

Perceived versus Actual Investor Sophistication; A Behavioral Study

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This research utilizes the National Financial Capability Study (NFCS) funded by the FINRA Investor Education Foundation. The national and state-level data are extracted from the 2015, 2012 and 2009 NFCS State-by-State Surveys, each of which employed nationwide online surveys of over 25,000 American adults.

This survey solicits information from individual investors on retirement and non-retirement account investments, actual level of investment sophistication, and self-perceived level of investment sophistication, along with many demographic variables. This study investigates the relationship between actual and perceived investor sophistication to determine retirement preparedness of investors, as well as whether investors understand their level of financial preparedness. It is hypothesized that most investors are not as prepared for retirement nor as sophisticated investors as they believe. Additionally, it is hypothesized that there will be a difference in results related to age, education, and gender.

Data Analysis

See tables following the reference section including linear regression, correlation analysis, ANOVA, and difference of means tests.

The findings show an inverse relationship between overconfidence and financial knowledge. Higher financial knowledge is associated with higher investments in retirement accounts, investments in stocks, level of income, and willingness to take financial risks. The data also shows that higher levels of education, age, race, and gender are related to higher levels of financial literacy

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;	N		Mean	Median	Std. Deviation
	Valid	Missing			
RetireAcct	2000	0	1.69	1.00	7.517
Stocks	2000	0	2.89	1.00	12.534
Bonds	2000	0	5.26	2.00	18.333
MutualFunds	2000	0	3.50	1.00	14.372
DollInNonRet	2000	0	11.22	7.00	20.825
AmtRisk	2000	0	4.17	3.00	12.205
FeePriceImp	2000	0	10.26	9.00	13.604
FeePriceUnderst	2000	0	9.45	8.00	12.174
Disclosure2	1237	763	2.22	2.00	2.799
Disclosure3	1237	763	6.27	2.00	19.616
ComfortInvDec	2000	0	7.78	7.00	8.132
InvKnowledge	2000	0	5.47	5.00	7.639
InvQuest_Add	2000	0	4.92	5.00	2.276
S_Gender	2000	0	1.45	1.00	0.498
S_Age	2000	0	2.36	3.00	0.744
S_Ethnicity	2000	0	1.20	1.00	0.398
S_Education	2000	0	1.61	2.00	0.488
S_Income	2000	0	2.13	2.00	0.732

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
WholInvests	2000	1	2	1.33	0.471
RetireAcct	2000	1	99	1.69	7.517
InvestInNotRetire0	2000	1	1	1.00	0.000
Stocks	2000	1	99	2.89	12.534
Bonds	2000	1	99	5.26	18.333
MutualFunds	2000	1	99	3.50	14.372
DollnNonRet	2000	1	99	11.22	20.825
AmtRisk	2000	1	99	4.17	12.205
WholInvDecisions	2000	1	99	3.11	11.367
DoAcctStmt	2000	1	99	2.95	6.778
FeePricImp	2000	1	99	10.26	13.604
FeePriceUnderst	2000	1	99	9.45	12.174
Disclosure2	1237	1	98	2.22	2.799
Disclosure3	1237	1	98	6.27	19.616
ComfortInvDec	2000	1	99	7.78	8.132
InvKnowledge	2000	1	99	5.47	7.639
InvQuest_Add	2000	0	10	4.92	2.276
S_Gender	2000	1	2	1.45	0.498
S_Age	2000	1	3	2.36	0.744
S_Ethnicity	2000	1	2	1.20	0.398
S_Education	2000	1	2	1.61	0.488
S_Income	2000	1	3	2.13	0.732
Valid N (listwise)	1237				

Correlations

		InvQuest_A	dd
InvQuest_Add	Pearson Correlation		1
	Sig. (2-tailed)		
	N		2000
ComfortInvDec	Pearson Correlation		-0.043
	Sig. (2-tailed)		0.056
	N		2000
InvKnowledge	Pearson Correlation		-0.080
	Sig. (2-tailed)		0.000
	N		2000
S_Gender	Pearson Correlation		-0.288
	Sig. (2-tailed)		0.000
	N		2000
S_Age	Pearson Correlation		-0.168
	Sig. (2-tailed)		0.000
	N		2000
S_Ethnicity	Pearson Correlation		-0.082
	Sig. (2-tailed)		0.000
	N		2000
S_Education	Pearson Correlation		0.261
	Sig. (2-tailed)		0.000
	N		2000
S_Income	Pearson Correlation		0.242
	Sig. (2-tailed)		0.000
	N		2000
KnowMargin	Pearson Correlation		-0.258
	Sig. (2-tailed)		0.000
	N		2000
TradeMargin	Pearson Correlation		-0.087
	Sig. (2-tailed)		0.029
	N		640
AmtRisk	Pearson Correlation		-0.141
	Sig. (2-tailed)		0.000
	N		2000
InvestInNotRetire0	Pearson Correlation		
	Sig. (2-tailed)		
	N		2000
Stocks	Pearson Correlation		-0.111
	Sig. (2-tailed)		0.000
	N		2000
Bonds	Pearson Correlation		-0.147
	Sig. (2-tailed)		0.000
	N		2000
MutualFunds	Pearson Correlation		-0.137
	Sig. (2-tailed)		0.000
	N		2000
DolinNoRet	Pearson Correlation		-0.073
	Sig. (2-tailed)		0.001
	N		2000
ContactAdvEmail	Pearson Correlation		-0.022
	Sig. (2-tailed)		0.451
	N		1158
ContactAdvFTF	Pearson Correlation		-0.069
	Sig. (2-tailed)		0.019
	N		1158
Disclosure2	Pearson Correlation		-0.099
	Sig. (2-tailed)		0.000
	N		1237
Disclosure3	Pearson Correlation		-0.064
	Sig. (2-tailed)		0.024
	N		1237
FeePricUnders	Pearson Correlation		-0.082
	Sig. (2-tailed)		0.000
	N		2000
FeePricelmp	Pearson Correlation		-0.122
	Sig. (2-tailed)		0.000
	N		2000

AVOMA					
SP	F	SP	SP	SP	
0000	19399	4732	10	44320	Between Groups
		0228	1989	44979	Within Groups
			1990	49100	Total
0000	8391	4739	10	47394	Between Groups
		0233	1989	1081494	Within Groups
			1990	1101268	Total
0007	2424	0389	10	3898	Between Groups
		0197	1989	312277	Within Groups
			1990	319182	Total
0000	12429	2429	10	24290	Between Groups
		0222	1989	441880	Within Groups
			1990	472000	Total
0000	13213	0289	10	02825	Between Groups
		0294	1989	1001293	Within Groups
			1990	1021368	Total
0000	19399	18932	10	189328	Between Groups
		141917	1989	282227817	Within Groups
			1990	282227815	Total
0000	12912	11198	10	111983	Between Groups
		8973	1989	108940827	Within Groups
			1990	11081990	Total
		0000	10	0000	Between Groups
		0000	1989	0000	Within Groups
			1990	0000	Total
0000	4091	021919	10	0219194	Between Groups
		1974	1989	302720242	Within Groups
			1990	314992290	Total
0000	2922	189391	10	1893917	Between Groups
		28448	1989	882290251	Within Groups
			1990	871847828	Total
0000	0119	1291239	10	1291239	Between Groups
		291498	1989	498991272	Within Groups
			1990	412913982	Total
0001	3091	1399398	10	13993981	Between Groups
		429312	1989	892900281	Within Groups
			1990	899994242	Total
0000	2179	1898798	10	18987987	Between Groups
		129398	1989	9999999999	Within Groups
			1990	9999999999	Total
0010	2391	199398	10	1993980	Between Groups
		4939	1989	99798149	Within Groups
			1990	99827000	Total
0000	2913	993998	10	993998498	Between Groups
		191423	1989	39894729	Within Groups
			1990	398947188	Total
0000	4799	897912	10	8979128	Between Groups
		119448	1989	282290494	Within Groups
			1990	282291292	Total
0000	12921	82398	10	823987	Between Groups
		7198	1239	829129	Within Groups
			1239	8994993	Total
0029	2999	789319	10	7893192	Between Groups
		281291	1239	48774198	Within Groups
			1239	47999987	Total
0000	12921	893991	10	8939913	Between Groups
		84199	1989	123941298	Within Groups
			1990	123941299	Total

Group Statistics										
S_Gender	N	Mean	Std. Devial	Std. Error Mean			Gender			
InvQuest_1	1101	5.51	2.319	0.070			1 Male			
Add_2	899	4.19	1.997	0.067			2 Female			
Independent Samples Test										
		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the	
									Lower	Upper
InvQuest_1	Equal variances assumed	35.260	0.000	13.437	1998	0.000	1.317	0.098	1.124	1.509
Add_2	Equal variances not assumed			13.640	1992.328	0.000	1.317	0.097	1.127	1.506
Group Statistics										
S_Ethnicity	N	Mean	Std. Deviation	Std. Error Mean			Ethnicity			
InvQuest_1	1606	5.01	2.287	0.057			1 White alone			
Add_2	394	4.54	2.192	0.110			2 Non-White			
Independent Samples Test										
		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the	
									Lower	Upper
InvQuest_1	Equal variances assumed	1.500	0.221	3.681	1998	0.000	0.469	0.128	0.219	0.720
Add_2	Equal variances not assumed			3.777	620.130	0.000	0.469	0.124	0.225	0.713
Group Statistics										
S_Education	N	Mean	Std. Deviation	Std. Error Mean			Education			
InvQuest_1	780	4.17	2.032	0.073			1 Some college or less (incl. Associate's degree			
Add_2	1220	5.39	2.297	0.066			2 College grad (Bachelor's) or more			
Independent Samples Test										
		Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Interval of the	
									Lower	Upper
InvQuest_1	Equal variances assumed	25.952	0.000	-12.073	1998	0.000	-1.216	0.101	-1.414	-1.019
Add_2	Equal variances not assumed			-12.401	1802.499	0.000	-1.216	0.098	-1.409	-1.024

Regression Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
6	(Constant)	3.160	0.282		11.190	0.000		
	S_Gender	-1.167	0.092	-0.255	-12.678	0.000	0.985	1.015
	S_Education	0.890	0.098	0.191	9.115	0.000	0.910	1.099
	S_Age	0.513	0.061	0.168	8.393	0.000	0.997	1.003
	S_Income	0.453	0.065	0.146	6.948	0.000	0.907	1.103
	AmtRisk	-0.019	0.004	-0.102	-5.033	0.000	0.964	1.037
	InvKnowledge	-0.016	0.006	-0.053	-2.589	0.010	0.968	1.033