

Income Quintiles: Examining Changes in the Characteristics of Respondents

Sharon A. DeVaney and Sophia T. Anong

This research identified the characteristics of respondents in different quintiles of the income distribution using data from the three most recent Surveys of Consumer Finances (1998, 2001, and 2004). Using multinomial logistic regression, each quintile was compared to the middle quintile of the income distribution (41st to 60th income percentile) for each of the three surveys. The findings can be used by financial advisors and educators to compare the characteristics of their clients and their target audiences with a national sample and to help clients assess their current situation. However, an important first step is to discuss with clients what they want to achieve because each client is likely to have different goals.

Key Words: human capital, income quintile, life cycle hypothesis, Survey of Consumer Finances

Introduction and Purpose

Opinion polls show that many Americans are worried about their financial status and their future well-being (Greenhouse, 2006; Moore & Anderson, 2005). In particular, manufacturing and technology workers have lost jobs because their employers slashed payrolls or sent jobs elsewhere. Many of the displaced workers have been unable to find new jobs at comparable pay (Levy & Murnane, 2004). In 2005, Americans spent more than they earned; this was the first time that had occurred since 1933. At the same time, the national savings rate, at -0.4%, was at its lowest point ever (Lansing, 2005). Hence, it is not surprising that many Americans are worried about their financial status.

The Census measures income distribution by ranking U.S. households according to income, dividing them into five groups or quintiles, and then measuring the share of total income going to each quintile (U.S. Census Bureau, 2007). In 2002, the Census reported that the top fifth (upper quintile) of households had 49.7% of income while the bottom fifth (lower quintile) had only 3.5%. Due to a shortage of working-age adults and because non-elderly adults in the lower quintile work half as many hours per month as do their higher-income counterparts, the upper quintile of households performs over a third of all paid

labor, while the lower quintile performs only 4.3% of paid labor (Rector & Hederman, 2004).

Generally, the long-term trend has been toward increasing income inequality. Researchers believe that changes in the labor market and, to a certain extent, household composition have affected the long-run increase in income inequality (U.S. Census Bureau, 2007). Households may have experienced these changes, but it might be difficult for advisors to explain to clients the overall effect. Therefore, this research was designed to identify the characteristics of respondents in different quintiles of the income distribution by comparing the quintiles to the middle quintile. The use of the 41st to 60th income quintile as a descriptive measure of the middle was suggested by Moore and Anderson (2005) in an article describing the use of income quintiles by the Census Bureau and the Federal Reserve Board.

The 2004 Survey of Consumer Finances (SCF) was used for the analysis because it provided the most recent data on income and other characteristics for a large sample of Americans. The analysis was not intended to demonstrate causality because the data were collected at one point in time. The research also examined the characteristics of the income quintiles in the 1998 and 2001 SCF. Between

Sharon A. DeVaney, Ph.D., Professor, Department of Consumer Sciences and Retailing, Purdue University, 812 W. State Street, West Lafayette, IN 47907-2060, sdevaney@purdue.edu, (765) 494-8300

Sophia T. Anong, Ph.D., Assistant Professor, Department of Apparel, Housing, and Resource Management, Virginia Tech, 209 Wallace Hall (0410), Blacksburg, VA 24061, sanong@vt.edu, (540) 231-8515

1998 and 2004, the U.S. economy suffered a recession. Therefore, the use of the three data sets has potential to provide insight on changes that might have occurred. The findings can be used by financial advisors and educators to compare the characteristics of clients and their target audiences with a national sample and to help clients assess their current situation.

Review of Literature

A conceptual framework was developed based on two theories: the life cycle hypothesis of savings and the human capital theory (Ando & Modigliani, 1963; Becker, 1993). The life cycle theory assumes that households are concerned about long-term consumption. If current income is below the expected lifetime income, households are likely to borrow to finance consumption. As income increases, households are expected to save for retirement when income is likely to decrease. The activities of borrowing or saving are usually linked to the life cycle stages. Human capital theory proposes that individuals will invest in formal education, on-the-job training and experience, and health to improve their well-being.

In addition to age and education, the conceptual framework included other important demographic variables, such as race, gender, and family type, and economic and life style factors. Economic factors were represented by employment, occupation, and homeownership. Life style was represented by ownership of a luxury vehicle, attitude toward the economy, savings behavior, and credit card balance. Each of these factors was expected to influence the likelihood of being in a particular income quintile. The dependent variable for analysis was the middle income quintile. The other quintiles were referred to as lower (below the 20th percentile), lower middle (21st to 40th), upper middle (61st to 80th), and upper (81st and above).

Age

According to the life cycle hypothesis of savings, individuals smooth consumption over the life cycle by evenly distributing their resources (Ando & Modigliani, 1963). Younger individuals are likely to have lower income and higher expenses. Thus, they will borrow to smooth consumption. Middle-aged individuals are likely to earn more enabling them to save for retirement. Retired individuals may spend down their assets unless they have a bequest motive or strong preference for precautionary savings (Warneryd, 1999). It was hypothesized that respondents who were at midlife would be more likely than younger

or older respondents to be in the upper middle and upper income quintiles.

Education

An investment in human capital such as obtaining more education, acquiring additional job skills, or practicing healthy behaviors is expected to yield higher income (Becker, 1993). Levy (1999) and Levy and Murnane (2004) stated that the demand for less skilled, less educated workers has grown much more slowly than for the highly skilled and educated. Moreover, there is an earnings gap between those with specialized degrees and other college graduates (Wessel, 2006; Yellen, 2006). Compared to those with less education, it was hypothesized that respondents with more education would be more likely to be in the upper middle and upper quintiles.

Race

The 2004 SCF showed that average household income was almost two times greater for a family headed by a White respondent compared to families headed by a respondent of another race (Bucks, Kennickell & Moore, 2006). Families in the 2004 SCF with a White respondent were more likely than those with a Black respondent to own homes (69% compared to 45%), investment accounts (61% compared to 33%), and retirement accounts (55% to 31%) (DeVaney, Anong, & Yang, 2007). It was hypothesized that respondents who were White would be more likely than those who were non-White to be in the upper middle and upper income quintiles.

Gender and Family Type

Burtless (1999) described three trends that, in his opinion, explained family income inequality. The first trend was the disparity in men's and women's earnings. Second, the incidence of poverty was much lower for married couples than for single adults (including single parents). Third, he observed a positive correlation between husbands' and wives' income in affluent dual-earner families. Boraas and Rodgers (2003) showed that industries that pay better have higher concentrations of men and that industries with higher concentrations of women pay less. It was hypothesized that single respondents and single female respondents with children would be less likely than couples (with a male respondent) to be in the upper middle and upper income quintiles.

Employment

Data from the SCF showed that families headed by self-employed workers had the highest median and mean

incomes of all workers from 1995 to 2004 (Bucks et al. 2006). This suggests that employment should be examined using categories which include working for someone else, self-employment, or not in the work force. It was hypothesized that self-employed respondents would be more likely to be in the upper middle and upper income quintiles compared to those who work for someone else.

Homeownership

The rate of U.S. homeownership surged from 64% in 1994 to a peak of 69% in 2004. Doms and Motika (2006) stated that the reasons behind the surge in homeownership were the aging of the population, changes in mortgage markets resulting in greater access to credit, lower down payment requirements, and easy and low-cost access to the equity in a home that makes owning a home more attractive. It was hypothesized that respondents who were homeowners would be more likely to be in the upper middle and upper income quintiles than renters.

Occupation

Compared to 40 years ago, the advent of technology has changed the labor mix toward a concentration of jobs associated with critical thinking and judgment. These jobs include managers, professionals, technicians, and many sales-related activities. Also, a much smaller percentage of the population is engaged in blue collar routine work (Levy & Murnane, 2004). It was hypothesized that respondents who were white collar workers would be more likely than blue collar workers to be in the upper middle and upper income quintiles.

Attitude Toward the Economy

On average, vulnerable populations have less confidence in the future of the economy than their counterparts. Vulnerable populations include those who are poor, older, female, Black, Hispanic, and those without a high school diploma (Toussaint-Comeau & McGranahan, 2006). It was hypothesized that respondents who expected the economy to be better in the future would be more likely to be in the upper middle and upper income quintiles compared to those who expected the economy to be the same.

Regular Saver

Using data from the 1995 SCF, Spencer and Fan (2002) studied savers, debtors, and simultaneous debtors and savers. Debtors had the lowest average income at \$20,984, whereas the savers had the highest average income at \$54,126. In a study using the 1998 SCF, Hogarth and Anguelov (2003) showed that 26.2% of the poor spent

less than their annual income, and they saved using at least one savings behavior. Although these findings are somewhat contradictory, it was hypothesized that respondents who saved regularly would be more likely to be in the upper middle and upper income quintiles than those who were not regular savers.

Luxury Vehicle Ownership

Veblen (1899) believed that ownership of luxury goods was influenced by one's peers. Stanley and Danko (1996) found that the millionaires whom they studied were more likely to own utilitarian vehicles. Byun (2006) found that the most important determinants of luxury vehicle ownership of families in the 2001 SCF were advanced education, business ownership, and income. Although these results are somewhat contradictory, ownership of luxury vehicles was used as a proxy for consumption of higher-priced goods. It was hypothesized that respondents who owned luxury vehicles would be more likely to be in the upper middle and upper income quintiles.

Outstanding Credit Card Balances

Using data from the 1998 SCF, Kim and DeVaney (2001) found a positive relationship between income and the amount of the balance for credit card revolvers. Also, education, real assets, credit limit, and a positive attitude toward using credit were positively related to the amount of the outstanding credit card balance. It was hypothesized that respondents with larger outstanding credit card balances would be more likely to be in the upper middle and upper income quintiles.

In summary, it was hypothesized that respondents would be more likely to be in the upper middle and upper income quintiles if they were middle-aged, highly educated, White, couples or couples with children, self-employed, white collar, homeowners, optimistic about the economy, regular savers, had outstanding credit card balances, and owned luxury vehicles.

Method

Data and Sample

The data were drawn from the 1998, 2001, and 2004 SCF. The surveys are sponsored by the Board of Governors of the Federal Reserve in cooperation with the Department of Treasury. Since 1989, data have been collected every 3 years by the National Opinion Research Center at the University of Chicago. The purpose of the SCF is to provide detailed information about the financial activity and attitudes of families in the United States (Kennickell,

2006). The SCF employs a dual frame sample design; one part is a standard multi-stage area probability sample and the second is a sample of high-income families from Internal Revenue Service tax files. A weight variable is used to provide descriptive statistics that are representative of the population of the U.S. The number of respondents in each of the surveys was 4,305 in 1998, 4,442 in 2001, and 4,519 in 2004.

The variables in the SCF public dataset are coded or reverse coded, if applicable, to represent the head of the household who is male in mixed-sex couples and the older individual in same-sex couples (Kennickell, 2003). In this research, we overturned the reverse coded variables where applicable. Hence, we analyzed data from the original respondent irrespective of whether or not they were the head of the household. This means that couples were coded to indicate whether the male or the female was the respondent (see Table 1).

Dependent Variable and Method of Analysis

The dependent variable was based on total annual family income. In the SCF, family income is recorded as the amount received in the year prior to the survey. In the 2004 SCF, annual family income was based on the question, "How much was the total income you received in 2003 from all sources, before taxes and other deductions were made?"

The dependent variable was 1 if the household was in the 41st to 60th quintile of the income distribution and 0 otherwise. The other quintiles were referred to as lower, 0 to 20th; lower middle, 21st to 40th; upper middle, 61st to 80th; and upper, 81st and above. Multinomial logistic regression was used to determine the variables that were significantly related to being in these quintiles compared to being in the middle quintile (Allison, 1999).

A multiple imputation technique was used by the SCF to handle missing and incomplete data (Rubin, 1987). This resulted in five implicates for each observation. This research presents the results for a single implicate for the descriptive and regression analyses because the Repeated Imputation Inference (RII) suggested by Rubin for multivariate analysis of multi-imputed datasets cannot be estimated in multinomial dependent variables. For this research, the dependent variable was analyzed separately on all five implicates, and a weight variable was divided by five for the descriptive analysis. As previously mentioned, the weight variable is designed to make the sample

representative of the population as it compensates for unequal probabilities of selection and nonresponse (Kennickell, 2003).

Hogarth, Anguelov, and Lee (2004) were not able to use RII with multinomial logit analysis and conducted separate analyses on the five implicates. They arbitrarily selected to report findings of the third implicate. They used a criterion that a variable was significant if the parameter estimate was significant in at least four of the five implicates. We followed the suggestions of Lindamood, Hanna, and Li (2007) and Kennickell (2003) and used weighted average for the descriptive analyses and regression analyses on the five implicates separately. This is similar to the presentation of results by Hogarth et al. (2004). A chart that summarizes the results for all quintiles for the first implicate is shown in the Appendix. More detailed results can be obtained from the authors.

Independent Variables

The independent variables included age, education, race, family type, employment, homeownership, luxury car ownership, attitude toward the economy, savings behavior, credit card balance, and occupation. Age, education, race, marital status, employment, and occupation refer to the original respondent, who was determined to be the most knowledgeable person in the household or have access to a knowledgeable person in the household. Attitude toward the economy and savings behavior were asked of the respondent. Home ownership, vehicle ownership, and outstanding credit card balance refer to the family.

Age and education were continuous variables. Age-squared was included in the regressions to test for non-linear effects of age and income. Race was categorized as White or non-White. Gender and family type were categorized as couples with children, couples without children (identified as couples), single male parents, single female parents, and single individuals. Couples were also categorized by whether the response was provided by the male or female respondent. Paulin (1995) categorized marital status and the presence of children together, and his categorization was used in this research.

Employment status was categorized as employed, self-employed, or not working which could include retirees, students, and homemakers. Owning a more expensive vehicle was used as a proxy for consumption of luxury goods. If the household owned a primary vehicle worth

more than \$30,000, this was categorized as a luxury vehicle (Byun, 2006).

Attitude was measured by whether respondents believed that the economy would be the same, better, or worse in the future. Savings behavior was measured by the question "Do you save regularly by putting money aside each month?" If the response was yes, the respondent was categorized as being a regular saver. Credit card balance was the total outstanding balance on all credit cards. This was measured in 1,000s of dollars in the regression to make it easier to interpret the coefficient estimates. Occupation was categorized as white collar or blue collar. Professional, executive, administrative, and managerial occupations were coded as white collar.

Results

Descriptive Statistics

Descriptive data for respondents in 1998, 2001, and 2004 are presented in Table 1. The average age in each survey year was about 49 years old. The average number of years of education attained by the respondent was 13 years for each survey. About 17% were male respondents of couples in both 1998 and 2001 compared to 13% in 2004. The female respondents of couples were 11%, 13%, and 9% for 1998, 2001, and 2004, respectively. Over 12%, almost 12%, and about 14% were female respondents of couples with children in 1998, 2001, and 2004, respectively. The proportion of male respondents for couples with children was similar for all years. About 4% were single fathers; single mothers ranged between 6 and 10%; and more than one third were single individuals.

About 60% were wage or salary earners, self-employed respondents ranged between 9% and 12%, and over 30% were not employed (e.g., retired, students, or other). About 62% were homeowners, and less than 6% owned a primary vehicle worth \$30,000 or more in 2004. Compared to 1998 and 2001, a larger percentage in 2004 thought that the economy would be better in the future. About 40% were regular savers in each survey. The amount of the outstanding credit card balance was larger in 2004. Between 42% and 47% were in white collar occupations.

Factors Predicting Income Quintile Classification

Multinomial logistic regression was conducted with each survey to determine which factors were significantly related to being in the other income quintiles as opposed to the middle quintile. The results are shown for 1998, 2001, and 2004 in Tables 2, 3, and 4, respectively. Each

survey year is discussed (from 1998 to 2004) in order unless the effect is similar for all three surveys. In that case, the effect of the variable is discussed for the three surveys at once. How the effects differed among the three surveys is also described.

The multinomial logistic regression is interpreted in terms of the odds ratio (Allison, 1999). This compares the relative odds of being in one of the other quintiles to being in the middle quintile. If the odds of being in that quintile versus in the middle quintile are equal for each group of the independent variable, the odds ratio is equal to one. When the odds ratio is greater than 1.0, it means that the comparison group has a higher odds of being in that quintile compared to the middle quintile. When the odds ratio is less than 1.0, it means that the comparison group has a lower odds of being in that quintile compared to being in the middle quintile.

Age. As expected, younger people were more likely to be in the lower quintile than in the middle quintile. This was true for all three surveys. However, there was no significant effect of age on the likelihood to be in the lower middle quintile in 1998 or in the upper middle quintile for 2001 and 2004. Those in the upper middle were more likely to be older compared to those in the middle quintile. This was true in 1998. For all the survey years, those in the upper quintile were more likely to be older.

At first glance, the life cycle hypothesis of savings seemed to be supported as the age-squared variable was negative and significant in the direction expected in some regressions (Ando & Modigliani, 1963). However, the magnitude of the significant age variables and the estimation of the turning points need further interpretation of the life cycle hypothesis. In 1998, the likelihood of being in the lower quintile compared to the middle quintile decreased with age to 58 years; thereafter, the likelihood of being in the lower quintile increased. The likelihood of being in the upper middle quintile increased with age until 52 years and until 59 years for the upper quintile before it began to decrease.

In 2001, the likelihood of being in the lower quintile compared to the middle quintile decreased with age to 52 years, and the likelihood of being in the lower middle quintile compared to the middle quintile started to decrease for those aged 44 and older. The likelihood to be in the upper middle quintile and upper quintile began to increase at ages 63 and 66, respectively. In 2004, the likelihood of

Table 1. Descriptive Statistics of Households in the SCF: 1998, 2001, and 2004, Weighted, All Implicates

Variable	Coding	<i>M(SD) or f (%)</i>		
		1998 <i>N</i> = 4,305	2001 <i>N</i> = 4,442	2004 <i>N</i> = 4,519
Dependent variable (income quintiles)				
Lower quintile	< 20% quintile	19.65%	18.94%	19.38%
Lower middle quintile	21-40 % quintile	19.57%	19.23%	20.67%
Middle quintile (reference group)	41-60% quintile	20.46%	21.12%	19.78%
Upper middle quintile	61-80% quintile	19.95%	20.28%	20.32%
Upper quintile	> = 81% quintile	20.36%	20.43%	19.85%
Independent variables				
Age	continuous; years	48.73 (17.30)	48.96 (17.12)	49.54 (17.27)
Education	continuous; years	13.14 (2.86)	13.24 (2.85)	13.35 (2.85)
White (non-White reference group)	1 = yes; 0 otherwise	77.74%	76.23%	73.60%
Gender and family type				
Couple no children (male respondent-reference group)	1 = yes; 0 otherwise	17.02%	17.08%	13.47%
Couple no children (female respondent)	1 = yes; 0 otherwise	10.75%	12.53%	8.98%
Couple with children (female respondent)	1 = yes; 0 otherwise	12.48%	11.87%	14.35%
Couple with children (male respondent)	1 = yes; 0 otherwise	12.08%	11.59%	14.02%
Male single parent	1 = yes; 0 otherwise	3.64%	3.56%	5.39%
Female single parent	1 = yes; 0 otherwise	6.33%	7.73%	10.01%
Singles	1 = yes; 0 otherwise	37.70%	35.64%	33.78%
Employment status				
Employed (reference group)	1 = yes; 0 otherwise	57.45%	57.72%	56.83%
Self-employed	1 = yes; 0 otherwise	9.42%	10.62%	11.63%
Not employed (retired, student, etc)	1 = yes; 0 otherwise	33.14%	31.67%	31.54%
Homeowner	1 = yes; 0 otherwise	61.24%	62.20%	63.74%
Luxury vehicle owner (value > \$30,000)	1 = yes; 0 otherwise	1.58%	3.26%	5.38%
Attitude toward the economy				
Same (reference group)	1 = yes; 0 otherwise	48.63%	40.94%	37.70%
Better	1 = yes; 0 otherwise	24.72%	27.94%	44.09%
Worse	1 = yes; 0 otherwise	26.65%	31.11%	18.21%
Regular saver	1 = yes; 0 otherwise	38.67%	40.51%	40.76%
Credit card balance	continuous; \$	1,817 (4,917)	1,837 (5,725)	2,372 (6,102)
White collar occupation	1 = yes; 0 otherwise	42.01%	45.28%	46.16%

being in the lower and lower middle quintile compared to the middle quintile decreased with age to 55 and 44 years, respectively. The likelihood of being in the upper quintile and not in the middle quintile began to decrease at age 60. This is consistent with the life cycle as older people will start experiencing a decrease in regular income when they leave employment.

Education. As expected, the impact of education on income classification was highly significant in the three

years. Those with less education were more likely to be in the lower and lower middle quintiles compared to being in the middle quintile. Those with more education were more likely to be in the upper middle and upper quintiles than in the middle quintile. This supports the human capital theory (Becker, 1993).

Race. In 1998, compared to non-Whites, Whites were 65% less likely to be in the lower quintile than in the middle quintile. There was no significant difference be-

Table 2. Multinomial Regression on Income Quintiles (Reference Group: Middle Quintile \$26,000 to \$42,000), 1998 SCF (N = 4,305, First Implicate)

Variables	Lower quintile < \$14,000		Lower middle quintile \$14,000 < \$26,000		Upper middle quintile \$42,000 < \$67,000		Upper quintile ≥ \$67,000	
	Estimate	Odds	Estimate	Odds	Estimate	Odds	Estimate	Odds
Age (years)	-0.111***	0.90	-0.029	n/s	0.082***	1.09	0.179***	1.20
Age-squared	0.001***	1.00	0.000	n/s	-0.001***	1.00	-0.002***	1.00
Education (years)	-0.226***	0.80	-0.108***	0.90	0.100***	1.10	0.364***	1.44
White (non-White reference group)	-0.425**	0.65	-0.162	n/s	0.234	n/s	0.336*	1.40
Gender and family type								
Couple no children (male respondent-reference group)	-	-	-	-	-	-	-	-
Couple no children (female respondent)	0.160	n/s	-0.202	n/s	-0.030	n/s	-0.192	n/s
Couple with children (female respondent)	-0.026	n/s	-0.631*	0.53	0.406	n/s	0.453*	1.57
Couple with children (male respondent)	0.177	n/s	-0.327	n/s	0.535*	1.71	0.449*	1.57
Male single parent	0.744*	2.10	-0.054	n/s	-0.286	n/s	-0.496	n/s
Female single parent	2.126***	8.38	0.691*	2.00	-0.828*	0.44	-1.779***	0.17
Singles	1.557***	4.75	0.544**	1.72	-0.369*	0.69	-1.367***	0.25
Employment status								
Employed (reference group)	-	-	-	-	-	-	-	-
Self-employed	0.663**	1.94	0.269	n/s	0.043	n/s	1.218***	3.38
Not employed (retired, student, etc)	1.464***	4.32	0.298	n/s	-0.091	n/s	0.834***	2.30
Homeowner (not homeowner reference)	-0.959***	0.38	-0.493***	0.61	0.480***	1.62	1.455***	4.29
Attitude toward the economy								
Same (reference group)	-	-	-	-	-	-	-	-
Better	0.347*	1.42	0.180	n/s	0.084	n/s	0.041	n/s
Worse	0.219	n/s	0.064	n/s	-0.022	n/s	0.098	n/s
Luxury vehicle owner (value > \$30,000)	-1.097	n/s	-0.363	n/s	1.643*	5.17	3.263***	26.13
Regular Saver (non-regular reference)	-0.767***	0.46	-0.530***	0.59	0.525***	1.69	0.720***	2.05
Credit Balance (1,000's)	-0.082**	0.92	-0.023	n/s	0.003	n/s	-0.014	n/s
White collar (blue collar reference group)	-0.176	n/s	-0.228	n/s	0.281	n/s	1.139***	3.12

Note: The odds ratios were obtained by taking the exponent of the parameter estimate. For example, for Age in the first column, with each additional year increase in Age, the odds of being in the lower quintile are about 0.90 times or 10% less than being in the middle quintile.

* $p < .05$. ** $p < .01$. *** $p < .001$.

tween Whites and non-Whites in the likelihood of being in the lower middle, middle, or upper middle quintiles. However, compared to non-Whites, Whites were 40% more likely to be in the upper quintile than the middle quintile in 1998.

In 2001, Whites were 39% less likely to be in the lower quintile and 68% more likely to be in the middle quintile than lower middle quintile compared to non-Whites. Whites were 71% more likely to be in the upper quintile than in the middle quintile in 2001. There was no significant difference between Whites and non-Whites being in the upper middle quintile as opposed to being in the middle quintile in 2001.

There was no difference among Whites and non-Whites of being in the lower middle quintile as opposed to being in the middle quintile in 2004. However, Whites were 67% less likely to be in the lower quintile than in the middle quintile, 40% more likely to be in the upper middle quintile than middle quintile, and 124% more likely to be in the upper quintile than middle quintile compared to non-Whites in 2004. Overall, the hypothesis for race was supported.

Gender and family type. Generally, there was no significant difference between couples and couples with children irrespective of whether the respondent was male or female. However, significant differences were found between the reference group (male respondent of couples) with single parents and single respondents.

In 1998, the data from female respondents of couples with children show that these families were less likely to be in the lower middle quintile and more likely to be in the upper quintile compared to couples with children represented by a male respondent. Couples with children represented by a male respondent were 71% and 57% more likely to be in the upper middle and upper quintile, respectively. The odds that single mothers were in the lower and lower middle quintiles than the middle quintile were about eight times and two times greater, respectively, than the odds for couples with children. The odds that single mothers were in the upper middle quintile were less than half the odds of couples with children. The odds that single mothers were in the upper quintile than the middle quintile were one fifth the odds of couples with children. Singles were more than four times and almost twice as likely to be in the lower and lower middle quintiles, respectively.

Singles were 69% and 25% less likely to be in the upper middle and upper quintiles, respectively.

In 2001, there was no significant difference between couples with children and couples except male respondents in a couple with children were more likely than male respondents in a couple to be in the upper quintile in 2001. Male single parents were 33% less likely to be in the upper quintile than males in a couple. Similar to 1998, single mothers and singles were more likely to be in the lower quintiles than the middle quintile and more likely to be in the middle than upper quintiles.

There was no significant difference between those couples with children and those in a couple in 2004. Single fathers were 38% less likely to be in the upper quintile. The odds that single fathers were in the upper quintile rather than the middle quintile were about a third the odds of couples with children. Single mothers were almost five times as likely as couples with children to be in the lower quintile and twice as likely to be in lower middle quintile as middle quintile. As with previous years, single mothers and singles were more likely to be in the lower quintiles and less likely to be in the upper quintiles than middle quintile. In summary, single mothers and singles, in particular, are more likely to be income constrained. Overall, this is consistent with the analysis by Burtless (2006). The hypotheses were supported.

Employment. In 1998, the odds for the self-employed were almost twice the odds for the employed to be in the lower quintile and more than three times the odds of the employed to be in the upper than the middle quintile. Those who were not working were over four times more likely to be in the lower quintile than middle quintile compared to those who were employed. Those who were not working were over two times more likely to be in the upper middle quintile than middle quintile compared to the employed.

In 2001, the self-employed and those not working were more likely to be in the lower and lower middle quintile than in the middle quintile compared to those who were employed. The self-employed were more likely to be in the upper quintile than the middle quintile compared to those in paid employment. Those not working were less likely to be in the upper middle than middle quintile but more likely to be in lower and lower middle quintiles. There was no significant difference in the likelihood of being in the upper quintile between those not working and those in paid employment.

Table 3. Multinomial Regression on Income Quintiles (Reference Group: Middle Quintile \$30,000 to 50,000), 2001 SCF (N = 4,442, First Implicate)

Variable	Lower quintile < \$16,000		Lower middle quintile \$16,000 < \$30,000		Upper middle quintile \$50,000 < \$80,000		Upper quintile ≥ \$80,000	
	Estimate	Odds	Estimate	Odds	Estimate	Odds	Estimate	Odds
Age (years)	-0.075***	0.93	-0.040*	0.96	0.015	n/s	0.102***	1.11
Age-squared	0.001***	1.00	0.000*	1.00	0.000	n/s	-0.001***	1.00
Education (years)	-0.202***	0.82	-0.106***	0.90	0.128***	1.14	0.374***	1.45
White (non-White reference group)	-0.931***	0.39	-0.380**	0.68	0.140	n/s	0.536**	1.71
Gender and family type								
Couple no children (male respondent-reference group)	-	-	-	-	-	-	-	-
Couple no children (female respondent)	0.144	n/s	0.152	n/s	0.011	n/s	-0.323	n/s
Couple with children (female respondent)	0.000	n/s	0.232	n/s	0.288	n/s	0.388	n/s
Couple with children (male respondent)	0.371	n/s	-0.168	n/s	0.255	n/s	0.579**	1.78
Male single parent	0.488	n/s	0.162	n/s	0.172	n/s	-1.097**	0.33
Female single parent	1.949***	7.02	1.015***	2.76	-1.167***	0.31	-1.777***	0.17
Singles	1.865***	6.46	0.727***	2.07	-0.482**	0.62	-1.119***	0.33
Employment status								
Employed (reference group)	-	-	-	-	-	-	-	-
Self-employed	0.839***	2.31	0.583**	1.79	0.080	n/s	1.238***	3.45
Not employed (retired, student, etc.)	1.474***	4.37	0.365*	1.44	-0.421*	0.66	0.359	n/s
Homeowner (not homeowner reference)	-0.985***	0.37	-0.365**	0.69	0.662***	1.94	1.267***	3.55
Attitude toward the economy								
Same (reference group)	-	-	-	-	-	-	-	-
Better	0.025	n/s	0.162	n/s	0.124	n/s	0.095	n/s
Worse	0.037	n/s	0.203	n/s	-0.119	n/s	0.345**	1.41
Luxury vehicle owner (value > \$30,000)	0.384	n/s	-0.003	n/s	1.573**	4.82	3.408***	30.22
Regular saver (non-regular reference)	-0.895***	0.41	-0.551***	0.58	0.240*	1.27	0.509***	1.66
Credit balance (1,000s)	-0.097***	0.91	-0.017	n/s	0.013	n/s	0.017	n/s
White collar (blue collar reference group)	-0.320	n/s	-0.126	n/s	0.089	n/s	0.822***	2.28

p* < .05. *p* < .01. ****p* < .001.

Unlike previous years, the self-employed and those not in the labor force for 2004 were more likely to be in the lower quintile or upper quintile than middle quintile compared to those working for someone else. There was no difference in the odds of being in the lower middle or upper middle quintile than middle quintile for all three employment categories. The hypothesis for self-employment was only partially supported.

Homeownership. Homeowners in 1998 were less likely to be in the lower quintiles than middle quintile and more likely to be in the upper quintiles compared to those who were not homeowners. The odds for homeowners to be in the upper middle quintile rather than middle quintile were slightly less than two times that of renters, and the odds to be in the upper quintile were at least four times that of renters.

Similarly for 2001, homeowners were less likely to be in a lower quintile than the middle quintile compared to renters. As expected and similar to 1998, homeowners were more likely to be in the upper middle and upper quintile than middle quintile compared to renters. Homeowners were almost twice as likely as renters to be in the upper middle and almost four times as likely as renters to be in the upper quintile than middle quintile. In 2004, homeowners were less likely to be in the lower and lower middle quintiles compared to renters. Homeowners were more likely than renters to be in the upper middle and upper quintile than middle quintile as seen in previous years. In general, the hypothesis for homeownership was supported.

Luxury vehicle ownership. The findings showed that luxury car owners were significantly more likely to be above middle quintile. In 1998, the odds that luxury car owners were in the upper middle quintile than middle quintile were five times the odds of those with no luxury cars. The odds that luxury car owners were in the upper quintile compared to the middle quintile were almost 26 times the odds of those without luxury cars. Similarly in 2001, luxury car owners were more likely to be above the middle quintile. Luxury car owners were almost five times as likely as non-luxury car owners to be in the upper middle quintile and about 30 times the odds of those without luxury cars to be in the upper quintile.

Similar to the previous years, those with luxury cars in 2004 were more likely to be in the upper middle and upper quintile than those without luxury vehicles. However, the

odds were much less than in other years. The odds that luxury car owners were in the upper middle quintile not the middle quintile were twice those with no luxury cars. The odds that luxury car owners were in the upper quintile than middle quintile were almost eight times the odds of those whose primary car value was less than \$30,000. The fact that the odds ratios were much less in 2004 than in 1998 and 2001 suggests that there was a change in the likelihood of owning a more expensive vehicle. Perhaps, consumers were keeping their automobiles longer or leasing instead of purchasing automobiles.

Attitude toward the economy. This factor was not a strong predictor of income classification in the surveys. In 1998, the only significant finding was that the odds that those who were optimistic about the economy in the future were in the lower quintile than the middle quintile were 1.4 times the odds of those who felt the economy would be the same. In 2001, those who felt the economy would be worse were more likely to be in the upper quintile than middle quintile. In 2004, those who felt the economy would be worse were 38% more likely to be in the lower middle quintile than middle quintile. Thus, there was no strong evidence to support this hypothesis.

Savings behavior. As expected, regular saving was a strong predictor of income classification. In 1998, compared to those who did not save regularly, regular savers were 46% less likely to be in the lower quintile than the middle quintile. Regular savers were more likely to be in the lower middle quintile than the middle quintile. This supports the research by Hogarth and Anguelov (2003). However, regular savers were more likely to be above the middle quintile. Similar to 1998, regular savers were less likely to be in the lower quintile in 2001. They were also less likely to be in the lower middle than middle quintile. The odds that regular savers were in the upper middle and upper quintiles were 1.27 times and 1.66 times, respectively, the odds of those who did not save regularly.

Similar to 2001, regular savers were less likely to be in the lower quintile and lower middle quintile in 2004. As expected, regular savers were more likely to be above the middle quintile. Regular savers were 1.3 times more likely to be in the upper middle quintile and two times more likely to be in the upper quintile than those who did not save regularly. Overall, there was support for the hypothesis that regular savers were more likely to be in the upper middle and upper quintiles.

Table 4. Multinomial Regression on Income Classification (Reference Group: Middle Class \$33,000 to \$52,000), 2004 SCF (N = 4,519, First Implicate)

Variable	Lower class < \$18,000		Lower middle class \$18,000 < \$33,000		Upper middle class \$52,000 < \$87,000		Upper class ≥ \$87,000	
	Estimate	Odds	Estimate	Odds	Estimate	Odds	Estimate	Odds
Age (years)	-0.093***	0.91	-0.069***	0.93	0.042	n/s	0.154***	1.17
Age-squared	0.001***	1.00	0.001***	1.00	0.000	n/s	-0.001***	1.00
Education (years)	-0.178***	0.84	-0.124***	0.88	0.103***	1.11	0.452***	1.57
White (non-White reference group)	-0.397**	0.67	-0.186	n/s	0.335*	1.40	0.804***	2.24
Gender and family type								
Couple no children (male respondent-reference group)	-	-	-	-	-	-	-	-
Couple no children (female respondent)	-0.439	n/s	0.356	n/s	0.185	n/s	-0.363	n/s
Couple with children (female respondent)	-0.606	n/s	-0.124	n/s	0.403	n/s	0.160	n/s
Couple with children (male respondent)	-0.012	n/s	0.109	n/s	0.039	n/s	0.307	n/s
Male single parent	-0.051	n/s	0.366	n/s	-0.254	n/s	-0.955**	0.38
Female single parent	1.694***	5.44	0.697**	2.01	-1.286***	0.28	-2.810***	0.06
Singles	1.512***	4.54	0.715***	2.04	-0.446*	0.64	-1.572***	0.21
Employment status								
Employed (reference group)	-	-	-	-	-	-	-	-
Self-employed	0.849***	2.34	0.053	n/s	0.013	n/s	0.936***	2.55
Not employed (retired, student, etc)	1.450***	4.26	0.149	n/s	-0.235	n/s	0.725**	2.06
Homeowner (not homeowner reference)	-1.255***	0.29	-0.648***	0.52	0.543***	1.72	1.080***	2.95
Attitude toward the economy								
Same (reference group)	-	-	-	-	-	-	-	-
Better	-0.044	n/s	0.219	n/s	0.162	n/s	0.236	n/s
Worse	0.298	n/s	0.356*	1.43	0.111	n/s	-0.043	n/s
Luxury vehicle owner (value > \$30,000)	-0.559	n/s	-1.093*	0.34	0.632*	1.88	2.077***	7.98
Regular saver (non-regular reference)	-0.503***	0.60	-0.296*	0.74	0.261*	1.30	0.698***	2.01
Credit balance (1,000's)	-0.055**	0.95	-0.012	n/s	0.008	n/s	0.004	n/s
White collar (blue collar reference group)	-0.288	n/s	-0.341*	0.71	0.080	n/s	1.081***	2.95

*p < .05. **p < .01. ***p < .001.

Credit card balance. For every \$1,000 increase in outstanding credit card balance, the odds of being in the lower quintile decreased. This was consistent for all three surveys. The odds decreased by 8% in 1998, 9% in 2001, and 5% in 2004. This suggests that the middle quintile have higher credit card balances than lower quintiles. There was no significant difference between the middle quintile and upper quintiles across the years. The results were consistent with the study by Kim and DeVaney (2001). The hypothesis was supported.

Occupation. Having a white or blue collar job did not make a difference in being in the lower, lower middle, or upper middle quintile. However, in all three year's surveys, those in white collar occupations were more likely to be in the upper quintile than middle quintile. Across the survey years, the odds for those in white collar occupations to be in the upper quintile than middle quintile were about two and three times the odds of those in blue collar occupations. Thus, the hypothesis was supported.

Discussion and Implications

The purpose of the study was to identify the characteristics of respondents in different quintiles of the income distribution. A summary graphic showing the significant factors for the 1998, 2001, and 2004 surveys is provided in the Appendix. The findings provide insight into changes that might have occurred. Understanding the likelihood of change in different economic climates (1998, 2001, or 2004) could provide financial advisors and educators with more insight when meeting with clients about their current situation and plans for the future. Each individual or family is likely to have different goals, and the advisor's role is to help the client achieve their personal goals.

Two theories, the life-cycle hypothesis of savings and human capital, were included in the conceptual framework. Other factors in the model were selected to represent demographics, economics, and life style factors. There was support for each theory, and most of the hypotheses were supported. Suggestions for advisors and educators relating to the theories and to each factor in the conceptual framework are provided.

Age

It was hypothesized that younger respondents would be less likely to be in the upper middle and upper quintiles, and this received support in all three surveys. As age increased, respondents were more likely to be in the upper middle and upper quintiles in all three surveys. The age at

which the likelihood of being in the upper middle quintile reached a peak was 52, and for the upper quintile, the peak occurred between ages 59 and 66. This means that after these ages, respondents were less likely to be in that particular income quintile. Therefore, clients need to manage their finances carefully when they are younger because the likelihood of increasing their incomes is expected to decline when they reach their 60s.

The peak ages could mean that respondents had changed (perhaps involuntarily) to a less well-paying job, or they had retired. Respondents need to save for retirement as soon as possible to enable them to maximize retirement savings. Also, they need to consider the lifestyle they want in retirement, their life expectancy, and health status. If they have a spouse, they need to consider similar factors for their spouse.

Education

It was hypothesized that respondents with more education would be more likely to be in the upper middle and upper quintiles, and those with less education would be more likely to be in the lower and lower middle quintiles. These hypotheses were supported. The implication for financial advisors would be to encourage clients to attain as much education as possible and to plan for advanced education for their children.

Race

It was hypothesized that White respondents would be more likely to be in the upper middle and upper quintiles. The results showed support for the hypothesis. The results also showed the likelihood of non-White respondents to be in the lower quintile. This reinforces the idea that financial advisors and educators should seek opportunities to engage and assist their non-White clients to become knowledgeable about managing their finances.

Gender and Family Type

Compared to the reference category (couples where the male is the respondent), female single parents and single respondents were more likely to be in the lower and lower middle income quintiles in all survey years. Single parent clients are likely to be busy with their children and earning a living. It could be difficult for them to meet with financial advisors or attend educational seminars. Advisors and educators should consider alternative ways of providing education and support such as on the phone, on the Internet, or by mail. Parents (and other respondents) might

prefer to attend lunch time seminars in the workplace, if they can be arranged.

Employment

It was hypothesized that self-employed respondents would be more likely to be in upper middle and upper income quintiles compared to those who work for someone else. The results showed that the self-employed were more likely to be in the lower, lower middle, or upper quintiles. The variation for the self-employed probably reflects the variation in profitability that accompanies self-employment (Stanley & Danko, 1996; Yellen, 2006). In summary, self-employed respondents were found to be at both ends of the income distribution. This suggests that the advice needed by self-employed clients could range from survival techniques to developing profit sharing plans.

Homeownership

As expected, homeowners were more likely to be in the upper middle and upper quintiles, and renters were more likely to be in the lower and lower middle quintiles. This finding suggests that financial information about becoming a homeowner should be of interest to potential homeowners. Younger respondents could be especially interested in becoming homeowners. Older clients may have become renters by choice to reduce their physical labor. Some older clients might need assistance in selling their homes and moving to a senior living facility.

Luxury Vehicle Ownership

It was hypothesized that luxury vehicle ownership would be influential for upper middle and upper income quintiles. This hypothesis was supported in each survey year. Advisors can discuss with clients what features are important in a vehicle and relate those features to the cost. A direction for future research would be to learn whether luxury vehicle owners are motivated by quality and durability or luxury features.

Attitude Toward the Economy

Attitude toward the economy was not a strong indicator of being in a particular income quintile. However, advisors can discuss with clients how they would be affected if there were changes in the economy and help them determine if they would have adequate emergency funds. Another approach would be to help clients understand whether they tend to be optimistic or pessimistic about the economy and how this affects their financial planning and management.

Savings Behavior

Being a regular saver was significant for each quintile for each survey year. Regular savers were less likely to be in the lower and lower middle quintiles and more likely to be in the upper middle and upper quintiles. Advisors and educators should help clients to become regular savers if they are not already saving. For those who are saving, the advisor or educator can provide information about investment opportunities.

Credit Card Balances

There were only a few instances in which the outstanding credit card balance influenced the likelihood of being in a particular income quintile. This finding suggests that people are responsible in regard to the amount of their debt. However, financial advisors and educators are likely to see individuals who need help reducing debt. For these clients, advisors and educators might need to help clients determine the source of the problem as well as provide information and assistance in reducing debt.

White Collar Occupations

White collar occupation was expected to influence the likelihood of being in the upper middle or upper quintile. It was significant only for the upper quintile and in all three survey years. Advisors and educators should encourage clients to obtain more education and training because this is the entry to being in a white collar occupation. As previously mentioned, this might involve getting more education for themselves or a spouse or saving for children's education. Preparing for an unexpected change in one's job could also involve getting more education.

Public Policy Implications

Although experts agreed that income inequality existed, their suggestions for addressing the issue varied. Yellen (2006) recommended that preschool programs for disadvantaged children would have both substantial and lifelong payoffs. Levy and Murnane (2004) suggested that K-12 education should focus more on experiential learning. They pointed out that the work of the industrial economy was rules-based, both on the assembly line and in the manager's office. In contrast to the rules-based skills of the past, they believe that the skills for which demand is growing include expert thinking and complex communication. Therefore, they recommend that changes are needed in the educational programs that are offered in K-12 and perhaps in advanced education. They felt that this long-term approach would ultimately result in less inequality in the income distribution.

At the local level, financial advisors and educators can seek to promote quality education in the schools in their communities. Also, advisors and educators can support projects in their communities that offer education to adults and youth. These might include adult education in the workplace, churches, and community centers and through the Cooperative Extension Service. For youth, this might include Boy and Girl Scouts, 4-H, and other organizations.

References

- Allison, P. D. (1999). *Logistic regression using the SAS system: Theory and application*. Cary, NC: SAS Institute Inc.
- Ando, A., & Modigliani, F. (1963). The life-cycle hypothesis of saving: Aggregate implications and tests. *American Economic Review*, 53, 55-84.
- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education*, 3rd edition. Chicago: The University of Chicago Press.
- Boraas, S., & Rodgers, W. M., III. (2003). How does gender play a role in the earnings gap? An update. *Monthly Labor Review*, 126(3), 9-15.
- Bucks, B. K., Kennickell, A. B., & Moore, K B. (2006). Recent changes in U.S. family finances: Evidence from the 2001 and 2004 Survey of Consumer Finances, *Federal Reserve Bulletin*, A1-A38.
- Burtless, G. (1999). Growing American inequality: Sources and remedies. *The Brookings Review*, 17(1), 31-35.
- Byun, S. (2006). Determinants of owning a prestigious automobile. *Consumer Interests Annual*, 52, 283-291.
- DeVaney, S. A., Anong, S. T., & Yang, Y. (2007). Asset ownership by Black and White families. *Financial Counseling and Planning*, 18(1), 33-45.
- Doms, M., & Motika, M. (2006, November). The rise in homeownership (Number 2006-30). *Federal Reserve Bank of San Francisco Economic Letter*, 1-4.
- Greenhouse, S. (2006, August 31). Three polls find workers sensing deep pessimism. *New York Times*. Retrieved June 1, 2007, from <http://www.nytimes.com/2006/08/31/us/31labor.html>
- Hogarth, J., & Anguelov, C. E. (2003). Can the poor save? *Financial Counseling and Planning*, 14(1), 1-18.
- Hogarth, J., & Anguelov, C. E., & Lee, J. (2004). Why don't households have a checking account? *The Journal of Consumer Affairs*, 38(1), 1-34.
- Kennickell, A. B. (2003). *Codebook for the 2001 Survey of Consumer Finances*. Washington, DC: Federal Reserve Board of Governors.
- Kennickell, A. B. (2006). *Codebook for the 2004 Survey of Consumer Finances*. Washington, DC: Federal Reserve Board of Governors.
- Kim, H., & DeVaney, S. A. (2001). The determinants of outstanding balances among credit card revolvers. *Financial Counseling and Planning*, 12(1), 67-77.
- Lansing, K. J. (2005, November 10). Spendthrift nation (Number 2005-30). *Federal Reserve Board of San Francisco Economic Letter*, 1-4.
- Levy, F. (1999). *The new dollars and dreams: American incomes and economic change*. New York: Russell Sage Foundation.
- Levy, F., & Murnane, R. J. (2004). *The new division of labor: How computers are creating the next job market*. Princeton, NJ: Princeton University Press.
- Lindamood, S., Hanna, S., & Bi, L. (2007). Using the Survey of Consumer Finances: Some methodological considerations and issues, *The Journal of Consumer Affairs*, 41(2), 195-222.
- Moore, S. & Anderson, L. (2005, December 21). Great American dream machine. *The Wall Street Journal*, A18.
- Paulin, G. D. (1995). A comparison of consumer expenditures by housing tenure. *The Journal of Consumer Affairs*, 29(1), 164-198.
- Rector, R., & Hederman, R., Jr. (2004). *Two Americas: One rich, one poor? Understanding income inequality in the United States* (Executive Summary #1791). The Heritage Foundation. Retrieved September 18 2007, from <http://www.heritage.org/Research/Taxes/bg1791es.cfm>
- Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. New York: John Wiley & Sons.
- Spencer, H. L., & Fan, J. X. (2002). Savers, debtors, and simultaneous debtors and savers. *Financial Counseling and Planning*, 13(2), 25-38.
- Stanley, T. J., & Danko, W. D. (1996). *The millionaire next door: The surprising secrets of America's wealthy*. New York: Longstreet Press, Inc.
- Toussaint-Comeau, M., & McGranahan, L. (2006). Variations in consumer sentiment across demographic groups. *Economic Perspective*, Federal Reserve Bank of Chicago, 1st Quarter, 19-38.
- U.S. Census Bureau (2007). *Income inequality (middle class)*. Retrieved September 18, 2007, from <http://www.census.gov/hhes/www/income/midclass/midclsan.html>
- Veblen, T. (1899). *The theory of the leisure class: An economic study of institutions*. London: Erwin Books. Reprinted New York: New American Library, 1953.

- Warneryd, K. E. (1999). *The psychology of saving: A study on economic psychology*. Cheltenham, UK: Edward Elgar Publishing Limited.
- Wessel, D. (2006, October 19). Why it takes a doctorate to beat inflation. *The Wall Street Journal*, A2.
- Yellen, J. L. (2006, December). Economic inequality in the United States (Number 2006-33-34). *Federal Reserve Bank of San Francisco Economic Letter*, 1-8.

Appendix

Summary of Multinomial Regression on Income Quintiles on First Implicate (Reference Group: Middle Quintile)

Variable	Lower quintile			Lower middle quintile			Upper middle quintile			Upper quintile		
	1998	2001	2004	1998	2001	2004	1998	2001	2004	1998	2001	2004
Age (years)	-	-	-	n/s	-	-	+	n/s	n/s	+	+	+
Age-squared	+	+	+	n/s	+	+	-	n/s	n/s	-	-	-
Education (years)	-	-	-	-	-	-	+	+	+	+	+	+
White (non-White reference group)	-	-	-	n/s	-	n/s	n/s	n/s	+	+	+	+
Gender and family type												
Couple no children (male respondent-reference group)												
Couple no children (female respondent)	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Couple with children (female respondent)	n/s	n/s	n/s	-	n/s	n/s	n/s	n/s	n/s	+	n/s	n/s
Couple with children (male respondent)	n/s	n/s	n/s	n/s	n/s	n/s	+	n/s	n/s	+	+	n/s
Male single parent	+	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	-	-
Female single parent	+	+	+	+	+	+	-	-	-	-	-	-
Singles	+	+	+	+	+	+	-	-	-	-	-	-
Employment status												
Employed (reference group)												
Self-employed	+	+	+	n/s	+	n/s	n/s	n/s	n/s	+	+	+
Not employed (retired, student, etc)	+	+	+	n/s	+	n/s	n/s	-	n/s	+	n/s	+
Homeowner (not homeowner reference)	-	-	-	-	-	-	+	+	+	+	+	+
Attitude toward the economy:												
Same (reference group)	+	+	+	+	+	+	+	+	+	+	+	+
Better	+	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Worse	n/s	n/s	n/s	n/s	n/s	+	n/s	n/s	n/s	n/s	+	n/s
Luxury vehicle owner (value > \$30,000)	n/s	n/s	n/s	n/s	n/s	-	+	+	+	+	+	+
Regular Saver (non-regular reference)	-	-	-	-	-	-	+	+	+	+	+	+
Credit Balance (1,000s)	-	-	-	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
White collar (blue collar reference group)	n/s	n/s	n/s	n/s	n/s	-	n/s	n/s	n/s	+	+	+

Note. In reporting the results, a variable was considered significant if it was significant in four out of five implicates.