

# The State of New York City's Capacity to Grow

In this year's *State of the City*, we have added several new indicators concerning the City's capacity to accommodate future residential growth. PlaNYC 2030, the City's long-term sustainability plan released in 2007, predicted that the City will have gained one million new residents between 2000 and 2030 and will need 265,000 new housing units. While the current recession and unforeseen future events make it impossible to know if the City will realize this growth, the City has not yet publicly revised its projections. We add these new indicators to illuminate where room for growth exists under the current land use regulations.

Our new indicators come out of a family of research projects the Furman Center has underway to investigate development patterns in New York City and the impact the City's land use policies have on those patterns. The first indicator is the *Unused Capacity Rate*. This new measure is equal to the percentage of a community district or borough's residentially zoned land area that is built out at less than half the residential development capacity allowed by the City's zoning code. The other new indicators are the *Percentage of Land Area Upzoned*, *Percentage of Land Area Downzoned* and *Percentage of Land Area Contextual-Only Rezoned*. These describe how much of the land area in the City or in a particular borough was rezoned as part of a City-initiated rezoning between 2003 and 2007. We describe these new indicators, and preview some of our recent research findings, in greater detail below.

## UNUSED CAPACITY RATE

Because New York City no longer contains much easy-to-develop open land, efficient reuse of the City's existing lots is crucial to its continued growth. Many lots remain developed much less intensively than the City's zoning code allows (as surface parking lots or single story buildings, for example). How much development capacity do these lots represent? Is the redevelopment of these lots held back by lack of demand, regulatory barriers or market failures? Prompted by these questions, the Furman Center has been researching lots with unused development capacity to better understand why their owners have not used the capacity. By exploring

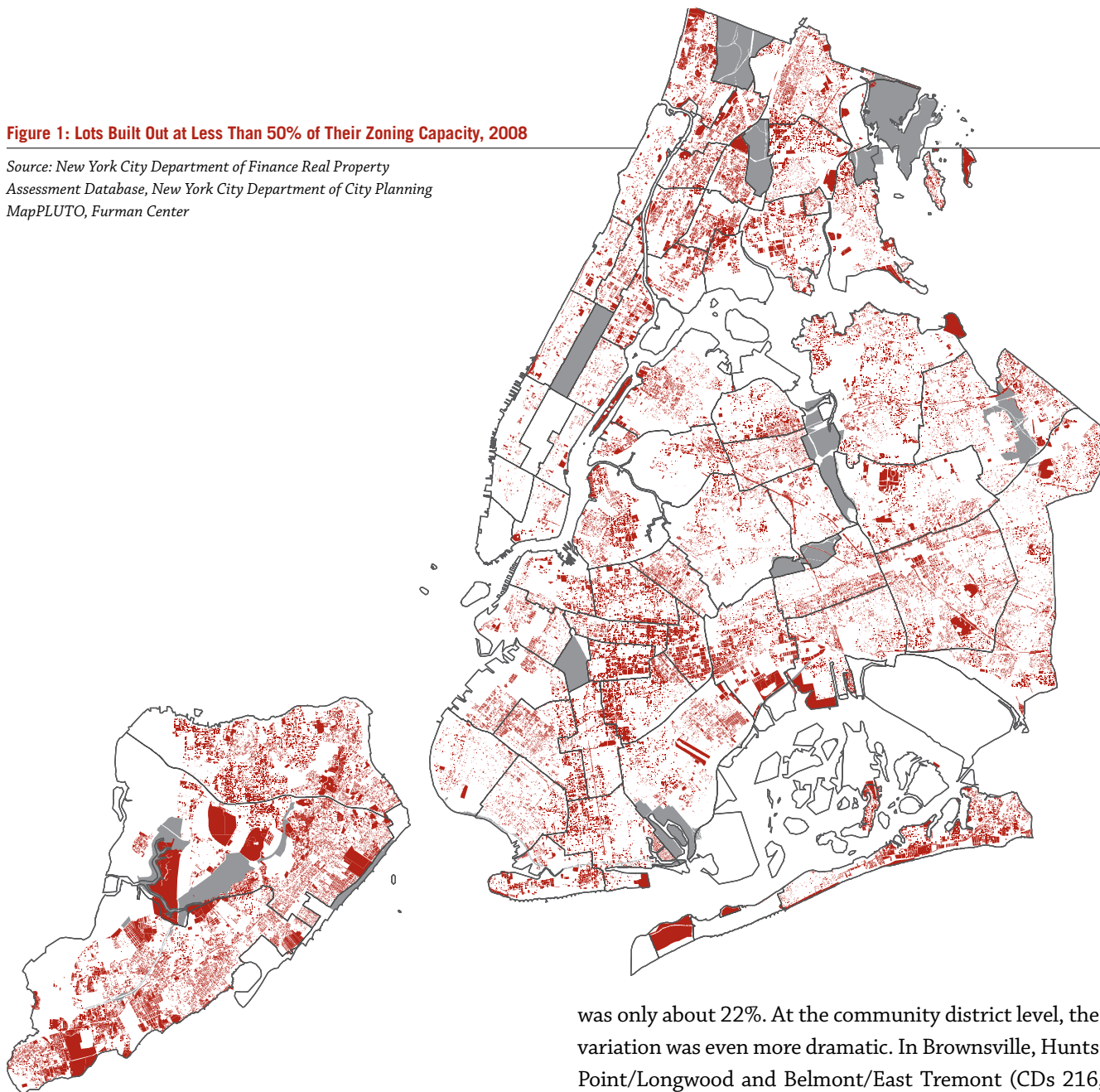
these issues now, we will be able to help policymakers unlock the development potential of these sites when the City's real estate market rebounds.

As a first step towards answering these questions, we identified all of the residentially zoned lots in the City that were developed at less than half of their residential zoning capacity in 2003. To identify unused capacity, we estimated the maximum buildable residential floor area of each lot (based on the floor area ratio (FAR) assigned by the "Zoning Resolution," the City's current zoning code<sup>1</sup>) and compared it to the amount of building area actually built on the lot at that time. Our analysis revealed that in 2003, of the nearly 800,000 residentially zoned lots, approximately 25% were using less than 50% of their development capacity. Because these lots tended to be larger than more fully developed lots, they made up about 35% of the City's total residentially zoned land area. Almost 70% of these lots were occupied by 1–4 family homes and only about 16% were vacant land, so the lots with substantial unused capacity were generally not a product of blight and past demolition. Those 1–4 family homes may be built at less than half their zoning capacity for several reasons. Many were built at a time when the market demand resulted in smaller homes than zoning permitted, or were built before 1961, when the City adopted the Zoning Resolution. Others may be in areas where subsequent changes to the Zoning Resolution now permit larger buildings than were allowed when the current homes were built.

<sup>1</sup> FAR represents the ratio of the building area on a lot to the size of the lot. For example, if a 10,000 square foot lot has a maximum FAR of 2.5, a developer may build no more than 25,000 square feet of building area on that lot.

**Figure 1: Lots Built Out at Less Than 50% of Their Zoning Capacity, 2008**

Source: New York City Department of Finance Real Property Assessment Database, New York City Department of City Planning MapPLUTO, Furman Center



In this year's *State of the City*, we incorporate some of this research by adding a new indicator at the City, borough and CD level: the Unused Capacity Rate. The Unused Capacity Rate for a given area is equal to (i) the aggregate land area of all of the residentially zoned lots in that area that are built out at less than 50% of their residential zoning capacity, divided by (ii) the aggregate land area of all residentially zoned lots in that area.

For the City as a whole, the Unused Capacity Rate was about 30% in 2008. Across the City, however, there is wide variation from borough to borough and neighborhood to neighborhood. In the Bronx, for example, about 40% of the residentially zoned land area in 2008 was built out at less than half of its zoning capacity (see Map 1). In Queens, on the other hand, the Unused Capacity Rate

was only about 22%. At the community district level, the variation was even more dramatic. In Brownsville, Hunts Point/Longwood and Belmont/East Tremont (CDs 216, 102 and 106), three of the City's poorest neighborhoods, a majority of the residentially zoned land area was built out at less than half its zoning capacity. At the other extreme, Greenwich Village/SoHo (CD 302) had the lowest Unused Capacity Rate, at only 7%, meaning that very little of the neighborhood was available for additional development under the current zoning.

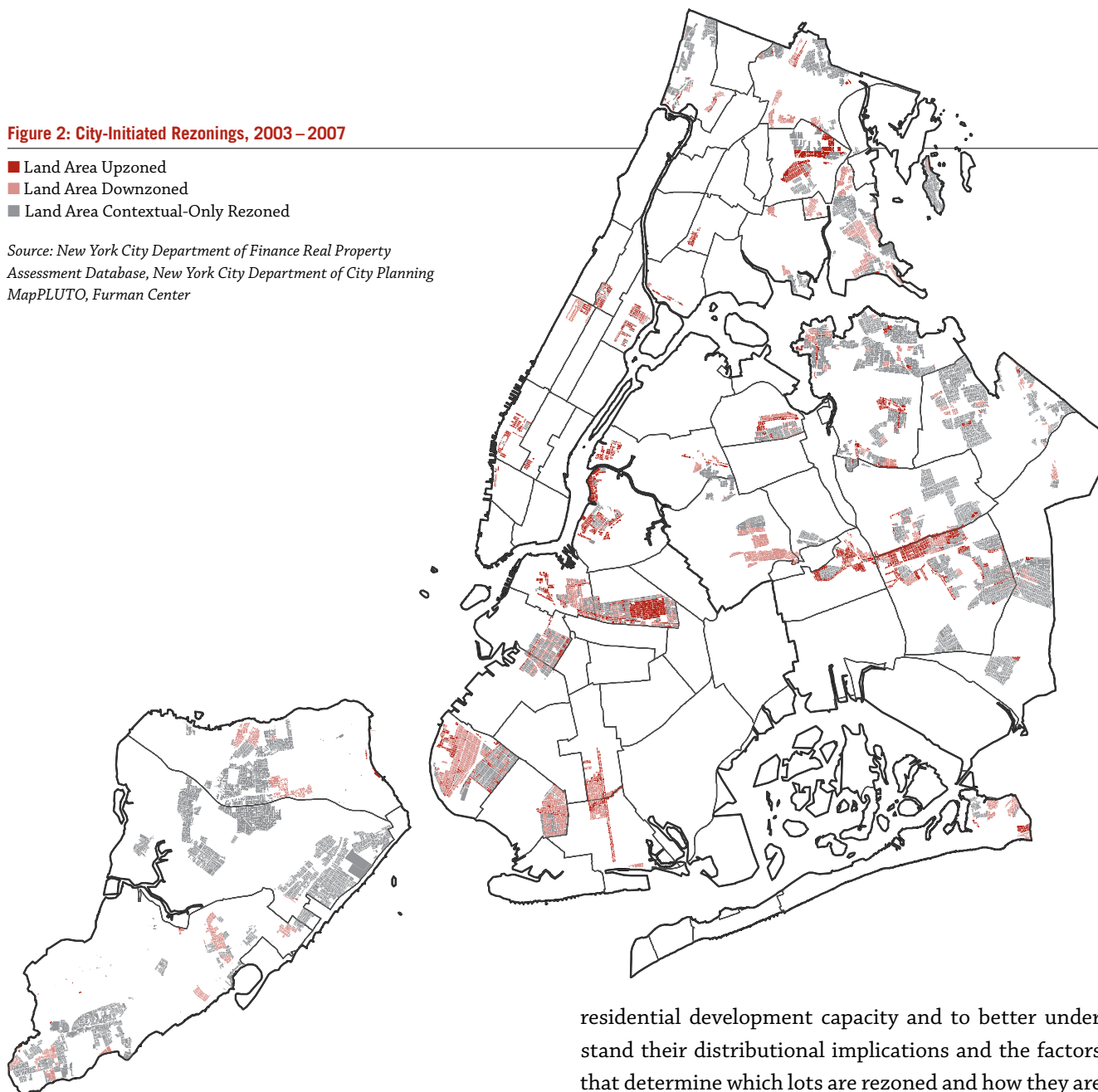
## **PERCENTAGE OF LAND AREA UPZONED, DOWNZONED AND CONTEXTUAL-ONLY REZONED**

The zoned development capacity of a lot is not fixed. Individual property owners often apply for variances from or changes to zoning restrictions so they can build larger buildings or buildings with otherwise impermissi-

**Figure 2: City-Initiated Rezoning, 2003 – 2007**

- Land Area Upzoned
- Land Area Downzoned
- Land Area Contextual-Only Rezoned

Source: New York City Department of Finance Real Property Assessment Database, New York City Department of City Planning MapPLUTO, Furman Center



ble uses. The City can also initiate neighborhood rezonings to encourage or discourage new development activity. In the past half-century (since the enactment of the current zoning code) the Department of City Planning (DCP) used this power relatively infrequently. Since 2002, however, when Mayor Bloomberg took office, the DCP has initiated more than 100 neighborhood-level rezoning actions (as of January 2010).

Despite this unprecedented level of land use changes, no previous comprehensive analysis has looked at the overall impact of these rezonings on the City's development capacity, or where new development capacity was added and where it was lost. In 2007, the Furman Center launched an in-depth investigation of the City-initiated rezonings to estimate their net impact on

residential development capacity and to better understand their distributional implications and the factors that determine which lots are rezoned and how they are rezoned. The City's rezonings affected lots in three possible ways: upzonings, where new development capacity was added; downzonings, where existing development capacity was reduced; and contextual-only rezonings, where the capacity itself changed very little, if at all, but new restrictions were added on what kind of development could take place. Map 2 shows the areas affected by the nearly 80 City-initiated rezonings that occurred between 2003 and 2007, the period we analyzed.

Our analysis shows that between 2003 and 2007, City-initiated rezonings affected about 188,000 lots citywide, or about 18% of the City's total land area (an aggregate land area larger than all of Newark, New Jersey). Almost 58% of the lots that were rezoned were contextual-only rezoned. Almost 63% of the lots that

were rezoned were contextual-only rezoned. About 23% of the affected lots were downzoned and about 14% were upzoned, often dramatically. Most neighborhood rezoning projects were, in fact, a combination of upzonings, downzonings and contextual-only rezonings, the result of a long process of planning by DCP at a block by block level, with input from the local community and officials. A rezoning project in Jamaica, Queens enacted in September, 2003, for example (see page 123), upzoned multiple lots, but reduced capacity or added contextual zoning requirements to many others.

Citywide, these rezonings resulted in the addition of about 210 million square feet of new residential development capacity and the elimination of about 110 million square feet of existing capacity. Together these actions resulted in a net gain of about 100 million square feet of residential development capacity between 2003 and 2007, equal to a 1.7% net increase. The greatest net gains in residential development capacity were in Queens and Manhattan, both of which gained more than 30 million square feet of capacity. Rezonings in the Bronx, in contrast, resulted in a net increase of only about 300,000 square feet of residential development capacity. The Furman Center is engaged in a variety of research projects that explore in greater detail where the City's new capacity is located—particularly whether it is located in neighborhoods with sufficient infrastructure to support new development—and the likelihood that this new capacity will actually result in new residential development. For more information about that on-going research, visit [www.furmancenter.org](http://www.furmancenter.org).

In this year's *State of the City*, we report for the City and for each borough the percentage of total land area that was upzoned, downzoned or contextual-only rezoned between 2003 and 2007. These three new indicators demonstrate the wide geographic reach of DCP's rezonings during this period. In Staten Island, for example, about 20% of the borough was subject to contextual-only rezonings, which means development in these areas will be subject to new restrictions, even if the total square footage of development capacity was not explicitly reduced. Less than 1% of Staten Island, in contrast, was upzoned. In Manhattan and Queens, which saw the largest net gains in capacity, close to 3% of land area was upzoned.

## DATA SOURCES AND METHODOLOGY

In order to identify lots with more than 50% unused zoning capacity in 2008, we estimate for each lot the maximum amount of permitted residential development, for which we use (i) the Department of Finance's Real Property Assessment Data (RPAD) to determine the lot's size and zoning designation, (ii) our own analysis of the Zoning Resolution to determine the default applicable maximum floor area ratio (FAR), and (iii) geographical information systems (GIS) to determine if the lot is subject to any additional rules that, per the Zoning Resolution, would change the default FAR. If the actual size of the building on the lot in 2008, as reported by RPAD, was less than half of our estimate of permitted residential development, we flag the lot as having substantial unused capacity. Our reliance on FAR as the sole determinant of allowable development size ignores many constraints on development included in the Zoning Resolution (such as yard requirements and height limits), but we believe it provides a reasonable estimate of total lot capacity.

For our rezoning analysis, we use RPAD to determine the aggregate land area of all of the lots in the City or borough as of 2003 that, we identify as experiencing a City-initiated rezoning change (upzoning, downzoning or contextual-only rezoning). We then divide these amounts by the aggregate land area of all of the lots in the City or borough, as of 2003.

To identify lots affected by each type of zoning change, we begin with GIS boundaries of the initial study areas for each of the nearly 80 City-initiated rezonings enacted between 2003 and 2007. The City enacted more than 20 additional rezonings from 2008 through the end of 2009, but at the time of this publication, our analysis of these additional rezonings is not complete. Using RPAD, we compare the 2003 and 2007 zoning designations of the lots within these boundaries to identify which have been rezoned. Finally, for each rezoned lot, we estimate the residential zoning capacity in each year and calculate the change. We define the various effects of a rezoning as follows: If a lot's permitted residential zoning capacity increased by more than 10%, we describe it as having been upzoned. If this amount decreased by more than 10%, the lot was downzoned. If this amount did not materially change (less than +/- 10%), the lot was contextual-only rezoned. ■