In Through the Out Door: Racial Differences in Downward Housing Mobility in America

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Background

While deep inequalities in wealth, residential location, and housing opportunities have severely restricted the ability of minority families to become homeowners for over a century, recent federal housing policies, reductions in residential segregation, and growth in the black middle class, have helped to narrow racial gaps in ownership (Rohe, Van Zandt, and McCarthy 2002; Rossi and Weber 1996; Shlay 2006). Yet, persistent racial inequalities in social, economic, and familial domains, combined with the racialized context of the foreclosure crisis, raise important questions about the stability of minority homeowners' tenure.

Reflecting interest in understanding the mechanisms that prevent minority families from becoming homeowners, a substantial body of work has explored the extent to which racial minorities *attain* homeownership, but little attention has been paid to the ability of these groups to *sustain* ownership. The limited research that has investigated the role of race in homeownership exit has been inconclusive. Some studies found that first-time black and low-income households were more likely to experience downward tenure mobility than their white and high-income counterparts after controlling for family structure and socioeconomic resources (Boehm and Schlottmann 2009; Haurin and Rosenthal 2004; Reid 2004). Other research reported that among first-time homeowners who received a community investment mortgage, black borrowers were significantly *less* likely to transition back to renter status than white borrowers (Spader and Quercia 2008). Moreover, existing research has not identified the exact mechanisms that link race with downward housing mobility. While these mechanisms likely have considerable overlap with the factors that restrict minority entry into homeownership, such as family composition, socioeconomic status, available wealth, and residential location, there are additional factors and trigger events that are particularly salient to understanding housing exit, including housing foreclosure, divorce, and job loss.

To address this important issue, we rely on over forty years of longitudinal data from the Panel Study of Income Dynamics (PSID), 1968-2009, to assess the relationship between race and the likelihood of transitioning from homeownership to renting throughout the housing careers of black and white householders. This research is guided by the following four research questions: (1) Are black homeowners at greater risk of exiting their homes than their white counterparts? (2) Can racial disparities in downward housing mobility be explained by differences in life-cycle, socioeconomic, and housing characteristics held by owners? (3) How do trigger events (e.g., divorce, job loss) influence the ability of homeowners to sustain ownership? (4) Do racial disparities exist in the timing of homeownership exit?

Data and Methods

To investigate the above research questions, we use longitudinal data from the Panel Study of Income Dynamics (PSID) for the period 1968-2009. A nationally-representative sample of almost 5,000 families began in 1968 and has been interviewed annually until 1997, and biennially thereafter. New families have been added to the sample as children and other original panel members leave home to form new households. Currently, there are over 9,000 families in the panel with data collected on over 70,000 individuals over the last four decades (PSID 2011). The PSID is an excellent source of data for this analysis because it enables a detailed accounting of the dynamic process of housing careers, providing important information on panelists' mobility and ownership histories, and on whether particular trigger events (e.g., job loss or divorce) preceded changes in tenure. We limit our analysis to non-Hispanic black and non-Hispanic white householders who owned a home during the study period. To capitalize on the longitudinal nature of the PSID, we organize the data into person-period records with each observation representing a two-year interval, which is consistent with the biennial interview process beginning in 1997.

For the multivariate analysis, the dependent variable is a dichotomous indicator of whether a household transitioned from owning to renting in the time between consecutive interviews. The focal independent variable is race, which is coded as 1 for blacks and 0 for whites. All substantive predictors are time-varying—that is, they are allowed to change across time intervals, Family composition consists of a series of dichotomous measures differentiating combinations of marital status and presence of children: married with children, married without children, single with children, and single without children. Female-head is also included as a separate control variable. Household resources are captured by socioeconomic, employment, and housing type variables. Family income encompasses the total taxable income of husband and wife measured in thousands. Educational attainment is measured as the number of years of schooling completed by the householder at the beginning of each interval. Employment is captured by a dichotomous indicator of whether the respondent was employed at the start of the interval. Housing type is a dummy variable indicating whether the current home is a single-family detached house. It has been documented that these dwelling types are associated with neighborhoods with less segregation and superior housing conditions (Flippen 2001; Rosenbaum and Friedman 2007), and should likely influence homeownership exits. Previous research suggests that marital instability and employment disruption are linked to household income stress and mortgage default (Cutts 2003; Elmer and Seelig 1999). In this analysis, marital instability is coded as 1 if the householder experienced a divorce, separation, or spousal death during the time interval (t and t+1) and 0 otherwise. Job instability is a binary indicator of whether the respondent stopped working during the time interval (t and t+1). Both of these predictors are time-varying.

To assess racial differences in downward housing mobility, we first use logistic regression to model the probability of exit among all black and white homeowners. Next, we estimate discrete-time hazard models to explore racial disparities in the duration of time between homeownership entry and exit. For our purposes the discrete time hazard function is expressed as:

$$h(e_{ij}) = \Pr\{ E_i = j \mid E_i \geq j\},$$

and interpreted as the conditional probability that household i will transition out of homeownership in time interval j ($E_i = j$) given the household has yet to experience a downward transition ($E_i \geq j$). Using logistic regression, the hazard rate can then be expressed as a binary logit of homeownership exit at time e for household i as a function of time and a set of fixed and time-varying covariates $\mathbf{Z}$ and is specified as follows:

$$logit\ h(e_{ij}) = \alpha_0 ONE + \alpha_k TIME + \beta_k \mathbf{Z}_k$$

The use of logistic regression facilitates interpretation of the coefficients β_k by converting to an estimated odds ratios $\exp(\beta_k)$. For example, the estimated odds of transitioning from ownership back to renting are X percent greater for households who are single with children than those who are married with children, controlling for the other covariates.

Preliminary Results

Our initial results consist of an analysis of first-time homebuyers for the 1990-2007 period. To illustrate the racial difference in the risk of transitioning from owning to renting, we graph the hazards for blacks and whites in Figure 1. It is evident that black households are at greater risk of homeownership exit than their white counterparts when comparing the number of years of ownership. There are two striking features of this graph. One is the sheer magnitude of the hazards when comparing blacks and whites. The other is the dramatic upward trend observed at the end of the curve (i.e., the last five years) for black first-time buyers, which approximates the onset of the foreclosure crisis, and is known to have disproportionately affected blacks (Rugh and Massey 2010).

The results in Table 1 show our preliminary effort to explain the racial gaps in homeownership exit. Model 1 estimates the unadjusted difference between black and white homeownership in the likelihood of exit, and shows that the odds of transitioning from owning to renting are more than twice as high ($e^{.714}$-1) for black than white householders. Model 2 of Table 1 considers whether the racial differences observed in Model 1 are a function of differences in life-cycle characteristics and household resources. These variables generally work in their expected direction with family single households have heightened odds of homeownership exit, and with income, education, and employment all reducing the odds of exit. Most importantly, when these variables are held at their means, the odds of black households experiencing a downward housing transition remain significantly higher, 38.2 percent [($e^{.324}$ – 1) * 100] than white households.

Lastly, we introduce the marital and employment instability variables to examine the influence of trigger events on the risk of a downward housing transition. As seen in Model 3 of Table 1, married couples who have gone through a divorce, separation, or widowed dramatically raises the odds of homeownership exit, 135 percent, all else being equal. Households who stop working during the sample period are also substantially more vulnerable (48 percent) to leaving their homes, net of controls. Most significantly, while the addition of these factors reduces the racial gap in homeownership exit by an additional 10%, the odds of black homeowners becoming renters are still 33.7% higher than those for white homeowners.

Ongoing Research
We are actively working on expanding both the temporal and substantive scope of the sample: incorporating data going back to 1968 and considering households who have made multiple housing transitions. In the months ahead we will also continue to explore explanations for why black homeowners are so much more likely to become renters than their white counterparts. Among these potential intervening mechanisms that we plan on considering are changes in household income, mortgage stress and foreclosure, and residential location.

Figure 1. Hazard Estimates of Homeownership Exits among First-time Buyers by Race

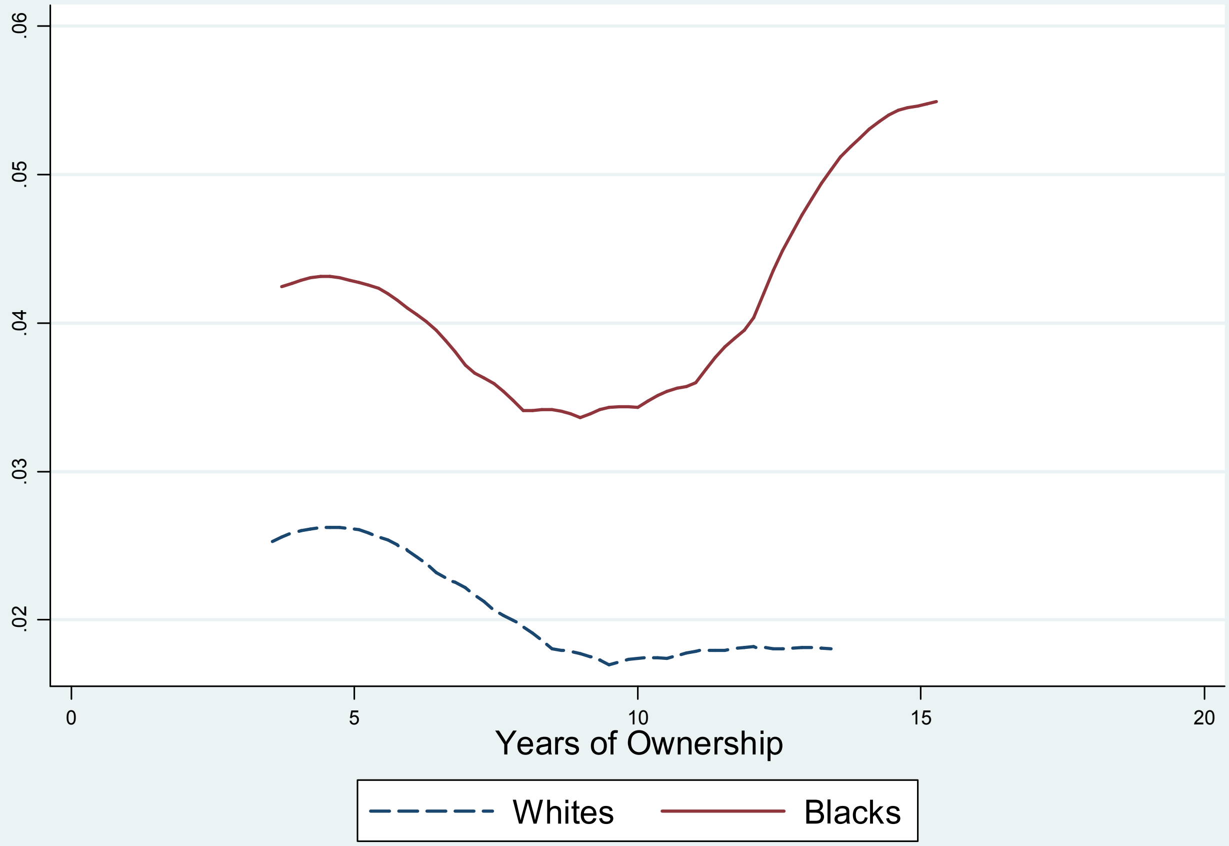

Table 1. Discrete-Time Hazard Model Estimates of Homeownership Exits among First-Time Buyers, 1990-2007

	Model 1			Model 2			Model 3		
	Coef.		S.E.	Coef.		S.E.	Coef.		S.E.
Time Specification									
Time linear	.645	***	.175	.711	***	.163	.739	***	.183
Time squared	-.104	***	.028	-.112	***	.028	-.117	***	.029
Time cubed	.005	***	.001	.005	***	.001	.006	***	.001
Race/Ethnicity (ref = White)									
Black	.714	***	.080	.324	***	.089	.291	***	.090
Family Composition (ref = Married w/ kids)									
Married no kids				-.363	*	.161	-.373	*	.162
Single no kids				1.216	***	.107	1.070	***	.108
Single w/ kids				.840	***	.137	.689	***	.138
Personal/Household Resources									
Family income (1000s)				-.006	***	.001	-.006	***	.001
Family income squared				.000	***	.000	.000	***	.000
Education (years)				-.090	***	.021	-.068	**	.019
Employed				-.460	***	.117	-.331	**	.122
Housing type (1 = single family)				-1.052	***	.084	-1.025	***	.081
Experienced Instability									
Marital instability							.856	***	.105
Employment instability							.392	***	.093
Constant	-3.739	***	.323	-1.671	***	.422	-2.414	***	.437
Log-likelihood	-2513	***		-2206	***		-2163	***	
AIC	5036			4440			4358		

Notes: *p < .05; **p < .01; ***p < .001. N = 9,189 person-years. Models 2 and 3 also control for female-headed households.