Title
Cohort Longitudinal Analysis of the Income Composition of Demand for New Houses, 1960-2000

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Extended Abstract

Even casual observers of housing trends have noticed that new houses became strikingly and increasingly large in the United States at the end of the twentieth century (Brozan 2003). After a period 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% from 1400 square feet in the mid-1980s to 2200 square feet in 2000. The increasing size of new houses at the end of the century stands in marked contrast to the trend towards smaller houses earlier in the century. The rapid expansion of suburban home ownership after World War II, for example, was accomplished through the construction of smaller, more affordable houses (Baxandall and Ewen 2000). A particular population occupied those small post-war houses: the middle and working class young families of returning World War II soldiers (Gans 1967; Jackson 1985). This paper argues that changes in the population of new house buyers since the post-war period underlie the change in house structures.

Little scholarly effort has been given to examining the shift from the smaller houses of the post-war period to the increasingly large houses of the closing decades of the twentieth century. Yet the change may be quite significant for metropolitan regions and housing markets, especially considering the privileged status of new construction in the US housing regime.[*] The privatized system of housing provision in the US is under-girded by a Federal housing policy that expects improved housing for the whole population is best achieved by supporting new construction (Baer and Williamson 1988). This policy has roots in part in "filtering theory," a longstanding paradigm in the urban studies and housing economics fields. In its most basic formulation, filtering theory explains that households are stratified by income in the age of housing they occupy. On average, higher income groups occupy the newest housing because it is better quality and more up-to-date than older stock (Ratcliff 1949). As housing ages, it "filters down" in price as it declines in quality. When the first affluent occupiers eventually move on, aging houses are transferred to households with lower incomes. Policies based on this theory support the growth of new construction both because it continually refreshes the housing stock and because it produces the vacancies in older stock that allow lower status households to improve their dwellings.

Filtering theory as it is typically described identifies the key significance of new housing in the housing regime, however is not well suited to assessing historical change in the

[*] The lack of empirical attention to trends in new suburban house construction is surprising given its importance in the US economy. New house construction has long occurred at high levels in the US and well over 1 million new houses were built every year during the 1980s and 1990s economic booms. With such high rates of construction, new houses make up a substantial component of the stock: in 2000, houses built in the 1990s made up 13% of the metropolitan house stock. And, because most older houses are not for sale at any given time, new houses are disproportionately important in the housing *market* compared to their frequency in the housing *stock*: houses that were 5 years old or less made up almost 30% of home purchases in the 1990s (author's analysis of Census data).

characteristics of new housing. Essentially an enhanced economic model of supply and demand, filtering theory has an ahistorical conception of change in the housing market. However, Myers (1990) argues that filtering theory can better accommodate historical change if it is placed in a demographic framework. The key is that the theory relates the two intersecting life cycles of households and housing units. In its original formulation, filtering theory incorporates one aspect of the demographic perspective, the aging of housing units, but ignores the aging of households. The framework also neglects the period and cohort effects that distinguish units and households entering in different historical periods and bend their aging processes along different trajectories. The characteristics of different cohorts of houses are shaped by the cohorts of households that move through those houses, and the housing careers of different cohorts of households are shaped by the characteristics of the available stock. In this view, the increasing size of new houses signals the entry of a new cohort of housing stock, which immediately raises the question of whether shifts between cohorts of new house buyers attended the change in the stock.

In this paper, I examine cohort change by focusing on the two key household characteristics likely to contribute to a change in the characteristics of housing: age and income. Disaggregating the demand for new houses by age is part of the cohort analysis, but I also analyze differences between cohorts in the age composition of demand. Changes in the propensity of households at different stages in their life cycle to purchase new houses may be part of the population dynamic shaping demand for new houses.

I integrate my analysis of cohort and age with an analysis of the income composition of demand for new houses. My approach builds on Myers' revision by historicizing the other central mechanism of filtering theory besides the aging of units—income stratification among households. (This perspective is consistent with Myers approach, but he focuses more on life cycle dynamics.) Social historians have demonstrated that income trends and shifts in class relations are key "period effects" shaping change in the characteristics of housing stock (e.g. Wright 1984; Jackson 1985; Baxandall and Ewen 2000). Furthermore, income inequality increased significantly over the period that houses got bigger. In another study, I examined the income composition of demand for new houses from 1960 to 2000 for all age groups. While some argue that houses became bigger because of expanding demand for large houses across the middle class, I found instead that the increasing size of new houses coincided with a narrowing demand for new houses to the affluent top quintile of household incomes. The implications of this shift for the housing market cannot, however, be fully understood without disaggregating the trend by age and cohort (Myers 1999).

In this paper, I integrate my analysis of the income composition of demand with an analysis of the age and cohort dimensions, historicizing both key mechanisms of filtering theory. The main questions are: 1) Did the increasing affluence of new house buyers occur within all age groups across successive cohorts? and 2) Was the increasing affluence of new house buyers linked to change in the age composition of demand for new houses?

To assess these questions, I use US Census microdata for 1960 to 2000. Following Myers (1999), I employ a cohort longitudinal approach, using cross-sectional data to examine historical change. I accommodate the differential distribution of homeowners and age groups across income, and historical change in that distribution. I use both analytic graphs and regression techniques and compare the age and income profile of households living in 1990s vintage houses to those living in 1950s and 1960s houses when new.

I find that there were important shifts between cohorts of households in the characteristics of new house buyers. First, the increasing dominance of the affluent in demand for new houses occurred between cohorts in all age groups, though the cohort change between successive groups of homeowners younger than age 45 followed a different pattern than for cohorts of homeowners aged 45 and older. Second, there were shifts between age groups in the propensity to own new houses from 1960 to 2000. This resulted in part from the different size of cohorts but was also due to the increasing propensity of older groups to buy new houses and a decreased propensity among the young. This shift in the age composition of demand contributed to the increasing affluence of new house buyers since older households have higher incomes on average than younger households. This analysis illustrates the value of cohort disaggregation of trends in the housing market and demonstrates that the filtering process is shaped by historical factors.

The shifts in the population of new house buyers identified here have important implications for the rest of the housing market. The increasing preponderance of older affluent households among new house buyers and the increasing affluence of younger new house buyers may be signs of an insufficient supply of affordable homes for young moderate income households. The level of construction in the 1990s may not have opened sufficient vacancies in the older stock, especially in places with rapid population growth (Myers and Park 2002). The striking shift in the income composition of demand for new houses between cohorts of young homeowners is particularly worrying. If it is linked to the undersupply of more affordable homes, increasing inequality in access to homeownership among the younger cohort may result, which would then translate into increasing wealth disparities. Inequalities generated early in a cohort's housing career likely worsen over time because the advantages of homeownership are cumulative. The pattern may also indicate an undersupply of alternative structures suitable for older households, such as condominiums or townhouses. Older households seeking housing that is equipped for aging individuals (for example, with first floor bedrooms or accessible bathrooms) may find new large suburban detached single-family structures the only available option (Myers and Gearin 2002). Finally, the increasing affluence of new house buyers of all ages may have distorted the market for new houses away from the needs of the average housing consumer, potentially limiting the filtering potential of those houses in the future.