

CHARACTERISTICS AND PRACTICES
OF FINANCIALLY-STRESSED HOMEOWNERS
IN PRINCE WILLIAM COUNTY, VIRGINIA

by

Barbara Mary O'Neill

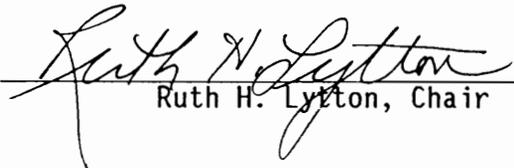
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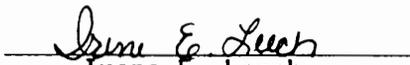
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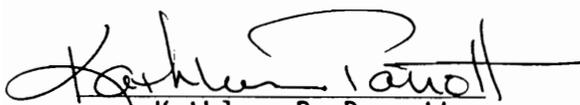
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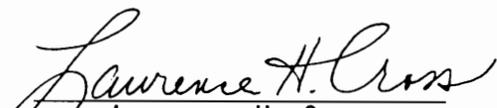
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Committee Chair: Dr. Ruth H. Lytton

Housing, Interior Design, and Resource Management

(ABSTRACT)

This study was designed to examine characteristics of overextended homeowners and to determine to what extent financial difficulty, as measured by the back-end financial ratio (principal, interest, taxes, and insurance, plus consumer credit payments, divided by gross monthly income), can be explained by a combination of affective and objective attributes and precipitating life events. The Parrott and Lytton (1993) Model of Family Housing Stability was used as the theoretical basis of this investigation. Demographic characteristics; financial characteristics, including net worth and financial ratios; money management characteristics and practices; recently-experienced life events; and psychological characteristics of the sample were reported.

Data were obtained from a convenience sample of Prince William County, Virginia residents who were clients of a Cooperative Extension financial counseling program. Two sources of data were used: a 169-item survey instrument and a financial profile. Of the 519 cases where both a financial profile and a survey were completed, 245 were homeowners and comprised the sample. Demographic characteristics of the sample were found to be dissimilar to those of Virginia and U.S. citizens.

Respondents had lower median incomes, and a higher percentage of ethnic minorities and households with children living at home.

Descriptive statistics were used to profile sample households. A quarter of the sample had a negative net worth and the mean amount of liquid assets covered one week's expenses. Almost three-quarters of sample households had monthly household expenses that exceeded income. Over 80% experienced three or more life events that affected their finances. The most frequently-reported event was unemployment.

Seventeen independent variables were regressed on the dependent variable to produce a statistically significant R^2 of .3138 ($p < .0001$). Objective and affective attributes and precipitating life events were also regressed as blocks on the dependent variable. Only the objective attribute group was significant, accounting for approximately a quarter of the variance in financial difficulty. Only one individual variable, the number of household earners, was significant in explaining variance in the dependent variable. A negative coefficient indicated that, as the number of wage earners was reduced, the back-end ratio of sample households increased.

Dedication

This dissertation is dedicated to the memory of my father,

Francis X. O'Neill,

June 25, 1920-February 18, 1993,

who bravely faced death due to cancer and did not live long enough to see me earn this degree or become a published author. I know you're in heaven and are looking down with pride. You showed me many times that, with hard work and dreams, anything is possible.

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CHAPTER I

Introduction and Statement of Problem

People have changed their view of debt. Thus, there has been an inexplicable but very real retreat from the Puritan canon that required an individual to save first and enjoy later... The Puritan ethos was not abandoned. It was merely overwhelmed by the massive power of modern merchandising...

Galbraith, 1984, p. 147-148.

This study describes characteristics of severely-indebted households. Debt can be defined as "the condition of owing" (Marquis, 1994, p.1). In recent years, an increasing number of households also have experienced problems associated with overextension (Ritzer, 1995).

Debt-to-income ratios are often used to measure consumer indebtedness. These ratios are computed by dividing monthly consumer debt repayments, excluding a mortgage, by monthly take-home pay. Experts advise spending no more than 20% of after-tax income on credit payments and suggest that 15% is even better (Kapoor, Dlabay, & Hughes, 1994). Between 1981 and 1990, the percentage of Americans' disposable household income consumed by debt service increased from 14.5% to 18.5% (Courtless, 1993). For comparison, in 1945, consumers spent less than 2% of take-home pay on installment debt (Lockett & August, 1985). In addition, consumer debt ratios are believed to substantially underestimate actual debt levels today due to the growing use of home equity lines of credit and auto leasing over the past decade. Both practices create "implicit debt" but it is not reflected in official government estimates (Koretz, 1993).

High household debt levels are a widespread societal problem and increasing levels of household debt are well documented. The indebtedness of U.S. households grew at an average rate of 10% per year during the 1980s and totaled just under \$3.4 trillion at year end 1990. The growth of consumer credit exceeded the growth of after-tax income (Canner & Lockett, 1991). Automobile financing has been the single largest component of consumer credit, but credit card accounts are the most rapidly-expanding segment (Courtless, 1993). The number of credit cards held by consumers rose from 526 million in 1980 to almost 1.1 billion by 1992 (U.S. Bureau of the Census, 1994).

The Dangers of Debt

A number of problems can result from dangerously high debt levels, one of which is the commitment of future earnings to pay for previous expenses. Many consumers carry consumer debt in excess of 20% of take-home pay, which is considered an extremely high level. A 20% debt-to-income ratio is analogous to working a five-day week and getting paid for four because an entire day's pay is simply unavailable for savings or current expenses (Dominguez & Robin, 1992). Even monthly debt equal to 10% of take-home pay may be too much for households with high expenses, such as a four-figure monthly mortgage payment or high child-rearing costs (Jasen, 1993).

If debt is not repaid quickly, it multiplies as interest gets added to outstanding balances. At minimum payment levels, debt repayment also takes a long time. Feinberg (1993, p.11) recently coined the word "perma-debt" to describe non-mortgage and non-vehicle debt that is carried on a permanent or semi-permanent basis. It is an insidious trend that robs consumers of future purchasing power and, over a lifetime, can cost thousands of dollars.

Financial problems often sneak up on people who are complacent about their debt and assume that no problem exists as long as they are making minimum payments. A common financial error is greater concern with the size of monthly payments than with the total cost of a loan. Borrowers learn that they can carry a \$1,000 debt for less than \$30 a month, which soon becomes \$2,000 for less than \$60 monthly, and then \$5,000 for less than \$150 monthly (Feinberg, 1993). Often they have no idea of the total amount of their debt until a crisis occurs.

According to a survey by the National Foundation for Consumer Credit, people seek debt counseling for the following reasons: poor money management (45%), unemployment (28%), divorce (10%), medical/disability problems (8%), substance abuse (1%), and other reasons (8%), ("Why People Seek," 1994). It is estimated that 70% of Americans live "paycheck to paycheck," courting disaster if their incomes were suddenly reduced or stopped (Ventura, 1992).

In many cases, debt incurred in the 1980's was leveraged against an assumed increase in home equity which "evaporated" in many areas of the country, ending the era of "painless" wealth accumulation. Assumed increases in household income often did not materialize either. Between 1989 and 1993, all regions of the country saw significant declines in inflation-adjusted median income (Georges, 1994). These changes have caused many people to feel betrayed by a system that had helped so many others before them to make money (Hughes, 1991).

Along with high finance charges, emotional and physical distress is another consequence of excessive debt. Feelings of guilt, fear, helplessness, and shame are common, as are arguments about money when families are financially stressed (Mundis, 1986). Disagreements about money are a leading cause of divorce (Poduska, 1993) and American

couples quarrel over money more than anything else (Blood & Blood, 1978). In addition, a growing number of people today report feeling a loss of control over money (Englehardt, 1994) or living in fear of unemployment because they have so little money in reserve. A daily sense of impending disaster pervades their lives (Mundis, 1986). Caplovitz (1974) reported that almost half of a sample of 1,331 debtors felt that their financial difficulties had an effect on their health. He found that debt problems produced psychosomatic symptoms associated with stress and anxiety or forced debtors to skimp on health care expenses. Financial instability also may be associated with reduced productivity in the workplace (Richard, 1986).

Too much debt can imperil a household's future. Overextended consumers often report feeling anxious and "imprisoned." The future seems less certain when it has been mortgaged to pay for current needs. Financial troubles can affect personal relationships, self image, and emotional health. Repeated debt often results from distorted attitudes and perceptions about money, which lead to destructive behavior patterns (Mundis, 1988).

Easily available credit and slick advertising also make living beyond one's means very easy. Creditors have found that merely putting a credit card in someone's hand will cause them to spend 34% more than they would with cash (Blue, 1989). Two major disadvantages of credit are that it often leads to over-spending and it reduces financial flexibility by committing future income to pay previous debts (Garman & Forgue, 1994).

Overextension is not just a threat to debtors' well-being, but to that of creditors and society. Ultimately the cost of unpaid debt gets passed along to other consumers. Banking analysts predicted in 1992

that personal bankruptcies would saddle banks with \$12 billion in losses, causing credit card interest rates to be one to three points higher than they would otherwise be ("The High Cost," 1992). Bankruptcy has become an increasingly common way to deal with debt as evidenced by almost a million U.S. households filing bankruptcy petitions in 1992 (Bacon, 1993).

Another effect of household debt upon society is its influence on the fluidity and pricing structure of the housing market. First time homebuyers enable existing homeowners to "trade up" to more expensive homes. Government data indicate that the most frequently-encountered single reason for homebuyers not qualifying for mortgages is a higher-than-acceptable debt level. Those with the most difficulty are young people in rental housing (U.S. Bureau of the Census, 1991).

Hughes (1991, p. 44) notes that the 1980s was "a decade of economic confidence and robust consumer spending. The 1990s will be different." Personal spending increased sharply between 1980 and 1989 due to a unique set of factors that included real income growth, federal income tax reductions, a rapid increase in the value of housing, and the maturation of the baby boom generation. In addition, the U.S. individual savings rate fell from 6% to 4.5% of disposable income between 1980 and 1990 (Courtless, 1991).

The early 1990's are quite a different environment and have been described as an "age of anxiety" (Swoboda, 1993) due to many Americans' deep, underlying fear of joblessness. In 1993 alone, more than 2 million Americans were predicted to lose their jobs through layoffs, corporate re-structuring, and early retirements with over 20% out of work for at least 6 months (Swoboda, 1993). Many have gone from earning over \$15 an hour to \$6 to \$8, often without benefits such as health

insurance (Warshaw & Wyckoff, 1993). In addition, housing markets have been depressed throughout much of the country since the late 1980's. Tens of thousands of recent homebuyers own houses that have declined in value since the time of purchase (Ravo, 1993). Relatively few studies have been done of the characteristics and financial management practices of households that have recently experienced problems with debt.

Debt and Homeownership

Housing expenses are an extremely important component of most household budgets. According to Garman and Fogue (1994), the four largest household expenses (excluding taxes) are food, housing, insurance, and transportation. Of these, housing is generally the largest expense and often consumes up to 40% of disposable income. Households headed by persons aged 35 to 44 spend the most on housing, with expenses 30% higher than average (Ambrey, 1991).

There has been a widening gap during the past few decades between what it costs to build and maintain housing and what Americans can afford to pay. For most homeowners, their house is their largest single asset and their home equity, a major source of wealth accumulation. Persons who are priced out of the housing market or unable to maintain monthly payments forgo the unique financial and tax advantages that housing provides, often with long-term consequences.

In many areas of the country, housing prices outpaced income growth during the 1980s (Powers, 1993). Of particular concern are the debt problems experienced by homeowners, especially those who bought at the peak of the 1980s housing market. Many have since seen the value of their homes decline, some to the point of negative equity, where their outstanding mortgage balance is greater than what they would receive in a resale.

Housing affordability is a major area of national concern. For a large and growing number of households, acquiring adequate shelter represents an increasing financial burden. For many lower- and middle-income persons, housing costs have risen faster than incomes (Peach, 1987). The homeownership rate among 25 to 34 year olds dropped from 52.3% in 1980 to 45.1% in 1987. In 1967, it took 21% of the median income of a young family with children to carry a new mortgage on an average-priced house. By 1986, carrying costs (principal and interest) had risen to 51% of median income (Drier & Atlas, 1989).

Refinancing with lower interest rate loans has helped some financially-strapped homeowners in recent years. Homeowners who refinanced in 1993 reduced the interest rate on their loans to 7.23% from 9.12%, on average, and cut the term of their loans by four years (Crenshaw, 1994). Unfortunately, many others have been unable to qualify to refinance their mortgages. One reason is substantially-diminished home values. Often these are homeowners who bought their homes in the mid- to late-1980's, when property values were at an all-time high.

Most banks require a loan-to-value ratio no higher than 75% or 80% in order to approve a loan (Dorfman, 1992). Loan-to-value ratios are calculated by dividing the maximum amount that a homeowner can borrow by the value of a home (e.g., \$80,000 divided by \$100,000 equals an 80% loan-to-value ratio). Homeowners with negative equity and high monthly payments have had little choice but to stay put and continue making payments on high-interest loans, sell at a loss, or rent their homes and try to cover the mortgage (Ravo, 1993).

A far more common cause for loan rejection has been high debt-to-income ratios (Harding, 1992). Many homeowners who might qualify to

refinance based on income and home equity criteria have debt loads that eliminate them from consideration. When overextended homeowners try to borrow to consolidate existing consumer debt and mortgages, they exceed industry lending standards (Harding, 1992).

The mortgage origination industry is driven by two competing goals: the need for prudent underwriting and a demand for volume. During the mid- to late- 1980s, no- and low-documentation loans that required little or no income verification of borrowers who made sizable downpayments were popular with lenders. By 1988 these loans accounted for between 20% and 30% of loans being made (Pacelle, 1991). A few years later, with home prices declining and an economic recession underway, delinquencies on "no doc" and "low doc" loans skyrocketed.

Some borrowers were later found to have overstated their incomes, and some commission-based lending officers concealed other important underwriting data. By 1991, both major federal government secondary market mortgage agencies (Fannie Mae and Freddie Mac) had stopped purchasing these types of loans, and they generally became unavailable (Pacelle, 1991).

A need exists to study factors related to the financial difficulty experienced recently by homeowners in light of record numbers of corporate layoffs, plummeting home resale values, and high consumer debt loads. One reason is that little industry data exist. Monitoring of changes in homeowners' financial status is done infrequently, if at all, despite the availability of credit tracking systems which can be accessed through the three major credit bureaus (Harney, 1994). Traditionally, lenders check homeowners' credit, income, and debt-ratio levels once-- at the time of loan application. Homeowners experiencing financial difficulty often "juggle" other bills to pay their mortgage

for as long as possible. By the time they start missing mortgage payments, their financial difficulties are usually substantial.

Government assistance to financially-strapped homeowners, like HUD Assignment (for qualified FHA borrowers) and state homelessness intervention programs, provide some assistance but may require mortgage payments to be three full months in arrears before providing assistance. By that time, foreclosure action usually has already begun. Approximately 1% of homeowners default on their loans to the point of foreclosure (Leonard, 1991).

In the largest empirical study of consumer bankruptcy in the United States (Sullivan, Warren, & Westbrook, 1989), more than half of over 1,500 sample debtors filing bankruptcy were homeowners. Yet, these same households once survived a rigorous credit check and met mortgage qualification ratios at or below prescribed levels. Noting this irony, the researchers wrote "this high proportion [of homeowners] suggests a certain fragility in the factors that make people economically safe" (p. 141).

To summarize, the effects of overextension include loss of the use of current income, high finance charges, physical and emotional distress, and high borrowing costs that get passed along to all consumers. The indebtedness of American households grew substantially during the past decade, with a considerable portion of household income, an average of 17%, spent to repay consumer credit (Canner & Lockett, 1991). Homeowners with mortgages owe even more, and some have experienced repayment difficulties and/or negative equity in recent years. The combination of consumer and mortgage debt is often more than these households can afford, especially if they have experienced unemployment or other financial upheavals.

Purpose of the Study

Given the consequences of indebtedness and recent economic changes, the purpose of this study was to explore how selected objective and affective attributes and precipitating life events are related to financial difficulty among homeowners. Objective attributes are quantitative indicators of a household's financial situation, such as demographic characteristics, net worth, income, amount of monthly mortgage payment, and debt-to-income ratio. Affective attributes are personal characteristics or feelings, such as an individual's self esteem, locus of control, and satisfaction with his or her standard of living. All study respondents were seeking financial counseling assistance or experiencing difficulty paying their bills at the time data were collected.

Research Questions

The two research questions explored in this study were:

1. What are the characteristics of a group of homeowners experiencing financial difficulty when considering the following selected objective and affective attributes?
 - * demographic factors
 - * financial management practices
 - * financial ratios and net worth
 - * number and type of creditors
 - * number and type of stressor events
 - * perception of control over finances
 - * perception of life satisfaction
 - * psychological concepts
2. To what extent can changed economic status, as evidenced by the level of financial difficulty experienced by respondents, be

explained by a combination of the following affective and objective attributes and precipitating life events:

Affective Attributes:

Locus of control measure, perceived amount of control over financial situation, self esteem measure.

Objective Attributes:

Age, debt management practices, educational level, existence of a second mortgage or home equity loan, greater debt level than previous year, marital status, net worth, number of children in the household, number of household earners, number of years remaining on mortgage, recent home improvement expenses, total number of creditors, and type of household head.

Precipitating Life Events:

Loss or reduction of income, number of other recently-experienced life events.

Justification for the Study

America's high personal debt level is an important societal problem. During the past quarter-century, the use of credit has become a way of life, with many Americans living beyond their means by accumulating debt with easily available home equity loans and credit cards. Increased use of credit, along with decreased savings and increased employment by women, were three common methods Americans used to resist decreases in their standard of living as real wages declined (Mason, 1992).

Consumers, taking cues from business and government, used debt to improve or maintain their lifestyle. Not surprisingly, increased debt has resulted in increased consumer bankruptcy rates, billions of dollars in annual losses to creditors, and higher prices for all consumers. A national study of bankcard holders found that about 2.7% of accounts

were charged off by issuers in 1990. Twenty-eight percent of charged-off accounts were due to bankruptcy, 45% were due to severe delinquency, 1.5% resulted from the death of a cardholder, and 24% were attributed to fraud (Sullivan & Worden, 1991).

Counseling financially-stressed households involves much more than analyzing balance sheets and income and expense statements. Professionals such as credit counselors, bankruptcy attorneys, and Cooperative Extension agents, who assist indebted households, need to understand as much as possible about both their clients' affective and objective attributes. It is difficult to facilitate change with clients who do not perceive a problem with their financial situation or who attribute their financial progress (or lack thereof) to chance, luck, or fate. This is true no matter what their net worth or debt ratio. The results of financial counseling research can increase counselors' and educators' sensitivity to clients' needs, resources, and problems and expand possibilities for improving a household's management, use, and consumption of resources (Williams, 1989).

Previous research and anecdotal evidence by financial counseling practitioners suggests that additional knowledge is needed about clients' perceptions and psychological concepts (e.g., self esteem, locus of control) as well as their behavior (Porter & Garman, 1993). Decisions about current consumption or borrowing, for example, may depend as much upon factors such as locus of control or perceptions of future well-being as they do upon the amount of income or assets available.

Two recent studies demonstrate the importance of investigating affective, as well as objective attributes, of a household's financial situation when attempting to explain behavior or discover factors that

can motivate individuals to change. Hira, Fitzsimmons, Hafstrom, & Bauer (1993) found that persons who felt that they had more control over their lives (an affective attribute) were more likely to have a positive expectation of their future financial condition. Net worth (an objective attribute), on the other hand, did not influence future perceptions, regardless of its level.

Porter and Garman (1993) found that perceived financial well-being can best be explained through a conceptual model that combines both objective and affective attributes. They concluded that "simply evaluating a client's situation based on objective attributes... does not provide information on the client's perception of their situation" (p. 161) and recommended a holistic approach to financial counseling. Although objective indicators of household finances clearly have an influence on debt levels, they do not appear to be the *only* influence. Measures that also evaluate individuals' subjective perceptions may provide a more complete understanding of consumer financial behavior.

Another example of the importance of research on factors related to financial difficulty is a study of Texas Consumer Credit Counseling Service (CCCS) clients conducted to predict the characteristics of clients who successfully complete a debt management program (Allen & Johnson, 1992). Non-profit CCCS offices have limited resources, expend considerable staff time servicing clients experiencing financial difficulty, and have high drop-out rates in their debt management program, which may require several years to complete. The study was done because the agency was interested in reducing wasted effort associated with program dropouts.

A model, developed using demographic and financial variables, was found to be only a fair predictor of success in the debt management

program. This led the researchers to conclude that affective attributes, such as self esteem, money beliefs, and locus of control, in addition to demographic data and information about debts and income, need to be examined in order to predict clients' odds of successfully completing the program. Examination of affective attributes could help CCCS improve the completion rate of high-risk clients because it would provide counselors insights on how to design a more easily-completed program. It was theorized by the authors that individuals who feel that events result from external factors and feel incapable of controlling their lives are more likely to give up and not complete a counseling program.

A review of related literature suggests that relatively few studies have simultaneously investigated objective and affective attributes of overextended homeowners. A number of studies have focused on characteristics of indebted households (e.g., Bloom & Steen, 1987; Canner & Lockett, 1991; Caplovitz, 1974; Dessart & Kuylen, 1986; Dunkelberg & Stafford, 1971; Godwin, 1995; Marlowe, 1981; Ryan & Maynes, 1969) and the changing consumer debt burden of households (e.g., Canner, 1988; Courtless, 1993; Kennickell & Shack-Marquez, 1992). Other studies have considered the characteristics or behavior of financially distressed households (e.g., Dillman & Horton, 1986; Elder, Conger, Foster, & Ardel, 1992; Varcoe, 1990; Voydanoff, 1984) and the use, interpretation, and changes over time of financial ratios (e.g., DeVaney, 1993; Fanslow, 1994; Griffith, 1985; Iwaugwu, 1989; Johnson & Widdows, 1985; Langrehr & Langrehr, 1988, 1989; Lytton, Garman, & Porter, 1991; Mason & Griffith, 1988; Prather & Hanna, 1987).

Several researchers have recommended studying both objective and affective components in the measurement of financial well-being (Davis &

Helmick, 1985; Porter & Garman, 1993). It is also readily acknowledged by researchers and practitioners alike that financial difficulties are often as much a result of attitudes and behavior as a lack of money (Poduska, 1993).

Conceptual Framework

This study explored objective and affective attributes of overextended homeowners and events that may have precipitated their financial difficulty. The conceptual base for this research is a model of housing stability developed by Parrott and Lytton (1993) which focuses on the concept of "stable housing." Housing stability is an important component of economic well-being, so it is important to understand why some households experience financial problems that can result in homelessness. The model (Figure 1) depicts the process a household might experience as it moves from a stable housing situation to other, more precarious, alternatives with the eventuality of having no shelter at all. The transition from stable housing to homelessness occurs within the macroeconomic environment, which directly affects the incidence of risk factors (Parrott & Lytton, 1993).

The model presents a continuum of housing situations ranging from "stable housing" to "no housing." The risk of homelessness increases as the household encounters some combination of situational factors and/or precipitating events that result in a changed economic status. That change in economic status in some way threatens housing stability for households which could, at this point, be described as "precariously housed" (Rossi, 1989).

Without appropriate interventions, such as debt restructuring, fuel assistance, job retraining, or financial counseling, the loss of primary housing will occur through foreclosure or eviction. Cheaper housing

MODEL OF FAMILY HOUSING STABILITY

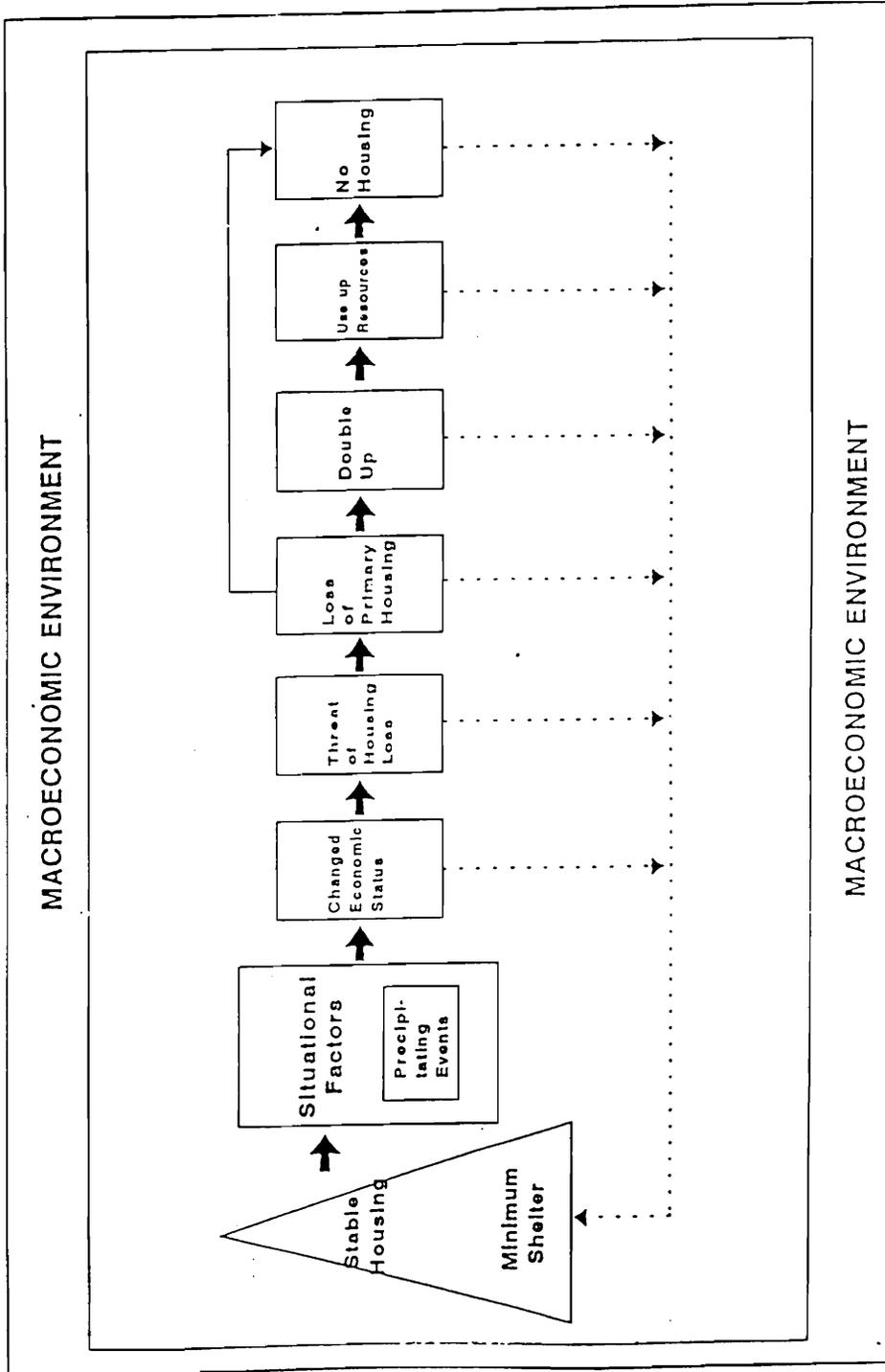


Figure 1

The Parrott and Lytton (1993) Model of Family Housing Stability

alternatives may be sought, or families may, at this point, "double up" with another household, typically friends or relatives. Some will not have this option. Eventually some households use up available resources and find themselves homeless. They neither rent nor own a dwelling nor are they part of a household providing shelter. Emergency shelters or life on the street often are the only alternatives.

At any point throughout the process described above, households can access resources (e.g., financial assistance programs, human service agencies, family members) through a variety of intervention strategies to help them cope with their situation and develop management strategies for achieving stable housing (Parrott & Lytton, 1993). The broken lines on the model represent opportunities for intervention along the continuum. The boxes labeled "precipitating events" and "changed economic status" describe the initial stages of housing instability when problems are just beginning to develop.

Identifying attributes of overextended households at this stage and factors related to their financial difficulty will be helpful to financial counselors who provide intervention services to similarly-situated clients. The model of family housing stability indicates the importance of addressing financial problems early before they escalate and result in the loss of one's home.

The conceptual model was selected because it more clearly identifies the population and issues associated with this study than other models currently used by family economists. The model identifies stages of difficulty experienced by homeowners who are unable to make mortgage payments and are in danger of foreclosure. Situational factors and precipitating events leading to changed economic status are theorized to be the basis for future housing instability and were explored in detail.

Empirical Model

An empirical model (Figure 2) was developed from the conceptual model to serve as the framework for exploring the research questions. As noted previously, changed economic status, resulting from overextension, is believed to be related to both objective and affective attributes of a household and precipitating life events and can be inferred from the degree of financial difficulty experienced at the time of data collection. The empirical model was formulated after reviewing the results of prior research which indicated that knowledge of both objective and affective attributes of financially-stressed households is needed for more effective financial education and counseling (Lown, 1986). This study explored characteristics and practices of financially-stressed homeowners and the extent to which specific objective and affective attributes and precipitating life events (the independent variables) explain the variance associated with homeowners' financial difficulty (the dependent variable).

The empirical model has three sections: "situational factors," "precipitating events," and "changed economic status." Situational factors include demographic and financial characteristics of respondents and specific affective attributes, such as self esteem and locus of control. Precipitating events are recently-experienced (within the previous year) occurrences in the lives of respondents or members of their household. Changed economic status can be inferred by calculating the percentage of gross monthly income required to pay consumer credit and housing expenses. This ratio is used as a measure of financial difficulty, the dependent variable in this study. The model proposes that situational factors and precipitating events, alone or in combination with one another, produce a change in economic status.

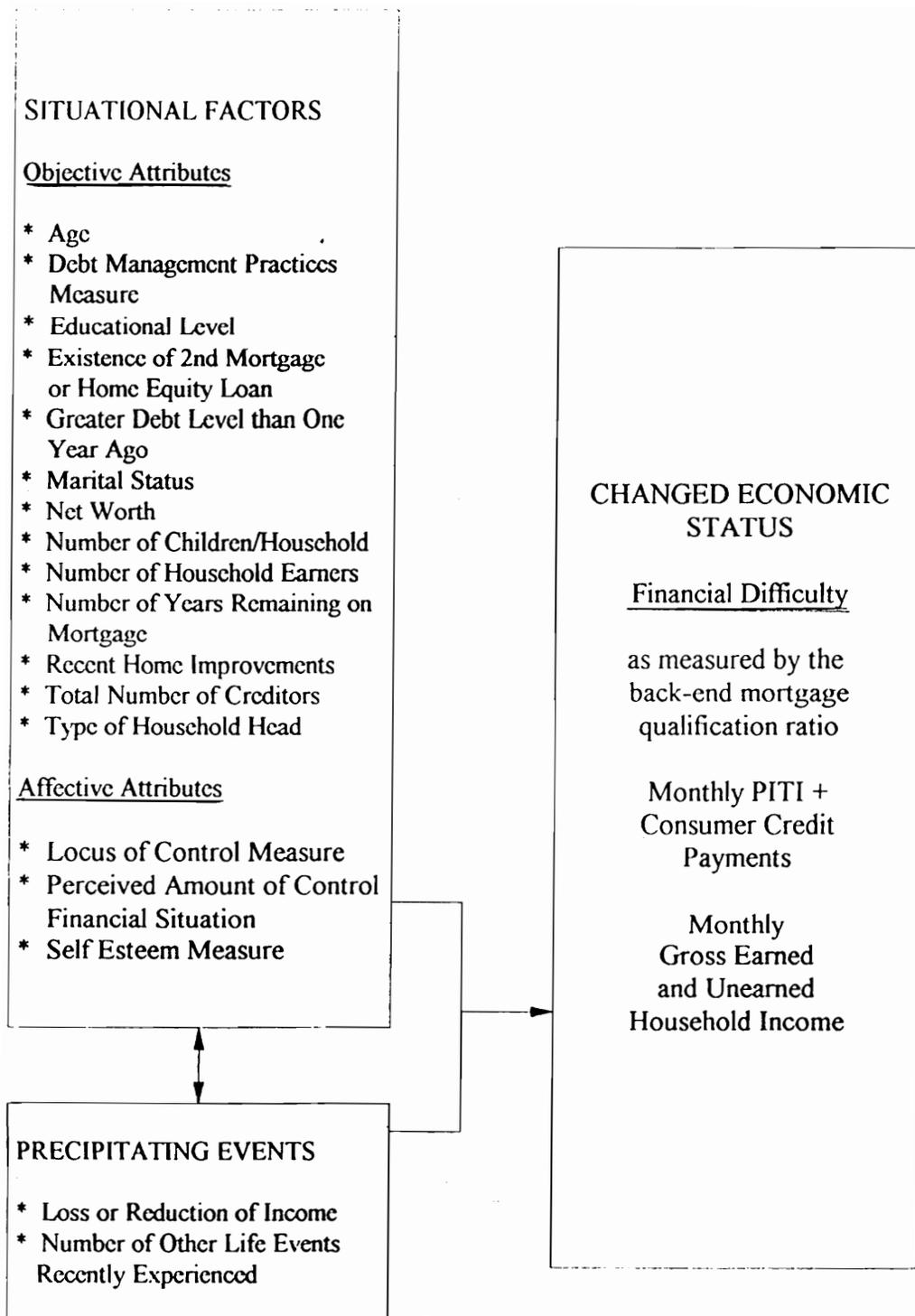


Figure 2

A Model of Financial Difficulty

Each element of the model was operationalized. The dependent variable, "financial difficulty," is continuous and was measured by a commonly-used mortgage qualification ratio that includes both total mortgage costs (principal, interest, taxes, and insurance, or PITI) and consumer debt payments known or assumed to last a year or longer. Sometimes called the "back-end ratio" (Garman & Forgue, 1994), it compares total monthly housing expenditures, plus car loans and other debts, with gross monthly household income. The front-end ratio, in contrast, compares housing costs, alone, with gross income.

Generally, total monthly debt payments cannot exceed 36% of gross monthly income (i.e., a 36% back-end ratio) in order for borrowers to qualify for a loan (Garman & Forgue, 1994). This is a guideline established by federal housing agencies for conventional mortgages sold in the secondary market, although exceptions are sometimes allowed for compensating factors. Among the most common reasons for justifying approval of mortgages with a higher-than-normal back-end ratio are a large downpayment, substantial cash reserves after closing, an anticipated salary increase, or participation in a government homebuyers program (Fannie Mae, 1994). Federal Housing Authority (FHA) and Veterans Administration (VA) mortgages may also allow back-end ratios of up to 41%.

Using the 36% threshold for conventional mortgages, a household with a \$4,000 monthly gross income and no consumer debt could qualify for a loan with a PITI expenditure of no more than \$1,440 ($4,000 \times .36$). If the household also had a \$250 a month car loan, the maximum PITI expense would be \$1,190 ($1,440 - 250$). Thus, each extra dollar of outstanding consumer debt reduces the amount that can be borrowed for housing. For some mortgage programs, such as VA and FHA, child care

costs also may be included as a household debt in back-end mortgage ratio calculations (Dorfman, 1992).

A financial ratio is an index that relates different items of financial data. The back-end ratio, an objective attribute, was selected as a measure of financial difficulty because it includes three major factors that affect the ability of households to pay their bills: income, housing expenses, and consumer debts. In this study, the back-end ratio included first and second mortgages, home equity lines, property taxes, insurance, and condo fees. Monthly child care expenses were excluded. The higher the back-end ratio, the greater the amount of total monthly debt repayment as a percentage of household income. A high percentage of income spent repaying debt is frequently cited as an indicator of financial difficulty (Feinberg, 1993; Detweiler, 1993).

The empirical model relates directly to the conceptual model, specifically the boxes along the household stability continuum labeled "situational events," "precipitating factors," and "changed economic status." The back-end ratio provides a measure of financial difficulty, which can be used to infer a change in economic status. Although data about changes in the financial position of respondents were not available, a change in financial status may be assumed if the back-end ratio of respondents exceeds that which would have been necessary initially to qualify for a mortgage.

Most lenders require that monthly mortgage payments, including escrow for taxes and insurance, not exceed 28% of gross income (front-end ratio) or 36% of gross income (back-end ratio) when consumer credit payments are added to housing costs (Dorfman, 1992). If a household's back-end ratio was once 36% to 41% or less and is later significantly higher, this is strong evidence of a change in financial

status. In this study, only 10.1% of the sample had a back-end ratio of 36% or less. These respondents were included nevertheless because they self-identified themselves as needing financial management assistance.

At the time that data were collected, the sample was not attempting to qualify for a mortgage. Nevertheless, those respondents with projected back-end ratios substantially above lender guidelines would undoubtedly have been rejected for a loan. The back-end ratio is a measure of the current extent of financial difficulty reported by these households.

Delimitations of the Study

This study was delimited to the investigation of specific objective and affective attributes of a convenience sample of Prince William County, Virginia homeowners experiencing financial distress during 1992-93. Some of these households were identified as being at risk for homelessness, and all participated in a resource and referral homelessness intervention program sponsored by the Prince William County unit of Virginia Cooperative Extension (VCE), (Prince William Cooperative Extension [PWCE], 1993).

This study was further delimited because only those program participants who completed a 169-item survey instrument and provided quantitative data about their financial situation were included in the sample. Both information sources were necessary to address the research questions. Thus, of the 757 persons who completed financial statements, only 519 also completed usable questionnaires. Of this number, 245 were homeowners and comprise the sample.

Although the sample was self-selected, on the basis of respondents' knowledge of, or referral to, the VCE program, preliminary analysis of the data indicate a diversity of income and educational levels, as well

as a variety of financial concerns. Nevertheless, the need to limit the generalizability of findings from this study is acknowledged. The range of values for factors such as income and housing expenses of the delimited sample was wide, however, representing homeowners at, below, and above the 1990 Prince William County median income of \$49,370 and median housing value of \$138,500 (Virginia Center For Housing Research [VCHR], 1993).

Specific issues addressed by this study are delimited as follows:

- * loss or reduction of income;
- * other life events believed to cause financial distress;
- * respondents' perceived control over their financial situation;
- * respondents' perceived level of satisfaction with aspects of their lives (including finances) and perceived change in debt level;
- * respondents' financial management practices and preparedness for financial emergencies;
- * a measure of locus of control;
- * a measure of self esteem;
- * number and types of creditors owed;
- * monthly debt load and monthly net earned and unearned income;
- * amount and types of household expenses;
- * back-end mortgage qualification ratio;
- * expense-to-income, housing expense-to-income, and credit-to-income financial ratios;
- * net worth and amount of household assets by category: liquid, invested, tangible, and total;
- * personal characteristics: age, educational level, ethnicity, gender, gross monthly income, marital status, number of children in home, number of employed adults, and household head type; and

* respondents' mortgage term and the incidence of second mortgages/home equity loans and recent major home improvements.

A review of literature and anecdotal evidence suggest that these factors may provide some insight into the causes of the dependent variable, financial difficulty. This study was conducted to increase understanding of the change in financial status of overextended households that once satisfied mortgage ratio qualifications.

Limitations of the Study

A major limitation of this study was that data were collected from residents of one county within one state. Prince William County is located in northern Virginia and is part of the Washington D.C. metropolitan area. As such, the county ranks higher in personal income and has higher housing costs than many other areas of Virginia and the nation. The 1990 median monthly housing cost for Prince William County homeowners with mortgages was \$1,162, compared to \$831 for homeowners statewide (VCHR, 1993).

Virginia, itself, ranks 12th in resident population among the 50 states, and 13th in per capita personal income. Almost 70% of the state population is considered urban (U.S. Bureau of the Census, 1994). The fact that Virginians are in the top quintile for both population and income, and Prince William County residents' incomes significantly exceed the state average, can affect the generalizability of the results of this study.

Basing the study on information provided by a convenience sample of respondents who voluntarily sought assistance with their financial difficulties is another limitation. Convenience sampling is a form of non-probability sampling and provides less assurance that a sample is representative of the population from which it is drawn than methods

where all members have an equal opportunity of being included in the sample (Touliatos & Compton, 1988). Therefore, there is no way of knowing how representative this sample is of Prince William County residents or, on a larger scale, Virginians or Americans who have experienced financial difficulty. The data set is very comprehensive, however, and provides a wealth of information with which to study variables related to the financial difficulties that many Americans have recently experienced. A comparison of sample characteristics was made with state and national data (see Chapter III) to determine how "typical" they were.

The way in which data were collected is a third limitation of this study. When VCE originally obtained the grant to conduct the homelessness resource and referral project, the generation of a data base for scientific research was not an objective. The Prince William County Cooperative Extension office relied heavily on a cadre of trained volunteers to collect respondents' financial data and enter it into computer files as part of the financial counseling volunteer program. There were instances where data collection was not done in a uniform manner or where mistakes were made by volunteers unfamiliar with the terminology or use of computers. All efforts have been made by persons in charge of subsequent research phases of this project to correct these errors, and secure data where it was missing. Nevertheless, for certain questions, with certain respondents, data were simply unavailable and this affected various analyses.

A fourth limitation of this study was its heavy reliance on subjective information provided by respondents on the survey questionnaire. Measurement errors can often occur on questions related to personal attitudes and behaviors (e.g., the use of credit) because

respondents may be hesitant to be completely truthful about how they think or handle their finances, or may not want to appear dissatisfied with their lives. In addition, respondents can simply misinterpret questions when data are collected through self reports, especially when a series of scales are used. The quantitative financial data also were based on information provided by respondents. Errors were easier to detect, however, when VCE volunteers reviewed supporting documentation or simply double-checked income and expense totals. Nevertheless, the possibility of error exists here as well because all of the numbers were provided by respondents.

Inconsistent sample size for calculations needed to answer different research questions is a final limitation. As noted previously, there is a problem with missing data associated with particular respondents answering specific questions. A total of 67 cases among the 245 in the sample are missing data for at least one variable needed to answer the second research question. With the listwise deletion feature of the software program SAS, only those cases with responses available for variables needed to answer a particular research question are used. Thus, the sample size for different calculations varies. On the positive side, this procedure is preferable to eliminating a case completely, and helps maximize usable sample size and maintain sample diversity.

Operational Definitions

The following operational definitions for key variables and terms pertinent to this study were used:

Assets- cash, investments, and property owned by an individual or household, i.e., the sum total of what they own at a particular point in time (Kapoor et al., 1994).

a) **Investment Assets**- assets that are generally purchased for extended time periods (e.g., stock, bonds) and can vary widely in price from time of purchase to time of sale.

b) **Liquid Assets**- cash or cash-equivalent products (e.g., savings account, money market fund, CDs) that can be converted to cash quickly and which are highly stable in price. Liquid assets generally comprise a household's emergency fund.

c) **Use Assets**- tangible property (e.g., home, car) that has monetary value, but is also used in daily living.

Attribute- distinctive features or components of an individual's financial situation.

a) **Affective Attribute**- information about an individual's financial situation that is based on subjective factors such as beliefs and perceptions that are unique to that individual (e.g., locus of control).

b) **Objective Attribute**- observable or quantifiable indicators of a person's financial situation (e.g., demographic characteristics, income, net worth, and financial ratios).

Back-end Ratio- a ratio that compares total monthly debt repayments for housing (PITI), auto loans, and other consumer debts with gross monthly income (Garman & Fogue, 1994). Commonly-used lender guidelines suggest that monthly debt repayments not exceed 36% to 41% of gross monthly income, i.e., a 36% to 41% back-end ratio.

Changed Economic Status- A component of the conceptual and empirical models. It can be inferred by comparing respondents' back-end ratio with ratios that would have been necessary to qualify for a mortgage.

Debt Management Practices- actions and beliefs reported by individuals that are indicative of the way they handle credit or repay existing debts.

Financial Difficulty- an indicator of changed economic status and the dependent variable of this study. Believed to be influenced by objective and affective attributes and precipitating life events, it was measured by households' back-end mortgage qualification ratio (see above). Ratios above industry guidelines (36-41%) are considered indicative of financial distress. Synonymous with "overextension."

Financial Life Cycle- a description of family financial status on a continuum, beginning with the establishment of a household through the accumulation, preservation, and distribution of wealth in later years.

Financial Ratios- comparisons made using two or more items of financial data about a household to assess the adequacy of their financial situation, measure progress, and/or make financial decisions.

a) **Credit-to-Income Ratio**- a comparison of all monthly installment and non-installment credit payments, excluding a mortgage, to total household net earned and unearned income.

b) **Expense-to-Income Ratio**- a comparison of all monthly household expenses, including monthly credit expenses, to total household net earned and unearned income.

c) **Housing Expense-to-Income Ratio**- a comparison of all monthly housing expenses, including PITI, utilities, and maintenance, to total household net earned and unearned income.

Gross Income- the amount of money earned by individuals or households before taxes and other payroll deductions are subtracted.

Home Equity- the difference between the current market value of a home and the amount of outstanding loans against it.

Homelessness- situations where individuals or households are unable to afford to own or rent a single-family home or shared residence and thus have no housing which they control.

Insolvency- when the value of a household's liabilities exceeds that of its assets, thereby producing a negative net worth.

Liabilities- the total of an individual or household's outstanding debts (e.g., mortgages, credit card balances, loans) at a point in time.

Locus of Control- a concept which refers to the extent to which one perceives that their behavior can influence life events (Rotter, 1966). Internally-controlled individuals perceive themselves as having control over the outcome of events, including their financial situation, while those who are externally controlled typically perceive things to "happen" by luck, chance, fate, or through the control of others.

Net Income- the amount of money available for spending and/or saving after taxes and other payroll deductions are subtracted from gross income; also known as take-home pay (Kapoor et al., 1994).

Net Worth- the value of a household's total liabilities subtracted from the total value of assets at a particular point in time.

Overextension- synonymous with "financial difficulty," this term is used to describe the financial situation of respondents who experienced problems paying debts and/or household expenses.

Perceived Control of Financial Situation- on a five-point scale with anchor points of "in control" to "out of control," how respondents indicate the extent to which they feel in control of their finances.

Perceived Satisfaction- on a seven-point scale with anchor points of "completely dissatisfied" and "completely satisfied," how respondents indicate their satisfaction with various key facets of their lives including their financial situation.

PITI- a term used by mortgage lenders to describe the following combination of charges included in a monthly mortgage payment: principal, interest, taxes, and homeowner's insurance. In this study,

PITI used to calculate the back-end ratio included first and second mortgages, home equity lines, property taxes, insurance, and condo fees.

Precipitating Events- a component of the empirical model. This category of independent variables includes the loss or reduction of income and the number of other recently-experienced occurrences, with financial implications, experienced by sample household members.

Primary Problem- the most important financial problem identified by VCE project staff when respondents requested assistance.

Self Esteem- "an individual's attitude about him or herself, involving self-evaluation along a positive-negative dimension" (Baron & Byrne, 1991, p. 522).

Situational Factors- a component of the empirical model. This category of independent variables includes demographic and financial characteristics of respondents and specific affective attributes.

Organization of the Remainder of the Dissertation

This chapter provided an overview of problems associated with household indebtedness and, in particular, the financial challenges faced by homeowners. A conceptual model of housing stability and an empirical model to explain factors related to financial difficulty were presented. The purpose and justification for this study, as well as research questions to be answered, were outlined. The chapter concluded with delimitations, limitations, and operational definitions.

The remainder of this dissertation is organized in the following manner: Chapter II- "Review of Related Literature," Chapter III- "Methodology," Chapter IV- "Presentation of Data," and Chapter V- "Discussion, Conclusions, Recommendations, and Implications." A list of references that were consulted in the preparation of this report and a copy of the survey instrument (see Appendix A) are also included.

CHAPTER II

Review of Related Literature

This chapter includes a review of topics related to this study. First, it summarizes studies of household indebtedness, including characteristics of indebted households and changes in household debt levels; second, it discusses studies of households experiencing financial distress and financial coping strategies; and third, it describes studies to establish norms for financial ratios and the use of ratio analysis to assess changes in the economic status of households.

Household Indebtedness

Household indebtedness has been a frequent topic of research by family economists and researchers at the Federal Reserve Board. Specific foci of recent studies include characteristics of indebted households, causes of indebtedness, and changes in the amount of household debt over time. Much of the early financial counseling research focused on descriptive studies of readily-identifiable populations such as clients of the Consumer Credit Counseling Service and bankruptcy petitioners (Cook & Lown, 1987).

Research about household debt continues to be important because household debt, relative to after-tax income, is 50% higher than 20 years ago and rose twice as fast as net worth during the 1980s (Schilling, 1991). For some households, it will take the balance of the 1990s to repay debts remaining from past borrowing excesses. There are two major categories of household debt: home mortgage debt, which amounted to about \$2.6 trillion at the end of 1990, and consumer debt, which totaled about \$800 billion ("Payment of Household Debts," 1991).

Along with a general rise in consumer debt during the 1980s, there was also an increase in the use of consumer credit among households with below-average incomes (Canner, 1988).

Household debt problems usually do not just "happen." They grow slowly over time as households start living on the edge and stay there. "Perma-debt" (Feinberg, 1993, p. 11) is a big contributor. Although the warning signs of indebtedness are numerous, many people are oblivious to these "red flags," at least initially. Brunette (1990) describes three stages of credit difficulty: early, later, and final. In the early stage, consumers are late with payments and begin paying late penalties, pay only the minimum amount due, and are a month or more behind on bills. In the later stage, bills are months overdue, even minimum payments are difficult to repay, and creditors are making contact demanding repayment.

Ideally, consumers should contact creditors before the later stage, and make arrangements to repay as much of the debt as possible. In the final stage of credit difficulty, court proceedings are threatened or pending, wages are subject to garnishment, and secured items (e.g., a car or furniture) may be repossessed.

Characteristics of Indebted Households

The past 25 years have witnessed substantial increases in household credit use. As just one indicator, the fraction of U.S. families holding at least one type of credit card increased from just over 50% in 1970 to 71% in 1986 (Canner, 1988). The use of home equity loans by Americans also has been increasing in recent years ("Home Equity Lending", 1989). Household indebtedness also has been on the rise, with outstanding consumer installment debt increasing from \$298.2 billion in 1980 to \$790.1 billion in 1993 (U.S Bureau of the Census, 1994).

Another indicator of indebtedness, in addition to previously-reported debt ratios and outstanding balances, is the number of households filing for bankruptcy. In the seven-year period ending in 1991, total bankruptcy filings nationwide nearly tripled. The 1980s led all previous decades in filings but, in 1990 and 1991, bankruptcy case filings were nearly double the annual average of the 1980s (Administrative Office of the U.S. Courts, 1992).

During the past quarter-century, a number of researchers investigated characteristics of indebted households. Many of the earlier studies were limited to descriptions of households experiencing financial difficulty, and samples for some of the studies were limited to one state or city (Cook & Lown, 1987). Following is a description of the major findings of this research.

Ryan and Maynes (1969) studied the installment debt obligations of 1,223 debtor households using data from the 1960 Survey of Consumer Finances. Both descriptive statistics and the results of regression analysis were presented. "Excessively indebted" consumers were defined as those who had more installment debt than they could pay without difficulty. Two dichotomous measures of excessive indebtedness were adopted, "in deep trouble" (DT) and "in some trouble" (ST), based on household debt-to-income ratios. Households with a debt-to-income ratio greater than .20, or 20%, were considered to be in deep trouble while those with debt ratios less than .20 were classified as ST. In the entire sample, 11% were classified DT and 39% ST with respect to installment debt.

The greatest proportion of debtors in trouble, both DT and ST, were unmarried (especially separated, divorced, and widowed), poor, and in the age brackets of under 25 or 65 and older (Ryan & Maynes, 1969).

Households headed by women were more likely to experience debt trouble, as were those with a change in income. Education was inversely related to debt trouble, as was family size. Families with children were least likely to be in trouble due to installment debt, while households without children were more likely to be in trouble. Debt troubles increased with the size of outstanding debt, and there was a strong negative relationship between income and being in trouble.

An unexpected result was the finding that underspenders (relative to the mean for their income class), as well as overspenders, were more likely than normal consumers to be in a DT or ST position. Two possible explanations given were that underspenders may have experienced a recent income "shock" (e.g., unemployment) affecting their level of spending, or that they were a group of low-competence consumers who got into trouble even without spending up to the norm for their income group (Ryan & Maynes, 1969).

Factors affecting the use of installment debt by households and changes in debt levels over time were the focus of a study by Dunkelberg and Stafford (1971). Data were collected by interviews, over two years with a sample of 1,921 U.S. households with family heads under age 60. Using regression analysis, the researchers found that households follow cycles of indebtedness and repayment, and theorized that credit provides a means for consumers to adjust expenditures so that consumption is smoothed out over the life cycle. Higher levels of installment credit debt were negatively related to both low and high incomes, having no children, and being a single parent and positively related to middle incomes, being married with children, and having a variable income from month to month. Another determinant of debt occurrence was income expectations, i.e., how large income is expected to be and for how long.

To identify characteristics of overextended households and to learn how they got into financial difficulty, Caplovitz (1974) interviewed 1,331 debtors who had been sued by their creditors. Data were collected from interviews with a sample obtained using court records in four large cities: New York, Chicago, Detroit, and Philadelphia. Unemployment, low occupational status, and a low income were clearly related to, and contributed to, the sample's financial woes. Using descriptive statistics, Caplovitz reported that default debtors were primarily working class (i.e., lower income occupations), rather than middle class, and that a substantial majority were members of ethnic minority groups and had marginal incomes. They also were less educated than debtors in general, and tended to be relatively young.

The single most important reason for default was some reversal of a debtor's flow of income. About half of the default debtors in the sample got into trouble because of income loss. Specific causes included strikes, unemployment, and illness. Another 20% defaulted because they had taken on too many debt obligations and became overextended. The next largest group, about 17%, stopped paying because they felt they had been cheated by a merchant (e.g., fraud, defective merchandise). Approximately 8% defaulted because their marriage had ended, and only 4% fit the classic stereotype of the irresponsible "deadbeat" who simply refuses to repay what is owed (Caplovitz, 1987).

About half of the default debtors interviewed said that their debt problems had affected their health, and about the same number said that their marriages had suffered. More than a third also said that their jobs had been affected: either they lost their job, or were worried they would because employers resented creditors' contacts or wage garnishment orders (Caplovitz, 1974).

In a review of literature about insolvent households, Heck (1980) noted that high debt-to-income ratios were found to be positively related to debt problems leading to both delinquency and personal bankruptcy. She stated that several researchers (Ryan & Maynes, 1969; Yeager, 1972) had demonstrated that most insolvent or bankrupt households have high debt-to-income ratios. Some studies investigated general demographic characteristics of severely-indebted households and found age and stage of family life cycle to be important factors.

Summarizing a number of previous studies, Heck (1980) stated that the profile of the typical insolvent household is one that has a low income, high debt level, and a debt-to-income ratio over 1.0 (i.e., debts greater than earnings). In addition, it is often headed by individuals around age 30 and usually in the early stages of family formation, which are characterized by heavy financial demands.

Insolvent households are more likely than the general population to have moved recently. Marital difficulties or divorce also are likely, as are high medical expenses. Educational and occupational levels are often lower than the general population. Low aspirations, fatalism, and emotional immaturity may be common psychological traits (Heck, 1980).

Another study investigated variables associated with successful liquidation of debts by overextended households. Marlowe (1981) employed discriminant analysis to identify factors that distinguish families who repaid their debts from those who did not. Data were drawn from Tennessee Consumer Credit Counseling Service (CCCS) files. Most families in the sample of 292 cases were young and in the lower- to middle-income bracket. The sample was divided into two categories: 55 successful CCCS program completions and 237 program dropouts. The average debtor for both groups was 32 years old and owed 12 creditors.

Debt-to-income ratio was found to be a strong discriminator of ability to repay (Marlowe, 1981). Successful completions had a lower debt-to-income ratio and a greater reduction in monthly payments when in the CCCS program. Other variables identified as discriminating between the two groups were: higher medical debt, and higher car payments as a percentage of income, and lower living expenses. Income level and housing costs were not significant variables.

The most conclusive evidence was the finding about medical debt. Medical debt is different from other debts in that it is largely unplanned and does not reflect consumption practices. Marlowe (1981) concluded that households with high medical debt may have established sound financial management practices and found it easier than others to get out of debt without extreme behavioral changes. They were successful because the debt was due to an unexpected event beyond their control, rather than to poor financial management.

Data from the 1983 Survey of Consumer Finances (SCF) were analyzed by Bloom and Steen (1987), using descriptive statistics and regression analysis, to determine predictors of the amount of household debt carried. They found that younger householders were more likely to favor borrowing than older ones, regardless of the reason. The amount of debt carried also increased as household income increased. The proportion of households in debt rose from 39% of those earning less than \$10,000 annually to 73% of those earning \$50,000 or more. Households headed by a 35 to 44 year old with income of \$50,000 or more had the highest consumer debt burden of all age groups. Households headed by persons age 65 and older, at all income levels, had the smallest average consumer debt load of any age category.

Bloom and Steen (1987) also found that, holding age constant, income had a positive effect on the amount of household debt carried. Within each age group, households with higher incomes had greater debt. They concluded that higher incomes lead to more spending and more borrowing as households raise their standards of living (Bloom & Steen, 1987).

Askim and Camp (1994) examined the relationship between previous credit experience and default behavior, also using data from the 1983 Survey of Consumer Finances. Responses from 1,973 households were analyzed. The dependent variable, "default," was coded with a value of 1 if a household had been in default on any credit obligations during the past year and a 0 if it had not. The independent variable, "credit experience," was defined as the total number of months elapsed from the origination of all loans to the time of the interview. Logistic regression results, with default as a dichotomous variable, indicated that additional experience with consumer credit appears to reduce the likelihood of default. Default probability fell by approximately .01 for every 2.5 months of additional credit experience.

Defaulting households also tended to be married, better educated, and have higher incomes than non-defaulting counterparts, and had more credit cards and fewer closed-end loans. Askim and Camp (1994) also found that 22% of households with less than a .20 debt-to-income ratio (.20 is considered indicative of overextension) had, nevertheless, defaulted on at least one credit obligation. Debt-to-income ratios were found to be an effective discriminator between defaulting and non-defaulting households only at values below .20 (20%).

Devaney (1994a) used logistic regression with household net worth data from the 1983 and 1986 Survey of Consumer Finances to measure the effect of age, income, and marital status on insolvency. Insolvency was

defined as having a net worth less than one month's income. Analysis of panel data for a random sample of 1,934 households showed that age of the household head had a negative relationship with insolvency and income had a strong negative effect. In the first time period (1983), married couples had lower predicted insolvency rates than other household types, but in the 1986 study, the relationship between marital status and insolvency was unclear. Household size, education, and race were not significant variables related to insolvency in either year.

Factors affecting the debt level of newlyweds were investigated by Godwin (1995), using a randomly-selected sample of 256 recently-married Georgia couples. Results of regression analysis of factors associated with couples' debt levels indicated that only two factors, couples' gross income and their attitudes toward planning, were significantly related to total debt. Total debt was defined as the sum of all of a couple's debts, including a mortgage. Income was strongly and positively related to total debt, possibly reflecting the role that income plays in eligibility for mortgages and other loans. For every \$1,000 extra in income, couples added over \$1,000 in total debt. Income also was positively related to couples' consumer (non-mortgage) debt, current (i.e., payable within a year) debt, and monthly debt repayment.

Couples who believed in planning for the future had higher levels of overall debt than those who did not. Their perception of income inadequacy also was related to consumer debt levels. The more inadequate couples felt that their income was, the higher their consumer debt. Less than 10% of the sample had no debt of any type and over 75% had current debt. Slightly more than a quarter (26.4%) of the sample also had a mortgage.

Psychological Factors

Most researchers have depended primarily on demographic characteristics to study indebted households. Yet, it is widely acknowledged that financial problems may result as much from personality or behavior problems as from poor financial management (Poduska, 1993).

Relatively few researchers have examined psychological profiles of debtors (Cook & Lown, 1987). Two early studies specifically focused on bankrupts. Caffrey and Capel (1969) studied psychological factors using five different sample groups in the western court district of South Carolina: bankrupts, poor credit risks, good credit risks, average citizens, and college faculty members. The sample size numbered 233. Results of factor analysis showed that bankrupts and poor credit risks differed significantly from other population groups in their outlook on life and psychological orientation. Specifically, these two groups differed from the others as follows: lower in social aspirations, lower in socio-economic status, and higher in authoritarianism and fatalism.

Yeager (1972) examined the personalities of a sample of 44 bankrupt individuals by testing for 16 major personality factors using forced-choice questions. Using regression analysis, he found that bankrupt individuals tended to be emotionally immature and lacked a tolerance for frustration. Other common traits of bankrupt individuals were evasiveness, becoming easily annoyed, shyness, withdrawal, cautiousness, and worrying. These personality characteristics were identifiable and significantly different from the norm.

Dessart and Kuylen (1986) surveyed 901 borrowers in the Netherlands to determine the causes of their financial difficulty. A sample of 398 borrowers with payments in arrears and 503 borrowers with no arrears of payment was drawn from a Dutch credit bureau. The conceptual model for

the study posited four factors to explain the existence of a problematic debt situation: institutional, socio-economic, psychological, and decision-behavior. Institutional factors were defined as influences exerted by lenders on borrower's credit behavior (e.g., credit promotions, acceptance policies). Socio-economic factors included demographic and lifestyle characteristics of respondents, and psychological factors encompassed their perceptions and beliefs. Decision-making behavior factors included borrower's credit knowledge and ability to evaluate factors related to incurring a debt.

Discriminant analysis was used to identify factors which identified debtors in arrears from those who were not. The number of outstanding debts was found to be the most important institutional factor; i.e., the more outstanding credit borrowers had, the more frequently problematic debt situations occur. Family life cycle stage, income, and years of work experience were the most important socio-economic variables, and knowledge about and consideration of credit features were important decision-making factors. Borrowers with a very low or high level of knowledge had a low probability of difficulty. Both groups were more cautious about debt than those with a moderate level of knowledge. Borrowers who did not consider the term or interest rate on a debt to be important ran a greater risk of problems.

Of particular interest is the study of psychological factors related to indebtedness and the finding that locus of control was the most discriminating personality factor related to problematic debt. The more borrowers felt in control of their lives (internal control), the less likely they were to get into financial difficulty. Features that characterize persons with an internal locus of control, in general, are that they plan ahead, are better informed, and make decisions

rationally. If they get into financial difficulty, they more often attribute the causes to themselves than do borrowers who are externally-controlled (Dessart & Kuylen, 1986).

Psychological variables, however, had the least discriminating capacity of the four classes of factors (Dessart & Kuylen, 1986). The most important explanatory factor for debt problems was institutional practices, especially the granting of credit to borrowers with one or more outstanding debts.

In another study that also included psychological factors, Churaman (1988) investigated the use of consumer credit by college students. A sample of 161 students was given a number of written instruments including a personal money management profile, a financial locus of control (FLOC) scale, and surveys to ascertain their method of payment and credit practices. The FLOC scale required respondents to rank the importance of internal attributions (e.g., knowledge, effort) and external attributions (e.g., luck, other people) for success and failure in economic tasks. Pearson product moment correlations were used to examine the relationships among variables. Analysis revealed that freedom from debt was associated with a feeling of being in control of and satisfaction with one's financial situation. Self-indulgence and an external locus of control orientation were related to the tendency to spend more when carrying a credit card.

Changes in and Causes of Household Indebtedness

Studies reported in this section are based upon analysis of a series of consumer surveys conducted by the Survey Research Center (SRC) of the University of Michigan. In 1970, 1983, 1986, and 1989, the SRC collected data on the assets, liabilities, and income flows of a nationally-representative sample of U.S. households through in-person

interviews. Widely regarded as a reliable data source on family finances, these Surveys of Consumer Finances (SCF) provide important insights into changes in household indebtedness over time and are the subject of extensive analysis by Federal Reserve Board economists.

Canner (1988) found both significant changes and similarities in consumer use of credit cards between 1970 and 1986 by comparing 1970 and 1986 SCF data using descriptive statistics. Of note was the substantial increase in the issuance of bankcards. Bankcard holdings increased from 16% of households in 1970 to 55% in 1986. In 1986, as in earlier surveys, about half of bank and retail credit card users paid their bills in full each month while the other half revolved a balance. The amount charged by cardholders was positively related to the age, income, and educational level of the family head. The amount charged by both revolvers and convenience users rose steadily with income and education and also with age until near retirement, when it declined rapidly (Canner, 1988). From 1970 to 1986, the outstanding balances owed by the typical cardholder more than doubled when measured in constant dollars.

A similar study, using 1983 and 1986 SCF data, was conducted by Avery, Elliehausen, and Kennickell (1989) to investigate changes in consumer credit use during the mid-1980s. They reported a gradual lengthening of loan maturities resulting in reduced monthly payments but higher total interest costs. Thus, monthly debt service payments rose at a slower rate than the total volume of consumer debt. More than 80% of households with installment debt also had sufficient financial assets or home equity to liquidate their debts in emergencies.

Using data from the 1983 and 1989 Surveys of Consumer Finances (SCF), Kennickell and Shack-Marquez (1992) studied changes in household debt levels during the 1980s. Again, using descriptive statistics, they

found that credit card debt and automobile loans grew substantially between 1983 and 1989, as did the use of home equity lines of credit. Debt levels declined substantially between the two surveys for families with heads over 55 and for single parents, while the median debt for childless couples with heads under 55 more than doubled.

The highest median amounts of credit card debt were reported by families with a head less than 54 years old. These are households most likely to have children living at home. The proportion of households reporting that they were a month or more late making payments rose, from 13% to 15%, and the ratio of non-mortgage debt payments to income also increased. Historically, debt-to-income ratios are lower for families with higher incomes. By 1989, the debt-to-income ratio for households with income less than \$10,000 had risen to nearly 40%. The ratio for those earning \$50,000 or more was 19% (Kennickel & Shack-Marquez, 1992).

Data from the 1983 SCF of 3,824 households were analyzed with descriptive statistics by Sullivan and Fisher (1988) to provide insights on the relationship between various household characteristics and the difficulty experienced making scheduled payments on loans. If respondents indicated that any payments were late or missed, they were classified as "slow payers." The researchers found that the percentage of borrowers who were slow payers declined as income, age of household head, and educational level of household head increased. Households that owned their homes had significantly lower slow payment rates than households that rented. Female-headed households had slightly higher slow payment rates (25%) than male-headed households (19%), while households with non-white or Hispanic heads had slow payment rates more than twice those of households with white heads. The probability of

being a slow payer also increased significantly as the debt burden and ratio of consumer credit payments to income of households increased.

Canner and Lockett (1991) used data from 1990-91 Federal Reserve-sponsored Surveys of Consumer Attitudes to study household debt repayment behavior of 1,534 U.S. households. Using descriptive statistics, they found that, while 85% of households had an outstanding debt obligation, most reported no problem meeting their obligations on time during the preceding year. A substantial minority, about 14%, reported falling behind on at least one payment. Strong correlations were found between payment problems and housing tenure, marital status, and debt service burdens. Households with rental housing, a divorced or separated household head, and a high debt-to-income ratio had the highest proportion of payment difficulty. The age of household heads also was an important demographic characteristic of late-paying households. Households headed by persons under 35 were nearly four times as likely to report payment problems as those headed by someone at least 55.

Multivariate analysis was used to assess the likelihood that a household either repaid its debts as scheduled or fell behind on one or more payments (Canner & Lockett, 1991). The analysis revealed that payment problems were most strongly related to debt-service burdens, educational attainment, the number of children under 18 years of age in a household, and marital status. Higher debt-service burdens were positively related to late payment problems, as were the number of young children in a household. Of those consumers with at least one payment 30 days late, most indicated that they became overextended by taking on too much debt (55%), or experiencing an unforeseen change in their employment (24%) status, or health (6%) status. Nearly 40% of those

more than 30 days behind reported that they caught up during the next month or paid "when they were able." About 22% contacted their creditors about the problem.

Summary

This section reviewed research studies related to household indebtedness. Specific issues addressed were: characteristics of indebted households, psychological factors related to debt accumulation, and changes in household debt levels over time. A review of these studies suggests that a myriad of factors are related to the financial difficulties that households experience. Nevertheless, some patterns are readily apparent. High and low incomes and educational levels, marital status, age, and ethnicity were repeatedly linked to indebtedness, as were stage in the family life cycle, debt-to-income ratio, and whether or not a household owned or rented their home.

Situational factors, especially the interruption of income due to unemployment, also were a factor related to financial difficulty, as were the type (e.g., medical bills) and amount of debt that households incur. Psychological factors linked to indebtedness include fatalism, immaturity, and an external locus of control. The total number of household debts outstanding was another factor related to financial difficulty. All of this evidence is consistent with both the conceptual and empirical models, which posit that changed economic status results from a combination of situational factors and precipitating events.

Households Experiencing Financial Distress

The economic well-being of many American households is declining. Families are experiencing financial distress as a result of widespread economic changes that have affected the size and structure of the U.S. labor force. Among these changes are a decline in manufacturing jobs

and an increase in the service sector, shifts in the geographic location of jobs, polarization of the labor force toward high-wage or low-wage occupations, and the development of jobs in new industries not associated with unions (Voydanoff, 1984). Another cause of financial difficulty is the fact that most Americans are earning less in real terms, after inflation is taken into account, than they did 15 years ago (Swoboda, 1993).

Economic change often disrupts a household's customary patterns of behavior, resulting in financial difficulty when there are insufficient funds available to pay for household needs and wants. Not all families respond to financial pressures in the same way, however. Households with more than one earner, or those who have prepared for the possibility of a stressor event, such as unemployment, experience lower stress levels than those with fewer resources or social supports (Voydanoff, 1984).

Studies have shown that there is an association between the number and intensity of life events (e.g., unemployment) and the onset of specific illnesses (Rabkin & Struening, 1976). The models upon which this study is based indicate that a link may also exist between life events and financial difficulty. Most investigators have adopted or modified the 43-item checklist developed by Holmes and Rae (1967). On this scale, known as the Social Readjustment Rating Scale (SSRS), different life events are weighted with point values.

Death of a spouse, with 100 points, is the highest value on the scale. Several researchers (Caplovitz, 1979; Dillman & Horton, 1986; Elder et al., 1992; Varcoe, 1990) have investigated the effect of life events upon personal finances. Among the life events listed on the SSRS (Holmes & Rae, 1967) with financial implications are: divorce (73

points), unemployment (47 points), retirement (45 points), a mortgage/loan over \$10,000 (31 points), mortgage foreclosure (30 points), a spouse beginning or ending work (26 points), and the Christmas season (12 points).

Brunette (1990) classifies problem debtors as situational, chronic, and hybrid. Situational debtors find themselves overextended as a result of unpredictable circumstances (e.g., disability). Debtors categorized as chronic are impulsive or compulsive spenders and/or persons unable to manage their finances. Hybrid debtors are situational and chronic at the same time, i.e., an unexpected event exacerbates an already-precarious condition.

Van Arsdale (1982) describes the types of crises faced by debtors as external, internal (self-generated), or life cycle-related. External crises are unexpected events (e.g., unemployment) caused by others while internal crises arise from a debtor's value system and include debts related to spending practices and addictions. Life cycle crises are stressful, but commonly-experienced events (e.g., birth of a child), that impact personal finances.

Sources of Financial Distress

Researchers often define financial distress as the pressures and strains that arise from the loss of income, as opposed to chronic poverty. Dillman and Horton (1986) interviewed a random sample of 607 Washington state residents to identify sources of stress. Respondents were asked to list the single most important thing causing them stress. Those experiencing financial problems were compared with respondents who identified any other problem as their greatest source of stress. Chi square tests revealed significant differences between the two groups. There was an inverse relationship between both the age and income of

respondents and the likelihood of financial problems. Younger respondents were more likely than older ones to list financial problems as their greatest source of stress. Less affluent respondents also experienced more financial stress than those with greater incomes.

Financial problems were the greatest cause of stress for 18% of the sample. Surprisingly, only 50% of unemployed respondents ranked financial problems as their greatest cause of stress. For those who identified financial problems as their most frequent stressor, specific items of concern were: having enough money to pay bills on time, their overall financial condition, unemployment in the household, job security, and having reliable transportation (Dillman & Horton, 1986).

Elder et al. (1992) studied 76 middle-income Iowa households to assess their response to increased economic pressure. Participating households completed questionnaires concerning family relations, personal characteristics, and economic circumstances and were videotaped to observe family interactions. The researchers found that level and loss of income and unstable work patterns accounted for 40% of the variance in the economic pressure households experienced. Emotional distress was relatively common among couples in hard-pressed households, especially among husbands. Negative emotions associated with loss and deprivation included depressed feelings, anger, or hostility.

Coping With Financial Distress

Individuals and households vary in their responses to stressor events. "Coping" refers to the process through which available resources are used to meet the demands of financial distress (Voydanoff, 1984). According to Voydanoff (1984), several types of financial coping behaviors can be used when economic distress occurs, including family financial management (e.g., "juggling" bills); family-related

decision-making (e.g., moving to less costly housing); and definitional coping (e.g., perceiving unemployment as an opportunity).

In a 1976 survey of almost 2,000 urban residents impacted by inflation, Caplovitz (1979) found that only 4% of the sample held two jobs. Working overtime was a much more popular strategy, and was engaged in by 26% of wage earners. Having an additional member of the family enter the labor force was reported by 16% of the sample. The most prevalent response to rising prices was to curtail expenditures. First, luxuries were curtailed and then, in time, adjustments were made to necessities (Caplovitz, 1979).

Haldeman and Peters (1988) investigated resources that serve as "resistors" to stress, using data collected from questionnaires completed by 342 Nevada households. Respondents were asked to identify the most important problem they had faced in the previous year, and which of 33 problem-solving strategies they had used to cope with the problem. They also were given a check-off list to identify events which had occurred to them during the previous year. Financial problems were the second most frequently-reported stressor event. Significant stress resistors were: satisfaction with family life, satisfaction with finances, and age of the respondent. Results of multiple regression analysis indicated that these three factors, combined with the number of life events experienced within the last year, explained 27.8% of the variance in respondents' stress scores.

In a more recent survey of almost a thousand fairly-affluent California households, Varcoe (1990) identified sources of financial stress and common coping strategies. Too much debt was identified as a problem for 18% of the sample, and the inability to save money was a problem for 42%. Job-related events, such as unemployment and

retirement, caused the most financial difficulty. Health-related problems occurred for more than a fifth of the survey households.

The most prevalent method of coping with financial stress (66%) was to withdraw either regular savings or money saved for emergencies. A third coped by doing without new clothing, entertainment, and other items, 14% borrowed money from a financial institution, and 8% borrowed from a friend or family. Additionally, 11% put off paying bills as a financial coping strategy. The average age of this sample was 51, and 54% of the households had incomes of \$50,000 or more (Varcoe, 1990).

Shinn (1992) examined the influence of age, income, and education on the economic well-being and financial coping strategies of 1,060 Idaho households. Economic well-being was measured by respondents' indication of whether their financial situation improved, worsened, or stayed the same during the past five years. Using chi square and multiple classification analysis, Shinn found age to be the strongest predictor of economic well-being. The largest decline in economic well-being was reported by those in the mid-life age groups: 49-64 year olds (37%) and 36-48 year olds (35%). Age also was the strongest predictor of five of six coping strategies that were studied: family work effort (e.g., working overtime), financial management (e.g., decreasing expenses); overextension (e.g., utilizing credit); informal economy (e.g., bartering); and do-it-yourself (e.g., starting a garden). Only decision-making (e.g., selling possessions) was not significantly influenced by age. The oldest age group (age 65 and older) was the least likely of all age groups to use any of the six financial coping strategies.

Economic well-being also was significantly influenced by income and education (Shinn, 1992). Lower levels of income and less education had

a negative impact on economic well-being. Income predicted the use of three coping strategies (family work effort, financial management, and informal economy) while education predicted the use of only two (family work effort and do-it-yourself). Young households with the least income and education were most likely to engage in overextension (e.g., using credit, late payments, defaulting on loans, etc.).

A study of behavioral adjustments made by 35 overextended consumers (Olson, 1994) suggests that households engage in different actions, depending upon their reason for being in debt. Data were gathered from a sample of Consumer Credit Counseling Service (CCCS) clients with a mean monthly net income of \$1,640. Comparisons were made, using t-tests, between clients who completed the CCCS program and those who had not and by the reason that debt was incurred: controllable (e.g., overspending) or uncontrollable (e.g., medical expenses). Reducing food eaten away from home was identified by more of the sample than any other behavior adjustment. Clothing also was identified as an adjustable expense, followed by recreation, gifts, and food eaten at home. Sample members also shopped sales, made shopping lists, and used coupons more frequently than before. Reducing costs for housing and transportation were the most frequently-identified adjustments that were not made.

Successful CCCS clients made more behavior adjustments than those who left the program without eliminating their debt. In the area of managerial activities (e.g., planning, budgeting), there was a statistically significant difference between the two groups. Households with debt unrelated to their own spending habits were also more likely to implement behavior adjustments. The two significant adjustments were increasing income adequacy (e.g., overtime, second job, public assistance) and managerial activities (Olson, 1994).

Summary

The data and studies reviewed in this section indicate that financial difficulties are a major household stressor. As suggested in the models that undergird this study, people experience a variety of common life events that have financial implications (e.g., a reduced income). In addition, during the 1980s, households in the United States faced unprecedented challenges as the country adjusted to technological advances, fluctuating employment, and changing demographic patterns. As a result, many were faced with declining employment opportunities, unstable incomes, and eroded purchasing power (U.S. Department of Agriculture, 1988).

Study results suggest that financial difficulty is related to the age, income, and employment stability of affected households. Research on financial coping strategies examines how households successfully endure economic hardship. Households use various methods of coping in an effort to reduce financial distress. Findings also suggest that expense reduction, especially curtailed discretionary spending, is a common response to financial difficulty. Other coping strategies include increasing household income, consuming savings, and improving financial management practices. The choice of coping strategy also appears to be related to the age, income, and educational level of households.

The Olson (1994) study, and that of Marlowe (1981), suggest that the cause of debt also is a significant factor related to financial difficulty. Households that incur debt through no fault of their own (e.g., medical bills) appear to reduce debt more successfully and use more coping methods than those who are overextended as a result of controllable factors.

Financial Ratio Analysis

As depicted in the empirical model, the dependent variable in this study is the back-end ratio frequently used to qualify prospective homeowners for a mortgage. Financial ratios have long been used in the business world to analyze the financial position of companies. For example, a firm's current ratio (current assets divided by current liabilities) is used as an indicator of sufficient capital on hand to meet short-term debts.

Ratios compare key components of a firm's balance sheet and other important data (e.g., earnings). A ratio, to be a logical measurement, must be a fraction containing, as numerator and denominator, items which have an inherent and comparable relationship to each other (Horrigan, 1978). The comparison of ratios for successive periods is useful for measuring the success of an enterprise over time.

Financial ratios are found in company annual reports and information sources like the *Value Line Investment Survey* that investors use to make stock purchase decisions. Recently, family economists have suggested that ratio analysis of household financial statements can provide similar insights into families' financial strengths and weaknesses. A number of attempts have been made to establish and standardize approaches to objectively measure financial progress.

Development of Financial Ratios

Ratio analysis, as applied to households, is still in its infancy. Griffith (1985) was one of the first to develop a comprehensive set of personal financial ratios after surveying 22 personal finance textbooks and finding little mention of ratios and no standardized format. He then proposed 16 ratios, representing four major financial areas, that could be derived from personal financial statements: liquidity, debt,

inflation protection, and net worth. Some of the most important ratios relate to a client's level of liquidity and debt burden.

Griffith recommended that the liquid assets to monthly expenses ratio be two to three, meaning that liquid assets should cover two to three months of expenses and debt payments. The ratio of liquid and other financial assets to monthly expenses should be at least six, corresponding to the often-quoted advice that a household's emergency fund should equal at least six months expenses. The liquid assets/non-mortgage debt ratio should be greater than 1.0, indicating more than sufficient funds on hand to repay what is owed. No empirical support was offered, however, for these ratios.

Again, without empirical analysis, Mason and Griffith (1988) presented 20 ratios that could be used to analyze a household's financial position. The ratios addressed issues such as liquidity, debt, risk exposure, tax burden, inflation protection, and net worth. They noted that problems can occur when analyzing personal financial statements (e.g., a balance sheet) because there is no widely accepted procedure for compiling such statements. The authors concluded that all financial ratios need to be considered in light of a client's situation. They concluded that each ratio that is widely adopted may need to have several standards of interpretation to reflect the stage in the life cycle, as well as social and economic circumstances, of particular households.

The lack of standardized terminology, definitions, and format also was addressed by Langrehr and Langrehr (1988). They studied 15 consumer debt ratios in search of a preferred measure of a consumer's ability to repay debt and concluded that contrasting debt service to income is the best measure, because consumers incur debt with the expectation that it

will be repaid with future income and not by selling assets. The numerator recommended is monthly debt service, not the total debt owed. The denominator is monthly discretionary income, i.e., gross income minus taxes, mandatory expenses (e.g., union dues, child support), and living expenses. The resulting ratio is total monthly debt service, including mortgage payments, to monthly discretionary income. Mortgage payments are included because they are fixed debt repayments just like other installment payments.

In a later article (Langrehr & Langrehr, 1989), "debt-like" payments such as car and apartment leases were included in the ratio numerator, along with monthly debt payments, because, like installment debt, they require monthly payment and the consequences of non-payment are severe (e.g., repossession). The denominator, called residual income, is what remains of take-home pay after deducting basic household expenses (e.g., food, utilities, etc.).

Using household financial data from a previously-published financial case study, Lytton et al. (1991) calculated and interpreted nine financial ratios to illustrate their usefulness as diagnostic tools. They concluded that ratios offer insights not readily apparent in traditional financial statements (e.g., balance sheet, income/expense statement) alone. The ratios studied linked data about the case household's income, expenditures, liquid assets, invested assets, consumer debt repayments, mortgage debt repayments, total assets, total liabilities, annual savings, and net worth.

The authors concluded that the nine ratios were broadly applicable and interpretable by both households and professional advisors. They cautioned, however, that ratios should be considered in an inter-related manner and decisions not be made on the basis of just one ratio. In

addition, guidelines for interpretation of some financial ratios are tentative and conclusions must be considered in light of a household's specific attributes.

Use of Financial Ratios as Guidelines and Predictors

Several studies have addressed the usefulness of financial ratios as guidelines or predictors, based upon their use in empirical studies. Johnson and Widdows (1985) used data from the 1977 and 1983 Survey of Consumer Finances to examine the adequacy of household emergency funds using three variations of liquidity ratios. They found that the majority of households had insufficient funds to cover normal total household income for the average time a household could expect to be unemployed (i.e., a minimum of three months of living expenses). Most families had low emergency reserves and were actually less prepared for the unexpected in 1983 than in 1977.

DeLuca (1985) used the debt-to-income ratio as the dependent variable in a study of factors which affect the credit use of 1,034 dual-earner (DEF) and 175 female-headed (FHWC) households with children under 18. Multiple regression analysis was employed. Some factors affecting the debt level of both groups differed and some did not. Specifically, attitudes toward credit use reflect a positive attitude for luxury-type items in the DEF model and necessary-type items in the FHWC model. Credit card repayment patterns were significant in both models. DeLuca concluded that the use of guidelines such as debt ratios must be tempered with caution and that practitioners must tailor debt ratio guidelines to the particular circumstances of a client household.

Prather and Hanna (1987) applied the 16 financial ratios proposed by Griffith (1985) to net worth data about 3,583 households from the 1983 Survey of Consumer Finances and suggested household norms. Descriptive

and non-parametric statistics were used. They recommended that ratios with net worth in the denominator be replaced with total assets due to difficulty calculating and interpreting net worth when it has a negative value. The most useful ratios were liquid assets to monthly expenditures; liquid assets to total debt; liquid assets to non-mortgage debt; liquid assets to short-term debt, plus 12 months payment on other debt; and net equity plus net tangible assets minus home to net worth. Thus, four of the five most useful ratios compared liquid assets to another value on financial statements while the fifth compared equity assets, excluding a home, to net worth. Generally, younger households and those at lower income levels could be expected to appear in worse financial shape in relation to all ratios than older households or those with higher incomes (Prather, 1990).

The use of seven financial ratios to predict financial security was the subject of a study by Iwuagwu (1989). Using secondary data from the Wisconsin Basic Needs Survey, with a sample of 365, and multiple regression analysis, Iwuagwu found that three financial ratios were statistically significant predictors of a household's financial security: liquid assets to monthly expenditures, liquid assets to consumer (non-mortgage) debt, and inflationary assets to total assets. The dependent variable, financial security, was measured with a seven-point scale in response to a question that asked respondents how secure they felt financially. Liquid assets/monthly expenditures and liquid assets/consumer debt were both positively correlated with financial security while the inflationary hedge ratio (comparison of inflationary assets to total assets) had a strong negative effect on financial security.

DeVaney (1993) utilized financial ratios as indicators of improvement of household financial status between 1983 and 1986, using data from the Federal Reserve Survey of Consumer Finances (SCF). Using descriptive statistics about a sample of 1,934, she concluded that ratios appear to function reasonably well as indicators of progress and suggested the next step of analysis should be to look at financial ratios of various age subgroups. Of six ratios analyzed, three showed an increase in the proportion of households meeting guidelines cited in two personal finance textbooks: assets to liabilities (solvency ratio), investment assets to net worth, and liquid assets to disposable income. The recommended guidelines for these three ratios are 1.0 or greater, .25 (25%) or greater, and 3.0 to 4.0 or greater, respectively. Almost 10% of households in 1986 were technically insolvent with an asset/liability ratio less than 1.0 (i.e., debts greater than assets) and 40% did not have access to liquid assets worth 3 month's disposable income. A number of ratios also indicated that the level of household debt, compared to income, increased.

In another study, again using 1983 and 1986 SCF data, DeVaney (1994b) investigated the use of financial ratios as predictors of insolvency. She concluded that they appear to be useful predictors. Two statistical methods were used: logistic regression, and a classification tree procedure. The 1983 liquidity ratio (liquid assets in the numerator; disposable income as a proxy for monthly expenses in the denominator) was the most important predictor of insolvency for the logistic regression, while the 1983 assets to liabilities (solvency) ratio was the most important variable using the classification tree. Another ratio, gross annual (non-mortgage) debt payments to disposable income, was second in importance for each of the two methods.

In a longitudinal (1982, 1986, and 1991) study of 84 Iowa households, Fanslow (1994) used financial ratios to study their financial progress. Six financial ratios were calculated: housing expense ratio, investment ratio, expenditure ratio, savings ratio, liquidity ratio, and consumer debt ratio. Fanslow found that, over time, the number of households that met the criterion of allocating at least 25% of net worth to investment assets increased from 48.8% in 1982 to 72.6% in 1991. Emergency reserves, however, declined during the decade. By 1991, only 40.5% of the sample could cover three months of expenses, down from 53.6% in 1986. Between 1982 and 1991, the percentage of households that spent no more than 40% of net income on housing increased from 70% to 100%. In all three time periods, at least 90% of survey households met the guideline of spending less than their net income.

Summary

Anyone who has read a corporate annual report or stock investor's guidebook is familiar with ratio analysis. Financial ratios are tools that aid in the interpretation of dynamic aspects of financial activity (Horrigan, 1978). For the past decade, ratio analysis has been applied to the household economy. The earliest published articles proposed ratios that linked various pieces of household financial data. Later, empirical studies tested these ratios as indicators of financial progress.

A full decade after the first set of financial ratios was proposed (Griffith, 1985), there is still no agreement on which ratios are best. Different analyses have provided different results as financial ratios have been used for a variety of purposes (e.g., dependent variable, trend indicator, predictor). Most of the ratios that have been

recommended, however, include some measure of a household's capacity to handle debt and/or monthly expenses.

Some ratios measure the ability to service debt using some type of income measurement (e.g., gross income; disposable income) in the denominator and debt service (including or excluding a mortgage) in the numerator. Others link debt or monthly expenses (for a liquidity ratio) in the denominator to liquid assets in the numerator. Another commonly-used ratio is the solvency ratio, which compares total assets with total liabilities. In general, the results of financial ratio research studies support the continued use of financial ratios, particularly those that measure solvency and liquidity. The empirical model for this study includes a financial ratio as the dependent variable.

Summary of Literature Review

This chapter reviewed studies related to characteristics of indebted households, economic distress, and the development and use of financial ratios as guidelines and predictors. This review suggests that a gap exists in the body of knowledge linking affective and objective attributes of overextended households. Only a few studies (e.g., Churaman, 1988; Dessart & Kuylen, 1986) have investigated the interrelationship of locus of control and overextension. Most studies have investigated demographic characteristics and psychological factors separately. In addition, none of the studies described above focused exclusively on samples of homeowners.

The empirical model for this study is based upon results of prior research which suggest that household indebtedness is linked to a number of situational, demographic, and psychological factors and the occurrence of life events. Several types of financial ratios have been

found to be useful and statistically significant indicators of household financial progress, financial security, and insolvency. Studies have been conducted using both small samples from limited populations and data from large government-sponsored studies.

There is a need for research exploring factors related to the indebtedness of homeowners. Mortgage foreclosure rates for conventional, VA, and FHA mortgages increased from 1980 to 1993 by 300%, 117%, and 114%, respectively (U.S. Bureau of the Census, 1994). Another research area, which has been sparsely investigated, is the influence of affective attributes upon household debt. This study addressed both these research needs by investigating affective and objective attributes, as well as precipitating life events, associated with the financial difficulty experienced by homeowners sampled during the early 1990s. Results will contribute to the knowledge base used by educators and practitioners to make recommendations about debt to consumers.

CHAPTER III

Methodology

Chapter II provided a review of literature related to household indebtedness, financial distress, and the development and use of financial ratios as guidelines and predictors. This review indicated that a myriad of demographic and situational factors may be related to the financial difficulties that households experience and that financial ratios function adequately as indicators of household indebtedness and financial status. There is a need for research concerning households that have experienced financial difficulty during the uncertain economy of the early 1990's. This study adds to the body of knowledge about household indebtedness, specifically as it relates to recently-overextended homeowners.

The purpose of this study was to examine characteristics and practices of homeowners experiencing financial difficulty and to determine to what extent financial difficulty, as measured by the back-end financial ratio, can be explained by a combination of affective and objective attributes and precipitating life events. This chapter provides an overview of the methodology that was used to achieve the objectives of this research study, including a description of the survey instrument, procedures used to obtain the sample, data coding, and anticipated data analysis methods.

Instruments

Two sources of existing data were used for this study: a 169-item survey instrument, with items on life events, affective attributes, and debt management practices, and a financial profile form that provides

information about respondents' household income, expenses, assets, and liabilities. Both forms were developed in conjunction with a homelessness intervention demonstration project (PWCE, 1993) funded by a grant from the U.S. Department of Health and Human Services (HHS) and administered by the Prince William County unit of Virginia Cooperative Extension (VCE). Questionnaire items were based on key concepts (e.g., situational factors, precipitating events) included in the explanatory model of housing stability developed by Parrott and Lytton (1993). Data were collected between January 1992 and June 1993.

Included within the survey instrument are a number of questions and scales used to identify respondents' attitudes and behavior. Items used in this study are discussed in detail later in this chapter (see discussion of independent variables beginning on page 67) and also appear in Appendix A. Among these items are a check-list of 28 life events to ascertain the number and type of financial stressors experienced within the past year; scales for respondents to indicate their satisfaction with and perceived control over their financial situation; and questions related to specific financial management practices. Also included are scales to measure respondents' locus of control and self esteem.

Most of the attitude and financial management behavior items were measured with either a four- or five-part Likert-type scale. While original items and scales were developed, previously-tested items and scales were adapted and/or incorporated where possible. Copyrighted scales were used as a measure of locus of control (Bughaighis & Schumm, 1983, and Rotter, 1966) and self-esteem (Rosenberg, 1965). Several revisions of the questionnaire were made on the basis of pretests with respondents of various ages and socioeconomic levels.

Sample

Data were obtained from a convenience sample of Prince William County, Virginia residents who contacted Cooperative Extension for assistance with their financial problems, and became participants in the HHS-funded project (PWCE, 1993). The purpose of the project was to link participants to community services which might offer them intervention to stabilize their financial situation and, in extreme cases, prevent homelessness. Participating households received financial counseling, a current budget projection, and referrals to community agencies. Over 85% of the total population from which this sample was drawn considered themselves to be in crisis when they became clients of the Cooperative Extension financial counseling program.

The population sample for this study included 245 households from among the 757 that completed financial profiles. Of 765 clients providing information, 757 cases were usable. The other eight files were omitted because of errors, omissions, or inconsistencies. Of the 757 households that comprise the total sample, 519 were also given a survey instrument to complete. Those who completed both a survey instrument and a financial profile and were homeowners at the time of the study comprised the sample.

Financial data were collected by trained financial counselor volunteers who assisted VCE staff with the project and entered data into a specially-designed computer program developed for the project. Those clients who also completed a survey instrument were given the forms to complete individually over a period of 20 to 40 minutes. While data were originally collected only to determine respondents' eligibility for community social services and to serve as a source of information for individual education sessions, they also provide a comprehensive

research data base to identify the characteristics of financially-distressed homeowners.

Survey Items

About half of the items on the survey instrument were utilized in this study, in addition to selected data from the financial profile. These data describe characteristics of the sample of overextended homeowners and/or comprise variables included in the empirical analysis of the model of financial difficulty. Specific survey items used and their code number, as indicated on the sample survey instrument located in Appendix A, include the following:

- the first four items on the life events scale related to loss or reduction of income (items V1-V4). Loss of income is a separate independent variable from other life events in the empirical model.
- twenty-five other items on the life events scale (items V5-V29).
- an item assessing respondents' perceived control of their financial situation (item V30).
- eight items that assess respondents' satisfaction with various aspects of their lives (items V31, V32, V33, V34, V35, V36, V37, and V38).
- nine items that describe respondents' preparedness for financial emergencies (items V40, V41, V43, V56, V61, V65, V68, V72, and V76).
- nine items that assess respondents' spending practices and characteristics (items V44, V47, V54, V57, V62, V64, V70, V73, and V75).
- nine items that describe respondents' debt management practices and characteristics (items V39, V45, V48, V50, V51, V53, V58, V67, and V74).

- three items describing practices related to respondents' use of credit cards (items V77, V78, and V79).
- two items relating to changes in respondents' financial situation: their perception of their level of debt compared to a year ago (item V49) and use of credit for items previously purchased with cash (item V59).
- an item relating to current homeownership status (item V80).
- three items related to homeownership: the remaining term on mortgages, the existence of a second mortgage or home equity loan on the home, and recent major home improvements (items V85, V86, and V87).
- six items that assess locus of control and ten items that assess self esteem (items V88-V103 inclusive).

Cronbach alpha tests of reliability were calculated to determine the most reliable indicators of locus of control, self esteem, and debt management practices, from among the items previously listed, for inclusion as independent variables in the test of the empirical model. Other survey items were not explored in this study.

Variable Selection and Data Coding

The dependent variable in the empirical model, financial difficulty, was operationalized as the back-end mortgage qualification ratio. It was calculated by summing a household's total monthly housing cost (PITI) and outstanding monthly consumer credit payments, including car loans, and dividing this total by gross monthly household earned and unearned income. The result, a fraction, represents the percentage of gross monthly household income spent on debt repayment. The dependent variable was continuous with a wide range of values.

The larger the number obtained for the dependent variable, the higher the percentage of household gross income used to repay total

debt. For example, a value of .252 indicates that 25.2% of gross household income is needed for debt repayment, including a mortgage. With a 2.20 value, monthly debt obligations are more than twice, or 220% of, the gross income that a household had available. As noted previously, the standard generally used by lenders to conform to government agency guidelines for conventional mortgages is a back-end ratio of .36, indicating total debt repayment of no greater than 36% of gross household income (Dorfman, 1992).

The back-end ratio is an appropriate way to measure the debt level of a sample of homeowners because it includes all their financial obligations, including monthly mortgage payments. If only consumer installment debt was used to calculate a debt ratio, the true magnitude of household indebtedness would not be known.

Following is a discussion of the rationale for selecting the 18 independent variables included in the empirical model and how they were coded for analysis:

Objective Attributes:

Age is a continuous variable. It was calculated by subtracting respondents' year of birth from 1993, the year that data collection ended. Age was selected as an independent variable because it is widely acknowledged that young adults can become overextended when starting a career, furnishing a home, purchasing cars and other consumer durables, and using credit for the first time (Stampfl, 1978).

According to the life-cycle model developed by Ando and Modigliani (1963), individuals maximize their lifetime utility (satisfaction) by borrowing against future income in their early earning years, repaying debt and accumulating assets in peak earning years, and consuming accumulated assets during retirement. Borrowing by young adults,

especially those starting families, is viewed as a method of compensating for differences between current income and consumption levels.

Debt Management Practices is a continuous variable with values ranging from 4 through 16. It was calculated in an additive manner by summing the responses on a four-item Likert-type scale where the responses ranged from 1 for strongly disagree to 4 for strongly agree. The statements (see Appendix A) are as follows:

V39- "When purchasing large items, I have little or no money available for a down payment."

V51- "I worry about the total amount I have to repay each month on my charge accounts, credit cards, and loans."

V53- "I have received overdue notices because of late or missed payments."

V58- "I am reluctant to open the mail for fear of finding more bills."

The Cronbach alpha estimate of reliability for this scale was .584, compared to .457 when two more survey items, V59, and V74, were added to the scale and only .222 when item V45 was added. The higher respondents' score on the scale, the more they demonstrate situations or behaviors that are frequently listed as warning signs of overextension by the Consumer Credit Counseling Service, financial practitioners, and others (Detweiler, 1993).

Educational Level is a categorical variable with 3 values that were dummy-coded: a high school education and below (ED_DUM1), education beyond high school (e.g., technical school, community college) but short of a four-year college degree (ED_DUM2), and college graduate and above (ED_DUM3). Education level was included in the model because statistics

compiled by the U.D. Department of Labor indicate that the best predictor of earnings is education ("The Working Poor", 1990).

Existence of a Second Mortgage or Home Equity Loan is a dichotomous categorical variable where 1 = no and 2 = yes in response to the following question:

V86- "Do you have a home equity loan or second mortgage on your home?"

This variable was included in the model because additional housing loan payments represent another financial demand upon the income of homeowners. Also, the use of home equity loans by Americans has increased in recent years due to aggressive promotion by financial institutions and a revised tax code that retains the interest deduction on real estate-secured debt ("Home Equity Lending," 1989).

Greater Debt Level Than One Year Ago is a continuous variable with values ranging from 1 to 4. It was calculated by the response to one survey item with four possible responses. The responses ranged from 1 for strongly disagree to 4 for strongly agree. The statement is as follows:

V49- "Overall, I am more in debt than this time last year."

The rationale for including this variable is that denial of financial problems is common, especially in the early stages of financial difficulty (Brunette, 1990). Many people do not realize that they are getting into serious financial difficulties until it is too late (Poduska, 1993). If an individual is able to admit that their household debt load has increased over time, it probably has. Steadily increasing debt levels are an indicator of financial difficulty.

Marital Status was recoded from ten initial categories to two for ease of analysis. Data were coded as follows: 0 for single, single

parent, separated, divorced, or widowed, and 1 for married persons or those in shared living arrangements.

Statistics compiled by the U.S. Department of Labor indicate that one of the characteristics that relates most closely to poverty among workers is family relationships. Family structure determines the number of potential earners in a household which, in turn, affects household income ("The Working Poor," 1990).

Net Worth is a continuous variable with values ranging from amounts below zero to six-figure sums. Net worth is a measure of the financial status of households and is calculated by subtracting a household's total liabilities from total assets.

According to the U.S. Bureau of the Census, the median net worth of Americans decreased from \$41,472 in 1988 to \$36,623 in 1991, in part due to declines in home equity, ("U.S. Families' Net Worth," 1994). This decline in average household net worth took place in the three years immediately preceding the start of data collection for this study. Net worth will also decrease if the value of assets remains the same while debt levels rise. The fewer resources a household has, the harder it may be to handle unexpected events and financial obligations.

Number of Children in Household is a continuous variable with values ranging from 1 to 10, reflecting the number of children of all ages residing in sample households. Over 80% had at least one dependent child. Government statistics indicate that, while expenditures on children do not increase proportionately as the number of children increases, they do rise (Family Economics Research Group, 1993). Children's age is also a cost factor. When children are in their teens, expenses are at a maximum. Increased costs of basic necessities for family members may affect a household's ability to repay debt.

Number of Household Earners is a continuous variable with values ranging from 0 (no employed adults) to 2 (two employed adults). The number of household earners is related to factors such as the loss of a job and the number of adult household members. The incomes of one-earner and two-earner households differ substantially, and this may influence the amount of financial difficulty experienced by homeowners. In 1992, the median income of dual-earner married couples nationwide was \$49,984, compared with \$42,064 for all married-couple households and \$30,326 for couples where only husbands were employed. No comparison was provided for couples where only wives were employed (U.S. Bureau of the Census, 1994).

Spending patterns among various types of households also differ. Households with multiple earners are the biggest spenders on all household expense categories except alcohol and health care (Ambry, 1991). Another statistic, related to the number of household earners and homeownership, is that, by 1994, 82% of first time buyers of homes or condos required two incomes to obtain a mortgage ("First Time," 1995). Once a mortgage, based on a combined salary is obtained, this income level usually needs to be maintained to keep payments current.

Number of Years Left on Mortgage is a continuous variable with a range of numerical values in response to the following question:

V85- "About how many years are left to pay on your mortgage?"

Where respondents left this question blank, the mean value of 24 years was substituted to provide a complete data file for these 19 cases. The mean is the arithmetic average of all scores and can be substituted by SAS as a provision for handling missing values (SAS Introductory Guide, 1985). This variable is an indicator of how recently respondents purchased their homes and whether or not they

became homeowners during the frenzied mid-1980s housing market. Poor timing of their purchase may have contributed to their financial woes.

Recent Home Improvements is a dichotomous categorical variable where 1 = no and 2 = yes in response to the following question:

V87- "In the last three years, have you made improvements to your home?"

This variable was included because home improvement expenses are a common "big ticket" purchase and may be a source of financial strain to homeowners.

Total Number of Creditors is a continuous variable obtained by summing the frequency of use of a total of 19 different categories of credit (e.g., department store credit, medical bills, bankcards) to determine the total number of creditors owed by each sample household.

The total number of creditors is included in the model because it provides evidence of the extent to which household income has been committed for purposes other than housing costs and routine household expenses. Large cash outlays for debts owed to a number of creditors may increase the financial difficulty experienced by homeowners and may also indicate the use of credit for necessities previously purchased with cash. The use of credit to finance items such as food and gas is frequently cited as an indicator of a debt problem (Detweiler, 1993).

Type of Household Head is a categorical variable with three values that were dummy coded: male-headed households (HHD_DUM1), female-headed households (HHD_DUM2), and dual-headed households (HHD_DUM3). The amount of income and assets available to households by virtue of the gender and number of household heads may be a factor in the amount of financial difficulty experienced.

According to government statistics, the 1992 median income of male-headed households nationwide was \$10,600 more than that of

female-headed households. Married couples' median income was \$24,843 more than female-headed households and \$14,243 greater than male-headed households (U.S. Bureau of the Census, 1994). In addition, during the 1980s, average wealth increased for every type of household except single women with children (Weicher, 1995).

Note: This variable was subsequently dropped due to multicollinearity with marital status. See Chapter IV for details.

Affective Attributes:

Locus of Control is a continuous variable based on an additive score with values ranging from 3 to 12. It was calculated by summing the responses on a three-item scale with the endpoints ranging from 1 for strongly disagree to 4 for strongly agree, using the following statements originally developed by Rotter (1966):

- V91- "It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune." (reverse coded)
- V94- "Many times I feel that I have little influence over the things that happen to me." (reverse coded)
- V103- "Sometimes I feel I don't have enough control over the direction my life is taking." (reverse coded)

The higher the score, the greater internal locus of control attributed to a respondent. Because these three items were worded negatively so that agreement indicated externality, they were reverse coded (i.e., 1 = 4) so that responses given were consistent (i.e., a higher score for more internality). The Cronbach alpha estimate of reliability for this scale is .602, compared to only .401 when the three items (V89, V97, and V100), developed by Bugaighis and Schumm (1983), were added. The Cronbach alpha for the three Bugaighis and Schumm (1983) items alone was -.065.

Locus of control is a construct defined as the degree to which individuals perceive that rewards follow from, or are contingent upon, their own behavior. Locus of control may be an important factor in understanding household debt management. The study by Dessart and Kuylen (1986) suggests that borrowers are less likely to experience financial distress as they feel more control over their lives.

Perception of Control Over Financial Situation is a continuous variable with values ranging from 1, for in control, to 5, for out of control, on a five-part Likert-type scale in response to the following statement:

V30- "Circle the response to indicate the extent to which you feel in control of your financial situation."

The higher the value, the less control reported by the respondents. The less control respondents feel over their finances, the more financial difficulty they may be experiencing.

Self Esteem is a continuous variable with values for the sample ranging from 12 to 32. It was calculated by summing the responses on an eight-item scale where responses ranged from 1 for strongly disagree to 4 for strongly agree. Questions asked of respondents were as follows:

V88- "I feel that I'm a person of worth."

V90- "I am able to do things as well as most other people."

V92- "On the whole, I am satisfied with myself."

V93- "I wish I could have more respect for myself." (reverse coded)

V95- "I certainly feel useless at times." (reverse coded)

V96- "At times, I think I am no good at all." (reverse coded)

V98- "I feel that I have a number of good qualities."

V99- "All in all, I am inclined to feel that I am a failure." (reverse coded)

The Cronbach alpha estimate of reliability for this scale was .848, compared to .569 when two additional items, V101 and V102, were added. The higher the score, the higher a respondent's self esteem. Four of the items (see above) were recoded (i.e., 1 = 4) so that the responses given by respondents were consistent with this pattern.

Self esteem represents an individual's feelings about themselves. Studies have found that those who buy compulsively have lower self esteem than consumers with more normal purchasing habits (Hanley & Wilhelm, 1992; O'Guinn & Faber, 1989). Researchers have also identified a positive relationship between self esteem and locus of control. Persons with negative attitudes about themselves are more likely than others to perceive their situation as beyond their control and attributable to external factors (Klonsky, 1990).

Precipitating Events:

Loss or Reduction of Income is a dichotomous categorical variable where 0 = no loss or reduction of income and 1 = at least one type of income reduction or unemployment. Respondents were asked to indicate if any one or more of the following events had happened to them or a family member within the last 12 months:

V1- Unemployment

V2- Reduced income due to job cutback

V3- Reduced income due to loss of child support and/or alimony

V4- Reduced income due to loss or reduction of public assistance

If any one or more of these four life events occurred, a code of 1 was assigned. This variable was included because income loss is widely reported in the literature to be a major factor leading to financial difficulty, especially among households that are unprepared and lack adequate emergency reserves. Other life events that may also result in

income loss (e.g., divorce, retirement) are included in the variable described below.

Number of Other Life Events Recently Experienced is a continuous variable with sample values ranging from 0 to 14. It was calculated by summing, for each sample household, the number of life events experienced during the past year from among those listed on the survey instrument, exclusive of the four items related to the loss or reduction of income (see above). These life events are as follows: break up with spouse or partner, pregnancy/birth of a child, chronic illness, marriage, reconciliation with partner, death of a spouse/parent/child, death of a close friend, death of another relative, jail term, changed primary job, legal problems, bankruptcy, unmet medical needs, added member(s) to household, bought/sold a home, lost housing, added education expenses, retirement, increased financial responsibility for others, alcohol or drug problem, major expenses for a family celebration, transportation or car trouble, major unexpected expenses, and other expenses.

Studies have shown associations between the number and intensity of life events and the probability of stress-related illnesses (Rabkin & Struening, 1976). It is also plausible to assume that the number of life events experienced could also lead to increased financial difficulty. The type of life event also may be important, which is why events related to income loss were analyzed separately.

Data Analysis

This study explored characteristics and practices of a group of homeowners experiencing financial difficulty (research question #1). In addition, the extent to which financial difficulty can be explained by independent variables related to the households' affective and objective

attributes and precipitating life events was investigated (research question #2). Using the computer software program SAS (SAS Introductory Guide, 1985), which was accessed through the Virginia Tech mainframe computer, descriptive statistics, such as frequencies, percentages, means, medians, and ranges were compiled to profile demographic characteristics of the sample of financially distressed homeowners. These same measures were also used to describe the number and type of stressor events, respondents' personal characteristics (e.g., locus of control scores, net worth), financial management practices, and the number and types of creditors to whom respondents owed money.

Answers to the second research question were obtained through multiple regression analysis. Linear regression is the process of estimating scores on one variable based on knowledge of scores on another (Hinkle, Wiersma, & Jurs, 1988). Multiple regression analyzes the collective and separate effects of two or more independent variables on a dependent variable (Pedhazur, 1982). In multiple regression analysis, the relationship between a dependent variable (Y) and a set of independent variables ($X_1 \dots X_k$) is considered. The regression of Y on X is expressed as an equation, $Y = a + b_1X_1 + \dots b_kX_k$, that predicts the dependent variable from a function of independent variables. The equation resulting from the regression of a dependent variable (Y) on independent variables ($X_1 \dots X_k$) will indicate the expected change in the value of Y for each unit change in X (Pedhazur, 1982).

Multiple regression analysis, again using the software program SAS, was used as the procedure to test for the amount of variance in financial difficulty (as measured by a household's back-end ratio) that was explained by the 18 independent variables described above. The R^2 is the proportion of variance in Y accounted for by X_1 through X_k and 1

R^2 is the proportion of variance not accounted for, or the error (Pedhazur, 1982). The statistical test of significance of a regression equation is the F test.

The relative importance of specific objective and affective attributes and precipitating life events as predictors of financial difficulty was also determined by regressing the dependent variable, financial difficulty, on the independent variables. In multiple regression, it is possible to test whether an increment in the proportion of variance (R^2) accounted for by a given variable is statistically significant (Pedhazur, 1982). Parameter estimates (unstandardized coefficients) were formed using least-squares criteria to minimize the sum of squares of the differences between the actual response value and the value predicted by the equation (SAS/STAT User's Guide, 1990). The statistical test for the significance of these individual coefficients, or b's, is the t-test.

Backward, forward, and stepwise entry of variables was utilized. Backward elimination starts with a full model (i.e., all independent variables) and eliminates variables that make the smallest contribution to the model one by one in successive order. Forward selection starts without any variables and adds them one at a time according to their contribution to the model. In stepwise regression, the variable that explains the greatest amount of variance is entered into the model first followed, in order, by other variables which explain the greatest residual variance.

Stepwise regression is a variation of forward regression but differs because variables already entered into the model may not necessarily stay there. Coefficients of variables entered early in the equation continually change as successive variables are added. In stepwise

selection, tests are performed at each step to determine the contribution of each independent variable already in the equation if it were to enter last. It is thus possible to identify predictors (independent variables) that were considered to be "good" at an earlier stage but have lost their usefulness when additional predictors are brought into the equation (Pedhazur, 1982).

A .05 alpha level was specified in SAS program commands for entry of variables into the model (SLE = .05 to enter) and a .10 alpha level was specified for variables to be left in the model (SLS = .10 to remain). A separate analysis also was done where affective attributes, objective attributes, and precipitating events were entered into the model together in blocks. This approach was utilized to determine to what extent each type of attribute or factor explained financial difficulty.

Checks were made to insure that important assumptions underlying multiple regression analysis were not violated. Examples include tests for multicollinearity, which is a high correlation between independent variables, and curvilinear data trends which do not fit a linear model. The best linear combination of independent variables was determined to explain the variance in household financial difficulty.

Summary of Research Methodology

This study was designed to describe characteristics and practices of overextended homeowners and to provide an empirical test of a measure of financial difficulty. Multiple regression analysis was utilized to determine the extent to which financial difficulty could be explained. Descriptive statistics about the sample were also considered.

This chapter described the sample that was studied. It also discussed data sources used, the content of the survey instrument, selection and coding of variables, and data analysis methods.

CHAPTER IV

Presentation of Results

This study was designed to describe characteristics and practices of a group of overextended homeowners and to determine to what extent their financial difficulty could be explained by a combination of objective and affective attributes and precipitating life events. A model of financial difficulty was developed and empirically tested with a convenience sample of 245 homeowners who participated in a Virginia Cooperative Extension (VCE) financial counseling volunteer program.

The purpose of this chapter is to present the data from this study. The chapter begins with demographic characteristics of the sample and comments regarding the representativeness of the sample to broader populations. Financial characteristics of the sample are presented next, followed by frequencies for money management characteristics and practices, recently-experienced life events, and psychological characteristics. The chapter concludes with the results of the statistical methods used to empirically test the model of financial difficulty.

Demographic Characteristics of the Sample

Findings related to demographic characteristics of the sample include data about survey respondents, data about the respondents' household, and a comparison between the sample and broader populations of Virginians and the United States. Respondents represent the one person per household who completed the questionnaire as part of a pre-screening interview with VCE financial counseling volunteers. Although family members may have been present for discussion of

household finances, only one person per household was asked to complete the questionnaire.

As shown in Table 1, respondents were almost equally divided by gender. One hundred and twenty-eight females (52.2%) completed the survey, compared to one hundred and seventeen males (47.8%). More than half (58.4%) of the respondents were white (Caucasian). Blacks (African-Americans) comprised 30.6% of the sample and other races, 11%.

By combining marital status categories in Table 1, it can be seen that over a third (34.7%) of the respondents were either single individuals or single parents. Over a quarter of the sample were without a spouse due to death, divorce, or separation. The largest group of respondents (64.5%), however, were currently married.

Young and middle-aged households comprised the majority of the sample. The largest group of respondents (37.6%) was in the age range of 36 to 45 years. The second most frequent age range (35.9%) was 26 to 35 years. By combining these two age categories, it can be seen that almost three-quarters (73.5%) of the respondents were between the ages of 26 and 45. The mean age of respondents was 38.1 years with a median of 37 and a range from 20 to 71.

The educational attainment of respondents ranged widely from less than a high school diploma to receipt of a graduate degree. By combining categories in Table 1, it can be seen that about 20% of respondents reported attending four or more years of college. The greatest percentage of respondents (41.9%) had some education beyond high school, including technical school training, a two-year college degree, or some experience with college. A third of the sample listed a high school diploma as their highest educational credential, 12.9% were

Table 1

Demographic Characteristics of Survey Respondents (N =245)

Demographic Characteristic	Frequency	Percentage
Age		
25 or less	11	4.5
26 to 35	88	35.9
36 to 45	92	37.6
46 to 55	40	16.3
56 to 65	13	5.3
66 to 75	1	.4
Educational Attainment¹		
Less Than High School	12	5.0
High School Diploma	81	33.6
Some College, 2-Year Degree, or Technical School	101	41.9
4-Year College Degree	31	12.9
Some Graduate School or Graduate Degree	16	6.6
Ethnicity		
White (Caucasian)	143	58.4
Black (African-American)	75	30.6
Other	27	11.0
Gender		
Male	117	47.8
Female	128	52.2
Marital Status		
Single	13	5.3
Married	158	64.5
Single Parent	2	.8
Separated, Divorced, Widowed	70	28.6
Other (e.g., Shared Living)	2	.8

¹ Number of respondents does not add up to 245 due to non-response.

four-year college graduates, and 5% did not complete high school. The educational attainment of four respondents was not reported.

Household characteristics are reported in Table 2. The employment status of adults was reported for all but 17 households. Over 60% of the 228 households that reported a number of earners were one-earner households. Slightly less than a third (31.1%) included two workers. Another 8.3% of the sample reported no employed adult(s) at the time that data were collected. Gross monthly household earned and unearned income was reported in dollar amounts and ranged from \$150 to \$7,728 with a mean for the sample of \$2,497, or slightly less than \$30,000 annually. Median gross monthly income was \$2,244.50, or \$26,934 annually.

The most frequent gross monthly household income range (19.3%) was \$1,501 to \$2,000, followed by \$2,001 to \$2,500 (14.7%) and \$1,000 to \$1,500 (13%). Combining categories reveals that 42% of the sample had a gross monthly income of \$2,000 (\$24,000 annually) or less and 56.7% had a gross monthly income of \$2,500 (\$30,000 annually) or less. Only 13% of the sample had a gross monthly household income over \$4,000 (\$48,000 annually), an amount approaching or exceeding the 1990 Prince William County median income of \$49,370 (VCHR, 1993).

As shown in Table 2, about three-quarters (75.5%) of sample households had one or two children living at home. The number of children per household ranged from one to nine with an average of two per household. In this study, the number of children per household included dependent children, found in 82.4% of households, and adult children living at home with their parents. Approximately two-thirds of sample households were headed by two persons. The remainder were male-headed (13.1%) households or female-headed (21.6%) households.

Table 2

Characteristics of Survey Respondents' Household (N =245)

Demographic Characteristic	Frequency	Percentage
Gross Monthly Household Income (Earned & Unearned)¹		
Under \$1,000	23	9.7
\$1,000 to \$1,500	31	13.0
\$1,501 to \$2,000	46	19.3
\$2,001 to \$2,500	35	14.7
\$2,501 to \$3,000	32	13.4
\$3,001 to \$3,500	26	10.9
\$3,501 to \$4,000	14	5.9
\$4,001 to \$4,500	5	2.1
\$4,501 to \$5,000	12	5.1
Over \$5,000	14	5.9
Number of Adult Household Earners¹		
None	19	8.3
One	138	60.6
Two	71	31.1
Number of Children in Household²		
One	90	36.7
Two	95	38.8
Three	45	18.4
Four	10	4.1
Five	1	.4
Six	2	.8
Seven	1	.4
Nine	1	.4
Type of Household		
Male-headed	32	13.1
Female-headed	53	21.6
Dual-headed	160	65.3

¹ Number of respondents does not add up to 245 due to non-response.

² Includes adult children living at home.

Representativeness of the Sample

In an effort to ascertain the generalizability of the findings of this study to broader populations, a comparison was made of characteristics of the sample and those of households in the state of Virginia and the United States. Results, shown in Table 3, suggest that the generalizability of findings from this study may be quite limited. Sample characteristics were also compared with those of Prince William County residents.

Sample characteristics differed substantially from those of Virginians and Americans. Therefore, caution should thus be taken in the interpretation of data and in the application of conclusions that are drawn. One reason for these differences, perhaps, is that virtually every respondent was experiencing financial difficulty, a trait which may be associated with specific demographic characteristics (e.g., race, income). Differences can also be expected simply because this was not a randomly-selected sample.

The sample characteristic that was most similar to that of United States citizens was the distribution of respondents by gender. The sample consisted of 47.8% males and 52.2% females, compared with a U.S. population of 48.8% males and 51.2% females and Virginia's 49% male and 51% female distribution. The percentage of married couples in the sample was also similar to national statistics. Almost two-thirds (64.5%) of the sample was married, compared with 61.2% of the U.S. population over age 18 as a whole.

The median age of the sample, age 37, was older than other populations: more than three years older than that of the total United States (33.4 years in 1992), more than four years older than the 1990 median age of Virginians (32.6 years), and eight years older than the

Table 3

Comparison of Sample Characteristics With Those of Broader Populations

Demographic Characteristic	Survey Respondents	Virginia Citizens	United States
Age			
Median Age	37	32.6 (1990)	33.4 (1992)
Educational Attainment (Percentages)			
Did Not Finish H.S. High School Graduate/Some College or Vocational Training	5.0%	24.8%	24.8%
Four Years or More of College	75.5%	50.7%	54.9%
	19.5%	24.5%	20.3%
Ethnicity (Percentages)			
White (Caucasian)	58.4%	77.4%	83.5%
Black (African-American)	30.6%	18.8%	12.4%
Other	11.0%	3.8%	4.1%
Gender (Percentages)			
Male	47.8%	49.0%	48.8%
Female	52.2%	51.0%	51.2%
Marital Status (Percentages)			
Percentage of Adult Population Married	64.5%		61.2%
Median Family Income			
	\$26,934 (1993)	\$38,223 (1992)	\$36,812 (1992)
Percentage of Households With Children At Home			
No Children	0.0%		51%
One Child	36.7%		20%
Two Children	38.8%		19%
Three or More Children	24.5%		10%
Percentage of Households With Two Earners			
	31.1%		49.7%

Sources:

U.S. Bureau of the Census (1994). Statistical Abstract of the United States: 1994. Washington DC: U.S. Government Printing Office.

U.S. Bureau of the Census (1992). 1990 Census of Population: General Population Characteristics- Virginia. Washington DC: U.S. Government Printing Office.

1990 median age of 29 for Prince William County residents (U.S. Bureau of the Census, 1994 & U.S. Bureau of the Census, 1992).

The sample consisted entirely of households self-identified to be experiencing financial difficulty which could threaten their housing stability. This, of course, is not the case for broader populations. Sample characteristics that differed substantially from local, state and national populations included 1) educational attainment, 2) median income, 3) ethnicity, 4) percentage of households with two earners, and 5) percentage of households with children living at home. The educational attainment of the sample was quite different than local, state, and national data with respect to the percentage of respondents who were not high school graduates (5% for the sample, compared with 12.2% for Prince William County, and 24.8% for the state and nation) and the percentage of respondents who received a high school diploma and/or additional formal education but not a college degree (75.5% for the sample, compared with 50.7% for Virginians and 54.9% for all Americans).

The sample was, thus, better educated than broader populations to which it might be compared. The percentage of respondents who were college graduates, however, was somewhat more similar (19.5% for the sample, compared with 24.5% for Virginians and 20.3% for Americans). The percentage of Prince William County residents who were college graduates was 27.6% (U.S. Bureau of the Census, 1992).

The median annual income of sample households (\$26,934) was almost \$10,000 below that of the U.S. as a whole (\$36,812), over \$11,000 less than that of all Virginians (\$38,223) and over \$20,000 less than the \$49,370 1990 median income of Prince William County (U.S. Bureau of the Census, 1994). Ethnicity of the sample also differed substantially from that of broader populations. Blacks and races other than Caucasian

comprised 41.6% of the sample, compared to 16.5% of the United States and Prince William County populations and 22.6% of Virginia's population (U.S. Bureau of the Census, 1994 & U.S. Bureau of the Census, 1992).

Cultural differences could influence the percentage of employed women in married couple households. Less than a third (31.1%) of sample households had two earners, compared with almost half (49.7%) of all U.S. households with earned income.

Still another big difference between the sample households and broader populations is the number of children living at home. As a requirement of the HHS grant, families with children were targeted. Every household in the study had at least one child living at home, and in 82.4% of the households, at least one child was a dependent. Three-quarters of those surveyed had one or two children. In contrast, of the entire United States population, over half (51%) of households have no children under age 18 living at home (U.S. Bureau of the Census, 1994). In addition, only 39% of American households have one or two children. Thus, the number of family members in households that were studied is higher than what is typical for the country as a whole.

It should also be noted in this discussion that certain characteristics of Prince William County (1990 population: 215,686) are not typical of Virginia, due to the county's proximity to a major metropolitan area. Specifically, Prince William County has a higher median income (\$49,370, compared with \$38,223 for the state), a higher median monthly cost of homeownership (\$1,162, compared with \$831 for the state), a higher percentage of persons with a high school education or higher (87.8%, compared with 75.2% for the state), a higher percentage of college graduates (27.6%, compared with 24.5% for the state) and a higher percentage of Caucasian residents (83.5%, compared with 77.4% for

the state). The county's median age is also lower (29, compared with 32.6 for the state) and its residents have more persons per household (3, compared with 2.6) than the state of Virginia as a whole (U.S. Bureau of the Census, 1992).

In summary, a comparison of sample characteristics with recent census data about residents of Prince William County, the state of Virginia, and the United States indicates a number of key demographic and lifestyle differences that may limit the generalizability of findings from this study. Specifically, the sample of overextended Prince William County homeowners has a higher percentage of high school graduates, a higher median age, substantially lower median incomes, a lower percentage of two-earner households, and a higher percentage of ethnic minorities and households with children living at home than broader populations to which it might be compared. It may or may not be similar to households in a large national random sample that are experiencing financial difficulty.

Sample differences (e.g., number of household earners, racial characteristics) must be considered in the interpretation of the results of this study. These demographic differences may be a key factor in explaining their financial predicament and typical of households like them. For example, the 1992 median income of single-earner married couples nationwide was almost 40% less than that of couples with dual earners (U.S. Bureau of the Census, 1994) and the 1991 median net worth of black households (\$4,604) and Hispanic households (\$5,345) was substantially less than that of white households (\$44,408), ("U.S. Families' Net Worth," 1994). Since economic well-being depends heavily upon income and asset accumulation, sample characteristics that affect these factors must be considered in the interpretation of findings.

Financial Characteristics of the Sample

This section presents findings related to respondents' personal finances including assets, liabilities, and net worth; household expenses; total number and types of creditors; housing finance characteristics; and selected financial ratios. Respondents' perception of their financial situation, compared to the prior year, are also presented, as are indicators of preparedness for financial emergencies.

Net Worth. As shown in Table 4, the average net worth of survey respondents was \$35,543. Net worth is the difference between total assets and total liabilities. Total assets consists of three asset categories: liquid assets, investment assets, and tangible (use) assets (see definitions at the end of this chapter). Although mean net worth was a positive number, it can be seen by combining the first four net worth categories, that almost a quarter (24.6%) of the sample had a negative net worth, i.e., liabilities greater than assets. Over a quarter (26.4%) of households had a net worth between \$15,000 and \$50,000 while 29.3% showed a net worth between \$50,000 and \$150,000. Only seven households (2.9%) had a net worth above \$150,000.

Respondents' liquid reserves were extremely low, contrary to financial advisors' recommendation that an emergency fund representing three to six months of living expenses be established (Kapoor et al., 1994). The average amount of household liquid assets (e.g., checking account, savings account, CDs, credit union) was \$708, with half of the sample holding less than \$125 in reserve, 75% with less than \$585, and 90% with less than \$1,638.

Data in Table 5 indicate that respondents' invested assets (e.g., annuities, stocks, bonds, retirement plans) averaged \$2,087. Fully 75% of the sample, however, reported no assets of this type whatsoever.

Table 4

Net Worth of Survey Respondents (N =245)¹

<u>Net Worth (Dollar Amount)</u>	<u>Frequency</u>	<u>Percentage</u>
Below -\$150,000	2	.8
-\$50,000 to -\$150,000	13	5.4
-\$10,000 to -\$ 49,999	18	7.5
-\$1 to -\$9,999	26	10.9
\$0 to \$1,000	4	1.7
\$1,001 to \$15,000	36	15.1
\$15,001 to \$50,000	63	26.4
\$50,001 to \$150,000	70	29.3
Above \$150,000	7	2.9

¹ Number of respondents does not add up to 245 due to non-response.

Table 5

Statistics Related to Survey Respondents' Net Worth (N = 245)

<u>Net Worth Component</u>	<u>Mean</u>	<u>Median</u>	<u>Range</u>
Liquid Assets (Cash and cash equivalents)	\$ 708	\$ 125	\$-100 to \$ 24,764
Invested Assets	\$ 2,087	\$ 0	\$ 0 to \$202,000
Tangible (Use) Assets	\$112,452	\$116,500	\$ 0 to \$537,000
Total Assets	\$122,763	\$120,967	\$ 200 to \$754,200
Liabilities	\$ 89,325	\$ 96,678	\$ 85 to \$237,000
Net Worth	\$ 35,543	\$ 22,180	\$-172,152 to \$582,950
Debt-To-Asset Ratio	1.8	.81	.0007 to 85.64

Tangible (use) assets, primarily the value of their homes, averaged \$112,452 and were, by far, the largest component of most respondents' net worth. The median value of household tangible assets was \$116,500. Three-quarters of the sample had tangible assets (e.g., residence, cars, furniture, appliances) worth less than \$135,750.

Studying the relationship between various components of household net worth provides additional insights into the financial position of respondents. A debt-to-asset ratio was calculated by dividing each household's total debts by total assets. This ratio is a measure of a household's solvency and ability to repay debts (Garman & Forgue, 1994). The mean debt-to-asset ratio was 1.8 (i.e., debt of \$1.80 for every \$1 in assets). Thus, on average, respondents were technically insolvent because they owed more than they owned.

The median debt-to-asset ratio, however, was a lower .81 (i.e., debt of 81 cents for every dollar in assets) because several extremely high debt-to-asset ratios skewed the mean. Three-quarters of the sample had a debt-to-asset ratio of .99 or less. Viewed another way, this means that 25% of the sample had a debt-to-asset ratio greater than 1 and were technically insolvent. Ten percent of respondents had debt-to-asset ratios above 1.15 (i.e., debt of \$1.15 for every \$1 in assets).

Household Expenses. As shown in Table 6, respondents' total monthly household expenses (including housing, utilities, food, transportation, personal care, medical and dental, insurance, child care, entertainment, pet care, debt repayment, savings, and miscellaneous items) averaged \$2,847. Median monthly household expenses were \$2,696. A quarter of the sample were spending over \$3,392 monthly and 10% had monthly expenses exceeding \$4,275.

Table 6

Statistics Related to Monthly Household Expenses of Survey Respondents

(N = 245)

Household Expense	Mean	Median	Range
Total Monthly Household Expenses	\$ 2,847	\$ 2,696	\$ 939 to \$ 6,825
PITI	\$ 1,120	\$ 1,087	\$ 48 to \$ 2,951
All Housing-Related Expenses	\$ 1,340	\$ 1,322	\$ 168 to \$ 3,425
First Car Loan Payment (N = 117)	\$ 269	\$ 258	\$ 20 to \$ 699
Second Car Loan Payment (N = 20)	\$ 250	\$ 242	\$ 20 to \$ 499
Monthly Payments On Credit Accounts (N = 169)	\$ 274	\$ 120	\$ 0 to \$ 2,270
Monthly Payments On Car Loans and/or Credit Accounts Combined (N = 200)	\$ 516	\$ 379	\$ 15 to \$ 2,800

The largest monthly expense for most households was their mortgage payment. The average monthly payment for principal, interest, taxes, and insurance (PITI) was \$1,120 or 44.9% of the \$2,497 mean monthly income. The median PITI amount was \$1,087, with 25% of respondents paying more than \$1,309 monthly and 10% paying more than \$1,530. When all expenses associated with housing were totaled, including home maintenance, utilities, and trash collection, mean and median monthly housing expenses rose to \$1,340 and \$1,322, respectively. A quarter of the sample owed over \$1,547 monthly for all of their housing-related expenses.

Almost half (47.8%) of the respondents were making monthly car loan payments. The mean and median monthly payments were \$269 and \$258, respectively. Twenty households, 8% of the sample, also had a second car loan with mean and median monthly payments of \$250 and \$242, respectively.

Monthly payments on credit accounts (e.g., credit cards, finance companies, gas cards) averaged \$274, with half the sample paying \$120 or less and 30.7% owing nothing. When car loans and debts owed to creditors were combined, mean and median monthly payments were \$516 and \$379, respectively. Over 80% of the sample had a car loan and/or credit payments.

Liquidity ratios reveal the number of months, or fractions thereof, that households can continue to meet expenses by drawing upon liquid assets after a total loss of income (Garman & Fogue, 1994). A comparison of mean total monthly household expenses (\$2,847) with mean liquid assets (\$708) indicated that, on average, respondents had funds set aside for about a week's worth of expenses. Dividing mean liquid assets by mean monthly expenses produced a liquidity ratio of .248.

Number and Types of Creditors. The 245 households in the sample owed a total of 1,666 different creditors, excluding mortgagees, for an average of 6.8 creditors per household. As shown in Table 7, the number of creditors, owed by respondents, ranged from 1 to 23. The largest percentage of households (43.3%) owed only 1 creditor from among 19 different creditor categories (e.g., bankcards, student loans, medical or legal bills). A quarter of the sample owed more than 5 creditors, and 6.9% owed more than 10 creditors.

Data in Table 8 indicate the types of creditors owed by respondents. In order, by the number of respondents with at least one outstanding account, the most frequently-owed creditors were bankcards such as Visa, Mastercard, and Discover (45.7%), department stores (31%), clothing and jewelry stores (22.9%), home furnishings/home improvement creditors (18.4%), banks and credit unions (17.6%), and finance companies (15.1%). The least frequently-owed debts were unpaid utility bills (1.6%), prior balances owed through judgements, bankruptcy, or collection agencies (2.4%), and money owed to family members or friends (3.7%).

Table 8 also provides the mean, median, and range of monthly payments for each type of creditor. In descending order, by the size of average monthly payments, the five largest monthly household debts were: Consumer Credit Counseling Service (CCCS) debt management program payments, used to repay a variety of previous creditors, (\$406), secured loans (\$269), unpaid utility bills (\$213), bank or credit union loans (\$194), and bankcards (\$173). The debts with the two largest monthly payments, CCCS and secured loans, also had the two largest median monthly payments. The smallest average monthly payments went toward legal fees (\$25), mail order companies (\$45), unpaid taxes (\$48), and debts owed to family members or friends (\$50).

Table 7

Number of Creditors Owed by Survey Respondents (N =245)¹

Total Number of Creditors Owed	Frequency	Percentage
1	106	43.4
2	22	9.1
3	24	9.8
4	20	8.2
5	11	4.5
6	19	7.8
7	7	2.9
8	6	2.5
9	8	3.3
10	4	1.6
11	6	2.5
12	1	.4
13	3	1.2
14	3	1.2
19	1	.4
21	2	.8
23	1	.4

¹ Number of respondents does not add up to 245 due to non-response.

Table 8

Creditor Information Reported By Survey Respondents (N = 245)¹

Type of Creditor Owed	Frequency/ Percentage	2 Mean	Monthly Payments Median	Range
1. American Express	22 (9%)	\$ 59	\$ 27	\$ 0 - \$ 377
2. Attorney/Legal Fees	11 (4.5%)	\$ 25	\$ 20	\$ 0 - \$ 100
3. Bank/Credit Union	43 (17.6%)	\$ 194	\$ 100	\$ 0 - \$1,285
4. Bankcards/ Credit Cards	112 (45.7%)	\$ 173	\$ 91	\$ 0 - \$1,221
5. CCCS Debt Mgmt.	20 (8.2%)	\$ 406	\$ 252	\$ 0 - \$1,199
6. Clothing and Jewelry Stores	56 (22.9%)	\$ 84	\$ 50	\$ 0 - \$ 918
7. Department Store	76 (31%)	\$ 55	\$ 38	\$ 0 - \$ 262
8. Family/Friend	9 (3.7%)	\$ 50	\$ 0	\$ 0 - \$ 274
9. Finance Company	37 (15.1%)	\$ 118	\$ 103	\$ 0 - \$ 319
10. Gas Credit Card	22 (9%)	\$ 77	\$ 55	\$ 0 - \$ 500
11. Home Furnishings/ Home Improvement	45 (18.4%)	\$ 51	\$ 40	\$ 0 - \$ 178
12. Mail Order	11 (4.5%)	\$ 45	\$ 33	\$ 0 - \$ 101
13. Medical	17 (6.9%)	\$ 61	\$ 15	\$ 0 - \$ 541
14. Past Debt (e.g., judgement)	6 (2.4%)	\$ 154	\$ 0	\$ 0 - \$ 715
15. Phone/Utilities (unpaid bills)	4 (1.6%)	\$ 213	\$ 100	\$ 0 - \$ 655
16. Secured Loans	11 (4.5%)	\$ 269	\$ 163	\$ 0 - \$1,198
17. Student Loans	21 (8.6%)	\$ 90	\$ 50	\$ 0 - \$ 795
18. Taxes (unpaid)	14 (5.7%)	\$ 48	\$ 5	\$ 0 - \$ 175
19. Other Creditors (e.g., funeral)	23 (9.3%)	\$ 129	\$ 51	\$ 0 - \$1,239

¹ Number of account types held by respondents equals 560; total number of different creditors owed equals 1,666, reflecting multiple accounts of one type (e.g., bankcards) held by respondents.

² Frequencies and percentages report households with at least one account reported with each type of creditor.

Housing Finance Characteristics. Data in Table 9 indicate a relatively short period of ownership by respondents of their present homes. Since data were collected between 1992 and 1993, it can be surmised that many became homeowners during the high-priced mid-to-late 1980s. Over half (52.2%) of the sample had 26 or more years remaining on their mortgages, and almost 80% had 21 or more years remaining. The average number of years remaining on respondents' mortgages was 24. Less than 6% of the sample owed mortgage payments for 10 years or less.

Many respondents also had additional housing-related expenses. Over a third (36.6%) had a second mortgage or home equity loan and almost half (49.6%) had made expenditures for home improvements during the previous three years. Of the 234 households in the sample with complete information about additional loans and home improvements, 49 (20.9%) incurred expenses for both a second mortgage/home equity loan and recent home improvements.

Financial Ratios. Three financial ratios (see Table 10) provide evidence of the extent of financial difficulty experienced by the sample. When all monthly household expenses, including credit payments, were compared to monthly net earned and unearned income, almost three-quarters (74.6%) of the sample needed to spend more than 100% of their incomes to cover these expenses. The mean expense-to-income ratio was 1.78 (i.e., expenses equal to 178% of net pay) and the median expense-to-income ratio was 1.26 (i.e., expenses equal to 126% of net pay). Respondents' high monthly expenses relative to take-home pay is clearly evident from this ratio.

A comparison of housing expenses, alone, to household net income produced a housing expense-to-income ratio of 50% or more for almost two-thirds (65.7%) of the sample. Thus, 50% or more of their incomes

Table 9

Housing Finance Characteristics of Survey Respondents (N =245)

<u>Housing Finance Characteristic</u>	<u>Frequency</u>	<u>Percentage</u>
Existence of a Second Mortgage or Home Equity Loan¹		
No	149	63.4
Yes	86	36.6
Expenditure For Home Improvements During Last Three Years¹		
No	119	50.4
Yes	117	49.6
Number of Years Remaining On Mortgage¹		
Less Than 5 Years	6	2.6
6 to 10 Years	7	3.1
11 to 15 Years	17	7.5
16 to 20 Years	16	7.1
21 to 25 years	62	27.5
26 or More Years	118	52.2

¹ Number of respondents does not add up to 245 due to non-response.

Table 10

Selected Financial Ratios of Survey Respondents (N= 245)¹**Expense To Income Ratio**

Definition: the comparison of **all** monthly **household** expenses, including monthly credit expenses, to total household **net** earned and unearned income.

Expense To Income Ratio	Frequency	Percentage
.20 to .35 (35%)	1	.4
.3501 to .50 (50%)	2	.9
.5001 to .75 (75%)	9	3.8
.7501 to 1.00 (100%)	48	20.3
1.0001 to 2.00 (200%)	135	57.2
Over 2.00 (more than 200%)	41	17.4

Housing Expense To Income Ratio

Definition: the comparison of **all** monthly **housing** expenses (including PITI, utilities, condo fees, home equity loans, repairs, and maintenance) to total household **net** earned and unearned income.

Housing Expense to Income Ratio	Frequency	Percentage
0 to .20 (20%)	2	.8
.2001 to .35 (35%)	21	8.9
.3501 to .50 (50%)	58	24.6
.5001 to .75 (75%)	84	35.6
.7501 to 1.00 (100%)	29	12.3
1.0001 to 2.00 (200%)	30	12.7
Over 2.00 (more than 200%)	12	5.1

Back-end Mortgage Qualification Ratio

Definition: Comparison of monthly principal, interest, taxes, and insurance (PITI) and consumer credit payments, including car loans, to total household **gross** earned and unearned income. **Industry standard:** 36% for conventional loans; up to 41% for VA and FHA loans.

Back-end Mortgage Qualification Ratio	Frequency	Percentage
0 to .36 (36%)	24	10.1
.3601 to .50 (50%)	48	20.3
.5001 to .75 (75%)	85	35.9
.7501 to 1.00 (100%)	34	14.3
1.0001 to 2.00 (200%)	29	12.2
Over 2.00 (more than 200%)	17	7.2

¹ Number of respondents does not add up to 245 due to non-response.

are consumed by housing-related expenses. Lytton et al. (1991) advise devoting no more than 40% of disposable income to housing. However, almost 18% of the sample spent more than 100% of their incomes on housing-related expenses alone. The mean housing expense-to-income ratio was .92 (i.e., housing expenses equal to 92% of net pay) and the median housing expense-to-income ratio was .59 (i.e., housing expenses equal to 59% of net pay).

A third ratio, the back-end ratio used for mortgage qualification, compares monthly principal, interest, taxes, and insurance (PITI) and consumer credit payments to gross monthly income. The higher the ratio, the higher the percentage of monthly debt repayment as a percentage of household income. Generally, total monthly debt payments cannot exceed 36% of gross monthly income to qualify for a conventional mortgage. If respondents were applying for a mortgage at the time of the study, only 10% would probably qualify. The other 90% had back-end ratios over the 36% industry standard.

Over two-thirds of sample households spent more than half of their gross income on debt repayment, including a mortgage. The mean back-end ratio was .93 (i.e., PITI plus consumer debt equal to 93% of gross income) and the median back-end ratio was .60 (PITI plus consumer debt equal to 60% of gross income). It should also be noted that the back-end ratios used in this study may be somewhat understated because they do not include child care as a monthly debt, as some lenders require.

Another financial ratio, credit-to-income (also known as debt-to-income), compares all monthly installment and non-installment (e.g., credit card) payments, excluding mortgages, to total household net earned and unearned income. Experts suggest spending no more than

20% of take-home pay on credit payments (Kapoor et al. 1994). The mean credit-to-income ratio for the sample was .26 (i.e., credit expenses equal to 26% of net pay) and the median credit-to-income ratio was .17 (i.e., credit expenses equal to 17% of net pay). The latter ratio is just below the 20% "danger zone." A quarter of the sample had a credit-to-income ratio above .32 (32%) and 10% of the sample had ratios above .50 (50%).

Changes in Financial Situation. Another indicator of respondents' economic situation is their perception of changes in financial status and practices compared to prior years. Most respondents felt that their financial situation worsened during the previous year. As shown in Table 11, in response to the statement "Overall, I am more in debt than this time last year," (item V49), almost three-quarters of the sample agreed or strongly agreed. Only 11.7% strongly disagreed with this assessment of their financial status.

Most respondents (74.3%), however, disagreed or strongly disagreed with the statement "Purchases which were previously paid for with cash are now purchased on credit" (item V59). Less than 10% of the sample strongly agreed with this statement. These data indicate a general reluctance by, or inability of, respondents to maintain their lifestyle through the use of additional lines of credit.

Preparedness for Financial Emergencies. A final financial characteristic of sample households is their perceived preparedness for financial emergencies and development of emergency resources such as good financial records, savings, lines of credit, and disability insurance. As indicated in Table 12, the "emergency preparedness" of the sample is generally inadequate. Combining categories, almost 9 of every 10 (88.4%) respondents agreed or strongly agreed that a temporary

Table 11

Survey Respondents' Perceived Changes in Financial Status (N =245)

<u>Financial Characteristic</u>	<u>Frequency</u>	<u>Percentage</u>
More In Debt Than Same Time Last Year¹		
Strongly Disagree	28	11.7
Tend to Disagree	34	14.2
Tend to Agree	44	18.5
Strongly Agree	133	55.6
Credit Used For Purchases Previously Made With Cash¹		
Strongly Disagree	129	53.5
Tend To Disagree	50	20.8
Tend To Agree	42	17.4
Strongly Agree	20	8.3

¹ Number of respondents does not add up to 245 due to non-response.

Table 12

Survey Respondents' Preparedness For Financial Emergencies (N= 245)¹

Characteristic/Practice	Strongly Disagree		Tend To Disagree		Tend To Agree		Strongly Agree	
	n	%	n	%	n	%	n	%
My household financial records are detailed and accurate.	32	13.3	76	31.6	90	37.3	43	17.8
A temporary decrease in household income would likely cause a major financial emergency for my household.	17	7.0	11	4.6	52	21.5	162	66.9
If needed, I have disability insurance to replace part of my income.	132	57.4	29	12.6	36	15.7	33	14.3
I have some specific financial goals for the future.	59	24.4	51	21.1	85	35.1	47	19.4
I would be able to handle a financial emergency that would cost \$500 to \$1,000.	20	8.2	32	13.2	54	22.2	137	56.4
I have an accurate estimate of my actual monthly living expenses and total debt.	70	28.8	107	44.0	43	17.7	23	9.5
I have a weekly or monthly budget that I follow.	56	23.1	81	33.5	77	31.8	28	11.6
I would have trouble borrowing \$2,000 cash if I needed it.	23	9.5	27	11.2	62	25.6	130	53.7
I save a set amount of money on a regular schedule.	29	12.0	36	14.9	57	23.7	119	49.4

¹ Number of respondents does not add up to 245 due to non-response.

decrease in household income would cause "a major financial emergency" and almost 8 of every 10 (79.3%) agreed or strongly agreed that they would have trouble borrowing \$2,000, if needed. Both of these traits are typical of households living on the edge of financial disaster.

Seventy percent of respondents indicated that they did not have disability insurance to replace part of their income in the event of an accident or illness. Still more (72.8%) disagreed or strongly disagreed that they have an accurate estimate of monthly living expenses and debt. Over half (56.6%) of the respondents said they did not follow a weekly or monthly budget.

On the positive side, over half (55.1%) of the respondents agreed or strongly agreed that they kept detailed and accurate financial records and 54.5% indicated that they had specific future financial goals. Over three-quarters (78.6%) agreed that they could handle a \$500 to \$1,000 financial emergency and 73.1% agreed or strongly agreed that they set some money aside regularly.

Still, despite positive responses to statements about savings habits and ability to handle small emergencies, the overall "emergency preparedness" of respondents is inadequate. On average, they lack knowledge of their expenses and would be hard-pressed to pay living costs if income was interrupted. Moreover, if money is truly being saved, it is spent soon thereafter as evidenced by the extent of their liquid assets.

Money Management Characteristics and Practices

Findings related to spending practices, debt management practices, and credit card usage of respondents are presented in this section. Each person who completed a questionnaire was asked to respond to items concerning various money management characteristics and behaviors using

a Likert-type scale where responses ranged from 1 for strongly disagree to 4 for strongly agree. Responses indicate how typical certain financial management practices are for each respondent and for the sample as a whole.

Spending Practices. Nine survey items related to respondents' spending practices are reported below. As shown in Table 13, the general picture that emerges is that of a sample with insufficient funds to pay current living costs but some discipline to resist incurring additional expenses. Specifically, over half (55.8%) of the respondents disagreed or strongly disagreed with a statement indicating that they have trouble disciplining themselves to carry out a spending plan. A slightly higher percentage (58.9%) indicated that they do not often spend more money than they have. More than 4 of every 5 respondents disagreed (20.2%) or strongly disagreed (64.2%) that they can't resist a sale and sometimes buy things they truly do not need.

The number of respondents who sometimes write checks with insufficient funds in their account was almost equally divided between those that did and those that did not. Slightly more than half (51.7%) disagreed or strongly disagreed with the statement "I sometimes 'bounce' checks." Almost three-fifths (59.9%) of the respondents agreed or strongly agreed with the statement "If an unexpected financial opportunity arises, I am likely to seize it, rather than follow my overall financial plan."

The financial constraints of sample households were evident in responses to three particular items. Over three-quarters (78.8%) agreed or strongly agreed that "windfall" money (e.g., a tax refund, bonus, or overtime pay) was committed for expenses before it even arrived. Even more (81%) indicated that living expenses were higher than their monthly

Table 13

Spending Practices and Characteristics of Survey Respondents (N= 245)¹

Characteristic/Practice	Strongly Disagree		Tend To Disagree		Tend To Agree		Strongly Agree	
	n	%	n	%	n	%	n	%
If an unexpected financial opportunity arises, I am likely to seize it, rather than follow my overall financial plan.	38	16.4	55	23.7	95	40.9	44	19.0
I make spending plans, but I have trouble disciplining myself to carry them out.	57	23.9	76	31.9	62	26.1	43	18.1
It costs more for my family to live than what money we have coming in each month.	14	5.8	32	13.2	69	28.5	127	52.5
I worry about being able to meet my normal monthly living expenses.	11	4.5	26	10.8	68	28.1	137	56.6
I can't resist a sale! Sometimes I buy things I truly do not need, but want.	156	64.2	49	20.2	28	11.5	10	4.1
I sometimes "bounce" checks.	79	32.9	45	18.8	77	32.1	39	16.2
I often spend more money than I have.	61	25.8	78	33.1	69	29.2	28	11.9
"Windfall" money such as a tax refund, bonus, or overtime pay is usually committed for an expense before it arrives.	24	10.0	27	11.2	69	28.6	121	50.2
To help meet expenses, someone in the household has recently taken a part-time job or added overtime hours.	94	39.7	44	18.5	32	13.5	67	28.3

¹ Number of respondents does not add up to 245 due to non-response.

income. Still more respondents agreed (28.1%) or strongly agreed (56.6%) that they worry about being able to meet normal monthly living expenses. More than half (58.2%) indicated, however, that they had not added a job or overtime hours to help meet expenses.

Debt Management Practices. As reported in the previous section, the general picture of this sample--once again--is one that is unable to pay its creditors and reluctant or unable to take on additional debt. As shown in Table 14, over half (56.6%) of the respondents disagreed or strongly disagreed that they regularly borrow money from family, friends, or co-workers. More than two-thirds (68.3%) disagreed with a statement indicating that their overall debt level rarely goes down because they often charge other purchases. Over 80% of respondents agreed or strongly agreed that they study and understand credit statements, credit terms, and the determination of finance charges. More than 90% disagreed or strongly disagreed that they had recently opened additional charge or credit card accounts.

Replies to five survey items indicate the extent of financial difficulty and resulting emotional distress experienced by respondents. Almost two-thirds (65.1%) agreed or strongly agreed that they were reluctant to open their mail for fear of finding more bills. Over three-quarters (77%) indicated agreement or strong agreement with a statement showing that they worried about the amount owed each month on charge accounts, credit cards, and loans.

More than four of every five respondents (86.2%) indicated that they had little or no downpayment money available when purchasing large items such as a car, thereby relying on credit in order to make these purchases. Contact from creditors was also evident, with 85.8% indicating that creditors' legal departments had written or phoned

Table 14

Debt Management Practices and Characteristics of Survey Respondents**(N= 245)¹**

Characteristic/Practice	Strongly Disagree		Tend To Disagree		Tend To Agree		Strongly Agree	
	n	%	n	%	n	%	n	%
When purchasing large items, such as an appliance, a car, etc., I have little or no money available for a down payment.	15	6.3	18	7.5	62	25.8	145	60.4
Creditors' legal departments have written or phoned regarding my accounts.	22	9.2	12	5.0	62	25.4	145	60.4
I study and understand the credit statements, credit terms, and determination of finance charges for my loans.	11	4.5	34	14.0	103	42.4	95	39.1
I have regularly borrowed money from family, friends or co-workers.	77	31.6	61	25.0	53	21.7	53	21.7
I worry about the total amount I have to pay each month on charge accounts, credit cards, and loans.	26	10.9	29	12.1	71	29.7	113	47.3
I have received overdue notices because of late or missed payments.	10	4.1	9	3.7	64	26.4	160	65.8
I am reluctant to open the mail for fear of finding more bills.	26	10.8	58	24.1	65	26.9	92	38.2
Although I make my payments, I often charge other purchases so my overall debt level rarely goes down.	107	44.6	57	23.7	56	23.4	20	8.3
I have recently opened additional charge or credit card accounts.	190	79.2	31	12.9	11	4.6	8	3.3

¹ Number of respondents does not add up to 245 due to non-response.

regarding their accounts. Fully 92.2% reported receiving overdue notices from creditors because of late or missed payments.

Credit Card Usage. Three survey items (V77-V79 in Appendix A) specifically describe practices related to the use of credit cards by respondents. A Likert-type scale was provided with responses ranging from 1 for strongly disagree to 4 for strongly agree. A fifth response, 5 for no cards, was also available for respondents to indicate that they did not presently use credit cards.

Once again, it appears, from the responses given to these items (see Table 15), that the sample is overextended and unwilling or unable to take on additional debt. After accounting for respondents that checked off "no cards," it was found that 80.2% of those with credit cards agreed or strongly agreed that they usually pay the minimum payment due rather than the total balance. According to Detweiler (1993), routinely making only minimum payments on loans is one of several "red flag" habits that can indicate a debt problem.

Another danger signal is having credit cards canceled by the issuer. More than half (56.8%) of respondents with credit cards also indicated that they had an account cancelled because of failure to pay or late payments. On the other hand, two-thirds disagreed or strongly disagreed with a statement indicating that they had obtained credit card advances to use toward payment of other credit balances. This practice, too, is frequently cited as indicative of a problem with debt (Detweiler, 1993).

Table 15

Credit Card Usage and Practices of Survey Respondents (N= 245)¹

Characteristic	Strongly Disagree		Tend To Disagree		Tend To Agree		Strongly Agree		No Cards	
	n	%	n	%	n	%	n	%	n	%
I usually pay the minimum payment instead of paying the total balance due on my credit card.	19	7.9	15	6.3	60	25.1	78	32.7	67	28.0
I have gotten cash advances on my credit cards to pay money toward other credit balances.	86	35.8	25	10.4	17	7.1	40	16.7	72	30.0
I have had a charge account or credit card cancelled because of failure to pay or repeated late payments.	60	24.9	20	8.3	27	11.2	78	32.4	56	23.2

¹ Number of respondents does not add up to 245 due to non-response.

Recently-Experienced Life Events

Studies have shown that there is an association between the number and intensity of life events and the onset of specific illnesses (Rabkin & Struening, 1976). "Situational" factors, such as unemployment, illness and divorce, have also been cited as a cause of financial difficulty (Brunette, 1990; Van Arsdale, 1982). A link between life events and the financial difficulty experienced by respondents also seems apparent. Findings related to the number and types of life events experienced by respondents, or members of their household, within the past 12 months are presented in this section. Respondents were asked whether any of 28 specific life events (items VI- V28 in Appendix A) had occurred.

The loss or reduction of income was identified by Virginia Cooperative Extension faculty as the primary problem experienced by more than half of the respondents when they entered the financial counseling program. As indicated in Table 16, unemployment also was the most frequently-cited life event identified by respondents, affecting 53.9% of the sample. When unemployment was combined with three additional items (V2- V4) describing a reduction of income due to job cutbacks, a loss of alimony or child support, or a loss of public assistance, over three-quarters (77.6%) of respondents were affected by at least one of these four life events related to loss of income.

Life events reported by 20% or more of respondents, in order of frequency, were: unemployment (53.9%), transportation or car trouble (51%), reduced income due to job cutback (47.8%), major unexpected expenses (34.7%), changed job or employment (30.6%), legal problems (27.8%), break-up with spouse or partner (24.5%), chronic illness or disability (20.4%), and unmet medical or health needs (20.4%). The most

Table 16

Life Events Experienced by Survey Respondents Within Past Year (N= 245)¹

Life Event	Event Occurred		Event Did Not Occur	
	n	%	n	%
Unemployment	132	53.9	113	46.1
Transportation or car trouble	125	51.0	120	49.0
Reduced income due to job cutback	117	47.8	128	52.2
Major unexpected expenses	85	34.7	160	65.3
Changed primary job or employment	75	30.6	170	69.4
Legal problems	68	27.8	177	72.2
Break-up with spouse or partner	60	24.5	185	75.5
Chronic illness or disability	50	20.4	195	79.6
Unmet medical or health needs	50	20.4	195	79.6
Pregnancy/birth of a child	40	16.3	205	83.7
Death of another relative	37	15.1	208	84.9
Bought or sold a home	34	13.9	211	86.1
Added expenses of education	34	13.9	211	86.1
Other	33	13.5	212	86.5
Added members to household other than by birth	26	10.6	219	89.4
Bankruptcy	24	9.8	221	90.2
Increased financial responsibility for aging parents or other relative	21	8.6	224	91.4
Reduced income due to loss of child support or alimony	20	8.2	225	91.8
Death of a close friend	17	6.9	228	93.1
Lost housing (eviction, foreclosure)	16	6.5	229	93.5
Alcohol/drug problem	14	5.7	231	94.3
Death of spouse/partner/parent/child	13	5.3	232	94.7
Major expense for family celebration	12	4.9	233	95.1
Jail term	9	3.7	236	96.3
Marriage	8	3.3	237	96.7
Reconciliation with partner	7	2.9	238	97.1
Reduced income due to loss or reduction of public assistance	6	2.4	239	97.6
Retirement	6	2.4	239	97.6

¹ Number of respondents does not add up to 245 due to non-response.

infrequently-cited life events were retirement (2.4%), loss or reduction of public assistance (2.4%), reconciliation with partner (2.9%), marriage (3.3%), and a jail term (3.7%).

The total number of life events affecting respondents during the past year is also reported. Data in Table 17 indicate that 80.7% of the sample experienced 3 or more life events that may have affected their financial situation. Combining categories, over 40% of respondents experienced 5 or more life events and 12.8% experienced 8 or more life events. The number of life events experienced by respondents ranged from 1 to 16, with a mean of 4.7 events per household.

Psychological Characteristics of the Sample

Included in this section are findings related to respondents' perceived control over their financial situation and satisfaction with various aspects of their lives, including their financial situation (Table 18). Also reported are responses to statements used as indicators of locus of control (Table 19) and self esteem (Table 20). The range of scores and mean locus of control and self esteem scores for the sample are also provided.

Perceived Control. As summarized in Table 18-A, persons who completed a survey were asked to indicate the extent to which they felt in control of their financial situation by circling one of five responses to a Likert-type scale item where responses ranged from 1 for in control to 5 for out of control. The prefacing statement was "Think about your household finances. Circle the response to indicate the extent to which you feel in control of your financial situation." Combining categories, it can be seen that over 60% of respondents said they felt "out of control" or "sometimes out of control." Only five percent felt "in control" of their finances and 10.9% were "almost in control."

Table 17

Cumulative Life Event Totals For Survey Respondents (N= 245)¹

<u>Number of Life Events Experienced</u>	<u>Frequency</u>	<u>Percentage of Sample</u>
1 event	10	4.1
2 events	37	15.2
3 events	39	16.1
4 events	52	21.4
5 events	30	12.3
6 events	21	8.6
7 events	23	9.5
8 events	14	5.8
9 events	6	2.5
10 events	4	1.6
Over 10 events	7	2.9

¹ Number of respondents does not add up to 245 due to non-response.

Table 18

A. Respondents' Perceived Control Over Their Financial Situation (N= 245)¹

Characteristic	Frequency	Percentage
The extent to which you feel in control of your financial situation.		
In Control	12	5.0
Almost in Control	26	10.9
Moderately in Control	53	22.2
Sometimes Out of Control	68	28.4
Out of Control	80	33.5

B. Respondents' Satisfaction With Aspects of Their Lives (N =245)¹

Aspect of Respondents' Life	Completely Dissatisfied						Completely Satisfied							
	1		2		3		4		5		6		7	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Housing	23	9.7	13	5.5	25	10.5	41	17.2	32	13.4	38	16.0	66	27.7
Friendships	13	5.3	9	3.7	15	6.2	40	16.5	31	12.7	41	16.9	94	38.7
Family Life	17	7.0	11	4.5	28	11.5	38	15.7	35	14.4	42	17.3	72	29.6
Job	48	20.9	19	8.2	22	9.6	37	16.1	41	17.8	26	11.3	37	16.1
Financial Situation	145	59.9	31	12.8	23	9.5	22	9.1	10	4.1	4	1.7	7	2.9
Health	13	5.4	13	5.4	18	7.5	29	12.1	33	13.8	63	26.2	71	29.6
Community	6	2.5	9	3.7	16	6.6	47	19.3	46	18.9	49	20.2	70	28.8
Life in General	7	2.9	8	3.3	29	11.9	55	22.6	60	24.7	48	19.8	36	14.8

¹ Number of respondents does not add up to 245 due to non-response.

Level of Life Satisfaction. Data reported in Table 18-B indicate respondents' level of satisfaction with various aspects of their lives and life in general. Again, a Likert-type scale was used, this time with seven possible responses where responses ranged from 1 for completely dissatisfied to 7 for completely satisfied. The prefacing statement to the items (V31- V38 in Appendix A) was "Think about your life over the past year. Considering the scale of "1" to indicate that you are completely dissatisfied to "7" completely satisfied, please circle the response which best represents your life as a whole these days."

Combining categories 1, 2, and 3 (to indicate a measure of dissatisfaction) and categories 5, 6, and 7 (to indicate a measure of satisfaction) shows that respondents are more satisfied than dissatisfied with all aspects of their lives *except* their financial situation. More than two-thirds of the sample were at least somewhat satisfied with their friendships, health, and community and more than half with their housing, family life, and life in general. Respondents' perception of their jobs was more divided, however, with 38.7% indicating some dissatisfaction and 45.2% indicating some satisfaction.

With respect to their financial situation, only 8.7% of the sample indicated any level of satisfaction whatsoever. More than 4 of every 5 respondents indicated dissatisfaction with their finances, including 59.9% who were "completely dissatisfied." The low level of perceived control over finances and small minority indicating satisfaction with their financial situation are additional indicators of the extent of financial difficulty experienced by respondents. In addition to quantitative data (e.g., net worth, debt ratios) that indicate problems, respondents' perceptions of their situation are quite telling.

Locus of Control. Locus of control refers to the extent to which one perceives that their behavior can influence life events (Rotter, 1966). Internally-controlled individuals perceive themselves as having control over the outcome of events, including their financial situation, while externally-controlled persons perceive things to "happen" by chance, or through the control of others. Six statements (items V89, V91, V94, V97, V100, and V103 in Appendix A) developed by Rotter (1966) and Bugaighis and Schumm (1983) were used to assess respondents' locus of control. The statements were in the format of a Likert-type scale with responses that ranged from 1 for strongly disagree to 4 for strongly agree. Respondents were asked to circle the response which indicated the extent to which they disagreed or agreed with each statement.

As noted previously in Chapter III, the scale is additive. The higher the cumulative score, the greater the internal locus of control attributed to respondents. Three of the six items (items V91, V94, and V103), which were worded negatively, were reverse-coded (i.e., 1 = 4) so the responses given by those who completed a questionnaire were consistent with this pattern. The average cumulative locus of control score for the six items, on a scale from 6 (highest external control) to 24 (highest internal control), was 15.96 and the median, 16. As shown in Table 19-B, respondents' scores ranged from 10 to 23. The most-frequently reported score, or mode, was 14.

Table 19-A provides frequencies and percentages for each of the six survey items related to locus of control. Responses to five of the six statements were closely split between internal- and external-oriented responses, with three of the five replies slightly favoring internality. However, in response to the first statement "When I make plans, I am almost certain that I can make them work", over 90% indicated agreement.

Table 19

A. Locus of Control Responses of Survey Respondents (N= 245)¹

Characteristic/Perception	Strongly Disagree		Tend to Disagree		Tend To Agree		Strongly Agree	
	n	%	n	%	n	%	n	%
When I make plans, I am almost certain that I can make them work.	3	1.2	18	7.6	133	55.4	86	35.8
It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.	36	15.1	97	40.8	64	26.9	41	17.2
Many times I feel that I have little influence over things that happen to me.	27	11.3	79	33.2	87	36.6	45	18.9
What happens to me is of my own doing.	33	13.9	75	31.7	92	38.8	37	15.6
It is impossible for me to believe that chance or luck plays an important role in my life.	32	13.4	88	37.0	79	33.2	39	16.4
Sometimes I feel I don't have enough control over the direction my life is taking.	27	11.3	108	45.2	67	28.0	37	15.5

B. Cumulative Locus of Control Scores of Survey Respondents (N= 245)¹

Locus of Control Score	Frequency	Percentage
10 to 12	16	6.8
13 to 14	60	25.7
15 to 16	69	29.7
17 to 18	50	21.5
19 to 20	22	9.4
21 to 23	16	6.9

Possible range: 6 (highest external control) to 24 (highest internal control)

¹ Number of respondents does not add up to 245 due to non-response.

This response is evidence of an internal locus of control perception, i.e., a perception of personal control over the outcome of life events.

Self Esteem. Self esteem refers to an individual's feelings about himself or herself. Persons who perceive themselves positively are said to have high self esteem, while those who perceive themselves negatively have low self esteem (Baron & Byrne, 1991). According to McIntire and Levine (1984), self esteem plays a central role in attempting to explain human behavior and performance. Ten statements (items V88, V90, V92, V93, V95, V96, V98, V99, V101, and V102 in Appendix A) developed by Rosenberg (1965) were used to assess the self esteem of respondents.

On a scale from 10 (lowest self esteem) to 40 (highest self esteem), the average score for the sample was 29.5, and the median, 30. Respondents' scores ranged from 16 to 36, as shown in Table 20-B. The most frequently-reported score, or mode, was 34.

As was the case with the locus of control assessment, the ten statements were in the form of a Likert-type scale where responses ranged from 1 for strongly disagree to 4 for strongly agree. Respondents were asked to circle the response which indicated the extent to which they disagreed or agreed with each statement. The scale was additive. The higher the score, the higher the degree of self esteem attributed to a respondent. Five of the ten items (items V93, V95, V96, V99, and V101), which were worded negatively, were reverse-coded (i.e., 1 = 4) so that the responses given were consistent with this pattern.

Frequencies and percentages for each of the ten survey items related to self esteem are listed in Table 20-A. Contrary to the closely-divided internal and external locus of control scores, self esteem scores for each question were clearly divided, making five statements each indicative of high self-esteem and low self esteem, respectively.

Table 20

A. Self Esteem Item Responses of Survey Respondents (N= 245)¹

Characteristic/Perception	Strongly Disagree		Tend to Disagree		Tend To Agree		Strongly Agree	
	n	%	n	%	n	%	n	%
I feel that I'm a person of worth, at least on an equal basis with others.	1	.4	11	4.6	88	36.8	139	58.2
I am able to do things as well as most other people.	4	1.7	11	4.6	99	41.2	126	52.5
On the whole, I am satisfied with myself.	10	4.2	43	17.9	117	48.7	70	29.2
I wish I could have more respect for myself.	22	9.5	59	25.4	74	31.9	77	33.2
I certainly feel useless at times.	24	10.0	61	25.6	71	29.7	83	34.7
At times, I think I am no good at all.	20	8.4	26	10.8	68	28.5	125	52.3
I feel that I have a number of good qualities.	1	.4	4	1.7	72	30.5	159	67.4
All in all, I am inclined to feel that I'm a failure.	10	4.2	22	9.2	69	28.9	138	57.7
I feel I do not have much to be proud of.	127	53.4	73	30.6	24	10.1	14	5.9
I take a positive attitude toward myself	107	45.3	97	41.1	24	10.2	8	3.4

B. Cumulative Self Esteem Scores of Survey Respondents (N= 245)¹

Self Esteem Score	Frequency	Percentage
16 to 18	1	.4
19 to 21	7	3.0
22 to 24	15	6.7
25 to 27	39	17.2
28 to 30	62	27.3
31 to 33	67	29.5
34 to 36	36	15.9

Possible range: 10 (lowest self esteem) to 40 (highest self esteem)

¹ Number of respondents does not add up to 245 due to non-response.

Almost all (97.9%) of the respondents agreed or strongly agreed that they have a number of good qualities and over 90% indicated that they were "a person of worth" and "able to do things as well as most other people." On the other hand, 86.4% of respondents disagreed that they take a positive attitude toward themselves and over 80% indicated that, at times, they think they are no good at all and are inclined to feel like a failure.

Empirical Test of the Model of Financial Difficulty

This section reports findings from a test of the full regression equation and the relative importance of objective attributes, affective attributes, and precipitating life events in explaining variance in the dependent variable, financial difficulty. Multiple regression analysis, with the computer software program SAS, was used to test the empirical model developed to explain the variance associated with financial difficulty. Measured by respondents' back-end debt ratio, financial difficulty was the dependent variable. Back-end ratios for the sample ranged from .022 (2.2%) to 10.39 (over 1000%) and indicate the percentage of gross household earned and unearned income earmarked for PITI and consumer debt (Garman & Forgue, 1994).

Data reported in Table 10 show that almost 20% of the sample was spending more than 100% of their gross income on just these two expense categories. The mean value for the dependent variable was .93 (i.e., a 93% back-end ratio) with a standard deviation of 1.18, indicating a wide variation of responses around the mean. The median ratio was .60.

Correlations among independent variables were used to determine if multicollinearity existed. A $-.706$ correlation was found between marital status (MS-NEW3) and the dummy variable for female heads of households (HHD_DUM2). This, along with a low tolerance warning when

the data were originally run, provided evidence of multicollinearity. The variable for household heads was subsequently dropped because it had the lower correlation with the dependent variable. Tests for curvilinearity of data also were done and proved negative.

In the test of the full model, the remaining 17 independent variables, described previously in Chapter III, were regressed on the dependent variable to determine the amount of variance that could be explained by a combination of predictor variables. The resulting R^2 tells the proportion of variance in financial difficulty attributable to all of the independent variables combined.

Next, the objective attributes, affective attributes, and precipitating events were entered alone as blocks of independent variables and regressed on the dependent variable to determine to what extent each type of attribute explained financial difficulty. Finally, the explanatory ability of each individual variable was explored. Independent variables that were not significant and did not contribute significantly to the R^2 were deleted during the backward regression procedure and not even entered into the model during the stepwise and forward selection procedure, using a .05 level of significance for entry. Thus, only explanatory variables with the smallest significance probability (p) values that contributed to the R^2 remained.

Full Regression Equation. When all of the independent variables were entered into the regression equation, a total of 178 cases were usable. The other 67 cases contained missing data for one or more of the variables and were eliminated using the listwise deletion feature of SAS. An R^2 of .3138 was produced when all of the remaining 17 independent variables were entered, meaning that 31.4% of the variance in financial difficulty could be explained by a combination of these

variables. With an F ratio of 4.06, the R^2 was significant at the .0001 level (df, 178).

The Affective Attribute Group. The affective attribute group included the following variables: locus of control (LC2), perceived level of control over financial situation (V30), and self esteem (SE2). The relative importance of these three variables was determined by removing all of the other variables and entering only the affective attributes together into the equation. The resulting R^2 was .00592, indicating that affective attributes had a very small effect in explaining the variance associated with financial difficulty. A low F ratio of .42 and high significance probability, labeled $p > F$, of .7413 also indicated that the results were not significant. That is, this block of variables did not contribute significantly to the explanation of variance in the dependent variable, financial difficulty. A total of 213 cases were usable for this analysis.

The Precipitating Events Group. The precipitating events group included the following two variables: loss or reduction of income (LOI) and number of other life events recently experienced (LES2). Precipitating events are theorized in the empirical model to contribute to changed economic status which could, if not mediated, place households at risk for homelessness. Again, the relative importance of this variable block was determined by removing all the other variables and entering only the precipitating events together into the equation. The resulting R^2 was .01589, indicating that precipitating events, including the loss or reduction of income, explained about 1.6% of the variance associated with financial difficulty. A low F ratio of 1.89 and high significance probability, labeled $p > F$, of .1535 indicate that the results were not significant. This block of variables, therefore, did not contribute

significantly to the explanation of variance in the dependent variable. A total of 236 cases were usable for this analysis.

The Objective Attribute Group. The objective attribute group included the following variables: age (AGE), debt management practices (DEBT_MGT), educational level (ED_DUM1 and ED_DUM2), existence of a second mortgage or home equity loan (V86), greater debt level than one year ago (V49), marital status (MS_NEW3), net worth (NETWORTH), number of children in the household (CH_P_HSE), number of household earners (EARNERS), number of years left on mortgage (V85), recent home improvements (V87), and total number of creditors (TO_CDTRS). The type of household head (HHD_DUM1 and HHD_DUM2) was previously dropped. The relative importance of these 12 variables was determined by removing all the other variables and entering only the objective attributes together into the equation.

The resulting R^2 was .2471, indicating that approximately a quarter of the variance associated with financial difficulty can be explained by a linear combination of the objective attributes. The resulting F ratio of 4.55 was significant at the .0001 level. Thus, the objective attribute block contributed significantly to the explanation of the variance in the dependent variable, financial difficulty. A total of 193 cases were usable for this analysis.

Significant Independent Variables

This study also assessed the relative importance of independent variables in predicting the dependent variable, financial difficulty. While R^2 indicates the proportion of variance accounted for by the independent variables taken simultaneously, a test of a b (unstandardized regression coefficient) addresses the proportion of variance added uniquely by each variable (Pedhazur & Schmelkin, 1991).

The F values and significance probability ($p > F$) values for each independent variable are reported in Table 21. These values are equivalent to the results of a t test for testing the null hypothesis ($H_0: b = 0$) that the regression parameter equals 0 (SAS Introductory Guide, 1985). If the significance probability ($p > F$) is small, it indicates a high level of significance. For example, if $p > F$ values are .0001, the hypothesis that the coefficient for a particular variable equals zero would not be accepted. Instead, it would be concluded that the independent variable contributes significantly to the model (SAS Introductory Guide, 1985).

With the alpha level set at .05 for entry into the model, only one independent variable was significant in explaining variance in the dependent variable, financial difficulty. As shown in Table 21, the variable EARNERS (number of household earners) produced a $p > F$ of .0001. The regression coefficient for this variable was negative (-.6457) indicating that, as the number of wage earners was reduced from two to one to zero, the back-end debt ratio of sample households increased. The R^2 for EARNERS, alone, was .2459, indicating that it was, by far, the most significant objective attribute. A total of 178 cases were usable for this analysis.

Summary of Findings

This chapter began by presenting findings related to the demographic and financial characteristics of a convenience sample of 245 overextended Prince William County, Virginia households. Demographic characteristics explored included age, educational level, ethnicity, gender, marital status, gross income, number of adult household earners, and number of children per household living at home. Financial characteristics included net worth, household expenses, number and types

Table 21

Regression of Independent Variables on Financial Difficulty

Name of Variable	Variable Code	r	b	Standard Error	F	p > F
Age	AGE	.114	.0074	.0049	2.28	.1331
Debt Mgmt. Practices	DEBT_MGT	-.015	-.0265	.0231	1.31	.2534
Education	ED_DUM1	.021	.0784	.1217	.41	.5207
Education	ED_DUM2	-.080	-.0584	.1126	.27	.6046
Greater Debt Than Year Ago	V49	.041	-.0377	.0436	.75	.3888
Marital Status	MS_NEW3	-.129	.1677	.1074	2.44	.1202
Mortgage Term.	V85	.056	.0109	.0068	2.59	.1093
Net Worth	NETWORTH	-.020	-.0000	.0000	.04	.8408
# of Children Living at Home	CH_P_HSE	-.007	-.0125	.0405	.09	.7586
# of Earners	EARNERS	-.496	-.6457	.0860	56.25	.0001***
Recent Home Improvements	V87	.065	.0426	.0896	.23	.6353
2nd Home Loan	V86	.011	.0480	.0893	.29	.5919
Total Number of Creditors	TO_CDTRS	.028	.0114	.0106	1.17	.2819
Locus/Control	LC2	.064	.0310	.0255	1.47	.2264
Control Over Fin. Situation	V30	.050	-.0012	.0421	.00	.9783
Self Esteem	SE2	.097	.0009	.0120	.01	.9429
Loss/Reduction of Income	LOI	.072	.0614	.0979	.39	.5314
# of Other Life Events	LES2	.010	.0012	.0198	.00	.9511

$$R^2 = .3138$$

$$F = 4.06 (178)$$

$$*** p < .0001$$

of creditors, selected housing finance characteristics, selected financial ratios, changes in respondents' financial situation compared to the prior year, and respondents' level of preparedness for financial emergencies.

A comparison of demographic data about the sample with recent Census information about Prince William County, Virginia, and the United States revealed substantial differences between the sample and broader populations in incomes, ethnicity, and the percentage of households with dual-earners and children living at home. Thus, the generalizability of the results of this study to larger populations may be limited.

Twenty tables were used to summarize the characteristics and practices of the respondents. Findings were presented about money management characteristics (spending, debt management, credit card usage), the loss or reduction of income and other recently-experienced life events, and psychological characteristics (perceived control over financial situation, level of life satisfaction, locus of control, and self esteem). The overall picture was that of households with few financial reserves, a high exposure to precipitating life events, and great dissatisfaction with, and perceived lack of control over, their finances. They did not, however, appear to be compounding their existing problems with additional borrowing.

The chapter then discussed results of a multiple regression analysis used to empirically test the model of financial difficulty. An R^2 of .3138 was found, indicating that a combination of 17 of the independent variables found in the model explained 31.4% of the variance in the dependent variable. The chapter concluded with a discussion of the relative importance of three variable blocks, and individual variables, in predicting the dependent variable, financial difficulty.

CHAPTER V

Discussion, Conclusions, Recommendations, and Implications

This chapter discusses the results of this study, which described characteristics and practices of financially-stressed homeowners and tested a measurement of financial difficulty as a function of objective and affective attributes and precipitating life events. The conceptual model, which depicts the process a household might experience as it transitions from stable housing to eventual homelessness, provided the basis for this study. The empirical model posits specific situational events and precipitating factors which can result in changed economic status and threaten housing stability. The empirical model was tested with a convenience sample of 245 Prince William County, Virginia homeowners who participated in a Virginia Cooperative Extension financial counseling volunteer program between January 1992 and June 1993.

Discussion of Research Findings

Findings are discussed in the order that they were presented in Chapter IV. A discussion of key findings related to demographic and financial characteristics of the sample begins this chapter, followed by a discussion of findings related to financial management characteristics and practices, recently experienced life events, and psychological characteristics of respondents. The chapter also includes a discussion of the empirical test of the model of financial difficulty. It ends with conclusions, recommendations for future research, and implications for financial counseling and education, and the development of public policy.

Demographic Characteristics of the Sample. Since the empirical model proposes a relationship between situational factors and financial difficulty, demographic characteristics of the sample were explored. The majority of the respondents were married, "baby boomers" aged 26 through 45, and had some education beyond high school but less than a college degree. The sample was almost equally divided by gender. Blacks and races other than Caucasian comprised over 40% of the sample.

Over 60% of sample households reported one earner. Their median gross annual income was \$26,934. Each household had at least one child living at home with an average of two children per household. Over 80% of respondents listed their children as dependents.

A number of sample characteristics differed substantially from those of households in Prince William County, Virginia, and the United States. Specifically, the sample was older, better educated, and had a much lower median income than broader populations. It also included more than twice the percentage of Blacks and ethnic minorities and about a third fewer two-earner households.

Several sample characteristics were similar to those reported in previous studies of overextended households. Sullivan et al. (1989), in their study of over 1,500 households filing for bankruptcy, found that both mean and median incomes of their sample were less than two-thirds that of national figures. Their study also showed that married couples in bankruptcy were considerably less likely to be two-income households than were other American families. Caplovitz' (1974) study of debtors in default also found a high percentage of individuals with below-average incomes.

Other sample demographic characteristics also reported previously as being associated with a high level of indebtedness were a substantial

percentage of ethnic minorities (Caplovitz, 1974; Sullivan & Fisher, 1988), relatively young ages of household heads (Bloom & Steen, 1987; Canner & Lockett, 1991; Caplovitz, 1974; DeVaney, 1994a; Heck, 1980), and being married with children living at home (Canner & Lockett, 1991; Dunkelberg & Stafford, 1971). Shinn (1992) found that the most severely overextended households in her study of financial coping strategies were young families with the least income and education.

Financial Characteristics of the Sample. Seven types of personal finance characteristics were investigated: net worth, household expenses, number and types of creditors, housing finance characteristics, financial ratios, changes in financial status, and preparation for financial emergencies. As theorized in the empirical model, these are additional situational factors related to the financial status of respondents. When findings in each of these categories are viewed together, it is clear that many sample households are living at or near the edge of financial disaster. Common financial errors such as high debt loads relative to income, inadequate emergency funds, and an inaccurate record of monthly living expenses were clearly evident.

Almost a quarter of the sample had a negative net worth, i.e., liabilities greater than assets. Their mean net worth was \$35,543, with two-thirds of sample households reporting a net worth less than \$50,000. The recommended emergency fund of three to six months expenses (Kapoor et al., 1994) was a pipe dream for virtually the entire sample. The average amount of household liquid assets was \$708, compared with \$2,847 of average monthly expenses. Three-quarters of respondents lacked any invested assets. The median debt-to-asset ratio was .81 (i.e., debt of 81 cents for every dollar of assets).

High monthly living costs also were in evidence. Over three-quarters of respondents had monthly household expenses exceeding \$2,000, with mortgage payments generally the largest payment due. More than half paid over \$1,000 each month for principal, interest, taxes, and insurance (PITI). Almost half of the respondents also paid an average of \$269 a month more toward loans on a first car and 8% of the sample also had a second car loan. About 70% of the sample paid an average of \$274 monthly toward credit accounts and over 80% had credit payments and/or at least one car loan. On average, a week's worth of expenses was available to respondents as a reserve for emergencies at the time that data were collected. This is less than 10% of the minimum amount commonly recommended (Kapoor et al., 1994).

Excluding mortgages, respondents owed an average of 6.8 creditors each, although the largest percentage (43.3%) owed only one. Creditors that received the largest monthly payments were the Consumer Credit Counseling Service (CCCS), secured lenders, utility companies, banks/credit unions, and bankcard issuers. Not surprisingly, three of these five are creditors that can suspend service or repossess property if payments are not made in a timely manner.

Many respondents incurred additional debt related to their home. More than a third had a second mortgage or home equity loan, both of which were included in the calculation of PITI, and almost half had made home improvement expenditures during the previous three years. About a fifth of the sample incurred expenses for both an additional housing loan and home improvements.

Over half of the sample presumably bought their homes at or near the peak of the 1980s housing market because they reported owing mortgage payments for 26 years or more. In the Washington D.C. metropolitan

area, where Prince William County is located, median household incomes nearly doubled during the 1980s while median mortgage costs rose by 120% (Powers, 1993). The median value of homes in Prince William County in 1990 was \$138,500, compared to only \$91,000 for all of Virginia (VCHR, 1993). Almost 40% of Prince William County housing units cost \$150,000 or more (VCHR, 1993). These costs are undoubtedly reflected in the size of respondents' monthly mortgage payments.

Findings for every financial ratio that was studied showed household debt loads far in excess of standards considered prudent by financial experts. For example, almost 75% of the sample had total monthly expenses greater than net household income, or negative cash flow, with absolutely no money available for savings, let alone the 5% to 10% of gross income that many experts advise. Almost two-thirds of the sample spent 50% or more of their net income on housing expenses alone and almost 18% spent more than 100% of their net incomes on housing. The 40% housing expense-to-income ratio suggested by financial counselors (Lytton et al., 1991) was exceeded by almost 90% of respondents.

Half of the sample had a 17% or higher credit-to-income ratio. Thus, the amount of net income spent on installment debt, excluding a mortgage, exceeded the 10% to 15% level generally recommended as "safe" by experts (Kapoor et al., 1994). The mean credit-to-income ratio of .26 (26%) exceeded the maximum .20 (20%) of after-tax income that experts recommend spending on credit payments. Thus, over a quarter of respondents' income was spent, on average, on consumer credit expenses.

Perhaps the most revealing financial ratio is the one used as the dependent variable in the empirical test of the model. The dependent variable, financial difficulty, was measured using the back-end ratio which compares monthly principal, interest, taxes, and insurance (PITI)

and consumer credit payments to gross monthly income (Garman & Forgue, 1994). This ratio gives a more complete picture of household debt than ratios calculated using housing expenses or consumer debt alone.

As shown in Figure 3, only about 10% of respondents had back-end ratios at or below the 36% industry standard for conventional mortgages and over two-thirds had back-end ratios greater than .50 (i.e., PITI plus consumer debt greater than 50% of gross income). These back-end ratios provide evidence of respondents' financial difficulty. Even worse, they understate the problem because they are based on gross, rather than net, pay and exclude child care expenses as a regularly-scheduled household debt. If respondents' PITI, plus consumer debt and child care payments, were compared to net income, these ratios would be even higher. On the other hand, back-end ratios used in this study may be slightly overstated because all household debts were considered long-term and, thus, included.

Using the back-end ratio, however, allows one to conclude that there was a change in financial status for households with ratios far in excess of those required initially to qualify for a mortgage. The back-end ratios of a third of the respondents, for example, showed total household debt in excess of 75% of gross income, a tremendous growth in debt load.

The preparedness of sample households for financial emergencies was poor, as measured on a number of counts. Many were literally teetering on the brink of financial disaster (e.g., bankruptcy, judgements, repossession, etc.). Not surprisingly, almost 90% of respondents indicated that a temporary reduction in household income would cause "a major financial emergency." Although almost three-quarters of respondents indicated that they set some money aside regularly, their

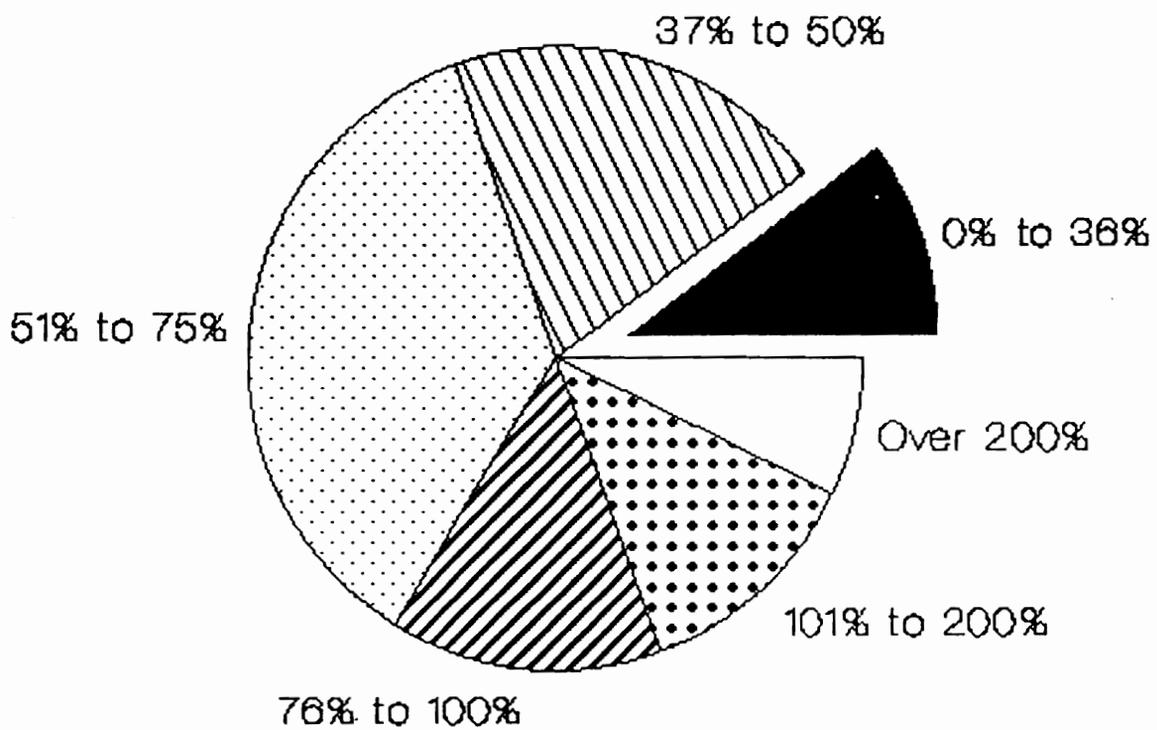


Figure 3
Frequency Distribution of Respondents' Back-End Ratios

negative cash flow and low average amount of liquid assets seems to contradict this assertion. If they once had savings and investments prior to the time that data were collected (something the questionnaire did not measure), most of this money was subsequently spent.

The findings related to financial characteristics of the sample are similar to those cited by previous researchers. In particular, a high debt-to-income ratio was frequently cited (Bloom & Steen, 1987; Canner & Lockett, 1991; Heck, 1980; Kennickell & Shack-Marquez, 1992; Marlowe, 1981) as being associated with overextension. The financial characteristics exhibited by a majority of the sample (e.g., high consumer debt and debt-to-asset ratios, inadequate emergency funds, low or negative net worth, expenses in excess of income, and lack of invested assets and disability insurance) are also frequently cited by financial experts as common financial errors (Leimberg, 1989).

The overall financial profile of the sample is a group of homeowners that owe as much or more than they earn each month and have little to fall back upon in the event of an emergency. The timing of the purchase of their homes may also have contributed to their financial woes.

Housing prices escalated sharply in Prince William County during the 1980s and it appears that many respondents bought in the time period when home prices were at an all-time high. When recession affected the economy, many could no longer afford their monthly housing expenses.

Money Management Characteristics and Practices. This study investigated three categories of money management characteristics and practices: spending practices, debt management practices, and credit card usage. These, too, are situational factors, as depicted in the models for this study. In the area of spending practices, the picture that emerges is one of overextension coupled with restraint. Living expenses exceeded

household income for about four of every five respondents. In addition, over three-quarters indicated that they spent "windfall" money before it was received and worried about the amount that they owed.

On the positive side, respondents did not appear to be a group of overspenders. Almost 85% indicated that they could resist a sale and avoid buying unneeded items, and almost 60% indicated that they usually do not spend more money than they have.

In the area of debt management, many indicators of financial distress (Brunette, 1990) were evident. Over 85% of sample households reported receiving letters or calls from creditors and over 90% received overdue notices for late or missed payments. Over three-quarters worried about the amount owed each month on credit accounts, almost two-thirds were reluctant to open mail and find bills, and almost half sometimes bounced checks. Respondents also reported that they relied heavily on borrowed money for "big ticket" items. Over 85% indicated that they had little or no downpayment funds available when making expensive purchases.

All of these characteristics and practices, particularly contact from creditors, emotional distress related to finances, and the commitment of income yet to be earned to past debts, are frequently cited as indicative of a debt problem (Detweiler, 1993). They also indicate--as did the financial ratios--that respondents were "living on the edge" of financial disaster, with insufficient funds to cover monthly expenses and debts and little savings to fall back upon or with which to at least partially fund future goals.

Again, for whatever reason, respondents did not appear to be compounding their debt problems with additional borrowing. More than half, for example, indicated that they did not borrow money frequently

from other people. Less than 8% reported opening new charge or credit accounts. Respondents' higher than average educational level and the high incidence of income loss, rather than overspending, may partly explain why no further debt was incurred. Sample households, seeing their financial predicament, may have already taken steps to address it.

Replies to survey items about respondents' credit card usage also indicate a combination of overextension and restraint. One indicator of severe indebtedness, according to Detweiler (1993), is routinely making only minimum payments due on loans. About 80% of respondents indicated that they followed this practice. More than half also indicated that they had accounts canceled by creditors. This, too, is frequently cited as another "danger signal" of overextension (Brunette, 1990). On the other hand, two-thirds of respondents with credit cards indicated that they did not obtain advances on one credit card to use toward payments of other credit balances.

It was unclear from the survey questions whether the low number of respondents incurring additional debt was due to their own unwillingness to increase their debt load or whether they were simply prevented by creditors from obtaining new credit lines. It is possible that many respondents were already "maxed out" at the time that data were collected. In addition, since many respondents reported contact from creditors about unpaid balances or had their credit cards cancelled, it is likely that denial by creditors for additional loans is a primary factor in the "restraint" exhibited by respondents toward incurring additional debt.

Recently-Experienced Life Events. The models that undergird this study indicate that precipitating life events may be related to financial difficulty and this study provides some supporting evidence of this.

Almost 80% of respondents experienced a loss or reduction of income in the year before they contacted Virginia Cooperative Extension for assistance with their finances. Over half of sample households experienced unemployment, which was the most frequently-experienced life event. The next most frequent life event, also experienced by more than half of the respondents was car or transportation trouble. It is quite likely that these two life events are related, given that Prince William County is a suburban area that lacks public transportation.

Over 80% of sample households experienced three or more life events within the previous year that may have affected their financial situation and over 40% experienced five or more events. Many of the life events that were experienced frequently (e.g., unemployment) are those cited by Brunette (1990) as "situational factors" and Van Arsdale (1982) as "external crises" related to overextension.

While any one life event is difficult enough by itself, the cumulative effect of several events experienced within the same time frame (e.g., unemployment plus divorce plus car trouble) undoubtedly magnifies the degree of difficulty experienced. This is similar to studies in the health field which indicate an association between the number of life events experienced and the onset of stress-related illnesses (Rabkin & Struening, 1976). Even worse, the combination of several life events with inadequate emergency savings, a lack of invested assets and disability insurance, and average monthly household expenses totaling over \$2,800 is an extremely unstable situation that few households can sustain for long without experiencing severe distress.

Many of these findings relative to life events are similar to those of other researchers. Caplovitz (1974) identified the loss or reduction

of income as the single most important cause of default for his sample of debtors, as did Varcoe (1990) in her study of persons coping with financial difficulty. Health-related problems also affected more than 20% of Varcoe's sample, compared with 20.4% of respondents in the present study. Other situational events found by Caplovitz (1974) were having too many debt obligations to repay, and the end of a marriage. In this study, almost a quarter of respondents broke up with their spouse or partner. Life events experienced by respondents that are also included in the Holmes and Rae (1967) Social Readjustment Rating Scale (SSRS) were death of a spouse, divorce, unemployment, retirement, jail term, legal problems, and pregnancy/birth of a child.

Psychological Characteristics of the Sample. Another component of the empirical model was affective attributes, e.g., feelings and perceptions. Less than 20% of respondents reported feeling any amount of control over their personal finances, compared with more than 60% who said they felt "out of control" or "sometimes out of control." Finances also were the only aspect of respondents' lives where there was more dissatisfaction reported than satisfaction.

According to Poduska (1993), a household's finances and the degree of satisfaction its' members experience in personal and family life are related. The findings of this study, however, appear to contradict this. Finances appear to be the only area of respondents' lives that was causing them major difficulty.

Findings related to locus of control measure the extent to which respondents perceive that their actions influence the outcome of life events. On an additive scale with scores ranging from 6 (highest external control) to 24 (highest internal control), the average locus of control score, based on 6 survey items, was 15.96 and the median was 16,

both just slightly above the halfway point between the highest and lowest scores. Respondents' locus of control scores ranged from 10 to 23, with a positively-skewed distribution (mode of 14). Given their dissatisfaction and perceived lack of control over finances, these scores were higher than what might be expected. In the Rotter (1966) studies with populations that were not all experiencing financial distress, the mean was less than half way between high and low scores.

A series of 10 survey items measured respondents' self esteem, i.e., their perceptions about themselves. Again, using an additive scale, with scores ranging from 10 (lowest self esteem) to 40 (highest self esteem), the average score for the sample was 29.5 and the median, 30. Thus, both measures were much closer to the high-end score (positive self esteem) than to the lower end. Respondents' scores ranged from 16 to 36 with a negatively-skewed distribution of scores (mode of 34).

It appears from the findings related to self esteem and locus of control that respondents generally felt somewhat positive about themselves and were just slightly more inclined than not to perceive their actions as affecting the outcome of events. For both measures, however, more than half of the sample had scores below the sample average, indicating some externality and negative self-perceptions. The study by Dessart and Kuylen (1986) found that, the less control borrowers felt over their lives, the more likely they were to get into financial difficulty. Caffrey and Capel (1969) and Heck (1980) also noted an association between fatalism and overextension.

Empirical Test of Financial Difficulty. The empirical model used to explain the variance associated with financial difficulty was tested using multiple regression. The dependent variable, financial difficulty, was measured by respondents' back-end ratio. The mean

back-end ratio for the sample was .93 (i.e., PITI and consumer debt equal to 93% of gross income). This percentage is about 2.5 times the 36% industry standard.

In a test of the model depicted in Figure 2, 17 of the 18 independent variables in the study were regressed on the dependent variable to determine the amount of variance in financial difficulty that they jointly explained. One variable was dropped due to multicollinearity. A total of 178 cases with no missing data for any of the variables were usable in this analysis. When all variables were entered, an R^2 of .3138 was found. Thus, 31.4% of the variance in financial difficulty was explained by a linear combination of the independent variables. Results were significant at the .001 level.

Subsequent tests were done using the same variables, entered in three different blocks. Results indicated that neither the affective attribute block nor the precipitating events block contributed significantly to the variance associated with financial difficulty. The objective attribute block, on the other hand, was significant at the .0001 level and explained approximately a quarter of the variance.

In a final test, the relative importance of each independent variable in explaining the variance associated with financial difficulty was assessed. Only one independent variable, the number of household earners (EARNERS), was significant. As the number of household wage earners decreased, the back-end ratio of sample households rose. The R^2 for earners, alone, was .2459, indicating that it explained almost a quarter of the total variance in financial difficulty.

This finding about the significance of the number of household earners, combined with the high frequency of persons experiencing unemployment and divorce, illustrates clearly the disruption caused by

the loss or reduction of a breadwinner's income. When emergency reserves and assets are low, the financial distress associated with the loss of income is almost immediate. This is consistent with the findings of Voydanoff (1984) and Caplovitz (1974).

At one time, sample households were considered capable by lenders of carrying monthly mortgage payments in excess of \$1,000 and had debt ratios at or below industry guidelines. With a reduction in the number of household earners, however, their ability to handle both debt and basic living expenses was seriously diminished. The moral for consumers and financial advisors is that a loss of income, combined with high monthly expenses and a lack of savings, is a recipe for severe financial distress. Persons who live on the edge of financial disaster stand a good chance of losing everything.

Conclusions

The following conclusions were derived from the results of this study:

- 1) Demographic and financial characteristics of sample households differed substantially from those of broader populations.

A convenience sample of overextended homeowners was queried for this study. A comparison was made between selected demographic and financial characteristics of the sample and the populations of Prince William County, Virginia, and the United States. The educational attainment, median income, ethnicity, percentage of two-earner households, and percentage of households with children living at home were dissimilar to that of broader populations. While sample characteristics were not typical of populations to which they were compared, they do provide a profile of financially-stressed households. Differences from larger populations may be related to respondents' financial difficulty.

- 2) Descriptive statistics of characteristics and practices of sample households indicate that many exhibit traits found in two frequently-cited typologies of debtors.

Characteristics and practices of sample households provide concrete evidence of two frequently-cited typologies of debtors developed by Brunette (1990) and Van 'Arsdale (1982). Results of this study indicated that respondents' financial difficulties appear to be the result of unpredictable circumstances (e.g., unemployment; reduced income) irresponsible financial practices (e.g., lack of savings and planning) or both. Traits of situational, chronic, and hybrid debtors (Brunette, 1990) were evident.

Commonly-experienced events (see Table 16) related to the family life cycle (e.g., birth of a child; deaths) also occurred. Many respondents also exhibited a number of behaviors used as evidence of financial mismanagement or overextension (Detweiler, 1993). Examples include inadequate emergency savings, expenses that exceed income, high debt-to-income ratios, making minimum payments on credit cards, frequent contact from creditors, and having credit lines canceled.

- 3) Of 17 variables used in the regression analysis, the number of household earners (EARNERS) was the only significant variable in explaining the variance associated with financial difficulty. Affective and objective attributes of overextended homeowners, and precipitating life events, were researched in this model-driven study. Only one independent variable, the number of household earners (EARNERS), was significant, explaining about a quarter of the variance associated with financial difficulty. Multiple regression was used to analyze the data. The regression coefficient for the number of household earners was negative, indicating that the back-end ratio

(i.e., PITI, plus consumer credit payments) of sample households rose as the number of household earners was reduced, either by choice or circumstance.

- 4) Objective attributes explained most of the variance associated with financial difficulty.

When all of the independent variables were entered into the regression model, an R^2 of .3138 was produced, meaning that 31.4% of the variance in financial difficulty could be explained. The R^2 was statistically significant at the .0001 level (df, 178). Subsequent analyses of objective attributes, affective attributes, and precipitating life events, entered together as blocks of variables, found that neither the affective attribute block nor the precipitating events block were significant in explaining the variance in the dependent variable.

On the other hand, about a quarter of the variance associated with financial difficulty was explained by a combination of objective attributes, mostly from the variable EARNERS (see above).

It should be noted that virtually the entire sample was overextended at the time that data were collected. The only thing that varied was the degree of financial difficulty experienced. Nine of every ten respondents had back-end ratios in excess of industry guidelines for loan approval and over half had experienced unemployment within the prior year. With so many respondents in similar circumstances and a restricted range of data for many independent variables and the dependent variable, the ability of specific variables to explain financial difficulty was reduced.

- 5) The empirical model of financial difficulty provides only a fair explanation of variance in financial difficulty.

When all of the independent variables were included, the model explained 31.4% of the variance in financial difficulty. The empirical test also established that only one of the variables in the model, EARNERS, was statistically significant at the .05 alpha level. Although the meaningfulness of an R^2 varies according to research area (Pedhazur, 1982) and a social scientist might consider an R^2 of .30 to be large (SAS/STAT Users Guide, 1990), the fact remains that almost 70% of the variance in financial difficulty remains unexplained.

An inspection of data in Table 21 provides some insight into why other variables did not contribute significantly to the model when used in combination with EARNERS. EARNERS had a relatively high (-.496) correlation with the dependent variable, financial difficulty, while other variables had only modest correlations with both the dependent variable and with EARNERS. Thus, most of the variance that other variables shared with the dependent variable was already being accounted for by EARNERS.

In general, predictor (independent) variables should correlate highly with the criterion (dependent) variable but have low correlations among themselves (Hinkle et al., 1988). In this study, however, very weak correlations were found between the independent variables (except EARNERS) and the variable measuring financial difficulty. The lower the correlation between a dependent variable and independent variable, the smaller the portion of total variance in the dependent variable that can be explained.

Another possible reason for the low R^2 in the test of the empirical model is the small sample size and relatively narrow range of values for some of the variables in the analysis. An important regressor can have a large (non-significant) p-value if a sample is small, if the regressor

is measured over a narrow range (see above), or if another closely-related regressor is included in the equation (SAS/STAT Users Guide, 1990). Thus, a larger and more financially diverse sample, including households *not* experiencing financial distress, should be obtained for future studies.

6) Living "on the edge" financially (i.e., inadequate savings and insurance, high debt load) is a dangerous practice.

A need for increased preparedness for financial emergencies is evident from the results of this study. Debt problems often grow slowly as families start living "on the edge" and stay there. Then a crisis or life cycle-related event or economic recession occurs, compounding an already-precarious situation. This appears to have been what happened to many respondents. By the time that data were collected, they had little in reserve.

Having little or no savings is a major problem for many Americans, who have few reserves to sustain them if their income is reduced. Often such people fall quickly into delinquency and/or bankruptcy. Another concern is the long-term financial security of young and middle-aged households, who comprise the majority of this sample. Retirement, as we know it, may become increasingly unaffordable (Pollan & Levine, 1995).

Recommendations For Future Research

The following twelve recommendations are suggested for future research of overextended households, based upon the results, delimitations, and limitations of this study:

1) Replicate the study with populations from other states and non-metropolitan areas.

This study utilized a convenience sample from a high-cost metropolitan suburb in northern Virginia. Replication of this study with populations

from other states and areas with lower living costs would improve the generalizability of results.

- 2) Replicate the test of the empirical model with a more diverse population that includes financially successful households.

As noted previously, it is difficult to predict factors related to financial difficulty when so large a majority of respondents have high debt ratios and other similar circumstances (e.g., low net worth, life events, etc.). Including financially successful households in the sample might improve the prediction ability of the model and the level of significance of additional independent variables.

- 3) Replicate the description of characteristics and practices of overextended homeowners with other highly indebted populations.

A comparison of characteristics and practices of respondents with those of other populations experiencing financial difficulty (e.g., Cooperative Extension, military, or Consumer Credit Counseling Service clients) would provide additional insights into the plight of overextended homeowners.

- 4) Replicate the study with an older population.

Less than 6% of the sample was over 55 years of age. Given increases in household debt levels and use of credit cards, and changes in attitudes about debt over the past three decades (Ritzer, 1995), a comparison of research results with those obtained from an older population of overextended homeowners might indicate differences in objective and/or affective attributes.

- 5) Collect data about the prior financial status of respondents.

Collecting data at a single point in time makes it difficult to assess changes in respondents' financial status. It was not known, for example, how long they had lived "on the edge," lacking adequate

emergency reserves and income to pay household expenses, or how long it took them to get there. Absent a costly longitudinal study, questions should be asked about changes in respondents' financial status since the time that their mortgage was obtained. Results would improve practitioners' understanding of how and why financial problems develop.

- 6) Evaluate further the reliability of indices and individual measures used in this study.

Indices used in this study to measure locus of control, self esteem, and debt management practices have not been adequately assessed, nor have individual measures of independent variables such as the loss or reduction of income. Additional studies using these measures and indices are recommended.

- 7) Explore additional independent variables as predictors of financial difficulty.

Results of this study indicate a large amount of unexplained variance associated with financial difficulty. Other factors that could be included as independent variables in subsequent tests of a revised empirical model are respondents' preparedness for financial emergencies, using an index created from items reported in Table 12, and their use of family and community resources as a method of coping with overextension.

- 8) Collect additional data on affective attributes (e.g., locus of control, self esteem) as they relate specifically to financial management.

While more than 60% of respondents reported a lack of control over their finances and over 80% were dissatisfied with their financial situation, a majority were more satisfied, than not, with all other aspects of their lives. This dichotomy may have influenced scores for affective attributes, such as locus of control. Including items related

specifically to perceptions of control about financial management may provide a better indication of respondents' affective attributes, as they relate to the issues addressed by this study.

- 9) Compare and contrast characteristics of overextended homeowners and renters.

Non-homeowner (renter) households comprise the remainder of the population that completed questionnaires and financial profiles for this study. Analyses could be done to discern any significant differences between renters and homeowners with respect to financial characteristics and practices (e.g., debt ratios, expense ratios, liquid assets).

- 10) Explore the interaction effect of specific variables included in the model of financial difficulty.

It is possible for factors to have joint effects, i.e., a combination of factors may be particularly effective because they enhance the effects of each other (Pedhazur, 1982). Interaction variables derived from variables already in this study could prove significant as predictors of financial difficulty. Some interactions that might be tested for significance include: locus of control and self esteem, expenses for a second mortgage/home equity loan and home improvements, loss or reduction of income and the number of other life events experienced, and total number of creditors and debt management practices.

- 11) Study future changes in overextended homeowners' financial management characteristics and practices.

In future studies, a follow-up survey or interview with respondents at a point in the future (e.g., 2 to 5 years) might provide useful data about additional changes in their financial status and interventions and resources which prove helpful in preventing homelessness.

- 12) Obtain a larger sample and/or increase the number of cases with complete data in replications of this research.

In this study, missing data reduced the amount of information available about characteristics and practices of the sample and prevented over a quarter of the cases from being used in the regression analysis used to test the empirical model. Efforts should be made to request missing data from respondents and to carefully train volunteers involved with data collection to appreciate the research value of information compiled in similar projects. In this study, there were slightly less than 10 usable cases per independent variable, a number considered to be a general guideline to ensure sufficient data for multiple regression analysis (L. Cross, personal communication, February 1994). The more parameters to be estimated, the larger the sample size should be.

Implications

The following are five implications of this research:

- 1) A need for increased preparedness for financial emergencies is evident from the results of this study.

Respondents, on average, had one week's expenses in reserve and almost 90% indicated that they would be in immediate financial difficulty if their income was reduced. Seven hundred dollars, the mean amount of liquid assets, is not an adequate emergency fund. Strategies to make saving relatively "painless," effectively manage household resources, and borrow responsibly need to be taught by Cooperative Extension faculty and others providing financial planning information to youth and adults. Encouragement of responsible financial management practices is also needed by financial services institutions, as well as state or local savings campaigns to convince generations of young adults weaned

on credit cards (Ritzer, 1995) of the importance of establishing a financial nest egg.

This study also suggests that workforce training programs need to be expanded, thus allowing Americans access to improved employment options. Unemployment, or a reduced income due to job cutbacks, was a problem for many sample households. American adults need to sharpen their employment skills to stay "marketable" in the current economic environment. Blind loyalty to one employer, or even one career, can threaten financial security.

The majority of the sample earned less than the Prince William County median income and were not college-educated. Levy and Michel (1991) note that it is harder now for high school graduates to earn their way into the middle class than it was 10 years ago. Additional upgrading of skills may be necessary.

2) Maintaining a home today, especially in an expensive metropolitan area, may not be possible without two earners.

Obtaining a mortgage today increasingly requires two paychecks ("First Time," 1995). Keeping payments current also requires more than one earner, especially in urban "fringe" areas--like Prince William County--where the growth in median mortgage costs surpassed the growth of household incomes (Powers, 1993). In almost two-thirds of the sample, there was only one wage earner at the time that data were collected. Levy and Michel (1991) note that young families without two earners appear to be falling further behind in their efforts to achieve upward mobility. Findings from this study appear to confirm this observation.

3) Consideration should be given by mortgagees to periodic reviews of homeowners' credit files and to a review of lending criteria.

This study demonstrated how quickly homeowners can get into financial difficulty. Over half the sample was less than five years into paying off their mortgage and, yet, the average back-end ratio increased from no more than industry guidelines (36% to 41%) to 93%. A need exists for lenders to monitor the gradual development of such seemingly-drastic changes. The technology already exists to review homeowners' credit files through credit tracking systems available through the three major credit bureaus (Harney, 1994). If credit monitoring was employed routinely by lenders, rising credit card balances and, perhaps, changes in employment status, could be identified more easily than they are currently.

Specific "trigger" mechanisms, such as two or more late payments, could alert mortgagees to possible problems, enabling them to contact homeowners in the early stages of financial difficulty. Proactive remedies could then be developed to prevent foreclosure and default (Harney, 1994). Privacy issues related to accessing credit files are a concern, however. Credit bureaus need to develop safeguards to ensure that information is used for credit tracking purposes only and with the intent to provide remedial, and not punitive, interventions.

Mortgage underwriting standards also need to be reviewed to make sure they are stringent enough to allow only truly qualified borrowers to obtain loans, thus avoiding future financial problems. Back-end ratios of up to 41%, and sometimes higher, if other qualification standards are exceeded, are allowed for some loans. The advisability of allowing households to commit such a high percentage of income for housing may be questionable in some instances.

- 4) Educators, financial counselors, and public policy makers should utilize research results, such as these, to plan and conduct

personal finance programs and services for overextended consumers.

Study results suggest a need for homebuyer education. Over half the sample owned their homes for five years or less, judging from the time remaining on their mortgages. Educational programs need to stress integration of housing costs (PITI) with existing monthly expenses (e.g., car loans) and the need to save money for home maintenance, home improvements, and financial emergencies.

Qualified housing counselors are needed to educate and advise homebuyers, both before and after their housing purchase, in areas of housing finance ranging from pre-purchase decisions to default and homelessness intervention. The new Certified Housing Counselor (CHC) and Accredited Housing Counselor (AHC) designations, developed by the Association for Financial Counseling and Planning Education (AFC News, 1995) are one effort to provide housing counselors with knowledge and skills required to increase their competence.

Another implication of this study is the need to help overextended consumers feel better about, and in more control of, their financial situation. The mean locus of control score indicated only a moderate perception of control by respondents over the outcome of life events. Educators and counselors need to develop and utilize strategies that encourage clients to believe in their ability to control their own destiny.

Finally, public policy makers should consider funding model government programs to empower financially-distressed households to avert a crisis without creating dependency. One such program, the State Homeless Housing Assistance Resources- Homeless Intervention Program (SHARE-HIP) was recently cited by the Children's Defense Fund as an

exemplary program among state government efforts to prevent homelessness ("Homelessness," 1995). The program provides grants to renters or loans to homeowners that may be used for rent, mortgage, or security deposit payments. Qualifying households must have experienced a sudden, unavoidable economic crisis which threatens their housing stability. In addition, the family must verify economic self-sufficiency following the one-time infusion of funds. Innovative intervention programs such as this offer avenues for government assistance to facilitate self-sufficiency among economically vulnerable households.

- 5) The empirically-tested model of financial difficulty provides a basis for theory development and research.

While the R^2 obtained in this test of the empirical model was not especially impressive, descriptive analysis of characteristics and practices of overextended homeowners indicated the presence of a number of factors (e.g., loss or reduction of income, increased debt level from prior year, expenditures for home improvements) that were included in the model. Replications of this measurement of financial difficulty with larger and more financially diverse samples would help to determine systematic patterns which, in turn, could provide a better understanding of factors related to overextension.

According to Reynolds (1971, p.7), "a sense of understanding is provided only when the causal mechanisms that link changes in one or more concepts (independent variables) with changes in other concepts (dependent variables) have been fully described." With much of the financial counseling research to date lacking a theoretical focus (Cook & Lown, 1987), this model provides a conceptual framework for future research efforts. Further research of overextended homeowners can identify factors related to financial difficulty and provide a basis for

financial practitioners and mortgage lenders to develop educational and counseling programs reflective of the needs and characteristics of this audience.

At one time, debt was something to be avoided at all costs, but today people seem to be rushing into debt as quickly and as deeply as possible... Dwindling or nonexistent savings accounts are a big problem for individual Americans. Most people have little or no financial reserves to sustain them if they should find themselves unemployed and without a steady income. In other words, most people are able to survive only from paycheck to paycheck... Such people are likely to descend rapidly into delinquency and ultimately bankruptcy if they should lose their jobs.

Ritzer, 1995, p. 6-7.

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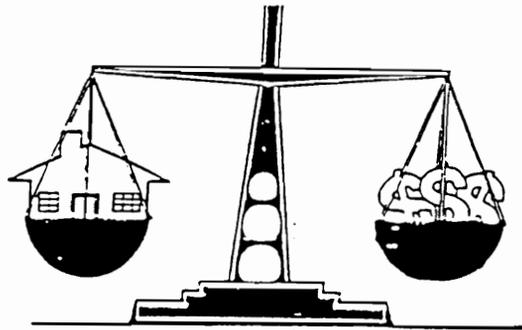
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Appendix A

LEARNING TO
BALANCE



A SURVEY TO BETTER UNDERSTAND FINANCIAL AND HOUSING
CHOICES AMONG PRINCE WILLIAM COUNTY HOUSEHOLDS

LEARNING TO BALANCE

A SURVEY TO BETTER UNDERSTAND FINANCIAL & HOUSING CHOICES

AMONG PRINCE WILLIAM COUNTY HOUSEHOLDS

Recently, much attention has been given to the economy and the ways that families are coping. Unemployment is on the rise. Personal bankruptcies are at an all time high, and are expected to continue to increase. Many people are having trouble making ends meet, regardless of their income level.

*We need your help. This survey asks about your experiences and thoughts on how you and your family are coping in this unstable economic time. Whether you are having financial problems or not, we want to know about your attitudes and practices.

*Your response is confidential. The questionnaire has an identification number only. Your name will never be associated with either the responses or the results.

*Your response will in no way affect your present or future participation in Prince William County Extension programs. By participating in this survey, the research team will learn more about the experiences of individuals and families as they manage their money in today's economy. Learning more about families and their money management will help us design better education programs to help others learn how to manage their money in uncertain times.

*Sharing information about yourself and your money management will help others. By learning about the money management attitudes and practices of people like yourself, we can learn how to identify problems and develop solutions that will help others.

*THANK YOU for participating in this important survey. Please take the time to read all instructions, and each question, carefully. We want to know about your experiences, your thoughts, and your feelings.

Study Conducted By

Prince William County
Virginia Cooperative Extension Service
Virginia Polytechnic Institute and State University
U.S. Department of Health and Human Services

Below are listed events that may occur in life. Place a check in the left hand column for each of these events that have happened to you or a member of your household during the last 12 months.

Note: Every reference to "partner" is intended to include a spouse or significant other with whom you are involved in a long term relationship and are sharing resources.

- | | |
|------------|--------------------------------------------------------------------------------------------------------------------------------|
| <u>V1</u> | 1. Unemployment |
| <u>V2</u> | 2. Reduced income due to job cutback |
| <u>V3</u> | 3. Reduced income due to loss of child support and/or alimony |
| <u>V4</u> | 4. Reduced income due to loss or reduction of public assistance |
| <u>V5</u> | 5. Break up with spouse or partner |
| <u>V6</u> | 6. Pregnancy/birth of a child |
| <u>V7</u> | 7. Chronic illness (mental/emotional/physical) or disability |
| <u>V8</u> | 8. Marriage |
| <u>V9</u> | 9. Reconciliation with spouse/partner |
| <u>V10</u> | 10. Death of a spouse/partner/parent/child |
| <u>V11</u> | 11. Death of a close friend |
| <u>V12</u> | 12. Death of another relative |
| <u>V13</u> | 13. Jail term |
| <u>V14</u> | 14. Changed primary job or employment |
| <u>V15</u> | 15. Legal problems |
| <u>V16</u> | 16. Bankruptcy |
| <u>V17</u> | 17. Unmet medical or health needs |
| <u>V18</u> | 18. Added member(s) to household other than by birth |
| <u>V19</u> | 19. Bought/sold a home |
| <u>V20</u> | 20. Lost housing (eviction, foreclosure, other, etc.) |
| <u>V21</u> | 21. Added expenses of education |
| <u>V22</u> | 22. Retirement |
| <u>V23</u> | 23. Increased financial responsibility for aging parent(s), in-law(s), or other relative |
| <u>V24</u> | 24. Alcohol or drug problems |
| <u>V25</u> | 25. Major expense for a family celebration (wedding, bar mitzvah, etc.) |
| <u>V26</u> | 26. Transportation problems or car troubles |
| <u>V27</u> | 27. Major unexpected expenses |
| <u>V28</u> | 28. Other (please describe) _____ |
| <u>V29</u> | 29. <u>None</u> of these life events have happened to a <u>member of my household or me</u> during the <u>last 12 months</u> . |

Think about your household finances. Circle the response to indicate the extent to which you feel in control of your financial situation.

- V30
1. In control
 2. Almost in control
 3. Moderately in control
 4. Sometimes out of control
 5. Out of control

Think about your life over the PAST YEAR. Considering the scale of "1" to indicate that you are completely dissatisfied to "7" completely satisfied, please circle the response which best represents your life as a whole these days.

		COMPLETELY DISSATISFIED					COMPLETELY SATISFIED	
V31	1. Housing	1	2	3	4	5	6	7
V32	2. Friendships	1	2	3	4	5	6	7
V33	3. Family Life	1	2	3	4	5	6	7
V34	4. Job	1	2	3	4	5	6	7
V35	5. Financial situation	1	2	3	4	5	6	7
V36	6. Health	1	2	3	4	5	6	7
V37	7. Community	1	2	3	4	5	6	7
V38	8. Life in general	1	2	3	4	5	6	7

Individuals and families experiencing financial difficulty often report a number of problems. Circle the response to indicate the extent to which each statement is characteristic of you or your family.

		What is your opinion? (Please circle your answer)			
		1 STRONGLY DISAGREE	2 TEND TO DISAGREE	3 TEND TO AGREE	4 STRONGLY AGREE
V39	1. When purchasing large items, such as an appliance, a car, etc., I have little or no money available for a down payment.	1	2	3	4
V40	2. My household financial records are detailed and accurate.	1	2	3	4

What is your opinion?
(Please circle your answer)

	1 STRONGLY DISAGREE	2 TEND TO DISAGREE	3 TEND TO AGREE	4 STRONGLY AGREE
V41 3. A temporary decrease in household income would likely cause a major financial emergency for my household.	1	2	3	4
V42 4. I have trouble meeting monthly health care expenses.	1	2	3	4
V43 5. If needed, I have disability insurance to replace part of my income.	1	2	3	4
V44 6. If an unexpected financial opportunity arises, I am likely to seize it, rather than follow my overall financial plan.	1	2	3	4
V45 7. Creditors' legal departments or collection agencies have written or phoned regarding my account(s).	1	2	3	4
V46 8. Conversations about money with family, friends, or co-workers make me anxious and uneasy.	1	2	3	4
V47 9. I make spending plans, but I have trouble disciplining myself to carry them out.	1	2	3	4
V48 10. I study and understand the credit statements, credit terms, and determination of finance charges for my loan(s)/account(s).	1	2	3	4
V49 11. Overall, I am more in debt than this time last year.	1	2	3	4
V50 12. I have regularly borrowed money from family, friends, or coworkers to get me through a hard time.	1	2	3	4
V51 13. I worry about the total amount I have to pay each month on my charge accounts, credit cards, and/or other loans.	1	2	3	4
(RC) V52 14. I want to consider as many detailed facts as possible before I make a financial decision.	1	2	3	4
V53 15. I have received overdue notices because of late or missed payments.	1	2	3	4

What is your opinion?
(Please circle your answer)

		1 STRONGLY DISAGREE	2 TEND TO DISAGREE	3 TEND TO AGREE	4 STRONGLY AGREE
V54	16. It costs more for my family to live than what money we have coming in each month.	1	2	3	4
V55	17. I prefer to make current spending decisions based on a long-range financial plan.	1	2	3	4
V56	18. I have some <u>specific</u> financial goals for the future (for example, to buy a new car in two years).	1	2	3	4
V57	19. I worry about being able to meet my normal monthly living expenses.	1	2	3	4
V58	20. I am reluctant to open the mail for fear of finding more bills.	1	2	3	4
V59	21. Purchases, such as clothing or other basic necessities, which were previously paid for with cash are now purchased on credit.	1	2	3	4
V60	22. Simple financial tasks, such as balancing the checkbook or paying bills, are postponed because the thought of it makes me anxious and uneasy.	1	2	3	4
V61 (RC)	23. I would be able to handle a financial emergency that would cost \$500 to \$1,000.	1	2	3	4
V62	24. I can't resist a sale! Sometimes I buy things I truly do not need, but want.	1	2	3	4
V63	25. Once I have made a decision about finances, I immediately take action.	1	2	3	4
V64	26. I sometimes "bounce" checks.	1	2	3	4
V65 (RC)	27. I have an accurate estimate of my actual monthly living expenses and my total debt.	1	2	3	4
V66	28. Money related arguments with family (spouse/partner, children, or others) occur frequently.	1	2	3	4
V67	29. Although I make my payments, I often charge other purchases so my overall debt level rarely goes down.	1	2	3	4

		What is your opinion? (Please circle your answer)			
		1 STRONGLY DISAGREE	2 TEND TO DISAGREE	3 TEND TO AGREE	4 STRONGLY AGREE
V68	30. I have a weekly or monthly budget that I follow.	1	2	3	4
V69	31. I have an overall plan that will help me to reach my financial goals.	1	2	3	4
V70	32. I often spend more money than I have.	1	2	3	4
V71 (RC)	33. I am satisfied with my present standard of living, that is, the things that my income can buy.	1	2	3	4
V72	34. I would have trouble borrowing \$2,000 cash if I needed it.	1	2	3	4
V73	35. "Windfall" money such as a tax return, bonus, or overtime pay is usually committed for an expense before it arrives.	1	2	3	4
V74	36. I have recently opened additional store charge accounts or credit card accounts.	1	2	3	4
V75	37. To help meet expenses, someone in the household (self, spouse/partner, child, etc) has recently taken a part-time job or added overtime hours.	1	2	3	4
V76 (RC)	38. I save a set amount of money on a regular schedule.	1	2	3	4

Using the same scale, circle the response to indicate the extent to which each statement is characteristic of you or your family. If you do not have a credit card, please circle 5.

		What is your opinion? (Please circle your answer)				
		1 STRONGLY DISAGREE	2 TEND TO DISAGREE	3 TEND TO AGREE	4 STRONGLY AGREE	5 No Card(s)
V77	1. I usually pay the minimum payment instead of paying the total balance due on my credit card.	1	2	3	4	5
V78	2. I have gotten cash advances on my credit card(s) to pay money toward other credit balances.	1	2	3	4	5
V79	3. I have had a charge account or credit card cancelled because of failure to pay or repeated late payments.	1	2	3	4	5

The following questions relate to your present housing situation. Please respond to each question by circling the number of the appropriate response.

- V80 1. Do you currently own or rent your home?
1. Own
 2. Rent
 3. Other (For example, living with family or friends, etc. Please specify.)

- V81 2. Have you owned a home (single family dwelling, condominium, mobile home, etc.) in the past?

1. No
2. Yes

3. Think about your housing, whether owned or rented. Using the scale of "1" to indicate relatively worse to "7" to indicate relatively better, please circle the appropriate response.

		WORSE						BETTER
V82	1. My house, compared to other houses in my neighborhood.	1	2	3	4	5	6	7
V83	2. My house, compared to other houses in my community.	1	2	3	4	5	6	7

The following questions are for Homeowners Only. If you do not own your home, skip to the next box of instructions on page 7.

- V84 4. Do you have a mortgage on your home?

- 1 No
- 2 Yes

- V85 5. About how many years are left to pay on your mortgage? (The original length of your mortgage minus the years you have been paying on the mortgage.)

_____ years

- V86 6. Do you have a home equity loan or second mortgage on your home?

1. No
2. Yes

- V87 7. In the last three years, have you made improvements to your home? That is, have you made major repairs, additions, renovations or alterations to your home?

1. No
2. Yes

The following statements describe attitudes and feelings about yourself. Circle the response to indicate the extent to which you disagree or agree with each statement.

		What is your opinion? (Please circle your answer)			
		1	2	3	4
		STRONGLY DISAGREE	TEND TO DISAGREE	TEND TO AGREE	STRONGLY AGREE
V88	1. I feel that I'm a person of worth, at least on an equal basis with others.	1	2	3	4
V89	2. When I make plans, I am almost certain that I can make them work.	1	2	3	4
V90	3. I am able to do things as well as most other people.	1	2	3	4
V91	4. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.	1	2	3	4
V92	5. On the whole, I am satisfied with myself.	1	2	3	4
V93	6. I wish I could have more respect for myself.	1	2	3	4
V94	7. Many times I feel that I have little influence over the things that happen to me.	1	2	3	4
V95	8. I certainly feel useless at times.	1	2	3	4
V96	9. At times, I think I am no good at all.	1	2	3	4
V97	10. What happens to me is my own doing.	1	2	3	4
V98	11. I feel that I have a number of good qualities.	1	2	3	4
V99	12. All in all, I am inclined to feel that I am a failure.	1	2	3	4
V100	13. It is impossible for me to believe that chance or luck plays an important role in my life.	1	2	3	4
V101	14. I feel I do not have much to be proud of.	1	2	3	4
V102	15. I take a positive attitude toward myself.	1	2	3	4
V103	16. Sometime I feel I don't have enough control over the direction my life is taking.	1	2	3	4

HOUSEHOLD INCOME	Income #1	Income #2	Income #3	Income #4	Subtotal
Pay frequency (W=weekly; 2W=every 2 wks; B=bimonthly; M=monthly)					NA
EARNED INCOME					
Gross pay					
Overtime (min. amt. earned on a constant basis)					
FICA					
Federal W/H					
State W/H					
Medical					
Retirement					
Disability/UI					
Allocments (designate with * if item is required deduction)					
Dues					
Other					
NET PAY SUBTOTAL					
OTHER INCOME (designate with * if received on a constant basis)					
Interest/Dividends					
Public Assistance					
Retirement					
Rental					
Child Support					
Spousal Support					
Other					
OTHER INCOME SUBTOTAL					
TOTAL INCOME					

EXPENSES	.Pay- ment	Frequency of Payment*	Monthly Payment	\$ Amt. Past Due	Balance
HOUSING					
Rent/Mortgage					
Second Trust					
Home Equity Loan					
Maintenance & Repair					
Property Taxes					
HOA/Condo Fee					
Property/Rental Insurance					
HOUSING MONTHLY TOTAL					
UTILITIES					
Electricity					
Gas or Fuel					
Water					
Telephone					
Long Distance Telephone					
Trash Collection					
UTILITIES MONTHLY TOTAL					
FOOD					
Groceries					
Business Lunch					
School Lunch					
Misc. Meals Eaten Out					
FOOD MONTHLY TOTAL					

*Frequency of Payment: WK= weekly; MO=monthly; QT=quarterly; SA=semiannually; AN=annually

	Pay- ment	Frequency of Payment*	Monthly Payment	\$ Amt. Past Due	Balance
TRANSPORTATION					
Automobile Payment (1)					
Automobile Payment (2)					
Gasoline					
Maintenance					
Parking Fees, Bus/Metro/Tax, etc.					
Inspections, Tags					
Personal Property Tax					
Automobile Insurance					
TRANSPORTATION MONTHLY TOTAL					
PERSONAL CARE					
Clothing					
Laundry/Dry Cleaning					
Haircuts					
Weight Watchers or Support Group Costs					
Client/Spouse Allowance					
Children's Allowance					
PERSONAL CARE MONTHLY TOTAL					
MEDICAL					
Doctor					
Dentist					
Prescriptions/Birth Control					
Psychological Counseling					
Other:					
MEDICAL MONTHLY TOTAL					

*Frequency of Payment: WK= weekly; MO=monthly; QT=quarterly; SA=semiannually; AN=annually

	Pay- ment	Frequency of Payment*	Monthly Payment	\$ Amt. Past Due	Balance
OTHER INSURANCE					
Disability					
Life					
Other:					
INSURANCE MONTHLY TOTAL					
CHILD CARE COSTS					
Child Care Costs					
Child Support					
CHILD CARE TOTAL					
HOUSEHOLD HELP					
RECREATION/ENTERTAINMENT					
Cable TV					
Movies/Movie Rentals					
Alcohol/Tobacco					
Spa or Health Club					
Subscriptions					
Extracurricular Club Activities (Elks, Moose, Masons, etc.)					
Other (e.g., Hobbies, Recreational Vehicles, Boats/Boat Storage, etc.)					
RECREATION MONTHLY TOTAL					
PET CARE					
Food					
Veterinary					
Grooming					
PET CARE MONTHLY TOTAL					

*Frequency of Payment: WK= weekly; MO=monthly; QT=quarterly; SA=semiannually; AN=annually

	Pay- ment	Frequency of Payment*	Monthly Payment	\$ Amt. Past Due	Balance
SAVINGS AND INVESTMENTS					
Bank Savings Account(s) Payments					
Investment Payments (CDs, Savings Bonds, Money Market Accounts, etc.)					
SAVINGS TOTAL					
MISCELLANEOUS					
Alimony					
Church/Charity					
Holiday/Birthday Gifts					
MISCELLANEOUS MONTHLY TOTAL					
CREDIT CARDS/LOANS					
	Revolving? Y/N	Interest rate			
1)					
2)					
3)					
4)					
5)					
6)					
7)					
8)					
9)					
10)					
CREDIT CARDS/LOANS MONTHLY TOTAL					
TOTAL EXPENSES					
MONTHLY NET INCOME					
MONTHLY EXPENSE TOTAL					
DIFFERENCE					

*Frequency of Payment: W= weekly; M=monthly; Q=quarterly; SA=semiannually; A=annually

ASSETS		Value \$\$	
MONETARY/LIQUID ASSETS			
Checking account			
Savings account			
Credit union			
Mutual funds			
Certificates of deposit			
Other:			
MONETARY/LIQUID ASSETS SUBTOTAL			
INVESTMENT ASSETS			
Stocks			
Bonds			
Government securities			
Annuities			
Pension/retirement			
Cash value—life insurance			
Other:			
INVESTMENT ASSETS SUBTOTAL			
TANGIBLE/USE ASSETS*			
		*Current market value	
Residence (primary/vacation)			
Rental property			
Automobile			
Recreational Vehicle			
Furniture			
Electronics			
Major appliances			
Clothing, etc.			
TANGIBLE/USE ASSETS SUBTOTAL			
TOTAL ASSETS			

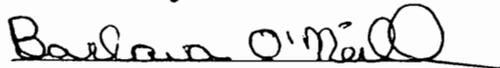
Vita

Barbara O'Neill was born November 23, 1952. A resident of Andover Township, New Jersey, she has been an Extension Home Economist in Sussex County, New Jersey since 1978 and holds the rank of full professor in the Extension Home Economics department at Cook College, Rutgers University. She is the author or co-author of over 40 articles published in professional journals.

In 1990 Rutgers University published How Real People Handle Their Money: 35 Financial Planning Case Studies, a 148-page casebook written by O'Neill. It is being used as a textbook at several universities. Her second book, a tradebook called Saving On A Shoestring, was published in late 1994 by Dearborn Financial Publishing.

O'Neill received her B.S. degree in home economics education from S.U.N.Y. at Oneonta in 1974 and her master's degree in consumer economics from Cornell University in 1978. She received her certified financial planner (CFP) designation in 1985 and completed an advanced CFP course in retirement planning in 1990. She became certified in family and consumer sciences (CFCS) in 1987 and became an accredited financial counselor (AFC) in 1995.

O'Neill has been an officer of the Northern N.J. Society of the Institute of Certified Financial Planners, the New Jersey Home Economics Association, the New Jersey Association of Extension Home Economists, and the National Association of Extension Home Economists. She is currently a member-at-large (1994-96) on the board of the Association For Financial Counseling and Planning Education and 1995-96 president-elect of the New Jersey Association of Family and Consumer Sciences.



Barbara M. O'Neill, CFP, AFC, CFCS