- 2. Consumer Reports (1983), "Disability Income Insurance." (March), pp. 122-126, 154.
- 3. Health Insurance Association of America, New Group Disability Insurance (1977-1982), Washington, D.C., 1982, p. 3.
- 4. Health Insurance Association of America, Source Book of Health Insurance Data, 1981-82, Public Relations Division (Washington, D.C.: Health Insurance Association of America, 1982), p. 10.
- 5. Health Insurance Institute, "What You Should Know About Disability Insurance", Washington, D.C.: Health Insurance Institute, p. 2.
- Lang, Larry R. and Thomas H. Gillespie (1981), Strategy for Personal Finance, (New York: McGraw-Hill Book Company), p. 562.
- 7. U.S. Department of Health and Human Services, Social Security Administration, "If You Become Disabled," SSA Publication No. 05-10029, May 1982, p. 10.
- 8. U.S. News and World Report (1983), "Easing A Crackdown on Disabled" (June 20), p. 13.

REFERENCES FOR CONSUMER EDUCATION TEACHERS

"What You Should Know About Disability Insurance", The Consumer Series, Health Insurance Institute, 1850 K Street, N.W., Washington, D.C. 20006.

Consumer Reports (1983), "Disability Income Insurance." (March), pp. 122-126, 154.

THE DETERMINANTS OF FINANCIAL MANAGEMENT BEHAVIORS AMONG COLLEGE STUDENTS: IMPLICATIONS FOR CONSUMER EDUCATION

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Financial choices of most consumers are more difficult today because of fewer resources, higher costs and greater uncertainty of our economic future [12, p. 81]. Financial management behavior can have broad and long-term consequences. Planning and implementing activities of consumers are direct approaches to managing our complex financial environment within which financial choices must be made. Thus, the development of a set of routine financial management practices or behaviors should lead to a greater probability of financial success as well as security. Examples of such behaviors include regular financial goal-setting and estimating expenses and in-

The economic realities of inflation and uncertainty of the last decade have had a specific effect on the costs of attaining a college education. Students and their families are faced with a particular price squeeze in terms of the cost of higher education. The Higher Education Price Index (developed by D. Kent Halstead for HEW) reached 203.4 for the fiscal year of 1981 compared to the 1971 base year of 100 [6, p. 17). This upward trend in the costs of education is expected to continue for the next several years. The high costs of education present financial management difficulties for students which will affect their choices of whether or not to attend college and their ability to finish degree programs. The higher costs of obtaining a college degree also affect the rate of return which students will receive as a result of their education. Rates of return for college students graduating before 1970 have been estimated between 10 and 12 percent [2, p. 3]. Currently, rates of return have been falling and this presents a further financial difficulty for students.

A second reason for studying the financial management behavior of students is simply because a student's managerial skills provide an experience base for later financial activity. The success of many students depends upon their abilities to plan and implement their financial goals. Further, students are not only an important group of consumers, but their management skills and behaviors are harbingers of future consumer vitality in the marketplace and in the home.

PROBLEM STATEMENT AND PROCEDURES

Financial management behaviors are defined to be planning and implementing behaviors which relate to the financial resources and demands faced by individuals and families. This research further proposes to represent the planning and implementing activities of management by the following nine behaviors:

Planning Behaviors

- 1. setting financial goals
- 2. estimating expenses accurately
- 3. estimating income accurately
- 4. planning and budgeting one's spending

Implementing Behaviors

- considering several alternatives when making a financial decision
- 6. adjusting to meet financial emergencies
- 7. meeting deadlines or bills on time
- 8. successfully meeting financial goals
- 9. successfully carrying out a spending plan [11].

According to the Deacon and Firebaugh management framework, these financial management behaviors would depend on and would be a function of a set of inputs; namely, demands and resources [4].

The likelihood of a student engaging in any of the previously mentioned financial management behaviors was represented by a nominally-scaled dependent variable which assumed ordered values from 0 to 3. Sample respondents were asked to describe the frequency with which they engaged in the nine financial management behaviors. Answers for each behavior could be one of the following: 0 for never, 1 for seldom, 2 for sometimes, and 3 for often. Never engaging in a particularly behavior would be a type of nonmanagement or a management bypass routine. The probability of engaging in a particular financial management behavior was explained by examining the effects of inputs into the management subsystem in the form of demands and resources of students studied. Demands and resources included general, student, and financial characteristics of the sample members.

Data used in this research project were collected during December 1979 via a mailed questionnaire sent to 2,697 randomly-selected undergraduates enrolled in three institutions of higher education in the central New York State area. Questionnaires were returned by 1,067 undergraduates, representing a rate of return of approximately 40 percent. The actual sample analyzed in this research study included 877 students due to the accumulative effect of the missing values for the research variables involved in the research model.

RESULTS AND DISCUSSION

The actual sample used to estimate each of the nine equations included 877 respondents. Descriptive statistics were computed for each independent variable and for all nine dependent variables. As hypothesized, students who were majoring in the natural sciences were more likely to engage in one planning behavior of estimating expenses accurately and one implementing behavior of meeting deadlines or bills on time.

The number of credit hours enrolled in was consistently positive and significant across most of the equations. This result would seem to indicate that financial management activities were more likely to occur when the situation warrants and demands them. The more credit hours the student is enrolled in the more pressures he would face with less time to manage.

The final type of demands examined were the employment activities of the students. As hypothesized, the more hours a student works, the more likely he is to engage in financial management

behaviors, particularly planning behaviors such as estimating expenses and incomes and planning how to spend one's money. However, nonemployed students were also more likely to estimate expenses accurately, meet bills on time, and successfully meet their financial goals. It would seem that employed students engage in more planning behaviors as a result of necessity. On the other hand, nonemployed students seem to be more likely to engage in implementing behaviors.

The second major group of variables represent resources as inputs. These variables including human and material resources were expected to influence the likelihood of engaging in management behaviors. Females were expected to be more likely to engage in both financial planning and implementing behaviors. In general, planning behaviors were less likely among females while implementing behaviors were more likely to occur.

Nonwhites were less likely to estimate income accurately and more likely to plan or budget how to spend their money and more likely to successfully carry out a spending plan. There would seem to be a somewhat positive relationship between financially-disadvantaged background and an increased likelihood of engaging in implementing behaviors.

The effect of being married was positive if significant. As hypothesized, the physical independence and the state of being on one's own would seem to foster the probability of engaging in particular financial management behaviors. Married students are more likely to engage in planning as well as implementing behaviors.

Seniors and students with higher grade point averages were consistently positive and significant across most of the equations. These results would seem to indicate that financial management activities are more likely to occur when the manager involved has a higher academic ability and more experience in handling his own affairs.

The material resource of total income increased the likelihood of setting financial goals as was hypothesized. If a student was receiving financial aid, he was more likely to estimate his income accurately.

If a student was financially dependent on his parents and perceived his income as inadequate for his needs, he was less likely to engage in financial management behaviors. A student's financial dependence on his parents was significant in discouraging implementing behaviors such as adjusting to financial emergencies and successfully meeting financial goals. The perception of inadequate income relative to one's needs consistently discouraged both planning and implementing behaviors of students. As hypothesized, one's perception of income adequacy may result in a sense of lack of con-

trol or a fatalistic outlook. In turn, financial management behaviors seem to be discouraged.

SUMMARY AND IMPLICATIONS FOR CONSUMER EDUCATION TEACHERS

In summary, students were more likely to engage in planning behaviors if they were majors in the natural sciences, enrolled in a larger number of credit hours, employed, married, and seniors. Nonemployment status had only a positive effect on estimating expenses. Students with higher grade point averages and higher total incomes were also more likely to engage in some of the planning behaviors. Planning behaviors were less likely for female students and students who perceived their incomes to be inadequate for their needs. Nonwhite students were less likely to estimate income accurately, but more likely to plan a budget.

Implementing behaviors were more likely for students who were majors in the natural sciences, living in an apartment, nonemployed, females, nonwhite, married, and seniors. Hours of employment had only a positive effect on meeting bills on time. Students with higher grade point averages and higher total incomes were also more likely to engage in some of the implementing behaviors. Implementing behaviors were discouraged among students who were financially dependent on their parents and who perceived their incomes as inadequate for their needs.

The activity level of financial management behavior is viewed as some indication of effectiveness or probability of success in a student's financial matters. Educational experiences in the area of financial management which would enhance planning behaviors are needed by students who are females, single, beginning, and part-time. Also, students who hold lower grade point averages, have lower incomes, and have perceived their incomes to be inadequate for their needs may be assisted by education experiences or services which enhance their financial planning behaviors.

REFERENCES

- 1. Amemiya, Takeshi. "Qualitative Response Models," Annals of Economic and Social Measurement, 1975, 4(3), 363-372.
- 2. Baxter, Neale. "Payoffs and Payments: the Economics of a College Education," *Occupational Outlook Quarterly*, Summer, 1977.
- 3. Beard, Doris and Francille M. Firebaugh. "Morphostatic and Morphogenic Planning Behavior in Families: Development of a Measurement Instrument," *Home Economics Research Journal*, 1978, 6, 192-205.

- Deacon, Ruth E. and Francille M. Firebaugh. Family Resource Management: Principles and Applications, Boston: Allyn and Bacon. Inc., 1981.
- 5. Ferber, Robert and Lucy Chao Lee. "Husband-wife Influence in Family Purchasing Behvaior," *Journal of Consumer Research* June 1974, 43-50.
- 6. Halstead, D. Kent. "Higher Education Prices and Price Indexes," *Business Officer*, 1980, 14(4), 17-20.
- 7. Heck, Ramona K.Z. "A Preliminary Test of a Family Management Research Model," *Journal of Consumer Studies and Home Economics*, 1983, 7, forthcoming.
- 8. Heck, Ramona K.Z. and Robin A. Douthitt. "Research Modelling Implications of Conceptual Frameworks in Family Management," *Journal of Consumer Studies and Home Economics*, 1982, 6, pp. 265-276.
- 9. McKelvey, Richard D. and William Zavoina. "A Statistical Model for the Analysis of Ordinal Level Dependent Variables," *Journal of Mathematical Sociology*, 1975, 4, 103-120.
- Morgan, James N. and Greg J. Duncan. The Economics of Personal Choice, Ann Arbor: The University of Michigan Press, 1980.
- 11. Patterns of Living Related to Income Poverty in Disadvantaged Families, North Central Regional Research Publication No. 217, Special Report 74, Iowa Agriculture and Home Economics Experiment Station, Iowa State University, Ames, Iowa, August 1974.
- 12. "Price Data," Monthly Labor Review, 1982, 105(1), 80-88.

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