A Demographic Analysis of U.S. Homeownership Rates from 2000 to 2009

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The proposed paper will apply methods of demographic analysis to measure annual changes in homeownership rates for birth and nativity cohorts from 2000 to 2009, a period that includes the peak and collapse of an historic bubble in the U.S. housing market. The purposes of the paper are first to understand with new and much greater precision the net attainment to and departure from homeownership of cohorts (defined by year of birth and nativity) during the culmination and end of the housing bubble. A second purpose is to demonstrate methods that might be applied to the same processes during the years leading up to the bubble.

Few would dispute the assessment of economist Karl Case (2010) that "What has happened in the housing markets since 2005 is a catastrophe that may take years for our economy to recover from."

Inquiries to understand what happened have been conducted in order both to inform policies to prevent a recurrence and to inform policies for recovery from the collapse, a recovery that is believed to be necessary for the economy as a whole to pull out of the Great Recession. These investigations, almost all conducted by economists, have tended to focus on the roles of the usual economic suspects, prices, interest rates and mortgage finance, taxation, incomes, and regulations. To date, however, the results of these investigations have led a team of eminent economists to conclude that "Using the standard toolkit of the empirical economist, we are unable to offer much of an explanation for what happened." (Glaeser, Gottlieb, and Gyourko 2010).

Although economists have long recognized the importance of demographic factors in housing markets (e.g., Kuznets and Rubin 1954 and Lewis 1966), the methods and data of demography are largely unfamiliar to contemporary economists (Mankiw and Weil 1989) in the housing field. More recently economists have focused much effort on analyzing the vast amount of data on mortgage instruments, their origination, type of instrument (whether prime or subprime), terms, repayments, prepayment, delinquencies and defaults. Due to the requirements of the Home Mortgage Disclosure Act, these data also include information about the location of the property and race, ethnicity, and sex of borrower, however, there is no information on such key demographic characteristics as age and nativity. Other deficiencies in these data are the inability to track individuals (or households) over time as they repay existing mortgages and assume new ones and their omission of those owners with no mortgage.

Previous research by and others Kuznets and Rubin (1954), Lewis (1965), Campbell (1966), Pitkin and Myers (2008), and Myers and Pitkin (2009) has found relationships between long demographic swings and real housing variables, construction, housing

stock, and homeownership, but not, however, with the extreme swings in house prices as occurred in the great housing bubble.

Homeownership is a key indicator of housing status that is well measured in demographic surveys. Changes in homeownership rates for birth cohorts over the life course, first rising in early adult years through middle age, and eventually leveling and finally declining provide an approximate measure of advancement to and retreat from ownership status. Variations in the rate of advance to or retreat from homeownership for cohorts in different stages of life and population segments offer an important and potentially valuable indicator of the joint effects of current housing market conditions and individual decisions.

Market conditions, house prices, price trends, interest rates, mortgage terms, and housing supply vary over time and in parallel for broad sectors of the population. The effects of these for specific households may by heavily shaped by households' position in the housing market (whether renter, recent owner, established owner with accumulated equity), time horizon (dependent on stage of life), and experience of past housing market conditions (as a basis for expectations about future conditions). These individualistic forces vary greatly with the age, generation, and nativity of specific households.

A telling sign of these effects is seen in the timing of the post-2000 peaks in homeownership rates per household. For non-Hispanic whites and blacks, both predominantly native born, the peak year was 2004 while for Latinos and Asians, of whom much larger shares are foreign born, it was two to three years later. (Housing Vacancy Survey data from Joint Center for Housing Studies 2010)

The proposed paper will combine annual American Community Survey (ACS) PUMS data with Demonstration Phase ACS (Census 2000 Supplementary Survey) PUMS data to estimate an annual time series of homeownership rates for cohorts defined by year of birth, nativity (foreign or native born), and race or ethnicity (Latino, non-Hispanic Black, and non-Hispanic Other). Homeownership rates will be calculated on both a household and per capita basis. The former is conventional, the latter is less susceptible to spurious changes due to fluctuations in household headship rates, which have fluctuated in recent years, *e.g.* the number of adult children living with parents has increased.

Because of the large sample size, the ACS is the best available data source for narrowly defined subpopulations such as those proposed for this paper. A recent study by the author (Pitkin 2010) finds that homeownership rates in the ACS were not substantially affected by changes in sample coverage, design, or methodology between 2000 and 2008. The comparability of the ACS data over time and with other Census surveys (Housing Vacancy Survey, Current Population Survey, and Decennial Census) will be discussed.

This paper proposes to investigate an important and so far neglected piece of the larger puzzle of the dimensions and causes of the great housing bubble. The paper offers new

demographic insights into the crucial late stages of the bubble. A successful demonstration of the methods can possibly be extended, using other data sources, to the years leading up to the bubble and that may be crucial for understanding the origins of the bubble. The estimated rates might, for example, be used to construct increment-decrement life tables for homeownership in different phases of the buildup, expansion, and collapse to the bubble.

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