Who Really Benefits from
New York City's Rent Regulation System?

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EXECUTIVE SUMMARY

This report examines New York City's rent stabilization system and estimates the effects of total or partial deregulation. It finds that rent stabilization provides little benefit to residents of the outer boroughs and the lower and middle-income neighborhoods of Manhattan, while providing a substantial subsidy only to the residents of the relatively affluent areas of Lower and Mid-Manhattan.

The report also finds rent increases for stabilized housing following deregulation would be significantly less than generally expected. Because residents of neighborhoods outside of the affluent part of Manhattan are not receiving significant subsidies, their rent increases would be minimal to non-existent. In the affluent areas of Lower and Mid-Manhattan, the substantial expansion of the unregulated housing market would create downward pressure on rent levels, making rent increases for stabilized housing less than might be expected.

The report's specific findings are as follows:

- The median monthly subsidy provided by rent stabilization for all of New York City is $42. However, under total rent deregulation the median monthly rent of subsidized housing would increase by only $8 due to the expansion of the unregulated market. Under vacancy deregulation, the median monthly rent increase during the first two years would be $35.

- The vast majority of the benefits of rent stabilization go the higher-income areas of Lower- and Mid-Manhattan, where the median monthly subsidy from rent stabilization is $397. By contrast, the median subsidy in the Bronx is $58, in Upper Manhattan (including Chinatown and the Lower East Side) it is $9, and in Brooklyn it is $5, while in Queens and Staten Island the median subsidy is effectively zero.

- This disparity would be even starker under deregulation. Under total deregulation, only the Bronx ($37) and Lower- and Mid-Manhattan ($218) would see an increase in the median monthly rent of stabilized housing. The same is true for the first two years of vacancy deregulation, though in that case the median rent increase would be $54 for the Bronx and $374 for Lower- and Mid-Manhattan. In both cases, the median rent would not increase for residents of stabilized housing in Brooklyn, Queens, Staten Island, and the Lower East Side and Chinatown.

- Even now rent regulation does not appear to protect most City residents from rising rents. Between 1993 and 1999, the median monthly rent of stabilized housing citywide increased 24%, while the median rent of unregulated housing increased only 17%. Only in the affluent neighborhoods of Manhattan was there a larger median rent increase for unregulated housing.

ABOUT THE AUTHOR

Henry O. Pollakowski has been a housing economist at the MIT Center for Real Estate since 1996. He is the founding and current Editor of the *Journal of Housing Economics*, which is now beginning its second decade. In addition to spending 12 years as a senior researcher at the Harvard Joint Center for Housing Studies, he has taught at Boston College, Harvard University, the University of York (UK), and the University of Washington.

Dr. Pollakowski has done extensive work in housing economics, including influential contributions to the measurement of quality-adjusted housing price changes. He is widely recognized as a leading researcher on the economics of rent control, and during the past 15 years has conducted numerous studies of rent stabilization in New York City. He has specialized in the effects of land-use regulation on housing markets, and has done work on nonresidential property markets. He is the author of numerous scholarly and professional journal articles and *Urban Housing Markets and Residential Location*, a book focusing on the roles of location and house prices in housing decision-making.

While at Harvard, Dr. Pollakowski served as director of all phases of a national housing survey and contributed to the annual *State of the Nation's Housing.* He has studied house price appreciation for homeowners with modest incomes for the Ford Foundation, and has examined the effects of development delays on house prices for the Seattle Housing Partnership. He serves as a consultant to the low-income Bermuda Housing Corporation and the New Jersey Pinelands Commission. He has also conducted research for the National Multi-Housing Council, the Department of Housing and Urban Development, the World Bank, and numerous other private and public organizations.

As a faculty fellow of the Homer Hoyt Institute, Dr. Pollakowski has organized conferences on residential and commercial real estate analysis. He has also served as a Director of the American Real Estate and Urban Economics Association and as guest editor of the Association's journal. He received his BA in Economics from the University of Michigan and his Ph.D. in Economics from the University of California at Berkeley.

ACKNOWLEDGEMENTS

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Introduction and Overview

Much of the public discussion of the future of New York City's rent stabilization system implicitly or explicitly presumes that most renters benefit from it, and hence would pay higher rents without it. This is not true. As this study shows, the majority of New Yorkers living in stabilized rental housing are not paying rents that are below market once dwelling size, quality, and location are taken into account. Thus, repeal of rent stabilization would not lead to rent increases for this majority. In addition, the neighborhoods that do not benefit from rent stabilization, and hence would not face rent increases, are predominantly those housing lower- and moderate-income households. Thus the argument that rent stabilization should be maintained for the benefit of those of moderate means stands without empirical support.

Why are the facts so distant from the general wisdom? Most people look at the lower nominal rents stabilized apartments command, compare them to rents for existing unregulated housing, and assume the difference is the amount they "save" with rent stabilization. But this back-of-the-envelope calculation skirts the real question: what would a regulated unit rent for if there were no regulation? Most regulated units could not command the higher rents found in much of the current unregulated market because they are older, less-well maintained, have fewer amenities, or are located in less desirable locations—all factors that lead to lower rents regardless of legal rent restrictions. This reasoning implies that rent deregulation will not lead to rent increases in most of the City, with the exception of affluent Lower and Mid-Manhattan. This is the case because only those dwellings currently reaping rent benefits would experience rent increases, and our research finds that rent stabilization currently provides virtually no benefit for residents of Brooklyn, Queens, Staten Island, Upper Manhattan and the Lower East Side of Manhattan, and provides minimal benefits to residents of the Bronx.[1] Furthermore, while rent increases would occur in Lower and Mid-Manhattan, these would be much less than might be expected. The more than threefold expansion of the affluent Lower and Mid-Manhattan unregulated market would take pressure off the current smaller unregulated market, significantly lowering the very high rents existing there. Put simply, expanding supply would lower rents.

This study arrives at these findings using data from the 1999 New York City Housing and Vacancy Survey.[2] The Survey covers a large number of dwelling characteristics, including size, location, regulation status, and structural and neighborhood quality, allowing us to calculate the rent reduction benefits actually received by tenants of stabilized dwellings throughout the City. Then, based on economic analysis designed for a case such as New York's, in which both regulated and unregulated rental housing exist, post-deregulation rent changes are projected for all stabilized rental dwellings. We examine two possible scenarios for deregulation: complete deregulation of stabilized housing and vacancy deregulation of stabilized housing units as they gradually turn over.

New York City has had rent regulation in one form or another since World War II. During that same period of time, New York City has experienced some of the highest housing prices and rents in the nation and chronic supply shortfalls. Nonetheless, many New Yorkers believe that rent regulation is one of the only policies keeping housing affordable for lower- and middle-income people. However, in 1994 and 1997 the extensions of rent regulation granted by the State Legislature included modest but increasing partial deregulation of the over one million rental dwellings in the rent stabilization system.[3] This partial deregulation coincided with the housing price boom in the mid- and late-1990s, leading many New Yorkers to blame deregulation for rising rents. Accordingly, as the authorizing legislation comes up for renewal in 2003, it is crucial to closely examine this costly-to-administer system to ascertain what its true effects are, allowing policymakers to make an informed choice as to whether to retain, modify, or eliminate it.

Calculating the True Effects of Rent Stabilization

Finding out what rents currently are for stabilized and unregulated rental units is the first step in ascertaining what rent stabilization really does to prices. Table 1 shows the raw difference between the median stabilized rent and the median rent on the unregulated market for each borough and sub-borough. (Table A-1, found in the Appendix, presents an overview of city wide rental housing stocks). One can see here the numbers which give rise to the belief that rent stabilization is beneficial. However, as noted before, direct comparison between unregulated and regulated rents is inadequate because stabilized units and those on the unregulated market differ in a number of important ways, even within a single location.

First, unregulated units are usually larger. People almost always pay more for a larger unit, making the unadjusted difference inapplicable at the outset. Furthermore, additional differences exist in quality of the

Table 1
Median Rents By Sub-Borough and Control Status, New York City, 1999

Borough / Sub-Borough	Stabilized Pre-47	Post-47	All	Unregulated All	Unregulated - Stabilized
New York City Median	$619	$700	$650	$750	$100
Bronx Total	$550	$600	$550	$700	$150
1 Motts Haven / Hunts Point	445	*	445	700	255
2 Morrisania / East Tremont	535	*	525	530	5
3 Highbridge / South Concourse	550	525	548	700	152
4 University Heights / Fordham	533	580	540	650	110
5 Kingsbridge Heights / Mosholu	560	560	560	600	40
6 Riverdale / Kingsbridge	572	680	600	900	300
7 Soundview / Parkchester	546	650	556	725	169
8 Throgs Neck / Co-op City	600	*	600	755	155
9 Pelham Parkway	550	634	566	750	184
10 Williamsbridge / Baychester	575	*	575	750	175
Brooklyn Total	$600	$650	$607	$700	$93
1 Williamsburg / Greenpoint	550	358	548	675	127
2 Brooklyn Heights / Fort Greene	680	850	700	855	155
3 Bedford / Stuyvesant	595	*	595	500	-95
4 Bushwick	514	*	514	600	86
5 East New York / Starret City	600	*	600	700	100
6 Park Slope / Carroll Gardens	759	*	759	790	31
7 Sunset Park	612	845	615	700	85
8 North Crown Hghts. / Prospect Hghts.	600	*	600	600	0
9 South Crown Heights	598	570	593	700	107
10 Bay Ridge	700	750	708	691	-17
11 Bensonhurst	640	697	650	700	50
12 Borough Park	650	615	650	700	50
13 Coney Island	600	688	620	625	5
14 Flatbush	650	631	650	685	35
15 Sheepshead Bay / Gravesend	600	650	607	724	117
16 Brownsville / Ocean Hill	500	313	521	650	129
17 East Flatbush	600	664	621	650	29
18 Flatlands / Canarsie	575	620	600	800	200

structure, including age and maintenance deficiencies, and in quality of neighborhood. Stabilized units tend to be older, less well maintained, contain fewer amenities, and be located in less desirable locations. Since people pay more for each one of these differences, rents must be further adjusted for these factors to accurately measure the benefits reaped by households living in stabilized housing.

To calculate rent regulation's effects on a stabilized unit, we must estimate the rent that would be paid for a unit of the same size and quality, within the same location, on the unregulated market. The difference between the estimated unregulated market rent and the actual rent paid under stabilization is often referred to as the renter's subsidy. The statistical method for calculating these subsidies is described in the next section.

Table 1, cont'd
Median Rents By Sub-Borough and Control Status, New York City, 1999

Borough / Sub-Borough	Stabilized Pre-47	Post-47	All	Unregulated All	Unregulated - Stabilized
Manhattan Total	**$718**	**$1,052**	**$800**	**$1,995**	**$1,195**
1 Greenwich Village / Financial District	900	1080	956	1900	944
2 Lower East Side / Chinatown	685	*	682	2000	1318
3 Chelsea / Clinton / Midtown	913	1500	1000	2040	1040
4 Stuyvesant Town / Turtle Bay	1003	1100	1050	1950	900
5 Upper West Side	850	1058	875	2000	1125
6 Upper East Side	1040	1200	1076	2300	1224
7 Morningside Hts. / Hamilton Hts.	647	*	666	1166	500
8 Central Harlem	489	440	500	625	125
9 East Harlem	700	600	675	850	175
10 Washington Heights / Inwood	600	683	610	710	100
Queens Total	**$675**	**$700**	**$690**	**$750**	**$60**
1 Astoria	710	775	710	750	40
2 Sunnyside / Woodside	650	699	666	750	84
3 Jackson Heights	700	750	710	800	90
4 Elmhurst / Corona	600	650	650	760	110
5 Middle Village / Ridgewood	580	700	600	675	75
6 Forest Hills / Rego Park	850	715	728	875	147
7 Flushing / Whitestone	640	732	725	850	125
8 Hillcrest / Fresh Meadows	700	682	690	850	160
9 Kew Gardens / Woodhaven	700	850	700	750	50
10 Howard Beach / S. Ozone Park	*	*	*	750	*
11 Bayside / Little Neck	*	652	652	865	213
12 Jamaica	508	700	619	655	36
13 Bellerose / Rosedale	*	597	600	800	200
14 Rockaways	567	685	650	700	50
Staten Island Total	**$650**	**$650**	**$650**	**$650**	**$0**
1 North Shore	650	683	650	626	-24
2 Mid-Island	*	810	810	650	-160
3 South Shore	*	*	*	700	*

Note:
* Effectively zero

Methodology

The unregulated market is analyzed first, in order to obtain the statistical relationship between unregulated rents and factors such as unit size, quality, and location.[4] An unregulated rental value is then estimated for each stabilized unit using this relationship. The subsidy is the difference between the actual stabilized rent and the rent calculated for an identical dwelling unit in the unregulated sector. For example, if a stabilized unit rents for $500, but the same unit would rent in the unregulated market for $600, the subsidy is calculated at $100.

Everyone knows that location is one of the most important factors in determining housing cost. While the New York City Housing and Vacancy Survey's individual unit data could be used for most of the price-determinant factors, each unit's location needed to be placed within a larger area to provide enough statistical grounding to accurately derive the location effect. The Survey identifies dwellings according to their location in the 54 sub-borough areas listed in Table 1. The eighteen zones for which results are presented are groupings of sub-boroughs according to similarities in economic status and distribution of unregulated and stabilized housing. These groupings are defined in Table 2. In order to obtain a relationship between unregulated market rents and their determinants, the eighteen zones were further grouped into the four major areas shown in Table 2. Staten Island is coupled with Brooklyn; and Upper Manhattan, along with Chinatown / Lower East Side, is included with the Bronx.

For each of these four areas, a regression equation is estimated, relating rent to characteristics of the unit, the building, the surrounding neighborhood, and the location within the city. The parameters or coefficients of this equation indicate the contribution of each characteristic to the total rent. The equations can then be used to estimate unregulated market rental value for any stabilized unit given its characteristics, and in turn to calculate the subsidy.

The variables used in the regression equation are drawn from the 1999 New York City Housing and Vacancy Survey and are listed in Table A-2 (see Appendix). The number of bedrooms and number of other rooms measure the size of the unit. Quality of the unit and building age represented by the year built and by maintenance deficiencies. Neighborhood and location are represented by respondent's evaluation of neighborhood structures, the presence of boarded-up units, and location by zone.

The regression equations for the unregulated market for each of the four areas described above are presented in Appendix tables A-3 through A-6. These estimates are commonly referred to as hedonic price equations. The majority of rent determinants are useful and consistent across the four equations. As expected, length of tenure always lowers rent. Number of rooms and age of building, along with neighborhood rating and presence of boarded up units, together reflect the importance of building and neighborhood qualities. Finally, the various zone variables highlight important differences between locations within each area.

Table 2
Locations Used In Subsidy Analysis, New York City, 1999

Location *		Location *	
Bronx / Upper Manhattan		**Lower and Mid-Manhattan**	
1	Mott Haven / Hunts Point	1	Greenwich Village / Financial District
2	Morrisania / East Tremont		
3	Highbridge / South Concourse	3	Chelsea / Clinton / Midtown
4	University Heights / Fordham		
7	Soundview / Parkchester	4	Stuyvesant Town / Turtle Bay
8,9	Central Harlem / East Harlem, Manhattan		
7	Morningside Hts. / Hamilton Hts., Manhattan	5	Upper West Side
10	Washington Heights / Inwood, Manhattan		
		6	Upper East Side
5	Kingsbridge Heights / Mosholu		
6	Riverdale / Kingsbridge	**Brooklyn & Staten Island**	
10	Williamsbridge / Bychester		
		1	Williamsburg / Greenpoint
8	Throgs Neck / Co-op City	7	Sunset Park
9	Pelham Parkway	11	Bensonhurst
		12	Borough Park
2	Lower East Side / Chinatown, Manhattan	15	Sheepshead Bay / Gravesend
Queens		2	Brooklyn Heights / Fort Greene
		6	Park Slope / Carroll Gardens
1	Astoria	10	Bay Ridge
2	Sunnyside / Woodside	14	Flatbush
3	Jackson Heights	18	Flatlands / Canarsie
4	Elmhurst / Corona	3	Bedford Stuyvesant
5	Middle Village / Ridgewood	4	Bushwick
6	Forest Hills / Rego Park	5	East New York / Starrett City
		13	Coney Island
7	Flushing / Whitestone	16	Brownsville / Ocean Hill
8	Hillcrest / Fresh Meadows		
9	Kew Gardens / Woodhaven	8	North Crown Heights / Prospect Heights
10	Howard Beach / S. Ozone Park	9	South Crown Heights
11	Bayside / Little Neck	17	East Flatbush
13	Bellerose / Rosedale		
		1	North Shore, Staten Island
12	Jamaica	2	Mid-Island, Staten Island
14	Rockaways	3	South Shore, Staten Island

Note:
* Locations are grouped by sub-borough zones used in subsidy analysis

The regression results, presented in Tables 3 and 4, show that rent stabilization has virtually no effect on rents throughout most of the City, especially those neighborhoods housing low- and moderate-income households. Citywide, the median subsidy is $42 per month, or about 6 percent of the median rent for a stabilized unit. Queens and Staten Island residents receive no benefit at all from rent regulation, while Brooklyn and Upper Manhattan residents receive negligible benefits of less than $10 per month for the median unit. Bronx residents receive a modest benefit, with a median subsidy of $58 per month, or about

Table 3
Median Subsidies Generated By Rent Stabilization, By Location, New York City, 1999

Location	Median Subsidy	Location	Median Subsidy
Bronx / Upper Manhattan		**Lower and Mid-Manhattan**	
Lower Bronx and Upper Manhattan[1]	$41	Greenwich Village / Financial District	$339
Kingsbridge Heights / Mosholu Riverdale / Kingsbridge Williamsbridge / Baychester	$42	Lower East Side / Chinatown	*
		Chelsea / Clinton / Midtown	$454
Throgs Neck / Co-op City Pelham Parkway	$89	Stuyvesant Town / Turtle Bay	$292
		Upper West Side	$485
Brooklyn		Upper East Side	$418
Sunset Park Williamsburg / Greenpoint Bensonhurst Borough Park Sheepshead Bay / Gravesend	$12	**Queens**	
		Astoria Sunnyside / Woodside Jackson Heights	$2
Brooklyn Heights / Fort Greene Park Slope / Carroll Gardens Bay Ridge Flatbush Flatlands / Canarsie	*	Elmhurst / Corona Middle Village / Ridgewood Forest Hills / Rego Park	$13
Bedford Stuyvesant Bushwick East New York / Starrett City Coney Island Brownsville / Ocean Hill	*	Flushing / Whitestone Hillcrest / Fresh Meadows Kew Gardens / Woodhaven Howard Beach / S. Ozone Park Bayside / Little Neck Bellerose / Rosedale	*
N. Crown Hts. / Prospect Hts. South Crown Heights East Flatbush	$15	Jamaica Rockaways	*
		Staten Island	*

Notes:
* Effectively Zero
1. Mott Haven / Hunts Point   Soundview / Parkchester
    Morrisania / East Tremont   Morningside Hts. / Hamilton Hts.
    Highbridge / South Concourse   Central Harlem & East Harlem
    University Heights / Fordham   Washington Heights / Inwood

10 percent of the median stabilized rent in the Bronx. Only residents of Lower and Mid-Manhattan, the wealthiest areas of the City, receive a large benefit. Residents of these areas receive a $397 per month rent subsidy, amounting to 37 percent of the median stabilized unit's rent.[5]

One can see by comparing these numbers to those presented in Table 1 that the median subsidies differ a great deal from the raw differences in rents. Unlike the raw differences, which are most often positive and occasionally quite large throughout the city, the calculated subsidies reflect the effects of housing size and quality.

Table 4
Subsidies Generated By Rent Stabilization, By Borough, New York City, 1999

Borough	Total Number of Stabilized Units	Median Stabilized Rent	Median Renter Household Income	Median Subsidy	Subsidy as Percent of Rent, Median 1999	1993
Bronx	185,406	$550	$18,904	$58	10%	11%
Brooklyn	268,822	$607	$25,154	$5	1%	5%
Lower and Mid-Manhattan	238,425	$1000	$47,000	$397	37%	19%
Upper Manhattan[1]	111,215	$600	$22,500	$9	2%	*
Queens	196,691	$690	$30,000	*	*	*
Staten Island	10,341	$650	$30,000	*	*	*
New York City Total	**1,010,900**	**$650**	**$31,000**	**$42**	**6%**	**7%**

Notes:
* Effectively zero
1. Includes Lower East Side / Chinatown

It is also interesting to note that rent regulation did not seem to protect most City residents from rising rents during the boom years of the 1990s. In fact, rents grew more rapidly in stabilized housing than in unregulated housing outside Lower and Mid-Manhattan. Table 5 displays 1993 and 1999 median unadjusted rent levels for the city. Monthly rent in the unregulated market rose 17 percent, from $640 to $750, while stabilized renters experienced an increase of $125 monthly, or 24 percent. These changes were not uniform throughout the City. In the outer boroughs (and Upper Manhattan), median stabilized rents increased from 2 to 18 percentage points more than did unregulated rents (Table 6). Only in the wealthy areas of Manhattan did unregulated rents increase more than stabilized rents. Here median unregulated rents increased by a remarkable 86 percent, from $1090 to over $2000. Conversely, stabilized rents rose from $750 per month to $1000, an increase of 33 percent.

A comparison of subsidies between 1993 and 1999 shows the same picture. While subsidies for most of the City remained essentially unchanged, decreasing significantly only in Brooklyn, subsidies to stabilized renters in Lower and Mid-Manhattan rose sharply from 1993 to the boom year of 1999 (final two columns of Table 4). High housing demand put disproportionate strain on the unregulated rental housing in Lower and Mid-Manhattan, raising rents dramatically for newcomers to the borough, thus creating a competitive disadvantage for Manhattan firms trying to hire professionals. In addition, as will be shown in Table 8, stabilized-renter mobility rates for Lower and Mid-Manhattan declined from 1993 to 1999, with the greatest decline occurring in the top rent quartile. It would appear that stabilized renters here were more inclined than usual to hang on to good deals.

This measured benefit to affluent Manhattanites must be viewed in the appropriate context, however, because it reflects in large part the effect that other governmental policies have on housing supply. Manhattan is one of the most difficult places in the country in which to build new units, meaning that the expected market response to sharply rising demand—sharply increasing supply—is unavailable. When supply is constricted and demand rises, the market prices rise. That is the likely cause of much of the subsidy increase seen in the 1990s, not rent regulation.

Table 5
Median Rents and Income Levels, New York City, 1993–1999

Median Contract Rent

	1993	1999	% Increase
Unregulated	640	750	17%
Stabilized	525	650	24%

Median Household Income

	1993	1999	% Increase
Unregulated	25000	37000	48%
Stabilized	20160	28000	39%

Table 6
Median Rents By Borough, New York City, 1993–1999

Borough	1993	1999	% Increase
Bronx			
Unregulated	600	700	17%
Stabilized	450	550	22%
Brooklyn			
Unregulated	600	700	17%
Stabilized	500	607	21%
Lower- and Mid-Manhattan			
Unregulated	1090	2029	86%
Stabilized	750	1000	33%
Upper Manhattan[1]			
Unregulated	716	750	5%
Stabilized	486	600	23%
Queens			
Unregulated	675	750	11%
Stabilized	564	690	22%
Staten Island			
Unregulated	575	650	13%
Stabilized	564	650	15%

Note:
1. Includes Lower East Side / Chinatown

These figures, moreover, overestimate the rent changes that would occur with deregulation—the best measure of the true effects of rent regulation on rents. This measure is the estimated rent increase one would face if all stabilized units were deregulated, with all rents subsequently set in the market. In this case, rent increases would be smaller than the subsidies just presented due to the addition of formerly stabilized units to the unregulated market. As shown above, rent regulation not only determines stabilized rents, but can also channel unmet demand to the unregulated sector, making unregulated rents higher that they would otherwise be. The expansion of the unregulated rental market in New York would partially relieve this upward pressure, decreasing the gap between regulated and unregulated rents. The following two sections present estimated rent changes for stabilized housing under different deregulation scenarios.

Rent Changes Under Complete Deregulation of Stabilized Housing

The scenario presented in this section simulates rent changes for currently regulated units under complete deregulation of stabilized housing. The starting point for this calculation is the estimated subsidy received by a dwelling unit. If, for example, a single subsidized unit is deregulated, then the rent would simply rise to the comparable unregulated market rent for a unit of its type. Thus, the rent increase would be equal to the prior subsidy. However, as mentioned in the previous section, deregulation of all stabilized units would result in considerable downward pressure on unregulated rents, as deregulated units serve to expand the unregulated market. A new equilibrium rent is thus established, higher than the previous stabilized rent, but lower than the previous unregulated rent. Thus, the greater the extent of deregulation, the lower the newly established market rent level.[6]

A number of factors contribute to the size of the post-deregulation rent increase, primarily the size of the calculated subsidy. The larger the subsidy, the greater the potential rent increases from deregulation. If there is no subsidy, that is, no difference between quality-adjusted regulated and actual regulated rents, then there will be no rent change. Since we have shown above that subsidies outside of Lower and Mid-Manhattan are generally small or zero, residents in these areas would see no rent increase if rent stabilization were repealed.

The willingness of households to pay a higher rent is another determinant of change in rent. In the event of a rent increase, a household may: (1) pay the higher rent; (2) consume less housing by moving to a smaller or lower quality unit within the same location; or (3) seek a lower rent by moving to another location. We account for this behavior by including the price elasticity of demand for rental housing in our regressions in this section. Price elasticity measures the percent change in the consumption of housing relative to a given percent change in price.

The third determinant of change in rent is the extent of regulation of the pre-existing market. Table A-1 compares the number of stabilized units to the number of unregulated unregulated units at the sub-borough level. Calculating the percent of the overall market comprised by stabilized units yields a measure of the extent of regulation. The higher the percentage of regulated dwellings in one of the city's eighteen zones, the lower will be the rent change for the regulated dwellings.

In this case, the price elasticity for rental housing is set at -0.5, which is the consensus of the literature. Thus, a one percent increase in rent will result in a decrease in quantity of housing consumed of one half of one percent. Together with the other factors mentioned above, we are able to calculate rent increases for all stabilized units. Since complete deregulation of stabilized housing fully relieves the upward pressure on unregulated market rents, the calculated rent increases are the lowest possible. Predicted rent increases represent a new short-run equilibrium for the market under complete deregulation.

Median rent changes resulting from complete deregulation for each borough and for the City as a whole are found in Table 7. The rent changes for each of the eighteen zones (sub-borough groupings) are presented in Tables A-7 through A-10.

Table 7 shows that rents would rise very little, if at all, outside of Lower and Mid-Manhattan. With the exception of a 10 percent increase in one location in the Bronx, rents would rise by no more than 6 percent in any sub-borough outside of the affluent portions of Manhattan. In fact, predicted rent changes are effectively zero throughout Brooklyn, Queens, Upper Manhattan, and Staten Island. These negligible rent increases result from the very small initial subsidies calculated in these zones. Thus, residents in these areas should not be afraid of rent increases stemming from the complete elimination of rent regulation.[7]

Table 7
Deregulation of All Stabilized Units, Median Predicted Rent Changes and Number of Units Affected, By Borough, New York City

Borough	Total Number of Stabilized Units	Median Stabilized Rent	Median Subsidy	Subsidy as Percent of Rent, Median	100% Deregulation Median Rent Change from Deregulation	Median Percent Rent Change
Bronx	185,406	$550	$58	10%	$37	7%
Brooklyn	268,822	$607	$5	1%	*	*
Lower and Mid-Manhattan	238,425	$1000	$397	37%	$218	22%
Upper Manhattan[1]	111,215	$600	$9	2%	*	*
Queens	196,691	$690	*	*	*	*
Staten Island	10,341	$650	*	*	*	*
New York City Total	1,010,900	$650	$42	6%	$8	1%

Notes:
* Effectively Zero
1. Includes Lower East Side / Chinatown

Deregulation would have its greatest affect by far on stabilized tenants in affluent Lower and Mid-Manhattan. The overall median increase here is $218 per month, or 22 percent. With the exception of Chinatown / Lower East Side, which would see no rent increase, the Lower and Mid-Manhattan zones would realize median rent increases of anywhere from 16 to 28 percent.

It is important to note, however, that the predicted rent increases are much lower than the subsidies. This is due to the fact that stabilized units far outnumber those in the unregulated market. Table A-1 shows 349,640 stabilized units in Manhattan, compared to only 76,897 unregulated units. For this reason, rents in a deregulated market would remain closer to the formerly stabilized rents than to former unregulated market level. In addition, actual rent changes may in fact turn out to be somewhat lower, since the estimates presented here are based on the hot market of 1999.

Rent Changes Under Vacancy Deregulation

In contrast to the scenario discussed in the previous section, vacancy deregulation is only partial deregulation, affecting only those stabilized units that turn over, or change tenants, within a given period of time. The time period discussed in this simulation is two years. Although a substantial portion of rental households, especially younger renters, will have a high mobility rate, there is also a significant segment of long-term renters who are far less likely to move within any two-year period. The basis for projections of rent changes under vacancy deregulation is the previous section's analysis of complete deregulation. Projections must

take into account the lower number of units affected in a two-year period under vacancy deregulation. This will allow the rent increases for complete deregulation to be adjusted upward proportionally to reflect the smaller number of dwellings affected.

The number of units affected is derived from the number of units known to have turned over within the two years prior to the 1999 New York Housing and Vacancy Survey. The Survey, conducted in April 1999, asked respondents to report the year in which they had moved into their present dwelling. The numbers in Tables 8 and A-11 represent the percentages of stabilized units first occupied by their present tenants between January 1997 and March 1999.[8] Table 8 presents these numbers according to borough and level of rent; percentages by sub-borough can be found in Table A-11.

Table 8
Stabilized Units Turning Over At Least Once During 1997–1998, By Borough, New York City

Borough	Quartile	Median Stabilized Rent	Total Number of Stabilized Units	Units Turning Over at Least Once During 1997–1998 Percent	Number of Units
Bronx	all	$550	185,406	30%	55,203
	1	361		15%	6,999
	2	513		31%	14,787
	3	598		36%	16,500
	4	743		37%	16,917
Brooklyn	all	$607	268,822	31%	84,457
	1	450		17%	11,943
	2	575		33%	22,144
	3	666		37%	24,534
	4	843		39%	25,836
Lower and Mid-Manhattan	all	$1,000	238,425	30%	70,716
	1	500		20%	10,830
	2	875		32%	17,090
	3	1165		39%	20,348
	4	1700		42%	22,448
Upper Manhattan[1]	all	$600	111,215	39%	43,232
	1	350		16%	5,410
	2	535		25%	8,542
	3	668		37%	12,673
	4	922		49%	16,607
Queens	all	$690	196,691	31%	61,348
	1	498		19%	9,260
	2	626		32%	15,777
	3	728		34%	17,177
	4	900		38%	19,134
Staten Island	all	$650	10,341	43%	4,497
	1	400		28%	752
	2	642		38%	960
	3	735		54%	1,440
	4	900		55%	1,345
New York City Total	all	$650	1,010,900	32%	319,453

Notes:
1. Includes Lower East Side / Chinatown

In each of the six locations presented in Table 8, turnover of stabilized dwellings increases with rent. That is, higher rent and presumably higher-income households move more frequently. This finding serves to mitigate the rent increases of lower rent, lower income households, since they will be slower to move. Overall, approximately 319,450 units, or 32% of the stabilized stock, turned over at least once during the 1997–98 period.

To derive the two-year turnover rate for vacancy deregulation, a number of factors must be incorporated. First, the numbers in Tables 8 and A-11 should not be considered a "turnover rate" because the nature of the survey question fails to capture units that have turned over more than once. An additional source of bias may be changes in household composition. For example, a new husband moving into his wife's apartment may state that the present tenants have occupied the apartment since 1997, when in fact the wife lived there prior. This leads to an overstatement of turnover. For this reason, we reduce the 1997–1998 turnover values by 10 percent.

The next major factors to consider for this simulation are the various disincentives to move faced by stabilized renters. Households currently occupying stabilized units may know they are reaping substantial subsidies. Others may believe that they are receiving subsidies because they are failing to adjust for size, quality, or location. Finally, households may feel there is some arbitrary advantage to remaining in a stabilized unit (perhaps that they are under some long-term protection from large rent increases). For those that are actually receiving subsidies, the reduction in the number of units affected by vacancy deregulation can be based on the subsidies. This subsidy effect is measured by the median of the subsidy as a percent of rent, ranging from effectively zero in Queens and Staten Island to 37% in Lower and Mid-Manhattan. This is shown in column 4 of Table 9. In addition, an arbitrary deduction of 10 percent is taken for the perceived disincentives discussed above. In summary, the projected number of stabilized units in each borough affected by vacancy deregulation in a two-year period is calculated as follows:

Number of units turning over during 1997–98
Minus 10 percent deduction for overstatement (overcounting)
Minus X percent deduction for subsidy affect
Minus 10 percent deduction for other perceived disincentives

Table 9
Two-Year Vacancy Deregulation of Stabilized Units, Adjusted For Subsidy Levels, Predicted Rent Changes and Number of Units Affected, By Borough, New York City

| Borough | Total Number of Stabilized Units | Median Stabilized Rent | Median Subsidy | Subsidy as Percent of Rent, Median | Median Rent Change from 100% Deregulation | Adjusted ** Rent Change from Vacancy Deregulation | | |
						Rent Change	Percent Affected	Units Affected
Bronx	185,406	$550	$58	10%	$37	$54	21%	38,642
Brooklyn	268,822	$607	$5	1%	*	*	25%	66,721
Lower and Mid-Manhattan	238,425	$1000	$397	37%	$218	$374	13%	30,408
Upper Manhattan[1]	111,215	$600	$9	2%	*	*	30%	33,721
Queens	196,691	$690	*	*	*	*	25%	49,078
Staten Island	10,341	$650	*	*	*	*	35%	3,598
New York City Total	**1,010,900**	**$650**	**$42**	**6%**	**$8**	**$35**	**22%**	**222,168**

Notes:
* Effectively Zero
** Adjusted to take into account subsidy levels and overcounting; see text
1. Includes Lower Eastside/Chinatown

Because fewer units are open to market competition, rent increases under vacancy deregulation will be higher than they would be under full deregulation. Thus, to ascertain the rent increases under vacancy deregulation, we adjust the rent change from the 100-percent deregulation scenario proportional to the number of units affected by vacancy deregulation, which ranges from 13 percent in Lower and Mid-Manhattan to 35 percent of all stabilized units in Staten Island. Throughout the city 222,168 units, or 22 percent of the stabilized stock will be affected within two years.

Table 9 presents the projected rent changes under vacancy deregulation. The median monthly rent change for the entire city is $35, compared to $8 under complete deregulation and a median subsidy of $42. Throughout the boroughs, rent increases range from effectively zero to $374. Once again, residents of Brooklyn, Queens, Staten Island and Upper Manhattan will see no rent increase at all as a result of vacancy deregulation. Thus, over half of the City's residents, and a larger percentage of its lower- and middle-income households, will not face rent increases stemming from vacancy deregulation.

Even most households of those areas which would see significant rent increases would be relatively unaffected. That is because the projected rent increases only apply to the units that become vacant within the two-year period, which is only a small proportion of the entire housing stock. Only 21% of the stabilized units in the Bronx, and a modest 13% of those in Manhattan, are expected to become vacant in the two-year period. That means nearly 80% of current Bronx residents and over 85% of current Manhattan residents in stabilized units will see no change in their rents beyond what would otherwise be allowed under rent stabilization. Since higher rent units, which are presumably rented by higher income households, tend to turn over much more quickly, the burden of higher rents will likely fall on those able to afford it.[9]

These rent increases would moderate after the initial two-year period as more units become vacant and hence unregulated. In addition, the rate of vacancy deregulation would decline over time, with most of the stabilized stock deregulated within 20 years. As is seen in Table 8, higher-rent dwellings would likely turn over first, and thus enter into deregulation more quickly.

Given the portion of the population who are long-term renters, as well as the real and perceived disincentives to move from stabilized housing, the rate of vacancy deregulation would fall over time. Vacancy deregulation as a singular policy instrument would take about 20 years to reach the bulk of the stabilized housing stock. Furthermore, tenants in high-rent locations enjoying substantial subsidies would be particularly reluctant to move. For this reason especially, the addition of high-rent, high-income deregulation to vacancy deregulation has been a policy recommendation from Roistacher (1992) and others.

Conclusion and Policy Implications

This study finds that tenants in low- and moderate-income areas receive little or no benefit from rent stabilization, while tenants in more affluent locations are effectively subsidized for a substantial portion of their rent.

When the "hot" market of 1999 is compared to the "cool" one of 1993, we see that on average, stabilized tenants outside of affluent areas did not receive extra protection benefits. Most of the benefits went to stabilized tenants in Lower and Mid-Manhattan. This provides a strong argument for moving ahead more aggressively with deregulation. Two possibilities for deregulation have been examined: complete deregulation and vacancy deregulation of stabilized housing. We have found that the rent increases resulting from complete deregulation would be moderate or negligible throughout the city, with the exception of the affluent sub-boroughs of Lower and Mid-Manhattan. In contrast, under vacancy deregulation, the 22 percent of units to turn over within the first two years would realize higher increases in rent. Even in this case, however, most of the increase would occur in Lower and Mid-Manhattan. As the rate of vacancy deregulation slowed, almost all of the stabilized stock would be deregulated in 20 years. Although not wholly desirable as a sole policy instrument, vacancy deregulation could function well along with a complementary approach, such as high- and moderate-income deregulation.

Under either form of deregulation, some households would be see greater rent increases than others. Rent stabilization has been in effect for over 30 years, and

in fact many of the presently stabilized units have been under some form of rent regulation since World War II. Thus it is not surprising that households enjoy subsidies at various levels, or that rent changes will vary from the typical amounts.

For the aforementioned reasons, deregulation policy must be crafted with an eye on the low-income elderly. The current short-run solution in New York City is to reimburse landlords in the case of low-income elderly tenants paying controlled rents. For the duration of rent stabilization, this may be necessary to protect the elderly. However, in the long run, direct government assistance along with deregulation is the favored alternative. Given that rent regulation disproportionately benefits tenants in affluent areas, direct financial assistance to poor and elderly renters is preferable to simply regulating rents.

APPENDIX

Estimation of Shadow Rent in a Partially-Controlled Market

In a market under partial rent control, one sector of rental units is subject to rent control and the remaining sector is not. In such a market, not only will the controlled rent be lower than the shadow rent[1], the rental rate which would exist if the market were unregulated, but the equilibrium market rent in the uncontrolled sector will be higher[2]. The excess demand in the controlled sector created by the partial rent control implies greater demand in the uncontrolled sector than would otherwise exist and thus creates a function of the proportion of units under rent control (p), the demand elasticity (h), and the percentage decrease in the controlled rent from the shadow rent. By deriving expressions for the deviations in supply and demand from that which would exist in a free market and setting the two expressions equal, the rent difference in the uncontrolled market may be calculated as follows:[3]

$$D_u = -pD_c/[(1-p) + hD_c] ;$$

where

$$D_u = (R_u — R);$$
$$D_c = (R_c — R);$$
R_c = the controlled rental rate;
R_u = the equilibrium uncontrolled market rent; and
R = the shadow market rent.

Using this relationship, one can solve for the shadow market rent for an existing partially regulated market by taking the two roots of the R in the above equation (when extended, the equation is quadratic in R). Because only one of the two roots reflects a binding rent control situation (i.e. $R_c < R$), we shall use that one:

$$R = [(p-h)R_c + (1-p-h)R_u + [(p-h)^2R_c^2 + 2[p(1-p) + h(1-h)]R_cR_u + (1-p-h)R_u^2]^{1/2}]/2(1-h).$$

This relationship between the controlled and uncontrolled sectors is depicted graphically as follows:

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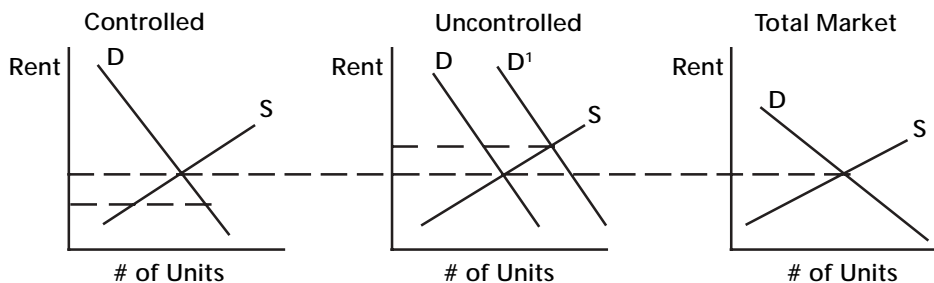
1. By definition of binding rent control.
2. Assuming supply is not infinitely elastic.
3. See Marks (1984) for a detailed derivation.

Table A-1
Number of Units By Sub-Borough and Control Status, New York City, 1999

Borough / Sub-Borough	Stabilized Pre-47	Post-47	All	Unregulated All	Total**
New York City Total	741,832	268,171	1,010,003	560,051	1,570,951
Bronx Total	155,250	30,156	185,406	62,515	247,921
1 Motts Haven / Hunts Point	12,110	*	12,110	4,594	16,704
2 Morrisania / East Tremont	16,436	*	17,277	3,465	20,742
3 Highbridge / South Concourse	23,295	1,884	25,179	1,681	26,860
4 University Heights / Fordham	18,755	3,018	21,773	4,642	26,415
5 Kingsbridge Heights / Mosholu	30,533	3,098	33,631	3,798	37,429
6 Riverdale / Kingsbridge	14,293	11,343	25,636	4,143	29,779
7 Soundview / Parkchester	14,362	5,445	19,807	13,591	33,398
8 Throgs Neck / Co-op City	4,024	*	4,024	7,456	11,480
9 Pelham Parkway	11,436	4,116	15,552	7,653	23,205
10 Williamsbridge / Baychester	10,006	*	10,417	11,492	21,909
Brooklyn Total	216,400	52,422	268,822	204,130	472,952
1 Williamsburg / Greenpoint	21,112	1,265	22,377	11,664	34,041
2 Brooklyn Heights / Fort Greene	8,686	2,180	10,866	8,986	19,852
3 Bedford / Stuyvesant	6,418	*	6,418	11,033	17,451
4 Bushwick	16,469	*	16,469	6,722	23,191
5 East New York / Starret City	2,952	*	3,527	14,338	17,865
6 Park Slope / Carroll Gardens	19,461	*	19,812	9,111	28,923
7 Sunset Park	13,835	1,540	15,375	13,162	28,537
8 North Crown Hghts. / Prospect Hghts.	17,122	*	17,536	6,943	24,479
9 South Crown Heights	18,308	5,475	23,783	6,826	30,609
10 Bay Ridge	9,583	2,709	12,292	12,521	24,813
11 Bensonhurst	13,301	6,182	19,483	18,948	38,431
12 Borough Park	6,191	2,276	8,467	18,033	26,500
13 Coney Island	9,592	3,341	12,933	7,248	20,181
14 Flatbush	26,966	8,339	35,305	7,137	42,442
15 Sheepshead Bay / Gravesend	10,124	7,596	17,720	11,631	29,351
16 Brownsville / Ocean Hill	6,162	1,459	7,621	9,885	17,506
17 East Flatbush	8,995	4,901	13,896	11,918	25,814
18 Flatlands / Canarsie	1,123	3,819	4,942	18,024	22,966

Table A-1, cont'd
Number of Units By Sub-Borough and Control Status, New York City, 1999

Borough / Sub-Borough	Stabilized Pre-47	Post-47	All	Unregulated All	Total**
Manhattan Total	**287,771**	**61,869**	**349,640**	**76,897**	**426,537**
1 Greenwich Village / Financial District	23,067	5,531	28,598	11,580	40,178
2 Lower East Side / Chinatown	23,696	*	23,860	1,842	25,702
3 Chelsea / Clinton / Midtown	25,703	7,358	33,061	9,146	42,207
4 Stuyvesant Town / Turtle Bay	27,200	15,797	42,997	12,380	55,377
5 Upper West Side	47,140	4,464	51,604	11,520	63,124
6 Upper East Side	39,488	18,817	58,305	20,142	78,447
7 Morningside Hts. / Hamilton Hts.	20,528	*	21,496	4,408	25,904
8 Central Harlem	16,779	4,113	20,892	1,161	22,053
9 East Harlem	10,069	1,070	11,139	990	12,129
10 Washington Heights / Inwood	54,101	3,587	57,688	3,728	61,416
Queens Total	**79,749**	**116,942**	**196,691**	**181,356**	**378,047**
1 Astoria	20,662	4,052	24,714	18,118	42,832
2 Sunnyside / Woodside	12,122	5,317	17,439	8,995	26,434
3 Jackson Heights	9,805	5,520	15,325	17,085	32,410
4 Elmhurst / Corona	1,792	17,238	19,030	14,204	33,234
5 Middle Village / Ridgewood	9,890	2,518	12,408	20,826	33,234
6 Forest Hills / Rego Park	4,985	23,380	28,365	9,443	37,808
7 Flushing / Whitestone	4,883	23,177	28,060	18,805	46,865
8 Hillcrest / Fresh Meadows	2,460	15,090	17,550	12,315	29,865
9 Kew Gardens / Woodhaven	7,612	1,564	9,176	12,828	22,004
10 Howard Beach / S. Ozone Park	*	*	*	10,796	11,356
11 Bayside / Little Neck	*	4,804	4,804	8,914	13,718
12 Jamaica	3,183	5,409	8,592	12,291	20,883
13 Bellerose / Rosedale	*	2,263	3,060	12,244	15,304
14 Rockaways	2,355	5,253	7,608	4,492	12,100
Staten Island Total	**2,662**	**6,782**	**9,444**	**35,153**	**45,494**
1 North Shore	2,662	4,523	7,185	15,586	22,771
2 Mid-Island	*	2,259	2,259	9,919	12,178
3 South Shore	*	*	*	9,648	10,545

Notes:
* Too few units to report
** Numbers in this table do not include public housing, controlled, or other regulated / assisted units

Table A-2
Explanatory Variables Used In Regression Analysis

Variable	Definition
Dependent Variable:	
LMCRENT	Natural log of monthly contract rent
Independent Variables:	
AMTBED	Number of bedrooms
AMTROOM	Number of total rooms
BLTPRE47	Built prior to 1947
BLT47T69	Built between 1947 and 1969
BRBOWIN	Broken or boarded up windows on street
GOODCOND	Excellent or good neighborhood
MADEFGE3	Unit has has three or more maintenance deficiencies
LENTEN99	Length of tenure
LENTENSQ	Length of tenure, squared
LOCATION	Series of variables designating locations listed in Table A-1

Table A-3
Hedonic Rent Equation, Unregulated Sector, Bronx and Upper Manhattan

Dependent Variable	Natural log of monthly contract rent
Number of Observations	369
Adjusted Squared Multiple R	0.2551

Variable	Coefficient	Std. Error	T
Intercept	6.306	0.066	96.14
Number of bedrooms	0.158	0.035	4.55
Number of other rooms	-0.001	0.026	-0.04
Built prior to 1947	-0.081	0.034	-2.36
Broken or boarded-up windows on street	-0.045	0.060	-0.76
Excellent or good neighborhood	0.078	0.044	1.77
Length of tenure	-0.005	0.010	-0.44
Length of tenure, squared	-0.001	0.001	-1.09
Bronx Zone 1	-0.144	0.040	-3.62
Bronx Zone 5	-0.077	0.044	-1.74

Table A-4
Hedonic Rent Equation, Unregulated Sector, Brooklyn and Staten Island

Dependent Variable — Natural log of monthly contract rent
Number of Observations — 1162
Adjusted Squared Multiple R — 0.3154

Variable	Coefficient	Std. Error	T
Intercept	6.217	0.040	156.17
Number of bedrooms	0.065	0.016	3.99
Number of other rooms	0.063	0.012	5.47
Built prior to 1947	-0.081	0.018	-4.40
Broken or boarded-up windows on street	-0.038	0.024	-1.57
Excellent or good neighborhood	0.036	0.021	1.73
Length of tenure	-0.019	0.005	-4.27
Length of tenure, squared	0.000	0.000	1.08
Brooklyn Zone 4	0.041	0.025	1.64
Brooklyn Zone 5	0.102	0.027	3.82
Brooklyn Zone 6	-0.086	0.027	-3.16
Staten Island Zone 18	-0.060	0.031	-1.93

Table A-5
Hedonic Rent Equation, Unregulated Sector, Lower- and Mid-Manhattan

Dependent Variable — Natural log of monthly contract rent
Number of Observations — 286
Adjusted Squared Multiple R — 0.4279

Variable	Coefficient	Std. Error	T
Intercept	7.107	0.095	74.85
Number of bedrooms	0.131	0.044	2.71
Number of other rooms	0.130	0.035	3.76
Built prior to 1947	-0.228	0.047	-4.88
Built btw. 1947 and 1969	-0.080	0.063	-1.27
Excellent or good neighborhood	0.085	0.042	2.01
Three or more maintenance deficiencies	-0.065	0.088	-0.74
Length of tenure	-0.029	0.028	-1.03
Length of tenure, squared	-0.003	0.003	-0.81
Zone 10 Manhattan	0.073	0.074	0.98
Zone 11 Manhattan	0.028	0.068	0.41
Zone 12 Manhattan	0.007	0.068	0.10
Zone 13 Manhattan	0.005	0.060	0.09

Table A-6
Hedonic Rent Equation, Unregulated Sector, Queens

Dependent Variable	Natural log of monthly contract rent
Number of Observations	901
Adjusted Squared Multiple R	0.411

Variable	Coefficient	Std. Error	T
Intercept	6.150	0.044	141.31
Number of bedrooms	0.096	0.016	6.02
Number of other rooms	0.062	0.011	5.65
Built prior to 1947	-0.161	0.025	-6.40
Built btw. 1947 and 1969	-0.051	0.026	-1.98
Broken or boarded-up windows on street	0.000	0.039	0.00
Excellent or good neighborhood	0.029	0.020	1.40
Three or more maintenance deficiencies	0.032	0.031	1.03
Length of tenure	-0.019	0.005	-3.96
Length of tenure, squared	0.000	0.000	0.62
Queens Zone 14	0.182	0.029	6.20
Queens Zone 15	0.134	0.029	4.56
Queens Zone 16	0.156	0.028	5.64

Table A-7
Deregulation of All Stabilized Units, Median Predicted Rent Changes and Number of Units Affected, Bronx And Upper Manhattan

	Total Number of Stabilized Units	Median Stabilized Rent	Median Subsidy	Subsidy as Percent of Rent, Median	100% Deregulation Median Rent Change from Deregulation	Median Percent Rent Change
Lower Bronx and Upper Manhattan[1]	207,361	$560	$41	8%	$28	5%
Kingsbridge Heights / Mosholu Riverdale / Kingsbridge Williamsbridge / Baychester	69,684	$580	$42	7%	$34	6%
Throgs Neck / Co-op City Pelham Parkway	19,576	$570	$89	17%	$57	10%

Notes:

1 Mott Haven / Hunts Point   Soundview / Parkchester
   Morrisania / East Tremont   Central Harlem / East Harlem
   Highbridge / South Concourse   Morningside Heights / Hamilton Heights
   University Heights / Fordham   Washington Heights / Inwood

Table A-8
Deregulation of All Stabilized Units, Median Predicted Rent Changes and
Number of Units Affected, Brooklyn

	Total Number of Stabilized Units	Median Stabilized Rent	Median Subsidy	Subsidy as Percent of Rent, Median	100% Deregulation Median Rent Change from Deregulation	Median Percent Rent Change
Sunset Park / Bensonhurst Sheepshead Bay / Gravesend Borough Park Williamsburg / Greenpoint	83,422	$612	$12	2%	*	*
Brooklyn Heights / Fort Greene Park Slope / Carroll Gardens Flatbush / Flatlands / Canarsie Bay Ridge	83,217	$668	*	*	*	*
Bedford Stuyvesant / Bushwick East New York / Starrett City Brownsville / Ocean Hill Coney Island	46,968	$565	*	*	*	*
N. Crown Hts. / Prospect Hts. South Crown Heights East Flatbush	55,215	$600	$15	2%	*	*

Note:
  * Effectively zero

Table A-9
Deregulation of All Stabilized Units, Median Predicted Rent Changes and
Number of Units Affected, Lower- And Mid-Manhattan

	Total Number of Stabilized Units	Median Stabilized Rent	Median Subsidy	Subsidy as Percent of Rent, Median	100% Deregulation Median Rent Change from Deregulation	Median Percent Rent Change
Greenwich Village / Financial District	28,598	$956	$339	34%	$250	26%
Lower East Side / Chinatown	23,860	$682	*	*	*	*
Chelsea / Clinton / Midtown	33,061	$1000	$454	35%	$210	21%
Stuyvesant Town / Turtle Bay	42,997	$1050	$292	27%	$169	16%
Upper West Side	51,604	$875	$485	46%	$243	28%
Upper East Side	58,305	$1096	$418	38%	$211	19%

Note:
* Effectively zero

Table A-10
Deregulation of All Stabilized Units, Median Predicted Rent Changes and Number of Units Affected, Queens

	Total Number of Stabilized Units	Median Stabilized Rent	Median Subsidy	Subsidy as Percent of Rent, Median	100% Deregulation Median Rent Change from Deregulation	Median Percent Rent Change
Astoria / Jackson Heights Sunnyside / Woodside	57,478	$700	$2	*	*	*
Elmhurst / Corona Middle Village / Ridgewood Forest Hills / Rego Park	59,803	$670	$13	2%	*	*
Flushing / Whitestone Bayside / Little Neck Bellerose / Rosedale Hillcrest / Fresh Meadows Kew Gardens / Woodhaven Howard Beach / S. Ozone Park	63,210	$700	*	*	*	*
Jamaica / Rockaways	16,200	$646	*	*	*	*

Note:
  * Effectively Zero

Table A-11
Stabilized Units Turning Over At Least Once During 1997–1998, By Sub-Borough, New York City

Borough / Sub-Borough	Total Number of Stabilized Units	Turning Over at Least Once During 1997–1998 Percent	Number of Units
Bronx			
1 Mott Haven / Hunts Point	12,110	16%	1,959
2 Morrisania / East Tremont	17,277	31%	5,387
3 Highbridge / South Concourse	25,179	23%	5,746
4 University Heights / Fordham	21,773	35%	7,544
5 Kingsbridge Heights / Mosholu	33,631	35%	11,799
6 Riverdale / Kingsbridge	25,636	28%	7,276
7 Soundview / Parkchester	19,807	36%	7,113
8 Throgs Neck / Co-op City	4,024	39%	1,563
9 Pelham Parkway	15,552	27%	4,248
10 Williamsbridge / Baychester	10,417	25%	2,572
Brooklyn			
1 Williamsburg / Greenpoint	22,377	29%	6,392
2 Brooklyn Heights / Fort Greene	10,866	43%	4,708
3 Bedford Stuyvesant	6,418	45%	2,920
4 Bushwick	16,469	37%	6,157
5 East New York / Starrett City	3,527	20%	711
6 Park Slope / Carroll Gardens	19,812	38%	7,563
7 Sunset Park	15,375	31%	4,737

Table A-11, cont'd
Stabilized Units Turning Over At Least Once During 1997–1998, By Sub-Borough, New York City

Borough / Sub-Borough	Total Number of Stabilized Units	Turning Over at Least Once During 1997–1998	
		Percent	Number of Units
Brooklyn			
8 N. Crown Hts. / Prospect Hts.	17,536	32%	5,607
9 South Crown Heights	23,783	28%	6,581
10 Bay Ridge	12,292	30%	3,693
11 Bensonhurst	19,483	31%	6,128
12 Borough Park	8,467	25%	2,120
13 Coney Island	12,933	23%	2,986
14 Flatbush	35,305	35%	12,359
15 Sheepshead Bay / Gravesend	17,720	25%	4,420
16 Brownsville / Ocean Hill	7,621	27%	2,060
17 East Flatbush	13,896	28%	3,922
18 Flatlands / Canarsie	4,942	32%	1,570
Manhattan			
1 Greenwich Village / Financial District	28,598	21%	5,912
2 Lower East Side / Chinatown	23,860	36%	8,571
3 Chelsea / Clinton / Midtown	33,061	34%	11,247
4 Stuyvesant Town / Turtle Bay	42,997	28%	12,048
5 Upper West Side	51,604	36%	18,794
6 Upper East Side	58,305	40%	23,442
7 Morningside Hts. / Hamilton Hts.	21,496	38%	8,224
8 Central Harlem	20,892	24%	4,963
9 East Harlem	11,139	55%	6,120
10 Washington Heights / Inwood	57,688	27%	15,582
Queens			
1 Astoria	24,714	43%	10,626
2 Sunnyside / Woodside	17,439	35%	6,098
3 Jackson Heights	15,325	34%	5,257
4 Elmhurst / Corona	19,030	23%	4,408
5 Middle Village / Ridgewood	12,408	31%	3,820
6 Forest Hills / Rego Park	28,365	25%	7,227
7 Flushing / Whitestone	28,060	30%	8,308
8 Hillcrest / Fresh Meadows	17,550	21%	3,753
9 Kew Gardens / Woodhaven	9,176	40%	3,711
10 Howard Beach / S. Ozone Park	560	37%	209
11 Bayside / Little Neck	4,804	37%	1,798
12 Jamaica	8,592	24%	2,032
13 Bellerose / Rosedale	3,060	23%	709
14 Rockaways	7,608	42%	3,175
Staten Island			
1 North Shore	7,185	36%	2,612
2 Mid-Island	2,259	68%	1,529
3 South Shore	897	40%	357

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ENDNOTES

1. This finding is broadly consistent with previous research, including Roistacher (1992) and Pollakowski (1992, 1997).

2. The New York City Housing and Vacancy Survey is conducted every three years. This study is based on the most recent available Survey, taken in 1999. The current study repeats and refines much of the analysis that was done using the 1993 Survey (Pollakowski, 1997). This strategy serves two purposes. First, it provides a detailed look at how the New York City rental housing market has changed since 1993. Second, it provides a comparison of two quite different states of the housing market. Coming out of the recession in 1993, the market was "cooler" than it had been in the late 1980's and would be later in the 1990's. In 1999, the market was "hot." However, the changes from 1993 to 1999 were far from uniform. The current study documents what can be learned concerning rent deregulation from the pattern of change.

3. A moderate form of partial deregulation began in New York City in 1994. With the renewal of enabling legislation at the state level, a combination of high-income, high-rent deregulation and partial vacancy deregulation was put into place. A unit renting in excess of $2000 per month could be deregulated when the income of the occupying household reached $250,000 two years in a row. In addition, a unit renting above $2000, regardless of income, could be deregulated when the tenants of the unit moved. The 1997 legislation strengthened this partial deregulation by lowering the income level to $175,000, while maintaining the rent level of $2000. In addition, larger increases in rents were allowed upon turnover of stabilized units, including an allowance for the length of tenure of the outgoing tenant

4. The methodology builds upon that of earlier researchers, including Olsen (1972), Roistacher (1992), and Pollakowski (1992, 1997).

5. These findings are broadly consistent with conclusions drawn from previous work with the New York City Housing and Vacancy Survey, including Pollakowski (1992, 1997) and Roistacher (1992).

6. The market rent level that would exist in the event of complete deregulation is often referred to as the "shadow" market rent. The shadow market rent for any type of housing at any point in time can be estimated through an adaptation of the model developed by Marks (1984). This model develops an equation for the underlying or shadow market rent based on the three factors discussed herein: (1) the existing unregulated market and regulated rents; (2) the price elasticity of demand for rental housing; and (3) the extent to which rents are regulated. Marks' model is summarized in the Appendix.

7. As with all our numbers, these represent average effects. Since many of the presently stabilized units have been under some form of rent regulation since World War II, rent changes for some households will vary from these typical amounts.

8. Note that this necessitates using a period of two years and three months. The "two-year" results thus actually pertain to a period of two years and three months.

9. Again, individual rent increases would vary from the medians, and within each location some households would see far greater rent increases than others. In addition, a misreading of the market situation could lead to higher than anticipated rent increases for the first deregulated units.

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