e.g. 40% of affordable units at 50-80% AMI and 60% of affordable units at 80-120% AMI), multiple options of income targeting (e.g. 50-80% AMI for 10% affordable housing set-aside, or 80-100% AMI for 20% affordable housing set-aside).</i>
<b>(Rental/Ownership) Single Income Requirement Detail</b>	<i>Detail of single income requirement (e.g. 50-80% AMI) for rental development. In most cases the threshold is determined through percentage of area median income.</i>
<b>(Rental/Ownership) Multiple Tiers of Income Targeting Detail</b>	<i>Detail of multiple tiers of income targeting requirement (e.g. 40% of affordable units at 50-80% AMI and 60% of affordable units at 80-120% AMI) for rental development. In most cases the threshold is determined through percentage of area median income.</i>
<b>(Rental/Ownership) Term of Affordability</b>	<i>The length of time for which affordable rental units in the program must remain affordable</i>
<b>Total Affordable Units</b>	<i>Total units created since program adoption (unless otherwise specified)</i>
<b>In-Lieu Fees</b>	<i>In-lieu fees collected from residential development since program adoption (unless otherwise specified). Unit count and in-lieu fee amount reported in a program are exclusive.</i>

Data Source: Thaden, E., & Wang, R. (2017). *Inclusionary Housing in the United States: Prevalence, Impact, and Practices*. Lincoln Institute of Land Policy.