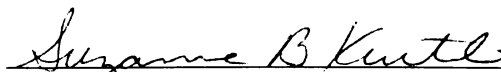
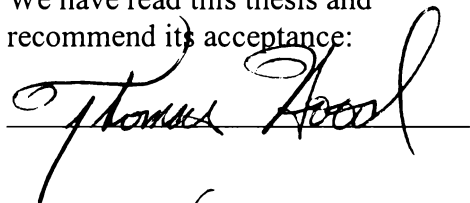


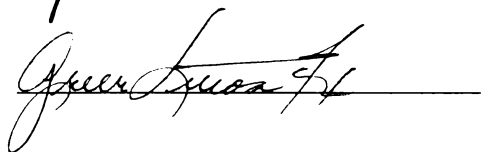
To the Graduate Council:

I am submitting herewith a thesis written by Julie Schluterman entitled "Gender Differences: The Effects of Economic Distress on Subjective Well-being." I have examined the final paper copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Sociology.


Suzanne Kurth, Major Professor

We have read this thesis and
recommend its acceptance:





Acceptance for the Council:


Vice Provost and Dean of
Graduate Studies

GENDER DIFFERENCES: THE EFFECTS OF ECONOMIC DISTRESS ON
SUBJECTIVE WELL-BEING

A Thesis
Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Julie Ann Schluterman
May 2002

DEDICATION

Thesis
2007
2008

This thesis is dedicated to my parents, Kenneth and Cynthia Schluterman, and my siblings, Jennifer, Marie, and Craig, for their support and encouragement. But foremost, this thesis is dedicated to my husband, Ryan Mikles, for believing in me and making it possible that I achieve my goals.

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ABSTRACT

With the emphasis on consumption in contemporary society, there is increasing concern about the consequences of consumers' heavy dependence on credit over the past decade, and about indications of a slowing economy. These concerns in consumerism and use of credit encourage examination of the relationship between financial problems and individuals' sense of well-being.

A review of research into the financial stress and subjective well-being relationship raises questions about the role of gender and the role of satisfaction with financial situation. While previous researchers suggest satisfaction with financial situation to be a significant determinant of subjective well-being, the results are mixed for the impact of gender. The goal of this study is to address the four following questions: (a) What effects if any do objective measures of financial stress, such as being evicted from one's home or repossession of belongings, have on subjective well-being? (b) How do these objective measures of financial stress affect satisfaction with financial situation? (c) What effects if any does satisfaction with financial situation have on subjective well-being? and (d) Are there gender differences in these relationships?

Employing data from a sub sample ($N = 784$) of the 1991 General Social Survey, this study examines overall life happiness, as well as three domain specific types of happiness, i.e. happiness with family, happiness with health, and happiness with friendships. Questions about financial stress include three domains: (a) inability to purchase necessities, such as food, healthcare, or health insurance, (b) experiences of pressure from others to pay bills, such as when one reports pawning valuables to make

ends meet or reports pressure from creditors and bill collectors, and (c) experiences of loss such as when one is evicted from their home, or has belongings repossessed.

Four models (one for each of the types of subjective well-being) are examined. Structural equation modeling is employed to examine the relationships among the measures of financial stress, financial satisfaction, and the subjective well-being indicators, as well as to examine the role of gender in these relationships.

As expected, the results indicate a significant negative relationship between objective measures of financial stress and satisfaction with financial situation, as well as between financial stress and subjective well-being. Yet, the results also indicate that while objective measures of financial stress have negative effects on various types of subjective well-being, satisfaction with financial situation is a more significant determinant of subjective well-being. For all four models, gender did not demonstrate any significant effect on these relationships.

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INTRODUCTION

In the early 1900s, the social theorist Max Weber questioned whether possession of material goods led people to be happy:

"Our capacity to see meaning in the world and to understand our relationship to it has diminished. Paradoxically, the capitalist West has given people conditions of hitherto unmatched material satisfaction, but a civilization of happy people has not emerged. Rather, people complain about the emptiness and spiritual barrenness of their lives" (as quoted in Cuff, Sharrock, & Francis, 1998 p. 59).

A century later, Americans are spending more time working and shopping than ever before, a phenomenon that has been referred to by some as the "cycle of work and spend" (Schor, 1998). For example, many vacations include trips to outlet malls and shopping centers. As such technology as the personal computer and the cellular phone is continually being updated, individuals are encouraged to desire the most advanced and recent styles. Advertisements and the media are sending messages that individuals are dissatisfied even if they are unaware of it, and that they can attain happiness and fulfillment through the purchasing of particular products and services. Consumption has come to be a major characteristic of American society.

Social science researchers explore possible bases for increasing emphasis on consumption. Some argue that individuals are stimulated to consume more by comparing their own consumption levels with others', particularly with individuals with greater consumption levels (Schor, 1998). Others focus on developments, such as consumer credit and the "new means" by which individuals consume. These developments are examined for their effects on individuals and social interaction (Schor, 1998; Ritzer, 1995, 1999). Emotional and cognitive appeals are also identified in the changing

consumption phenomenon. For example, shopping and consumption may be linked to desires for fantasy, romance, and excitement, as well as for defining one's self and one's dreams (Ritzer, 1999; Campbell, 1987; Csikszentmihalyi & Rochberg-Halton, 1981).

Social theorists and family theorists explore the effects of changing consumption patterns on individuals and families. For example, Schor (1998) argues that increased emphasis on working and spending is related to a decrease in the amount of time individuals are spending with their spouses, family members, and others, a change perceived to be related to a weakening of familial ties. Marital research indicates that a large portion of couples cite financial problems and issues (which may be related to overspending) as reasons for arguments and dissension (Conger et al., 1990; Glenn & Supancic, 1984; Kinnunen & Pulkkinen, 1998).

The focus of this project is on how the financial stress that may be an outgrowth of contemporary consumption patterns may be negatively associated with happiness or a sense of well-being. In a culture where happiness is advertised in bottles and diet plans at affordable prices, and economic prosperity is declared, how do men and women subjectively perceive their well-being?

CHAPTER ONE

LITERATURE REVIEW

Social scientists struggle with such concepts as happiness. The research literature relies on seemingly more measurable concepts such as well-being.

Well-Being

Despite being more precise than happiness, well-being is a difficult concept to define. Throughout the social science literature, such terms as “satisfaction” and “quality of life” are used interchangeably with well-being. The measuring of values and the cultural differences that underlie them make research into subjective well-being problematic. Yet, social science researchers continue to find it a useful concept.

An exploration of subjective well-being requires an understanding of the more general concept of well-being. In a 1984 review of the subjective well-being literature, Edward Diener concludes that definitions of well-being consist of happiness, life satisfaction, and “a preponderance of positive affect over negative affect” (p. 543).

Later, in 1991, Ruut Veenhoven expands this definition and identifies nine types of well-being. Veenhoven differentiates well-being as objective (well-being of others), subjective (well-being of self), or mixed (combination of self and others). He further distinguishes well-being as individual (a single person), collective (a group), or mixed (combination of a single person and a group). See table one.

Table 1: Classification of Well-being Concepts

		Objective well-being	Subjective well-being	Mixed conceptions
Individual well-being		Personal qualities	Self-appraisals	
	<i>aspect</i>	Wisdom, stability, hardiness, creativeness, morality, etc.	Job satisfaction, self-esteem, control belief	Ego strength, identity
	<i>overall</i>	Need gratification, self-actualization, effectance	Life satisfaction, contentment, hedonic level	(mental) health, adjustment, individual morale
Collective		Societal qualities	Social (opinion) climate	
	<i>aspect</i>	coherence, justice, equal chances, stability, etc.	acceptance of political order, mutual trust, belief in national progress	Social integration, anomy
	<i>overall</i>	viability, capacity	group morale	Livability
Mixed conceptions				
	<i>aspects</i>	economic prosperity, safety, freedom, equality, etc.	Emancipation	
	<i>overall</i>	welfare, progress	Alienation	well-being in broadest sense

Veenhoven, 1991 p. 9

Analysis of the well-being literature reveals two general assessment approaches.

A researcher using the hedonic perspective views well-being as the absence of pain and the attainment of pleasure. Assessment using this perspective includes asking individuals to calculate a mental list of pain and pleasure experiences, and then to report which experiences are encountered more often (Ryan & Deci, 2001; Kahneman, Diener, & Schwarz, 1999). The second approach to well-being, the eudaimonic approach, views well-being as self-fulfillment and goal attainment (Ryan and Deci, 2001; Diener, Suh,

Lucas and Smith, 1999). From this perspective, the assessment of well-being takes the form of asking individuals to compare their life goals and their definitions of the meaning of life, with their lives thus far. How does it compare? Does one feel that she or he has gotten what she or he wanted out of life? Has she or he realized her or his potential?

Depending upon the assessment approach used, several forms of measurement exist. Measures of well-being can be categorized as either single-item or multi-item scales, and as either domain specific or global. The multi-item scales often times are made up of indicators that measure different components of well-being, such as frequency and intensity. For example, in an attempt to measure retirement satisfaction, Douglas Kimmel, Karl Price, and James Walker (1978) asked subjects to respond on a four point scale ranging from “strongly agree” to “strongly disagree” to such statements as "This is just about the dreariest time of my life" and "I often have a hard time keeping busy." Kimmel, Price, and Walker also asked participants to respond on a three point scale ranging from “often” to “never” such statements as "How often do you miss the feeling of doing a good job?" and "How often do you worry about not having a job to do?"

Single item measurements are usually an overall global assessment, for example: “Overall, would you say that you are ‘very happy,’ ‘pretty happy,’ or ‘not too happy’?” Other assessments are domain specific. Domain specific assessments of well-being identify areas of life, such as one's job or home life. For instance, Jay A. Mancini and Dennis K. Orthner (1980) were only interested in the assessment of one's leisure satisfaction. They asked respondents, "How do you generally feel about the way you spend your available free time?" Respondents' choices were "very satisfied," “satisfied,”

“average,” “unsatisfied,” and “very unsatisfied.” Multi-item scales often include a combination of global and domain specific items. For a review of these scales see Diener, 1984.

Subjective Well-Being and Its Correlates

Of interest to this study is the concept of subjective well-being. Researchers generally agree that subjective well-being is distinct from well-being, in that it is one's self-evaluation. Diener (1984) describes it as "resid(ing) within the experience of the individual" (p. 543). Thus, individuals are asked to use their own value system and cultural interpretations to report their individual states of well-being.

Researchers seek to identify sources of variation in levels of subjective well-being. In the field of psychology, researchers explore the role of personality characteristics, such as self-esteem and locus of control (Reich & Zautra, 1981; Reid & Ziegler, 1980; Klonowicz, 2001; Watson, Hubbard, & Wiese, 2000). Such characteristics as extraversion, low anxiety, neuroticism, and an internal locus of control are associated with higher rates of subjective well-being (Costa & McCrae, 1980; Eysenck, 1990; Klonowicz, 2001). Twin studies and research into dopamine and serotonin levels in the brain provide support for the genetic basis of perceived well-being (Ebstein, et al., 1996; Hamer, 1996).

Much of the sociological research of subjective well-being explores the relationships of demographic characteristics, such as income, marital status, and gender. While demographic characteristics demonstrate consistent significant relationships with subjective well-being, taken together they account for only 3% of subjective well-being variance (Lykken & Tellegen, 1996).

Income consistently has a weak, but significant, positive relationship with subjective well-being. Researchers assess income in multiple ways. Some researchers use income in combination with other socio-economic status indicators, such as working status and education. In his review of thirty years of subjective well-being literature, Reed Larson (1978) concluded that among older Americans the more significant factors affecting subjective well-being were “health, socioeconomic factors, and degree of social interaction” (p. 109). His socio-economic indicators included income, occupational status, and education. Despite arguing that one’s subjective well-being cannot be credited to one of these variables more than another, he pointed out on the basis of his review that “income is the most consistently salient [determinant], with correlations ranging from $r = .1$ to $.3$ ” (p. 113).

Sampling older Americans, J. Mancini and D. Orthner (1980) assessed morale, a related concept to subjective well-being, by measuring attitudes towards aging, feelings of agitation, and lonely dissatisfaction (p. 468). Mancini and Orthner found reported income to be a significant determinant of one’s morale. Kimmel, Price, and Walker (1978) explored the relationship between voluntary and non-voluntary retirement and positive attitudes towards retirement. Recognizing that voluntary retirees reported higher postretirement incomes than the involuntary retirees, Kimmel et al. concluded that income is significantly related to overall retirement satisfaction (p. 579). Also examining the effect of income, G. Spanier and R. Lewis (1980) reported a positive relationship between household income and marital satisfaction.

Although various studies report that income has small, but significant, positive relationships with various types of happiness or satisfaction measurements, research

using trend data provides different results. A. Campbell (1981) reveals that over the years 1946-1978, as the United States experienced an economic boom increasing real income, wealthy individuals, who were already reporting higher rates of happiness than poorer individuals, did not display an increase in their happiness to coincide with the increase in real income (p. 57). Such research demonstrates that one cannot conclude a linear relationship exists between income and subjective well-being, and encourages further research into this relationship.

Education level is also considered a correlate of subjective well-being. While a small, but significant, positive relationship between subjective well-being and education level has been reported, further analysis of this relationship suggests the relationship is an indirect effect explained by such related factors as occupational status and income (Campbell, 1981; Diener, Sandvik, Seidlitz, & Diener, 1993).

Another potential demographic correlate is marital status. Studies consistently conclude that married individuals in the United States and across cultures report more happiness than those never married, divorced, separated, or widowed (Gove & Shin, 1989; Diener, Gohm, Suh, & Oishi, 1998; Mastekaasa, 1994; Stack & Eshleman, 1998). Using meta-analytic techniques, M. Haring-Hidore, W. Stock, M. Okun, and R. Witter (1985) reported an average correlation of .14 between being married and subjective well-being. Some studies have also concluded that marital status is the most significant indicator of subjective well-being (Glenn & Weaver, 1978; Williams, 1988). This relationship is supported by consistent findings that married individuals reported better physical and mental health (Glenn & Weaver, 1979; Gore & Mangione, 1983; Gove, Style & Hughes, 1990). The marital status and subjective well-being relationship

remained significant even when such variables as age, income, health, and number of children were controlled (Glenn & Weaver, 1988; Gove, Hughes & Style, 1983; Mastekaasa, 1994).

The relationship between marital status and subjective well-being can be interpreted in two ways. First, some propose that happy individuals are the ones who are married and stay married (Mastekaasa, 1992, 1994). Second, others argue that it is the benefits of marital status that bring about higher levels of subjective well-being (Waite & Gallaher, 2000).

Economic Stress and Subjective Well-Being

Significant subsets of the subjective well-being literature explore its relationship with economic deprivation, financial satisfaction, and gender. In Patricia Voydanoff's (1990) review of the economic distress literature, she defines economic distress as "aspects of economic life that are potential stressors for individuals and families" (p. 1102). She also suggests that economic stressors consist of four components: "employment instability, employment uncertainty, economic deprivation, and economic strain" (p. 1099). Employment instability and economic deprivation indicate "patterns of employment and changes in income over time" (Voydanoff, 1990 p. 1102). Employment uncertainty and economic strain indicate "perceived employment and financial situation" from the perspective of the individual (Voydanoff, 1990 p. 1102). Voydanoff concludes that each of these components of economic distress exhibit a negative influence on individual adjustment and family relations.

The economic stress literature supports this premise (Washington, 1981; Shapiro, 1993; Fabricatore, 1998). For example, individuals indicated more happiness when

inflation was low (Di Tella, MacCulloch, & Oswald, 2001). Others have explored unemployment rates, and have found that individuals reported more happiness when they were employed and when unemployment rates were low (Di Tella, MacCulloch, & Oswald, 2001; Clark & Oswald, 1994). Yet, others measure economic stress by exploring aspects of debt, finding significant negative effects of debt on individuals (Drentea & Lavrakas, 2000).

This project is concerned with the economic stress created from over consumption. Only those individuals who were employed full or part time were included in the sample, so employment uncertainty and employment instability are not addressed. Yet, this project requires further discussion of Voydanoff's (1990) concepts of economic deprivation and economic strain, here referred to as financial satisfaction.

Economic Deprivation and Subjective Well-Being

Voydanoff (1990) defines economic deprivation as integrating two features of economic distress: "(a) the inability to meet current financial needs and (b) the loss of financial resources and income over a period of time" (p. 1103). Some researchers measure economic stress by including behaviors that indicate economic hardship. A. Shapiro (1993) uses three indicators of financial strain: (a) level of satisfaction with current finances, (b) level of difficulty with making monthly payments on bills, and (c) the extent to which end-of-the month finances are enough to make ends meet. Shapiro reports a negative relationship between economic strain and subjective well-being, which he measures as depression. Similarly, other researchers include a measure of "behavioral adaptations to hardship," such as "sold possessions to pay bills" or "borrowed money from friends or relatives," and observe that economic distress has a significant, negative

impact on both marital relations and marital satisfaction (Conger, et al., 1990 p. 648).

Financial Satisfaction and Subjective Well-Being

In addition to examining behaviors, researchers examine individuals' perceptions of their financial stress. Voydanoff (1990) terms this component "economic strain," and she describes it as a subjective measurement of financial well-being, indicating "perceived financial adequacy, financial concerns and worries, adjustments to changes in one's financial situation, and one's projected financial situation" (p. 1104). R. Easterlin (1995) employed the social comparison theory to argue, "Judgments of personal well-being are made by comparing one's objective status with a subjective living level norm, which is significantly influenced by the average level of living of the society as a whole" (p. 36). Thus, individuals' perceptions of their financial stress will increase or decrease based on their comparison with the economic well-being of others.

Individuals' perceptions of stress concerning their financial situations, measured using a single item with a five point scale, have also demonstrated to be negatively related to levels of marital quality, parental satisfaction, and overall life satisfaction (Pittman & Lloyd, 1998). Thus, as individuals reported higher levels of perceived financial stress, they also reported lower levels of satisfaction in their marriage, in their parenting role, and in their overall life. Fox and Chancey (1998) also found "perceived economic well-being [to be] generally the strongest predictor of measures of individual and family well-being" (p. 725).

Much of the literature suggests significant positive relationships between financial satisfaction and reports of life satisfaction (Diener & Diener, 1995; Gray, Ventis, & Hayslip, 1992; Choi, 2001). P. Clark-Nicolas and B. Gray-Little (1991) find "perceived

economic adequacy” to be “the strongest overall socioeconomic predictor of marital quality” (p. 649). Similarly, C. Broman (1993) finds financial satisfaction to be a significant intervention in the race and marital well-being relationship. Voydanoff (1990) argues that this subjective indicator of economic distress “often serves empirically as a global indicator of economic distress” (p. 1104).

Gender and Subjective Well-Being

Overall Life Happiness

Gender has also been explored for its relationship to subjective well being with mixed results. Some research suggests that in overall global assessments of happiness, women appear to be happier than men (Aldous & Ganey, 1999; Lee, Seccombe, & Shehan, 1991; Wood, Rhodes, & Whelan, 1989). Others argue that these findings conflict with evidence that women are still at an economic disadvantage, that women are less educated than men, and that “depression is more prevalent in women than men” (Diener, Suh, Lucas, & Smith, 1999 p. 292). Researchers assessing subjective well-being as psychological distress report that women have higher levels of psychological distress than men (Haring, Stock, & Okun, 1984; McLanahan, & Glass, 1985). P. Voydanoff and B. Donnelly (1989) find that even when such factors as “work and family role configurations, satisfactions and strains” are controlled, women still report more psychological distresses, such as anxiety and depression, than men (p. 929).

Several explanations may account for these mixed findings. Some argue that women are more likely to express their emotions, while others cite evidence that women experience emotions more intensely (Eysenck, 1990; Fujita, Diener, & Sandvik, 1991). Yet still, others propose that “the broader social context [i.e. women’s increasing presence

in the work force and extent of social support] with a specific focus on family factors needs to be taken into account” in determining any association between gender and subjective well-being (Aldous & Ganey, 1999 p. 158).

While these research results differ in which sex reported greater well-being, in all cases, gender explains a very small amount of the variation in subjective well-being. It accounts for less than 3% and in some cases even less than 1% of the variation. Some researchers report *no* significant relationship between gender and subjective well-being (Andrews & Withey, 1978; Inglehart, 1990; Shmotkin, 1990; White, 1992).

Domain Specific Happiness

Factors contributing to happiness are assessed and compared for men and women. Aldous and Ganey (1999) suggest that the same factors that determine men’s happiness are important in determining women’s happiness. Family life, which includes marital identity, marital satisfaction, and presence of children, is identified as a determinant of happiness. For both genders, Aldous and Ganey found marital identity and marital satisfaction to be significant determinants to happiness. Yet, while for women the presence and number of children was “neither a positive nor a negative factor,” married men exhibited a negative relationship between number of children and happiness (p. 174).

Both genders also place importance on friendships and health in determining happiness. As discussed previously, Aldous and Ganey (1999) also describe job and financial satisfaction as significant determinants of happiness for both men and women, and thus make the suggestion that “no longer does there seem to be a pronounced private or public division between the concerns of women and men” (p. 175).

Another similarity between men and women is reported in the effects of marital status on financial satisfaction. While significant differences exist in levels of financial satisfaction among the various marital status categories, these effects do not differ for men and women (Gorman, 2000). These conflicting findings in the gender and subjective well-being literature support the need for further exploration of this relationship.

Gender and Economic Stress

Researchers also examine gender as a determinant of economic stress. Fox and Chancey (1998) used both measures of financial satisfaction and economic deprivation as indicators of economic stress. In their sample, they found that women as opposed to men are more likely to “feel an income pinch, feel insecure about their financial situations, and feel that unemployment is a ‘problem facing the families of this country’” (p. 735). Their research suggests that women experience lower levels of financial satisfaction. Fox and Chancey (1998) also found women more often than men worry about covering monthly expenses and about cutting “back spending on unnecessary items” (p. 735). In addition, they found significant gender differences in household income (males reporting about \$6,800 more than females), which suggests that the women may have reason to worry (p. 735). These findings imply gender differences in levels of economic deprivation.

Yet, consistent with societal norms, men are viewed by both men and women as having chief responsibility in providing economic support to the family unit (Haas, 1986; Hiller & Philliber, 1986). The expectation that they have greater economic responsibility to the family unit may lead men to experience more economic stress than

women. This could be extended to argue that economic stress is a more significant determinant of well-being for men than it is for women. The conflicting results support the need for further examination of this relationship.

GENDER: Economic Stress and Subjective Well-Being

The focus of this study is to examine gender's role in the economic stress and subjective well-being relationship. While demonstrating the significance of the economic variables, specifically perceived economic well-being, as predictors of several "individual and family outcome" measures, Fox and Chancey (1998) also demonstrate some differences and similarities between men and women. Gender differences appear in the relationship between perceived economic well-being and three dependent variables: psychological distress, marital satisfaction, and family satisfaction. Assessing psychological distress, they demonstrate that, for men, perceived economic well-being is a significant determinant of their psychological distress. On the other hand, perceived economic well-being is a significant determinant of marital or family satisfaction for women. As an indicator of economic deprivation, income is reported to be a significant determinant of psychological distress for men, but not for women.

Similarities in the economic stress and subjective well-being relationship are also described in the literature between men and women. Gender similarities exist in that both men and women demonstrated perceived economic well-being to be a significant determinant of family accord and health (Fox & Chancey, 1998). Similarly, Aldous and Ganey (1999) reported that financial satisfaction and job satisfaction were both important determinants of men's and women's happiness. These findings invite further

examination of the role of gender in the economic stress and subjective well-being relationship.

Narrowed Research Questions

It is assumed that consuming beyond one's means leads to financial stress, and that, in turn, this financial stress has a negative effect on subjective well-being. The significance of this research endeavor is in addressing how one possible outcome of increased consumption may be unhappiness rather than happiness. This study argues that the financial stress it may create should be explored for effects on individuals' well-being.

This research project focuses on the relationships of levels of subjective well-being to financial stress, and to the perception of financial well-being. Thus, what are the relationships between financial stress and different domains of subjective well-being? What role does one's perception of his or her financial well-being play in these relationships? Are these relationships different for men and women? If so, how?

CHAPTER TWO

METHODS

Sample

Data collected by the National Opinion Research Center (NORC) in their 1991 General Social Survey was employed for this project (Davis & Smith, 1992). Several data sets were reviewed, but the General Social Survey was selected because it has two advantages. First, it includes items measuring both financial stress and subjective well-being. Second, the General Social Survey was chosen because of its accessibility. The codebook and data are quickly and easily accessed on-line.

The year 1991 was chosen because the survey used during that year includes a module of financial stress indicators essential to this study, in addition to the subjective well-being items. From the 1991 sample, cases were selected based upon two criteria. First, to include a variety of topics collected longitudinally, the General Social Survey was rotated. Three forms of the GSS were administered, as is the case each year. Each administered form includes the basic survey, in addition to several modules. Thus, within the 1991 sample, cases for this project were first selected based upon whether they had been administered the financial stress and economic hardship module of the GSS.

Second, cases were selected based upon their work status. To explore financial stress created from consuming more than the family earns, the samples used for this study include only those individuals who reported being employed full-time, part-time, or keeping house. The rationale was that this would *exclude* those individuals who were experiencing financial difficulties because of lack of work.

The sample that was employed for this project includes 784 subjects from a probability sample of non-institutionalized United States citizens age 18 or over. Over half of the respondents (60.5%) were employed full or part time, and over half (58.4%) were married. Almost half of the respondents reported receiving less than twelve years of education (49.6%), while a little over forty percent reported receiving some education beyond a high school diploma. A majority of the respondents, 62 %, were women, while 17.4% were non-white respondents. The age of the respondents ranged from 18 to 89, with a mean of 42 and a standard deviation of 14.7. Reported family income was truncated at \$75,000, with a mean of \$33,147 and a standard deviation of \$21,524.

Handling of Missing Data

The statistical literature indicates that incomplete data can have damaging effects on analyses. Besides such problems as a "loss of information" and the dependence of statistical methods on complete data, arguments are made that cases with missing data may be systematically different from those cases with complete data, thus resulting in biased analyses (Little & Schenker, 1995). Across all variables and all cases, 30% of the data is missing in this data set employed in this study. Due to this proportion of missing data and the possible bias this creates, options for handling the incomplete data were further explored for this study.

The literature suggests that, before determining how to handle missing data, certain assumptions about it should be made. The missing data can be assumed to be missing completely at random (MCAR), missing at random (MAR), or non-ignorable (NI). If missing data is missing completely at random, then the cases or individuals with missing data do not differ from those cases or individuals with complete data. King,

Honaker, Joseph, and Scheve (2001) make the analogy of MCAR to individuals deciding to respond based on a coin toss. If missing data is missing at random (MAR), then the cases or individuals with missing data may differ from those cases with complete data, but *not* because of the variable with missing data. For example, those individuals who respond to a question about community risk do not have differences in community risk with those who did not respond to the question. However, these individuals may differ in age or income. If missing data is assumed to be non-ignorable (NI), then the cases with missing data differ from those cases with complete data in terms of the variable with the missing data. Returning to the previous example, the missing data would be non-ignorable if those individuals who did not respond to the community risk item differed in community risk from those individuals who did respond to the community risk item.

After evaluation of the missing value analysis output in SPSS, which compares respondents and non-respondents, the incomplete data of this sample is assumed to be missing at random. Thus, it is assumed that those individuals with incomplete data differ from individuals with complete data, but they differ due to factors other than the variables with missing responses.

Multiple imputation is preferable to other methods, such as listwise and pairwise deletion, mean substitution, and full information maximum likelihood, for many reasons. First, multiple imputation avoids the wasting of information, such as is found in listwise and pairwise deletion methods. Another advantage is that it increases variability by avoiding dependence on a well-defined model to produce the missing value estimates, unlike mean substitution and full information maximum likelihood methods. This increased variability improves the reliability of estimates of all parameters. Third, the

repeated imputation produces a number of complete raw data sets usable to many forms of analyses.

Despite these and many other benefits of multiple imputation, some argue that there is a drawback. Little and Schenker (1995) maintain that:

"Because a single imputed value cannot represent all of the uncertainty about which value to impute, analyses that treat imputed values just like observed values generally underestimate uncertainty, even if non-response is modeled correctly and random imputations are created" (p. 62).

For this study, the advantages of multiple imputation outweigh the disadvantages. Because multiple imputation is considered to be a superior method for avoiding the problems created by incomplete data that is not missing completely at random, replacement by multiple imputation was employed in this study. Multiple imputation was accomplished using Amelia software, while NORM software was used for the combining of the five data sets that were created.

Gary King, James Honaker, Anne Joseph, and Kenneth Scheve created the Amelia program in an effort to handle missing data with less bias and more efficiency¹. Amelia is unique to other multiple imputation programs in its use of the Emis algorithm to compute the missing values. Honaker, Joseph, King, Scheve, and Singh (1999) argue that the Emis algorithm "is between dozens and hundreds of times faster than the leading method recommended in the statistics literature, gives the same answer, and requires no special expertise to use" (p. 2). As suggested, for this project, the missing values were imputed five times, which created five data sets.

Although the NORM program, which was created by Joseph Schafer, can also be

¹ For more information about this software go to www.gov.harvard.edu/graduate/tercer/amelia/am.htm.

used to create multiple imputations, in this study it was used to combine the results obtained from the Amelia program². NORM combined these results by averaging the imputed estimates and then producing slope estimates, standard errors, t ratios, degrees of freedom, and p-values for the entire data set. An advantage of NORM is that it provides a rate of missing information, which allows one to determine which paths were most affected by missing information.

Measures: Exogenous Variables

The financial stress variables were chosen by first scanning the GSS codebook for variables indicating financial stress. In 1991, the General Social Survey included a module of twelve items assessing financial stress and economic hardship. These items were then submitted to exploratory factor analysis. Using exploratory factor analysis, three dimensions of financial stress were identified: needs, bill pressure, and loss.

Needs is a summated scale consisting of “yes” or “no” responses to whether the respondent experienced the following events since February/March, 1990: (a) unable to purchase needed food, (b) unable to afford needed medical care, and (c) lacked health insurance coverage (e.g. Medicate, Medicaid, Blue Cross, an HMO, etc.). A response of “yes” was coded as two, and a response of “no” was coded as one. Thus, the range of scores for this scale is three to six, with higher scores indicating that the respondent had basic needs that she or he could not afford to meet during the last year. The alpha reliability coefficient for this scale is .66.

Bill pressure (*billpres*) is also a summated scale consisting of “yes” or “no” responses to whether the respondent had experienced the following financial events

² For more information go to www.stat.psu.edu/~jls/misoftwa.htm/#env.

during the last year: (a) going bankrupt, (b) pawned or sold-off valuables to make ends meet, (c) pressured to pay bills by stores, creditors, or bill collectors, and (d) major worsening of their financial condition. A response of “yes” was coded as two, and a response of “no” was coded as one. Thus, the range of scores for this scale is four to eight, with high scores indicating that the respondent had bills that she or he felt were difficult to pay. The alpha reliability coefficient for this scale is .62. Loss (*loss*) is based on respondents’ reports of whether they had (a) a car, etc. repossessed during the last year, and (b) been evicted from their apartment/house. High scores on this scale indicate that a respondent had experienced a loss of possessions due to financial difficulties. The range for this scale is from two to four. The alpha reliability coefficient for this scale is .54. Kline (1998) suggests that the alpha reliability coefficients should be at least .50 to exhibit reliability. Thus, these alpha reliability coefficients are deemed acceptable.

Measures: Endogenous Variables

The subjective well-being items were chosen by first scanning the GSS codebook for items indicating subjective well-being. Selected were those subjective well-being items included in the same year as the financial stress and economic hardship items.

In order to indicate overall life happiness (*happy*), individuals were asked, “Taken all together, how would you say things are these days—would you say that you are very happy, pretty happy, or not too happy?” High scores on this global item indicate greater happiness (range is 1-3).

The other indicators of subjective well-being used in this project domain specific. They are based on subjects’ responses to how satisfied they were with three specific areas of their lives. Analysis was limited to these measures of subjective well-being, both to

simplify the project and to reflect previous research. On a 7 point scale individuals were asked about their satisfaction with (a) health, (b) family life, and (c) friendships. These items read as follows: “For each area of life I am going to name, tell me the number that shows how much satisfaction you get from that area.” The responses ranged from a “very great deal of satisfaction” (7) to “none” (1). High scores indicate greater satisfaction.

Intervening Variable

Financial satisfaction (*satfin*) was assessed by asking, “We are interested in how people are getting along financially these days. So far as you and your family are concerned, would you say that you are pretty well satisfied with your present financial situation, more or less satisfied, or not satisfied at all?” High scores on this item indicate greater financial satisfaction (range is 1-3). Means and standard deviations for these and all other variables are available in Table 2.

Models

This study includes four hypothesized models, found in figures one through four, which depict the relationships between financial stress, financial well-being, and subjective well-being. Analysis of Moment Structures (AMOS)³ was used to test the hypothesized models, and to determine significant sex differences.

Each of these models consists of three observed exogenous variables (on the left side of the figure), an intervening variable (in the center), and one observed endogenous variable (on the right side of the figure). The exogenous variables include three scales that indicate three dimensions of financial stress: needs (*needs*), bill pressure (*bilpres*),

³ For more information visit <http://www.smallwaters.com> or refer to Arbuckle and Wothke, 1995.

and loss (*loss*). The intervening variable is the single item indicator of satisfaction with financial situation (*satfin*). The endogenous variable is made up of one single-item indicator of subjective well-being (*happy*, *sathealt*, *satfam* or *satfrnd*).

Each model consists of seven paths that are examined. Three of these paths are those drawn from the exogenous variables of financial stress to the subjective well-being indicator, i.e. *needs* $\rightarrow$ *subjective well-being*, *billpres* $\rightarrow$ *subjective well-being*, and *loss* $\rightarrow$ *subjective well-being*. Three other paths are those drawn from the exogenous variables of financial stress to the intervening variable of satisfaction with financial situation, i.e. *needs* $\rightarrow$ *satfin*, *billpres* $\rightarrow$ *satfin*, and *loss* $\rightarrow$ *satfin*. The final path that is observed in each model is between satisfaction with financial situation and the subjective well-being variable, i.e. *satfin* $\rightarrow$ *subjective well-being*.

Table 2: Means and Standard Deviations for All Variables in the Analysis

Gender	Variables	M	SD
Men	Happy	2.27	.57
	Health	5.63	1.24
	Family	5.82	1.41
	Friends	5.67	1.23
	Needs	3.18	.52
	Bill	4.24	.59
	Loss	2.02	.16
	Financial Satisfaction	2.07	.74
Women	Happy	2.15	.63
	Health	5.27	1.52
	Family	5.94	1.33
	Friends	5.76	1.33
	Needs	3.27	.66
	Bill Pressure	4.37	.79
	Loss	2.02	.16
	Financial Satisfaction	1.92	.71

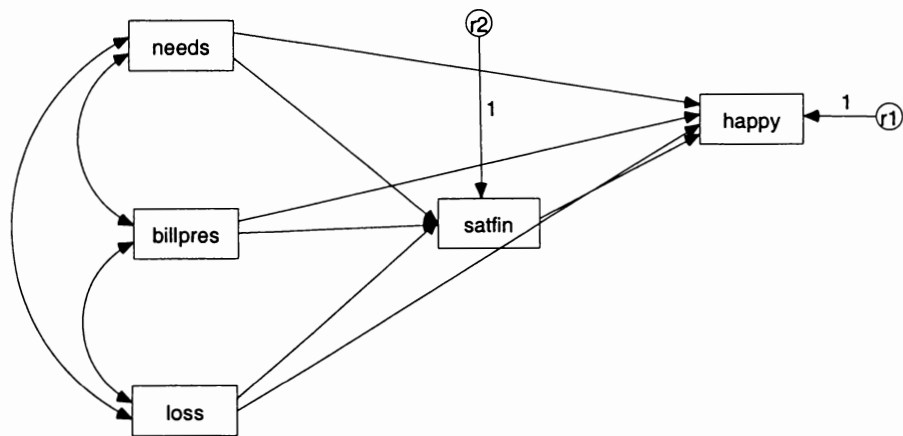


Figure 1: Hypothesized Model of Financial Measures and Overall Happiness

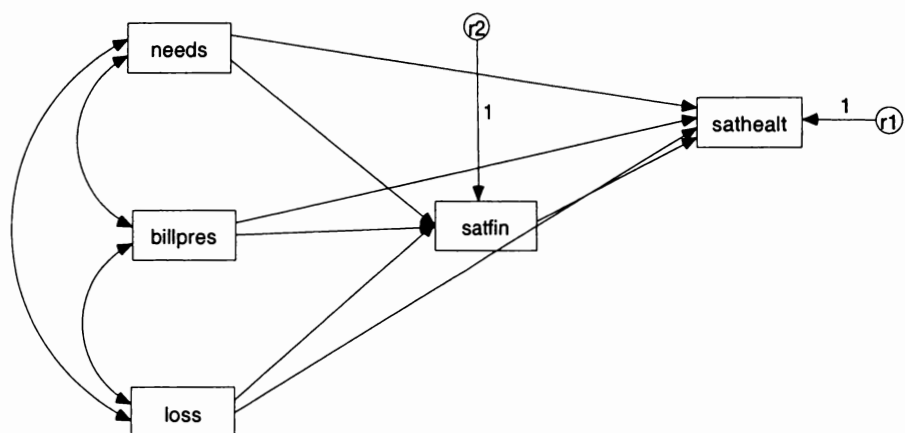


Figure 2: Hypothesized Model of Financial Measures and Satisfaction with Health

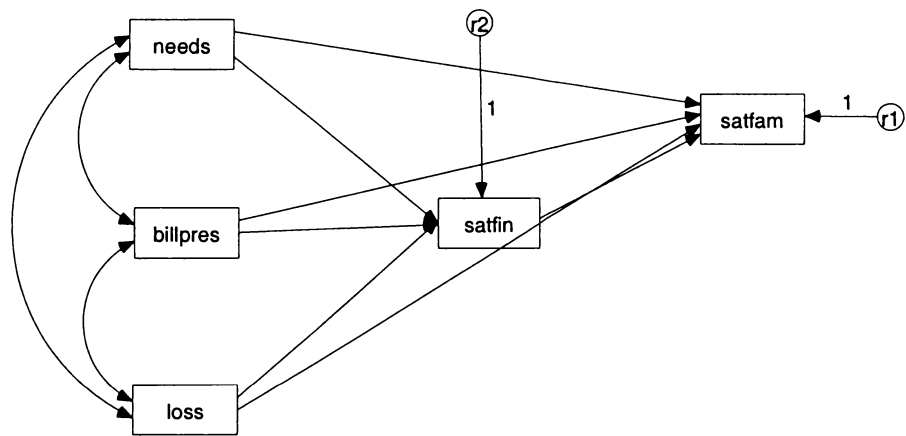


Figure 3: Hypothesized Model of Financial Measures and Satisfaction with Family

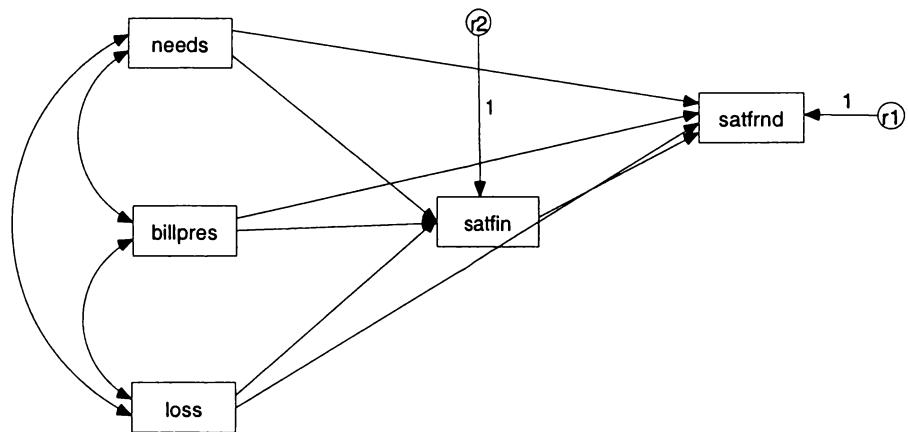


Figure 4: Hypothesized Model of Financial Measures and Satisfaction with Friendships

Analytic Plan

Data analysis was accomplished in two steps. First, AMOS was used to analyze each model with each of the five data sets created by Amelia. Second, each model was analyzed using the NORM combined results.

Analysis of Each Imputed Data Set: Gender Differences and Parameter Estimates

In the analysis of each of the four models for each of the five imputed data sets, there were two objectives. The initial goal was to test for significant gender differences and to describe these differences if they existed. In order to determine gender differences, the sex variable was first designated as the grouping variable. Then, an additional model was created for each of the original models. The original model was the general model in which every path was allowed to vary (men and women differ in these relationships). In the additional model, specified paths were constrained so that they were equal for men and for women (men and women did not differ in these relationships). Thus, for each of the five imputed data sets, two models were tested for each subjective well-being measure, i.e. overall happiness, satisfaction with health, satisfaction with family, and satisfaction with friends. As a result, eight models were analyzed (four subjective well-being measures X two model forms) five different times (five imputed data sets), which resulted in forty separate analyses in this stage of the study.

Significant gender differences were determined by observing which model form (the original model or the constrained model) fits the data better. A good fitting model “is one that reproduces the observed variances/covariances as closely as possible with as few parameters as possible” (Carlson, 2001). The fit of the models was determined

using several different measures indicated by the literature. These measures included the Pearson chi-square, the chi-square divided by the degrees of freedom (CMIN/DF), the Goodness of Fit Index (GFI), and the Root Mean Square Error of Approximation (RMSEA). Two tailed tests were used to determine the significance of the chi-square, and significance was set at the .01 level. The CMIN/DF ranges from three to one for a good fit. The GFI indicates a perfect fit at one, while the RMSEA indicates a good fit at less than .05.

If the original model in which the paths were allowed to vary between men and women fits the data best, it would be concluded that gender differences exist. If the constrained model in which the paths were forced to be equal to one another fits the data better, then it would be concluded that gender differences do not exist.

Once possible gender differences are explored, and the best fitting models are chosen, the second goal of the analysis is to examine the parameter estimates for significant relationships. Observing the standardized β coefficient for each path, two-tailed tests were used to assess the significance of the model parameters. The significance of these coefficients were determined by employing the guidelines of Kline (1998). The parameter estimates for the relationships between the financial stress constructs, satisfaction with financial situation, and the subjective well-being measures, were examined using each of the five imputed data sets.

Analysis of Combined Results

After examining the models using every imputed data set, each of the four best fitting models were analyzed using the combined data set. This was accomplished by entering the estimates and standard errors for each path of an individual model into

NORM. Thus, NORM analysis was performed four times for the four separate models. At this point, the significance of parameter estimates was observed as previously discussed.

Hypotheses

With these purposes in mind, structural equation modeling [Analysis of Moment Structures (AMOS)] was employed to test the hypothesized models for men and women. Using the sex variable as a grouping variable, AMOS provided a measure of the significant differences between the two groups, if differences existed.

Based on the stress and economic stress literature, it is hypothesized that for both men and women the financial stress constructs (*needs*, *billpres*, *loss*) will have direct negative effects on each of the subjective well-being measures in each model. That is, as financial stress increases the subjective well-being measures will decrease. Secondly, it is hypothesized that the financial stress constructs will have a negative relationship with satisfaction with financial situation. It is also hypothesized is that satisfaction with financial situation will have a positive relationship with the subjective well-being measures. Thus as satisfaction with one's financial situation increases, reports of well-being will increase. Finally, it is hypothesized that satisfaction with one's financial situation will be the largest determinant of each subjective well-being measure.

CHAPTER THREE

RESULTS

Discussion of the results begins with analysis of each of the imputations followed by examination of the combined imputation results. The imputation results are categorized and discussed by the four major questions examined. These categories include an examination of (a) gender differences, (b) effects of financial stress on satisfaction with financial situation, (c) effects of financial stress on subjective well-being measures, and (d) effects of levels of satisfaction with financial situation on subjective well-being measures. The results of the combined imputations are also organized by all of the previously stated categories with the exception of gender differences.

Analysis of Each Imputed Data Set

Gender Differences

Analysis of each imputed data set reveals no significant gender differences exist. Across all five imputations, the models, assuming no gender differences, cannot be rejected as reflected in several measures of fit. These measures of fit are summarized in table three.

The chi-squares are not significant, indicating that the models fit the data well. Kline (1998) suggests that the CMIN/DF be less than three for a good fit, while Browne and Cudeck (1992) suggest that an ideal fit is one. Each model has a CMIN/DF less than three, indicating that the model is a good fit to the data. Kline (1998) reports that a Goodness of Fit Index (GFI) of one also indicates a perfect fit. Each model exhibits a GFI score very close to one. Given that Browne and Cudeck (1993) suggest that a Root Mean Square Error of Approximation (RMSEA) score less than .05 indicates an

acceptable fit; these scores also indicate that these models fit the data well. Upon examination of the various measures of fit, it is accepted that there are no significant gender differences in all four models across each imputation.

Financial Stressors → Satisfaction with Financial Situation

The following is a discussion of the underlying hypotheses about the relationships between financial stress, satisfaction with financial situation, and subjective well-being that are revealed in each imputation. Kline (1998) categorizes a standardized coefficient with an absolute value of .10 as “small,” of .30 as “medium,” and .50 or greater as “large” (p. 149). Following Kline’s suggestion, each imputation indicates small, yet significant, negative relationships for the paths *needs → satisfaction with financial situation* (standardized β coefficients ranging from -.092 to -.099) and *bill pressure → satisfaction with financial situation* (standardized β coefficients ranging from -.221 to -.227).

Table 3: Fit Measures of Models Assuming No Gender Differences: Range of Scores Across Imputations

	χ^2	Df	P	CMIN/DF	GFI	RMSEA
Happy	5.57-8.45	7	.20-.58	.80-1.41	.996-.997	.000-.016
Health	2.22-5.88	7	.55-.95	.32-.84	.997-.999	.000
Family	8.78-16.72	7	.02-.27	1.25-2.38	.992-.996	.018-.042
Friends	9.35-15.85	7	.03-.23	1.39-2.26	.992-.995	.021-.040

NOTE: GFI = Goodness of Fit Index; RMSEA = Root Mean Square Error of Approximation

The financial stress variable of loss did not demonstrate a significant relationship with either financial satisfaction or the subjective well-being measures.

Financial Stress → Subjective Well-Being

Across all five imputations, several financial stress effects on subjective well-being were found. The only significant effect from the financial stressors on happiness comes from *bill pressure* (standardized β coefficients ranging from -.074 to -.092). The only significant effect from the financial stressors on satisfaction with health comes from *needs* (standardized β coefficients ranging from -.126 to -.138). Across all five imputations, none of the financial stressors had a significant effect on satisfaction with family. In two of the imputations, *loss* had a significant, negative effect on satisfaction with friends demonstrating standardized β coefficients of -.091 and -.092.

Satisfaction with Financial Situation → Subjective Well-Being

Each imputation indicates a small, yet significant, positive relationship for the path *satisfaction with financial situation → overall happiness* (standardized β coefficients ranging from .217 to .223). Each imputation indicates a small, yet significant, positive relationship for the path *satisfaction with financial situation → satisfaction with health* (standardized β coefficients ranging from .129 to .135). Each imputation indicates a small, yet significant, positive relationship for the path *satisfaction with financial situation → satisfaction with family* (standardized β coefficients ranging from .113 to .126). Each imputation indicates a small, yet significant, positive relationship for the

path *satisfaction with financial situation* → *satisfaction with friends* (standardized β coefficients ranging from .152 to .169).

Combined Results

The results of analyses of each imputation were combined using NORM software and are discussed below. As expected, the NORM analyses show very similar results to the individual imputation analyses.

Financial Stressors → *Satisfaction with Financial Situation*

The financial stress constructs of needs and bill pressure demonstrate significant negative effects on one's satisfaction with his or her financial situation, while loss does not have a significant effect. These are demonstrated in table four.

Financial Stress → *Subjective Well-Being*

Only two of the financial stress constructs demonstrate significant effects on the subjective well-being measures. Bill pressure exhibits a significant negative effect on overall happiness, while needs exhibits a significant negative effect on satisfaction with health. No significant effects were found between the three financial

Table 4: Summary of Financial Stressor Effects on Satisfaction with Financial Situation

	Estimate	T-Ratio	DF	P-Value
Needs→Satisfaction with Financial Situation	-.131	-2.98	23358	.003*
Bill Pressure→Satisfaction with Financial Situation	-.268	-6.97	6071	.000**
Loss→Satisfaction with Financial Situation	.214	1.29	89	.201

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

Table 5: Summary of Financial Stressor Effects on Measures of Subjective Well-Being

	Estimate	T-Ratio	DF	P-Value
Needs→Happy	.400000E-3	.01	17621	.992
Bill Pressure→Happy	-.766000E-01	-2.21	3033	.027*
Loss→Happy	-.236	-1.86	59410	.063
Needs→Health	-.317	-3.43	8518	.001**
Bill Pressure→Health	.226000E-01	.28	66074	.782
Loss→Health	-.858000E-01	-.26	156	.792
Needs→Family	-.149	-1.72	18978	.090
Bill Pressure→Family	.284000E-01	.37	7274	.713
Loss→Family	-.305	-.89	50	.376
Needs→Friends	.114000E-01	.13	2628	.893
Bill Pressure→Friends	.300000E-01	.40	18554	.687
Loss→Friends	-.407	-1.35	191	.178

* p < .05 ** p < .01

stress constructs and the subjective well-being measures of satisfaction with family and satisfaction with friends. These results appear in table five.

Satisfaction with Financial Situation → Subjective Well-Being

Satisfaction with financial situation demonstrates significant positive effects on all four of the subjective well-being measures. These results are displayed in table six.

Table 6: Summary of Effects of Satisfaction with Financial Situation on Measures of Subjective Well-Being

	Estimate	T-Ratio	DF	P-Value
Satisfaction of Financial Situation→Happy	.174	5.64	868989	.000***
Satisfaction of Financial Situation→Health	.226	3.16	270778	.002**
Satisfaction of Financial Situation→Family	.235	3.30	6412	.001**
Satisfaction of Financial Situation→Friends	.297	3.20	66355	.001**

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

CHAPTER FOUR

DISCUSSION AND CONCLUSIONS

The emphasis on consumption in contemporary society is unquestioned. Increased consumption may not produce the positive effects suggested by advertisements or, if it does, the positive effects may be fleeting, rather than enduring. The joy of acquiring goods may be more than balanced by the financial stress that may be produced by contemporary consumption patterns. This project explored the relationship between financial stress and subjective well-being, an individual's sense of how his or her life is. Previous research suggested that this relationship may vary by gender

Based on examination of structural equation models, this study finds financial stress, measured as several types of economic hardship, has significant negative effects on satisfaction with one's financial situation. Additional research into this relationship is needed. For example, there are other objective measures of economic stress that are not included in this study, such as level of difficulty with making monthly payments on bills, and the extent to which end-of-the month finances are enough to make ends meet. Oliver and Shapiro (1995) suggest such a measure as "median net financial assets" as a predictor of financial well-being. How do these other measures of financial well-being affect satisfaction with financial situation? Which types of economic hardship have the most effect on satisfaction with financial situation, for the employed and for the unemployed?

Other findings of this study concur with previous research, in that perceived financial well-being is a more significant predictor of subjective well-being than any of the objective measures of economic hardship (Fox & Chancey, 1998; Pittman & Lloyd, 1988; Clark-Nicolas & Gray-Little, 1991). Stress theory, suggesting that it is the

“perceived strain, rather than the objective circumstances themselves’ that creates difficulties for individuals, is helpful in understanding this finding (Kinnunen & Pulkkinen, 1998 p. 707). Social comparison theory is also useful in understanding this finding, explaining that individuals compare their situation to the situation of others in order to gauge their own well-being. Further research into those variables that affect perception of financial well-being, such as effects from advertising and global communications, is essential.

Although some previous research reported small, but significant, gender differences, some found no significant gender differences. Gender was non-significant in the present study. This finding suggests that men and women have similar experiences of financial stress, similar interpretations of financial well-being, and that these financial matters have similar effects on subjective well-being for men and women.

The lack of gender difference may reflect the increasing presence of women in the workforce, the increasing number of females in the role of supplementary breadwinners, as well as the increasing number of single-headed households. Gender was expected to be important because, overall, women earn lower wages compared to men, and because women most often occupy jobs of lower prestige. The non-significance of gender in this study is also in opposition to reports that women receive inadequate financial consulting and report feeling “frequently demeaned or intimidated during investment decisions” (Dickinson, 1996 p. 68).

Yet, the non-significance of gender can be explained in that any relationship between gender and subjective well-being is most likely mediated by a number of other elements. For example, societal expectations of family roles differ for men and women.

One's role in the family, such as breadwinner or full-time homemaker, may have underlain the gender differences previously reported. Expectations of parental status may also be a contributing variable. Society places great emphasis on parenthood and particular emphasis on women, who are encouraged to be mothers. These societal expectations may be contributing to the gender differences found in subjective well-being.

Another possible contributing element to previous reports of gender differences may be the effects of marital status. Many researchers report significant marital status differences in subjective well-being. Others contend that, because there are different societal expectations of marriage for men and women, these expectations contribute to gender differences in subjective well-being.

Although this study provides valuable insight into effects on subjective well-being, there are limitations to its findings. These limitations stem from the data set and the indicators it includes. First, this sample lacks an extensive number of occurrences of financial stress, thus very few individuals report experiencing bankruptcy, repossession, or eviction.⁴ Second, the measures of subjective well-being are single item indicators while others have used multi-item indicators. This difference in measures between this study and previous research could possibly create the discrepancies found in the results.

This study is also limited in that it does not distinguish between employed respondents and those keeping house. Considering that most individuals who keep house are women, the distinction of these two groups in future research could be valuable for understanding the role of gender in the financial stress and subjective well-being

⁴ This could be a result of the analysis of only employed individuals and those keeping house.

relationship. In the future this study could also be modified to include only those individuals of typical working age in the sample. The results of this study and others may be affected by including individuals older than 62 years of age.

Social scientists are theorizing (e.g., Ritzer, Schor) about the effects of consumption on individuals' financial and emotional well-being, but limited data exist to explore the nature of such relationships. A review of data sets that were available for secondary analysis was conducted during spring 2001. This review revealed that few accessible data sets include such measures of financial stress as used in this study, and even fewer data sets include information on financial stress created specifically by consumption patterns, such as number of credit cards and debt to income ratio. The General Social Survey included these financial stress items only in 1991 in an additional module.

The limited number of people who reported experiencing financial stress suggests that if surveys include financial stress items, then they probably need to include a wider range of items and/or over sample particular groups. The items available for analysis for this study limit the generalizability of its findings.

The importance of such data is becoming increasingly evident. While the present economy is described as shaky and weak, there are concerns about the increasing dependence of consumers on credit. A *Newsweek* article reports that credit card debt has raised an average of \$6000 per household over the last decade, while the amount of income saved per household has dropped to nearly zero (August 27, 2001). In addition to the increasing reliance on credit, increasing consumption, and a slowing economy, this study strongly suggests the need for such data in the future.

The findings of this study suggest that future research should include other variables that may be interacting with gender to affect the financial stress and subjective well-being relationship, such as parental role and marital status. Future research extending this study should also attempt to utilize more recent data, data with more variability in the financial stress measurements, as well as to develop better-quality indicators of subjective well-being and financial stress. For example, the employment of multi-item indicators or indicators of marital conflict and family harmony could be useful.

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See attached CD ROM (plate 1) for Appendix Material.

The CD in the Appendix includes eight files. Four of these provide the AMOS output specific to the four models examined. This output has been pasted into Word documents. The other four files provide the NORM output specific to the four models examined. These should be opened with the NORM program.

VITA

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