

# Expanding Homes and Increasing Inequalities: U.S. Housing Development and the Residential Segregation of the Affluent

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*Theories of metropolitan development in the United States explain that higher status populations tend to occupy newer housing while lower status groups tend to be restricted to older housing. The housing system thus reflects the broader stratification structure and likely changes in response to important shifts like the steep rise of income inequality at the end of the twentieth century. Indeed, a striking trend of increasingly large houses with many amenities emerged in U.S. metropolitan areas during this period, indicating that new construction may have become ever more exclusive and targeted to the affluent as inequality rose. In this article, I investigate whether the stratifying impact of new house construction intensified along with growing inequality and changing house structures using a variety of U.S. Census Bureau sources, examining both trends in the income level of new house buyers and the relationship of housing growth to affluent residential segregation. I find striking evidence that new housing did become much more dominated by the affluent, and was increasingly stratifying and segregating at the end of the twentieth century. These changes may exacerbate inequality in the future through opportunity structures linked to place of residence, including access to education and the accumulation of housing equity. Keywords: housing, residential segregation, inequality, urban sociology, homeownership.*

The continual construction of new houses in U.S. metropolitan areas is a central mechanism for perpetuating inequality and segregation between high and low status populations in diverse theories of metropolitan development (see Dreier, Mollenkopf, and Swanstrom 2001; Park, Burgess, and McKenzie 1925). Advantaged groups typically occupy newer housing, often in far-flung suburbs, while older areas in central cities or inner ring suburbs are “left” to less advantaged class and racial groups. This system of housing stratification operates in interaction with other forms of inequality, perhaps most importantly income inequality (Gotham 2002). Inequalities in housing reflect the unequal distribution of income, and housing inequality contributes to the generation of income inequality through opportunity structures linked to place of residence (education, political power, social capital, and so on), converting social class distance into spatial distance and back again. Thus, shifts in each stratification structure can be expected to impact the other, especially major changes like the striking growth of income inequality at the end of the twentieth century in the United States (Morris and Western 1999). How rising inequality has impacted central cities and the housing of the poor has been well studied, but remarkably little attention has been paid to the relationship between trends in income and affluent housing, including new construction.

The focus on the poor in most analyses of housing stratification follows the pattern of much of the analysis of inequality as a social problem: our attention concentrates on the most

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disadvantaged groups. Increasingly, however, social scientists realize that understanding the causes and consequences of inequality requires attention to the entire distribution, especially because the particular pattern of growing inequality at the end of the twentieth century involved substantial gains at the top of the distribution, creating a bigger gap between affluent households in the top quintile and everyone else (Mishel, Bernstein, and Boushey 2003; Morris and Western 1999). Douglas S. Massey (1996) argues the result may be a transition to an “age of extremes,” manifested most strikingly in the extreme spatial isolation of the affluent and the poor in the United States. Greater attention to the affluent is urgently required in this polarized context because the reproduction of inequality depends on the disproportionate advantage of those at the top just as surely as it depends on the deprivations of those at the bottom. Within the structure of housing stratification, this requires turning our focus from older housing and central cities to new development, often on the metropolitan fringe.

The scant attention to new housing is surprising given its importance to American metropolitan areas. As Table 1 reports, new house construction has long occurred at high levels in the United States, making it a substantial component of the metropolitan stock: in 2000, houses built in the 1990s were 13 percent of the total. And, because most older houses are not for sale at a given time, new houses are disproportionately important in the housing *market*:

**Table 1 • U.S. Housing Market Indicators and New House Characteristics, 1960–2000**

Characteristic	1960 <sup>a</sup>	1970	1980	1990	2000
New single family houses started <sup>b</sup>	994,700	812,900	852,200	894,800	1,230,900
Houses built in the					
5 years before the Census <sup>c</sup>	17%	10%	12%	9%	9%
Median sales price of new houses (2000 dollars) <sup>d</sup>	\$104,716	\$103,852	\$135,001	\$161,923	\$169,000
Homeownership rate <sup>e</sup>	61.9%	62.9%	64.4%	64.2%	66.2%
Average square footage <sup>f</sup>	1,470	1,510	1,700	2,050	2,265
Stories					
1 story	—	74%	60%	46%	47%
2 stories or more	—	17%	31%	49%	52%
Split level	—	10%	9%	4%	1%
Bathrooms					
1½ or fewer	54%	52%	28%	13%	7%
2	33%	32%	48%	42%	39%
2½ or more	13%	16%	25%	45%	54%
Parking					
Carport or none	—	42%	40%	18%	13%
1 car garage	—	19%	11%	10%	7%
2 or more car garage	—	39%	50%	72%	81%

<sup>a</sup>Square footage and median sales price data are for 1963.

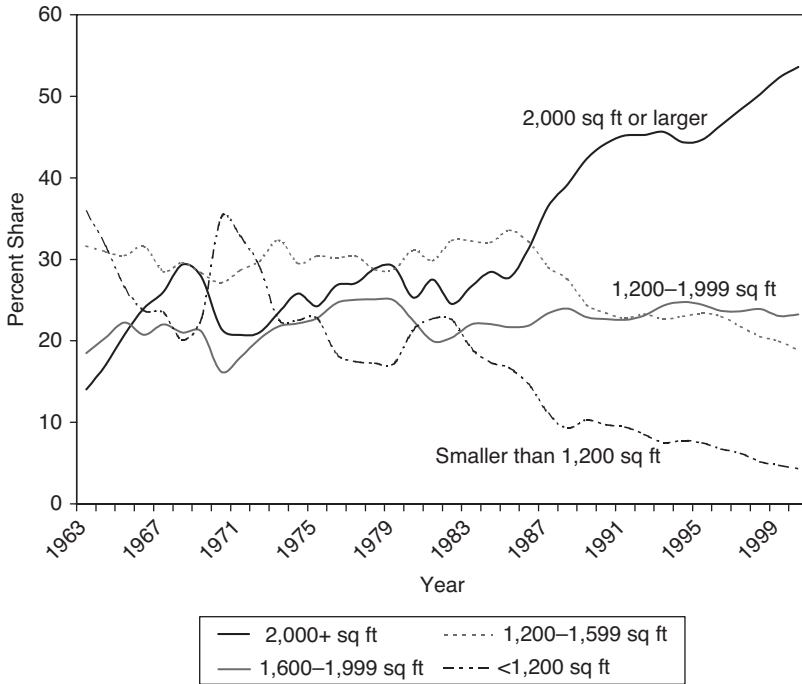
<sup>b</sup>U.S. Census Survey of Construction, *New Residential Construction Series* (U. S. Census Bureau n.d.b).

<sup>c</sup>New houses made up a particularly large percentage of the stock after WWII because of preceding shortages during the Depression and the war, but well over 1 million new houses were built every year during the 1980s and 1990s as well. The table shows somewhat lower levels than that in 1980 and 1990 because they were recession years. Author's analysis of U.S. Census data.

<sup>d</sup>National Association of Home Builders 2005. Adjusted to 2000 dollars using the U.S. Bureau of Labor Statistics consumer price index.

<sup>e</sup>U.S. Census Historical Census of Housing Tables (U.S. Census Bureau 2004).

<sup>f</sup>U.S. Census Bureau, *Characteristics of New Housing Series* (U.S. Census Bureau 2005).



**Figure 1 • Percentage Share of Categories of Square Footage: New Single Family Houses Sold, 1963–2000**

houses 5 years old or less made up almost 30 percent of home purchases in the 1990s.<sup>1</sup> New houses also make a disproportionate impact on the physical growth of metropolitan boundaries since the majority of new houses (more than 75 percent in 2000) are built in suburban areas (Fulton et al. 2001).

Most significant, there is mounting evidence that the stratifying effect of new housing may have intensified at the end of the twentieth century at the same time that income inequality increased. As Table 1 shows, the average new house was almost two-thirds more expensive (in constant dollars) in 2000 compared to 1960.<sup>2</sup> New houses also became strikingly larger, in marked contrast to the trend towards smaller houses earlier in the century. The rapid expansion of suburban homeownership after World War II, for example, was accomplished through the construction of smaller, more affordable houses for the middle and working classes during a period of declining inequality (Baxandall and Ewen 2000). However, after a time of relative stability in the size of new houses in the 1960s and 1970s, the average square footage of new houses increased by almost 40 percent from the mid-1980s to 2000, and the large new houses were equipped with many more amenities, including grand entryways and elaborate kitchens

1. Author's analysis of U.S. Census data.

2. Historical trends in price data for houses are an approximation since many other factors including interest rates and property taxes determine the cost of houses, and it is difficult to control for changes in the quality of homes. Nevertheless, even in complex indices that do attempt to control for both inflation and quality, new houses became more expensive from 1960 to 2000 (U.S. Census Bureau n.d.b).

(Brozan 2003). Figure 1 tracks change in house size from the 1960s to the 1990s in the percentage share of four categories of square footage and shows that the historical change in house size was most pronounced at the top and bottom, similar to other inequality trends. In the first half of the period, all four categories made up similar shares, fluctuating between 20 to 30 percent. Then, starting in the mid-1980s, the top category of the biggest houses (2,000 or more square feet) and the bottom category of the smallest houses (less than 1,200 square feet) sharply diverged so that by the end of the period the largest houses made up more than 50 percent of the total, while the smallest houses dwindled down to less than 5 percent, with the two middle categories remaining more stable. Further, as Table 1 summarizes, houses became bigger along dimensions other than square footage: 52 percent of new houses in 2000 were two stories or more compared to just 17 percent in 1970; 54 percent had two and a half or more bathrooms compared to 13 percent in 1960, while only 7 percent had one and a half or fewer bathrooms in 2000 compared to 54 percent in 1960; and almost all new houses in 2000 had a two or more car garage instead of the more common 1 car garage or less in 1970.

The historic reversal of the trajectory in house size suggests that new house buyers may have become increasingly affluent as the top 20 percent of households reaped the majority of the gains of economic growth. Any increased affluence of new house buyers has implications for many stratification processes, but most significant may be its potential impact on the spatial segregation of the affluent, also on the rise at the end of the twentieth century (Fischer et al. 2004). Residential segregation may be the key form of housing stratification as it amplifies income and wealth inequality through the disparities in education, social networks, access to jobs, and exposure to crime that occur across different neighborhoods (Sampson, Morenoff, and Earls 1999). Because new houses are typically clustered together in concentrated developments, their segregating effect can be significant, even more so in the 1980s and 1990s when they were often located in gated communities, whose physical boundaries create a particularly severe disconnect from less affluent places (Blakely and Snyder 1997).

In this article I investigate whether new housing growth became increasingly stratifying along with rising income inequality. I undertake my analysis in two parts. First, I examine income stratification among new house buyers from 1960 to 2000 using U.S. Census microdata and ask whether the increasing opulence of new houses reflects increasing affluence among the households occupying them. Second, I use U.S. Census summary tract and metropolitan data to evaluate whether new housing had an increasing impact on the segregation of the affluent from 1980 to 2000 when inequality sharply increased. I find that new housing growth did become increasingly stratifying over time. A greater proportion of new house buyers were high income in the 1980s and 1990s compared to earlier decades, and new housing increasingly contributed to affluent residential separation from 1980 to 2000. This work demonstrates one more way that the affluent pulled away from everyone else during the "age of extremes" at the end of the twentieth century and raises concerns about the continuing effects of these changes as the experience of the most fortunate moves ever farther from the conditions of the disadvantaged.

### **Theoretical Perspectives on Housing Stratification**

The increasing size and expense of new houses are certainly suggestive of rising inequality in new house ownership, but ecological and political economic theories identify several specific mechanisms that may have intensified the stratifying impact of new construction at the end of the twentieth century.

Ecological theories explain the spatial stratification of U.S. metropolitan areas largely by the operation of market competition that allows more advantaged groups to monopolize the highest quality new housing through their greater economic resources (Baer and Williamson 1988; Park et al. 1925). Given the rising fortunes of the affluent at the end of the twentieth

century, it should be expected that new housing would be produced in more lavish styles to suit their increasing incomes, making new housing less affordable for lower income groups.

Indeed, there is evidence that the entire context of new housing production and consumption shifted to the top of the market in the 1980s and 1990s, especially in comparison to the middle market focus of the 1950s and 1960s. Then, the production-consumption nexus was oriented to providing affordable houses for the families of returning WWII soldiers (Baxandall and Ewen 2000). The postwar economic boom produced good jobs with strong middle-income wages, and the abundance of small affordable houses in Levittowns across the nation enabled the homeownership rate to rise from 55 percent in 1950 to 62 percent in 1960 (Jackson 1985). In the 1980s and 1990s in contrast, the market shifted upscale (Schor 1998; Frank 1999). With almost two-thirds of the population owning homes, growth in demand from first-time homeowners slowed, and the homeownership rate dropped for the first time in the 1980s and edged up only a few percentage points in the 1990s, an increase due in part to the large baby boom cohort entering the prime homeownership years (Myers 1999). As the affluent top 20 to 25 percent pulled away from the rest of society, a boom in luxury spending ensued, including the proliferation of large new houses (Schor 1998). Thus, there are indications that the shift from a period of spreading equality to rising inequality affected the structure of housing opportunity; however prior to this study, there was no analysis of shifts in income stratification among new house buyers at the end of the twentieth century.

Political economic theories argue that income stratification in housing markets results not just from market forces but is also constructed by social institutions and policies that favor some types of development and population groups over others (Logan and Crowder 2002; Logan and Molotch 1987). The economic importance of new housing in the United States in this view derives in part from the orientation of federal housing policy towards supporting market provision of new construction (much more than public housing or renovating older housing) through myriad direct and indirect policies including federal loan insurance, the construction of the highways, and the structure of local governance (Dreier et al. 2001; Jackson 1985). The result has been the uneven development of metropolitan areas, with resources flowing to growth spots, starving older regions, and fostering residential segregation between advantaged and disadvantaged populations (Logan and Molotch 1987; Squires 2002).

The uneven development of metropolitan areas appears to have worsened along some lines in the 1980s and 1990s as the political economy of homeownership and house construction *increasingly* favored the affluent, further encouraging the production of new housing targeted to the affluent (Squires 2002). The major federal policy supporting homeownership shifted from the GI bill, which encouraged home purchases by moderate-income families, to the home mortgage interest tax deduction, most valuable to the most advantaged homebuyers, and increasingly so after the 1986 revision to the tax code made housing a relatively more important tax shelter compared to other investments (Dreier et al. 2001). Over most of this period, capital gains provisions encouraged trading up to larger houses because any profits reinvested in a new house were untaxed. At the same time, declining federal funds for local governments increased competition for tax dollars between municipalities, producing greater incentives to zone for affluent residences and exclude affordable housing (Savitch 2002).

In sum, both ecological and political economic theories predict that new houses became more likely to be occupied by the affluent in the 1990s compared to the 1950s. It is important to evaluate empirically whether these theoretical expectations are supported, in part because there were a number of countervailing influences that may have dampened the effects of rising inequality and political economic incentives on the housing market, including, most importantly, the expansion of mortgage instruments and loosened credit requirements (D'Arista 2002). The first goal of this article, thus, is to analyze income stratification among

new house buyers across the postwar period to assess whether they became increasingly affluent as expected.

### Housing Growth and Residential Segregation of the Affluent

Both ecological and political economic theories emphasize that stratification processes in housing markets are never spatially neutral, but it is precisely the spatial dimension of these processes that give them their force. If new houses did become more likely to be occupied by affluent households in 1990 and 2000 compared to earlier decades for all the reasons outlined above, new construction may have increasingly facilitated the residential isolation of the affluent away from lower income groups. The second goal of this article, then, is to investigate whether new housing increasingly contributed to the residential segregation of the affluent from 1980 to 2000 as income inequality rose and new houses became larger.

Most analyses of segregation include some consideration of housing growth; however, there has been very little empirical attention to the relationship between new housing and segregation in recent years, and there is considerable variability and some confusion in the way housing growth is conceptualized. The least satisfactory approaches either ignore housing or proxy housing growth with population growth, even though there are frequent disjunctures between the two (Bier and Post 2003; St. John 2002). More important, in most analyses new housing growth is modeled contrary to the expectations here: it is typically expected to have an *integrative* effect. The reason is that the model has been mainly developed in analyses of racial segregation, which dominate the literature. Housing growth is expected to foster racial integration for two reasons. First, it encourages spatial assimilation processes (the residential integration of disadvantaged groups as they achieve economic gains) because it creates vacancies that allow minority households to move up, and second, new housing built after the passage of fair housing laws is expected to be less segregated than older housing. Empirical analyses of racial segregation find strong support for this model (Farley and Frey 1994; Logan, Stults, and Farley 2004).

The model of the integrative impact of housing growth developed in the racial segregation literature is typically imported into models of economic segregation, including affluent segregation, even though theory suggests that new housing growth is likely to be economically segregative, and especially so for the affluent. Indeed, the spatial assimilation model itself posits that as minority groups become more successful economically, they will participate in the ordinary income sorting process and higher status households will move out of ethnic enclaves (especially when new housing provides more vacancies), fostering economic *segregation* at the same time as racial *integration* (Alba, Logan, and Stults 2000; Jargowsky 1996). Not surprisingly, then, when housing growth is included in most empirical analyses of economic and affluent segregation, the results show a segregative impact, contrary to many authors' expectations, but consistent with the argument here (e.g., Jargowsky 1996).<sup>3</sup>

A number of studies also recommend that measures of housing growth be improved by specifying the housing pattern expected to produce the theorized effect, recognizing that there is variability in the location and type of growth. For example, analyses of racial segregation show that housing growth in neighborhoods with large racial minority populations does not foster integration (South and Crowder 1998; Timberlake and Iceland 2005). Claudia J. Coulton and colleagues (1996) find that metropolitan areas with disproportionate housing growth in suburban areas have higher concentrations of poverty and affluence. The pattern

3. It is also possible that new housing does foster economic integration in older neighborhoods by opening up vacancies, while the new housing is still primarily occupied by more advantaged households.

of housing growth most likely to contribute to affluent segregation is concentrated developments of new housing, which provide a unique opportunity to develop entirely new enclaves of affluence, affecting the ecology of metropolitan areas more than scattered new houses in existing communities with established socioeconomic characteristics. Clusters of new housing are most likely on previously undeveloped land in newer suburban areas, but they also occur in central city and older suburban areas with major reinvestment projects, or a wave of tear-down-buildups (when older houses in existing neighborhoods are destroyed to make way for new houses), both more common in the 1990s and both also typically involving affluent households (Bier and Post 2003; Paquette 2004).

Finally, most analyses of segregation do not consider historical change in the impact of new housing, expecting it to have the same effect in all periods. However, if the expectations developed in the last section are correct, it is likely that the contribution of concentrated developments of new housing to affluent segregation *increased* from 1980 to 2000 as new houses became larger. Recognizing that the impact of new housing on segregation may be historically variable further enhances the sophistication of our model of the role of the housing ecology in segregation processes.

In sum, my analysis of the impact of new housing on the segregation of the affluent makes several novel adjustments to the typical approach. I explicitly conceptualize housing growth as segregative, use a measure of concentrated housing development expected to have the greatest impact on affluent segregation, and assess historical change in that effect. This analysis will identify how significant the changes in new house development at the end of the twentieth century were for one of the most important stratification processes in the United States.

## Data and Analytic Strategy

### Data

I rely on the *U.S. Census of Population and Housing* for this study, as it is the longest data series that provides the necessary information on households and housing units with a very large nationally representative sample. I use the 1 percent sample of the Integrated Public Use Microdata Series (IPUMS) of Census data for 1960 to 2000 (Ruggles et al. 1997) for the analysis of the income level of new house buyers.<sup>4</sup> To analyze the impact of housing growth on the segregation of the affluent, I use Census tract summary data for all metropolitan areas for 1980 to 2000.<sup>5</sup> This data provides aggregated characteristics of the households and housing units within each Census tract, which are small geographic units designated by the Census Bureau in cooperation with local authorities that approximate neighborhoods, with an average of 4,000 residents (U.S. Census Bureau 2002).<sup>6</sup> Of course, Census tract boundaries do not necessarily correspond with what residents consider neighborhood boundaries, but they are the best unit available and the most commonly used (Jargowsky 1997). I create a set of consistent metropolitan boundaries based on Census 2000 definitions to accommodate both coding changes and natural growth over the years, resulting in 318 metropolitan areas in each year.

4. Before 1960, information about dwelling characteristics was not collected by the Census.

5. Metropolitan areas are defined by the Census as integrated population concentrations of at least 50,000 people. Following common practice in studies of residential segregation, I include all "primary metropolitan areas" in the United States, which means that large metropolitan regions are broken down into their composite areas.

6. Using Census tracts means that this analysis, like all similar analyses, is susceptible to the "modifiable areal unit problem," where results may be at least in part an artifact of the way the boundaries were drawn. Advances in GIS and improved spatial measures of segregation will soon allow analyses more robust to this problem by relying less on arbitrary boundaries and allowing tests of the impact of alternative boundaries (Reardon and O'Sullivan 2004).

### *Strategy of Analysis*

I undertake two different analyses to evaluate the expectation that the stratifying impact of new housing development increased at the end of the twentieth century. The first is an analysis of change in the income level of new house buyers using the IPUMS individual level data from 1960 to 2000. The second entails two different ways of estimating historical change in the impact of new housing on the segregation of the affluent from 1980 to 2000 as houses became bigger, using the tract and metropolitan summary data. Because the methods vary across these analyses, I discuss the measures, methods, and results for each of the analyses in turn.

## **Distribution of New House Ownership Across Income, 1960–2000**

### *Methods*

Using individual level Census data, the analysis requires first, a definition of the income scale, and second, measurement of the distribution of owners of new houses across that scale. I include all households in the scale definition because it is important to assess the changes for new house buyers with reference to the total income distribution in the United States. I use per capita household income (income divided by the number of household members) as the main measure because it controls for the decline in household size that occurred over the period of analysis. Adjusting for household size is a common practice in comparisons of income distributions across time and place because households that share the same income level but are different sizes experience different levels of financial well-being (Atkinson, Rainwater, and Smeeding 1995; Fields and Casper 2001). In order to test the sensitivity of the results to historical change in household size, I also present analyses of two additional measures of income: first, an alternative adjustment for size that divides income by the square root of the number of members, modeling the possibility that there are economies of scale with additional household members, and second, total household income with no adjustment for size. I operationalize the income scale for each measure using deciles, ranking all households according to their income and then dividing them into ten equal groups, ordered from lowest to highest income. I recalculate deciles for each Census so the relative position of households on the income scale is comparable across years.

To measure new house ownership, I define “new” houses as those built within five years before the survey. The analysis thus includes a long historical record of houses built from the second half of the 1950s up until the late 1990s.<sup>7</sup> I include only homeowner households living in metropolitan areas in the United States.<sup>8</sup> I limit the analysis to owners of single-family detached houses; these showed the striking increase in size since 1960 more than any other structure type and are by far the most common owner-occupied structure type in the housing stock.<sup>9</sup>

To complete the analysis, I measure the total number of all new house owners and then calculate the percentage share of that total in each decile of income (for each measure of income). I analyze historical change by comparing the distribution of new house ownership

7. For each year, the sample includes more than 20,000 households that own a new single-family house.

8. In 1960, Census rules do not allow identification of the metropolitan status of individuals living in places smaller than 250,000. All analyses for 1960 have been run both for individuals identified as living in metropolitan areas as well as all individuals, and the pattern of the results is the same for both.

9. Single-family houses are a distinct component of the housing market, and are reasonable to treat as a separate case. They represent the American cultural ideal associated with success and security, and most Americans do own a single-family house at some point (Johnson 1996). (An analogy to the labor market might serve here. While trends among professional occupations are not isolated from trends in other occupations, many study professionals separately because they are a distinct and important part of the labor market.) Note that the Census definition of single-family homes includes only site-built, not manufactured housing.



across income in each decade from 1960 to 2000. I examine trends across the entire income distribution using analytic graphs, and also estimate a summary measure of the relative distribution of new house ownership across income by calculating the ratio of the percentage share at the top compared to the middle of the income distribution (the parts of the distribution most expected to change), a common strategy in analyses of inequality.

I calculate a second set of ratios adjusted for the distribution of aggregate homeownership across incomes. This addresses the complications that the average homeowner is higher income than the average household, and that trends in new house ownership may be driven by shifts in the income distribution of all homeownership. In part, this adjustment holds constant major compositional changes that affect all forms of homeownership, like the movement of differently sized cohorts such as the baby boomers through the housing market. I adjust for aggregate homeownership by calculating a ratio of the percentage share of new house ownership to the percentage share of aggregate homeownership in each decile.<sup>10</sup> This ensures that changes in the distribution of new house ownership across income can be distinguished from changes in the income distribution of aggregate homeownership.

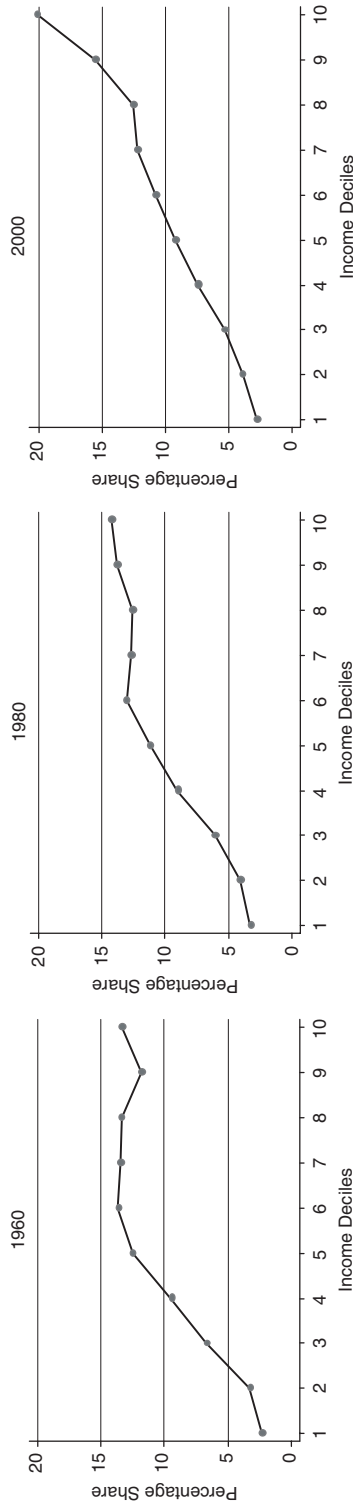
### **Results**

The analysis shows that, as expected new house buyers were substantially more affluent in 2000 than in 1960, with a particularly significant increase from 1980 to 2000, when new houses became increasingly large. Figure 2 shows the distribution of new house buyers across deciles of per capita household income in three small graphs for 1960, 1980, and 2000 from left to right. Comparing the trend over time reveals a striking redistribution of new house ownership from the middle of the distribution in 1960 to the top in 2000. In 1960, new house buyers were concentrated in the fifth through the seventh deciles, with a very similar distribution 20 years later in 1980. In contrast, in 2000 the hump in the middle flattened out, and instead, there was a relatively steady increase in the percentage share of new house buyers in each decile from the lowest to the highest. Further, the share of new house buyers in each of the ninth and tenth deciles in 2000 was greater than the share going to any single decile in the preceding decades. This change occurred entirely from 1980 to 2000, consistent with the timing of the increasing size of new houses, whereas the period from 1960 to 1980 appears to have been one of relative stability in the income distribution of new house buyers similar to the stability in the size of houses at that time.

Increased inequality in new house ownership remains even when the trend is adjusted for aggregate homeownership. Table 2 presents ratios of the share of new house ownership in the top compared to the middle of the income distribution both unadjusted and adjusted for aggregate homeownership rates. The change is more muted when the ratios are weighted by aggregate levels of homeownership in the deciles, indicating that all homeowners became more affluent over this period, a result perhaps of rising income inequality impacting access to homeownership as well as compositional changes. However, the ratios increase over time in both the adjusted and unadjusted numbers. No matter the measure, the top pulled away from the middle, especially after 1980, and there was significant change among new house buyers above and beyond other trends in homeownership, consistent with expectations.<sup>11</sup>

10. The measure of overall ownership here includes only owners of single-family houses to make the definition parallel to the measure of new houses. I use the term "aggregate homeownership" as shorthand. I replicated all analyses including ownership of all structure types, and the results were not significantly different.

11. I repeated all analyses separately for the four Census regions and nine Census regional divisions because there is substantial geographic variation in housing markets across the United States (Myers and Wolch 1995). I find that while there are differences in the details—for example in the magnitude of the shift of new house ownership from the middle to the upper deciles—the general pattern of results is the same for all four regions and nine divisions. (Relatedly, the trend of the increasing size of new houses also followed the same overall pattern across all regions.)



Source: Author's analysis of U.S. Census microdata (Ruggles et al. 1997)  
Note: Income deciles are calculated using per capita household income for all U.S. households. New houses are those built in the last five years before the Census survey year. New house ownership includes owners of single-family houses in all U.S. metropolitan areas.

**Figure 2 • Distribution of New House Ownership across Income**

The shift to the top also occurred for the other measures of income: both the alternative per capita income and total income results followed the same pattern as the per capita income results. Table 2 shows ratios of the top to the middle for each of these income definitions, again both unadjusted and adjusted for the share of homeownership in the deciles, and in each case there was a pronounced shift from the middle to the top of the distribution from 1960 to 2000. The ratio of top to middle is smaller in the per capita measures than in the total income measure, indicating lower inequality in a given year when household size is taken into account. The absolute shift over time is also larger for total income than for the other measures, though the percent change is larger for the two per capita measures, and the amount of change is more similar across measures when adjusted for aggregate homeownership. There also appears to be more change in the 1960 to 1980 period in these alternative measures. However, all show a very substantial shift in new house ownership to the top of the income distribution. Thus, while there are differences in the details, the results are not highly sensitive to whether and how the historical decline in household size is measured.

Of course, there are many other characteristics of new house buyers that may have changed along with income from 1960 to 2000 in addition to shifts in household size. By adjusting the results above for homeownership, I show that the increasing affluence of new house buyers is net of compositional changes affecting the entire housing market, like the

**Table 2 • Ratios of the Percentage Share of New House Ownership<sup>a</sup> in the Top Decile to the Share in the Middle Decile of Three Measures of Household Income, Both Unadjusted and Adjusted for Aggregate Homeownership Rates, U.S. Metropolitan Areas, 1960–2000**

<i>Income Measure</i>	<i>Year</i>	<i>Unadjusted for Homeownership</i>	<i>Adjusted for Homeownership<sup>b</sup></i>
Per capita income <sup>c</sup>	1960	1.06	0.86
	1970	1.08	0.95
	1980	1.27	1.13
	1990	1.83	1.42
	2000	2.19	1.45
Alternative per capita income <sup>d</sup>	1960	1.75	1.02
	1970	2.06	1.30
	1980	2.30	1.37
	1990	3.09	1.75
	2000	3.64	1.84
Total household income <sup>e</sup>	1960	2.86	1.33
	1970	3.94	1.76
	1980	3.48	1.56
	1990	4.61	2.08
	2000	4.94	2.03

Source: Author's analysis of U.S. Census microdata (Ruggles et al. 1997)

<sup>a</sup>New houses are built in the five years before the Census year.

<sup>b</sup>To adjust for homeownership, the distribution of new houses across income is calculated as a ratio between the percentage share of new house owners to the percentage share of all owners in the decile.

<sup>c</sup>Per capita income is total household income divided by the number of household members.

<sup>d</sup>Alternative per capita income is total household income divided by the square root of the number of household members.

<sup>e</sup>Total household income is not adjusted for household size.

movement of the baby boomers through the life cycle. However, new house buyers may have diverged from the rest of the homeowner population in ways other than their increasing affluence, for example, in family structure or living arrangements. Perhaps most important are shifts related to age and cohort. The increasing affluence of new house buyers identified here may result from changes in life cycle buying behavior across cohorts, so that older households, who have more money, bought more new houses in the 1990s (when the baby boomers were in their prime home owning years) than earlier (with the war generation). There is not space to address these issues sufficiently here, but other work (Dwyer forthcoming) shows that the increasing affluence of new house buyers did involve shifts between cohorts, and also substantially increasing inequality within all cohorts and at all life cycle stages. The finding of a striking shift from the middle to the top of the income distribution would not, however, be challenged by changes in other characteristics. Because new houses tend to be located in clusters and have a privileged status in the system of housing stratification, any further divergence of new house buyers from other homeowners, like becoming older or less likely to have children, simply exacerbates the inequality along another dimension—generation or family type in addition to income—and would not alter the fundamental finding of the increasing stratifying impact of new houses.

As expected, rising inequality and the increased privilege of affluent households in the political economy of homeownership were reflected in shifts in the housing ecology at the end of the twentieth century. The increasing affluence of new house buyers has important implications for many stratification structures, but the broad impact of this change will likely be felt most through its effect on the spatial organization of inequality in our metropolitan areas.

### **Contribution of Housing Growth to the Segregation of the Affluent, 1980–2000**

Next I discuss the two analyses of affluent segregation using Census tract and metropolitan level data, both providing even more remarkable evidence of the intensifying stratifying impact of new development in U.S. metropolitan areas.

#### ***Methods***

*Measures.* The key measures are housing growth and affluent segregation. My measure of concentrated housing growth is the percent of tracts dominated by new housing, which I call as shorthand, percent new tracts. Tracts are categorized as new if at least half of the housing is ten years old or less (i.e., the median year the housing in the tract was built was in the ten years before the Census).<sup>12</sup>

I estimate affluent segregation using the concentration of affluence index, which measures the proportion of metropolitan affluent households that reside in high-affluence tracts, and is similar to the commonly used concentration of poverty index (Jargowsky 1997). I follow accepted practice in studies of economic segregation and define affluence to be household incomes that are four times the poverty line for a family of four (c.f. Massey and Eggers 1993; St. John 2002).<sup>13</sup> Census household income data at the tract level is available only as a categorical measure of the number of households at Census-defined income levels, with

12. Age of housing is not reported separately for different housing types in the summary data; thus the estimate of the impact of new housing on affluent segregation is likely conservative, as it includes multi-family structures more likely to be occupied by less affluent households.

13. Since the cost of living varies between metropolitan areas, in principle it would be best to calculate a different measure of affluence for each area. As Jargowsky (1997) notes for the study of poverty, a metropolitan-based measure would, however, be difficult to calculate and “might also introduce more errors than it would fix” (p. 22).

different numbers of categories in each Census year. In 1980 and 1990, four times the poverty line hits right at one of the Census income levels: \$30,000 in 1980 and \$50,000 in 1990.<sup>14</sup> In 2000, four times the poverty line falls between two levels (\$60,000 and \$75,000). I use \$75,000 because it cuts the distribution of household income around the same point as the 1980 and 1990 measures, so that in each year the definition of affluence captures approximately the top 25 percent of the distribution of household incomes, corresponding to the population that experienced the most income gains as inequality grew. I follow Craig St. John (2002) and define affluent tracts as those with a median household income at the affluent cut-off or greater, so that at least half the population in affluent tracts is affluent.<sup>15</sup>

The rate of concentrated affluence is the proportion of metropolitan affluent households that reside in high-affluence tracts, as in the following formula:

$$C_x = \frac{\sum x_a}{X}$$

where  $x_a$  is the number of affluent households living in affluent tract  $a$ , and  $X$  is the total number of affluent households in a metropolitan area. If all affluent households in a metropolitan area live in affluent tracts, the rate of concentrated affluence is 1 (or 100 percent, expressed as a percentage). If no tracts in a metropolitan area are affluent, then the concentration of affluence is undefined, though set equal to 0 in practice. Next I describe two different methods for assessing the contribution of new tracts to affluent segregation, and then present the results for each.

*Levels of affluent segregation in old and new tracts.* I begin my analysis of the impact of housing growth on the segregation of the affluent by estimating the total contribution. For this measure, I compare the rate of concentrated affluence for all tracts in a metropolitan area to the rate when tracts dominated by new houses are excluded. First, I measure the level of concentrated affluence for all tracts. Then I measure the level of concentrated affluence only for old tracts (tracts where at least half the housing was built was at least ten years before the Census). Next I calculate the difference between the level of concentrated affluence for all tracts and the level for old tracts. That difference is the aggregate amount of segregation attributable to new tracts. Finally, I divide the difference between affluent segregation in all versus old tracts by the amount in all tracts to yield the proportional contribution of new tracts to the level of affluent segregation in a given year, as summarized here:<sup>16</sup>

$$\text{Contribution of new tracts to affluent segregation} = \frac{\text{Affluent segregation for all tracts} - \text{Affluent segregation for old tracts}}{\text{Affluent segregation for all tracts}}$$

I compare trends in the contribution of new tracts to affluent concentration in 1980, before the new vintage of housing stock was constructed, to the contribution in 1990 and 2000 after the trend of the increasing size of houses was in full swing.

14. Census household income data is annual income in the year before the survey, so is for 1999 in Census 2000, 1989 for 1990 and 1979 for 1980. This measure of income is not adjusted for household size.

15. There is some variability in the cut-point used for percent affluent or poor for concentration measures, depending in part on the research purposes. Both 20 percent and 40 percent poor are common cut-points used in the poverty literature (Jargowsky 1997). The small concentration of affluence literature typically uses 40 to 50 percent since the affluent are even more concentrated than the poor (Coulton et al. 1996; Massey 1996; St. John 2002).

16. Note that this procedure does not answer the question: "What would the concentration of affluence be in the absence of new tracts?" The affluent households in new tracts would not simply disappear if there were no housing growth or no housing built in a concentrated pattern; they would instead settle in other parts of a metropolitan area in a more or less segregated pattern. The strategy here is instead to simply identify the amount of affluent segregation in the period of interest that can be attributed to new tracts.

*Regression analysis.* Regression analysis provides an assessment of the contribution of concentrated new housing to the segregation of the affluent in a multivariate model, allowing controls for other important determinants. I estimate a linear regression model with the concentration of affluence as the dependent variable. Because the concentration of affluence is constrained to be between 0 and 1, violating the assumptions of linear regression for the dependent variable, I transform it into the log-odds form to produce a distribution that conforms to ordinary least squares (OLS) assumptions.<sup>17</sup> The transformation makes the interpretation of the magnitude of the effect of the regression coefficients less intuitive; thus I present standardized beta coefficients. The units are metropolitan areas by year, and I estimate all models clustered on metropolitan areas, but present the very similar results estimated without clustering in order to produce the beta coefficients.

To assess whether any contribution of new housing remains when other structural features of the metropolitan region are included, I estimate the standard model of affluent segregation, comprising measures of metropolitan ecological context (including the amount of concentrated new housing), measures of the economic base, and the level of social inequality between class and race groups in the metropolitan area. I have already discussed the measurement of concentrated new housing, but also assess historical change in the impact of housing growth on the segregation of the affluent by interacting percent new tracts with year. Region, logged metropolitan population, and household growth rate complete the metropolitan context factors in the model. Previous analyses find that metropolitan areas in the Northeast have lower levels of affluent segregation and that spatial differentiation between groups is advanced where there are larger populations (St. John 2002). Research indicates that levels of household and housing growth often diverge, especially in the 1990s, and that slow growth in the context of rapid housing development facilitates suburbanization and central city decline, suggesting that the rate of household growth may have an important effect on affluent segregation (Bier and Post 2003). Metropolitan areas with a more prosperous economic profile have been shown to have greater affluent segregation in part because this simply generates a critical mass of affluent households to enable segregation processes (Jargowsky 1996; St. John 2002). The economic profile variables include percent manufacturing industry (expected to be associated with struggling metropolitan areas) and percent professional and managerial occupations (key employment for the affluent). Finally, studies find that affluent segregation is higher in more unequal settings between classes and races, especially between black and white households (St. John 2002). The measures of inequality (all expected to increase affluent segregation) include: percent affluent (identifying the presence of a privileged population); percent poor; residential segregation between blacks and whites (measured by the dissimilarity index); percent black and percent Hispanic (seen as threats to more advantaged groups); and income inequality between blacks and whites and Hispanics and whites (measured by the ratio of group mean household incomes) (Krysan 2002; St. John 2002).<sup>18</sup> I expect not only that these factors will behave as typical, but also that the contribution of new housing will have an independent effect, even in a model with the other determinants.

17. A number of metropolitan areas have no concentrated affluence. I estimated separate models both including and excluding zeros and found that the results did not differ substantially. I estimated the models including the zero cases in two different ways. Because log transformation does not work for zero cases, I set those cases equal instead to 0.00001 so that they would be included in the transformation for linear regression. I also estimated a generalized linear model that does not require a log transformation to model a proportion as a dependent variable and thus can accommodate zeros. Again, the results from these two analyses were not substantially different. When reporting the results I use the first method because the results are somewhat easier to interpret in that form.

18. In 1980, a few metropolitan areas had such small minority populations that the ratio of group incomes cannot be estimated; thus, these are dropped from all models. Models estimated with those areas included have similar results for the other independent variables.

## Results

*Levels of affluent segregation in old and new tracts, 1980–2000.* Descriptive statistics comparing tracts dominated by new versus old housing demonstrate that the increasing affluence of new house buyers from 1980 to 2000 did have a spatial component. Table 3 summarizes key characteristics of the housing stock and population in new compared to old tracts from 1980 to 2000. While the households living in new tracts were more affluent than those in old tracts in all years, new tracts became substantially more exclusive and increasingly different from old tracts over time. The housing stock grew larger in both old and new tracts, but the increase was much steeper in new tracts, especially from 1990 to 2000. Median household income in new tracts increased by almost 40 percent from 1980 to 2000, while rising only a little more than 10 percent in old tracts, more than doubling the difference in median income between old and new tracts from \$9,000 in 1980 to more than \$20,000 in 2000. Relatedly, there were increasingly greater percentages of affluent households in new compared to old tracts, with the average new tract composed of 40 percent affluent households in 2000, compared to only 23 percent in old tracts.

Most important, I find that the increasing affluence of tracts dominated by new housing was significant enough to have increased the contribution of new tracts to the segregation of the affluent. Figure 3 shows that the contribution of new tracts increased by more than one-third from 1980 to 2000 in all metropolitan areas and by 50 percent in the 50 largest metropolitan areas. By 2000, almost 20 percent of concentrated affluence in the largest metropolitan areas was attributable to tracts dominated by new housing.

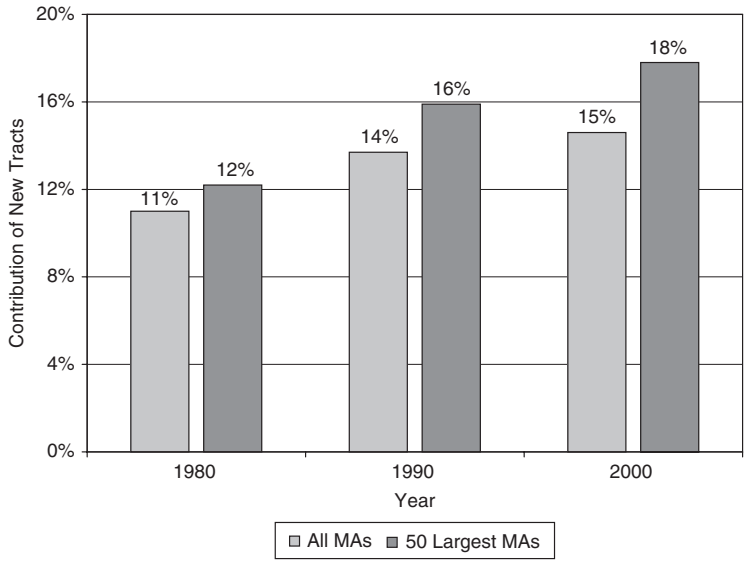
Comparing Figures 3 and 4 reveals that the contribution of new tracts to the rate of concentrated affluence continued to increase from 1990 to 2000 even as overall rates of concentrated affluence moderated slightly. Figure 4 reports the trend in the average rate of concentrated affluence, showing that it was much larger in 1990 and 2000 than in 1980, though with a small decline from 1990 to 2000 (consistent with other studies). Thus, even as other factors apparently mitigated the overall rate of concentrated affluence, the effect of new tracts strengthened. Table 4 provides examples of large metropolitan areas with substantial contributions of new tracts to the concentration of affluence in 2000, with every region of the country represented.

**Table 3 • Tracts Dominated by New Compared to Old Housing, U.S. Metropolitan Areas, 1980–2000**

<i>Measure</i>	<i>Year</i>	<i>Old Tracts</i>	<i>New Tracts</i>
Mean w/6 or more rooms	1980	41%	49%
	1990	44%	49%
	2000	46%	61%
Median household income (1999 dollars)	1980	\$37,677	\$46,680
	1990	\$40,773	\$53,990
	2000	\$41,991	\$63,389
Mean affluent	1980	20%	29%
	1990	25%	37%
	2000	23%	40%
Fifty percent or greater affluent	1980	5%	11%
	1990	11%	26%
	2000	9%	29%

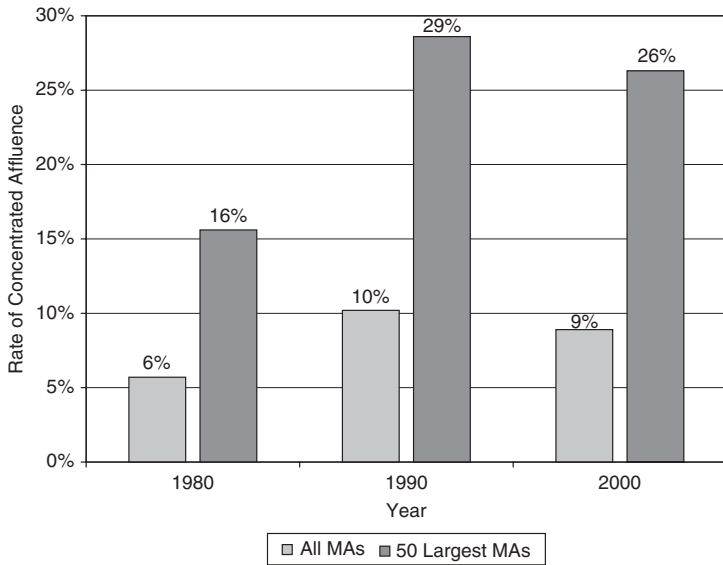
Source: Author's analysis of U.S. Census summary data (U.S. Census Bureau 1980, 1990, 2000)

Note: New tracts are those where at least half the housing stock was built in the 10 years before the Census. Old tracts are the remaining housing stock, where at least half was built more than 10 years before the Census.



Source: Author's analysis of U.S. Census summary data (U.S. Census Bureau 1980, 1990, 2000)

**Figure 3 • Average Contribution of New Tracts to the Rate of Concentrated Affluence, All and 50 Largest Metropolitan Areas, 1980–2000**



Source: Author's analysis of U.S. Census summary data (U.S. Census Bureau 1980, 1990, 2000)

**Figure 4 • Average Rates of Concentrated Affluence, All and 50 Largest Metropolitan Areas, 1980–2000**



**Table 4 • Large Metropolitan Areas Where New Tracts Substantially Contributed to the Spatial Concentration of Affluence, 2000**

Primary Metropolitan Statistical Area	Contribution of New Tracts <sup>a</sup>	Concentration of Affluence <sup>b</sup>
Fort Lauderdale, FL	62%	24%
Sacramento, CA	53%	18%
Phoenix-Mesa, AZ	39%	24%
Charlotte, NC	37%	21%
Kansas city, MO/KS	36%	23%
Richmond, VA	34%	24%
Dallas, TX	31%	34%
Columbus, OH	27%	25%
Jersey city, NJ	25%	12%
Denver, CO	22%	36%
Minneapolis–St. Paul, MN	20%	30%
National average	15%	9%
National average, 50 largest metropolitan areas	18%	26%

Source: Author's analysis of U.S. Census summary data (U.S. Census Bureau 2000)

<sup>a</sup> The contribution of new tracts to affluent segregation is the difference between segregation for all tracts and segregation only for old tracts divided by segregation for all tracts: the percentage of total concentration attributable to new tracts. New tracts are those where the median year the housing units were built is in the 1990s.

<sup>b</sup> The concentration of affluence is the percentage of metropolitan affluent households that reside in affluent tracts.

*Regression analysis of the contribution of suburban growth to affluent segregation.* The regression analysis finds that the stratifying impact of new housing increased from 1980 to 2000 even when included in a model controlling for other determinants of affluent segregation. Table 5 shows the results for three models and displays unstandardized coefficients and standardized beta coefficients, with standard deviations in parentheses.

The first model includes only year and the measure of concentrated housing, both significant and positive as expected. The concentration of affluence was larger in 1990 and 2000 compared to 1980. Metropolitan areas with greater percentages of new tracts had higher concentrated affluence, demonstrating the significance of concentrated housing development to affluent segregation. The standardized beta coefficient indicates that a one-standard deviation increase in the percent new tracts increased the log-odds of concentrated affluence by 0.177 of a standard deviation.

The second model is the same as the first except that year is interacted with the measure of concentrated housing development, modeling the expectation that there was change in the impact of housing growth on affluent segregation. The interaction term shows that places with a greater percentage of new tracts had significantly higher levels of concentrated affluence in both 1990 and 2000 compared to 1980, and the beta coefficient is largest for 2000 compared to 1980, showing increased log-odds of concentrated affluence by 0.196 of a standard deviation. The insignificant main effect for year shows that when the percentage of new tracts was 0, there was no significant difference between years in the level of concentrated affluence, further supporting the importance of new housing growth to affluent segregation. Finally, the main effect for percent new tracts is not significant (though positive), indicating that the amount of concentrated housing growth in 1980 was not significantly related to the rate of concentrated affluence, so that the effect in 1990 and 2000 represents a significant historical shift. These results illustrate the spatial dimension of the changing character of new housing at the end of the twentieth century: the increasing size of new houses and the

**Table 5 • Ordinary Least Squares Regression for the Rate of Concentrated Affluence<sup>a</sup>, all U.S. Metropolitan Areas,<sup>b</sup> 1980–2000**

<i>Independent Variables</i>	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>	
	<i>Coef.</i>	<i>Beta</i>	<i>Coef.</i>	<i>Beta</i>	<i>Coef.</i>	<i>Beta</i>
Metropolitan context						
Year = 1990 (vs. 1980)	1.397 (0.389)**	0.140	0.414 (0.519)	0.042	-1.141 (0.383)**	-0.115
Year = 2000 (vs. 1980)	1.356 (0.403)**	0.136	-0.241 (0.520)	-0.024	-2.714 (0.509)**	-0.273
Percent new tracts <sup>c</sup>	0.079 (0.016)**	0.177	0.025 (0.021)	0.055	0.003 (0.016)	0.007
Year = 1990 × percent new tracts (vs. 1980)			0.080 (0.035)*	0.109	0.032 (0.024)	0.045
Year = 2000 × percent new tracts (vs. 1980)			0.226 (0.048)**	0.196	0.104 (0.034)**	0.090
Region						
Midwest <sup>d</sup>					1.143 (0.344)**	0.104
South					0.500 (0.397)	0.052
West					0.124 (0.399)	0.011
Total population (logged)					1.839 (0.134)**	0.414
Household growth rate previous decade					-0.002 (0.001)	-0.033
Economic profile						
Percent manufacturing employment					-0.055 (0.018)**	-0.097
Percent professional and managerial employment					0.128 (0.035)**	0.163
Social distance						
Percent households affluent					0.176 (0.035)**	0.256
Percent households poor					-0.076 (0.035)*	-0.099
Black-white residential segregation <sup>e</sup>					0.848 (1.010)	0.023
Percent population black					2.917 (1.414)*	0.064
Black-white mean income ratio					-2.303 (0.747)**	-0.074

*(continued)*

**Table 5** (continued)

<i>Independent Variables</i>	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>	
	<i>Coef.</i>	<i>Beta</i>	<i>Coef.</i>	<i>Beta</i>	<i>Coef.</i>	<i>Beta</i>
Percent population Hispanic					0.509 (1.129)	0.013
Hispanic-white mean income ratio					-0.148 (0.564)	-0.006
Constant		-7.841** (0.351)		-7.037** (0.405)		-32.061** ( 2.237)
Observations		943		943		943

Source: Author's analysis of U.S. Census summary data (U.S. Census Bureau 1980, 1990, 2000)

Note: Numbers in parentheses are standard errors.

<sup>a</sup>The dependent variable is the log odds of the concentration of affluence.

<sup>b</sup>Metropolitan boundaries for the year 2000 are used in 1980 and 1990.

<sup>c</sup>Percent new tracts is the percentage of all tracts that are new, defined as tracts where the median year the housing is built is in the decade previous to the survey (the 1990s for 2000, and the 1980s for 1990).

<sup>d</sup>Omitted category is Northeast region.

<sup>e</sup>Segregation measured by the dissimilarity index.

\* $p < .05$  \*\* $p < .01$  (two-tailed tests)

increasing affluence of new house buyers changed the segregating force of new housing, and this may prove the most significant and long-lasting effect because of the broader effects of segregation on other stratification structures.

The third model adds a number of other major determinants of affluent segregation to the interaction, including additional metropolitan context variables, measures of metropolitan economic structure, and indicators of the level of inequality by class and race. In this model, the interaction term remains significant for 2000 compared to 1980, though the comparison between 1990 and 1980 loses significance. The beta coefficient for the interaction also gets smaller (from 0.196 to 0.090), indicating that some of the effect of percent new tracts is correlated with other determinants of affluent segregation, but there remains an independent effect. Somewhat surprisingly, the main effect of year turns significantly negative, indicating that once controlling for the additional variables, when percent new tracts is 0, concentrated affluence would be lower in 1990 and 2000 than in 1980. Even with the other major determinants of affluent segregation included in the model, the substantially increased effect of housing development on affluent segregation from 1980 to 2000 remains.

The remainder of the model operates mainly as expected. Starting with the additional metropolitan context variables, region is not as significant as in some analyses: the Midwest has significantly more concentrated affluence than the Northeast, though there is no significant effect for the South or West. Larger metropolitan areas do, however, have significantly more concentrated affluence as expected. Household growth rate is not significant, showing that household growth in a divergent pattern from housing growth does not have a strong impact on the concentration of affluence as expected. The economic profile variables follow a pattern consistent with previous studies. Places with more manufacturing have lower concentrated affluence, whereas metropolitan areas with higher levels of professional and managerial employment have higher concentrated affluence. Finally, as in other studies, the level of inequality in a metropolitan area significantly impacts concentrated affluence. Places with greater percentages of affluent households have higher levels of concentrated affluence as expected. Higher percentages of poor households, however, are negatively related to concentrated affluence, contrary to expectations, perhaps because poorer places simply do not have a critical mass of affluent households. But the results for racial inequality suggest that concentrated

affluence may be specifically associated with a large population of disadvantaged African Americans rather than poverty in general. While the level of black-white segregation has no significant effect, places with higher percentages of black households have higher affluent segregation, as do places with greater income inequality between blacks and whites (smaller ratios of black to white household income), consistent with the expectation that affluent segregation is fostered in part by social distance between poor African Americans and (disproportionately white) affluent households. There is no significant effect for the proportion of Hispanic households or for the ratio between Hispanic and white incomes, further highlighting the distinctive importance of black-white inequality for affluent segregation as for all other forms of segregation (Fischer 2003).

In analyses not shown, I replicated the results using two other common measures of segregation, the dissimilarity and isolation indices. Because alternative segregation measures have different properties and tap somewhat distinct dimensions of spatial distance, it was important to assess whether my findings were sensitive to the measure used (Massey and Denton 1988). I found the same general pattern of results for each index, confirming that the findings of the increasing contribution of new housing to affluent segregation are robust across different measures of affluent segregation.

## Conclusion

While major theories of urban growth and development have long recognized the role of new housing in the creation and maintenance of metropolitan inequality, this article provides new evidence of its impact. The analysis has demonstrated that the stratifying effect of new house development increased significantly in the 1980s and 1990s, at the same time that new houses became strikingly larger and income inequality increased. A far greater percentage of new house buyers were affluent in the 1990s than in the 1950s and 1960s when houses were much smaller. In turn, metropolitan areas with more concentrated housing development in the 1980s and 1990s had more segregated affluent populations, and the impact of new housing on affluent segregation increased significantly from 1980, before the change in new houses, to 1990 and 2000, when the trend was in full swing. As expected by both ecological and political economic theories, rising inequality and shifts in the political economy of homeownership that improved the fortunes of the affluent were reflected in changes in the housing ecology and the structure of housing stratification. These findings represent an important element of the wider social dimensions of growing inequality at the end of the twentieth century as they identify further advantages for households at the top of the income distribution and further evidence of the declining fortunes of middle-income families (Neckerman 2004).

Inequality in new house ownership also contributes to the perpetuation of stratification because residential location influences access to advantages like education, political power, and social networks. The analysis in this paper thus identifies one key mechanism whereby shifts in the income structure at the end of the twentieth century have likely been transmuted into continuing and new forms of inequality in the twenty-first century. It will be important to further assess the characteristics of new house buyers in future research in order to understand the full implications of these stratification processes. Most important is the relationship of the findings to patterns and processes of racial inequality and segregation, given that the concentration of affluence involves a disproportionately white population. While some patterns of housing growth foster racial integration and spatial assimilation, it is not clear whether new housing itself is more racially integrated than other forms of affluent housing, or whether the presence of new housing simply opens vacancies in older communities that then become more integrated.

If new housing is not particularly racially integrated, then affluent segregation in concentrated developments of new housing may be a form of racial distancing achieved through

economic means. In fact, a 2005 special section of *Social Problems* on housing inequality highlighted precisely this type of mechanism, so that, as Douglas Massey (2005) framed it in the introduction to the section, racial discrimination in housing is a “moving target” where if “an older discriminatory mechanism based explicitly on race becomes impossible to sustain, whites will substitute new ones that are more subtly associated with race” (p. 148). The articles in the section illustrate that new avenues of discrimination have emerged even in areas of seeming rising opportunity, especially differential terms and treatment in home mortgage lending, and disparities in the type of housing and neighborhoods accessible to different groups (Friedman and Squires 2005; Ross and Turner 2005; Williams, Nesiba, and McConnell 2005). It is likely that more advantaged whites are able to substitute discriminatory practices like the economic exclusion in new housing developments posited here more easily than less advantaged whites. Indeed, Setna Low (2003) and others studying gated communities (Blakely and Snyder 1997) argue that fear of crime and thinly veiled prejudice against the poor and racial minorities is a key factor in locating in those communities. The results of the regression analysis that affluent segregation is particularly elevated in places with large black populations and high black-white inequality further supports this line of inquiry.

This study also contributes to research demonstrating the stratification consequences of federal housing policies that grossly overcompensate the affluent (e.g., Dreier et al. 2001). For one, the home mortgage interest deduction continues to be among the most important subsidies to the advantaged in the United States, and it affects a whole range of incentives for households, developers, and municipalities that perpetuate the role of new housing in converting social distance into spatial distance. While significant changes to the tax framework are likely politically infeasible, alternative policies that work to even the playing field are urgently needed, including affordable housing, homeownership assistance for middle and lower income households, and more support for renovating older structures and communities.

However, policy needs to be structured so that it does not reinforce the increasing stratification in the metropolitan landscape discussed in this article, as may some policies like the promotion of manufactured housing as an affordable housing alternative for lower income households (Booza, Cutsinger, and Galster 2006; U.S. Department of Housing and Urban Development 2001). Manufactured housing (colloquially, mobile homes or trailers) in fact became more important to lower income families in metropolitan areas over the same period that new single family houses became more dominated by the affluent: while less than 10 percent of owners in the bottom quintile of income lived in manufactured housing in 1960, by 2000 the percentage reached 25 percent. However, that increase was accompanied by a commensurate drop in ownership of single-family houses in the bottom quintile.<sup>19</sup> Manufactured housing is lower quality, less likely to appreciate in value, and more frequently sited on rented land than houses, even if it counts equally in homeownership statistics when owned (Williams et al. 2005). Even more worrying, communities of manufactured housing are often highly segregated from all other housing developments, and are sometimes governed by wholly or partially private entities, a pattern not unlike the rise of gated communities at the other end of the income scale and further widening the gulf between lower income households and the affluent (Genz 2001). The substitution of manufactured housing for site-built houses at the bottom thus represents a hidden polarization in housing status that may be directly linked to the increasing affluence of new house buyers if more affordable site-built homes have been crowded out of the market by the grown at the top. This possibility highlights one more potential effect of the rise in the stratifying impact of new housing documented here and demonstrates once more that if sociologists are to keep pace with the processes shaping the turn of the twenty-first century into an “age of extremes” (Massey 1996), we must study those benefiting from growing inequality as well as those left behind.

19. Author's analysis of U.S. Census data.

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