

Risk Tolerance and the Investment Behavior of Black and Hispanic Heads of Household

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Attitudes toward risk and willingness to hold risky assets are compared for white, Hispanic, and black heads of household using data from the 1998 Survey of Consumer Finances. Results indicate that Hispanic heads of household evidenced a significantly higher level of risk aversion and held a significantly lower percentage of risky assets to net worth. Contrary to prior research, the results for black heads of household were not significant when we control for the level of household wealth suggesting that, although blacks may hold different types of assets than whites, they are not necessarily more risk averse.

Key words: *Risk tolerance, racial differences, asset allocation*

Introduction

In recent years black and Hispanic households have taken on an increasingly important role within the investment community, both numerically and economically. Census data reveal that black and Hispanic populations in the United States are growing much more rapidly than whites. The nation's Hispanic population increased by 58 percent from 1990 through 2000 making it the fastest growing minority group (The Hispanic Population: 2000, 2001). During the same timeframe, the black population increased by 15.6 percent (The Black Population: 2000, 2001), while the white population increased by 5.9 percent (The White Population: 2000, 2001). Projections into the future suggest that this trend will continue. The black population is forecasted to increase by 83 percent and the Hispanic population by 258 percent from 1995 through 2050 compared to a projected 7 percent increase for the non-Hispanic white population (Dynamic Diversity..., 1999). By 2050 it is anticipated that blacks will have increased from 13 percent to 15 percent of the total population while Hispanics will have increased from 10 percent to 24 percent. In light of these forecasted gains, it is well worth our while to examine the investment behavior and risk preferences of black and Hispanic households.

This article will use data from the 1998 Survey of Consumer Finances to compare asset holdings and risk preferences for white, black, and Hispanic households in order to determine if there are differences in their attitudes toward risk and in their investment behaviors. Differences in the mix of

assets held may, in turn, translate into differences in the level of household wealth. The article is organized into five sections of which this is the first. The second section includes a review of prior research regarding the investment behavior of minority households. The third section describes the data including univariate comparisons. Section 4 provides the multivariate models and results, and Section 5 includes a discussion of findings as well as directions for further study.

Prior Research

As blacks and Hispanics in this country have increased in number, they have also increased in wealth. Nevertheless, a number of studies continue to attest to the wealth gap between white households and black and Hispanic households (Hurst et al., 1998; Smith, 1995). Differences in wealth may be at least partially attributed to differences in investment behavior and in the types of assets held. Finance theory, and more specifically the Capital Asset Pricing Model, teaches us that lower risk and less volatile assets produce lower returns over time than assets characterized by higher risk and volatility. Thus, if black and Hispanic households hold fewer assets, or alternatively, if their holdings are concentrated into lower risk types of assets, their asset returns will be correspondingly lower. In general, prior research comparing white and minority investors suggests that this is the case.

In a study of young families, Blau and Graham (1990) found that black families had only 18 percent of the wealth of white families. Further, they found

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that blacks held a higher proportion of their assets in the form of physical assets such as cars and houses as opposed to income producing financial assets such as stocks and bonds. Smith (1995) found enormous race disparities in wealth; black households had 27 percent of the wealth of white household while Hispanic households had 30 percent of the wealth of white households. Smith also found that, on average, black and Hispanic households held a very low level of financial assets. Using data from the 1992 Survey of Consumer Finances, Sung and Hanna (1996) found that white heads of household expressed a higher tolerance for risk than Hispanics leading the authors to conclude that Hispanic households may have less understanding of the nature of financial risk. These findings conflict with an earlier study by Schooley and Worden (1996), however, in which minority households held a higher level of risky assets than white households.

Using data from the 1989 Survey of Consumer Finances, Zhong and Xiao (1995) found that stockholders tended to be wealthier than the general population. Along the same lines, they found that white households held a higher dollar value of stocks than minority households. In a study also using data from the 1992 SCF, Badu et al. (1999) found that whites held higher asset values than blacks in every asset category, and that white households relied more heavily on higher risk, higher return types of investment vehicles such as stock. In a similar study using data from the 1995 Survey of Consumer Finances, Gutter et al. (1999) found that only 23 percent of black households held risky assets compared to 46 percent of white households. As in previous studies, they found that the net worth for white households was significantly higher than for black households. Gutter et al. attributed differences in asset holdings to factors other than race, however, specifically to the presence of children and household size. Plath and Stevenson (2000) used the 1998 Survey of Consumer Finances to compare holdings of risky assets among white and black households. They found that blacks had a higher concentration of lower yielding financial assets and a lower concentration of stocks and bonds. Their findings led them to conclude that black investors place a higher value on liquidity than on investment returns.

Data Description and Empirical Analysis

Data for this study were drawn from the 1998 Survey of Consumer Finances (SCF) conducted every three years by the Federal Reserve. The 1998 Survey includes financial and other information on 4,305 households. Wealthy households were deliberately over-sampled to ensure that respondents represented

users of a broad array of financial products. In light of that, sample weights are provided in the Survey and were used in this case for univariate but not for multivariate analyses. The SCF is conducted using a computer assisted interview program and typically lasts from 1½ to 3 hours per household. Information on household assets and liabilities, use of financial products and service providers, and employment is collected. A multiple imputation technique was used to generate missing data resulting in five separate sets of data; this analysis uses one of those data sets. A possible shortcoming of using only one, rather than all five, sets of imputed data is that results may underestimate the variability of missing values (Montalto & Sung, 1996).

Descriptive statistics for households included in the 1998 SCF are provided in Table 1. The data include 3,498 households headed by whites, 414 headed by blacks, and 250 headed by Hispanics. For purposes of this research, households were grouped by race and ethnicity but not by gender since there were relatively few households headed by black and Hispanic women holding the broad array of asset types tracked by the SCF. In the future it would be desirable to over-sample households headed by black and Hispanic women in order to make it possible to compare their asset holdings to those of households headed by black and Hispanic men.

Table 1 reveals that the black and Hispanic heads of household were significantly younger than the white heads of households. Hispanics also had significantly larger households with an average family size of 3.1 persons compared to 2.32 persons for whites and 2.42 persons for blacks. Black households were significantly more likely to be headed by women (48.2% vs. 25.6%), while Hispanic households were significantly more likely to be headed by men (79.5% vs. 74.4%). Similarly, black heads of household were significantly less likely to be married than white heads of household (27.8% vs. 55.2%), while Hispanic heads of household were significantly more likely to be married (58.5% vs. 55.2%). Both black and Hispanic heads of household were significantly less likely to have attended college than white heads of household. Although 55.3% of whites had attended college, only 38.8% of blacks and 28.9% of Hispanics had done so.

In terms of total household income, white households had higher average incomes than either black or Hispanic households. The average income for a white-headed household was \$57,946 compared to \$27,802 for a black-headed household and \$31,843 for a Hispanic headed-household. Differences in net

worth are even more pronounced. The average net worth for a white-headed household was \$328,150 compared to \$65,269 for a black-headed household and \$86,200 for a Hispanic-headed household. Median values also reflect a wide gap between white, black and Hispanic households in income and an even wider gap in net worth. If net worth is used as the measure of household wealth, these findings confirm the results of earlier studies indicating that black households have significantly lower wealth than white households. These results reveal that both blacks and Hispanics lag white households in terms of wealth accumulation.

Table 1
Characteristics of Households (weighted sample)

	White	Black	Hispanic
N (unweighted)	3498	414	250
Mean			
Age	50.08	45.99**	40.69**
Family Size	2.32	2.42	3.10**
Total Income	\$57,946	\$27,802**	\$31,843
Net Worth ^a	\$328,150	\$65,269**	\$86,200*
Median			
Total Income	\$56,000	\$18,500	\$25,000
Net Worth	\$223,975	\$10,460	\$9,845

*t-test of difference when compared to white- households
p < .05, ** p < .01

^aHouseholds having a net worth of less than 0 were assigned a net worth of 0.

Percentage distribution of households

Gender	White	Black	Hispanic
Male-headed	74.4%	51.8%**	79.5%**
Female-headed	25.6%	48.2%	20.5%
Marital Status			
Married	55.2%	27.8%**	58.5%**
Unmarried	44.8%	72.2%	41.5%
Educational Level			
No College	44.7%	61.2%**	71.1%**
Some College	55.3%	38.8%	28.9%

* p < .05, ** p < .01 when compared to white households

As noted earlier, differences in household wealth may be at least partially due to differences in the amount of assets held and in the allocation of those assets into different asset categories. It should be noted that the following univariate comparisons do not control for differences in household wealth. Table 2 provides a breakdown of financial assets held by white, black, and Hispanic households; the asset types are defined in Appendix A. Table 2 reveals that white-headed households were more likely to have every financial asset type than either black- or Hispanic-headed households. The sole exception to this trend was that a higher percentage of black households had other financial assets (9.9% vs. 8.6%). Table 2 also reveals that white-headed households typically had higher average balances for

their financial assets. The exceptions to this were in the categories of other managed assets (trusts and annuities) where black households held a higher average balance, and CDs and life insurance where Hispanic households held higher average balances.

Table 2 indicates that transaction accounts were the type of financial asset most likely to be held by white, black and Hispanic households. For white households, 94.5% held some type of transaction account compared to 72.9% of black households and 74.4% of Hispanic households. It is noteworthy that whites were much more likely to hold higher yielding types of assets such as stocks, bonds and mutual funds; a very low percentage of blacks and Hispanics held these types of financial assets. In the case of stock, for example, 22.2% of white households held stock compared to only 7.1% of black households and 6.9% of Hispanic households. A considerably lower percentage of black and Hispanic households had retirement or pension accounts. Although 32.8% of white households had some type of IRA or Keogh account, only 15.4% of black households and 9% of Hispanic households had similar accounts.

Table 3 presents revealing differences in household preferences for different types of asset classes. It demonstrates that Hispanic households, in particular, concentrated their assets into very low risk, low yield types of accounts including transaction accounts and CDs. Hispanics held an average of 34.86% of their total financial assets in these types of accounts compared to 15.66% for white households and 14.46% for black households. This discrepancy suggests a strong preference for liquidity on the part of Hispanic households. Alternatively, it may suggest a lack of understanding for and comfort with higher risk, higher yielding types of financial assets.

Table 3 also reveals that white households held a higher percentage of their total financial assets in stocks and bonds (23.61% and 5.02%) compared to black (8.87% and 1.21%) and Hispanic households (7.34% and 0.82%). This suggests not only that white households have a greater preference for riskier types of assets but also a greater preference for assets that will increase wealth in the near to intermediate term. In comparison, black households had a very high percentage of financial assets concentrated in categories that produce future rather than current wealth, i.e. pensions, life insurance, and managed assets including trusts and annuities. Black households had a total of 58.65% of their total financial assets in these three categories compared to 26.75% for white households and 28.39% for Hispanic households.

Table 2
Financial Assets Held by Households (weighted sample)

Asset type	White		Black		Hispanic	
	Percent holding	Mean amount	Percent holding	Mean amount	Percent holding	Mean amount
Transaction accounts	94.5	18,953	72.9	6,030	74.4	11,238
CDs	17.8	39,982	6.9	6,703	3.1	82,560
Savings bonds	22.4	4,999	7.9	2,527	6.1	604
Bonds	3.4	227,759	0.2	181,106	0.5	46,766
Stocks	22.2	169,389	7.1	41,878	6.9	33,327
Mutual funds	19.0	103,938	7.1	26,389	6.0	70,041
Retirement accounts	32.8	72,407	15.4	22,058	9.0	48,834
Pension	34.6	57,996	26.6	26,483	16.6	25,283
Life insurance	32.3	28,722	27.4	27,469	10.8	42,885
Other managed	7.2	186,074	1.9	269,563	0.5	9,200
Other	8.6	18,161	9.9	1,733	5.2	6,179

Table 3
Value of Financial Asset Type as a Percentage of Total Financial Assets (weighted sample)

Asset type	White		Black		Hispanic	
	Mean Value	Percent of total	Mean Value	Percent of total	Mean Value	Percent of total
Transaction accounts	17,907	11.2	4,395	13.08	8,359	26.68
CDs	7,126	4.46	465	1.38	2,561	8.18
Savings bonds	1,119	0.70	201	0.60	37	0.12
Bonds	8,006	5.02	407	1.21	257	0.82
Stocks	37,688	23.61	2,980	8.87	2,299	7.34
Mutual funds	19,761	12.38	1,886	5.61	4,232	13.51
Retirement funds	23,744	14.88	3,388	10.08	4,372	13.96
Pension	20,051	12.56	7,050	20.98	4,191	13.38
Life insurance	9,264	5.80	7,517	22.37	4,651	14.85
Managed assets	13,388	8.39	5,141	15.30	50	0.16
Other financial asset	1,570	0.98	170	0.51	318	1.02
All financial assets	159,624	100.00	33,600	100.00	31,327	100.00

Table 4
Non-Financial Assets Held by Households (weighted sample)

Non-financial Asset Type	White		Black		Hispanic	
	Percent holding	Mean amount	Percent holding	Mean amount	Percent holding	Mean amount
Vehicles	87.4	16,167	61.5	9,737	70.9	10,837
Primary Residence	71.8	142,281	46.1	85,234	44.0	109,025
Other Real Estate	20.0	192,148	12.3	62,442	10.4	154,427
Business Equity	12.9	472,196	4.4	65,076	4.1	228,924
Other Non-Financial	11.5	47,475	3.3	13,389	3.4	17,060

Table 5
Value of Non-Financial Asset Type as a Percentage of Total Non-Financial Assets (weighted sample)

Asset type	White		Black		Hispanic	
	Mean Value	Percent of total	Mean Value	Percent of total	Mean Value	Percent of total
Vehicles	14,334	6.35	5,989	10.63	7,717	9.43
Primary residence	106,522	47.17	39,332	69.82	47,960	58.62
Other real estate	38,513	17.05	7,709	13.68	16,108	19.69
Business equity	61,109	27.02	2,862	5.08	9,445	11.55
Other non-financial	5,441	2.41	440	0.78	580	0.71
All non-financial assets	225,829	100.00	56,332	100.00	81,810	100.00

Table 4 shows the percentage of households holding various types of non-financial assets and the mean values of those assets for households holding them. It reveals that white-headed households were more likely to have every non-financial asset type than black or Hispanic households. White-headed households also had higher average balances in every non-financial asset category. For all three groups the most frequently held non-financial asset was a vehicle. For white households, 87.4% owned a vehicle compared to 61.5% of black households and 70.9% of Hispanic households. The second most frequently held non-financial asset for all three groups was a primary residence. A high percentage of white households (71.8%) owned a home. In comparison, less than half of black and Hispanic households (46.1% and 44%) owned a primary residence. White households were also more likely to have some type of business equity (12.9%) compared to black (4.4%) or Hispanic households (4.1%).

Table 5 provides a breakdown of the value of non-financial assets held as a percentage of total non-financial assets. It reveals that, although a lower percentage of black and Hispanic households owned homes (Table 4), the primary residence represented a higher percentage of total non-financial asset values for black and Hispanic households than for white households. For all black households, the value of the primary residence represented 69.82% of the value of total non-financial assets. The corresponding percentages were 58.62% for Hispanic households and 47.17% for white households. In comparison, the value of business equity represented a much higher percentage of the value of total non-financial assets for white households (27.02%) compared to black (5.08%) or Hispanic households (11.55%). As in the case of financial assets, these comparisons seem to suggest a greater tolerance for risk on the part of white households. The stream of benefits from a primary residence is relatively certain and risk free compared to the risks associated with business ownership which provides no guarantees and can pose the threat of both business and personal failure.

Multivariate Analysis

This article aims to test two major hypotheses. The first of these is that attitudes toward risk differ according to race and ethnicity. The second is that race and ethnicity have an effect on the mix of risky and risk free assets that households are willing to hold. In turn, the mix of risky and risk-free assets has an effect on the overall return on assets and the ability of households to generate wealth.

Attitudes Toward Risk

The first hypothesis was tested using a logistic regression model in which the dependent variable was either Highrisk or Norisk reflecting the respondent’s willingness to accept different levels of risk in exchange for different levels of investment returns. The question from the SCF that corresponds with the variables Highrisk and Norisk is as follows (variable #3014):

Which of the statements on this page comes closest to the amount of financial risk that you are willing to take when you save or make investments?

1. *Take substantial financial risks expecting to earn substantial returns*
2. *Take above average financial risks expecting to earn above average returns*
3. *Take average financial risks expecting to earn average returns*
4. *Not willing to take any financial risks*

If the respondent answered “1” or “2”, then the variable Highrisk was coded as a 1. Similarly, if the respondent answered “4”, the variable Norisk was coded as a 1.

Logistic regression was used in this instance because the dependent variables were dichotomous rather than continuous. The logistic regression model took the following form:

$$\text{Highrisk (or Norisk)} = a^0 + b^1\text{Black} + b^2\text{Hispanic} + b^3\text{Gender} + b^4\text{Married} + b^5\text{Ed} + b^6\text{Age} + b^7\text{Famsize} + e$$

The dependent and independent variables used in the model are defined in Appendix B. The independent variables selected, in addition to those representing race and ethnicity, were variables for which there were significant differences between white, black, and Hispanic households (Table 1). Gender was used as an independent variable because most prior research on gender and attitudes toward risk indicates that women are more risk averse and select more conservative financial alternatives (Bajtelsmit & VanDerhei, 1997, Jianakoplos & Bernasek, 1998). The variable Married was used to test whether single individuals are more prone to take risks than married ones. Hinz et al. (1997) found that married individuals invested more conservatively than single ones. Alternatively, however, Schooley and Worden (1996) found that married individuals held a higher percentage of risky assets, possibly because they have two incomes. The variable Ed representing educational level is a measure of human capital.

Prior research suggests that more highly educated individuals are more likely to be aware of the full range of investment alternatives and their possible returns. Further, highly educated individuals should be more willing to take greater risks, because they have sufficient human capital to compensate for possible losses (Bertaut, 1996; Bertaut & Starr-McCluer, 2000; Harrihan et al., 2000).

Age was included as an independent variable because prior research has shown that risk aversion increases with age (Morin & Suarez, 1983; Riley & Chow, 1992). As individuals approach retirement age, they are less willing to invest in risky assets and are more concerned with preserving wealth. Famsize represents the size of the primary economic unit or household. Individuals heading larger households may be less willing to take risks, because more family members are dependent on the outcome of their decisions.

Prior research has amply documented the wealth disparities between white and minority households (Blau & Graham, 1990; Hurst et al., 1998; Smith, 1995). In light of that, differences in holdings of risky assets may be attributable to differences in wealth rather than to differences in race or ethnicity. To test for this possibility, a second logistic regression model was developed using the same dependent and independent variables, but also adding the log of net worth as an independent variable (Lognw) to control for differences in household net worth. In this sample, net worth values were highly skewed, so the logged form of the variable was used. A considerable amount of prior research indicates that risk aversion declines as wealth increases (Cohn et al., 1975; Jianakoplos & Bernasek, 1998; Morin & Suarez, 1983; Riley & Chow, 1992). Thus, one would anticipate that wealthy individuals should be more willing to hold riskier types of investments that afford the opportunity for higher returns. The second logistic regression model took the following form:

$$\text{Highrisk (or Norisk)} = a^0 + b^1\text{Black} + b^2\text{Hispanic} + b^3\text{Gender} + b^4\text{Married} + b^5\text{Ed} + b^6\text{Age} + b^7\text{Famsize} + b^8\text{Lognw} + e$$

Results of the logistic regression analyses are provided in Table 6. Table 6 reveals that, for the Highrisk model, black and Hispanic heads of household were significantly less willing to take high risks in order to earn high returns than white heads of household. Women heads of household were also significantly less willing to take high risks. Conversely, however, younger heads of household and those who had attended college were

significantly more willing to take high risks. The Norisk model results also provided in Table 6 indicate that black and Hispanic heads of household were significantly more likely to prefer no risk than white heads of household. Women and older heads of household were also significantly more likely to opt for no risk while more highly educated heads of household were significantly less likely to prefer no risk.

Table 6 also provides results for the model which includes the log of net worth as an independent variable. It reveals that when we control for differences in household net worth, differences in risk aversion between white, black, and Hispanic households were considerably less pronounced. The results of the Highrisk model indicate that the independent variables representing black and Hispanic respondents were not significant. Thus, black and Hispanic heads of household were not significantly less willing (or more willing) to take substantial risks in exchange for higher returns. The variables representing gender, marital status, and age were significant and negative, however, indicating that women, married individuals, and older respondents were less willing to take high risks. In addition, the variables representing educational level and net worth were significant and positive indicating that more highly educated and wealthier respondents were willing to take higher risks.

In the Norisk model, the variable representing Hispanic respondents was significant and positive. Hispanic heads of household were significantly more likely to say that they were unwilling to take any risks in exchange for investment returns. Although the variable representing black respondents also had a positive sign, it was not significant. The variables representing gender, age, and family size were significant and positive indicating that women, older respondents, and the heads of larger households were also less willing to take any financial risks. The variables representing educational level and net worth were significant and negative. Thus, less educated and less wealthy respondents were unwilling to take financial risks.

Table 6
Results of Logistic Regression Models: Attitudes Toward Risk (unweighted sample)

Variable ^a	Parameter estimates			
	With no net worth measure		With log of net worth	
	Highrisk	Norisk	Highrisk	Norisk
Intercept	-0.8065**	-1.0982**	-2.7748**	1.6750**
Black	-0.2849*	0.4236**	-0.12020	.1505
Hispanic	-0.3345*	1.1697**	0.05080	.7600**
Gender	-0.6757**	0.6720**	-0.3630**	0.3855**
Married	-0.0242	-0.4552**	-0.2590*	0.0295
Education	1.0814**	-1.3572**	0.5964**	-0.7902**
Age	-0.0156**	0.0172**	-0.0433**	0.0447**
Family size	0.0445	0.0488	0.00995	0.0851*
Log of net worth			0.3097**	-0.4092**

^avariables defined in Appendix B

* p<.05, ** p<.01

To summarize, when household net worth was not a controlled variable, both black and Hispanic heads of households expressed a higher degree of risk aversion than white heads of household. When net worth was controlled, the differences between black and white households were no longer significant in the Highrisk model. Hispanic heads of household still expressed a higher preference for no risk, however. These results suggest that differences in wealth rather than differences in race alone are responsible for negative attitudes toward risk. These findings also confirm the results of prior research in that more highly educated individuals and wealthier households demonstrated a greater willingness to assume investment risks. Alternatively, however, women and older investors were less willing to assume investment risks, also consistent with prior research. Finally, there is some indication that married individuals and the heads of smaller households may be somewhat less risk averse.

Holdings of Risky Assets

The second hypothesis to be tested in this article is the hypothesis that race and ethnicity have an effect on the mix of risky and risk free assets that households are willing to hold. To test this hypothesis a Tobit model was used in which the ratio of risky assets to net worth was the dependent variable. This is the approach previously employed in Friend & Blume (1975), Cohn et al. (1975), and Morin & Suarez (1983). Total household assets were divided into “safe” and “risky” categories. Safe assets are those promising a relatively predictable stream of income or benefits to the asset holder. Risky assets are those having a more uncertain stream of income or benefits. The breakdown of total household assets into the safe and risky categories is provided in Appendix C.

Tobit analysis was used because the dependent variable, the percentage of risky assets, was truncated by a lower boundary of 0. A tobit model is a regression model in which the range of the dependent variable is constrained in some way (Amemiya, 1984, Tobin, 1958). In this instance, some households may not have had any risky assets either because they did not want them or because they could not obtain them. If there are a number of observations for which the value of the dependent variable is 0, the linearity assumptions implicit in the least squares method do not hold (Amemiya, 1984). The Tobit model took the following form:

$$\text{Risky Assets} = a^0 + b^1\text{Black} + b^2\text{Hispanic} + b^3\text{Gender} + b^4\text{Married} + b^5\text{Ed} + b^6\text{Age} + b^7\text{Famsize} + e$$

A second Tobit model was developed adding the log of net worth (Lognw) as an independent variable since the results of Tables 6 suggest that attitudes toward risk are influenced by household wealth as well as by race and ethnicity. The second Tobit model took the following form:

$$\text{Risky Assets} = a^0 + b^1\text{Black} + b^2\text{Hispanic} + b^3\text{Gender} + b^4\text{Married} + b^5\text{Ed} + b^6\text{Age} + b^7\text{Famsize} + b^8\text{Lognw} + e$$

The dependent and independent variables are defined in Appendix B. Results of the Tobit analyses are in Table 7 which indicates that if household net worth is not taken into consideration, black and Hispanic households held a significantly lower percentage of risky assets than white households. Women also held a significantly lower percentage of risky assets while married individuals, older heads of household, and more highly educated heads of household held a significantly higher percentage of risky assets.

Table 7 reveals that, when we control for net worth, Hispanic heads of household still held a significantly lower percentage of risky assets than non-Hispanic respondents. In contrast, although the sign for black respondents was negative, the result was not significant. This finding conflicts with earlier research which has indicated quite consistently that black households are more risk averse and hold a lower percentage of risky assets than white households. Often, however, these earlier articles have looked only at stock or business investments as risky assets rather than categorizing all household assets into safe and risky categories and considering them as a percentage of net worth. Further, prior research has not necessarily included household net worth as an independent variable.

Table 7
Parameter estimates of Tobit Model: Holdings of Risky Assets as a Percentage of Net Worth (unweighted sample)

Variable ^a	With no net worth measure	With log of net worth
Intercept	-2.5103**	-3.6898**
Black	-1.0169**	-0.4800
Hispanic	-1.8099**	-1.2806**
Gender	-0.9727**	-0.5600*
Married	0.5150**	0.06355
Education	1.3936**	0.7973**
Age	0.0715**	-0.0179**
Family size	0.0715	0.0096
Log of net worth		0.3013**

^avariables defined in Appendix B
* p < .05, ** p < .01

Table 7 also indicates that women held a lower percentage of risky assets than men, a finding that is consistent with prior research. In addition, older heads of household held a significantly lower percentage of risky assets, possibly because they have a more limited investment horizon and are more concerned with preserving wealth. Finally, more highly educated heads of household and households having higher net worth held a higher percentage of risky assets. These two findings are consistent with prior research. It is possible that more highly educated individuals have a greater awareness of the tradeoffs of risk and return and the benefits of holding risky types of assets. Further, more highly educated individuals have a greater store of human capital and are thus in a better position to recoup possible losses. Wealthier households may be better prepared to sustain the intermittent losses that may come with riskier types of investment. They are also more likely to have discretionary funds available for investments having different risk and return characteristics.

Summary and Conclusions

This article examines and compares the attitudes toward risk and the holdings of risky assets for white, black, and Hispanic households. Findings reveal that, when household net worth is taken into consideration, Hispanic heads of household were still significantly more risk averse than white heads of household. A significantly higher percentage of Hispanic heads of household indicated that they were unwilling to take any risk in exchange for investment returns. Similarly, Hispanics held a significantly lower percentage of risky assets to net worth than non-Hispanics. It is noteworthy that Hispanic households held a very high percentage of their financial assets, over 25%, in the form of transaction accounts that pay little or no interest. Further study would be helpful in determining if this heavy reliance on transaction accounts is indeed a sign of greater risk aversion, or if other factors come into play. For example, lack of experience with more complex financial assets such as stocks and bonds, or even language differences, could cause Hispanic households to rely more heavily on financial assets that are relatively easy to obtain and understand.

Contrary to prior research, the results for black heads of household were not significant when household net worth was included as an independent variable. Blacks did not express a lower degree of risk aversion, nor did they hold a significantly lower percentage of risky assets. Prior research has often looked at the type of assets held by black households and concluded that, since blacks hold a lower percentage of directly held stocks and business equity, they are more risk averse. These results suggest, alternatively, that although the asset mix of black households differs from that of white households, they are not necessarily more risk averse given their levels of net worth. Black households may, however, prefer different types of assets. For example, although blacks hold a lower percentage of financial assets in stocks than whites, they hold a higher percentage in pensions and managed assets, either of which could be in the form of stock. One of the directions for further research would be to gain a better understanding of the composition of retirement funds, pensions, and managed assets to determine the mix of risky and risk free assets. The SCF, in its present form, does not allow for a precise breakdown for these types of accounts.

This article does confirm the results of prior research in that it finds that women and older heads of household express a higher degree of risk aversion and hold a lower percentage of risky assets. Similarly, it finds that more highly educated

individuals and wealthier heads of households express a lower degree of risk aversion and hold a higher percentage of risky assets, also consistent with prior research.

As noted earlier, there is a relationship between household wealth and the willingness to hold riskier types of assets that will generate higher returns over time. Although a higher degree of risk aversion and unwillingness to hold riskier types of assets may contribute to the wealth gap between Hispanic and white households, it appears that the wealth gap for black households may be due to factors other than differences in the level of risk aversion. Other possible reasons may include the well-documented differences in household income, differences in inherited wealth, health differences and differences in the level of medical expenditures, or differences in the level and types of household debt. Further research into these factors will help us to gain a better understanding for causes of the wealth gap between white, black, and Hispanic households.

Appendix A

Definition of Asset Categories

Financial Assets

Transaction accounts: checking and savings accounts, money market deposit accounts and money market mutual funds, call accounts at brokerage firms (X3506, X3510, X3514, X3518, X3522, X3526, X3529, X3804, X3807, X3810, X3813, X3816, X3818, X3706, X3711, X3716, X3718, X3930)

CDs: certificates of deposit (X3721)

Savings bonds: U.S. government savings bonds (X3902)

Bonds: mortgage backed bonds, U.S. government bonds or Treasury bills, municipal or other tax free bonds, foreign bonds, corporate bonds (X7635, X7636, X7637, X7638, X7639)

Stock: publicly traded stock (X3915)

Mutual funds: stock mutual funds, tax-free bond funds, government or government backed bond funds, other bond funds, combination funds (X3822, X3824, X3826, X3828, X3830)

Retirement accounts: Individual Retirement Accounts or Keogh Accounts (X3610, X3620, X3630)

Pension: Employer sponsored pension or tax deferred savings account (X4226, X4326, X4426, X4826, X4926, X5026, X4436, X5036)

Life insurance: cash value of life insurance (X4006)

Other managed assets: annuities, trusts, and other managed investment accounts (X6820, X6835)

Other assets: loans made to others (X4018)

Non-Financial Assets

Vehicles: vehicles owned by the primary economic unit (X8166, X8167, X8168, X8188, X2422, X2506, X2606, X2623)

Primary Residence: home owned by the primary economic unit (X604, X614, X623, X716, X526, X513)

Other Residential Real Estate: second homes, time shares, rental properties, commercial properties, farm land, undeveloped land (X1705, X1805, X1905, X2002, X2012)

Business Equity: ownership interest in privately held businesses (X3129, X3229, X3329, X3335, X3408, X3412, X3416, X3420, X3424, X3428)

Other Non-Financial Assets: artwork, jewelry, precious metals, antiques, etc. (X4022, X4026, X4030)

Appendix B

Definition of Variables

Dependent Variables

Highrisk: dichotomous variable coded as a "1" if the respondent is willing to take either substantial financial risks or above average financial risks to earn higher returns (X3014 equals 1 or 2)

Norisk: dichotomous variable coded as a "1" if the respondent is not willing to take any financial risks (X3014 equals 4)

Risky Assets: ratio of risky assets (see Appendix C) as a percentage of net worth

Independent variables

Black: dichotomous variable: 1=black (X6809=2)

Hispanic: dichotomous variable: 1=Hispanic (X6898=3)

Gender: dichotomous variable; 1=female (X8021=2)

Married: dichotomous variable; 1=married (X7372=1)

Ed: dichotomous variable; 1=at least 1 year of college (X5901 equals 13, 14, 15, 16, or 17)

Age: age of head of household (X8022)

Famsize: number of people in the primary economic unit (household) (X7001)

Lognw: log of 1997 net worth (total household assets minus total household liabilities)

Sample weighting: X42001

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