

# Characteristics of Rental Real Estate Investors During the 2000s

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*Using data from the 2001, 2004, and 2008 panels of the Survey of Income and Program Participation (SIPP), this research examines the characteristics of households that invested in rental real estate during the 2000s. Given the tumultuous real estate market during that decade, rental real estate investment was investigated during the early part of the housing market boom (2001), the height of the boom (2004), and after the market began to decline (2008). Results reveal relative stability with slight investment increases in rental real estate (4.57% in 2001 to 5.00% in 2004 to 5.08% in 2008), and several investor demographic and financial characteristics consistently associated with the investment decision. Evidence of potential over-reliance on real estate investment by some households indicates that financial planners should work to educate clients who invest, or are seeking to invest, in real estate. Education would emphasize that overweighting portfolios with real estate could be deleterious to client's wealth goals in times of slow rental or depreciating housing markets.*

*Keywords: housing market, investment real estate, recency effect, rental real estate*

Rental real estate has historically been viewed as a viable and valuable part of an investment portfolio. This was true in the early stages of the last decade, with 56% of the nation's rental housing stock being owned by individuals in 2001 (Harvard University Joint Center for Housing Studies, 2008). As the decade proceeded, the real estate market saw unprecedented appreciation (Shiller, 2008) that served to drastically increase the general interest in real estate investing. By 2005, over one-quarter of all real estate transactions in the United States were for investment purposes (McGinn, 2008), and the popular press was filled with articles promoting investment in real estate (Anderson, 2008; LeReah, 2005; Lederer, 2009; Poniewozik, 2005). By 2007, the market trend had changed, as the United States entered a sustained period of depreciating home prices that lasted the rest of the decade.

The relative strength of the U.S. real estate market in the 2000s is worth noting, given the relative weakness of the stock market. Figure 1 demonstrates the actual prices of the

S&P 500 Index with the Case-Shiller 10-City Composite Index from 2000 to 2010, utilizing 2000 values as a reference point. Although the S&P 500 Real Price Index does not include dividends, Figure 1 indicates the trends in both markets during the period relative to this research. While the real estate market was booming from 2000 to 2003, the stock market was in a period of steady decline. A reversal of fortune was evident from 2006 to 2008, as the stock market experienced gains while the real estate market was in sharp decline. Although the stock market has recovered more rapidly than the real estate market since 2010, periods of divergent returns during this decade warrant research questions regarding consumer investment decisions.

Modern Portfolio Theory (MPT) indicates that investment returns are maximized through the construction of a diversified portfolio (Markowitz, 1952), with investments being chosen based on returns and volatility. When optimally constructed, investment returns will provide the maximum rate of return accompanied by a certain level of risk. Therefore,

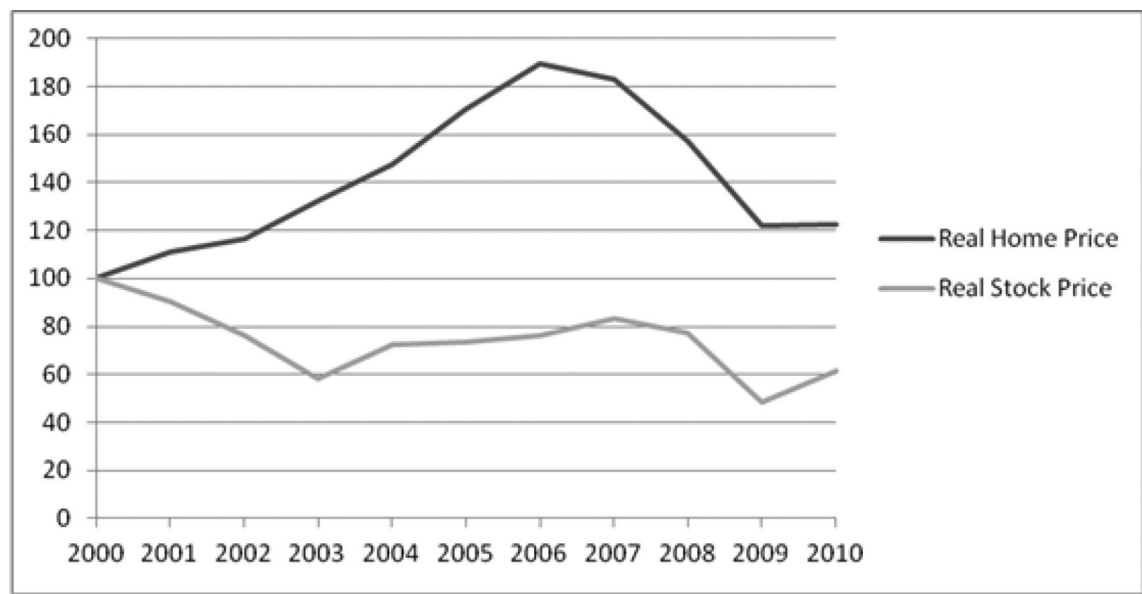
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**Figure 1. S&P 500 Real Price and Case-Shiller Real Home Price 10-City Composite Indexes from 2000 to 2010. It is constructed using data from Shiller (2011, 2012).**



MPT would indicate that, while information on short-term shifts in asset returns would be reflected in the portfolio, only minor changes in the overall portfolio would result.

Although classic MPT indicates that rational investors would exhibit limited changes in investment behavior due to short-term market changes (Markowitz, 1952), significant evidence has been generated, suggesting that investors are sensitive to short-term trends, or recency effects, when making investment decisions (De Bondt & Thaler, 1987). Using the 1996 to 2006 Health and Retirement Study data, Yao and Curl (2011) found that investors' risk tolerance changed in relation to the 12-month trailing returns of the S&P 500, with a one standard deviation increase or decrease in the S&P 500 relating to a 15.7% change in investor willingness to take risks. Yao, Hanna, and Lindamood (2004) found evidence of recency effects during the early 2000s, as stock market changes were manifested in altered risk-tolerance levels of investors but did not determine if these changes led to subsequent changes in investment behavior. In a controlled experiment related to retirement savings decisions, Rieskamp (2006) found evidence that portfolio allocations were heavily influenced by the recent performance of the investment choices. Recent research suggests that risk tolerance varied with market volatility during the

Great Recession, but with only a small magnitude of change (Rabbani, Grable, Heo, Nobre, & Kuzniak, 2017).

If a recency effect caused investors to rely too heavily on recent returns when making investment decisions, then it is possible that the relative strength of the real estate market may have caused investors to weight portfolios away from stocks and toward rental real estate in the first part of the decade, leading to a lack of diversification. This overweighing of rental real estate would have set households up for significant losses when the real estate market collapsed in the latter part of the decade. Furthermore, the high returns in the real estate market could have attracted individuals who were unprepared for the time commitment and expenses related to rental real estate ownership, causing portfolio losses that might not have occurred had these novice investors kept their portfolios weighted toward stocks. It is important for both the academic and practitioner community to have a better understanding of the factors related to rental real estate ownership during the 2000s so they can work to educate clients with these characteristics about the risks of investment in rental real estate and how this investment compares to a more diversified portfolio. Given this backdrop, this article investigates the following research questions:

1. What are the demographic and financial profiles of investors in rental real estate in the 2001, 2004, and 2008 periods?
2. What is the relationship between demographic and financial characteristics and investment in rental real estate in 2001, 2004, and 2008?

The questions are investigated using data from the 2001, 2004, and 2008 panels of the Survey of Income and Program Participation (SIPP). These periods coincide with the early to mid-boom of the real estate market (2001), the height of the real estate boom (2004), and after the real estate market began to decline (2008), providing the opportunity to understand how households made rental real estate investment decisions across changing economic conditions.

This study adds to previous literature by providing insight into the effect of changing economic conditions on investment behavior within the context of rental real estate investment. Understanding if, how, and for which subpopulations recency effects influenced direct investment in rental real estate will contribute to the growing body of literature in the field of behavioral economics, as academics seek to understand patterns of behavior exhibited by consumers. Lastly, given that rental real estate is often purchased with leverage, through the use of mortgages, this research provides targeted insight into a deceptively risky investment opportunity that is commonly pursued in the United States.

## Literature Review

### *Benefits and Costs of Rental Real Estate Investment*

Real estate has long been the dominant asset class in household investment portfolios (Flavin & Yamashita, 2002; Letkiewicz & Hanna, 2013), and the choice to own it is an important household consumption decision. According to the consumption capital asset pricing model (Benjamin, Chinloy, & Jud, 2004), such choices do not come without merit, with the research suggesting that the inclusion of real estate within one's portfolio allows households to maximize their gains.

Rental real estate is notable for three distinct sources of return on investment: (a) rent payments, (b) property appreciation, and (c) income tax benefits (Seay, Carswell, Nielsen, & Palmer, 2013). When property is successfully rented, a steady cash flow is provided through a stream of rent payments. In addition to offsetting the costs of ownership that commonly include mortgage payments, home insurance,

property taxes, and any necessary maintenance, this investment income also generates positive cash flow. The ability to achieve gains in equity through fluctuations in market value serves as the second source of return on investment. With the ability to borrow the majority of the property cost, the rate of return associated with even minuscule market changes can be quite significant. For example, for a home with a loan to value ratio of 80%, a 1% increase in market value is associated with a 5% investment return. This form of leverage was attractive to investors during the market boom, especially given the perception at the time that risk of real estate loss in value was minimal. However, this use of leverage also served to make rental real estate investment relatively risky, as a 1% decrease in market value leads to a 5% loss. Lastly, there are significant tax advantages of owning rental property, including the deductibility of interest, depreciation, taxes, casualty losses, maintenance, utilities, and insurance, all of which serve to minimize holding costs of the property (Anderson, 2008).

The potential for high returns and tax incentives associated with rental real estate ownership might be attractive to novice investors, but there are also risks that may come as a surprise to them. The time commitment and expenses associated with preparing a property for rental occupancy and securing acceptable tenants make it rare for rental real estate investors to turn a profit in the first year of ownership (LeReah, 2005). New investors might also be unprepared for the financial costs of the investment, including expenses related to insurance, property management service fees, maintenance, leasing, accounting, and financing (Lederer, 2009), and the contingency reserves necessary for funding emergencies. While hands-on investors could minimize expenses by performing these repairs and services themselves, there will likely still be more unexpected costs for investors inexperienced with owning and managing rental properties (Lederer, 2009). In addition to these financial factors, there are also nonfinancial costs to rental real estate ownership, such as constant, sometimes daily, time commitments to the investment (Anderson, 2008), stressors involving the tenant-landlord relationship (Lederer, 2009) and the opportunity costs of time spent handling property-related issues.

### *Demographic Characteristics of Rental Real Estate Owners*

Due to the significance of real estate ownership, it is important to gain a better understanding of the demographic

and financial characteristics of individuals who invest in rental property. According to Bogdon and Ling (1998), the majority of rental property owners were higher income, White, and non-Hispanic. The literature results regarding race, however, are inconclusive. Seay et al. (2013) found that Black households were more likely to own rental real estate when holding all else equal. Hanna, Wang, and Yuh (2010) indicated that Black and White households would have the same ownership rates for high return investments if they had the same characteristics and risk tolerance. Shin and Hanna (2015) suggested that the percentage of Black households owning high return investments would be lower than that of White households, holding characteristics and risk tolerance equal. However, Shin and Hanna also found that, among households that own high return investments, Black households owned a disproportionately high percentage of investment real estate. Gutter, Fox, and Montalto (1999) indicated that differing levels of stock ownership between racial groups were largely based on household status, specifically the presence of children and household size. Hanna, Wang, and Lindamood (2008) found no significant racial or ethnic differences in rental real estate ownership, conditional on ownership of stocks or business assets.

Seay et al. (2013) found net worth to be a significant indicator of rental property ownership with households in the fifth quintile of net worth owning rental property at 30 times the rate of households in the first quintile. Education has been consistently found to be associated with risky asset ownership. A review of literature showed an almost unanimous conclusion that there is a positive relationship between educational attainment levels and ownership of risky assets (Coleman, 2003; Gutter et al., 1999; Hanna et al., 2010; Plath & Stevenson, 2001; Sung & Hanna, 1996; Wang & Hanna, 2007). Age has been found to have a curvilinear relationship with rental real estate ownership, suggesting that investment in rental real estate will increase with age through mid-life and then decrease thereafter (Seay et al., 2013). There are also reasons to believe that a household's health status may affect the likelihood of rental property investment. As compared to alternative investments, rental property is a very "hands-on" investment, requiring significant time and effort on the investor's part to maintain the property. For this reason, householders with poor health may be less likely to choose it as an investment option. This relationship is supported by research indicating increased

risky asset ownership levels as a whole for healthy individuals (Hanna et al., 2010; Yao & Hanna, 2005).

Kelley (2004) concluded that nearly 80% of rental properties were owned either by individuals or husband/wife owners, thus belying the notion that a heavy concentration of ownership of such properties lies with big businesses and corporations. Furthermore, relative to married couples, single-parent households have been found to be less likely and individual male households more likely to own rental real estate, *ceteris paribus* (Seay et al., 2013), indicating that household type is correlated with rental property ownership. Home ownership has been a predictor of rental property ownership with Seay et al. (2013) finding that the odds of a homeowner owning rental property were 90.2% greater than the odds of nonhomeowners; and that homeowners who identified as being housing cost burdened (spending greater than 30% of gross income on primary residence costs including rent, mortgage payments, and utilities) were more likely to own rental real estate than those who did not (Stone, 2009).

## **Methods**

### ***Data and Sample***

Data were utilized from the 2001, 2004, and 2008 panels of the SIPP. The SIPP is a nationally representative longitudinal survey conducted by the U.S. Census Bureau that seeks to provide both accurate and timely information to measure the participation of households in federal, state, and local government programs, as well as their effectiveness (U. S. Census Bureau, 2001).

Although the SIPP is a longitudinal dataset, it utilizes a new panel every 3 to 4 years, restricting the ability to follow households over an extended period of time. Due to the extended period of analysis, the use of multiple panels is required in the current analysis. To gather data from various points throughout the decade, data were taken from the 2001, 2004, and 2008 panels of the SIPP. Each panel consisted of 36,700; 46,500; and 45,000 households, respectively. During each wave (every 4 months), a core set of questions are asked, as well as questions from a topical module that change every wave. Core data from 2001 and 2004 were taken from waves 1 through 3, with rental real estate information being extracted from the wave 3 topical module. The survey was slightly reorganized for the 2008

panel, requiring the use of core data from waves 2 through 4, and topical module data from wave 4.

The sample for this analysis was drawn from the SIPP based on the following criteria. First, because the analysis was done at a household level, only observations from the householder were retained. A householder was identified as an individual that either owns his or her place of residence or, in the case of rental, is the leaseholder. Second, only householders who reported being aged 25 years or older at the beginning of the period of analysis were included. Last, only observations containing completed surveys in all three core modules and the topical module were included. The final samples included 24,068 households, (96,110,000 when weighted), 34,756 households (100,620,000 when weighted), and 31,075 households (101,150,000 when weighted), respectively.

### **Statistical Analysis**

Research question 1 was explored through a series of bivariate statistics. First, the rental real estate ownership rates based on demographic and economic characteristics were investigated for the three samples. Next, the characteristics of rental real estate owners were investigated by revealing the demographic and economic characteristics of owners.

Research question 2 was investigated using a series of three logistic regression models. The following empirical model was utilized in each of these analyses:

$$Pr[RP_t = 1] = F(\beta_1 D_t + \beta_2 F_t + \beta_3 HS_t) \quad (1)$$

The dependent variable in this model,  $RP_t$ , represented owning residential or vacation rental property in a given period. Time-shares were not included in the definition of rental real estate property for this study. The independent variables for this analysis included demographic characteristics, financial characteristics, and self-reported health status in a given period, represented by  $D_t$ ,  $F_t$ , and  $HS_t$ , respectively. Demographic characteristics included both householder (age, race, ethnicity, and education) and household characteristics (marital status and number of children). Based on previous literature related to housing, Census region was included as a geographic control variable as an indicator for regional differences in rental real estate markets. Household financial characteristics include income, net worth, homeownership

status, and housing burdened status (spending more than 30% of gross income on primary residence's housing costs including rent, mortgage payment, and utilities). Income and net worth were measured as quintiles. Income quintile upper limits for 2001, 2004, and 2008 were, respectively, as follows: lowest quintile—\$18,919, \$20,140, and \$21,871; second quintile—\$33,374, \$36,006, and \$39,020; third quintile—\$50,645, \$55,409, and \$60,408; fourth quintile—\$76,648, \$84,978, and \$94,371. Net worth quintile upper limits for 2001, 2004, and 2008 were, respectively, as follows: lowest quintile—\$2,748, \$2,750, and \$850; second quintile—\$38,694, \$50,605, and \$42,650; third quintile—\$108,045, \$142,474, and \$150,000; fourth quintile—\$259,400, \$331,175, and \$368,934. Due to sample size limitations, net worth quintiles 1 and 2 were combined for the logistic regression analyses. Lastly, householder health status was included as a control variable.

Due to an unequal probability of selection, each sampled household was weighted based on the complex sample design information contained in the SIPP to generate population-representative statistics with appropriately adjusted standard errors. Previous work with the SIPP has shown that failure to account for the complex sampling design when making population-level estimates can lead to Type I errors (Nielsen, Davern, Jones & Boies, 2009; Nielsen & Seay, 2014). Accordingly, the Taylor series method (Teping, 1968) was utilized to incorporate complex sampling design information into the analysis.

## **Results**

### **Descriptive Results**

The first set of analyses sought to determine the rental real estate ownership rates related to householder and household characteristics in each period. As illustrated in Table 1, an overall trend toward increased investment in rental real estate is revealed, as reported investment rates rose from 4.57% in 2001 to 5.08% in 2008. Generally, the characteristics of rental real estate owners remained consistent over the three periods. Non-Hispanics, Whites, Asians, homeowners, married individuals, householders in good health, households with no children, households in the Western region, and households that were not housing burdened consistently reported higher levels of investment in rental real estate. Additionally, increases in income, net worth, and educational attainment levels were associated with higher reported levels of rental property investment. Furthermore,



**TABLE 1. Rental Real Estate Ownership Rates by Selected Characteristics: 2001, 2004, and 2008**

Characteristic	2001		2004		2008	
	<i>n</i> (1,000s)	Ownership %	<i>n</i> (1,000s)	Ownership %	<i>n</i> (1,000s)	Ownership %
Total households	96,110	4.57	100,620	5.00	101,150	5.08
Age of householder						
25–34	18,040	2.09	18,330	2.24	16,610	2.55
35–44	23,250	3.60	23,130	4.30	20,610	4.56
45–54	20,530	5.65	22,450	5.92	23,330	5.52
55–64	13,820	7.01	15,980	7.52	18,480	7.01
65+	20,480	5.11	20,730	5.27	22,110	5.41
Hispanic						
Hispanic	8,670	3.39	10,280	2.38	11,420	2.83
Non-Hispanic	87,440	4.68	90,340	5.29	89,730	5.37
Race						
White	81,000	4.82	82,620	5.25	82,930	5.42
Black	11,040	2.81	12,130	3.24	12,130	3.12
Asian	3,140	4.98	2,930	5.68	3,160	5.92
Other	930	2.46	2,940	4.52	2,940	2.83
Education						
Less than high school graduate	14,820	2.62	10,220	2.39	8,200	1.90
High school graduate	27,500	3.82	26,930	3.72	26,780	3.05
Some college or associate's	27,900	4.44	35,720	4.77	34,920	4.92
Bachelor's degree	16,380	6.38	17,540	7.39	19,580	7.27
Postgraduate degree	9,510	7.02	10,210	7.66	11,670	8.80
Region <sup>a</sup>						
Northeast	18,870	4.86	19,260	5.21	18,710	4.77
Midwest	22,590	4.17	23,080	4.69	23,080	4.42
South	34,510	3.83	36,050	4.18	37,150	4.28
West	20,140	6.00	22,230	6.45	22,210	7.39
Marital status						
Married	51,870	5.95	53,740	6.26	52,890	6.62
Single male	16,590	3.55	18,100	4.48	19,120	3.70
Single female	27,660	2.59	28,780	2.95	29,130	3.19
Children						
0	62,250	5.02	65,100	5.47	67,180	5.26
1	13,700	4.00	14,750	3.88	14,140	4.56
2	12,790	3.72	13,030	4.25	12,270	5.05
3 or more	7,370	3.29	7,740	4.36	7,560	4.57
Household income						
Quintile 1	19,220	1.85	20,130	2.16	20,230	2.04
Quintile 2	19,230	3.23	20,120	3.18	20,230	3.54
Quintile 3	19,220	4.03	20,120	4.35	20,230	4.08
Quintile 4	19,220	5.77	20,130	5.57	20,230	6.23

*(Continued)*

**TABLE 1. Rental Real Estate Ownership Rates by Selected Characteristics: 2001, 2004, and 2008 (Continued)**

Characteristic	2001		2004		2008	
	<i>n</i> (1,000s)	Ownership %	<i>n</i> (1,000s)	Ownership %	<i>n</i> (1,000s)	Ownership %
Quintile 5	19,220	7.96	20,120	9.73	20,230	9.53
Household net worth						
Quintile 1	19,220	0.54	20,130	0.24	20,250	1.02
Quintile 2	19,220	1.00	20,120	1.13	20,220	0.87
Quintile 3	19,220	3.24	20,120	3.09	20,270	2.53
Quintile 4	19,220	5.49	20,120	5.73	20,180	6.16
Quintile 5	19,220	12.56	20,120	14.79	20,230	14.86
Homeownership status						
Homeowner	68,760	5.94	71,250	6.62	71,270	6.78
Nonhomeowner	27,350	1.11	29,370	1.05	29,880	1.04
Health status <sup>b</sup>						
Good health	79,020	4.81	83,310	5.34	84,990	5.44
Poor health	17,090	3.44	17,310	3.33	16,160	3.21
Housing burdened <sup>c</sup>						
Yes	23,530	2.92	26,700	3.29	31,100	3.69
No	72,590	5.10	73,920	5.62	70,050	5.70

*Note.* Calculations based on the SIPP 2001 panel, waves 1–3 and topical module 3, 2004 panel, waves 1–3 and topical module 3, and 2008 panel, waves 2–4 and topical module 4.

<sup>a</sup>Regions based on Census regions.

<sup>b</sup>Determined based on self-reported health status. Health status rated good if indicated to be excellent, very good, or good. Health status rated poor if indicated to be fair or poor.

<sup>c</sup>Housing burdened is defined as spending more than 30% of gross income on primary residence’s housing costs, including rent, mortgage payment, and utilities.

a curvilinear pattern between age and reported investment holdings was exhibited in all three periods, as higher levels of reported investment rates were associated with increases in age groups through age 55–64 years, before decreasing afterward.

Next, a series of analyses investigated the demographic and financial profiles of investors in rental real estate in the 2001, 2004, and 2008 periods. Overall, Table 2 shows that the number of rental real estate investors steadily increased from an estimated 4,392,000 in 2001 to 5,138,000 in 2008. The majority of investors in all three periods were non-Hispanic, White, married, childless, homeowners, healthy, had high net worth, and were not housing burdened on their primary home. Additionally, the majority of investors had either some college or a bachelor’s degree, were aged 45 years or older, lived in the south or west, and had a high income.

### **Logistic Regression Results**

Next, the relationship between demographic and financial characteristics and investment in rental real estate in 2001, 2004, and 2008 was explored. Table 3 provides the results for three logistic regression models estimating the likelihood of investing in rental real estate. Data were weighted, and the Taylor Series method was utilized to incorporate complex sampling design information. The results of these analyses revealed that several characteristics (race, net worth, and homeownership status) were consistently related to the investment decision. Specifically, when compared to White households, Black households had significantly higher odds of owning rental real estate in three periods. Furthermore, when compared to quintile 3 of net worth, quintile 4 and quintile 5 had significantly higher odds of owning rental real estate. Additionally, when compared to quintile 3 of net worth, quintiles 1/2 had significantly lower odds of owning rental real estate in all three periods. Moreover, when compared to nonhomeowners, homeowners had

**TABLE 2. Characteristics of Rental Real Estate Investors: 2001, 2004, and 2008**

Characteristic	2001		2004		2008	
	<i>n</i> (1,000s)	% of Owners	<i>n</i> (1,000s)	% of Owners	<i>n</i> (1,000s)	% of Owners
Total property investors	4,392	100.00	5,031	100.00	5,138	100.00
Age of householder						
25–34	377	8.58	411	8.16	424	8.24
35–44	837	19.06	995	19.77	940	18.29
45–54	1,160	26.41	1,329	26.42	1,288	25.06
55–64	969	22.06	1,202	23.89	1,295	25.21
65+	1,047	23.83	1,092	21.71	1,196	23.28
Hispanic						
Hispanic	294	6.69	245	4.86	323	6.29
Non-Hispanic	4,092	93.17	4,779	94.99	4,819	93.77
Race						
White	3,904	88.89	4,338	86.22	4,495	87.47
Black	310	7.06	393	7.81	378	7.37
Asian	156	3.56	166	3.31	187	3.64
Other	23	0.52	133	2.64	83	1.62
Education						
Less than high school graduate	388	8.84	244	4.86	156	3.03
High school graduate	1,051	23.92	1,002	19.91	817	15.90
Some college or associate's	1,239	28.20	1,704	33.87	1,718	33.44
Bachelor's degree	1,045	23.79	1,296	25.76	1,423	27.70
Postgraduate degree	668	15.20	782	15.55	1,027	19.99
Region <sup>a</sup>						
Northeast	917	20.88	1,003	19.95	892	17.37
Midwest	942	21.45	1,082	21.52	1,020	19.85
South	1,322	30.09	1,507	29.95	1,590	30.94
West	1,208	27.51	1,434	28.50	1,641	31.94
Marital status						
Married	3,086	70.27	3,364	66.87	3,501	68.14
Single male	589	13.41	811	16.12	707	13.77
Single female	716	16.31	849	16.88	929	18.08
Children						
0	3,125	71.15	3,561	70.78	3,534	68.77
1	548	12.48	572	11.38	645	12.55
2	476	10.83	554	11.01	620	12.06
3 or more	242	5.52	337	6.71	345	6.72
Household income						
Quintile 1	356	8.10	435	8.64	413	8.03
Quintile 2	621	14.14	640	12.72	716	13.94
Quintile 3	775	17.63	875	17.40	825	16.06
Quintile 4	1,109	25.25	1,121	22.29	1,260	24.53
Quintile 5	1,530	34.83	1,958	38.91	1,928	37.52

(Continued)



**TABLE 2. Characteristics of Rental Real Estate Investors: 2001, 2004, and 2008 (Continued)**

Characteristic	2001		2004		2008	
	<i>n</i> (1,000s)	% of Owners	<i>n</i> (1,000s)	% of Owners	<i>n</i> (1,000s)	% of Owners
Household net worth						
Quintile 1	104	2.36	48	0.96	207	4.02
Quintile 2	192	4.38	227	4.52	176	3.42
Quintile 3	623	14.18	622	12.36	513	9.98
Quintile 4	1,055	24.02	1,153	22.92	1,243	24.19
Quintile 5	2,414	54.96	2,976	59.15	3,006	58.50
Homeownership status						
Homeowner	4,084	92.99	4,717	93.75	4,832	94.04
Nonhomeowner	304	6.91	308	6.13	311	6.05
Health status <sup>b</sup>						
Good health	3,801	86.54	4,449	88.43	4,623	89.98
Poor health	588	13.38	576	11.46	519	10.10
Housing burdened <sup>c</sup>						
Yes	687	15.64	878	17.46	1,148	22.33
No	3,702	84.29	4,154	82.57	3,993	77.71

*Note.* Calculations based on the SIPP 2001 panel, waves 1–3 and topical module 3, 2004 panel, waves 1–3 and topical module 3, and 2008 panel, waves 2–4 and topical module 4.

<sup>a</sup>Regions based on Census regions.

<sup>b</sup>Determined based on self-reported health status. Health status rated good if indicated to be excellent, very good, or good. Health status rated poor if indicated to be fair or poor.

<sup>c</sup>Housing burdened is defined as spending more than 30% of gross income on primary residence’s housing costs, including rent, mortgage payment, and utilities.

significantly higher odds of owning rental real estate in all three periods.

Additionally, several characteristics (Hispanic, age, income, marital status, region, and housing burdened status) were found to significantly predict the decisions to invest in rental real estate in at least one period. Hispanic households were significantly more likely to own rental real estate in 2001 than non-Hispanic households. When compared to the quintile 3 of income, households in the quintile 1 of income were significantly less likely and households in the quintile 4 of income were significantly more likely to own rental real estate in 2001. In terms of age, when compared to householders aged 25–34 years, householders aged 45–54 years were significantly more likely to own rental real estate in 2001, and householders aged 55–64 years were significantly more likely to own rental real estate in both 2001 and 2004. Compared to married householders, single female householders were significantly less likely to own rental real estate in 2001, and single male householders were significantly more likely to own rental real estate in 2004. Households located in the west Region, compared to those

in the south Region, were significantly more likely to own rental real estate in both 2001 and 2008. Households who indicated they were housing burdened were significantly more likely to own rental real estate in 2004 and 2008 than those who were not housing burdened.

## Discussion

This study examined the characteristics of households that invested in rental real estate during the 2000s in two ways. First, bivariate descriptive statistics were generated to gain a better understanding of investor profiles. Overall, an increase in the number of households invested in rental real estate was noted between 2001 and 2008. Descriptive results indicated that the majority of households that owned rental real estate were non-Hispanic, White, married, had no children, and were aged 45 years or older. Similarly, the majority of investors owned their primary home, had high net worth and income, and were not housing burdened on their primary home. These profiles were found to be consistent over time.

Subpopulation investment rates for demographic and financial characteristics were also explored. Householders with

**TABLE 3. Logistic Regression Results Estimating Probability of Holding Rental Real Estate: 2001, 2004, and 2008**

Characteristic	2001			2004			2008		
	<i>B</i>	Odds Ratio	<i>p</i> Value	<i>B</i>	Odds Ratio	<i>p</i> Value	<i>B</i>	Odds Ratio	<i>p</i> Value
Intercept									
Age of householder									
25–34	–	–	–	–	–	–	–	–	–
35–44	0.049	1.050	.736	0.107	1.113	.341	–0.045	0.956	.711
45–54	0.245	1.277	<b>.048</b>	0.170	1.185	.128	–0.123	0.884	.270
55–64	0.353	1.424	<b>.012</b>	0.308	1.361	<b>.019</b>	–0.043	0.958	.685
65+	0.177	1.194	.251	0.125	1.133	.294	–0.195	0.823	.120
Hispanic									
Hispanic	.0403	1.496	<b>.007</b>	–0.228	0.796	.116	0.027	1.027	.855
Race									
White	–	–	–	–	–	–	–	–	–
Black	0.381	1.464	<b>.005</b>	0.356	1.427	<b>.001</b>	0.318	1.374	<b>.019</b>
Asian or other	–	1.000	.999	0.074	1.077	.554	–0.164	0.849	.213
Education									
Less than high school graduate	–	–	–	–	–	–	–	–	–
High school graduate	–0.029	0.971	.808	–0.088	0.916	.434	0.009	1.009	.960
Some college or associate’s	–0.049	0.952	.704	–0.017	0.983	.897	0.280	1.323	.118
Bachelor’s degree	–0.038	0.963	.808	0.042	1.043	.747	0.323	1.381	.090
Postgraduate degree	–0.105	0.900	.509	–0.120	0.887	.413	0.344	1.411	.073
Region <sup>a</sup>									
Northeast	0.052	1.053	.616	0.017	1.017	.831	–0.074	0.929	.394
Midwest	–0.065	0.937	.448	0.024	1.024	.759	–0.027	0.973	.783
South	–	–	–	–	–	–	–	–	–
West	0.248	1.281	<b>.005</b>	0.142	1.153	.074	0.439	1.551	<b>.001</b>
Marital status									
Married	–	–	–	–	–	–	–	–	–
Single male	–0.027	0.973	.791	0.349	1.417	<b>.001</b>	1.013	1.013	.895
Single female	–0.222	0.801	<b>.018</b>	–0.065	0.937	.455	–0.065	0.937	.395
Children									
Number of children	–0.052	0.949	.251	–0.025	0.975	.455	0.007	1.007	.827
Household annual income									
Quintile 1	–0.351	0.704	<b>.030</b>	–0.209	0.811	.057	–0.232	0.793	.088
Quintile 2	–0.067	0.935	.574	–0.089	0.915	.411	0.076	1.079	.542
Quintile 3	–	–	–	–	–	–	–	–	–
Quintile 4	0.234	1.264	<b>.006</b>	0.034	1.035	.729	0.134	1.143	.149
Quintile 5	.0189	1.208	.103	0.203	1.225	.057	0.180	1.197	.057
Household net worth									
Quintiles 1/2	–1.234	0.291	<b>.001</b>	–1.306	0.271	<b>.001</b>	–0.761	0.467	<b>.001</b>
Quintile 3	–	–	–	–	–	–	–	–	–
Quintile 4	0.496	1.642	<b>.001</b>	0.596	1.815	<b>.001</b>	0.865	2.375	<b>.001</b>

(Continued)

**TABLE 3. Logistic Regression Results Estimating Probability of Holding Rental Real Estate: 2001, 2004, and 2008 (Continued)**

Characteristic	2001			2004			2008		
	<i>B</i>	Odds Ratio	<i>p</i> Value	<i>B</i>	Odds Ratio	<i>p</i> Value	<i>B</i>	Odds Ratio	<i>p</i> Value
Quintile 5	1.321	3.747	<b>.001</b>	1.568	4.799	<b>.001</b>	1.768	5.858	<b>.001</b>
Homeownership status									
Homeowner	1.577	1.577	<b>.006</b>	0.492	1.636	<b>.003</b>	0.783	2.189	<b>.001</b>
Health status <sup>b</sup>									
Good health	0.456	0.960	.694	0.046	1.047	.613	0.036	1.037	.665
Housing burdened <sup>c</sup>									
Yes	-0.041	1.197	.062	0.236	1.266	<b>.001</b>	0.350	1.419	<b>.001</b>
Pseudo <i>R</i> <sup>2</sup>			.122			.142			.144
Concordance ratio			77.9%			78.5%			78.9%

*Note.* Calculations based on the SIPP 2001 panel, waves 1–3 and topical module 3, 2004 panel, waves 1–3 and topical module 3, and 2008 panel, waves 2–4 and topical module 4. Boldface *p* values indicate significance at *p* < .05.

<sup>a</sup>Regions based on Census regions.

<sup>b</sup>Determined based on self-reported health status. Health status rated good if indicated to be excellent, very good, or good. Health status rated poor if indicated to be fair or poor.

<sup>c</sup>Housing burdened is defined as spending more than 30% of gross income on primary residence’s housing costs, including rent, mortgage payment, and utilities.

relatively higher levels of rental real estate ownership were non-Hispanics, Whites, Asians, married individuals, and those with higher levels of educational attainment. Households with high income, high net worth, homeowners, and those with no housing cost burden on their primary home also had higher ownership rates. Regarding age, a curvilinear pattern between householder age and reported investment rates was found. Once again, these ownership patterns were consistent across all time periods.

When viewed from the perspective of the MPT, some areas of concern were noted. MPT indicates that a diversified portfolio would not be significantly overweighted in any category. In this case, investment in rental property represents a significant exposure to real estate as an asset class. On average, due to the relatively large portion of net worth their primary homes represent, homeowners have a tendency to be overweighted into real estate. Given the relatively higher reported investment rates of homeowners, there is some concern that homeowners may be overinvested in real estate as an asset class. However, this concern is mitigated by the correlation noted between net worth and investment in rental real estate. The percentage of an investment portfolio comprised of a household’s primary home would be relatively lower for these high net worth households. Therefore, it is possible that investment in rental property is a mechanism by which high net worth households achieve

proper allocation to real estate in general as an asset class. Furthermore, rental real estate, due to its ability to generate income, may behave differently as a subasset class than nonrental developed real estate, where exposure to the real estate market is the sole means of investment returns.

The second objective of this study was to determine the relationship between demographic and financial characteristics and investment in rental real estate. This was investigated through a series of logistic regression analyses. The results of these analyses revealed that several characteristics (race, net worth, and homeownership status) consistently predict the investment decision. Additionally, several characteristics (Hispanic, age, income, marital status, region, and housing burdened status) were found to be related to the decisions to invest in rental real estate in at least one time period.

Interesting results were found related to Black and housing cost burdened households. First, Black householders were consistently more likely to be invested in rental real estate than Whites. The magnitude of this relationship was shown to be fairly large, as point estimates across the decade indicated that the odds of a Black householder being invested were between 37% and 46% higher than those of White householders. The results coincide with early studies noting a preference among Black investors for real estate (Plath & Stevenson, 2001; Seay et al., 2013; Shin & Hanna, 2015) and appear to indicate that

rental real estate investment is a particularly attractive investment alternative for Black households. This preference for real estate may have been aided by changes in public policy and lending standards leading up to this period (Carswell, 2009), as mortgages were extended to minority populations at unprecedented rates during the early 2000s (Immergluck, 2009). The increased availability and exposure to real estate purchases may have helped to create a familiarity bias that influenced Black households to invest in rental property.

In contrast to bivariate results, multivariate results indicate that housing burdened households are more likely to be invested in rental real estate. This relationship was statistically significant in 2004 and 2008. The basis for understanding this relationship may be found in the literature, indicating speculative investing in primary homes leading up to this period (Stone, 2009). It is possible that housing cost burdened individuals are revealing a preference for real estate as an investment beyond their primary home. However, when combined with results indicating homeowners are more likely to be invested in rental real estate, significant concerns about an over-reliance on real estate as an investment strategy are created. This result implies that households, with exposure to real estate through homeownership, that are currently overextended on their primary residences are more likely to be further exposed to real estate through rental property. When considering MPT, a household's further expansion into real estate may indicate a lack of diversification in its overall portfolio. Further research is needed to investigate the percentage of household wealth allocated to rental real estate to isolate the true risk to households that this potential overweighting represents.

### ***Limitations and Future Research***

Several challenges were faced in conducting this research. The most significant limitation of this study was driven by the possibility of omitted variable bias. Given that the previous literature addressing investment in rental real estate is sparse, the selection of variables was driven by parallel research into stock market investment and risk tolerance levels. While this provided a strong basis of core variables from which to work, there is a significant possibility that other factors not included in this analysis influenced the investment decision. Two of these factors, risk tolerance and prior exposure to real estate, were identified but could not be directly included in the analyses due to data limitations.

Another significant issue faced in this study is the presence of left censoring. Left censoring occurs when a respondent has already been exposed to or taken part in an event prior to observation. While information as to whether respondents were invested in rental real estate was contained in the SIPP, no insight was provided as to when this investment took place. Therefore, it is possible that respondents purchased rental properties in past years when demographic and financial characteristics were very different from those observed today. Therefore, while this study is successful in ascertaining relationships with *being invested* in rental real estate, it is limited in its ability to explain the *decision to invest* in a given period.

Given these limitations, future research should attempt to identify a dataset that would allow for the inclusion of additional predictor variables, as well as investigate the act of actually investing in a given period. Additionally, an understanding of the financial outcomes associated with investment in rental real estate would prove useful to both academics and practitioners in advising their clients. Lastly, it is suggested that an analysis similar to the one employed in this research be conducted using data from a later date. Due to data limitations, the latest period used for analysis was 2008. However, the downturn in the real estate market continued into 2012. Furthermore, there is evidence that there have been increases in real estate investment activities in recent years (Passy, 2011), possibly driven by the availability of relatively inexpensive foreclosed homes (Immergluck, 2012). An exploration of investment behavior in rental real estate at a later period, preferably 2010 or later, would allow the full effects of the decline on investment behavior to be revealed.

### ***Implications for Practitioners***

Given that rental real estate is a viable investment alternative and, when purchased, typically represents a significant portion of an overall investment portfolio, it is important for both the academic and practitioner community to have a better understanding of the characteristics of rental real estate investors. Direct investment in rental real estate is particularly attractive to certain individuals due to its tangibility, the ability to earn sweat equity, the presence of significant tax benefits, and the ability to use leverage to increase market returns. However, given that the vast majority of property is purchased with a mortgage, decreases in property values, like those experienced in the latter half

of the 2000s, can significantly interfere with a household's financial objectives. For example, a \$20,000 investment in the stock market that loses 20% will still leave the investor with \$16,000, while a \$20,000 investment in a \$100,000 rental property that loses 20% would result in a complete loss of the original investment.

Another consideration for practitioners is that many households hold investment properties in one location. While this provides some level of comfort to the investor, it also raises questions about the presence of familiarity bias and unnecessary diversifiable risk due to local real estate market fluctuations. There are parallels to individuals who prefer to hold stock in their own company, rather than investing in a more diversified array of stock investment options (Lai & Xiao, 2010). As a result, rental real estate investors might be better advised to invest in broad-based real estate investment trust (REIT) funds instead. Focusing on REITs instead of individual rental properties increases geographic dispersion, which helps to alleviate risk and reduces the overall exposure to localized housing recessions that could seriously damage an individual investor's net worth.

Evidence of potential overreliance on real estate investment indicates that financial planners should work to educate clients who invest, or are seeking to invest, in real estate. Specifically, financial planners should emphasize that overweighting portfolios with real estate investments could derail client wealth goals in times of slow rental or depreciating housing markets in comparison to a more balanced portfolio. Furthermore, financial planners should reiterate to their clients who may be basing investment decisions on recent fluctuations in the market that recent market returns are not necessarily indicative of future returns. Financial planners could also help clients evaluate the decision to invest in rental real estate with the use of financial ratios specific to rental real estate performance. For instance, the gross rental yield (gross rental income divided by total investment in the property) could be used to discuss returns on investments compared to other investment alternatives, and the net rental yield (gross rental income minus total expenses, excluding the principal and interest portions of the mortgage payment, divided by total investment in the property) could remind the client of unexpected rental real estate expenses such as insurance, taxes, repairs, and vacancies that might not otherwise be factored into the purchase decision.

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