Using Credit to Cover Living Expenses: A Profile of a Potentially Risky Behavior

Gabriela Castellani, MS
Purdue University

Sharon A. DeVaney, PhD
Purdue University

Although previous research has examined people's general attitude toward using credit, no previous research has examined factors that influence people's attitude toward the use of credit when their income is cut. This study explored people's attitude toward borrowing money to cover living expenses when income is cut. The 1995 Survey of Consumer Finances (SCF) was used to examine attitude toward the use of credit. A multivariate logistic regression analysis showed that households who were younger, non-White, with less household income, and who incurred late debt payments were more likely to say that it was acceptable to use credit to cover living expenses when income was cut. The findings suggest a need for education targeted to specific groups of adults and the need for personal finance education for high school students, the consumers of the future.

The use of credit is an accepted practice in the United States. Households are able to meet their wants and needs by using various forms of credit available in the market. Several factors have been associated with growth in consumer debt: such as higher incomes, a general increase in both the standard and level of living, the marketing of new forms of credit, and a greater acceptance of debt *(20)*. The wider distribution of credit cards could indicate that lenders are including a larger number of risky borrowers *(3)* who are likely to include households with lower or less stable incomes. If so, it could be important to study how these households feel about using credit in a stressful situation, such as during the loss or reduction of income.

Research on the use of credit has shown that attitudes toward credit usually constitute good predictors of credit use. Studies in 1970, 1986, 1993, and 1996 have found that attitudes are significantly related to the use of credit cards *(6,7,10,17)*. Panel data from the 1983 and 1989 Survey of Consumer Finances (SCF) provide information about the proportion of households who believe it is acceptable to borrow to cover living expenses when income is cut *(13)*.

Researchers have shown that consumers with a positive attitude toward the use of credit were more likely to use credit cards from both banks and retail stores *(10)*, and 43 percent of these credit card users have said it was acceptable to borrow to cover living expenses *(7)*. People with favorable attitudes toward borrowing are more likely not to pay their monthly credit card balances in-full at the end of the month, compared with those who do *(7)*. Other researchers have shown that consumers who think it is acceptable to borrow had a higher credit card balance than do those with negative attitudes toward borrowing *(4)*. Further, people who thought of themselves as "upper class" believed it was more appropriate to borrow to purchase luxury goods than did people of lower or middle socio-economic status *(17)*.

Various aspects of financial status and household demographic characteristics (e.g., age, marital status, household size, race, and life cycle stage) have been examined in previous studies. Although the focus of the studies, the sources of data, and the methods differ slightly, the findings suggest that specific demographic characteristics are frequently related to income and payment difficulties.

Census Bureau data were used to describe changes in the composition of American households from 1980 to 1988 *(19)*. Households headed by a person younger than 25 had the most serious financial problems because they tended to have low incomes and were likely to face difficulties when meeting their basic household needs. In a study using data from the 1990 Survey of Consumer Attitudes, researchers found that household heads who were divorced or separated, had more children under 18 years of age, and who had a low level of education had problems paying their credit obligations on time *(9)*. Other investigators studied changes in household debt by using three cross-sectional studies: the 1983, 1989, and 1992 SCF *(8)*. These households showed that households headed by young people and non-Whites had a high incidence of late credit payments. Other studies showed that age was related negatively to the amount of debt carried by households *(20,21)*.

Other factors that might affect the use of credit when income is cut include level of education, health status, and the possibility of receiving government health insurance. A low level of education is likely to mean that people have jobs or occupations with lower pay and could also mean that people are less likely to understand the terminology or information about lending that is used or made available in the borrowing process *(3,5)*. A study comparing borrowers and non-borrowers found that borrowers spent more money on health insurance and prescription drugs and medical equipment, believed to be due to poor health *(11)*.

Another approach to examining income and payment difficulties is to consider the household's economic characteristics. Research has shown that low-income households have the highest debt payment-to-income ratio and few financial assets to meet their payment obligations *(8)*. Also, a high percentage of these households have reported having income levels lower than they expected, which affected their ability to pay debts as scheduled. Further, the households with a high incidence of late payments tended to have both low income and little net worth. In another study, researchers found that households with payment difficulties had low incomes and high debt payment-to-income ratios and were renters *(9)*.

A study exploring consumer debt burden revealed that as net income and total assets increased, consumer debt increased, and as consumer debt increased, year-end savings declined *(20)*. A study of credit card use in poor households suggested that the increased use of credit by poor families may be related to a decrease in welfare funding *(2)*.

No previous research has examined factors such as demographic and economic characteristics that might determine consumers' attitudes toward borrowing when income is cut. Thus, the purpose of this exploratory study is to develop a profile of households who say they will use credit to cover living expenses when income is cut and to examine factors that might explain that attitude. Using credit as a protection against the hardship of losing income resembles the use of precautionary savings to smooth consumption. Unlike savings, the use of credit leaves households with a debt that may be difficult to pay, especially when household income is low. A focus on this problem is relevant for consumer educators and lenders. The findings of this study will provide helpful information to consumer educators who can target those households who would benefit from learning how to manage their finances more effectively and to lenders who are likely to learn more about the households who represent a higher risk.

Methods

Data and Sample

We used data from the 1995 SCF, which provides detailed information on financial and demographic characteristics of U.S. households and is sponsored by the Federal Reserve Board and other agencies *(16)*. The 1995 SCF consists of 4,299 households. Of these, 2,780 families were selected by using a standard multistage probability design. The other 1,519 families were selected by using a special list drawn from tax records to oversample wealthy families. For our study, the entire sample of 4,299 households was used and weighted to represent the population of interest. To deal with missing information on individual items in survey data, analysts at the Federal Reserve Board used multivariate statistical methods to impute missing data. Imputation of missing data results in a multiple number of complete data sets. Since 1989, the SCF uses multiple imputation techniques to deal with missing data. This procedure creates five data sets (called "implicate" data sets). In this study, we use the first implicate.

Variables

The dependent variable was developed from one of the questions in the 1995 SCF, which was asked by a facilitator, that measured attitude toward specific uses of credit: "People have many different reasons for borrowing money which they pay back over a period of time. For each of the questions I read, please tell me whether you feel it is all right for someone like yourself to borrow money." The choices were "to cover living expenses when income is cut, to cover the expenses of a vacation trip, to finance the purchase of a fur coat or jewelry, to finance the purchase of a car, or to finance educational expenses." Each part of the question was answered with a "yes" or "no." Only the question "to cover living expenses when income is cut" was selected for study. The dependent variable was "Is it all right to borrow money when income is cut?" It was coded as 1 if the response was "yes" and 0 for "no" (table 1). To examine the relationship between this dichotomous dependent variable and the independent variables, we used a logistic regression *(15)*.

The independent variables represent demographic, economic, credit, and attitudinal factors. The demographic variables consisted of age, marital status, race, education, and household size. Age was coded as a categorical variable with four groups: household heads younger than 35 years old, 35 to 44, 45 to 54, and 55 or older. These categories were intended to represent the life cycle stages of the household *(16,20)*.

Race was coded as 1 if the household head was White and 0 otherwise; marital status was coded as 1 if the household head was married and 0 if otherwise *(16)*. The highest level of education attained by the household head and household size were continuous variables.

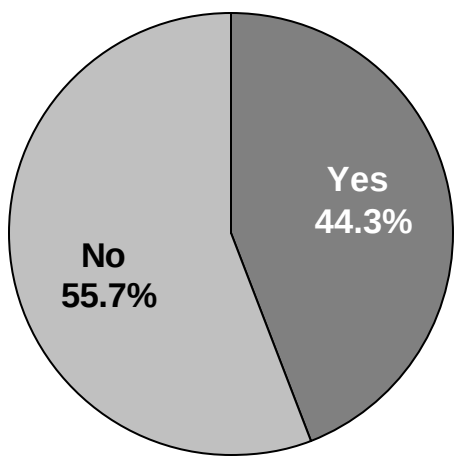
Table 1. Coding of dependent and independent variables

Variable	Measurement
Dependent	
Do you feel it is all right to borrow money to cover living expenses when income is cut?	1 = yes, 0 = no
Independent	
Age	
Less than 35	1 = yes, 0 = no
35 - 44	1 = yes, 0 = no
45 - 54	1 = yes, 0 = no
55 and older (reference group)	1 = yes, 0 = no
Marital status	1 = married, 0 = otherwise[1]
Race	1 = White, 0 = otherwise[2]
Level of education	Continuous
Household size	Continuous
Household income	
Less than $10,000	1 = yes, 0 = no
$10,000 - $19,999	1 = yes, 0 = no
$20,000 - $29,999	1 = yes, 0 = no
$30,000 - $49,999	1 = yes, 0 = no
$50,000 or more (reference group)	1 = yes, 0 = no
Home ownership	1 = renter, 0 = homeowner
Liquid assets	Continuous
Government health insurance	1 = eligible, 0 = otherwise
Number of credit cards	Continuous
Payment pattern	
No payment obligations (reference group)	1 = yes, 0 = no
Late payments	1 = yes, 0 = no
Payment on schedule	1 = yes, 0 = no
Credit card balance outstanding	Continuous
Expectation about income	1 = income is lower than expected, 0 = no
Self-reported health	1 = health is fair or poor, 0 = otherwise

[1]Separated, divorced, widowed, and never married.
[2]Black or African American, Hispanic, Asian or Pacific Islander, Native American, and Other.

The economic variables included total annual household income, homeownership, amount of liquid assets, and eligibility for government health insurance. Income was coded as a categorical variable. Amount of liquid assets was used as a continuous variable and was calculated by summing the amount of money in savings, checking, money market deposit accounts, and call accounts at brokerages. Renter was coded as 1, and homeownership was coded as 0. Government health insurance was coded as 1 if the reply to the following question was positive: "Are you or anyone in your family living here, including household members with independent finances, currently eligible to receive benefits from any government health insurance programs, such as Medicare, Medicaid, or CHAMPUS, VA (Veterans' Assistance), or other military programs?" We included government health insurance because the receipt of this benefit could be a resource for households when income was cut *(2)*.

Figure 1. Distribution of households answering: *"Do you feel it is all right to borrow money to cover living expenses when income is cut?"*



The credit-related variables included number of credit cards, payment pattern, and outstanding balance on credit card after the last monthly payments were made. Number of credit cards, coded as a continuous variable, was used as a proxy for experience in using credit. The outstanding balance on credit cards was treated as a continuous variable. Payment pattern was measured by the response to the question, "Now thinking of all the various loan or mortgage payments you made during the last year, were all the payments made the way they were scheduled, or were payments of any of the loans sometimes made later or missed?" The responses were "always pay debt as scheduled, sometimes got behind or missed payments, and inapplicable." The households for whom the question was "inapplicable" were identified as having no payment obligations and were therefore used as the reference group.

The attitudinal variables included the household head's perception of their income for the last year and his or her personal health status. Perception of income measured how the level of income was viewed in relation to what was expected in a normal year. This variable was coded as 1 if income was lower than expected and 0 if otherwise. Health status was coded as 1 if the household heads reported their health status as fair or poor and 0 if otherwise.

Results

Description of Sample

Slightly less than half (44 percent) of the household heads said it was "all right" to borrow money to cover living expenses when income was cut (fig. 1). The average household size was two people, and the household head had completed almost 13 years of education (table 2). One-fourth of the households were headed by a person younger than 35; three-fourths, by a person who was White; and a little over half, by a person who was married. Sixteen percent of the households had annual household income below $10,000; 50 percent had household incomes of $30,000 or more. Over half were homeowners: 57 percent. Slightly more than one-third of the households were eligible for some type of government health insurance: 38 percent.

Households whose heads are younger, non-White, with household income below $20,000, and who had incurred late debt payments are more likely to borrow money—use credit—to cover living expenses when income is cut.

Table 2. Description of households, 1995 Survey of Consumer Finances[1]

Variable	Measurement
	Mean (Median)
Household size	2.38 (2)
Years of education	12.9 (12)
Liquid assets	$13,258 ($1,600)
Number of credit cards	1.61 (1)
Credit card balance outstanding	$1,647 ($424)
	Percent
Age	
Less than 35	24.8
35 - 44	23.0
45 - 54	17.9
55 and older	34.4
Marital status	
Married	52.5
Not married	47.5
Race	
White	77.6
Non-White	22.4
Household Income	
Less than $10,000	16.4
$10,000 - $19,999	18.6
$20,000 - $29,999	14.6
$30,000 - $49,999	24.0
$50,000 or more	26.0
Homeownership	
Homeowners	56.7
Renters	43.3
Government health insurance	
Eligible	37.7
Non-eligible	62.3
Payment pattern	
No payment obligations	35.3
Late payments	16.5
Payment on schedule	48.2
Expectation about income	
Income lower than expected	16.4
Income as high or higher than expected	83.6
Health status	
Fair or poor	24.5
Very good or excellent	75.5

[1]N = 4,299.

Whereas the average amount of liquid assets was $13,258, the median was only $1,600. The average amount of outstanding credit card balance was $1,647, while the median balance was considerably lower: $424. On average, households held one to two credit cards. Almost half (48 percent) of the households in the sample reported that they paid their debts on schedule while 17 percent reported being late or missing payment obligations. Thirty-five percent had no payment obligations. One-fourth of the household heads perceived their health status as fair or poor, and over four-fifths reported that their income had been as high or higher than what they expected for a normal year, 25 and 84 percent, respectively.

Predictors of Attitude Toward Use of Credit

The factors that were statistically significant predictors of having a positive attitude toward using credit when income was cut were age, income, being a non-minority, and payment pattern (table 3). The odds that the head of household will borrow to cover living expenses when income is cut increase from 46 to 94 percent for household heads younger than 35 (94 percent), those aged 35 to 44 (57 percent), and 45 to 54 (46 percent), compared with households headed by a person age 55 and over. When the head of household is White, the odds that the head will borrow to cover living expenses when income is cut decrease by 16 percent, compared with a non-White head of household.

The odds that households will borrow when income is cut increased significantly for those with incomes less than $10,000 and between $10,000 and $19,999, compared with households with more than $50,000 yearly income. The odds that a household with an income less than $10,000 would borrow money when income was cut increased

Table 3. Results of logistic regression: Attitude toward borrowing when income is cut, 1995 Survey of Consumer Finances[1]

Variable	Parameter estimate	P-value	Odds ratio
Age (55+ reference group)			
Less than 35	.6608	.0001***	1.936
35 - 44	.4512	.0001***	1.570
45 - 54	.3795	.0001***	1.462
Married	–.0866	.2540	0.917
White	–.1698	.0481*	0.844
Education	.0115	.3858	1.012
Household size	.0134	.5843	1.013
Household income ($50,000+ reference group)			
Less than $10,000	.3890	.0045**	1.475
$10,000 - $19,999	.2928	.0159*	1.340
$20,000 - $29,999	.0920	.4419	1.096
$30,000 - $49,999	.0606	.5110	1.063
Renter	–.0879	.2690	0.916
Liquid assets	–2.41E-8	.3599	1.000
Eligible for government health insurance	.0464	.5588	1.047
Number of credit cards	–.00421	.8239	0.996
Payment pattern (no payment obligation, reference group)			
Payment on schedule	–.0128	.8728	0.987
Late payment	.2725	.0214*	1.288
Credit card balance	.000013	.0829	1.000
Income lower than expected	–.0495	.6380	0.952
Poor health	–.0253	.7693	0.975
Intercept	–.6166	.0132*	
–2 LOG likelihood		5,743.488***	

[1]N=4,299.
*P<.05; **P<.01; ***P<.001.

by 48 percent, compared with the household that had a $50,000 income. The household with income between $10,000 and $19,999 increased its odds of borrowing money by 34 percent. When the household is late with payments, the odds increase by 29 percent that the household will borrow money to cover living expenses when income is cut, compared with households with no payment obligations.

Discussion and Implications

Households whose heads are younger, non-White, with household income below $20,000, and who had incurred late debt payments are more likely to borrow money—use credit—to cover living expenses when income is cut. These findings support previous studies on general credit use.

Several findings from other studies, however, were not supported in the study. Marital status, liquid assets, level of education, household size, homeownership, eligibility for government health insurance benefits, number of credit cards, and health status were not related significantly to using credit to cover living expenses when income is cut. Although the relationship between outstanding credit card balance and the dependent variable was not significant, it was positive. This suggests that consumers with larger balances would charge more if their income was cut.

This study provides information about consumers who consider it appropriate to use credit when there are income difficulties. These households appear to be more likely to use credit when they face unemployment or unexpected events such as illness or accidents that affect the level of their household income. A previous study has pointed out that there are different types of borrowers, such as some who borrow for the purpose of social display and others who borrow to cover expenditures on necessities *(11)*. It may be difficult to reach younger, low-income households that are having difficulty paying on time through educational

programs. A type of educational program that is gaining more attention is Personal Finance Employee Education at work *(12)*. The potentially risky households who were identified here are likely to benefit from education provided at the workplace that would help them understand the potential consequences of not paying off debts, finding strategies to reduce debt load, or identifying community and government resources that increase income or reduce expenses. Also, education provided by the Cooperative Extension Service, faith organizations, and other groups would be beneficial *(1)*.

Another technique for helping consumers manage money better is to support the continued implementation of the NEFE® High School Financial Planning Program *(14)*. If high school students learn about budgeting and using credit, the knowledge and skills gained while they are students may be more likely to continue as they enter college and the work force. Another alternative available to consumers is the Neighborhood Financial Care Center (formerly known as Consumer Credit Counseling Services). The Center helps consumers evaluate and pay down their debt.

The finding that having difficulty making payments on time increases the likelihood of borrowing when income is cut is a complex issue. Lenders may have extended credit to people who had good credit histories but who are now having difficulties (because of unemployment or health problems, etc.) repaying their debts. Also, some lenders may have extended credit to more risky consumers, because the lender wanted to increase its customer base. It may be impossible for consumer educators to address this issue, but at the local level, consumer educators can communicate their concerns to business leaders. The findings of this study would also be helpful for credit card issuers. Young, low-income, non-White, and "late payment" households constitute an especially high-risk consumer because they consider it appropriate to use credit when income is cut, and they may have few economic resources and be employed in less stable jobs *(3)*.

Borrowing to cover living expenses when income is cut should be re-examined in other ways by using information that is not available in the SCF. Work status might be an important predictor of attitudes toward borrowing. Those who are unemployed temporarily, or those who are employed in cyclical occupations, may be more likely to use credit to cover living expenses when income is cut *(18)*. Thus it may be necessary to use data on employment status to understand better which households will encounter this problem. Future attempts to answer the question about the use of credit when income is cut will surely benefit consumers who are most in need of this help.

References

1. Adamson, C.R., Mayer, R.G., and Williams, F.L. 1999. Hispanic financial counseling. *Proceedings of the Association for Financial Counseling and Planning Education*, p. 102.

2. Bird, E.J., Hagstrom, P.A., and Wild, R. 1997. Credit Cards and the Poor. Institute for Research on Poverty. Discussion Paper 1148-97.

3. Black, S.E. and Morgan, D.P. 1999. Meet the new borrowers. *Federal Reserve Bank of New York Current Issues in Economics and Finance* 5*(3)*:1-6.

4. Bloom, D.E. and Steen, T.P. 1987. Living on credit. *American Demographics*, October, pp. 22-29.

5. Brobeck, S. 1992. Consumers' attitudes toward credit cards. *Credit World*, July/August, pp. 8-13.

6. Calem, P.S. and Mester, L.J. 1993. Search, switching costs and the stickiness of credit card interest rates. Working paper number 92 – 24/R. Federal Reserve Bank of Philadelphia, Philadelphia, PA.

7. Canner, G.B. and Cyrnak, A.W. 1986. Determinants of consumer credit card usage patterns among U.S. families. *Journal of Retail Banking* VII*(3)*:63-74.

8. Canner, G.B. and Kennickell, A.B. 1995. Household sector borrowing and the burden of debt. *Federal Reserve Bulletin* 81:323-334.

9. Canner, G.B. and Luckett, C.A. 1991. Payment of household debts. *Federal Reserve Bulletin* 77:218-229.

10. Choi, H.N. and DeVaney, S.A. 1996. Differences in the use of bank and retail credit cards in the U.S.A. *Journal of Consumer Studies and Home Economics* 19:381-392.

11. Fan, J.X. 2000. Linking consumer debt and consumer expenditures: Do borrowers spend money differently? *Family and Consumer Sciences Research Journal* 28*(3)*:357-400.

12. Garman, E.T. 1999. Employer-sponsored education programs and incentives to improve employees' financial lifestyles. *Personal Finances and Worker Productivity* 3*(2)*:3-8.

13. Godwin, D.D. 1997. Dynamics of households' income, debt and attitudes toward credit, 1983-1989. *The Journal of Consumer Affairs* 31*(2)*:303-325.

14. Huddleston-Casas, C.A., Danes, S.M., and Boyce, L. 1999. Impact evaluation of a financial literacy program: Evidence for needed policy change. *Consumer Interests Annual* 45:109-114.

15. Kennedy, P. 1998. *A Guide to Econometrics* (4th ed.). TJ International, United Kingdom.

16. Kennickell, A.B., Starr-McCluer, M., and Sunden, A.E. 1997. Family finances in the U.S.: Recent evidence from the Survey of Consumer Finances. *Federal Reserve Bulletin* 83*(1)*:1-24.

17. Slocum, J.W. and Mathews, H.L. 1970. Social class and income as indicators of consumer credit behavior. *Journal of Marketing* 34:69-74.

18. Sullivan, T.A., Warren, E., and Westbrook, J.L. 2000. *The Fragile Middle Class: Americans in Debt*. Yale University Press, New Haven, CT.

19. Waldrop, J. 1989. Inside America's households. *American Demographics*, March, pp. 20-27.

20. Wasberg, C.A., Hira, T.K., and Fanslow, A.M. 1992. Credit card usage and consumer debt burden of households. *Journal of Consumer Studies and Home Economics* 16:9-32.

21. Zhu, L.Y. and Meeks, C.B. 1994. Effects of low income families' ability and willingness to use consumer credit on subsequent outstanding credit balances. *The Journal of Consumer Affairs* 28*(2)*:403-422.