

Learning from Land Use Reforms: The Case of Ramapo, New York

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Abstract

Many state and local governments are currently reforming zoning to increase housing production, especially of dense, small multifamily options (often known as missing middle housing). However, not all efforts to reform single-family zoning are new. For instance, the suburban town of Ramapo, New York, has continuously loosened development rules for nearly 4 decades, providing an unusually long timeline for a case study of zoning reform. This article uses quantitative and qualitative data to assess the impact of zoning reform in Ramapo. The case shows that the introduction of multifamily zoning—even in built-out suburban neighborhoods—can spur the large-scale production of new housing units. By contrast, laws that allow only for accessory units have more limited effects. The town’s experience also demonstrates the importance of infrastructural investment to serve new housing supply, especially when added in suburban areas. Finally, it shows that, at least in an unusually pro-growth political environment, discretionary review and parking requirements do not automatically hinder housing production.

Introduction

By some appearances, Lenore Avenue is an unremarkable suburban street. Trees shade the road, sidewalks are intermittent, and through traffic is blocked. The houses on Lenore Avenue appear conventional as well. Styles typical of New York’s Rockland County—such as ranches and split levels—predominate. However, some houses on Lenore Avenue are much bigger than others. At first glance, these three-story homes might represent the type of new construction dwellings derisively referred to as *McMansions*. Looking closer, however, reveals that not all these homes are single-family. Some of the buildings have parking lots in the front and an unusually large number of doors and mailboxes—clear indicators that they are multifamily buildings. Other properties appear almost exactly as single-family dwellings. Yet, according to town records, these properties are also classified as multifamily dwellings.

Lenore Avenue is a typical block in the Monsey section of the suburban town of Ramapo, New York. It is within the R-15C district, a zoning designation created by the town board in response

to a demand by the growing ultra-Orthodox Jewish population in the area allowing for flexibility regarding denser housing configurations. Since its creation in 1986, the R-15C district has expanded, and the rules governing properties in the zone have been progressively loosened. Today, a maximum of six units are permitted on a 10,000-square-foot lot within the R-15C district—twelve units on a double lot. Collectively, these decades of zoning reforms have had a profound impact on the Monsey area, leading to the creation of a unique, quasi-urban neighborhood in suburban New York.

The R-15C district is an unusually advanced example of zoning changes that planners and policymakers argue should occur across the country. As the housing affordability crisis has spread, a growing number of experts and politicians have called on governments to loosen restrictive single-family zoning requirements to allow for a more diverse mix of housing options (Greene and Gould Ellen, 2020; Kazis, 2020; Wegmann, 2020). State and municipal governments have passed several zoning liberalization measures in response (Badger and Bui, 2019). These policy shifts are driven by the hope that, by allowing construction of the type of small multifamily options (often known as *missing middle housing*) currently precluded in most American communities, governments might increase housing supply and drive down costs.

Contemporary zoning reform efforts have a clear parallel with the policy changes that Ramapo has pioneered for nearly 4 decades. However, Ramapo's zoning reforms are also distinct from current efforts in two ways. First, most current zoning policy shifts are ongoing experiments grounded in assumptions about how developers will respond to supply and demand. By contrast, Ramapo's R-15C district is an existing empirical case study, providing a window into how housing markets and the real estate development industry respond to reform over a period of decades. Second, most contemporary zoning reforms—such as the celebrated triplex law in Minneapolis—have been pursued by urban municipalities. By contrast, Ramapo is a middle-ring suburb constructed along the familiar midcentury pattern of single-family homes, separation of uses, and a disjointed street grid. It thus provides a window into how the low-density suburban built environments that dominate the American landscape might evolve when zoning rules are changed.

This article analyzes Ramapo's zoning reforms to show how zoning policy interacts with neighborhood change in a real-world case. The analysis uses a mixed methods approach, triangulating quantitative data analysis with archival research and qualitative interviews, to show how policy change in Ramapo has affected neighborhood character, land use composition, housing markets, and infrastructure. The article comprises five major parts. The first section compiles a detailed timeline of the town of Ramapo's zoning policy changes in the Monsey area, showing the branching permutations of zoning and tracing the housing configurations that each zoning policy change spurred. The second section introduces the data and methods used to analyze the changes wrought by zoning reform. The third section introduces the analysis itself, using parcel-level data to look at how subdivisions, land use classifications, and units changed in the years following the zoning change. The analysis aims to isolate the effect of zoning changes on land use and unit production using difference-in-differences regression.

The fourth section provides an overview of the challenges and opportunities that accompanied neighborhood densification in Ramapo and the expected drawbacks of added density to the town's

infrastructure. It also briefly addresses the fraught local conversation (also a national one) about the relationship between dense housing and affordability. Finally, the last section of this article discusses what other communities can learn from Ramapo's experience legalizing multifamily dwellings—both in terms of what kind of production might be expected and the externalities that may follow. Four key lessons emerged from the empirical record: (1) in some markets, multifamily zoning will be significantly more conducive to housing production and land use change than the gentlest forms of density, such as permitting accessory dwelling units and two- or three-unit buildings; (2) zoning changes may be more attractive to builders if the laws allow the new units to be sold as condominiums, at least in suburban settings; (3) densification requires extra infrastructure investment if undertaken in a suburban environment; and (4) in an unusually pro-growth suburban jurisdiction, discretionary review and parking requirements do not necessarily hinder housing production.

Zoning History

Ramapo, New York, is one of five towns¹ in suburban Rockland County. Approximately 35 miles northwest of New York City, the town covers an expansive geographic area, a large portion of which is protected land in Harriman State Park. The unprotected portion of the town is diverse in character. It includes older villages developed during the Industrial Revolution, swaths of mid-20th century subdivision-style development, and exurban areas subject to large lot zoning. In the center of Ramapo, between the older villages of Spring Valley and Suffern, is the area known as Monsey. During the past 40 years, a dramatic densification effort has transformed one portion of Monsey into a quasi-urban space. The area is now a predominately multifamily neighborhood with a population density closer to New York City than to the rest of Rockland County—an anomalous built environment at the heart of an otherwise ordinary suburban area.

Early Years: Anti-Growth Pioneer

Although today Monsey is dense and quasi-urban, 100 years ago, the whole town of Ramapo was mostly rural. The region changed in the 1950s and 1960s when the construction of the New York State Thruway and the Tappan Zee Bridge linked the area with New York City. These federal infrastructure investments, combined with White flight from the cities, spurred rapid growth in Ramapo. The town grew more than 100 percent between 1960 and 1970 (U.S. Census Bureau, 2022), triggering a strong anti-growth backlash. First, in 1966, the town of Ramapo eliminated as-of-right multifamily zoning within its borders (Meck and Retzlaff, 2008). Then, in 1969, town authorities went further by implementing a points-based growth management plan tying building permits to infrastructure investment. This innovative plan was upheld in the 1972 case of *Golden v. Ramapo*—setting a national precedent for performance zoning schemes (Meck and Retzlaff, 2008).

Ramapo's government pursued a largely anti-growth line throughout the 1970s, but at the same time, small pockets of informal multifamily housing began to emerge. This informal density was especially (although not exclusively) found in Monsey, parts of which were populated by a growing number of ultra-Orthodox Jews (Saeed and Incalcaterra, 2001). In the mid-20th century, a small

¹ A town is a meso-level jurisdictional category in New York State that carries land use decisionmaking power for all areas that are not further incorporated into villages.

number of Hasidic Jews relocated from Brooklyn to Ramapo (Mintz, 1992), settling in portions of the town that had previously housed summer bungalow colonies for Jewish residents of New York City (Hollander, 2017). One sect, the Skver, moved en masse, forming their own village, New Square, on the edge of Ramapo in 1961. Another sect, the Vizhnitz, settled in central Monsey, forming their own village, Kaser, in 1991.

Over time, a diverse mix of religious Jews followed these pioneers to the suburbs, creating a burgeoning religious Jewish community composed of Hasidic and non-Hasidic sects (Berger, 2014). The community began to grow rapidly, driven by natural population growth and continuous migration from Brooklyn. However, this exceptionally high demand for housing was met with an artificially constrained supply, because Jewish law requires families to walk to synagogue on the Sabbath (Mintz, 1992). Some families responded to the shortage by illegally converting their single-family homes into multifamily ones, a practice that eventually expanded to include newly built houses (Laudor, 1980).² For at least a decade, the town government looked the other way at informal conversions, with some officials alluding to an official amnesty policy (Sanderson, 1978). However, as conversions spread to include new construction, a ferocious backlash from secular town residents emerged, with hundreds of residents organizing civic associations to oppose multifamily buildings (Rifkin, 1980).

The Creation of the R-15C District

As the illegal conversions controversy spread, Ramapo's government struggled to develop an effective solution. Some elements of the town bureaucracy counseled crackdowns, such as the town building official who said at the time that "in certain areas of Monsey the legal house is the exception ... it must be stopped or, we'll have an absolute slum" (Allan, 1986a). Others, especially elected officials, favored accommodation, arguing that the town should "recognize the lifestyle already established there" (Colton, 1979). Eventually, the town board floated a proposal to formalize some extralegal construction by creating a multifamily district (Colton, 1979). Anti-growth residents were scandalized, because many had also moved from Brooklyn to, in the words of one activist, "get away from what this downzoning³ [sic] is bringing back to us" (Laudor, 1981). They mobilized to block zoning reforms, threatening to form villages to take land use regulatory power back from the town government if they did not prevail. NIMBY (that is, Not in My Backyard) civic activists also turned to the courts. Their legal efforts were successful in 1981 when the State Supreme Court threw out the town's first attempt at multifamily zoning (Colton, 1981).

In 1986, a new town supervisor, Herbert Reisman, was inaugurated, promising "a more harmonious Ramapo" (Dow, 1986). Reisman again took up the multifamily issue, launching a housing task force that ultimately called for the town to try again to implement multifamily zoning (Dow, 1986). This recommendation was partially a response to the growing political clout of the ultra-Orthodox community (Fararo, 1986). However, the town's move was not purely a result of

² The Adar Homes development is one example. This instance was a group of ostensibly single-family homes that anti-growth citizen activists organized to block on the grounds that the development was constructed purposely to allow for immediate conversion into multifamily dwellings.

³ Confusingly, at this time in Ramapo, "downzoning" was used to refer to zoning changes that would allow for more intensive uses (what is normally called "upzoning" today).

ultra-Orthodox political pressure. As Reisman's "harmonious" language implies, the town board was also inspired by a philosophical belief in pluralism, expressed in the idea that government should accommodate all lifestyles. This framing found its way into the legal text of the multifamily zoning law itself,⁴ which addressed accommodating "specialized households" with distinct "social and cultural needs."

Specialized lifestyles aside, not all Monsey residents (and especially not all Ramapo residents) welcomed multifamily dwellings. The new multifamily proposal poured fuel on village formation efforts, ultimately spurring the creation of five new jurisdictions: Wesley Hills, New Hempstead, Montebello, Airmont, and Chestnut Ridge (Allan, 1986b). This time, however, anti-growth advocacy and lawsuits were not enough to block the multifamily law. The town board officially altered the zoning code at the end of 1986, creating a new R-15C (C for *conversion*) zoning district in a portion of Monsey previously zoned R-15. Under the old R-15 zoning, only single-family homes were allowed on 10,000-square-foot lots (the vast majority), with two-family homes requiring lots larger than 20,000 square feet. In the new R-15C zone, property owners were granted the right to convert their single- or two-family homes into three-unit dwellings—the beginning of a 40-year zoning liberalization process in central Monsey.

Additional Changes, Additional Controversies

The 1986 creation of the R-15C district was a milestone for multifamily zoning in Ramapo. However, the specific rules that governed the zone's development continued to loosen. First, in 1987, the maximum floor area ratio (FAR) permitted in the district was slightly higher.⁵ Next, in 1991, fees were lowered, and conversions were made subject to administrative review rather than planning board approval (*The Journal News*, 1991). Then, in 1992, the zoning code was amended to allow for the construction of new 3-family homes in the R-15C district rather than just conversions (*The Journal News*, 1992). This change paralleled the creation of a new Hasidic-dominated village, Kaser, in one portion of Monsey, which altered its zoning to allow even denser configurations (Henderson, 1991).

Despite the town's zoning reforms, informal densification continued throughout the 1990s (Lieberman, 1996). The controversy about multifamily housing also continued unabated. Some residents accused the town of looking the other way regarding housing and quality-of-life violations in the Monsey area, claiming that "garbage-strewn streets, torn-up lawns, parking on both sides of the narrow streets, and increased bus traffic leave one with a negative image of Ramapo" (Kramer, 1999). Others, including town officials, felt differently. Recognizing the intense need for housing within the ultra-Orthodox enclave, officials counseled that the town needed to continue to accommodate additional density to "provide housing that in effect would meet those [religious Jewish] needs but still maintain some semblance of safety" (Boylan, 1997).

In 2000, the town launched a master plan update, hoping to strike a balance between the continual need for affordable housing, especially among ultra-Orthodox Jews, and the fears of many non-Orthodox residents that density threatened their "quiet way of life" (Craddock, 2001). The town

⁴ Local Law No 7–1986

⁵ Local Law Amending Local Law 5–1985

was spurred to act, in part, by the passage of the federal Religious Land Uses and Institutionalized Persons Act (RLUIPA) that same year. That law destabilized the balance of power between municipal officials and ultra-Orthodox developers by granting religious organizations powerful new tools to challenge local zoning.⁶

The consultants hired by the town to create the master plan were initially critical of the ad hoc growth permitted in the R-15C zone. The first draft of the town's new comprehensive plan, released in 2002 and updated in 2003, called for the conversion district to be replaced by official multifamily zones, with additional density tempered by conservation and open space acquisition in more rural parts of town (Brophy, 2002). However, the final version of the plan, adopted in 2004, took a different tack. It retained the R-15C district and expanded its borders (Frederick P. Clark Associates, 2004).

The plan also recommended introducing accessory units to parts of Ramapo. In the R-15C district, one accessory unit was allowed per parcel in certain areas. Given the required setbacks, this unit was usually attached to the primary dwelling. This revision meant that a three-unit home in the R-15C district could now become a four-unit property.⁷ The town board also created a new zoning district called R-15A. This new district retained the original R-15 zoning in terms of bulk but allowed one accessory unit per parcel. Initially, all the R-15 zones in the town were meant to turn into R-15A. However, following the controversy, R-15A was applied only to two sections of Monsey. This compromise created the three types of R-15 zoning seen in central Monsey today.⁸ One portion retains the original R-15 zoning, which permits one-family homes on 10,000-square-foot lots, semi-attached one-family homes on 15,000-square-foot lots, and two-family homes on lots more than 20,000 square feet. Another portion is designated R-15A, which differs from the R-15 rules by allowing one accessory unit per parcel. The final portion is designated R-15C, which allows more intensive multiunit development (exhibit 1).

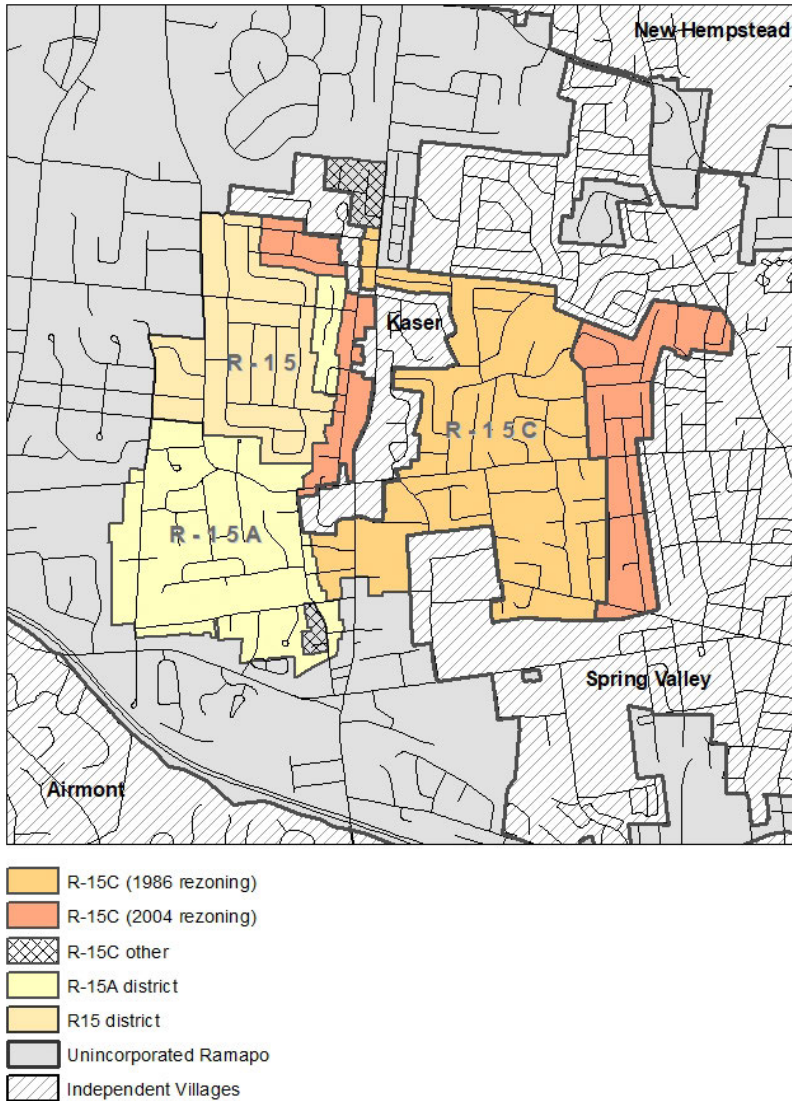
⁶ In direct response to RLUIPA, the town also created four separate "adult educational zones" to accommodate kollels, or Jewish higher learning institutions, with attached multifamily housing dorms (Local Law 9–2004).

⁷ Local Law 10–2004

⁸ The comprehensive update also introduced new Multiple Residential (MR) zoning districts that allowed for larger, more conventional multifamily dwellings. A few larger parcels in the Monsey area were eventually rezoned to this new MR zoning, but this rezoning was to facilitate more conventional new multifamily construction, not the conversion of existing, built-out neighborhoods. This article, therefore, does not discuss MR zoning.

Exhibit 1

Map of Central Monsey



Note: Map shows the different zoning districts in the central Monsey area.

Source: Joseph Weil Huennekens, "Town of Ramapo Zoning Map," Rockland County GIS Portal.

Recent History: Continued Modifications to the R-15C

Although Ramapo's passage of the accessory unit law allowed four-unit buildings in the R-15C area, central Monsey's development did not take off until other rules were changed. First, in 2007, accessory unit regulations were tweaked to allow one accessory unit per *primary* unit (rather than parcel) within townhouse-style buildings in the R-15C zone. A parcel developed in such a style

could now have six units: three primary units and three accessories.⁹ The maximum allowable size of an accessory unit was also increased at this time. Then, in 2012, the town board voted to authorize separate ownership of accessory units and uncapped the number of bedrooms allowed in an accessory unit.¹⁰ This modification meant accessory units could now be included as condominium offers, with the units subject to resale restrictions meant to ensure affordability.

The 2007 and 2012 accessory unit modifications set off a boom in new construction in the R-15C zone. Developers increasingly purchased existing properties for demolition, constructing larger multifamily buildings in their stead. Parcels were also increasingly subdivided to allow for semi-attached multifamily condominium buildings on double lots, each with four or six units (exhibit 2). Most of the new buildings constructed in the area were wood-frame or “stick-built.” Developers nearly always sought variances for new construction rather than adhering to the zoning envelope. This deviation was done to construct as close to the maximum envelope allowed by New York State building and fire code as possible. For example, builders might seek to exceed the maximum 35-foot height allowed (at that point) by the town zoning code to get closer to the 40-foot maximum height allowed in the state building code for non-fireproof stick-built construction.

Exhibit 2

Photographs of R-15C Development (1 of 2)



⁹ Local Law 1–2007

¹⁰ Local Law 1–2012

Exhibit 2

Photographs of R-15C Development (2 of 2)



*Note: Multifamily homes in the R-15C district.
Source: Joseph Weil Huennekens*

The large number of new units constructed following the 2004, 2007, and 2012 zoning reforms fostered new types of land use controversy, which were heightened by anxieties about the town's demographic transition. The 2010s was a time of significant political upheaval in Ramapo, with controversy swirling around the East Ramapo School District in particular¹¹ (Bandler, Lieberman, and Liebson, 2017). The town government was also buffeted by a series of scandals during this time. In 2016, a town official (and former Zoning Board of Appeals member) was arrested, and the state temporarily took control of the town's buildings department (Lieberman, 2016). The dysfunction continued in April of that year, with the arrest of then town supervisor Christopher St. Lawrence on suspicion of corruption (Weiser and Williams Walsh, 2016). This situation was followed, in 2017, by the arrest of the town's former building inspector on allegations of fraud related to the processing of building permits (Lieberman, 2017a).

¹¹ Ramapo is divided between two school districts, the Suffern Central School District and the East Ramapo Central School District. As the town grew increasingly ultra-Orthodox, public school funding in the East Ramapo district, which had grown to serve an almost exclusively Black and Brown public school population, was deprioritized in favor of services for yeshivas, leading to the imposition of a state fiscal monitor (Clark, 2014). More recent litigation alleged that the East Ramapo school board's electoral system was discriminatory toward the public school population because at-large seats guaranteed the board was dominated by the private-school (yeshiva) parent population (Feldman, 2020).

In recent years, under the leadership of a new town supervisor, Ramapo's politics have stabilized. New construction has continued apace, and additional tweaks have been made to the R-15C zoning rules. In 2018, resale restrictions were removed from accessory units, allowing them to be sold on the open market.¹² This change came about because resale restrictions, which limited value appreciation, were allegedly hurting the ability of property owners to secure mortgages. In 2019, the maximum size of accessory units was increased again.¹³ Then, in 2020, the town altered the R-15C zoning code to allow developers to merge individual parcels into larger lots and construct more standard multifamily buildings.¹⁴ So far, only a few projects have used this new "large lot overlay." However, it represents a remarkable culmination of Ramapo's zoning story—an example of how far the town has traveled from its past as an anti-growth pioneer to its contemporary status as one of the most permissive municipal land use systems in the New York City metropolitan area.

Data and Methods

Mixed Methods Approach

This article combines qualitative and quantitative data to take a comprehensive look at Ramapo's 40-year history of zoning reform. Quantitative data are the core of the third section of the article, which looks at the impact that zoning policy changes had on housing production and land use. This quantitative dataset was pieced together through a variety of municipal and private sector sources, as detailed in the paragraphs below. Qualitative data are the core of the fourth section of the article, which looks at the implications of zoning change on the town's built environment. These qualitative data include archival material from local newspapers; archival information from state, county, and municipal plans; information gleaned from semi-structured interviews conducted with local stakeholders; and informal knowledge gleaned through participant observation and casual conversation.

Parcel Dataset

This article analyzes a set of different local policies that were applied to a disjointed and fragmented area at different points in time. Individual parcels are the only unit of analysis that can be manipulated to accurately represent the shifting boundaries of the town's zoning districts. However, these types of parcel-level data were not publicly accessible in any comprehensive form that spanned the nearly 40-year history of zoning reform. Instead, a parcel level dataset was manually constructed from a variety of sources, organized around four cross-sectional periods: 1986, 2006, 2012, and 2021. Land use data from 2006 and 2012 came from land use shapefiles available through Rockland County's open data portal. These shapefiles classify each parcel by the land use that existed in the year in question. Land use data from 2021 came from the private sector data provider PropertyShark. Parcel-level data in PropertyShark were downloaded for each address within the central Monsey area (which included land use classifications) and then matched with the relevant parcels using the Town of Ramapo's 2019 parcels shapefile.

¹² Local Law 7–2018

¹³ Local Law 4–2019

¹⁴ Local Law 5–2020

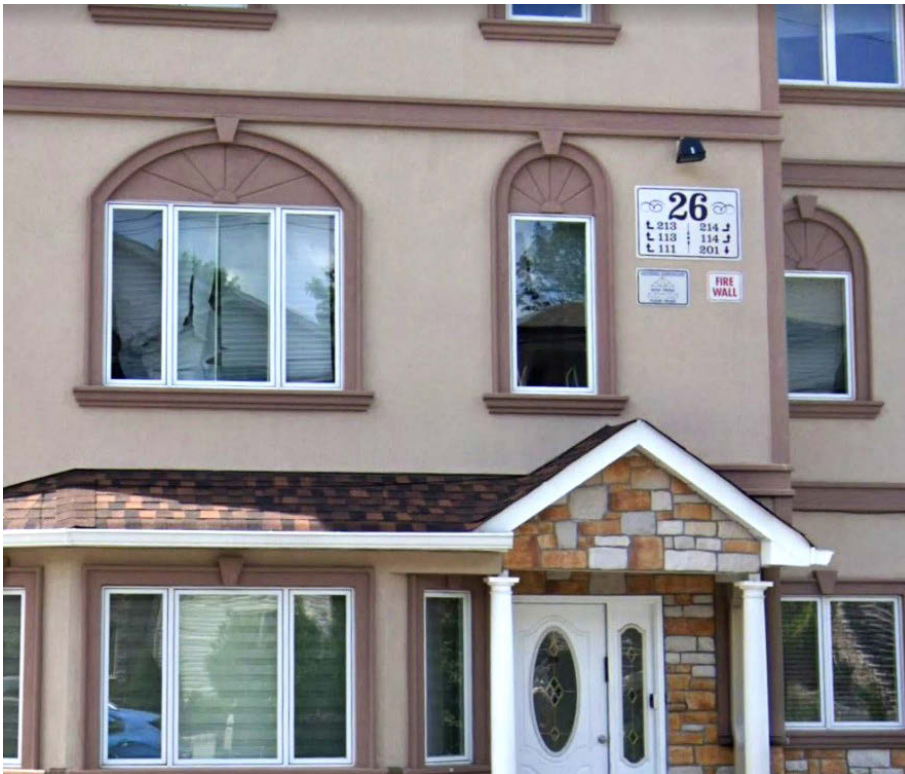
The 2006, 2012, and 2021 datasets included full land use classifications. However, no such data existed for 1986. Instead, the analysis imputed land use data for 1986 using a 1986 buildings shapefile from Rockland County. These data were cross-checked with 1986 assessment rolls available on microfilm at the Rockland County archive and assigned parcels that were listed in 1986 as non-homestead, or owned by a congregation or nonprofit, as having an institutional classification. Parcels with no buildings on them were assigned as vacant. All other parcels were assumed to be residential, given the zoning district. However, after this research, the question of whether a building was one- or two-family remained (because the initial residential zoning for the area allowed for two-family homes on oversized lots). The question was addressed by flagging properties that had a building on them circa 1986 and were more than 20,000 square feet in size (the minimum lot size for a two-family dwelling in the 1986 zoning). If these properties were classified as one-family in the 2006 land use shapefile, the analysis assumed that they were also one-family in 1986. However, if the oversized property was listed as two- or three-family in 2006, they were cross-checked with property deeds (available for some parcels on PropertyShark). Unless a deed was found that indicated single-family use after 1986, it was assumed these 34 properties were two-family in 1986.

The unit measurements required more imputation and assumptions than the land use classifications because the multifamily land use classification contains properties with different numbers of units. The land use data for the four time periods were used to calculate units. This method was relatively straightforward for most land use classes: a one-family parcel was assumed to contain one unit, a two-family parcel was assumed to contain two units, and a three-family property was assumed to contain three units. However, properties with four or more units are listed only as belonging in a multifamily land use class. Therefore, a more complex set of assumptions was implemented to determine approximate unit counts for multifamily properties. First, a manual windshield survey (via Google Maps) of the 436 properties listed as multifamily in 2021 was conducted. Many multifamily buildings in Ramapo include large address signs listing the number of (legal) units, and others include formal multiunit mailboxes (exhibit 3). In such cases, a manual calculation for the number of units was inputted.

However, many other properties did not show clear indications of unit counts and were more ambiguous. PropertyShark data, where available, were used to input unit counts for these properties. However, for a couple of hundred properties (listed as multifamily), manual estimates and PropertyShark unit counts were unavailable (exhibit 4). Some of these properties had a multifamily parcel count higher than three, because the property had been “condoed” or subdivided into condo parcel fractions. For these properties, the number of units was inputted as the number of these parcel fragments. However, this method still left close to 250 properties that did not have a manual count, a Property Shark count, or a parcel number equivalent to a multifamily condo (exhibit 4). These properties were assumed to have four units, a conservative assumption of the lowest possible number of units that would qualify the property as multifamily.

Exhibit 3

Example of Property with Clear Unit Numbers



*Note: Image shows how some properties contain clear address numbers, facilitating a manual count of units.
Source: Google Maps Streetview*

Exhibit 4

Unit Count Imputations for Multifamily Properties

	2006	2012	2021
Parent parcels with manual or Property Shark count	0	0	125
Parent parcels with multifam parcels > 3	15	145	101
Parent parcels with multifam parcels < 3, imputed as 4	23	81	248
Total	38	226	474

*Note: Unit counts are assigned to parcels and assumptions are built into the count.
Sources: Manual windshield survey via Google Streetview; PropertyShark*

All land use and unit data were aggregated at the parent parcel level. Normalizing the four datasets at the parent parcel level allowed a comparison of change over time at a standardized unit. This process was important to capture parcel-level change, because subdivisions and split lots are a common feature of development in the area. For example, a single one-family parcel in 1986 might, by 2012, include one two-family parcel and one three-family parcel, with five units overall. Lastly, two outlier areas were removed before performing the final data analysis. The first

was an area near the village of Kaser that was rezoned to R-15C in 2001 and redeveloped as a large multifamily complex. The second was a vacant parcel in the R-15C exclusion area (the area rezoned to R-15C in 2004) that was redeveloped as a single 132-unit complex. These parcels were removed to establish more accurate counts of the type of land use change that could be expected on a more typical 10,000- to 20,000-square-foot suburban lot.

Difference-in-Differences Models

In the following section of the article, quantitative data are analyzed in both a descriptive and analytic manner. Descriptive statistics are used to demonstrate the magnitude of change following zoning reform. Difference-in-differences regression is used to tell a more causal story: that is, to deduce what land use and unit change could be traced specifically to the impact of rezoning by measuring change over and above what would be expected otherwise.

The limited amount of public data meant that only four cross-sectional measures were available for use in the difference-in-differences models: 1986, 2006, 2012, and 2021. This data limitation presented a problem because the most important zoning reforms proceeded during a period from 2004 to 2012. In 2004, the areas were rezoned for greater density; in 2007, an accessory law was expanded to grant even more units in the R-15C district; and in 2012, accessories were allowed to be sold on the open market. Due to this ambiguity and factoring in the lag time of construction, for purposes of the difference-in-differences model, 1986 and 2006 were labeled as pre-treatment years, and 2012 and 2021 were labeled as post-treatment years. Assigning 2012 as a “before year,” although theoretically justified given that it was the culminating year of the period of zoning reform, would have produced much higher estimates in terms of units. However, for this article, 2012 was assigned as a post-treatment year to create a more conservative estimate, with one within-the-reform-period year (2006) assigned as a pre-treatment year and one within-the-reform-period year (2012) assigned as a post-treatment year.

The difference-in-differences models contained estimates for the impact of two treatments first administered in 2004. The first treatment was multifamily zoning (which was first applied to the R-15C exclusion area in 2004, with the “dose” increased by the 2007 and 2012 accessory reforms). The second treatment was accessory zoning (first given to the R-15A area in 2004, with the “dose” increased by the 2012 reforms). Parcels in the core R-15C area (the initial zone, created in 1986) were removed from the sample to measure only areas affected by the 2004 changes. This removal left 4,343 observations, representing parent parcels in the three areas (R-15C exclusion, R-15A, and R-15) during the four time periods. There were two models, the first with a dependent value of one-family parcels and the second with a dependent variable of units. The models measured both treatments (R-15C and R-15A) together according to the following specification:

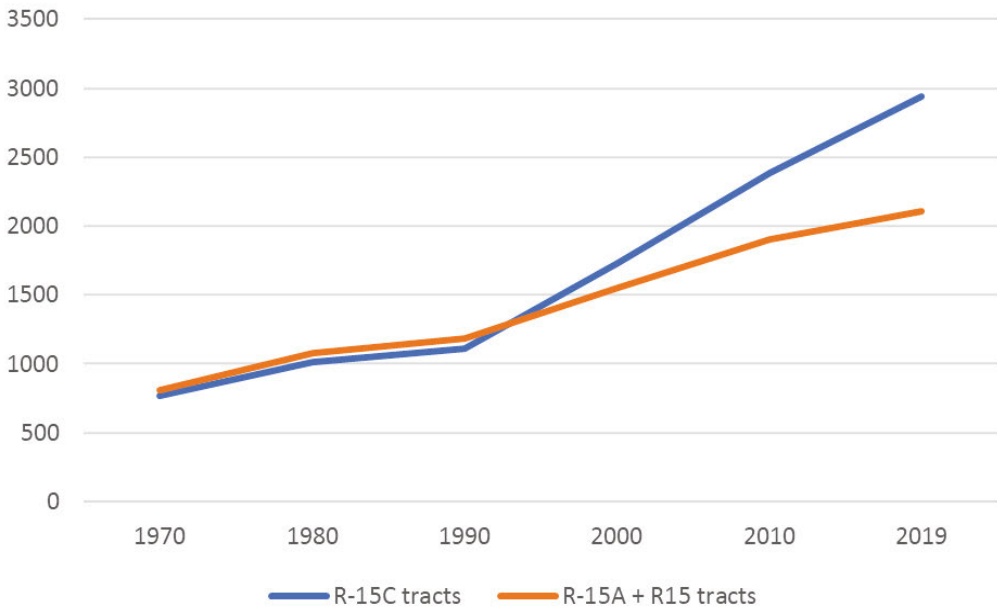
$$DV = \alpha + \beta_{Post} + \beta_{R15c} + \beta_{R15a} + \beta_{treatment1} (Post * R15c) + \beta_{treatment2} (Post * R15a) + \epsilon$$

Difference-in-differences models work on the assumption that the treatment and control groups display parallel trends prior to treatment. The first indication of parallel trend comes from census data, which show that the census tracts that were the closest proxy for the R-15C, R-15A, and R-15 zones moved in close tandem prior to 1990 (the first census year after the creation of the core

R-15C district in 1986) (exhibit 5). This finding gave confidence that, at least theoretically, these areas of Monsey were historically similar prior to the commencement of zoning reform.

Exhibit 5

Census Tract Parallel Trends



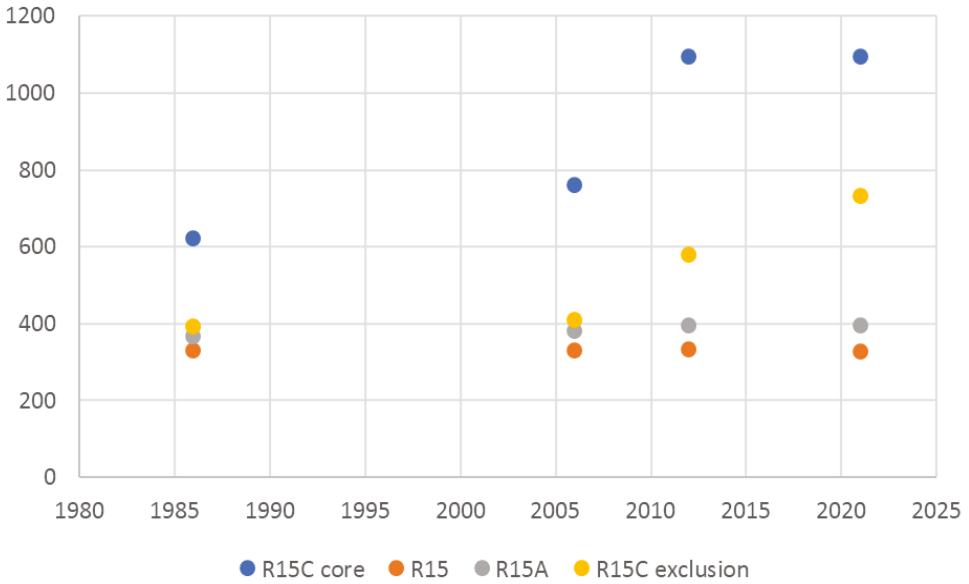
Notes: Census unit counts normalized to 2010 census tract boundaries. 2010 tracts 121.02 and 121.05 correspond roughly with R-15C zoning district. 2010 tracts 121.03 and 121.06 correspond roughly with R-15 and R-15A areas.

Sources: 1970, 1980, 1990, 2000, and 2010 Census; American Community Survey 5-year data, 2015–19

However, the difference-in-differences models do not measure the impact of the 1986 change. Instead, they measure the impact of the 2004 changes that rezoned small portions of the R-15 zone to R-15C (the area termed the R-15C exclusion zone) and rezoned another portion of R-15 to the new R-15A designation. The R-15C exclusion area is a small and geographically fragmented area that does not overlap clearly with any census geography. This renders an additional parallel trend test necessary. Luckily, the R-15C exclusion zone—along with the R-15 zone and the remaining portion of Monsey that stayed R-15—all display parallel trends prior to 2006 within the parcel dataset as well (exhibits 6 and 7). As expected for the parallel trend assumption to hold, the R-15C core area diverged from the other areas immediately after 1986. The R-15C exclusion area stays broadly congruent with the R-15A and R-15 until the 2012 reading. Together, this information gives meaningful assurance that the areas of central Monsey all behaved similarly prior to zoning treatment, whether that treatment was administered in 1986 or in the period between 2004 and 2012.

Exhibit 6

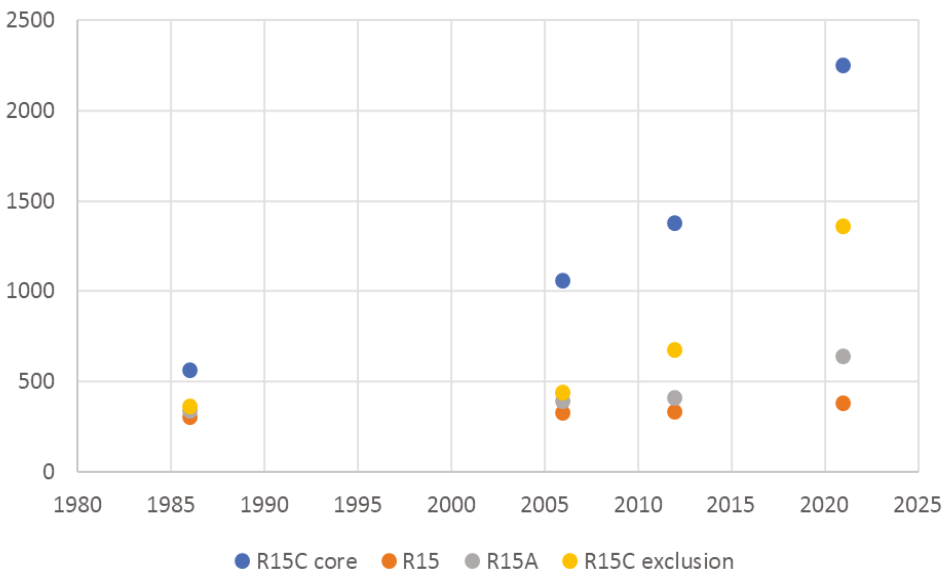
Parent Parcel Parallel Trends, By Number of Parcels



Note: Number of parcels per zoning district over time, showing the four cross-sectional years of the difference-in-differences models.
Sources: Rockland County GIS portal; PropertyShark

Exhibit 7

Parent Parcel Parallel Trends, By Number of Units



Note: Number of units per zoning district over time, showing the four cross-sectional years of the difference-in-differences models.
Sources: Rockland County GIS portal; PropertyShark; manual windshield survey via Google Streetview

Land Use Change and Housing Production

The R-15C zoning district unleashed a wave of development that transformed Ramapo. Between 1970 and 2019, the two census tracts¹⁵ that most closely overlap with the R-15C area went from having a population of 2,900 to more than 16,000 people—a stunning 456-percent increase (U.S. Census Bureau, 2022). Those two tracts had a population density of more than 22,000 per square mile, according to the 2015–19 5-year American Community Survey estimate, far closer to New York City (which, as of 2020, had a population density of about 29,000 per square mile) than to the rest of suburban Rockland (which as of 2020 had a population density of 1,950 per square mile). Of course, part of this high population density figure is related to the exceptionally large size of most ultra-Orthodox families. However, even the number of households per square mile resembles an American city more than similar middle-ring suburbs.¹⁶

Monsey's tremendous growth is clear in census data. However, such data only describe the changes that occurred at the community level; they do not reveal where precisely these changes occurred nor what caused them. Accordingly, this section of the article augments census data with parcel-level land use data from 1986, 2006, 2012, and 2021 to get a more precise sense of land use change. Using these parcel-level data, this section addresses two issues regarding residential densification. First, this section explores a set of descriptive questions about how land use change progressed, including which parcels turned from single-family to multifamily housing and what number of parcels turned. Second, the section explores the role of policy change in spurring densification.

Parcels and Subdivisions

Although Central Monsey was already largely built by the 1970s, the number of parcels in the R-15C area increased dramatically following rezoning. In 1986, the initial rezoned area (hereafter, core R-15C) contained approximately 620 parcels. By 2006, the number of parcels in the core R-15C area had grown to approximately 760, and by 2021 there were approximately 1,090 (exhibit 8). This increase resulted from the subdivision of existing lots, especially the division of the older parent parcel (that is, the original platted parcel as it existed in 1986) into fractions as part of condominium offerings. Between 1986 and 2021, the number of single-family parcels in the core R-15C zone declined from 530 to only about 150, whereas the number of multifamily parcels increased from 0 to more than 710 (exhibit 9). The portion of central Monsey that was excluded from the initial rezoning in 1986—but added into R-15C after the 2004 master plan update (hereafter, R-15C exclusion zone)—showed the same trend, just on a delay. The number of single-family parcels was relatively stable until 2006, after which single-family parcels declined, but multifamily ones increased.

¹⁵ Data use the 2010 census tract boundaries. For the 2020 census, central Monsey's tract boundaries were redrawn and about four tracts now correspond with the area.

¹⁶ These tracts have slightly more households per square mile than Baltimore, Maryland, and slightly fewer than Pittsburgh, Pennsylvania.

Exhibit 8

Parcel Change Over Time

	Parcels		
	1986	2006	2021
R-15C (core)	620	760	1,093
R-15C (exclusion)	391	408	732
R-15A	329	330	327
R-15	365	381	394

Note: Number of parcels per zoning district over time, showing increase in parcel subdivisions within rezoned areas.
Sources: Rockland County GIS portal; PropertyShark

Exhibit 9

Number of Parcels by Land Use Type

	Year	Vacant	One Family	Two Family	Three Family	Multifamily	Institutional
R-15C (core)	1986	68	530	16	0	0	7
	2006	32	346	147	91	98	23
	2021	61	153	108	58	713	32
R-15C (exclusion)	1986	34	354	3	0	0	2
	2006	17	316	46	5	4	4
	2021	37	133	36	24	502	10
R-15A	1986	31	312	13	0	0	8
	2006	23	302	33	3	4	9
	2021	31	243	55	9	57	16
R-15	1986	30	299	0	0	0	0
	2006	3	319	2	0	0	4
	2021	2	309	9	2	5	3

Note: Land use classifications per parcel per zoning district over time, showing decrease in single-family parcels over time.
Sources: Rockland County GIS portal; PropertyShark

Land Use Change

The proliferation of multifamily parcels in the R-15C zone indicates how development proceeded over time. However, because of extensive subdivision (and condo parcelization), parcel quantities might inflate the magnitude of change in an *experiential* sense. For example, if a block initially had 10 single-family parcels, 3 of which converted into six-unit condominiums, the overall change in parcel composition would be dramatic: the block would go from having 10 parcels, all single-family, to having 25 parcels, 18 of which were multifamily. However, at the scale of the street, that change might not *feel* as dramatic. After all, only 3 of the 10 original lots would be multifamily, and most of the street would look the same.

Therefore, to measure on-the-ground change, looking at land use change at the parent parcel level is useful—that is, how the individual plots of land that existed in 1986 changed over time. By this measure, the change from single-family to multifamily in the R-15C district is still quite dramatic. Only 27 percent of parcels in the core R-15C zone that had been single-family in 1986 remained wholly¹⁷ single-family by 2021, and about 38 percent of parcels that had been single-family in

¹⁷ “Wholly” includes instances in which a single-family parcel would be subdivided. One new lot would remain single-family, and a two-, three-, or multifamily dwelling would be constructed on the other new lot.

1986 had at least one multifamily dwelling by 2021 (exhibit 10). As might be expected, vacant parcels densified at an even faster rate. An estimated 49 percent of parcels that were vacant in 1986 in the core R-15C zone had a multifamily dwelling on them by 2021. By contrast, only 6 percent of vacant parcels had a one-family home on them, indicating that, after the zoning change, the incentive to build new single-family homes practically disappeared.

Exhibit 10

Land Use Change for Parent Parcels, 1986–2021							
		% Vacant in 2021	% One Family in 2021	% Two Family in 2021	% Three Family in 2021	% MultiFamily in 2021	% Institutional in 2021
R-15C (core)		0.08	0.27	0.15	0.08	0.38	0.05
R-15C (exclusion)	One Family in 1986	0.07	0.33	0.09	0.04	0.44	0.02
R-15A		0.06	0.70	0.12	0.02	0.06	0.03
R-15		0.01	0.94	0.03	0.00	0.01	0.01
R-15C (core)		0.06	0.06	0.24	0.11	0.49	0.04
R-15C (exclusion)	Vacant in 1986	0.21	0.26	0.06	0.06	0.38	0.03
R-15A		0.21	0.48	0.09	0.03	0.09	0.09
R-15		0.03	0.90	0.00	0.00	0.03	0.03

*Notes: Land use classifications per parent parcel between 1986 and 2021 by zoning districts. Parcels that were classified as either vacant or one-family in 1986 were classified in 2021. The shift in classifications for the two R-15C areas are particularly notable.
Sources: Rockland County GIS portal; PropertyShark*

The dramatic conversion of one-family parcels into multiunit properties seen in the R-15C zone was not replicated in the R-15A zone (the area of central Monsey rezoned to allow one accessory unit per parcel). More than 70 percent of one-family properties in the R-15A area stayed that way after the area was rezoned, and only 12 percent of homes that were one-family in 1986 were two-family by 2021. Even vacant parcels in the R-15A district were more likely to become one-family dwellings than any other use—showing that, within the accessory zoning area, one-family construction continued even after zoning was altered.

Unit Change

From a land use perspective, the character of the R-15C district changed dramatically following zoning reform, although the R-15A accessory zone changed much less. But what of units? Measuring unit change is not as easy as measuring land use change because publicly accessible land use data in Ramapo does not include unit counts for multifamily properties. This study’s estimates were created using a manual windshield survey, private sector data counts, and a set of conservative assumptions for properties where data were missing. These caveats aside, the picture that emerges is one of robust unit production in the R-15C district—and much more sluggish production in comparison areas.

In the core R-15C zone, housing units increased from an estimated 560 in 1986 (pre-rezoning) to an estimated 2,250 in 2021—a growth rate of about 300 percent in 35 years (exhibit 11). Growth was nearly as high in the R-15C exclusion area after parts of Monsey were rezoned to R-15C in 2004. Although unit counts were relatively stable between 1986 and 2006 in that area prior to

rezoning, housing production exploded once the area was rezoned to R-15C—going from an estimated 440 units in 2006 to more than 1,350 by 2021. By contrast, fewer units were created in the R-15A zone (rezoned to allow for one accessory unit per parcel) and the R-15 area (which was never rezoned). Estimates show that about 300 new units were created in the R-15A area since 1986, or a growth rate of 89 percent during those 35 years (exhibit 9). The R-15 zone grew even less. Estimates show that fewer than 80 new units were created in the area between 1986 and 2021, reflecting a 26-percent growth rate during those same 35 years.

Exhibit 11

Change in Units Over Time

	1986	2006	2021	Change 1986 – 2021	% Change 1986 – 2021
R-15C (core)	562	1,373	2,248	1,686	3.00
R-15C (exclusion)	360	439	1,358	998	2.77
R-15A	337	391	636	299	0.89
R-15	299	323	377	78	26.09

Note: Change in units per zoning district over time.

Sources: Rockland County GIS portal; PropertyShark; manual windshield survey via Google Streetview

Difference-in-Differences

Descriptive statistics about parcel subdivisions, land use, and housing units give a sense of the variable rates of neighborhood change between districts; however, they do not provide a causal explanation for the change. Urban change is constant, and not all the densification in a certain district stems from zoning reforms. Difference-in-differences regression provides one way to get a more precise measure of change that isolates the impact of the policy. In the method, change is measured over and above what might be expected to have occurred otherwise, given preexisting trends. This assessment is done by comparing a treated area that received a change with an untreated comparison area (akin to a control) that did not receive treatment. Both areas are compared before and after the point of treatment, with the untreated area providing a proxy for how growth would have proceeded in the treated area absent the treatment.

The data for the difference-in-differences models make up a cross-sectional dataset of parent parcels with four measurement years: 1986, 2006, 2012, and 2021. The years 1986 and 2006 are defined as *pre-treatment years*, and 2012 and 2021 are defined as *post-treatment years*. Using four periods gives a more conservative estimation than simply comparing before and after (exhibit 12). Two different regressions were run with two different dependent variables. Each model in turn measures the impact of two treatments. The first treatment is the shift from existing R-15 zoning (single-family zoning with two-family homes allowed on large lots) to R-15C zoning (multifamily zoning with four to six units allowed on a single lot); the second treatment is the shift from R-15 zoning to R-15A zoning (the same as R-15, but with an additional accessory unit allowed per lot). The R-15C exclusion area is selected because it is the portion of R-15C that jumped directly from single-family zoning to multifamily zoning when the area was rezoned in 2004. Parcels in the core R-15C zone are not included in this model, so the model only measures the impact of changes that were undertaken at the same time. In sum, the two models measure the effects of (1) R-15C

multifamily zoning on parcel subdivisions, (2) R-15A accessory zoning on parcel subdivisions, (3) R-15C multifamily zoning on units, and (4) R-15A accessory zoning on units.

In the first model, the dependent variable is the number of one-family parcels. This model thus measures the impact of the two zoning changes on the number of one-family parcels, with parent parcels as the unit of analysis. The coefficient for treatment 1 (multifamily R-15C zoning area after rezoning) in the one-family parcels model is -0.371 with a 95 percent confidence interval (CI) of [-0.431, -0.312] (exhibit 13). This result indicates that multifamily zoning change induced about 0.35 fewer one-family parcels per parent parcel than expected, given preexisting trends. The coefficient for treatment 2 (accessory R-15A zoning area after rezoning) is -0.112, with a 95 percent CI [-0.172, -0.051]. This result means accessory zoning led to about 0.12 fewer single-family parcels per parent parcel than expected.

The second difference-in-differences model measures the impact of the same two zoning changes on the number of units. Treatment 1 is again the effect of shifting from existing R-15 zoning to R-15C zoning (multifamily zoning with at least four units allowed on a single lot), and treatment 2 is again the effect of shifting from R-15 zoning to R-15A zoning (one accessory unit allowed per lot). The coefficient for treatment 1 (multifamily R-15C zoning area after rezoning) in this model is 1.445, with a 95 percent CI [1.262, 1.629] (exhibit 13). This result indicates that multifamily zoning change induced about 1.5 new units per parent parcel on top of the unit growth that would otherwise have been expected given preexisting trends. The coefficient for treatment 2 (accessory R-15A zoning area after rezoning) is 0.299, with a 95 percent CI [0.112, 0.485] (exhibit 11), which means that accessory zoning induced 0.3 more units per parent parcel on top of the unit growth that would otherwise have been expected if no zoning changes had been made. The far more modest coefficients of treatment 2 compared with treatment 1 highlight the same finding as the descriptive data: accessory laws alone induced more modest unit production, whereas Ramapo’s multifamily zoning laws spurred more dramatic unit growth.

Exhibit 12

Estimates of Parcel and Unit Change			
	Naive Estimate	Before/After Estimate	Difference-in-Differences Estimate
Multifamily Zoning			
One family parcels	- 0.57	- 0.53	- 0.37
Units	2.62	2.38	1.45
Accessory Zoning			
One family parcels	- 0.19	- 0.22	- 0.11
Units	0.82	0.59	0.30

Notes: Naive estimate represents the change in means between 1986 and 2021 for the treatment area. The before/after estimate is the difference between the change in means between 1986 and 2021 for the treatment area minus the change in means in the control area for the same period. The difference-in-differences estimate is the change in means in the treatment area over the change in means in the control area. Four cross-sectional measures (1986, 2006, 2012, and 2021) were used.

Sources: Rockland County GIS portal; PropertyShark; manual windshield survey via Google Streetview

Exhibit 13

Difference-in-Differences Estimates

One Family Parcels	Coefficient	Std. Error	t	p	95% conf. interval	
Post zoning reform	0.012	0.023	0.540	0.589	- 0.032	0.056
R-15C exclusion zone (multifamily zoning)	0.082	0.022	- 3.82	0.000	- 0.125	- 0.040
R-15A zone (accessory zoning)	- 0.099	0.022	- 4.53	0.000	- 0.142	- 0.056
Treatment1 (R-15C*post)	- 0.371	0.031	- 12.17	0.000	- 0.431	- 0.312
Treatment2 (R-15A*post)	- 0.112	0.031	- 3.6	0.000	- 0.172	- 0.051
N	4343					
r squared	0.128					
adjusted r squared	0.127					
Units	Coefficient	Std. Error	t	p	95% conf. interval	
Post zoning reform	0.128	0.069	1.850	0.064	- 0.007	0.263
R-15C exclusion zone (multifamily zoning)	0.076	0.066	1.160	0.248	- 0.053	0.206
R-15A zone (accessory zoning)	0.055	0.067	0.810	0.415	- 0.077	0.186
Multifamily treated (R-15C*post)	1.445	0.094	15.450	0.000	1.262	1.629
Accessory treated (R-15A*post)	0.299	0.095	3.140	0.002	0.112	0.485
N	4343					
r squared	0.186					
adjusted r squared	0.185					

std. error = standard error. conf. interval = confidence interval.

Sources: Rockland County GIS portal; PropertyShark; manual windshield survey via Google Streetview

Policy Challenges

The creation of the R-15C district spurred a major increase in housing production in the Monsey area, but what were the implications of this rapid growth on the town’s social and physical environment? The potential for negative consequences of development is known to anyone who has attended a public meeting: some neighbors fear increased traffic, others complain about the loss of environmental features, and others lament that new development is just plain ugly. Missing from the standard public meeting is the fact that housing production also carries with it positive externalities, the most basic of which is an (expected) mitigation of housing costs as new supply comes online. This section of the article analyzes these externalities using qualitative evidence gleaned from archival sources and semi-structured interviews. The analysis starts by investigating some of the challenges that accompanied the development boom in central Monsey, especially regarding public infrastructure and the aesthetics of the built environment, then discusses the impact of the zoning change on affordable housing discourse in the area.

Infrastructure

As central Monsey densified, concern often centered on the capacity of public infrastructure to accommodate growth. In interviews, critics of development questioned whether the town's public sewers, water supply, or street grid—all initially built on assumptions of more limited suburban-style development—could handle increased usage. More sympathetic observers countered that infrastructure in Ramapo has been strained for decades—yet the town had made enough improvements to continue to function and attract new residents. Tracing the *cause* of infrastructure strain is no easy task. Not all issues can be traced back to development, let alone the specific development in the R-15C district. Nonetheless, the historical record does provide some indications about the relationship between infrastructure strain and development. Reviewing that record reveals a mixed story: investment has not kept up with population growth in certain realms, such as sewage and water capacity, whereas other systems, such as the road network, appear more resilient.

At the time of the 2004 master plan update, the capacity of Ramapo's sewage infrastructure to accommodate new development was already in question (Frederick P. Clark and Associates, 2004). Unfortunately, some of these fears came to pass. New Jersey residents living downstream of Ramapo filed a multimillion-dollar lawsuit against the sewer district that serves the town, successfully proving in court that the local sewer plant had overflowed into the Upper Saddle River multiple times between 2006 and 2010. These discharges were tied to capacity issues during storm events and on regular days. Some observers (including the local newspaper) connected the problem with overdevelopment in areas such as the R-15C district (Incalcaterra, 2014). Despite subsequent investments in capacity, emergency sewage discharge occurred again in 2022, which environmental activists also connected with “extensive development in the area” (Castelluccio, 2022). Whether the problems were explicitly tied to the specific development in the R-15C zone is unclear. However, the sewage overflows highlight the need for additional investment to keep up with usage.

The town's water pressure is a related capacity issue. Concern about water pressure in the town took on new urgency following a fatal fire in 2021 at a nursing home in the village of Spring Valley, New York. One firefighter lost his life battling the blaze (firefighters are volunteers in Ramapo—another suburban holdover), as did one nursing home resident (Lieberman, 2022). This fatal fire raised concerns, first and foremost, about lax building inspections in Ramapo¹⁸ (Lieberman and Kramer, 2021). However, it also highlighted the water system in the town. The hydrant nearest the complex did not have adequate water pressure to fight the blaze, and firefighters were forced to stretch hoses from nearly two-thirds of a mile away at the closest functioning pump (Kramer and Lieberman, 2021). Following the tragedy, state officials launched an inquiry into Ramapo's water system. As with sewers, many observers drew a connection between the town's multifamily development boom and water issues. One state assembly member argued that the inquiry needed to focus on “how our water infrastructure is being taxed by development decisions” (Kramer and Lieberman, 2021).

¹⁸ The fire preceded another major fire at an illegally constructed grocery store in Monsey. Firefighting is also made difficult in Ramapo by a preponderance of informal units. Multiple interview participants accused the town of turning a blind eye to the potential for additional illegal units during the permitting process, such as by approving plans showing additional doors or basement kitchens that might indicate future subdivision into more units than permitted.

Ramapo's street grid is a third piece of infrastructure described as being over capacity. In qualitative interviews, even relatively pro-development participants complained about traffic. However, unlike sewage and water capacity, there is little evidence tying increased density to traffic in central Monsey. At the time of the 2004 master plan update, traffic on the two arterial roads that flank the R-15C zone, Route 59 and Route 306, was already a major issue. New York State's annual average daily traffic (NYS AADT) counts from the NYS Department of Transportation averaged about 20,000 and 18,000 on the two stretches of Route 59 that were closest to the R-15C district and about 11,000 and 14,000 on the stretches of Route 306 closest to Monsey. However, these counts represented something of a peak. Since the mid-2000s, traffic on both roads has declined: traffic counts on Route 59 in 2021 measured around 15,000. This decline is surprising considering the thousands of new housing units constructed in the vicinity of the two roads. However, the decline may have arisen because the new inhabitants of multifamily units are far less likely to own cars than the suburban norm. In 2020, 25 percent of respondents in Monsey did not have access to a vehicle, compared with only 6 percent in Rockland County as a whole (U.S. Census Bureau, 2022). Although Route 59 and Route 306 are still considered congested (Spack, 2017), dense development has not exacerbated traffic in the way that might be expected, given the relative dearth of public transit in the Monsey area.

Aesthetics

The physical appearance of the built environment is another area of concern in Ramapo—mentioned frequently in qualitative interviews and in the archival record. Aesthetic concerns may seem trivial compared with the pressing issue of water pressure, sewer capacity, or even traffic. However, struggles about design are a key component of Ramapo's land use history—appearing almost immediately on the creation of the R-15C district and escalating as more and more of central Monsey was rebuilt. (Snel, 1986). Ramapo's zoning code includes requirements for landscaping and screening in the R-15C district and grants the local government the right to make aesthetic evaluations of new construction on the basis of compatibility during the discretionary review (Town of Ramapo Zoning Code, 376-91). Despite these safeguards, aesthetic issues were frequently cited in qualitative interviews as one of the downsides of densification.

Some of the aesthetic issues in central Monsey are built into the converted nature of the R-15C district. Development within central Monsey has occurred on a lot-by-lot basis, so a single block in the area may contain a mix of typologies. The cascading set of land use changes in the area has also led to a few different rounds of building and rebuilding, with new-construction six-family buildings sitting next to standard high-ranch single-family homes or converted (and expanded) former single-family homes. Developers' tendency to subdivide lots also means that homes are typically graded at different levels, which can exacerbate the sense of height difference on a block and, according to some observers, create runoff challenges.

Parking is another aesthetic issue in the district. Although the town of Ramapo progressively loosened bulk and use restrictions in central Monsey, parking regulations have remained essentially unchanged. One parking space is mandated per unit (both primary and accessory) within the R-15C district, in addition to one space per "nontransient roomer or boarder" (Town of Ramapo Zoning Code, Chapter 376). As a result, new multifamily construction requires a fairly large

number of spots. Because developers in Monsey tend to build right to the required side setback (or seek a variance to build even closer to the property line), parking is generally provided in the front of the building. This lack of space means that parking typically covers the entirety of the front yard, with little space left for trees or landscaping.

Affordability and Fair Housing

The town of Ramapo, which crafted the R-15C district in part to create additional affordable housing options for the rapidly growing population of central Monsey, assumed that new multifamily development would create additional housing options and temper price escalation in a high-demand environment—an assumption fully grounded in the policy literature and in the basic economic model of supply and demand. However, the relative affordability of new construction has subsequently been a major point of contention in Ramapo. In interviews, civic activists have contended that the new housing supply in Monsey is not truly affordable—especially not the condominiums constructed in the wake of the 2012 rule change allowing accessory parcels to be sold as separate units. The complex demographic landscape of the town further complicates these debates. Social justice-oriented civic groups, including the local chapter of the National Association for the Advancement of Colored People (NAACP), argue that most new construction in the area is built for, and exclusively marketed to, ultra-Orthodox buyers. They thus question whether housing options (even if they are affordable) ultimately benefit the full spectrum of the town's population.

Determining a causal relationship between housing supply and housing cost is outside the scope of this article. Although affordability is one of the most hotly contested issues in Ramapo, even a rudimentary assessment of housing affordability in Monsey is hampered by a dearth of reliable pricing data. Census data on housing costs are self-reported, and private sector pricing data for the area are partial, because many of the property sales reported in Monsey are conducted through direct personal transactions.¹⁹ This brief discussion is not meant to resolve the question of how best to perceive the affordability of these units, nor to disentangle the contributions of supply and demand to their pricing. It is meant only to provide valuable context for understanding the type of development underway and the unique context of housing supply in Ramapo.

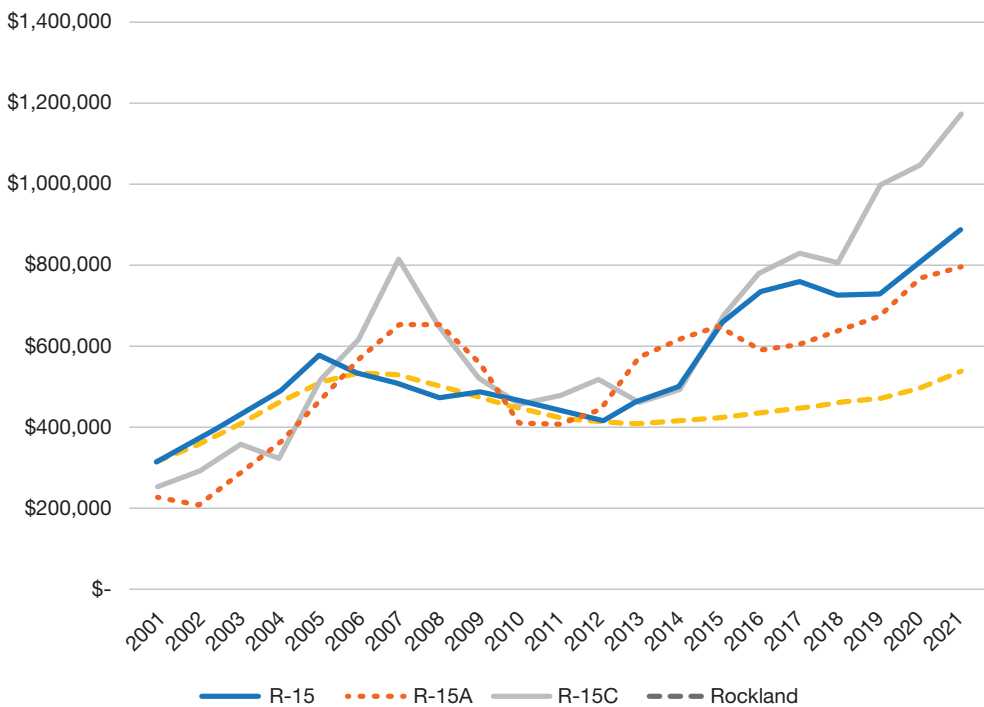
The information that can be drawn from sales data and from anecdotal evidence from local real estate advertisements supports both arguments made in Ramapo: (1) new units provide affordable options that otherwise would not exist in such a high-demand environment, and (2) affordable options are inaccessible to large portions of the greater Ramapo population. On the one hand, the R-15C district successfully spurred the creation of hundreds of multifamily missing middle options. Condos in multifamily buildings in the area generally sell for less than single-family homes in the same zone, and the multifamily zoning changes also spurred the creation of many more rental options than would otherwise exist. Moreover, in most years, sale prices (normalized by the number of units in a sale) are lower in the R-15C district than in surrounding areas of Monsey that do not allow for multifamily buildings, although the zones do appear to be growing more similar over time (exhibits 14 and 15).

¹⁹ Rental prices are also opaque. Apartments marketed to ultra-Orthodox families are often advertised in different channels than for the standard market: by word of mouth, free circulars available at stores, or ultra-Orthodox online forums.

On the other hand, in recent years, housing costs in the Monsey area have far exceeded those of Rockland County as a whole (exhibits 12 and 13). Large, brand-new condominiums with five or six bedrooms in central Monsey can sell for close to \$1 million—obviously far outside even the most generous definition of affordability (Zillow, n.d.). Soaring demand from the ultra-Orthodox community has also spilled into other areas, including the relatively low-income and racially diverse village of Spring Valley east of Monsey. Developers have expanded condominium construction there, leading to accusations of gentrification, racism, and fair housing violations (and counteraccusations of antisemitism) (Bandler, Lieberman, and Liebson, 2017; Brum, 2017). For example, in 2013, the local chapter of the NAACP filed a lawsuit against one new Spring Valley development, alleging that units were exclusively marketed to ultra-Orthodox buyers (Lieberman, 2017b). This lawsuit was settled in the plaintiffs’ favor in 2017, highlighting the legitimate frustration of some residents about just how affordable and accessible the new housing supply in the area really is.

Exhibit 14

Average Sales Price, 3-Year Moving Average

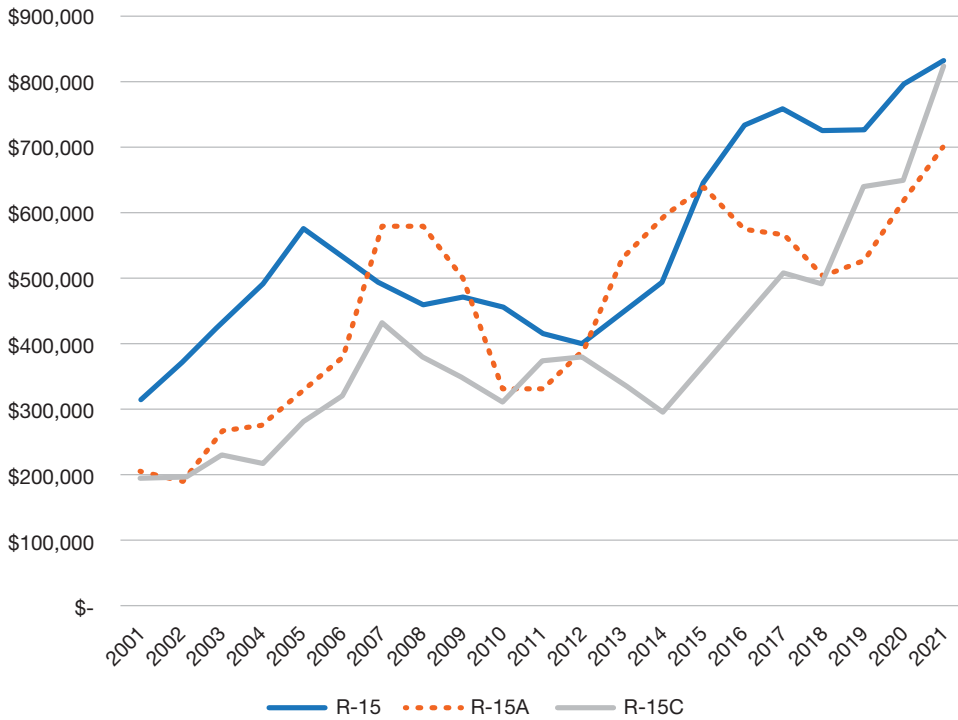


Notes: Average sale price per zoning district is average for sales over \$20,000. Apartment buildings are excluded. Rockland County data are home values, not sale prices, and are included only for reference.

Sources: PropertyShark; Zillow Home Value Index

Exhibit 15

Average Sales Price, Per Unit Basis, 3-Year Moving Average



Notes: Average sale price per zoning district is average for sales over \$20,000. Unit price is sale price divided by number of units in the property.
Source: PropertyShark

Learning from Ramapo

Ramapo provides a multidecade window into what can happen to the land use, housing market, and neighborhood character of a suburban community that pursues zoning reform. Its extended timeline holds a host of lessons for other communities, many of which are just starting to contemplate the types of reform that Ramapo pioneered decades ago.

However, the ability to learn from Ramapo is hindered by some of its unique qualities. Ramapo is an extreme case for at least two reasons (Flyvbjerg, 2006). The first is cultural. The built transformation of central Monsey has been accompanied by the transformation of the wider town of Ramapo into what might be best characterized as an ultra-Orthodox Jewish *ethnoburb* (Li, 2009). This entanglement between demographic and physical change makes it difficult to parse which outcomes in the case are specific to the unique social conditions of the community (that is, its predominantly ultra-Orthodox character) and which outcomes stem from more universal forces or conditions (such as a high-demand housing market). The second reason is political. The town government of Ramapo is exceptionally pro-growth, and the electorate includes a formidable ultra-Orthodox voting bloc laser-focused on increasing the housing supply for their community. This

detail impedes generalization between Ramapo and other places, because pro-growth advocacy is still quite rare in other suburban locations, even with the emergence of the YIMBY (that is, Yes in My Backyard) movement, and few local governments are subject to the type of pro-supply pressures that Ramapo is under.

As a result, Ramapo is only directly analogous to a small set of communities: a handful of other ultra-Orthodox suburbs and extreme cases of pro-growth politics and high population growth, such as in oil boomtowns. However, more typical communities still have much to learn from the Ramapo case. Ramapo can serve as a theoretical best case (or worst, depending on one's perspective) for how densification might proceed in a high-demand environment with a pro-growth planning regime. Ramapo provides a rare window into the long-term effects of densification policies under ideal pro-supply political conditions, akin to what is called a *reasonable worst-case development scenario* in environmental planning. Ramapo can also serve as a falsification test for certain theories about zoning reform—that is, as a test showing what is necessary for a suburban place to transform into a denser environment. Even where suburbs reach urban levels of density, they do so in a suburban way. Ramapo provides a window into what that might look like.

Proceeding in that light, what are the lessons of land use reform in Ramapo? First, Ramapo's accessory unit laws triggered only modest change, even in a high-demand and pro-growth environment. Rather, the upzoning of existing neighborhoods to multifamily zones triggered widespread change. Second, laws allowing for condominiums appeared important in providing an attractive housing product to builders in Ramapo and may be important in other suburban settings as well. Third, the Ramapo case shows that densification requires extra infrastructure investment in a suburban environment. Fourth, in Ramapo's exceptionally pro-growth (and suburban) context, discretionary review and parking requirements did not necessarily hinder housing production.

To elaborate on the first point, the Ramapo case indicates that, even under an extremely pro-growth planning system, ordinances that allow only small increases in the permitted number of units per parcel provide only gradual unit growth over time. The creation of the R-15A district (the section of Monsey that allows one accessory unit per parcel) and the first 20 years of the R-15C ordinance (which allowed dwellings to be converted into up to three units) triggered only minor land use changes. In contrast, reforms that eventually allowed four- and six-unit properties on a single lot in the R-15C district (and 8 and 12 units on a double lot) triggered the production of thousands of new units. This construction was especially true after multifamily properties were authorized to be parceled out as condominiums. Whether because of constraints related to financing or because of resident preferences to own their own homes, removing residency requirements and allowing accessory units to be sold as condos proved significant. Together, the multifamily reforms and the lifting of condominium restrictions resulted in widescale land use change: the majority of parcels switched to multifamily use after those changes, and developers practically ceased to construct single-family (or even two- and three-family) homes within the multifamily zone.

The research presented in this article does not allow for a definitive answer as to why larger multifamily development proved more successful at increasing supply than accessory unit laws and conversions. For example, did the building typology allow for unit types more attractive to buyers or lower production costs for developers? Were the additional profits that could be generated by

one or two additional units insufficient to prompt existing owners to sell? The answers to these questions would help other jurisdictions assess whether the more limited production of accessory dwelling units and triplexes reflected local conditions or something more generalizable. Even so, the research serves as a reminder that certain land use reforms, focused on the gentlest forms of additional density, may fail to generate substantial production, even in extremely high-demand and pro-growth environments.

The Ramapo case also demonstrates that decades of sustained development carry costs. The town's suburban infrastructure, especially the suburban sewer and water system, has not always been able to handle urban densities, especially without substantial (and costly) upgrading. Further, the Ramapo case shows that multifamily construction in a high-demand environment does not guarantee affordability. Although multifamily units may be affordable compared with what prices would have been otherwise, they are not necessarily accessible to the full spectrum of the community. These points show the importance of complementary housing and planning policies.

Lastly, the R-15C district sheds some intriguing light on the processes necessary for a place to transform. This information is where Ramapo's use as a falsification test comes in: a place that shows that certain widespread assumptions about zoning reform may not hold under *all* conditions. For example, conventional wisdom holds that discretionary review processes hold up development and constrain housing production (Metcalf, Garcia, and Karlinsky, 2020). However, in Ramapo, developers actively seek variances, preferring the flexibility (and extra building capacity) of a site-specific variance despite the costs in terms of time and fees. The aesthetic review process in Ramapo, another type of discretionary review, also has not precluded rapid development.²⁰ Parking requirements are thought to constrain production (Gould 2022); however, in Ramapo, developers tend to meet or exceed parking requirements. It follows that, under certain political conditions, eliminating discretionary review or parking requirements may not be as important for housing production as institutional reforms that alter the speed and ease of discretionary review. This conclusion is not to say that discretionary reviews do not tend to add cost and uncertainty to the housing production process; rather, it is a reminder that the impact of discretion is also a function of whose discretion is being exercised.

Other communities, especially those built on the same midcentury suburban model as Ramapo, should heed the lessons of the Ramapo case. Ramapo's zoning reforms show that, with the right institutional framework and housing market, single-family tract housing developments can be upgraded to become much denser neighborhoods. The R-15C district, in particular, shows that single-family neighborhoods are not necessarily built out. Municipalities can induce the production of large amounts of missing middle housing if they are bold enough to legalize true multifamily buildings. However, municipalities should enter these efforts cognizant of the special challenges that dense housing brings when constructed atop existing suburban infrastructure. These downsides are far from insurmountable—and are no excuse for inaction. They are real, however, and responsible policymakers should ensure that densification proceeds along with the requisite infrastructure upgrades and housing affordability policies necessary to sustain safe and just residential environments.

²⁰ Although, as relayed in the policy challenges section, the aesthetic review board was seen as a rubber stamp by some in the community.

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