

Utah State University

DigitalCommons@USU

---

All Graduate Theses and Dissertations

Graduate Studies

---

5-2014

## The 2007-2009 Recession, Employment, and Housing-Related Financial Stressors, and Marital Outcomes

Robert C. Stewart  
*Utah State University*

Follow this and additional works at: <https://digitalcommons.usu.edu/etd>



Part of the [Family, Life Course, and Society Commons](#)

---

### Recommended Citation

Stewart, Robert C., "The 2007-2009 Recession, Employment, and Housing-Related Financial Stressors, and Marital Outcomes" (2014). *All Graduate Theses and Dissertations*. 3878.

<https://digitalcommons.usu.edu/etd/3878>

This Thesis is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Theses and Dissertations by an authorized administrator of DigitalCommons@USU. For more information, please contact [digitalcommons@usu.edu](mailto:digitalcommons@usu.edu).



THE 2007-2009 RECESSION, EMPLOYMENT, AND HOUSING-RELATED  
FINANCIAL STRESSORS, AND MARITAL OUTCOMES

by

Robert C. Stewart

A dissertation submitted in partial fulfillment  
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Family and Human Development

Approved:

---

Jeffrey P. Dew, Ph.D.  
Major Professor

---

Scot M. Allgood, Ph.D.  
Committee Member

---

Yoon G. Lee, Ph.D.  
Committee Member

---

Shelley Knudsen Lindauer, Ph.D.  
Committee Member

---

Brian K. Warnick, Ph.D.  
Committee Member

---

Mark R. McLellan, Ph.D.  
Vice President for Research and  
Dean of the School of Graduate  
Studies

UTAH STATE UNIVERSITY  
Logan, Utah

2014

Copyright © Robert C. Stewart 2014

All Rights Reserved

**ABSTRACT**

The 2007-2009 Recession, Employment, and Housing-Related Financial Stressors,  
and Marital Outcomes

by

Robert C. Stewart, Doctor of Philosophy

Utah State University, 2014

Major Professor: Dr. Jeff Dew

Department: Family, Consumer, and Human Development

The 2007-2009 Recession impacted millions of Americans. Unemployment and foreclosure rates skyrocketed during these few years. This study examined the potential relationship between these predictor variables and marital satisfaction and divorce proneness. The main objectives of the study were: (1) test for relationships between the recession-related financial problems (employment problems and housing problems) and the marital outcome variables (marital satisfaction and divorce proneness), (2) examine the role of economic pressure as a potential mediator between the main independent and dependent variables, and (3) observe the influence of gender, race/ethnicity, socioeconomic status, and existing debt load as potential moderating variables on the main effect relationships. Data were drawn from the Survey of Marital Generosity (an extant data set collected during 2010-2011) to answer the research questions. This survey

provided a nationally representative sample of married couples ( $N = 1630$ ). Multiple regression analyses were used to examine the hypotheses of the study.

Significant associations were found between housing problems and marital satisfaction and divorce proneness. No significant main effect relationships were found between employment-related financial problems and the marital outcome variables. Economic pressure did provide mediation for the significant housing-related main effect relationships. Likewise, a number of interactions were also discovered. For example, wives were more susceptible to lower marital satisfaction and divorce proneness than were their husbands when faced with housing-related financial problems. Similarly (in the wives' model), lower SES couples were also more likely to have decreased marital satisfaction when they encountered employment-related financial problems.

(134 pages)

**PUBLIC ABSTRACT**

The 2007-2009 Recession, Employment, and Housing-Related Financial Stressors,  
and Marital Outcomes

by

Robert C. Stewart, Doctor of Philosophy

Utah State University, 2014

Major Professor: Dr. Jeff Dew

Department: Family, Consumer, and Human Development

The primary objective of this research study was to examine employment and housing problems (stemming from the 2007-2009 Recession) and to see if there was a correlation between those problems and marital satisfaction and/or the perceived likelihood of future separation or divorce. A second purpose for this study was to see if feelings of financial stress (economic pressure) were mainly responsible for the projected drops in marital satisfaction or increases with divorce proneness. A final purpose for this study was to understand how other factors might additionally influence the relationships between recession-related employment problems and housing problems and the marital outcome variables. These factors included gender, race/ethnicity, socioeconomic status, and existing debt load.

This study found that housing-related financial problems were associated with both lower marital satisfaction and a higher perceived likelihood of future separation or

divorce. The economic pressure variable provided additional understanding regarding why couples with housing-related financial problems were more likely to have less desirable marital outcomes. Likewise, gender, race/ethnicity, socioeconomic status, and existing debt load also provided some modification of the existing relationships between housing-related financial problems and marital satisfaction and divorce proneness. However, this study did not find an association between employment-related financial problems and marital satisfaction or the perceived likelihood of future separation or divorce.

## ACKNOWLEDGMENTS

First of all, I would like to thank Dr. Jeff Dew for his tireless work, patience, and skillful mentoring. I would also like to thank my committee members, Drs. Scot Allgood, Shelley Lindauer, Yoon Lee, and Brian Warnick, for their knowledge, support, and kindness. I also want to acknowledge Rebecca Cheney for her assistance with editing. Lastly, but most importantly, I am appreciative of the love, support, and kindness from my sweet wife and five children. Thank you all!

Robert C. Stewart

## CONTENTS

	Page
ABSTRACT .....	iii
PUBLIC ABSTRACT .....	v
ACKNOWLEDGMENTS .....	vii
LIST OF TABLES .....	xi
LIST OF FIGURES .....	xii
CHAPTER	
I. INTRODUCTION .....	1
Research Questions .....	3
Importance of Current Study .....	4
II. REVIEW OF LITERATURE .....	7
Current Marital Trends .....	8
Marital Satisfaction .....	9
Divorce Proneness .....	10
2007-2009 Recession .....	11
Employment-Related Financial Problems .....	12
Housing-Related Financial Problems .....	14
Impact from the Recession on Individuals and Households .....	16
Earnings Impact .....	16
Retirement Impact .....	17
Health Impact .....	17
Relationship Impact .....	18
Hypothesis 1 .....	21
Family Stress Model of Economic Stress and Marital Distress .....	21
Origins of the Model .....	21
Economic Pressure .....	24

Framing Research Utilizing the Family Stress Model .....	26
Mediating Variables.....	28
Hypothesis 2.....	30
Hypothesis 3.....	30
Contextual Effects.....	29
Gender and the Marriage Relationship .....	30
Hypothesis 4.....	31
Hypothesis 5.....	32
Race/Ethnicity and the Marriage Relationship .....	32
Hypothesis 6.....	34
Hypothesis 7.....	34
Socioeconomic Status and the Marriage Relationship.....	34
Hypothesis 8.....	36
Hypothesis 9.....	36
Debt Load and the Marriage Relationship .....	36
Hypothesis 10.....	37
Hypothesis 11.....	37
III. RESEARCH METHODS AND PROCEDURES.....	40
Data and Sample .....	40
Institutional Review Board Approval .....	41
Research Design.....	41
Measures .....	42
Dependent Variables .....	42
Independent Variables .....	43
Data Analysis .....	46
Assumptions.....	46
Hypothesis Testing.....	49
IV. RESULTS .....	52

Descriptive Statistics.....	52
Main Effects.....	54
Main Effects Research Questions and Hypothesis .....	54
Main Effects Models.....	55
Main Effects Conclusion.....	57
Mediating Effects.....	58
Mediating Effects Research Questions and Hypotheses.....	58
Mediating Effects Models.....	58
Mediating Effects Conclusion.....	62
Interaction Effects.....	63
Interaction Effects Research Questions and Hypotheses.....	63
Interaction Effects Models.....	63
Interaction Effects Conclusion.....	71
Gender Hypotheses.....	71
Race/Ethnicity Hypotheses.....	73
Socioeconomic Status Hypotheses.....	75
Existing Debt Load Hypotheses.....	75
Logistic Regression Analysis.....	76
V. SUMMARY AND DISCUSSION .....	84
Main Effect Hypothesis .....	84
Mediating Effects Hypotheses .....	89
Interaction Effects Hypotheses .....	91
Gender.....	91
Race/Ethnicity.....	93
Socioeconomic Status .....	96
Existing Debt Load .....	98
Limitations .....	99
Conclusion .....	102
REFERENCES .....	105
APPENDIX.....	117
CURRICULUM VITAE .....	119

## LIST OF TABLES

Table	Page
1	Family Stress Model and Associated Contributions to the Literature .....29
2	Hypotheses for the Current Study.....38
3	Descriptive Statistics.....53
4	The Association Between Employment Problems, Housing Problems, and Marital Satisfaction and Divorce Proneness .....56
5	Economic Pressure.....60
6	The Mediating Variable of Economic Pressure on Marital Satisfaction and Divorce Proneness for Wives.....61
7	The Mediating Variable of Economic Pressure on Divorce Proneness for Husbands.....62
8	The Association Between Employment Problems, Housing Problems, and Marital Satisfaction and Divorce Proneness for Wives .....64
9	The Association Between Employment Problems, Housing Problems, and Marital Satisfaction and Divorce Proneness for Husbands.....66
10	The Association Between Employment Problems, Housing Problems, and Divorce Proneness for Wives and for Husbands (Using Logistic Regression) .....78
11	The Mediating Variable of Economic Pressure on Divorce Proneness for Wives (Using Logistic Regression) .....79
12	The Mediating Variable of Economic Pressure on Divorce Proneness for Husbands (Using Logistic Regression).....80
13	The Association Between Employment Problems, Housing Problems, and Divorce Proneness for Wives (Using Logistic Regression) .....81
14	The Association Between Employment Problems, Housing Problems, and Divorce Proneness for Husbands (Using Logistic Regression).....82

## LIST OF FIGURES

Figure	Page
1 Hypotheses 1-3.....	21
2 Conger’s family stress model.....	23
3 Hypotheses 4-11.....	32
4 Interaction of wives’ housing problems and the race/ethnicity (Hispanic) on marital satisfaction.....	68
5 Interaction of wives’ employment problems and SES on divorce proneness.....	69
6 Interaction of wives’ housing problems and the race/ethnicity (other) on divorce proneness.....	69
7 Interaction of husbands’ housing problems and existing debt load on marital satisfaction.....	70
8 Interaction of husbands’ housing problems and the race/ethnicity (other) on marital satisfaction.....	71
9 Interaction of husbands’ employment problems and the race/ethnicity (Black) on divorce proneness.....	72
10 Interaction of husbands’ housing problems and the race/ethnicity (other) on divorce proneness.....	72

## **CHAPTER I**

### **INTRODUCTION**

According to the National Bureau of Economic Research, the greatest recession since the Great Depression began, officially, in December of 2007 (Fligstein & Goldstein, 2009) and ended in June of 2009 (Hurd & Rohwedder, 2010). Numerous Americans were impacted by this economic calamity and the fallout can still be felt today for many individuals and throughout many households.

Hurd and Rohwedder (2010) suggested that the principal events leading up to the recent recession were the housing bubble (i.e., inflated housing prices due to demand, speculation, and an overly optimistic view of the future) and a simultaneous stock market bubble. These problems ultimately led to the financial crisis known as the “Great Recession.”

Another main cause of the 2007-2009 Recession centered on the mortgage securitization industry (Fligstein & Goldstein, 2009). Securitization is the financial practice of bundling contractual debt and selling this debt as bonds or pass-through securities to investors. At its high point, the financial sector represented 40% of the profits and 10% of the labor force in the United States economy and the mortgage securitization industry was a large slice of this financial sector. Fligstein and Goldstein noted, “These profits were mostly being made from businesses centering on and related to the selling of mortgages and the creation of various forms of mortgage-backed securities and related financial products” (p. 2). However, towards the end of 2006 and the beginning of 2007, the financial sector of the economy began to fall apart. This

created a devastating trickle-down effect where the banking system was threatened. As the banks began to fail, access to credit (both personal and commercial) became harder to obtain. This economic uncertainty led consumers and businesses to curtail their spending and, resultantly, the economy sunk into the greatest financial crisis since the 1930s.

Fligstein and Goldstein (2009) offered the following low points for the recession. With regard to the stock market, the Dow Jones industrial average bottomed out at 6,547 points during March of 2010 (a drop of 53% from the October 2007 high point of 14,164). Likewise, 4.3 million workers were displaced from their jobs during this recession with the worst stretch taking place during the last quarter of 2008 and the first quarter of 2009. During that time period 700,000-800,000 jobs were lost each month. Finally, in an attempt to tide the financial storm, President Obama and Congress approved a stimulus package worth upwards of \$985 billion during February of 2009.

The collapse of the housing market and widespread unemployment had an impact on individuals' earning potential (Aaronson, Mazumder, & Schechter, 2010), ability to retire (Hurd & Rohwedder, 2010), and overall health (Katz, 2010). In each of these respective areas, numerous people were adversely influenced.

While more is known about the above referenced financial costs of this large recession, much less is known regarding the impact of the recession on family relationships in general and the marriage relationship in particular (Dew & Xiao, 2013). The intent of this research is to help fill in the gap regarding the relationship impact stemming from financial stressors associated with the recent recession. Specifically, the influence of two recession-related stressors, employment-related financial problems and

housing-related financial problems, on marital satisfaction and divorce proneness are examined.

In this study, employment-related financial problems is utilized as one of the main independent variables. The other predictor variable is housing-related financial problems (i.e., foreclosure or being in arrears with one's mortgage). The first outcome variable is marital satisfaction, while the second dependent variable is the perceived likelihood of eventual separation or divorce. Economic pressure is considered as a mediating variable between the proposed main effects. This is done using the family stress model (Conger, Elder, Lorenz, & Conger, 1990). Likewise, gender, race/ethnicity, socioeconomic status, and debt load are evaluated as possible moderating variables.

In order to answer the research questions, national data from the Survey of Marital Generosity (approximately 1,400 pairs of married individuals) are utilized. These married adults range in age from 18-55 and reside in the United States. This data set is ideal because it contains relevant questions regarding the independent variables (housing issues and job loss) as well as the dependent variables (marital satisfaction and divorce proneness).

### **Research Questions**

Utilizing the recent economic climate as the backdrop, the purpose of this research is to answer a variety of salient questions. First, what is the relationship between employment-related financial problems and marital satisfaction? Next, what is the association between recession-related employment problems and divorce proneness?

Likewise, what is the relationship between housing-related financial stressors and marital satisfaction? Similarly, what is the association between housing-related financial stressors and divorce proneness?

Further, assuming the above relationships exist, another purpose of this study is to examine the role of economic pressure as a mediator between the selected independent and dependent variables (Baron & Kenny, 1986). Accordingly, will economic pressure account for most or all of the anticipated negative relationship between employment-related financial problems and marital satisfaction? Likewise, will economic pressure explain most or all of the projected positive association between recession-related employment problems and divorce proneness? Further, will the feelings of economic pressure explain the negative relationship between housing-related financial stressors and marital satisfaction? Finally, will economic pressure explain the positive association between housing-related financial stressors and divorce proneness?

As a final purpose for this research study, the influence of gender, race/ethnicity, socioeconomic status, and existing debt load will be examined as possible moderating variables (Baron & Kenny, 1986). Specifically, will the presence of these variables change the strength or direction of the relationship between the employment-related and housing-related financial problems and the marital outcome variables?

### **Importance of Current Study**

Millions of married Americans were heavily impacted by this contemporary economic disaster. This study will provide important contributions to the current body of

literature as potential marital challenges for couples who experienced financial distress stemming from this recession are evaluated.

This study builds on previous research in a number of ways. First, prior research (Conger et al., 1993, 2002; Conger, Rueter, & Elder, 1999) evaluated the family stress model utilizing non-national samples. Two of these studies (1993 and 1999) utilized couples from rural cities in the Midwest. The 2002 study drew on samples from just two U.S. states. This current study tests the family stress model with a larger national sample of married adults with randomly selected respondents from all 50 states. Thus, in part, this research fulfills the role of replicating Conger's original research studies using national data.

Likewise, this study is unique as it considers the role of financial pressure caused by recent economic events. Liker and Elder (1983) examined the role of financial pressure during the Great Depression of the 1930s. Similarly, other scholars have examined the relationship between the Korean economic crisis of the late 1990s and economic pressure and marital quality (Kwon, Rueter, Lee, Koh, & Ok, 2003) and the relationship between financial strain and marital problems stemming from the 2001 Turkish economic crisis (Aytac & Rankin, 2009). This study utilizes a contemporary U.S. economic crisis, the largest since the Great Depression, in order to better understand the relational outcome created by prevalent financial strain. Thus, this study will play an important role in understanding how marriages have already been impacted due to the 2007-2009 Recession. Additionally, as financial strain from the recent recession continues to plague many Americans, this study will provide insight into relational

challenges that many couples may yet experience.

Additionally, little is known regarding the impact of housing-related financial problems on the marital relationship (Nelson, Delgadillo, & Dew, 2013). While Nelson et al. (2013) examined the relationship between mortgage (or rent) burdens and marital quality, the impact of housing-related financial stressors on marital quality is yet uncharted. Likewise, research has not linked housing-related financial problems and divorce proneness. The 2007-2009 Recession has seen many Americans fall behind on mortgage payments and lose their home to foreclosure. As such, the relationship between housing-related financial problems (mortgage foreclosure or falling behind on mortgage payments) and relationship satisfaction is as salient as it is understudied.

While there is more research highlighting the impact of recession-related employment problems on relationship satisfaction (Conger et al., 1990; Rook, Dooley, & Catalano, 1991; Vinokur, Price, & Caplan, 1996), less is known regarding contemporary couples. The current study fills an important gap in the literature as potential associations between these stressors (employment-related financial problems and housing-related financial problems) and the marriage relationship are identified.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

This chapter begins with a review of the literature associated with the dependent variables: marital satisfaction and divorce proneness. Then the focus is on the 2007-2009 Recession – including the recession-related stressors of employment-related financial problems and housing-related financial problems. These stressors comprise the independent variables for this study.

Next, there is an overview of the family stress model (Conger et al., 1990, 1999). Then, an examination of Conger and colleagues' 1990, 1993, and 1999 studies as well as their 1994 book will follow. In these studies they highlight the tenets of the family stress model. There will also be a review of other studies that have utilized Conger's model as the framework for additional family research. As previous researchers have found the family stress model to be a helpful framework for linking financial pressure to economic pressure and ultimately marital conflict (Dew & Yorgason, 2009), the case will then be made for utilizing this family stress model to guide this research study. The next portion of the chapter will be devoted to a review of economic pressure as it is a key component of the family stress model. Finally, a case will be made for using economic pressure as a mediating variable in this analysis.

This chapter concludes by considering a number of moderating variables to be used for this study. In doing so, pertinent literature is reviewed regarding gender, race/ethnicity, socioeconomic status, and debt load.

## **Current Marital Trends**

While this study examines marital satisfaction and divorce proneness, social changes have occurred that might influence contemporary couples' marriages. Compared with earlier generations, couples, on average, cohabit more frequently, marry later, have children later, and have fewer children (Cherlin, 2010; Manning, Brown, & Payne, 2014). Similarly, modern couples are more likely to have cohabited before marriage (Manning et al., 2014), are better educated and have more economic resources (Amato, 2014). Relatedly, educational level has become a stronger predictor of both marriage and divorce during the last decade (Cherlin, 2010).

Likewise, workforce participation and demand has changed for recent birth cohorts. Wives are now more likely to be employed and to contribute a greater proportion of the family's income (Helms, Walls, Crouter, & McHale, 2010). Further, both husbands and wives experience increased job demands as compared to previous generations. Couples have reported more egalitarian family decision-making and are also less likely to hold to traditional gender roles (Jackson, Miller, Oka, & Henry, 2014).

Contemporary marriages differ from marriages of previous generations. The past few decades have seen a variety of positive and negative forces which have influenced both marital satisfaction and divorce proneness (Amato, 2014). As marital satisfaction and divorce proneness are the dependent variables for this research, both topics will be reviewed next.

## **Marital Satisfaction**

There are a number of variables that influence marital satisfaction. Rogers and Amato (1997) noted that work/family conflict, gender-role attitudes, and premarital cohabitation were all associated with marital satisfaction. In a 2011 study, Archuleta, Britt, Tonn, and Grable noted that religiosity was also significant in explaining marital satisfaction. Story and Bradbury (2004) added that exposure to stress was correlated with marital dissatisfaction. Self-esteem was likewise shown to be an important determinant in marital satisfaction (Britt, Grable, Goff, & White, 2008). Couples' attitudes towards divorce also played a role in marital satisfaction as couples with favorable attitudes toward divorce were more likely to experience declines in marital satisfaction, while couples with less favorable attitudes towards divorce often experienced improvements in their marital satisfaction (Amato & Rogers, 1999). Parenthood is another variable found to play a significant role in marital satisfaction (Clements, Martin, Cassil, & Soliman, 2011). These researchers noted that parents report lower marital satisfaction than non-parents. Further, couples with more children report lower marital satisfaction than couples with fewer children (Twenge, Campbell, & Foster, 2003).

While there are a number of factors that contribute to marital satisfaction, central to this study, the literature also suggested that financial issues are key factors in marital satisfaction (Dakin & Wampler, 2008). This study will focus on both the direct relationship between financial stress and marital satisfaction as well as the indirect relationship between these variables.

## **Divorce Proneness**

This study utilizes divorce proneness (the perception that a marriage may end in divorce) as the other main outcome variable. Research has shown that there are a number of variables that made certain couples more likely to divorce than others. These variables include marrying at an early age, having stepchildren in the household, holding liberal family values, being accepting of divorce as an option, cohabiting with other partners prior to marriage, and having divorced parents (Amato & Hohmann-Marriott, 2007). Likewise, while the divorce rate has been declining over the last few decades for college educated couples, this decline had not been the case for couples without college degrees (McLanahan, 2004). Thus, education, or a lack thereof, was another risk factor associated with divorce proneness (Amato, 2010).

Other risk factors include having divorced parents and viewing marriage in terms of rewards. Likewise, parental divorce approximately doubled the likelihood that their children would end up divorced (Amato & DeBoer, 2001; Whitton, Rhoades, Stanley, & Markman, 2008). Previti and Amato (2003) also argued that couples who viewed marriage in terms of various rewards (such as love, friendship, and good communication) were less likely to contemplate a termination of their marriage than were those who viewed marriage as an absence of better alternatives.

Changing societal attitudes have also increased the likelihood of divorce for many couples. Previti and Amato (2003) noted that the social stigma to divorce, which acted as a strong deterrent in generations past, had been largely dissolved since the early 1980s. In fact, even some couples who self-identified as having a great marriage have considered

divorcing at times during their marriage (Tulane, Skogrand, & DeFrain, 2011). Not surprisingly, there were also a number of studies referencing the relationship between financial issues and divorce (e.g., Dew, 2011; Dew, Britt, & Huston, 2012; Grable, Britt, & Cantrell, 2007; Rogers, 2004). This study will focus on both the direct relationship between financial stress and divorce proneness as well as the indirect relationship between these variables.

As noted above, there are many factors that can affect a couple's relationship satisfaction. Likewise, numerous variables influence marital stability. The current study specifically hones in on financially-related predictor variables that stemmed from the 2007-2009 Recession.

### **2007-2009 Recession**

The severity of the 2007-2009 Recession reflected the fact that this downturn was much more than a trough in a typical business cycle. It was, in fact, an economic crisis (Fligstein & Goldstein, 2009). The implications of this crisis were far-reaching, ranging from the economic to the political to the psychosocial. According to Hicks and Kingson (2009), "no individual, business, profession, or political organization [was] untouched; the impacts of the crisis [had] been sudden and many will have long-term effects" (p. 7). This recession provided the highest unemployment rate in the United States since the Great Depression (Katz, 2010). Likewise, many Americans faced mortgages that exceeded the value of their homes, leading many to default on their loans (Hicks & Kingson, 2009).

Fligstein and Goldstein (2009) noted that roughly 40% of U.S. households were impacted by unemployment, negative home equity, and falling behind on mortgage payments or foreclosure. Aside from being so prevalent during this latest recession, employment problems and housing problems are especially pertinent to this current study. These two factors are reviewed next.

### **Employment-Related Financial Problems**

Every indicator relating to the labor market and unemployment suggested that the latest recession was unique in both its depth and duration (Aaronson et al., 2010; Elsby, Hobijn, & Sahin, 2010; Fligstein & Goldstein, 2009; Katz, 2010). Job loss during the recent recession reached historic post-war highs (Aaronson et al., 2010; Elsby et al., 2010; Fligstein & Goldstein, 2009). Unemployment numbers leapt from 4.8% at the end of 2007 to 9.7% during the final quarter of 2009 (Katz, 2010).

Not only were more individuals directly impacted by job loss during this great recession, but the average length of time for those unemployed averaged more than 30 weeks (longer than any average length of unemployment since World War II). During the last unemployment spell of 10% or higher, (during the early 1980s), 2.6% of the labor force was long-term unemployed – or unemployed for longer than 26 weeks. The recent recession saw much larger numbers of long-term unemployment with 4% of the labor force unemployed for greater than 26 weeks, comprising 40% of the unemployed (Aaronson et al., 2010).

While jobless rates reached historical postwar highs for all groups in the labor market (Elsby et al., 2010), unemployment rates impacted certain groups more than

others. Katz (2010) reported that the rise in unemployment, resulting from the most recent recession, had disproportionately affected men, younger workers, and less-educated workers. Katz added, however, that the crisis has been so severe that adverse effects were felt by virtually every group of workers in all regions of the country. And, for those groups hit the hardest during the recession, the news remained somewhat disconcerting as the odds of finding a job lessened as the unemployment duration increased. Aaronson et al. (2010) further noted that long-term unemployment generally persisted at a high level even after the economy began to recover, as those who had been long-term unemployed were often the last to be considered for hire.

Importantly, the breadth of those impacted and the duration of the unemployment were not the only employment-related financial problems stemming from this economic downturn. According to Elsby and colleagues (2010), “Rates of exit of unemployed workers from joblessness have slowed to record levels” (p. 30). Further, the traditional unemployment rate did not adequately capture the scope of the unemployment problem. Conventional unemployment rates during the recent recession did not account for the sizeable number of underemployed individuals (those involuntarily settling for part-time jobs or jobs well below their education or skill-set). Likewise, conventional unemployment rates did not account for the large increase of discouraged workers who dropped out of the labor force and no longer counted in the official unemployment rate numbers (Katz, 2010).

To make matters worse, during recessions, job loss had historically been a much larger stressor to an individual because of the difficulty in finding a replacement job

(Rothstein, 2011). According to Katz (2010), this trouble was further enhanced for a few key reasons. First, the ability for Americans to be able to move in order to chase a job (geographic mobility) had been decreasing for the last two decades and fell precipitously during the recent recession. The housing market crisis created frequent cases where steep declines in house value led to negative-equity scenarios for the homeowners and, thus, reduced job-seeking mobility. Next, budgetary problems for many states and families impacted the ability for individuals to pursue the education and training necessary to effectively pursue vacant jobs. Finally, Katz noted that persisting credit market problems stifled probable job creation by limiting opportunities for job creation (for both new start-up companies as well as expansion within existing organizations). While job loss affected many Americans in a variety of ways, the relationship between employment-related financial problems and marital satisfaction will be discussed later in the chapter.

### **Housing-Related Financial Problems**

The rapid decade long increase in housing prices not only fueled the economy between 1997 and 2007, but it also set the stage for economic disaster (Fligstein & Goldstein, 2009). These authors noted that inflation-adjusted home prices remained relatively constant for almost a half century (1950 to 1997). However, beginning in 1997, the inflation-adjusted home prices increased dramatically (peaking in 2006) at approximately 160% of the expected average. Certain states (Arizona, California, Florida, and Nevada) experienced even more rampant price increase for their homes (Fligstein & Goldstein, 2009).

As noted formerly, the housing bubble did burst. Beginning in 2006, home prices began to free-fall in the four states mentioned previously dropping by an average of 25%. Housing prices also decreased throughout the rest of the country, though not as dramatically. Consequently, beginning that same year, foreclosure rates began to increase (Fligstein & Goldstein, 2009).

Compounding the impact of this sudden drop in home prices was the number of individuals who had purchased subprime mortgages – which were often accompanied by adjustable interest rates. These adjustable interest rates would reset dramatically every two or three years. Subprime consumers would often utilize the strategy of refinancing in order to avoid these ballooned interest rates (while utilizing the ever appreciating home value as their collateral). Thus, many Americans found themselves in trouble as home prices fell at the same time that their mortgage interest rates adjusted. This left many homeowners facing payments that they could not afford (Fligstein & Goldstein, 2009).

While this crisis largely began within the subprime mortgage community, the nationwide drop in home prices began to impact homeowners with more traditional mortgage interest rates as well (Fligstein & Goldstein, 2009). These authors further noted that, by the end of 2009, over 15% of all mortgages were either delinquent or in foreclosure. The subprime market was in even worse shape with over 40% of loans being at least three months in arrears. Furthermore, 11.3 million households owed more on their mortgage than their property was valued (Fligstein & Goldstein, 2009).

Accordingly, millions of American households were impacted by these foreclosures and challenges paying their mortgages. Later in the chapter, the relationship

between these financial stressors and marital satisfaction will be examined.

### **Impact from the Recession on Individuals and Households**

With roughly 40% of households impacted by either employment or housing-related financial problems during this last recession (Fligstein & Goldstein, 2009), the focus will now shift to specific ways in which individuals and households were impacted. This examination will include the reduction in earning potential, the loss of retirement income, the impact of the recession on individual's health, and, importantly, the impact of the recession on the marital relationship.

Prior to considering the variety of ways in which individuals have been influenced by the recent recession, it is important to consider a potential confounding variable. Disaster research (e.g., Hobfoil, 2012) notes that community resources are generally suppressed following a disaster. Thus, in general, the suffering of individuals may be magnified due to scarce resources that could have otherwise offset some of the suffering. With regard to this current study, it is likely that reduced community resources may strengthen predicted associations between financial stress and marital outcomes. While this cannot be measured in this study, it is important to acknowledge the probable existence of this confounding variable.

**Earnings impact.** Unemployment historically has had a short-term and long-term influence on the earning potential of an individual or household (Aaronson et al., 2010). In the short run, many households struggle to cover necessary living expenses without amassing dangerous installment debt (Conger et al., 1993; Dew, 2011). In the long run,

permanent earnings losses may be substantial. Likewise, for those who had been forced to pursue employment in a different industry, the time and money invested in acquiring particular knowledge and skills for their previous profession was rendered less useful (Aaronson et al., 2010).

**Retirement impact.** Another financial outcome stemming from the 2007-2009 Recession was the staggering loss of retirement funds for many Americans. While this challenged individuals from various age cohorts, those closest to retirement age had less time to recoup their losses. Many individuals and couples approaching retirement suffered catastrophic losses to their retirement accounts. Hurd and Rohwedder (2010) cited evidence from their 2008 survey that 25% of sampled individuals (between the ages of 50-59) had sustained losses totaling more than one third of their total retirement savings.

For those approaching traditional retirement age, unemployment compounded the loss of their retirement portfolio as many of these older unemployed individuals encountered extreme challenges in finding employment (Hicks & Kingson, 2009). Faced with this paradox, some opted to retire early leading to a reduction in resources throughout the retirement years while potentially impacting their future quality of life and familial relations (Hicks & Kingson, 2009; Hurd & Rohwedder, 2010). Others either had to work beyond their desired age of retirement or reenter the work force (if physically able) in order to attempt to recoup lost retirement funds (Hicks & Kingson, 2009).

**Health impact.** In addition to short-term and long-term reductions in earning power and various challenges associated with retirement, health problems and mortality

increases were also associated with long term joblessness (Katz, 2010). Previous research suggested that within the first year following job displacement mortality rates increased by 50-100%. Likewise, this research noted that mortality rates continued to be elevated for the next 20 years following permanent job loss (Katz, 2010). If these trends remain constant with regards to the 2007-2009 Recession, there may be resulting health issues for the next few decades.

**Relationship impact.** Importantly, employment and housing-related financial challenges also influenced the couple relationship. Research has linked job loss to relationship strain. Vinokur and colleagues (1996) found that financial strain following unemployment increased depressive symptoms in both the job seeker and the spouse. The increased depressive symptoms in the spouse were found to reduce the help, care, and concern offered from the spouse to the job seeker. Similarly, while dealing with the pressures associated with job loss, these strained spouses were more likely to criticize and insult their job-seeking spouses. These findings by Vinokur et al. (1996) were comparable to earlier research performed by Rook et al. (1991). This 1991 research also found that undesirable job stressors experienced by the husband, including unemployment, were associated with psychological distress for the wife.

Research also found that unemployment was a key variable leading to financial insecurity for households (Sullivan, Warren, & Westbrook, 2000). Accordingly, during times of increased unemployment, such as the recent recession, couples often experienced greater uncertainty regarding income and increased household financial problems. Further, research has found that the majority of US couples do not adequately

prepare themselves financially for an emergency such as unemployment (Welsh, 2001), especially as most couples do not anticipate a serious decline in income (Baek & DeVaney, 2010).

Post-recession research has shown that couples strive to positively cope with the challenge of unemployment. Baek and DeVaney (2010) suggested that families presented with unemployment strive to utilize sound financial strategies with regard to their newfound financial situation. These couples were more apt to use their savings and seek additional sources of income rather than be forced to rely on credit (Baek & DeVaney, 2010). Similarly, Mattingly and Smith (2010) highlighted the trend of wives' increased labor force participation as a solution when husbands were unemployed or received a reduction in work hours.

Notwithstanding various coping strategies utilized by couples experiencing unemployment, as noted previously, job loss has been shown to be negatively associated with relationship satisfaction (Howe, Levy, & Caplan, 2004; Rook et al., 1991; Vinokur et al., 1996). Considering the volume of individuals who became unemployed during the recession (and the many who remained long-term unemployed well into the economic recovery), unemployment appears to be a sizeable concern for marriage relationships.

While there is less research regarding the impact of housing-related financial stressors on the marriage relationship, the strain caused by these stressors is salient to the couple relationship for a few noteworthy reasons. First, recent research noted that, for the majority of U.S. households, the mortgage or rent payment comprised the largest percentage of the household budget (Nelson et al., 2013). Thus unanticipated increases to

this budget line item were problematic for couples struggling to make ends meet. Due to the aftermath of the recent recession, a growing percentage of couples now contributed more than half of their household income to their housing expenses (Williams, 2012). The necessity of paying more towards housing, especially at a time when household income was fixed, created stress as couples were faced with the opportunity cost of being forced to pay a higher proportion of their income to their rent or mortgage.

Housing-related concerns were also of chief interest to couples because of the mandatory nature of such payments. Though some couples had the luxury of downsizing their home or shedding other unnecessary expenses from their budget during times of financial challenge, in general, housing expenses simply had to be met or the couple risked foreclosure or eviction (Nelson et al., 2013).

Research by Nelson et al. (2013) examined the effect of this housing cost burden (the ratio of monthly housing costs to the monthly income of families) on the marriage relationship. These authors found that a higher cost burden did indeed predict lower levels of marital satisfaction. Similarly, Nelson (2011) noted that home ownership was a double-edged sword with regards to economic pressure. On the one hand, equity in a home seemed to cushion the influence of economic pressure experienced by a couple. On the other hand, when home ownership required a larger portion of the household income, ownership could lead to increased feelings of financial pressure. Interestingly, Nelson et al. (2013) found that the relationship between the housing burden and marital satisfaction was fully mediated by economic pressure -- a key construct in the family stress model (Conger & Elder, 1994).

Prior to shifting attention to the family stress model, it is important to reflect on the impact that the 2007-2009 Recession had on countless Americans. Of particular importance to this study is the focus on the relationship between these recession-related financial stressors and the marriage relationship. This leads to the first hypothesis.

**Hypothesis 1.** Employment-related and housing-related financial problems will be negatively associated with marital satisfaction and positively associated with divorce proneness (Figure 1).

### Family Stress Model of Economic Stress and Marital Distress

#### Origins of the Model

The research behind the family stress model of economic stress and marital distress (referred to simply as the family stress model for the remainder of this paper) was driven by the desire to shed additional light on research from the 1930s and 1980s. This earlier research provided evidence that economic stress was detrimental to

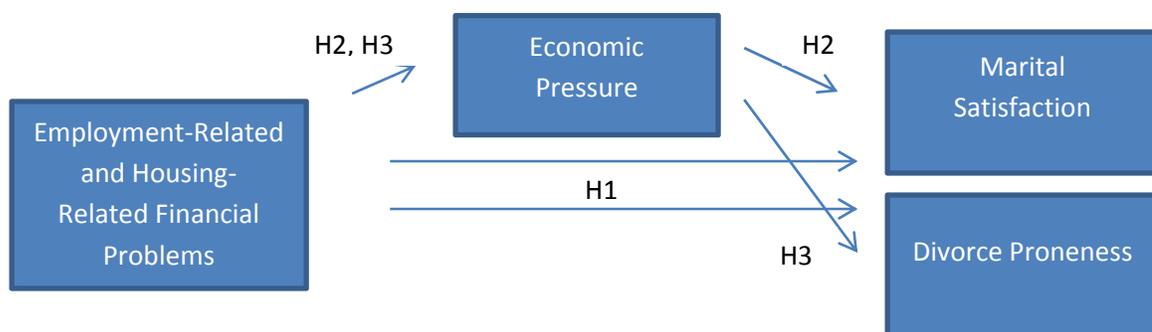


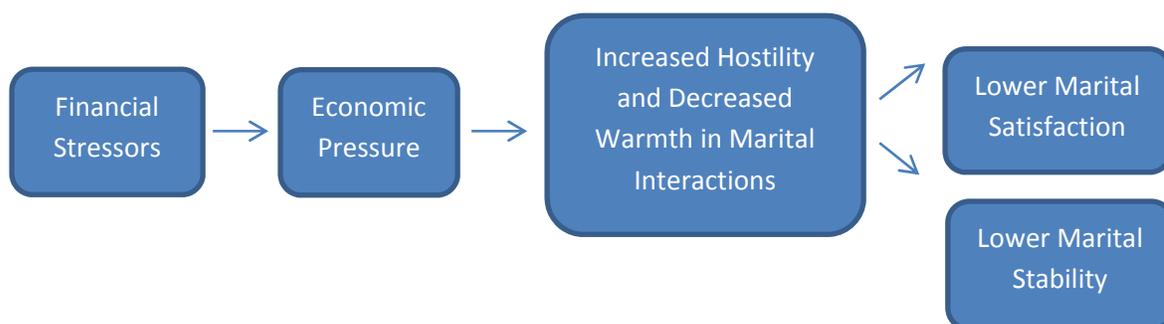
Figure 1. Hypotheses 1-3.

the marriage relationship (Conger et al., 1999). The Conger et al. (1990) study also proved to be an important extension of the research of Liker and Elder (1983) and their study of couples impacted by the economic strain of the Great Depression.

The Conger et al. (1990) study laid the initial groundwork for the family stress model. In this landmark study, these researchers drew on a sample of 76 white, middle-class couples from the rural Midwest. The main economic contextual factor at the time of this study was an agricultural crisis that encompassed much of the United States' Midwestern states. These authors noticed that certain objective economic conditions (income, economic pressure, and husband's work instability) impacted the manner in which the husband interacted with the wife. Specifically, they found that economic pressure increased husband's hostility and decreased his warmth and supportiveness towards his wife. As husbands' hostility increased, wives perceived lower marital stability and lower marital satisfaction (Figure 2). Thus, Conger et al. (1990) found that "economic strain had an indirect effect on marital quality through husband's behaviors" (p. 653).

In 1993, the initial family stress model was expanded to include a link from economic pressure to parenting and, ultimately, to other familial relationships -- in this case adolescent daughters. These researchers found that economic pressure did influence these young women through parental mood and behavior (Conger et al., 1993).

Research in 1994 (Conger & Elder), added important extensions to the family stress model framework. First, the initial study (Conger et al., 1990) was replicated using a larger and more heterogeneous sample. Next, this research noted the role that negative



*Figure 2.* Conger's family stress model.

feelings played in intensifying harmful spousal interactions. Finally, unlike the 1990 study, this later research suggested that wives were also directly influenced by financial stress and economic pressure (Conger & Elder, 1994).

A 1999 study (Conger et al.) further clarified the family stress model and helped refine it to its present state. These authors built upon the foundational research. The 1999 study replicated earlier work using longitudinal data as opposed to the cross-sectional data previously used. Likewise, observation was utilized in the latter study rather than measuring marital interaction through self-reported methods. Further, during the 1999 study, both partners' behavioral interactions were observed rather than just one of the spouses. This study was another helpful replication of the family stress model (Figure 2). In this latest project Conger et al. (1999) also reaffirmed that couples facing economic strain still benefitted from exercising warmth and supportiveness within their marital interactions. They added, however, that couples still needed to find ways to negotiate and agree upon realistic solutions when faced with financial stressors in order

to effectively insulate themselves from the effect of economic strain. It is also important to note that while gender differences were found in an earlier study (Conger et al., 1990), these results were not replicated in this 1999 study.

### **Economic Pressure**

Financial problems can influence the marital relationship in a variety of ways. For instance, individuals with different orientations toward money have been found to have lower levels of marital satisfaction (Rick, Small, & Finkel, 2009). Likewise, Dean, Carrol, and Yang (2007) discovered that materialism was negatively associated with marital satisfaction. Another financially related issue is perceiving that one's spouse spends money foolishly (Britt et al., 2008). However, the majority of this section will focus on the economic pressure felt by couples as a result of financial stressors. Conger and Elder (1994) defined economic pressure as "daily financial difficulties associated with stressful economic conditions" (p. 8). Correspondingly, it is the presence and severity of financial stressors (or negative financial events) that leads to feelings of economic pressure – a condition that can be harmful to the health of the marital relationship (Conger et al., 1990).

Drawing on the most severe financial disaster in the history of the United States of America, Liker and Elder (1983) found that the economic pressure caused by the Great Depression had a negative impact on marital satisfaction. Specifically, these authors noted that mounting economic pressure led many husbands to become worrisome, unstable, and explosive. These marriages became strained due to the negative interaction patterns utilized by these husbands. Couples who experienced lower marital satisfaction

prior to the Great Depression were more susceptible to declines in their satisfaction during the disaster. Liker and Elder likewise noted, “husbands with an unstable disposition prior to the Great Depression were likely to become more unstable if they lost income; while calm, even-tempered men remained relatively unaffected” (p. 356). While Liker and Elder drew on an earlier birth cohort, many later studies also confirmed the impact of economic pressure on the marriage relationship.

Contemporary research has demonstrated that financial stressors need not be as severe as the Great Depression in order to adversely impact the marriage relationship. A variety of studies (Archuleta et al., 2011; Conger et al., 1990, 1999; Cutrona et al., 2003; Dew & Xiao, 2013; Dew & Yorgason, 2009; Yeung & Hofferth, 1998) have shown that financial stressors are negatively associated with relationship satisfaction. In each of these studies, negative financial events were linked to relationship satisfaction by way of economic pressure. Accordingly, Archuleta et al. (2011) discovered that the manner in which couples cope with financial stressors reduces the anxiety and economic pressure experienced in the couple relationship, and, thus, protects the relationship from related declines in marital satisfaction.

Cutrona et al. (2003) found that financial strain had a significant direct effect on marital satisfaction (for both men and women) while Yeung and Hofferth (1998) noted that more than half of all families with children experienced at least one notable economic stressor during their children’s growing up years. Their findings showed that major economic setbacks led to emotional tumult for the entire family (not just the parents). Dew and Yorgason (2009) added that couples’ asset level was the strongest

predictor of economic pressure and, accordingly, the accumulation of assets served as a helpful buffer to economic stress. Meanwhile, Dew and Xiao (2013) noted that economic pressure led to a reduction in sound financial management behaviors. Once again, in these studies, these financial stressors were ultimately linked to less desirable marital outcomes due to the presence of economic pressure.

The effects of financial stressors and economic pressure do not end with termination of the marriage relationship. Wickrama et al. (2006) noted that “the initial level of financial strain associated with divorce followed by single parenthood [had] a long-term cumulative influence on the health of mothers” (p. 133). Recently divorced mothers were also shown to exhibit poor mental and physical health as a probable side effect of sustained high level of economic strain (Wickrama et al., 2006).

As noted above, there are a variety of ways in which financial strain and economic pressure can impact the marriage relationship. Amato (2000) suggested that economic pressure could be viewed as an outcome variable in its own right. However, for this project, economic pressure will be viewed through the lenses of the family stress model. Accordingly, the focus will next shift to a review of studies that utilized the family stress model as the framework for guiding their research.

### **Framing Research Utilizing the Family Stress Model**

Over the last few decades, many scholars have both replicated the earlier results from the family stress model as well as added additional links and insights. For instance, Cutrona et al. (2003) utilized the family stress model within the context of neighborhood

traits and geographic location. These authors found a significant negative relationship between the economic well-being of a neighborhood and the warmth of interaction between spouses.

Likewise, using the framework of the family stress model, Dew and Xiao (2013) suggested that couples could experience financial decline without experiencing a subsequent decline in sound money management techniques, provided they avoid feelings of economic pressure. However, these researchers found that economic pressure was both a key predictor of sound money management and was also negatively associated with marital satisfaction (Dew & Xiao, 2013). This latter finding was similar to earlier findings from Conger and colleagues (Conger & Elder, 1994; Conger et al., 1990, 1993).

In 2010, Dew and Yorgason tested the family stress model with retirement-aged couples. For the group of couples who retired during the time of their study, as well as the group of couples that did not retire during the study, these researchers noted that economic pressure did predict increased depression which ultimately led to decreased marital satisfaction.

Helpfully, Cutrona et al. (2003) added that race may influence the impact of economic pressure felt by husbands and wives. Contrary to earlier findings from Conger and associates suggesting that economic strain had a more profound influence on men rather than women (Conger et al., 1990, 1993), later research with African American couples discovered that economic pressure had the same negative influence for both husbands and wives (Cutrona et al., 2003).

The family stress model has also been tested by a number of international studies. Turkish researchers, Aytac and Rankin (2009) confirmed that couples exposed to greater financial stressors and, ultimately, economic pressure experienced greater marital problems. Other international family stress model research was performed with Czech families dealing with the economic pressure stemming from their countries transition to a market-based economy (Aytac & Rankin, 2009). Further, Kinnunen and Feldt (2004) examined 608 Finnish couples utilizing the economic stress model. Once again, this study noted that challenging economic circumstances were associated with financial strain. This economic strain was related to increased psychological distress between couples. Ultimately these negative interactions led to a decrease in marital satisfaction.

The family stress model has been employed as a helpful and viable framework for researchers to better understand the direct and indirect associations between financial stress, economic pressure, spousal interaction, marital satisfaction, and divorce proneness. Accordingly, the family stress model is an effective model to guide this study – a study which aims to better understand the impact of economic pressure (from stressors created by the 2007-2009 Recession) on the marriage relationship (Table 1).

### **Mediating Variables**

Using the family stress model, economic pressure will be evaluated as a potential mediating variable. It is anticipated that this variable should account for the relationship between the predictor variables (the recession-related financial stressors of employment and housing problems) and the criterion variables (marital satisfaction and the perceived

Table 1

*Family Stress Model and Associated Contributions to the Literature*

Author	Year	Description
Conger et al.	1990	This study introduced the family stress model and suggested that economic pressure increased husband's hostility and decreased his warmth and supportiveness towards his wife - thus lowering marital satisfaction.
Conger et al.	1999	Unlike the 1990 study, no gender differences were found with regards to marital satisfaction. Likewise, this study added that couples could help insulate themselves from the impact of economic pressure through wise marital interactions (exercising warmth, being supportive, and seeking realistic solutions to their problems).
Cutrona et al.	2003	In this study, the financial strain of one's neighborhood was found to be negatively correlated with the warmth of interaction between spouses.
Dew & Yorgason	2010	These researchers noted that economic pressure predicted increased depression in retirement-age couples - which ultimately led to decreased marital satisfaction for these couples.
Dew & Xiao	2013	This study found that sound financial management fully mediated the relationship between economic pressure and marital satisfaction.
Stewart (this study)	2014	This current study is the first to explore the relationship between housing-related and employment-related financial issues and marital satisfaction and divorce proneness. Likewise, this study considers moderating contexts of gender, race/ethnicity, socioeconomic status, and existing debt load.

likelihood of eventual separation or divorce; Baron & Kenny, 1986).

**Hypothesis 2.** The relationship between employment-related and housing-related financial problems and marital satisfaction will be reduced or eliminated after controlling for the relationship between economic pressure and marital satisfaction (Figure 1).

**Hypothesis 3.** The relationship between employment-related and housing-related financial problems and divorce proneness will be reduced or eliminated after controlling for the relationship between economic pressure and divorce proneness (Figure 1).

### **Contextual Effects**

Next, the focus will turn to the role of specific contextual factors with regard to marital satisfaction and divorce proneness. It is anticipated that these factors will act as moderator variables by either strengthening the relationship between the recession-related financial stressors and the satisfaction and stability of the marriage relationship or by buffering the strength of the relationship (Amato, 2000; Baron & Kenny, 1986). Amato (2000) stated, “A number of demographic characteristics, such as gender, age, race, ethnicity, and culture can moderate the effects of divorce” (p. 1273). Towards that end, the following variables will be examined as potential moderators in this study: gender, race/ethnicity, socioeconomic status, and existing debt load.

### **Gender and the Marriage Relationship**

According to Dillaway and Broman (2001), women as a group report lower marital satisfaction. These satisfaction differences could be attributed to various factors such as inequitable distribution of household labor (Amato, Johnson, Booth, & Rogers,

2003; Rogers & Amato, 2000; Wilcox & Nock, 2006), wives' perception of husbands' lower emotional investment to the marriage (Wilcox & Nock, 2006), and perceived inequality in decision-making (Amato et al., 2003).

Likewise, while parental divorce approximately doubles the likelihood that their children would end up divorced (Amato & DeBoer, 2001), Whitton et al. (2008) found that women whose parents divorced were more likely to have lower confidence in marriage and commitment to marriage than were men.

Aside from these general gender differences, there are some financially-specific gender differences. Dew (2011) found that the higher the wives' assets, the happier they were, and consequently, the less likely to consider divorce as an option. Relatedly, for wives, higher assets were related to a higher perception of their standard of living. This, in turn, acted as a deterrent to divorce as the wives in marriages with higher assets anticipated that a hypothesized divorce would lead to a drop in their standard of living. These same results, however, were not found for husbands (Dew, 2011). As such, with wives' marital satisfaction being more closely tied to financial health and economic benefit than the husbands' satisfaction, it is believed that gender will be a moderating variable by increasing the magnitude of the relationship between the independent and dependent variables experienced by the wives.

**Hypothesis 4.** The negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction will be stronger for wives than for husbands (Figure 3).

**Hypothesis 5.** The positive relationship between employment-related financial problems and housing-related financial problems and the perceived likelihood of eventual separation or divorce will be stronger for wives than for husbands (Figure 3).

### Race/Ethnicity and the Marriage Relationship

Key differences exist with regard to marital data based on race/ethnicity. For instance, in the United States, 65% of Asian men and women are married, 62% of White men and 58% of White women are married, 56% of Latino men and 58% of Latino women are married, and 44% of Black men and 37% of Black women are married (Bryant et al., 2010). According to Amato (2010), 42% of non-Hispanic Whites and

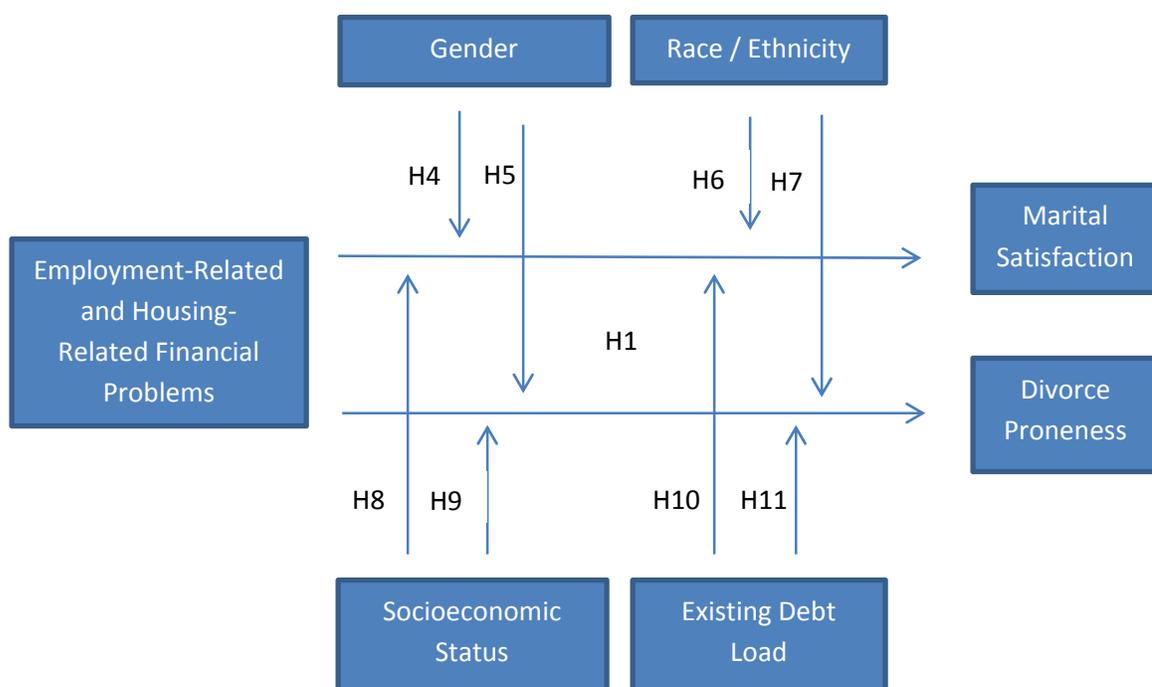


Figure 3. Hypotheses 4-11.

Hispanics experienced divorce within the first 15 years of marriage (though variations existed between Hispanic groups). African Americans experienced a higher divorce rate during their first decade and a half of marriage (approximately 55%). But, while marriage and divorce rates differ by race/ethnicity, it does not appear to impact how couples respond to divorce. Wang and Amato (2000) found no significant difference in how Whites and non-Whites adjusted to divorce.

Differences have also been reported, however, with regard to marital satisfaction. Though women in general reported lower levels of marital satisfaction, Dillaway and Broman (2001) found that Black women experience lower levels of marital satisfaction than do White women. Bulanda and Brown (2007) stated that while Mexican Americans and Whites reported similar levels of marital happiness, disagreements, and perceived likelihood of divorce, Blacks reported lower marital quality than did Whites and Mexican Americans.

With evident differences in marriage rate, divorce rate, and marital satisfaction already existing, it is also possible that different races/ethnic groups will respond differently to the financial stressors stemming from the recent recession. In fact, it is suspected that the interaction between race/ethnicity and financial stressors may influence certain marital outcomes for two main reasons. First, while the great recession permeated through all U.S. races and ethnic groups, ethnic minorities were among the demographic groups most affected by the economic downturn-specifically with regard to employment-related financial problems (Elsby et al., 2010). Second, on average, African American and Hispanic American families entered the recession with lower levels of financial

stability. In fact, by 2008 (squarely in the midst of the 2007-2009 Recession) only 9.3% of White families were below the poverty line as compared to 29.6% of African American families and 26.8% of Hispanic families (Conger, Conger, & Martin, 2010). Thus, for minority couples who already had a higher likelihood of having financial problems prior to the onset of the recession, the impact of job loss, a reduction in hours, or a reduction in pay could more quickly exacerbate financially-based relationship problems (as compared to non-minority couples). The same argument could be made with regard to housing-related financial problems. As such, it is hypothesized that minority groups have felt additional financial pressure and, consequently, experienced stronger marital hardships.

**Hypothesis 6.** The negative relationship between employment-related and housing-related financial problems and marital satisfaction will be stronger for African American and Hispanic couples than for non-Hispanic White couples (Figure 3).

**Hypothesis 7.** The positive relationship between employment-related and housing-related financial problems and the perceived likelihood of eventual separation or divorce will be stronger for African American and Hispanic couples than for non-Hispanic White couples (Figure 3).

### **Socioeconomic Status and the Marriage Relationship**

Socioeconomic status (SES) is already known to be linked to marital satisfaction and marital stability. Conger and colleagues (2010) found that social class or socioeconomic status was positively related to marital stability while Rogers and Amato

(1997) noted that family economic resources were also related to marital quality.

Conversely, Dakin and Wampler (2008) found that low-income couples experienced lower marital satisfaction and higher psychological distress than higher-income couples.

It has been established that the 2007-2009 Recession impacted households across all social and economic strata, with approximately two out of every five households affected by employment or housing-related financial problems (negative equity, behind on mortgage payments, or home in foreclosure; Fligstein & Goldstein, 2009). And, while no group of individuals was entirely exempt from the wake of the recession, lower SES couples may be disproportionately impacted as compared to higher SES couples. Similar to the logic suggesting that ethnic minorities might be more adversely impacted by this recession than non-minorities, it is hypothesized that lower SES couples will face many of the same challenges. Specifically, lower SES couples who entered the recession already near or below the poverty line would likely be more harmfully affected by recession-caused employment and housing issues. Further with the less educated being unemployed at a disproportionate rate (Katz, 2010) and the less affluent participating more heavily in subprime mortgages and their associated and problematic adjustable interest rates (Fligstein & Goldstein, 2009), lower SES couples should be more heavily impacted by this recession. On the other end of the SES spectrum, with greater earning power, and possibly even more importantly, with greater assets and less debt (Dew, 2009), higher SES couples should be able to better weather the recession's storm.

**Hypothesis 8.** The negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction will be stronger for lower SES couples than for higher SES couples (Figure 3).

**Hypothesis 9.** The positive relationship between employment-related financial problems and housing-related financial problems and the perceived likelihood of eventual separation or divorce will be stronger for lower SES couples than for higher SES couples (Figure 3).

### **Debt Load and the Marriage Relationship**

Finally, it is reasonable to expect that existing household debt load may also play a role in how couples react to these recession related financial stressors. Household debt has a negative impact on the marriage relationship. Likewise, debt was listed as the second greatest marital concern for those recently married (Schramm, Marshall, Harris, & Lee, 2005). Newlyweds, as a group, often assumed debt as they began marriage--both by having one or both partners bring debt into the marriage as well as incurring the expenses of forming their own household (Wilkie, 1994).

Dew (2008) found that debt change predicted marital satisfaction change. While couples with no change in their consumer debt did not experience a drop in their marital satisfaction, couples who accumulated more debt during marriage did experience satisfaction declines. On the other hand, couples who paid off their revolving debt generally had lower marital satisfaction declines than their counterparts (Dew, 2008).

In addition to the negative relationship between consumer debt and lower marital satisfaction, couples with heavier debt loads also experienced increases in marital conflict

(Dew, 2007). Predictably, consumer debt was also found to be associated with divorce as higher debt burdens increased the odds of divorce for couples (Dew, 2011).

As noted above, prior to the 2007-2009 Recession, debt was already a growing threat to both marital satisfaction and marital stability. In fact, during the 10-year span from 1997-2006, outstanding consumer debt doubled from \$1.2 trillion to \$2.4 trillion (Dew, 2008). With the burst of the housing bubble and the substantial increase in unemployment, many couples faced an increase in their financial stress. However, it is likely that couples with existing debt were impacted more as they would have had fewer options available to them as they faced employment and housing-related financial problems. For example, for couples who already had credit cards “maxed out,” it would not be an option to amass additional credit card debt following a reduction in work hours.

As such, it is suspected that couples who had larger amounts of prevailing debt prior to the onset of the recession, would be disproportionately impacted by the independent variables than couples with little or no pre-existing debt.

**Hypothesis 10.** The negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction will be stronger for couples with higher existing debt loads than for couples with lower existing debt loads (or no debt; Figure 3).

**Hypothesis 11.** The positive relationship between employment-related financial problems and housing-related financial problems and the perceived likelihood of eventual separation or divorce will be stronger for couples with higher existing debt loads than for couples with lower existing debt loads (or no debt; Figure 3; Table 2).

Table 2

*Hypotheses for the Current Study*

Hypothesis	Type of variable	Actual hypothesis
Hypothesis 1	Independent variables	Employment-related and housing-related financial problems will be negatively associated with marital satisfaction and positively associated with divorce proneness.
Hypothesis 2	Mediator variable	The relationship between employment-related and housing-related financial problems and marital satisfaction will be reduced or eliminated after controlling for the relationship between economic pressure and marital satisfaction.
Hypothesis 3	Mediator variable	The relationship between employment-related and housing-related financial problems and divorce proneness will be reduced or eliminated after controlling for the relationship between economic pressure and divorce proneness.
Hypothesis 4	Moderator variable	The negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction will be stronger for wives than for husbands.
Hypothesis 5	Moderator variable	The positive relationship between employment-related financial problems and housing-related financial problems and divorce proneness will be stronger for wives than for husbands.
Hypothesis 6	Moderator variable	The negative relationship between employment-related and housing-related financial problems and marital satisfaction will be stronger for African American and Hispanic couples than for non-Hispanic White couples.

(table continues)

Hypothesis	Type of variable	Actual hypothesis
Hypothesis 7	Moderator variable	The positive relationship between employment-related and housing-related financial problems and divorce proneness will be stronger for African American and Hispanic couples than for non-Hispanic White couples.
Hypothesis 8	Moderator variable	The negative relationship between employment-related and housing-related financial problems and marital satisfaction will be stronger for lower SES couples than for higher SES couples.
Hypothesis 9	Moderator variable	The positive relationship between employment-related and housing-related financial problems and perceived likelihood of eventual separation or divorce will be stronger for lower SES couples than for higher SES couples.
Hypothesis 10	Moderator variable	The negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction will be stronger for couples with higher existing debt loads than for couples with lower existing debt loads (or no debt).
Hypothesis 11	Moderator variable	The positive relationship between employment-related financial problems and housing-related financial problems and perceived likelihood of eventual separation or divorce will be stronger for couples with higher existing debt loads than for couples with lower existing debt loads (or no debt).

## **CHAPTER III**

### **RESEARCH METHODS AND PROCEDURES**

#### **Data and Sample**

Data were drawn from the Survey of Marital Generosity (SMG; an extant data set collected during 2010-2011) to answer the research questions. Knowledge Networks, a survey research firm, conducted the surveys and collected this data utilizing the Knowledge Networks Panel (a large, nationally representative, pre-existing panel of participants). These panel members were recruited either through random digit dialing (RDD) or address-based sampling (ABS) methodologies. The latter, and more recent methodology of ABS, covered an estimated 97% of U.S. households.

The target population for this particular data set was non-institutionalized U.S. married couples with both spouses between the ages of 18-55. The sampling frame consisted of married individuals between the ages of 18-55 years old who resided in the United States and who had been randomly selected to be a part of the Knowledge Networks panel. From this sampling frame individuals were invited to participate in the SMG. Surveys were sent out in three waves with a 69% combined response rate. The first wave was sent to one of the spouses and produced a 76% response rate to the questionnaire. The next batch of surveys was sent to the other spouse. In this case, there was an 87% response rate. The last round of questionnaires was sent to a spouse where only one member in the household was a part of the Knowledge Networks panel. There was a 50% response rate for this final group. In the end, these surveys provided qualified

data for 1,630 married couples.

This sample was ideal for this research project for a number of reasons. First, this large sample was beneficial in influencing the power of the statistical tests and thus increasing the likelihood of detecting effects that might exist. This large sample was especially helpful for the examination of moderating variables. Because the sample size was large, there were also sufficiently large subsamples of the interaction variables. The size of the sample also allowed for the utilization of standard statistical methods as the data were analyzed. Finally, this national sample was more generalizable to the target population.

### **Institutional Review Board Approval**

Because this research involved the study of existing data and provided complete anonymity of the subjects, an exempt status was desired. Accordingly, an exemption request under category 4 was submitted to the Institutional Review Board (IRB) at Utah State University on July 2<sup>nd</sup>, 2014. This application (#5947) was approved on July 22<sup>nd</sup> 2014 granting permission to work with the extant data. See the Appendix for a copy of the IRB approval form.

### **Research Design**

For this research project, a correlational design was utilized. There were a number of reasons why a correlational design was selected for this research study. First, it was possible to effectively examine the relationships between multiple variables. Second, this

design allowed for analyses regarding how the selected variables were associated with specific marital outcomes. Third, a correlational design allowed for observation regarding the magnitude and direction of these various relationships. A limitation to this correlational design is that it was not able to determine causal relationships. However, as these independent variables could not ethically or feasibly be manipulated, an experimental design was not a viable option for this project.

## **Measures**

### **Dependent Variables**

The dependent variables for this research project were both centered on the marriage relationship. The first dependent variable was marital satisfaction. The second dependent variable was divorce proneness. With regard to marital satisfaction, the following question was asked: “In every marriage, there are some things that are very good and other things that could use some improvement. Right now, how satisfied would you say you are with each of the following aspects of your marriage?” The domains for marital satisfaction included love and affection, perceived fairness, respect and admiration, quality of communication, and sexual intimacy. The response set provided five options ranging from very unhappy to very happy. For this study, the marital satisfaction score was created by taking the mean of the five marital domain questions. Similarly, the SMG question regarding divorce proneness was as follows: “It is always difficult to predict what will happen in a marriage, but realistically, what do you think the chances are that you and your partner will eventually separate or divorce?” In this case,

the response set offered ten options to respondents ranging from very low to very high.

### **Independent Variables**

For this study the independent variables were both influenced by the 2007-2009 Recession. The first independent variable was employment-related financial problems (unemployment, reduction in pay, and reduction in hours); while the second independent variable was housing-related financial problems (foreclosure and falling behind on mortgage payments). The SMG survey provided a question related to each independent variable. With regard to recession-related employment problems the following question was asked: “Have you been unemployed, had your pay cut, or had your work hours reduced since the recession began?” The response set was yes or no. Similarly, concerning recession-related housing problems, the following question was provided: “Have you been through a foreclosure or had problems making mortgage payments since the recession began?” Again the response set was yes or no. These independent variables were dummy coded as follows: 0 = no problem, 1 = problem. These variables were mean centered for the purpose of creating the interaction term.

The mediating variable that was used for this study was economic pressure. The SMG question was as follows: “How often do you worry that your total family income will not be enough to meet your family's expenses and bills?” The response set was on a five-point scale including the following: never (1), hardly ever (2), once in a while (3), often (4), or almost all the time (5).

Gender, race/ethnicity, socioeconomic status, and existing debt load were potential moderating variables. All participants within the Knowledge Network Panel had

previously filled out information including gender, race, income, and educational level. With regard to gender, the husbands were coded as 1 and the wives were coded as 2. For race/ethnicity the original coding was as follows: White, Non-Hispanic (1), Black, Non-Hispanic (2), Other, Non-Hispanic (3), Hispanic (4). These variables were then dummy coded with White, Non-Hispanic as the comparison group. These variables were again mean centered for the purpose of creating the interaction term.

The socioeconomic status variable was created by taking the mean of the three *z*-scores for questions regarding income, savings, and education. The *z*-scores were utilized to standardize the three component scores and then the mean of these standardized sub-variables created the new SES variable. These variables needed to be standardized because the mean, range, and standard deviation were different for each of these three questions. The *z*-score provided a standard metric of measurement for each variable. This then allowed the collective mean of the three variables to be a consistent and meaningful measurement.

For household income there were 19 options ranging from less than \$5,000 per year to greater than \$175,000 per year. The exact options were as follows: less than \$5,000 (1), \$5,000 to \$7,499 (2), \$7,500 to \$9,999 (3), \$10,000 to \$12,499 (4), \$12,500 to \$14,999 (5), \$15,000 to \$19,999 (6), \$20,000 to \$24,999 (7), \$25,000 to \$29,999 (8), \$30,000 to \$34,999 (9), \$35,000 to \$39,999 (10), \$40,000 to \$49,999 (11), \$50,000 to \$59,999 (12), \$60,000 to \$74,999 (13), \$75,000 to \$84,999 (14), \$85,000 to \$99,999 (15), \$100,000 to \$124,999 (16), \$125,000 to \$149,999 (17), \$150,000 to \$174,999 (18), \$175,000 or more (19).

To ascertain the amount of savings the couple had, the following question was asked, “What is the approximate total value of your savings, including things like savings accounts, money market shares, and CD’s? These 12 options were given: none (1), \$1 to under \$1,500 (2), \$1,500 to under \$3,000 (3), \$3,000 to under \$5,000 (4), \$5,000 to under \$10,000 (5), \$10,000 to under \$20,000 (6), \$20,000 to under \$50,000 (7), \$50,000 to under \$100,000 (8), \$100,000 to under \$150,000 (9), \$150,000 to under \$200,000 (10), \$200,000 to under \$250,000 (11), \$250,000 or more (12).

Finally, for educational level, the following options were given: no formal education (1), 7<sup>th</sup> or 8<sup>th</sup> grade (4), 9<sup>th</sup> grade (5), 10<sup>th</sup> grade (6), 11<sup>th</sup> grade (7), 12<sup>th</sup> grade – no diploma (8), high school graduate – high school diploma or the equivalent (9), some college, no degree (10), associate degree (11), bachelor’s degree (12), master’s degree (13), professional or doctorate degree (14).

Then, the mean of the z-scores for these three variables (income, savings, and education) created the new SES variable. This SES variable scaled well with a Chronbach’s Alpha score of .71 for the wives and .70 for the husbands.

The SMG data set also provided a question regarding existing debt. Specifically, the survey contained the following question: “How much debt do you owe on credit card or charge accounts, installment loans, or bills that you’ve owed for over two months? Do not include vehicle loans or home mortgage debt.” The response set included twelve different options as follows: none (1), \$1 to under \$1,500 (2), \$1,500 to under \$3,000 (3), \$3000 to under \$5000 (4), \$5000 to under \$10,000 (5), \$10,000 to under \$20,000 (6), \$20,000 to under \$50,000 (7), \$50,000 to under \$100,000 (8), \$100,000 to under

\$150,000 (9), \$150,000 to under \$200,000 (10), \$200,000 to under \$250,000 (11), and \$250,000 or more (12).

Approximately half of these variables had no missing data. The variables with missing data were often missing just a few cases (ranging from .1% to a maximum of 2.0%). There were 63 unique cases that contained missing data. As such, only 3.74% of the cases ended up being deleted through listwise deletion. Had there been larger percentages of missing data in this study, multiple imputation techniques would have been a logical option to reduce bias (Little & Rubin, 1989). However, as there was less than 5% of the data missing, listwise deletion was recommended as any type of imputation or correction could actually create bias (Lynch, 2003). Thus, from the initial sample size of 1,630 married couples, the final valid sample size ended up being 1,569 cases.

## **Data Analysis**

### **Assumptions**

For the research analysis, multiple regression was used to evaluate the hypotheses. Five assumptions have to be satisfied to utilize multiple regression analysis as a viable statistical test. First, it was assumed that the dependent variables were normally distributed. An evaluation of skewness numbers suggested that marital satisfaction was slightly skewed.

However, because divorce proneness was more skewed, this outcome variable was also analyzed through logistic regression. To run logistic regression, the divorce

proneness variables (for both wives and husbands) were transformed into dichotomous variables. The same question was again utilized: “It is always difficult to predict what will happen in a marriage, but realistically, what do you think the chances are that you and your partner will eventually separate or divorce?” In order to create the dichotomous variables, any response that suggested there was a perceived chance of future divorce (even slight) were coded with a 1, while those who perceived no chance of future divorce were coded with a 0. Thus, anyone who answered the question with “very low” was given a 0 and those who responded with any of the 10 options above “very low” were given a 1. This decision was made because that split between “very low” and above “very low” left approximately half of the respondents in each category with roughly half considering divorce as a future option on at least some level. This division should closely approximate the anticipated future divorce rate of this nationally representative population (Amato, 2010).

Next, there was an assumption of a linear relationship between the independent variables and the dependent variables. To test this assumption the unstandardized residuals for each dependent variable were individually plotted in a scatter-dot graph with each of the independent variables. Upon visual inspection, the models appeared to fit the data well with no apparent curvilinear relationships.

There was an assumption that the variance in the dependent variables was approximately equivalent across all levels of the independent variable – also known as the assumption of homoscedasticity. Violations to these assumptions could have led to inaccurate results and the model would have no longer been a trustworthy source for the

analysis (Osborne & Waters, 2002). These same visual inspections of the scatter-dot graphs showed no evident violations of homoscedasticity.

Likewise, it was assumed that the variables were reliably measured. For the scales that were created (marital satisfaction and socioeconomic status) the Chronbach's alpha statistics were statistically reliable. Specifically, Chronbach's alpha for the wives' marital satisfaction scale was .91 while the husbands' marital satisfaction scale was .90. Thus, for these marital satisfaction scales there is approximately 90% internally consistent reliability variance. Similarly, wives' SES scale had a Chronbach's alpha statistic of .71 and the husbands' SES scale had a Chronbach's alpha statistic of .70. With regard to the main independent variables it is probable that individuals were accurately able to distinguish between having or not having recession-related employment problems or recession-related housing problems. Similarly, for variables such as race/ethnicity and gender, high reliability is again presumed. Estimating debt may be less precise, but should not change the estimates much.

The final assumption was that outliers would not negatively impact the means of these variables and thus change the regression estimates. With the sample size of this study, the DFFIT cutoff was anything higher than .15 or lower than -.15 and the DFBETA cutoff was positive or negative .05. There were no outliers that extended beyond the mentioned parameters and thus they did not impact the referenced regressions.

It is helpful to note that there is an ever-present risk associated with running too many regressions. These risks include misleading results, a reduction in accuracy, and a

weakened ability to make accurate projections (Frost, 2013). While there are not tests that can be run to evaluate this risk, the alpha level was set at .05 to account for results occurring by chance.

### **Hypothesis Testing**

This first hypothesis (Figure 1) predicted that employment-related and housing-related financial problems would be negatively associated with marital satisfaction and positively associated with divorce proneness. Race/ethnicity, socioeconomic status, and existing debt load were included in this model as control variables. This hypothesis was tested using multiple regression analysis.

The next two hypotheses (Figure 1) involved the mediating variable of economic pressure. Baron and Kenny (1986) noted that mediator variables represented the general mechanism by which the independent variable was able to influence the outcome variable. Thus, it was predicted that there would be a relationship between recession-related financial stressors and marital outcomes, but that it would be explained through the variable of economic pressure.

To test the mediator models, three regression analyses were performed for each dependent variable (marital satisfaction and divorce proneness; Baron & Kenny, 1986). In both cases the mediator (economic pressure) was regressed onto the main independent variables (employment and housing-related financial problems). Next, the dependent variable marital satisfaction was regressed onto the independent variables (employment and housing-related financial problems). A similar regression was then run with divorce proneness being regressed onto the independent variables. Finally, marital satisfaction

and divorce proneness were regressed onto the independent variables, while adding economic pressure as an independent variable.

The remaining hypotheses (4-11) were tested using moderator models (Figure 3). Moderators are qualitative or quantitative variables that influence the strength and direction between the independent and dependent variables (Baron & Kenny, 1986). In other words, these variables of gender, race/ethnicity, socioeconomic status, and existing debt load were tested to see if they altered the relationship between financial stressors and marital outcomes. Four regression analyses were performed to test these moderating models. Two of these analyses tested for main effects (one each for marital satisfaction and divorce proneness). The other two analyses tested for interaction effects (Baron & Kenny, 1986). In these latter models the interaction terms were added to the existing model in order to test for possible moderator effects.

Recent research suggested that the attitudes, behaviors, and even the institution of marriage are gendered (Loscocco & Walzer, 2013). For this study, the analyses were run separately by gender as marital satisfaction and divorce proneness are both individual level dependent variables with variation likely occurring within many of the same marriages (Dew, 2009, 2011). While the earliest family stress model studies found that the wives' marital satisfaction was only correlated to financial stress through the mediating variable of husband hostility (Conger et al., 1990), later studies, with both longitudinal and nationally representative data, found that wives were also directly influenced by financial stress and economic pressure (Conger & Elder, 1994; Conger et al., 1999). Thus, separating this dyadic data provided the opportunity to account for

gender differences within the same marriage while remaining grounded in the theoretical framework of the family stress model.

To check the robustness of potential gender moderators, additional models were run. In each of these models, the independent variables for both the men and the women were included. In other words, for these models, husbands' reports of recession problems and wives reports of recession problems were run together in the same model. In the models with the wives' marital satisfaction and divorce proneness, the wives' control variables were added. For the models with husbands' marital satisfaction and divorce proneness, the husbands' control variables were added. Analyzing the collinearity statistics, there were no tolerances below .4 for any of independent variables in these four models. Consequently, these tests alleviated the potential concern that the wives' independent variables and the husbands' independent variables were highly correlated.

## **CHAPTER IV**

### **RESULTS**

This chapter reports the results from analyzing each of the eleven hypotheses from Chapter II. The results are organized numerically, by hypothesis, beginning with a look at the main effects (Hypothesis 1). Next, results are shared regarding economic pressure as a potential mediator for these main effects (Hypotheses 2 and 3). Finally, the results concerning the moderating variables are considered (Hypotheses 4-11).

#### **Descriptive Statistics**

Table 3 lists the variables utilized during this present study with means, standard deviations, and minimums and maximums calculated for each variable. These variables include marital satisfaction and divorce proneness which are the dependent variables for this study. The marital satisfaction variables were rated on a 5-point scale. The mean score was 3.86 for wives and 3.85 for husbands, suggesting that couples were reasonably happy. Likewise, for divorce proneness the mean score for the women was 2.29 and 2.28 for the men. This time these scores were based on an 11-point scale signifying that most couples were not anticipating a future separation or divorce. These divorce proneness scores were obviously skewed. Because one of the assumptions of multiple regression is that the dependent variables are normally distributed, the models containing divorce proneness were also run using logistic regression. However, the marital satisfaction variables were not so skewed that they warranted this treatment.

Table 3

*Descriptive Statistics (N = 1,630 Couples)*

Variables	Wives			Husbands		
	<i>M</i>	<i>StD</i>	<i>Range</i>	<i>M</i>	<i>StD</i>	<i>Range</i>
Marital satisfaction	3.86	.89	1-5	3.85	.86	1-5
Divorce proneness	2.29	2.08	1-11	2.28	2.04	1-11
Economic pressure	3.01	1.19	1-5	2.93	1.19	1-5
Employment problems	.26	.44	0-1	.36	.47	0-1
Housing problems	.10	.30	0-1	.10	.30	0-1
Debt	3.65	2.44	1-12	3.62	2.40	1-12
Black	.03(3%)	.17	0-1	.05(5%)	.21	0-1
Hispanic	.08(8%)	.28	0-1	.08(8%)	.27	0-1
Other race/ethnicity	.08(8%)	.28	0-1	.07(7%)	.26	0-1
Socioeconomic status	.00	.79	-2.86-1.88	.00	.79	-3.02-1.84
Age	36.67	6.27	18-55	38.37	6.51	19-55

Also included are the main independent variables of recession-related employment problems and housing problems. Wives reported a mean of .26 for employment problems and .10 for housing problems. Hence, in this sample, 26% of the wives reported employment problems while 10% of the wives reported housing problems. Similarly, the husbands had a mean of .36 for employment problems and a mean of .10 for housing problems. Thus 36% of the husbands reported employment problems and 10% of the husbands reported housing problems.

The predicted mediating variable of economic pressure is also included (Table 3). On a 5-point scale, wives reported a mean of 3.01. The husbands reported a 2.93 on this same 5-point scale. These scores suggest that, on average, there is a moderate amount of economic pressure experienced by these sampled individuals.

Finally the potential moderating variables are also included in Table 3. Debt was reported on a 12-point scale with a mean of 3.65 for the women and 3.62 for the men. These scores suggested that, on average, the couples in this study had approximately \$1,500-\$5,000 in debt (excluding vehicle loans and mortgages). Likewise, for race/ethnicity, 3% of the wives classified themselves as Black, 8% of the wives designated Hispanic, and 8% of the wives selected Other. Similarly, for the husbands, 5% selected Black, 8% noted Hispanic, and 7% classified themselves as Other.

## **Main Effects**

### **Main Effects Research Questions and Hypothesis**

The first research questions dealt with the potential main effects between the predictor variables (employment and housing-related financial problems) and the outcome variables (marital satisfaction and divorce proneness). This first hypothesis predicted that employment-related and housing-related financial problems would be negatively associated with marital satisfaction and positively associated with divorce proneness.

### Main Effects Models

Four regression analyses were performed to test for these main effects. Marital satisfaction was used as the dependent variable--first with wife data and then with husband data. These gendered analyses were then run again utilizing divorce proneness as the dependent variable. In each of these analyses, potential moderating variables (debt, race/ethnicity, and SES) were also added to the models in order to test for main effects between these variables and the dependent variables.

The first regression predicted wives' perceptions of marital satisfaction as associated with recession-related employment and housing problems as well as debt, race/ethnicity, and SES. Collectively there was statistical significance for the model:  $F(7, 1,583) = 4.76, p < .001, R^2 = .02$ . Housing problems ( $b = -.19, p < .05$ ), amount of existing debt ( $b = -.03, p < .01$ ), and socioeconomic status ( $b = .06, p < .05$ ) were found to be significantly associated with wives' marital satisfaction. See Table 4 for regression coefficients and standard errors.

The next regression predicted wives' perceived likelihood of divorce as related to recession-related employment, housing problems, debt, race/ethnicity, and SES. Again there was collective statistical significance for this model:  $F(7, 1,581) = 7.64, p < .001, R^2 = .03$ . Once more, housing problems ( $b = .53, p < .01$ ), amount of existing debt ( $b = .04, p < .05$ ), and socioeconomic status ( $b = -.25, p < .001$ ) were found to be significantly associated with wives' divorce proneness (Table 4).

Another regression analysis predicted husbands' perception of marital satisfaction with regard to recession-related employment and housing problems as well as debt,

Table 4

*The Association Between Employment Problems, Housing Problems, and Marital Satisfaction (N = 1,591 For Wives, N = 1,603 For Husbands) and Divorce Proneness (N = 1,589 For Wives, N = 1,600 For Husbands)*

Variables	Marital satisfaction wives			Divorce proneness wives			Marital satisfaction husbands			Divorce proneness husbands		
	SE	B	$\beta$	SE	B	$\beta$	SE	B	$\beta$	SE	B	$\beta$
Intercept	3.86***	.02		2.28***	.05		3.85***	.02		2.29***	.05	
Employment problems (EP)	-.03	.05	-.01	.15	.12	.03	-.07	.05	-.04	.13	.11	.03
Housing problems (HP)	-.19*	.08	-.07	.53**	.18	.08	-.13	.07	-.05	.37*	.17	.06
Debt	-.03**	.01	-.08	.04*	.02	.05	-.03***	.01	-.09	.06**	.02	.07
Black <sup>a</sup>	.15	.13	.03	.44	.30	.04	-.06	.10	-.01	.84**	.24	.09
Hispanic <sup>a</sup>	-.05	.08	-.02	.30	.19	.04	.08	.08	.02	.04	.19	.01
Other race/ethnicity	-.11	.08	-.33	.31	.19	.04	.10	.08	.02	-.05	.20	-.01
Socioeconomic status	.06*	.03	.06	-.25***	.07	-.09	.04	.03	.04	-.19**	.07	-.07
R <sup>2</sup>		.02			.03			.02			.03	

Note. All of the variables are mean centered.

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

race/ethnicity, and SES. Once again there was statistical significance for this model:  $F(7, 1,595) = 4.6, p < .001, R^2 = .02$ . For this regression, only debt ( $b = -.03, p < .001$ ) was found to have a statistically significant correlation with husbands' marital satisfaction. See Table 4 for regression coefficients and standard errors.

The final main effect regression analysis predicted husbands' perceived likelihood of divorce as related to these same variables. Once more there was collective statistical significance for the model:  $F(7, 1,592) = 7.11, p < .001, R^2 = .03$ . In this case, housing problems ( $b = .37, p < .05$ ), amount of existing debt ( $b = .06, p < .01$ ), race/ethnicity – Black ( $b = .84, p < .01$ ), and socioeconomic status ( $b = -.19, p < .01$ ) were found to have a significant association with husbands' divorce proneness (Table 4).

### **Main Effects Conclusion**

In accordance with Hypothesis 1, housing-related financial problems were negatively associated with marital satisfaction and positively associated with divorce proneness for the wives. For the husbands, there was not a significant correlation between recession-related housing problems and marital satisfaction, though there was a significant positive relationship between housing problems and divorce proneness. Employment-related financial problems were not significantly associated with the dependent variables for either gender. Thus, there was partial support for Hypothesis 1. As a side note, another regression was performed looking at these employment problems without housing problems in the model; however, employment problems were still not significant.

## Mediating Effects

### Mediating Effects Research Questions and Hypotheses

The next group of research questions and hypotheses dealt with the possibility of economic pressure acting as a mediator between the main independent variables and the dependent variables. Hypothesis 2 predicted that the relationship between employment-related and housing-related financial problems and marital satisfaction would be explained (either partially or completely) through the mediating variable of economic pressure. In Hypothesis 3, a similar prediction was made with economic pressure mediating the predicted negative relationship between employment and housing-related financial problems and the outcome variable of divorce proneness (Table 2). However, as there was not a main effect relationship between employment-related financial problems and either outcome variable or between housing-related financial problems and marital satisfaction (for husbands), it was not plausible to test for a potential mediator (Baron & Kenny, 1986).

### Mediating Effects Models

In order to test for a possible mediating effect, economic pressure was regressed onto employment problems and housing problems first for the wives and then for the husbands. For the wives' model, there was collective statistical significance:  $F(7, 1,582) = 88.89, p < .001, R^2 = .28$ . In this model, both employment problems ( $b = .29, p < .001$ ) and housing problems ( $b = .67, p < .001$ ) were significantly related to economic pressure. There was a similar outcome for the husbands:  $F(7, 1,592) = 72.92, p < .001, R^2 = .24$ .

Once again employment problems ( $b = .34, p < .001$ ) and housing problems ( $b = .51, p < .001$ ) were significantly related to economic pressure. See Table 5 for regression coefficients and standard errors.

The next regressions were a repeat of the main effect models where marital satisfaction, and then divorce proneness, were both regressed onto employment problems and housing problems. This was again done for both the wives and the husbands. See the main effects model for these results in Table 6 (wives) and Table 7 (husbands) for the regression coefficients and standard errors.

Then, these same outcome variables were regressed onto the independent variables while adding economic pressure as an independent variable. For the wives' marital satisfaction model:  $F(8, 1,580) = 10.24, p < .001, R^2 = .05$ , economic pressure fully mediated the relationship between the independent variables and marital satisfaction as it was the only independent variable to continue to have a statistically significant relationship in this model ( $b = -.15, p < .001$ ). In this model, with the inclusion of economic pressure, the magnitude of the housing problems coefficient decreased from  $b = -.19$  to  $b = -.09$ . The post-hoc sobel test of mediation for this model was  $-5.28 (p < .001)$  indicating that this mediation effect was again significant.

Next, divorce proneness was regressed onto the independent variables while again adding economic pressure to the model:  $F(8, 1,589) = 7.36, p < .001, R^2 = .04$ . Economic pressure partially mediated the relationship between the independent variables and the outcome variables. While economic pressure was significant ( $b = .16, p < .01$ ), housing problems remained significantly associated with wives' divorce proneness ( $b = .42, p <$

Table 5

*Economic Pressure*

Variables	Wives ( <i>N</i> = 1,590)			Husbands ( <i>N</i> = 1,600)		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Intercept	2.37***	.05		2.34***	.05	
Employment problems	.29***	.06	.11	.34***	.06	.16
Housing problems	.67***	.09	.17	.51***	.09	.13
Debt	.14***	.01	.28	.11***	.01	.22
Black	.20	.15	-.03	.12	.13	.02
Hispanic	-.08	.09	-.02	-.15	.10	-.04
Other race/ethnicity	.16	.09	.04	.09	.10	.02
Socioeconomic status	-.46***	.03	-.31	-.42***	.04	-.28
<i>R</i> <sup>2</sup>		.28			.24	

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

.05). In this model, the coefficient for housing problems changed from  $b = .53$  to  $b = .42$  once divorce proneness was added to the model. The post-hoc sobel test of mediation was 2.94 ( $p < .01$ ) indicating that this mediation effect was again significant.

Finally, with regard to the husbands' divorce proneness model:  $F(8, 1,578) = 7.99, p < .001, R^2 = .039$ , economic pressure ( $b = .15, p < .01$ ) fully mediated the relationship between housing problems and divorce. In this divorce proneness model for husbands, with the inclusion of economic pressure, housing problems changed from  $b = .37$  to  $b = .28$ . This model had a post-hoc sobel test of mediation of 2.65 ( $p < .01$ ). Thus,

Table 6

*The Mediating Variable of Economic Pressure on Marital Satisfaction (N = 1,589) and Divorce Proneness (N = 1,587) for Wives*

Variables	Marital satisfaction model 1			Marital satisfaction model 2			Divorce proneness model 1			Divorce proneness model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Intercept	4.00***	.04		4.35***	.02		1.97***	.10		1.59***	.16	
Employment problems	-.03	.05	-.01	.01	.05	.01	.15	.12	.03	.11	.12	.02
Housing problems	-.19*	.08	-.07	-.09	.08	-.03	.53**	.18	.08	.42*	.18	.06
Debt	-.03**	.01	-.08	-.01	.01	-.02	.04*	.02	.05	.02	.02	.02
Black <sup>a</sup>	.15	.13	.03	.12	.13	.02	.44	.30	.04	.47	.30	.04
Hispanic <sup>a</sup>	-.05	.08	-.02	-.08	.08	.02	.30	.19	.04	.31	.19	.04
Other race/ethnicity	-.11	.08	-.33	-.08	.08	-.03	.31	.19	.04	.28	.19	.04
Socioeconomic status	.06*	.03	.06	-.01	.03	-.00	-.25***	.07	-.09	-.17*	.07	.07
Economic pressure				-.15***	.02	-.20				.16**	.05	.09
<i>R</i> <sup>2</sup>		.02			.03			.05			.04	

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

Table 7

*The Mediating Variable of Economic Pressure on Divorce Proneness (N = 1,598) for Husbands*

Variables	Divorce proneness model 1			Divorce proneness model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Intercept	1.96**	.10		1.61***	.05	
Employment problems	.13	.11	.03	.08	.11	.02
Housing problems	.37*	.17	.06	.28	.17	.04
Debt	.06**	.02	.07	.04	.02	.05
Black <sup>a</sup>	.84**	.24	.09	.83**	.24	.09
Hispanic <sup>a</sup>	.04	.19	.01	.07	.19	.01
Other race/ethnicity	-.05	.20	-.01	.10	.20	.01
Socioeconomic status	-.19**	.07	-.07	-.13	.07	-.05
Economic pressure				.15**	.05	.09
<i>R</i> <sup>2</sup>		.03			.05	

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

for the husbands' divorce proneness model, economic pressure again had a significant mediation effect.

### **Mediating Effects Conclusion**

In accordance with Hypotheses 2 and 3, economic pressure did fully mediate the relationship between housing-related financial problems and marital satisfaction for wives. However, only partial mediation occurred for the women regarding the relationship between housing-related financial problems and the perceived likelihood of

future separation or divorce. For the men, economic pressure provided full mediation between housing-related financial problems and the perceived likelihood of future separation or divorce. Accordingly, there was partial support for Hypothesis 2 and 3, because full or partial mediation existed in three of the models.

## **Interaction Effects**

### **Interaction Effects Research Questions and Hypotheses**

The final research questions for this study focused on the possible presence of moderating variables. Specifically, would gender, race/ethnicity, socioeconomic status, and/or existing debt load change the strength or direction of the relationship between the independent variables and the dependent variables? Hypotheses 4-11 predicted that various interactions would take place to strengthen the impact of the relationship between the financial stressors and the marital outcomes (Table 2).

### **Interaction Effects Models**

The same four regressions that were performed for the main effect model were run a second time for the interaction effect model, though this time the interaction variables were added. Model 2 (Tables 8 and 9) contains the coefficients and standard errors for both dependent variables.

In the wives' marital satisfaction model, the model as a whole was statistically significant:  $F(17, 1,573) = 2.90, p < .001, R^2 = .03$ . The main effects of housing problems ( $b = -.22, p < .05$ ), debt ( $b = -.03, p < .01$ ), and socioeconomic status ( $b = .06, p < .05$ ) remained significantly associated with marital satisfaction while the interaction of

Table 8

*The Association Between Employment Problems, Housing Problems, and Marital Satisfaction (N = 1,591) and Divorce Proneness (N = 1,589) for Wives*

Variables	Marital satisfaction model 1			Marital satisfaction model 2			Divorce proneness model 1			Divorce proneness model 2		
	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$
Intercept	3.86***	.02		3.86***	.02		2.28***	.05		2.27***	.05	
Employment problems (EP)	-.03	.05	-.01	-.02	.05	-.01	.15	.12	.03	.12	.12	.03
Housing problems (HP)	-.19*	.08	-.07	-.22*	.10	-.08	.53**	.18	.08	.52*	.23	.08
Debt	-.03**	.01	-.08	-.03**	.01	-.08	.04*	.02	.05	.04*	.02	.05
Black <sup>a</sup>	.15	.13	.03	.11	.13	.02	.44	.30	.04	.39	.31	.03
Hispanic <sup>a</sup>	-.05	.08	-.02	-.08	.08	-.03	.30	.19	.04	.33	.19	.04
Other race/ethnicity	-.11	.08	-.33	-.09	.08	-.03	.31	.19	.04	.26	.19	.04
Socioeconomic status	.06*	.03	.06	.06*	.03	.05	-.25***	.07	-.09	-.25***	.07	-.09
EP x debt				.01	.02	.01				-.03	.05	-.01

(table continues)

Variables	Marital satisfaction model 1			Marital satisfaction model 2			Divorce proneness model 1			Divorce proneness model 2		
	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$
EP x Black				-.02	.29	-.00				-.52	.66	-.02
EP x Hispanic				.11	.18	-.02				.07	.41	.00
EP x other race/ethnicity				-.34	.18	-.05				.43	.42	.03
EP x socioeconomic status				.11	.07	.04				-.36*	.15	-.06
HP x debt				.00	.03	.00				.03	.07	.01
HP x Black				.40	.33	.03				.61	.77	.02
HP x Hispanic				.51*	.22	.06				-.21	.51	-.01
HP x other race/ethnicity				-.22	.26	-.02				1.27*	.59	.06
HP x socioeconomic status				.02	.11	.00				.05	.27	.01
<i>R</i> <sup>2</sup>		.02			.03			.03			.04	

*Note.* All of the variables are mean centered.

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

Table 9

*The Association Between Employment Problems, Housing Problems, and Marital Satisfaction (N = 1,603) and Divorce Proneness (N = 1,600) for Husbands*

Variables	Marital satisfaction model 1			Marital satisfaction model 2			Divorce proneness model 1			Divorce proneness model 2		
	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$
Intercept	3.85***	.02		3.83***	.02		2.29***	.05		2.32***	.05	
Employment problems (EP)	-.07	.05	-.04	-.07	.05	-.04	.13	.11	.03	.14	.11	.03
Housing problems (HP)	-.13	.07	-.05	-.30**	.10	-.11	.37*	.17	.06	.52*	.23	.08
Debt	-.03***	.01	-.09	-.03**	.01	-.08	.06**	.02	.07	.05*	.02	.06
Black <sup>a</sup>	-.06	.10	-.01	-.07	.11	-.02	.84**	.24	.09	.86***	.25	.09
Hispanic <sup>a</sup>	.08	.08	.02	.06	.08	.02	.04	.19	.01	.09	.19	.01
Other race/ethnicity	.10	.08	.02	.03	.08	.01	-.05	.20	-.01	.10	.20	.01
Socioeconomic status	.04	.03	.04	.03	.03	.03	-.19**	.07	-.07	-.20**	.07	-.08
EP x debt				-.01	.02	-.02				.01	.05	.00

(table continues)

Variables	Marital satisfaction model 1			Marital satisfaction model 2			Divorce proneness model 1			Divorce proneness model 2		
	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$	<i>SE</i>	<i>B</i>	$\beta$
EP x Black				-.30	.22	-.03				1.46**	.51	.07
EP x Hispanic				.18	.17	.03				-.07	.39	-.01
EP x other race/ethnicity				.16	.17	.02				-.58	.41	-.04
EP x socioeconomic status				-.01	.06	-.01				.15	.14	.03
HP x debt				.07*	.03	.06				-.01	.08	-.00
HP x Black				.20	.26	.02				-.45	.62	-.02
HP x Hispanic				.05	.21	.01				-.53	.50	-.03
HP x other race/ethnicity				-1.37***	.33	-.11				3.33***	.78	.11
HP x socioeconomic status				-.13	.11	-.04				.02	.25	.00
<i>R</i> <sup>2</sup>		.02			.04			.03			.05	

*Note.* All of the variables are mean centered.

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

housing-related financial problems with race/ethnicity (Hispanic) ( $b = .51, p < .05$ ) was the only significant moderating relationship (Figure 4).

Next, in the wives' divorce proneness model, the model as a whole was again found to be statistically significant:  $F(17, 1,571) = 3.95, p < .001, R^2 = .04$ . As was the case with the wives' marital satisfaction model, the main effects of housing problems ( $b = .52, p < .05$ ), debt ( $b = .04, p < .05$ ), and socioeconomic status ( $b = -.25, p < .001$ ) retained their statistically significant association with wives' divorce proneness. In this case, however, there were statistically significant interactions between recession-related employment problems and socioeconomic status ( $b = -.36, p < .05$ ; Figure 5) as well as between housing-related financial problems and race/ethnicity (Other) ( $b = 1.27, p < .05$ ; Figure 6).

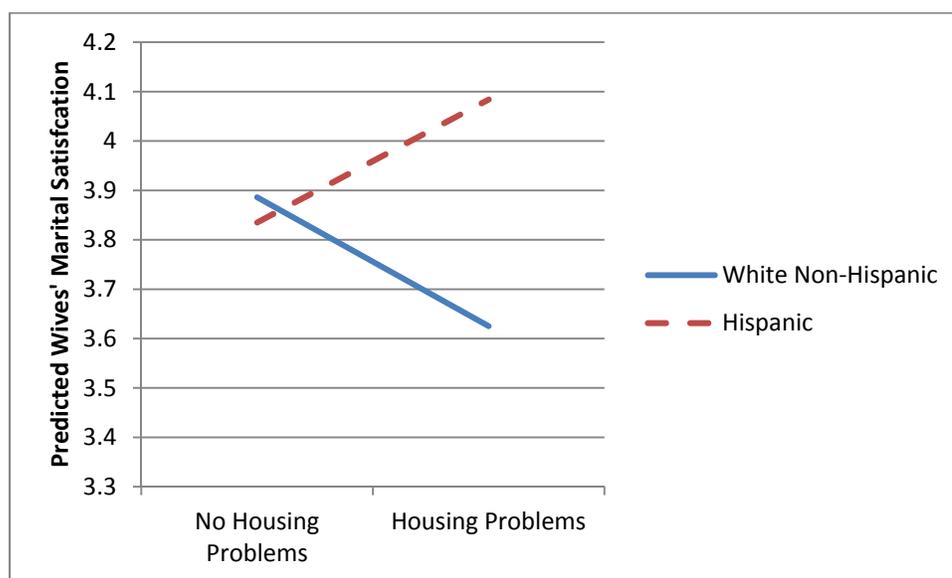


Figure 4. Interaction of wives' housing problems and the race/ethnicity (Hispanic) on marital satisfaction.

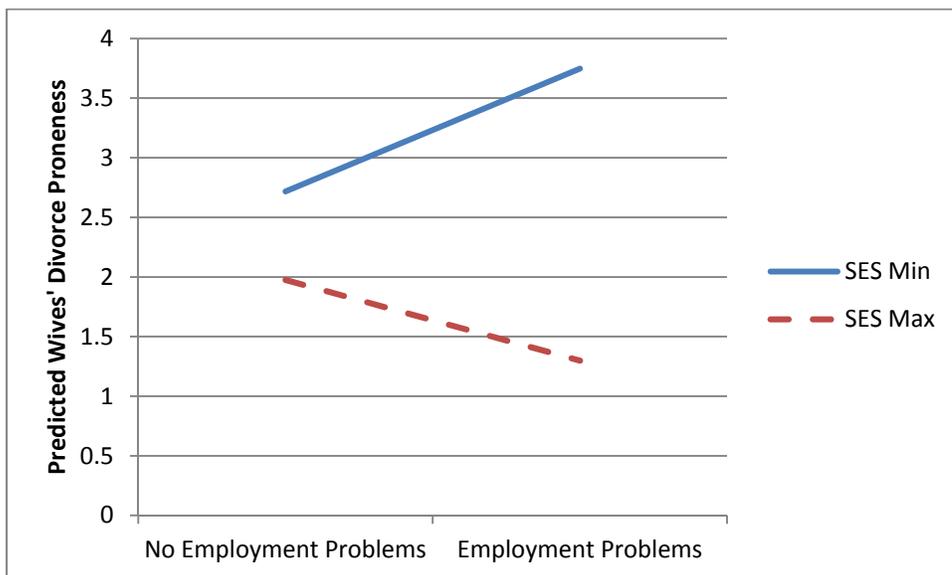


Figure 5. Interaction of wives' employment problems and SES on divorce proneness.

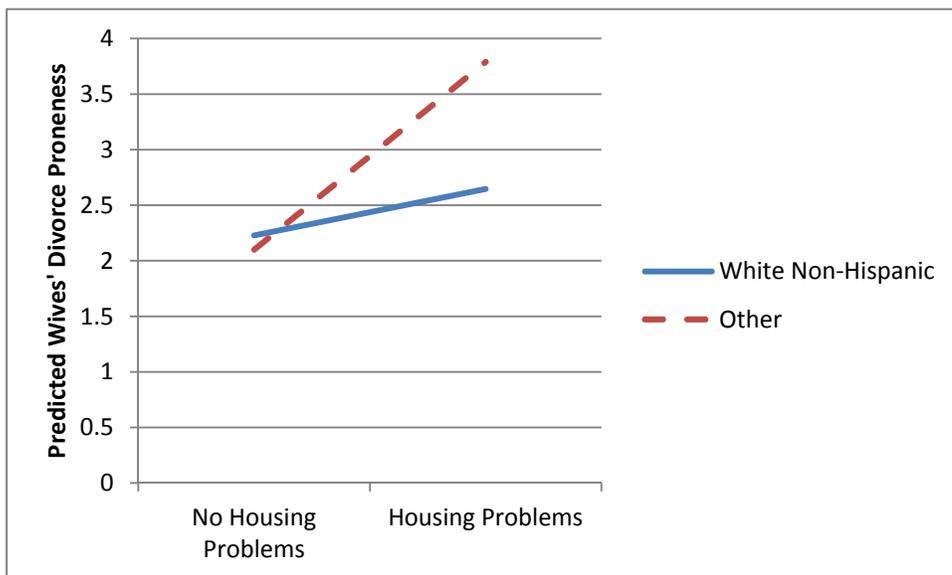
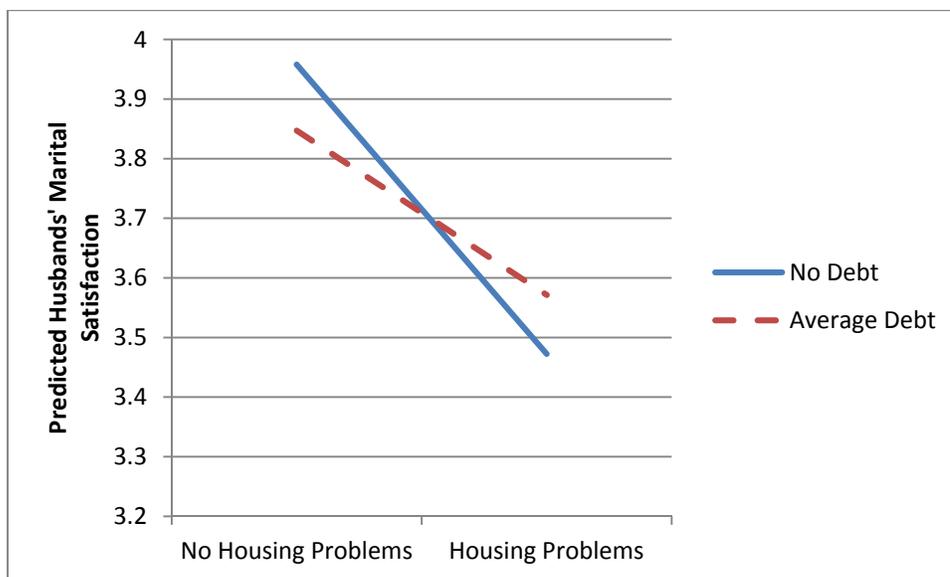


Figure 6. Interaction of wives' housing problems and the race/ethnicity (other) on divorce proneness.

For the husbands' marital satisfaction model, there was again statistical significance:  $F(17, 1,585) = 3.42, p < .001, R^2 = .04$ . For this model, the relationship between debt and marital satisfaction ( $b = -.03, p < .01$ ) remained statistically significant while the relationship between housing problems and marital satisfaction ( $b = -.30, p < .01$ ) became statistically significant as the interaction variables were added to this model. Likewise, the interaction of housing problems and debt ( $b = .07, p < .05$ ; Figure 7) and the interaction of housing problems and race/ethnicity (Other) ( $b = -1.37, p < .001$ ) were both significantly associated with husbands' marital satisfaction (Figure 8).



*Figure 7.* Interaction of husbands' housing problems and existing debt load on marital satisfaction.

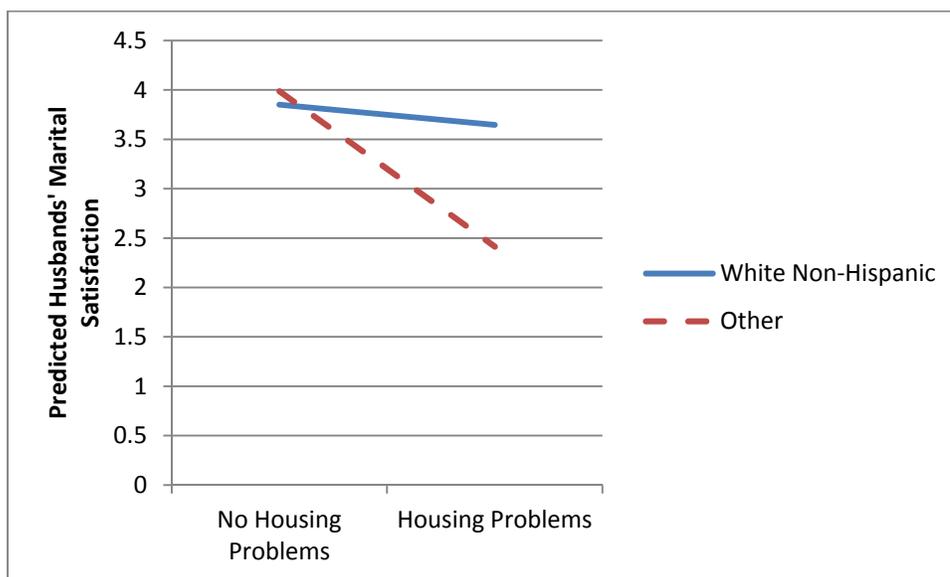
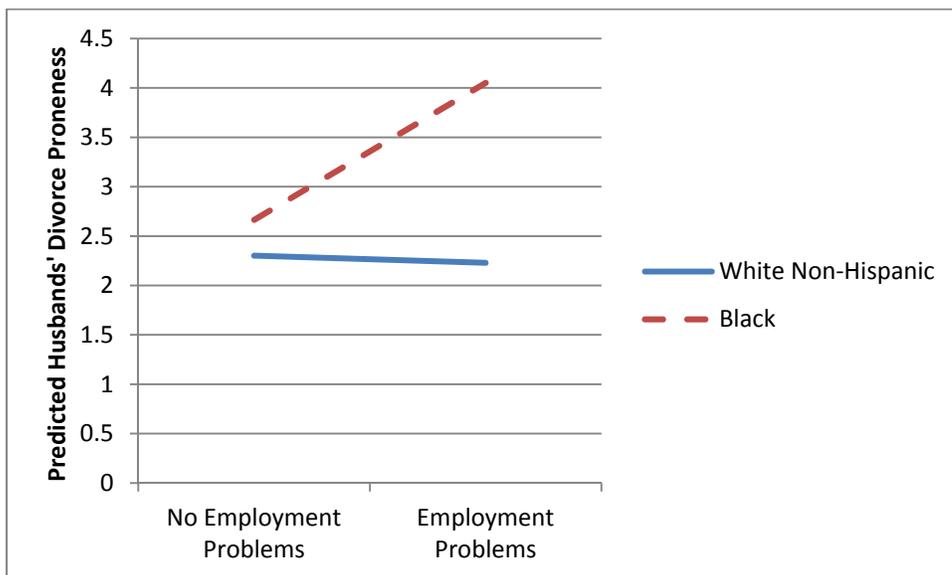


Figure 8. Interaction of husbands' housing problems and the race/ethnicity (other) on marital satisfaction.

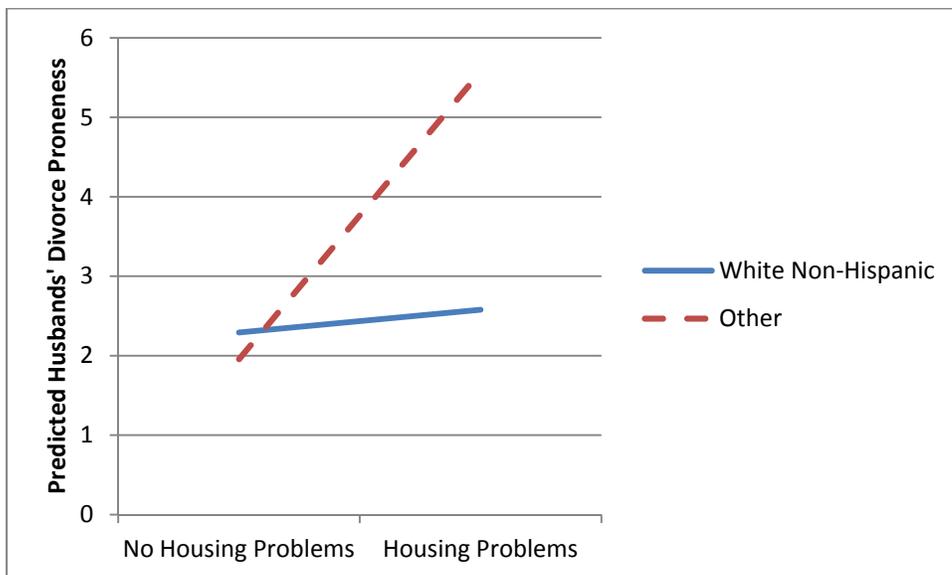
Finally, regarding husbands' divorce proneness, the model was once again significant:  $F(17, 1,582) = 4.80, p < .001, R^2 = .05$ . The main effects of housing problems ( $b = .52, p < .05$ ) and debt ( $b = .05, p < .05$ ) remained significantly associated with divorce proneness, while race/ethnicity (Black) ( $b = .86, p < .001$ ) and socioeconomic status ( $b = -.20, p < .01$ ) both became significantly associated with divorce proneness with the addition of the interaction variables to the model. With regard to moderating effects, the interaction between recession-related employment problems and race/ethnicity (Black) ( $b = 1.46, p < .01$ ; Figure 9) and the interaction between housing problems and race/ethnicity–other ( $b = 3.33, p < .001$ ; Figure 10) were both significant.

### Interaction Effects Conclusion

**Gender hypotheses.** It was hypothesized that gender would act as a moderator for wives by strengthening the negative correlation between both employment-related



*Figure 9.* Interaction of husbands' employment problems and the race/ethnicity (Black) on divorce proneness.



*Figure 10.* Interaction of husbands' housing problems and the race/ethnicity (other) on divorce proneness.

financial problems and housing-related financial problems and marital satisfaction (Hypothesis 4) as well as the positive relationship between these recession-related problems and divorce proneness (Hypothesis 5). While there were no significant correlations between employment-related financial problems and the outcome variables for either husbands or wives, there were gendered differences for the other models. Specifically, wives' housing-related financial problems were significantly predictive of marital satisfaction ( $b = -.19, p < .05$ ) while the husbands' relationship was not significantly predictive ( $b = -.13$ ). Similarly, while the relationship between housing-related financial problems and divorce proneness were significant for both genders, the relationship was stronger for wives ( $b = .53, p < .01$ ) than for the husbands ( $b = .37, p < .05$ ). Thus there was partial support for both Hypothesis 5 and Hypothesis 6 with the predictor variable of recession-related housing problems.

Additional models were run to check the robustness of the gender findings. In each of these models, the recession-related variables for both the men and the women were included. In the models with the wives' marital satisfaction and divorce proneness, the wives' control variables were added. For the models with husbands' marital satisfaction and divorce proneness, the husbands' control variables were added. However, none of the recession-related problems were associated with the dependent variables in these models.

**Race/ethnicity hypotheses.** It was anticipated that the negative relationship between employment-related financial problems and housing-related financial problems and the outcome variable of marital satisfaction would be magnified for those who

identified themselves as either Black or Hispanic (Hypothesis 6). Likewise, it was hypothesized that being Black or Hispanic would strengthen the positive correlation between the recession-related predictor variables and the perceived likelihood of eventual separation or divorce (Hypothesis 7).

As predicted, for husbands, there was an interaction between employment-related financial problems and being Black. While non-Hispanic Whites had a small negative relationship between employment-related financial problems and divorce proneness, for Blacks there was a significant positive relationship (Figure 9). For wives, there was also an interaction between housing-related financial problems and being Hispanic, though this interaction was contrary to the hypothesis. Although non-White Hispanic wives reported lower marital satisfaction while experiencing housing-related financial problems, Hispanic wives actually experienced a modest increase in marital satisfaction amidst these recession-related housing problems (Figure 4). This finding was not consistent with Hypothesis 6.

Though not hypothesized, there was an interaction between housing-related financial problems and race/ethnicity (other) which strengthened the positive relationship between housing problems and divorce proneness for both husbands and wives. In both models the magnitude of the positive correlation between housing-related financial problems and the perceived likelihood of future separation or divorce was significantly increased by the race/ethnicity classification of “other” (Figures 6 and 10). Similarly, this interaction also magnified the negative relationship between housing-related financial problems and marital satisfaction in a statistically significant way, though only for the

husbands. Here, husbands who selected “other” for their race/ethnicity reported lower marital satisfaction than husbands who had selected White/non-Hispanic (Figure 8).

**Socioeconomic status hypotheses.** Prior to running the analyses it was predicted that lower SES couples would have a heightened negative correlation between the recession-related financial stressors and marital satisfaction (Hypothesis 8). Further, it was postulated that the positive relationship between recession-related employment problems and housing problems and divorce proneness would be magnified for couples who classified themselves as lower SES (Hypothesis 9).

For wives, the interaction between employment-related financial problems and SES did augment the relationship between employment problems and the perceived likelihood of eventual separation or divorce. Interestingly, for higher SES couples, there was a negative relationship between employment-related financial problems and divorce, while the relationship was positive for lower SES couples (Figure 5). However, there was not a statistically significant SES interaction for husbands. Further, there were not statistically significant interactions for either gender with regard to the relationships between employment-related financial problems and marital satisfaction, housing problems and marital satisfaction, or housing-related financial problems and divorce proneness. Thus the findings did not support Hypothesis 8 and partially supported Hypothesis 9.

**Existing debt load hypotheses.** For the final moderator hypotheses, it was suggested that couples with higher debt loads would experience an increased correlation between the financial stressors and marital satisfaction (Hypothesis 10) and an increased

negative correlation between these independent variables and their proneness toward future divorce (Hypothesis 11).

While the relationship between debt and marital satisfaction was significantly and directly correlated to the dependent variables by itself, interestingly, husbands with housing problems and no debt reported lower levels of satisfaction than husbands with housing-related financial problems and an average amount of debt. However, this finding was not replicated for the wives. None of the other hypothesized debt interactions were found to be statistically significant. Thus, these hypotheses were only partially supported.

### **Logistic Regression Analysis**

Because the divorce proneness variable was not normally distributed, logistic regression analysis was also performed. As noted previously in the wives' main effects multiple regression analysis (Table 4), housing problems, amount of existing debt, and socioeconomic status were all found to be significantly associated with divorce proneness. In the wives' main effects logistic regression model (Table 10), housing problems ( $b = .41, p < .05$ ) and amount of existing debt ( $b = .05, p < .05$ ) remained significantly associated with divorce proneness. However, the relationship between socioeconomic status and divorce proneness was no longer significant in this model.

For the husbands' main effects multiple regression analysis (Table 4), housing problems, amount of existing debt, race/ethnicity (Black), and socioeconomic status were statistically significant predictors of divorce proneness. However, in the husbands'

logistic regression model (Table 10) only race/ethnicity (Black) ( $b = .78, p < .01$ ) remained significantly associated with divorce proneness.

As noted already, Table 6 contained the wives' findings when the economic pressure variable was added to the main effects model. In the multiple regression model housing problems, socioeconomic status, and economic pressure were all statistically significant predictors of divorce proneness once economic pressure was added. In the wives' logistic regression model (Table 11) the association between economic pressure and divorce proneness ( $b = .14, p < .01$ ) was the only statistically significant relationship. For the husbands, the mediator multiple regression model (Table 7) showed both race/ethnicity–Black and economic pressure as being significantly related to divorce proneness. Two relationships remained statistically significant in the husbands' logistic regression model (Table 12): race/ethnicity (Black) and divorce proneness ( $b = .77, p < .01$ ) and economic pressure and divorce proneness ( $b = .16, p < .001$ ).

In the wives' initial divorce proneness interaction model (Table 8), the relationships between housing problems, debt, and socioeconomic status were significantly associated with the outcome variable. Likewise, the following interactions were also significant: EP x socioeconomic status and HP x other race/ethnicity. In the wives' logistic regression interaction model (Table 13) only the relationship between debt and divorce proneness ( $b = .05, p < .05$ ) was statistically significant.

Finally, in the husbands' divorce proneness interaction model (Table 9), housing problems, debt, race/ethnicity (Black), and socioeconomic status were all significantly associated with the dependent variable. Likewise both the interaction of EP x Black and

Table 10

*The Association Between Employment Problems, Housing Problems, and Divorce Proneness. N = 1,592 for Wives and N = 1,603 for Husbands (Using Logistic Regression)*

Variables	Wives' divorce proneness			Husbands' divorce proneness		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Intercept	-.02	.05		-.19***	.05	
Employment problems (EP)	.05	.12	1.05	.21	.11	1.24
Housing problems (HP)	.41*	.18	1.50	.24	.17	1.28
Debt	.05*	.02	1.05	.04	.02	1.04
Black <sup>a</sup>	.29	.30	1.33	.78**	.25	2.18
Hispanic <sup>a</sup>	.26	.19	1.30	.33	.19	1.40
Other race/ethnicity	.12	.19	1.13	-.08	.20	.93
Socioeconomic status	-.06	.07	.95	-.02	.07	.98

*Note.* All of the variables are mean centered.

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

HP x race/ethnicity–other were also significant. However, in the husbands' divorce proneness interaction model (Table 14), only the relationship between race/ethnicity–Black ( $b = .88, p < .001$ ) and divorce proneness was significant.

As noted, there were some different findings between the multiple regression analyses and the logistic regression analyses. Implications of these differences will be discussed in Chapter 5. The differences between these analyses are summarized below.

Table 11

*The Mediating Variable of Economic Pressure on Divorce Proneness (N = 1,592) for Wives (Using Logistic Regression)*

Variables	Divorce proneness model 1			Divorce proneness model 2		
	<i>B</i>	<i>SE B</i>	Odds ratio	<i>B</i>	<i>SE B</i>	Odds ratio
Intercept	-.29**	.10		-.62***	.16	
Employment problems	.05	.17	1.05	.01	.12	1.01
Housing problems	.41*	.18	1.50	.32	.18	1.37
Debt	.05*	.02	1.05	.03	.02	1.03
Black <sup>a</sup>	.29	.30	1.33	.32	.30	1.37
Hispanic <sup>a</sup>	.26	.19	1.30	.28	.19	1.32
Other race/ethnicity	.12	.19	1.13	.10	.19	1.10
Socioeconomic status	-.06	.07	.95	.01	.07	1.01
Economic pressure				.14**	.05	1.15

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

For the wives' main effects model, the relationships remained mostly the same. Housing problems and existing debt load were significantly associated with divorce proneness in both models, though socioeconomic status was only significant in the multiple regression model.

Table 12

*The Mediating Variable of Economic Pressure on Divorce Proneness (N = 1,603) for Husbands (Using Logistic Regression)*

Variables	Divorce proneness model 1			Divorce proneness model 2		
	<i>B</i>	<i>SE B</i>	Odds ratio	<i>B</i>	<i>SE B</i>	Odds ratio
Intercept	-.47***		.10	-.86***		.16
Employment problems	.21	.11	1.24	.16	.11	1.17
Housing problems	.24	.17	1.28	.15	.17	1.16
Debt	.04	.02	1.04	.02	.02	1.02
Black <sup>a</sup>	.78**	.25	2.18	.77**	.25	2.16
Hispanic <sup>a</sup>	.33	.19	1.40	.36	.19	1.44
Other race/ethnicity	-.08	.20	.93	-.09	.20	.92
Socioeconomic status	-.02	.07	.98	.05	.07	1.05
Economic pressure				.16***	.05	1.18

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

The husbands' main effects model was quite a bit different. In the multiple regression analysis, housing problems, amount of existing debt, race/ethnicity (Black), and socioeconomic status were statistically significant predictors of divorce proneness. However, in the logistic regression model, only the relationship between race/ethnicity (Black) and divorce proneness remained significant.

For the wives' mediator models, there were also differences between the analyses.

Table 13

*The Association Between Employment Problems, Housing Problems, and Divorce Proneness (N = 1,592) for Wives (Using Logistic Regression)*

Variables	Divorce proneness model 1			Divorce proneness model 2		
	<i>B</i>	<i>SE B</i>	Odds ratio	<i>B</i>	<i>SE B</i>	Odds ratio
Intercept	-.02	.05		-.03	.05	
Employment problems	.05	.12	1.05	.05	.12	1.44
Housing problems	.41*	.18	1.50	.36	.23	2.54
Debt	.05*	.02	1.05	.05*	.02	1.05
Black <sup>a</sup>	.29	.30	1.33	.35	.31	1.41
Hispanic <sup>a</sup>	.26	.19	1.30	.32	.19	1.37
Other race/ethnicity	.12	.19	1.13	.11	.19	1.11
Socioeconomic status	-.06	.07	.95	-.06	.07	.94
EP x debt				-.05	.05	.95
EP x Black				-.35	.66	.71
EP x Hispanic				.20	.42	1.22
EP x other race/ethnicity				.42	.42	1.52
EP x socioeconomic status				-.12	.15	.89
HP x debt				.10	.07	1.10
HP x Black				-.61	.77	.54
HP x Hispanic				-.81	.51	.45
HP x other race/ethnicity				.29	.62	1.34
HP x socioeconomic status				-.12	.27	.89

*Note.* All of the variables are mean centered.

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

Table 14

*The Association Between Employment Problems, Housing Problems, and Divorce Proneness (N = 1,603) for Husbands (Using Logistic Regression)*

Variables	Divorce proneness model 1			Divorce proneness model 2		
	<i>B</i>	<i>SE B</i>	Odds ratio	<i>B</i>	<i>SE B</i>	Odds ratio
Intercept	-.19***	.05		-.20***	.05	
Employment problems	.21	.11	1.24	.20	.11	1.22
Housing problems	.24	.17	1.28	.11	.20	1.11
Debt	.04	.02	1.04	.04	.02	1.04
Black <sup>a</sup>	.78**	.25	2.18	.88***	.26	2.40
Hispanic <sup>a</sup>	.33	.19	1.40	.37	.19	1.44
Other race/ethnicity	-.08	.20	.93	.09	.19	1.10
Socioeconomic status	-.02	.07	.98	-.03	.07	.97
EP x debt				-.02	.05	.98
EP x Black				.79	.57	2.19
EP x Hispanic				.26	.40	1.30
EP x other race/ethnicity				.81	.41	2.26
EP x socioeconomic status				.03	.14	1.03
HP x debt				.06	.07	1.06
HP x Black				-.72	.65	.49
HP x Hispanic				-.48	.50	.62
HP x other race/ethnicity				-.31	.58	.74
HP x socioeconomic status				-.46	.27	2.94

*Note.* All of the variables are mean centered.

<sup>a</sup> Omitted category is White, Non-Hispanic.

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

Once economic pressure was added to the multiple regression model, housing problems, socioeconomic status, and economic pressure were all statistically significant predictors of divorce proneness. However, in the logistic regression model economic pressure was the only significant predictor variable.

The husbands' mediator models were virtually the same. In both analyses race/ethnicity (Black) and economic pressure were statistically significant predictors of divorce proneness.

For the interaction models, there were differences for both the wives and the husbands. For the wives' logistic regression interaction model, debt was the only remaining predictor of divorce (though housing problems, socioeconomic status, the interaction between recession-related employment problems and SES and the interaction between housing problems and race/ethnicity—other were all also significant predictors in the multiple regression model). Similarly, the husbands' multiple regression interaction model had a number of statistically significant predictor variables: housing problems, debt, race/ethnicity (Black), socioeconomic status, the interaction between employment-related financial problems and race/ethnicity (Black), and the interaction between housing problems and race/ethnicity (other). But, in the logistic regression model, only the relationship between race/ethnicity (Black) and divorce proneness remained significant.

## **CHAPTER V**

### **SUMMARY AND DISCUSSION**

One main purpose of this study was to examine predicted main effects between (a) employment-related financial problems and marital satisfaction, (b) employment-related problems and divorce proneness, (c) housing-related financial problems and marital satisfaction, and (d) housing-related financial problems and divorce proneness. Another purpose of this study was to consider the role of economic pressure as a mediator between these independent and dependent variables. The final purpose of this research study was to examine gender, race/ethnicity, socioeconomic status, and existing debt load as potential moderating variables. In this section, the results of the study's hypotheses are discussed in order. Specific attention is given to how these findings fit with theory and add to the existing literature. This section also concludes with limitations of the current study. Finally, recommendations for future research is noted through this chapter.

#### **Main Effect Hypothesis**

Hypothesis 1 predicted that employment-related and housing-related financial problems would be negatively associated with marital satisfaction and positively associated with divorce proneness. This hypothesis was partially supported.

Three of the four models found statistically significant relationships between recession-related housing problems and the outcome variables. For the wives, housing-related financial problems were related to both decreases in marital satisfaction and

increases in divorce proneness. Similarly, for the husbands, there was also a relationship between housing-related financial problems and divorce proneness, though there was not an association between housing-related financial problems and marital satisfaction for the men.

Going into this recession, many couples were already contributing more than half of their household income to their housing expenses (Williams, 2012). Likewise, unlike some other items in a household's budget, housing-related financial items are generally not discretionary expenses (Nelson et al., 2013). Thus, while piano lessons can be cancelled and a vacation rescheduled, there are not comparable options with regard to rent and mortgage payments. As such, once a couple begins falling behind on these payments (or even loses their home), it likely signifies that other financial strategies have been employed and they are left without other options and without much hope. Not only would these couples find themselves mired in financial problems, already a threat to marital happiness and stability (Dakin & Wampler, 2008), but they are also faced with possible foreclosure and/or eviction and the disruption that those events can cause. It does seem reasonable, then, that a relationship would exist between housing problems and divorce proneness (for both genders) and between housing-related financial problems and marital satisfaction for wives.

Further, Story and Bradbury (2004) noted that exposure to stress was correlated with marital dissatisfaction. Dakin and Wampler (2008) also suggested that financial issues were key factors in marital satisfaction. Thus, for couples experiencing financial problems, there would be constant financial stress knowing they were behind on house

payments, or worse, dealing with the foreclosure of their home. Thus, as found in the wives' data, it is not surprising that marital satisfaction was negatively correlated to housing-related financial problems. More surprising was the absence of this relationship for the husbands. It may be that housing problems undermine the financial benefit that women expect in marriage (Dew, 2009). It is possible that wives may invest more time and energy into their home and, thus, they may find it harder to relocate to a new home. Similarly, it is possible that women build greater social networks within their neighborhood and, consequently, would have more to leave when relocation is required.

Research from Thorne (2010) offered another possible explanation. This research suggested that paying the bills begins as a gender neutral chore. However, for couples with extreme financial challenges, wives predominantly end up owning the stressful but critical chores of scrutinizing the money spent, dealing with creditors, and researching and filing for bankruptcy. As women become more familiar with the precarious state of their finances, it would seem probable that this stress could lead to increased dissatisfaction for the marriage relationship. Further, Thorne (2010) noted that these women often retain the duty of overseeing finances because their husbands are either financially irresponsible or refuse to assist in shouldering these management responsibilities because the chores are distressing and worrisome. In both cases, it would not be surprising that these behaviors from the husbands, compounded with the hazardous state of their finances, could lead to marital dissatisfaction for these women.

On the other hand, recession-related employment problems were not associated with either dependent variable for wives or husbands. Because research suggested that

there was a negative relationship between exposure to stress in general (Story & Bradbury, 2004) and financial problems in particular (Dakin & Wampler, 2008) and marital satisfaction, the absence of these hypothesized relationships was surprising. Additionally, over the last few decades there have been studies linking unemployment and decreased marital satisfaction (Rook et al., 1991; Sullivan et al., 2000; Vinokur et al., 1996).

However, potential explanations for the lack of findings between recession-related employment problems and the outcome variables may also be found in the literature. Research conducted since the 2007-2009 Recession found that couples strived to positively cope with the challenges of unemployment by engaging in wise financial behaviors (Baek & DeVaney, 2010). Further, there was also a documented increase in wives' labor force participation during the recession (Mattingly & Smith, 2010). Thus, these creative solutions may have somewhat minimized the impact of unemployment and may also help explain the absence of the anticipated relationship between recession-related employment problems and marital satisfaction. As discussed in more detail later in the chapter, the use of credit cards may have also temporarily staved off the effects of employment-related problems.

It is also possible that some of the employment-related marital issues do not take full effect until a few years after the stressor originally presented itself. This could be manifest in a variety of ways including maxed out credit cards and the opportunity cost presented by the absence of available credit. Or, if the spouse went to work or added more hours because of the employment problems of his/her partner, the new

responsibilities and the new schedule might seem manageable, even exciting, in the short-term. However, if this arrangement became permanent, this schedule may violate expectations of one or both marriage partners and could potentially be associated with future dips in marital satisfaction. While these findings do appear to contradict Hypothesis 1 as well as previous research, it may simply be that the full impact of the employment-related financial problems was not yet realized for some of the couples at the time the data were collected. This could be an intriguing line of future research.

As Hypothesis 1 is considered as a whole, it is possible that employment-related financial problems do, in fact, pose challenges for couples -- but challenges with some viable solutions. However, if these employment problems also lead to housing problems, or if there are simply housing problems (without accompanying employment-related financial problems), it is possible that couples may have fewer options or may have run out of options to rectify their financial situation. Thus, this more extreme financial stress appears to lead to less desirable marital outcomes.

Further, it is also conceivable that employment-related financial problems are simply not related to marital quality for contemporary couples. While it seems counter-intuitive, it is possible that modern couples are more resilient to employment-related stress than anticipated. It is possible that the expectations of today's workforce is different than previous generations. Many employees may expect to change jobs throughout their career and, thus, when unemployment is thrust upon them, it may not be as disruptive as it would have been previously. Consequently, a cohort effect may exist

where employment problems and money issues are viewed as less problematic for modern couples (as compared to previous cohorts).

### **Mediating Effects Hypotheses**

Hypothesis 2 predicted that the relationship between employment-related and housing-related financial problems and marital satisfaction would be reduced or eliminated after controlling for the relationship between economic pressure and marital satisfaction. Similarly, Hypothesis 3 anticipated that the relationship between employment-related and housing-related financial problems and divorce proneness would be reduced or eliminated after controlling for the relationship between economic pressure and divorce proneness. However, for the employment hypotheses, because there were no statistically significant correlations between recession-related employment problems and the outcome variables, there were no main effect relationships to be mediated for those employment problem models. But, mediation did take place in the other models.

Economic pressure did fully mediate the relationship between housing-related financial problems and marital satisfaction for wives as well as the relationship between housing-related financial problems and divorce proneness for the husbands. Likewise economic pressure provided partial mediation between housing-related financial problems and divorce proneness for the wives. Thus, for all three of the statistically significant main effect relationships, economic pressure offered either full or partial mediation.

Utilizing contemporary data from the recent recession, this current study replicated previous family stress model findings. Specifically, the relationships between

financial stressors and adverse marital outcomes were fully or partially mediated by economic pressure. Though the causes of the financial stress have varied with the studies, these findings are consistent with previous studies framed by the family stress model (Aytac & Rankin, 2009; Conger et al., 1990, 1999; Cutrona et al., 2003; Dew & Xiao, 2013; Dew & Yorgason, 2010; Kinnunen & Feldt, 2004). Thus, it is not simply the presence of financial challenges that negatively impacts a relationship, rather it is the daily financial worries and troubles that increase the likelihood of harmful marital interactions and decrease the likelihood of warm and supportive marital interactions that can ultimately erode a relationship (Conger et al., 1999).

Interestingly, there are findings drawing all the way back to the Great Depression which also support the findings of this current study. Liker and Elder (1983) noted that during the Great Depression, the only U.S. financial disaster greater than the 2007-2009 Recession, marital discord increased due to economic pressure.

Other research may further explain some of the findings of the current study. A 2003 study (Cutrona et al.) noted that the financial strain of a couple's neighborhood was negatively correlated with the warmth of interaction between spouses. For couples who foreclosed on their home, it is likely that they would have had to relocate to less affluent neighborhoods. For those who may have previously been classified as middle-class prior to the foreclosure of their home, moving into a poorer neighborhood may have further compounded a challenging financial situation. Thus, not only would a couple have to navigate the challenges associated with losing a home and all that entails (memories associated with the home, possibly moving away from friends and family, adjusting to a

less expensive home, etc.), but they also may experience the additional neighborhood-related economic pressure, with the potential of further decreases in interactional warmth between spouses.

### **Interaction Effects Hypotheses**

#### **Gender**

Hypothesis 4 predicted the purported negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction would be stronger for wives than for husbands. As previously noted, there were no main effect relationships between recession-related employment problems and the outcome variables for either husbands or wives. However, as predicted, housing-related financial problems did have a stronger negative correlation with marital satisfaction for women than for men. In fact, the findings were statistically significant for the wives, but not the husbands.

Likewise, Hypothesis 5 noted that the anticipated relationship between employment-related financial problems and housing-related financial problems and the perceived likelihood of eventual separation or divorce would be stronger for wives than for husbands. In this case, there were statistically significant findings for both genders with regard to the positive relationship between housing-related financial problems and divorce proneness. However, the strength of the relationship was stronger for the wives than for the husbands.

Thus, these findings align with research suggesting that wives may expect a

certain level of economic benefit from marriage (Dew, 2009, 2011). Regardless of what the original expectations may have been, it appears that threats to the couples' standard of living may be more harmful for the wives than the husbands.

Further, the presence of children may further exacerbate feelings of frustration and helplessness for some wives – especially those who are full-time homemakers or those who work reduced hours in order to care for their children. Wives in this situation may find themselves more reliant upon their husbands' income in order to maintain their desired standard of living and the economic benefit of marriage. It may be that these women are more susceptible to drops in marital satisfaction during times of financial stress.

Additionally, for wives and husbands who earn approximately the same amount of money, research suggests that they may be the most prone to divorce (Rogers, 2004). Women who are contributing roughly the same percentage of income as their husbands may have fewer barriers to dissolving the relationship if they are unhappy. Within the context of the family stress model, as warmth decreases and hostility increases due to economic pressure, these women may have an increased likelihood of future separation or divorce.

Higher assets also act as a deterrent to divorce for wives (Dew, 2011). Prior to couples foreclosing on a home, for instance, it is likely that other assets would have already been spent or sold. Thus, for women experiencing recession-related housing problems, this protective buffer of assets may have disappeared because of the financial problems—therefore, leaving these women more vulnerable to divorce.

**Race/Ethnicity**

Hypothesis 6 predicted that the anticipated negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction would be stronger for African American and Hispanic couples than for non-Hispanic White couples. This hypothesis was not supported. There were no significant interactions for Blacks or Hispanic in support of this hypothesis. Interestingly, there was an unanticipated interaction for wives' housing problems interacting with the race/ethnicity–Hispanic. The direction of this interaction, however, was contrary to the hypothesis. Thus, Hispanic wives experiencing housing-related financial problems actually reported higher levels of marital satisfaction than those without housing problems.

This finding certainly merits replication and additional research. One explanation may be that Hispanic couples treat each other differently during times of financial distress than do other races and ethnic groups. In other words, there may be things going on in Hispanic families that are uniquely different from other couples during times of financial stress. There is ample family stress model research noting that couple interactions become more hostile and less supportive during times of financial stress (Conger et al., 1990, 1999). These initial studies were done with non- nationally representative data, drawing on Midwestern U.S. couples and have been replicated, even internationally (Aytac & Rankin, 2009; Kinnunen & Feldt, 2004), but it may be that Hispanic couples do not respond to economic stress in the same manner as other couples. It is possible that there is more warmth and support during stressful times. Or, maybe

Hispanic couples attach a more negative stigma to divorce than other contemporary couples. Regardless, this is one of the more surprising findings in the study and certainly bares additional future attention.

Hypothesis 7 suggested that the anticipated positive relationship between employment-related financial problems and housing-related financial problems and the perceived likelihood of eventual separation or divorce would be stronger for Black and Hispanic couples than for non-Hispanic White couples. For the wives, there were no statistically significant associations or interactions for these two race/ethnic groups. For the husbands there was a strong correlation between being Black and divorce proneness. There was also an interaction for husbands between being Black and recession-related employment problems. This interaction was significantly associated with divorce proneness. However, there were no other significant relationships for Blacks or Hispanics. Thus, there was limited support of this hypothesis.

The finding regarding the interaction of being Black and having employment-related financial problems being a statistically significant predictor of divorce proneness was not surprising. Amato (2010) noted that African Americans experienced a higher divorce rate during their first 15 years of marriage. Likewise, African Americans are less likely to marry as compared to Caucasians, Asian-Americans, and Hispanic-Americans (Conger et al., 2010). Accordingly, it is possible that even some of those Blacks who did marry may have been somewhat hesitant to do so (as suggested by the lower marriage rate). Furthermore, it also appears, at least during the initial years of marriage, that some Blacks seem more susceptible to the early termination of their marital union. So, once

employment-related financial problems entered the equation, it appears that fragile Black unions may have been more susceptible to dissolution than fragile unions of other races and ethnic groups.

While the predictions for Hypotheses 6 and 7 were only partially supported, the literature may provide clues for these unexpected findings. First, in the U.S. there is a slightly lower percentage of Hispanic men and women married (as compared to Asians and Caucasians) and a dramatically lower percentage of Black men and women married (again as compared to Asians and Caucasians; Amato, 2010). Thus, there may be a more dramatic marriage selection bias for Hispanics and Blacks. In other words, it is possible that this percentage of Hispanics and Blacks who opted not to marry may have been more inclined to become dissatisfied in a marriage or to leave the marriage during stressful times. With these respectively lower percentages of Hispanic and Black men and women opting to marry, marriage may serve as an initial screening to filter out individuals who may not be as committed to the relationship.

Another possible explanation may have to do with the percentage of couples below the poverty line. Data from 2008 noted that Hispanic couples (26.8%) and Black couples (29.6%) had substantially higher percentages below the poverty line than did White couples (9.3%; Conger et al., 2010). Accordingly, though it was hypothesized that, due to this disparity in poverty, Black and Hispanic couples may have less means to handle these financial stressors, it is also possible that marital discord or risk of divorce was somewhat decreased because there may have been less to lose financially for economically-challenged couples. In other words, for couples who had spent extensive

time at or below the poverty line, the financial stress associated with the 2007-2009 Recession could have felt like “more of the same” as opposed to a substantial and unexpected jolt to the couples’ homeostasis. Though, on average, Hispanic and Black couples may have had less economic resources to handle the economic fallout from financial problems, this may have been compensated by being more accustomed to dealing with financial stress once the same financial problems did arise.

A third possible factor has to do with the perceived prerequisite resources required to get married. Though many lower income couples have high hopes for marriage, they also have a list of financial and relationship prerequisites that need to be met prior to believing they are ready to marry (Gibson-Davis, Edin, & McLanahan, 2005). As such, many postpone or avoid marriage because they perceive that they lack the required economic foundation to get married. As noted above, Blacks and Hispanics are more likely to have a lower level of income (Conger et al., 2010). Thus, it is likely that the Blacks and Hispanics who may have been the most heavily impacted by financial stress, were also the least likely to be married.

### **Socioeconomic Status**

Hypothesis 8 predicted that the anticipated negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction would be stronger for lower SES couples than for higher SES couples. There were no findings to support this hypothesis. Likewise, Hypothesis 9 predicted that the anticipated positive relationship between employment-related financial problems and housing-related financial problems and divorce proneness would be

stronger for lower SES couples than for higher SES couples. Here there was one statistically significant finding as, for wives, the interaction between employment-related financial problems and SES did increase the relationship between recession-related employment problems and divorce proneness.

These results supported Hypothesis 9 (for the wives' model). These findings are consistent with previous research which found that higher socioeconomic status was positively related to desirable marital outcomes (Conger et al., 2010), that household financial resources were associated with marital satisfaction (Rogers & Amato, 1997) and that low-income couples experienced lower marital satisfaction than higher-income couples (Dakin & Wampler, 2008). It appears that couples who entered the recession near or below the poverty line may have had fewer resources available to them once unemployment struck. Likewise, lower SES individuals were not only unemployed at a disproportionate rate, but they also had a harder time finding employment once unemployed (Katz, 2010). Consequently, not only would low SES couples have fewer resources to meet financial demands once unemployed, but the duration of the unemployment was likely to be longer.

It is interesting that there were no findings in the husbands' employment problems model. This may again represent women's desire that marriage provide a certain level of economic benefit (Dew, 2011). Thus, employment-related financial problems more heavily distressed the lower SES women than it did the lower SES men because of the wives' expectation for marital economic benefit.

### **Existing Debt Load**

Hypothesis 10 suggested that the negative relationship between employment-related financial problems and housing-related financial problems and marital satisfaction would be stronger for couples with higher existing debt loads than for couples with lower existing debt loads (or no debt). Similarly, Hypothesis 11 stated that the positive relationship between employment-related financial problems and housing-related financial problems and the perceived likelihood of eventual separation or divorce would be stronger for couples with higher existing debt loads than for couples with lower existing debt loads (or no debt).

Only one of the debt interactions was statistically significant and that finding was contrary to Hypothesis 10. Specifically, husbands with housing problems and no debt reported lower levels of satisfaction than husbands with housing problems and an average amount of debt. For these hypotheses, the general absence of findings (along with the one unexpected finding), was surprising.

One explanation may be that time had not yet caught up with some of these couples. It is possible that couples who had experienced recession-related financial problems and who also amassed more debt had not yet felt the full impact of their high debt load. Maybe there would have been statistically significant interactions from these couples had the data been collected a year or two later. In fact, recently released data from an ADP report (ADP is the largest payroll provider in the U.S.) noted that 4 million workers, or roughly 3% of all U.S. employees, had wages garnished during 2013 due to consumer debt (Kiel, 2014). This study did not note how or when these U.S. workers

amassed their credit card debt. However, it is a reasonable conclusion that at least some of this revolving debt originally stemmed from recession-related problems. There may also be other ways in which credit-card debt amassed during the recession could actually harm marital satisfaction or increase the likelihood for divorce years later.

It was surprising to find that, for couples impacted by housing-related financial problems, husbands with average household debt actually reported higher levels of marital satisfaction than husbands without debt. It may be that some financially challenged couples were able to maintain their standard of living, at least temporarily, by increasing their consumer debt. Some of these couples may have preferred present conveniences over the future challenges associated with paying off credit card debt. It is also possible that some of these husbands did not realize the potential challenges looming because of their increasing debt. This may be a literal example of ignorance being bliss – at least with regard to the comparison of their marital satisfaction with those without debt.

### **Limitations**

As is the case with most studies, this study has some limitations. To begin, this study utilized cross-sectional data. By contrast, a longitudinal study would have provided the opportunity to follow couples over time. For example, a future longitudinal study would be able to examine actual divorce of couples rather than the perceived likelihood of future divorce. Further, because the data were cross-sectional it was not possible to test the direction of the relationships. For instance, Zagorsky (2005) noted that couples

sometimes spend down assets prior to a divorce in an apparent attempt to prevent the other spouse from receiving more assets in the settlement. Thus the cross-sectional data are both a weakness to this study and an opportunity for future research.

Next, the measure for housing problems could have been improved. The question for this independent variable was: “Have you been through a foreclosure or had problems making mortgage payments since the recession began?” There is substantial difference between being 1 or 2 months late on a mortgage payment verses having already foreclosed on a home.

The measure for employment issues was similarly limited. This question stated: “Have you been unemployed, had your pay cut, or had your work hours reduced since the recession began?” Again, there is a substantial difference from individuals who may have had their hours temporarily cut for a month or two as compared to those who had experienced unemployment (especially long-term unemployment).

Another measure that could have been improved was the response set for the divorce variable question. The question was seemingly acceptable: “It is always difficult to predict what will happen in a marriage, but realistically, what do you think the chances are that you and your partner will eventually separate or divorce?” However, the response set offered 11 options to respondents ranging from very low to very high. This response set probably could have captured the essence of the respondents’ thoughts with four or five options. This change would have prevented the data from being as skewed as it was in this study.

The divorce proneness measure was related to another limitation of this study.

Specifically, there were differences in some of the findings from the multiple regression analysis as compared to the logistic regression analysis. As noted at the end of Chapter IV, many of the relationships remained the same in both models. However, there were also a number of differences between the findings. This was especially true for the husbands' main effect model.

Finally, another limitation to this present study is the  $R^2$  values. Although, a number of the findings were statistically significant, there are some concerns about the practical significance of the findings. For example, in the main effect models, though significant, housing problems only explained 2-3% of the variance in the dependent variables. Further, when economic pressure was added to the models, there was only a modest 2% bump in the percentage of the variance explained by those independent variables. It is clear that both marital satisfaction and divorce are complex issues with many factors.

However, it is also probable that the measures, as referenced earlier, could have played a role in these small  $R^2$  findings. Another possibility is that these recession-related financial problems simply did not have a strong association with marital quality. Or, relatedly, it is possible that couples learn to cope with these economic challenges which, in turn, reduce the strength of the relationship between financial stress and the dependent variables. Finally, as referenced earlier, it is also probable that many couples had not yet felt the full magnitude of the fallout from the recession-related problems at the time the data were collected. As an example, the research discussing the millions of Americans having their paychecks garnished due to credit card debt (Kiel, 2014), was released just

days before the final draft of this paper was completed. While garnishment has occurred for decades, previously the vast majority of these garnishments were child support related. However, the aggressive tactic for debt collectors to sue people for basic consumer debt (including credit card debt) will undoubtedly create additional stress for many households. However, this strategy was not commonly utilized at the time the data were collected.

This research begins to tell the story regarding marital implications resulting from the Great Recession. However, questions remain and further research is needed to better understand the relationship between employment and housing problems stemming from the 2007-2009 Recession and the marriage relationship.

### **Conclusion**

Prior to this study, little was known regarding the impact of housing-related financial problems on the marital relationship (Nelson et al., 2013). It appears that recession-related housing problems are negatively associated with marital satisfaction (wives model only) and positively associated with divorce proneness. This is an important finding. With many experts referencing the current economic recovery as a “jobless recovery” and with many homes still well below pre-recession value, many couples did experience, are experiencing, and will likely continue to experience housing-related financial problems which initially originated with the 2007-2009 Recession. Consequently, these findings may be helpful in beginning to understand the role of

foreclosure and other housing-related financial problems on the quality and stability of the marriage relationship.

It was also interesting that this study yielded no main effect findings between recession-related employment problems and the marital outcome variables. It may be that there is a certain “financial stress” threshold that couples can typically navigate, including initial unemployment. However, if this unemployment leads to housing-related financial problems, or if housing problems arise apart from any employment issues, it is possible that couples are no longer able to effectively cope with that higher level of financial stress – thus the correlation with the marital outcome variables. Regardless, this is an interesting finding that merits additional research.

This study also added to the body of family stress model research. The current study replicated Conger’s earlier work (Conger et al., 1993, 1999, 2002) – though with a larger nationally representative sample. Similarly, this study was also important as it was the first to utilize the family stress model with the recent recession.

Differences in gender perception were also key findings in this study. It is fascinating that husbands and wives can share the same marriage, experience the same financial stressors, and yet feel differently regarding the satisfaction of their marriage as well as how prone their marriage may be to future divorce. This is important because the unit of measurement in marriage studies is often the couple and, at least according to the results of this study, wives and husbands may not necessarily respond in the same manner to various stressors. These findings also merit additional research to help provide further

clarity regarding how and why two individuals within the same marriage might perceive their relationship differently.

Millions of Americans experienced recession-related employment problems and housing problems stemming from the 2007-2009 Recession. This study took an important preliminary look at recession-related problems and their relationship with marital outcomes. Future research is needed to continue to understand how marriages are responding to the largest economic disaster since the 1930s.

**REFERENCES**

- Aaronson, D., Mazumder, B., & Schechter, S. (2010). What is behind the rise in long-term unemployment? *Economic Perspectives*, 28-51. Retrieved from [http://rricketts.ba.ttu.edu/aaronson%20et%20al\\_long-term%20unemployment.pdf](http://rricketts.ba.ttu.edu/aaronson%20et%20al_long-term%20unemployment.pdf)
- Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and the Family*, 1269-1287. Doi:10.1111/j.1741-3737.2000.01269.x
- Amato, P. R. (2010). Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*, 72, 650-666. Doi: 10.1111/j.1741-3737.2010.00723.x
- Amato, P. R. (2014). Tradition, commitment, and individualism in American Marriages. *Psychological Inquiry: An International Journal for the Advancement of Psychological Theory*, 25(1), 42-46. Doi: 10.1080/1047840X.2014.877812
- Amato, P. R., & DeBoer, D. D. (2001). The transmission of marital instability across generations: Relationship skills or commitment to marriage? *Journal of Marriage and Family*, 63, 1038-1051. Doi: 10.1111/j.1741-3737.2001.01038.x
- Amato, P. R., & Hohmann-Marriott, B. (2007). A comparison of high- and low-distress marriages that end in divorce. *Journal of Marriage and Family*, 69, 621-638. Doi: 10.1111/j.1741-3737.2007.00396.x
- Amato, P. R., Johnson, D. R., Booth, A., & Rogers, S. J. (2003). Continuity and change in marital quality between 1980 - 2000. *Journal of Marriage and Family*, 65, 1-22. Doi:10.1111/j.1741-3737.2003.00001.x

- Amato, P. R., & Rogers, S. J. (1999). Do attitudes toward divorce affect marital quality? *Journal of Family Issues, 20*(1), 69-86. Doi: 10.1177/019251399020001004
- Archuleta, K. L., Britt, S. L., Tonn, T. J., & Grable, J. E. (2011). Financial satisfaction and financial stressors in marital satisfaction. *Psychological Reports, 108*(2), 563-576. Doi: 10.2466/07.21.PR0.108.2.563-576
- Aytac, I. A., & Rankin, B. H. (2009). Economic crisis and marital problems in Turkey: Testing the family stress model. *Journal of Marriage and Family, 71*, 756-767. Doi: 10.1111/j.1741-3737.2009.00631.x
- Baek, E., & DeVaney, S. A. (2010). How do families manage their economic hardship? *Family Relations, 59*, 358-368. Doi: 10.1111/j.1741-3729.2010.00608.x
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182. Doi: 10.1037/0022-3514.51.6.1173
- Britt, S., Grable, J. E., Goff, B. N., & White, M. (2008). The influence of perceived spending behaviors on relationship satisfaction. *Financial Counseling and Planning, 19*(1), 31-43. Retrieved from <http://web.a.ebscohost.com/ehost/detail?Sid=48dc74e0-ce6b-44ec-b9fb-56a636879b79%40sessionmgr4002&vid=1&hid=4212&bdata=JnNpdGU9ZWhvc3QtbG12ZQ%d%3d#db=aph&AN=34060668>
- Bryant, C. M., Wickrama, K. A., Bolland, J., Bryant, B. M., Cutrona, C. E., & Stanik, C. E. (2010). Race matters, even in marriage: Identifying factors linked to marital

- outcomes for African Americans. *Journal of Family Theory and Review*, 2, 157-174. Doi:10.1111/j.1756-2589.2010.00051.x
- Bulanda, J. R., & Brown, S. L. (2007). Race-ethnic differences in marital quality and divorce. *Social Science Research*, 36, 945-967. Retrieved from <http://dx.doi.org/10.1016/j.ssresearch.2006.04.001>
- Cherlin, A. J. (2010). Demographic trends in the United States: A review of research in the 2000s. *Journal of Marriage and Family*, 72(3), 403-419. Doi:10.1111/j.17413737.2010.00710.x
- Clements, M. L., Martin, S. E., Cassil, A. K., & Soliman, N. N. (2011). Declines in marital satisfaction among new mothers: Broad strokes versus fine details. *Journal of Marriage and Family*, 73(1), 13-17. Doi:10.1111/j.1741-3737.2010.00783.x
- Conger, R. D., Conger, K. J., Elder, G. H., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1993). Family economic stress and adjustment of early adolescent girls. *Developmental Psychology*, 29(2), 206-219. Doi:10.1037/0012-1649.29.2.206
- Conger, R. D., Conger, K. J., & Martin, M. J. (2010). Socioeconomic status, family processes, and individual development. *Journal of Marriage and Family*, 72, 685-704. Doi:10.1111/j.1741-3737.2010.00725.x
- Conger, R. D., & Elder Jr., G. H. (1994). *Families in troubled times, adapting to change in rural America*. New York, NY: Walter de Gruyter.
- Conger, R. D., Elder, G. H., Lorenz, F. O., & Conger, K. J. (1990). Linking economic hardship to marital quality and instability. *Journal of Marriage and Family*, 52, 643-656. Doi:10.2307/352931

- Conger, R. D., Rueter, M. A., & Elder, G. H. (1999). Couple resilience to economic pressure. *Journal of Personality and Social Psychology, 76*(1), 54-71. Doi: 10.1037/0022-3514.76.1.54
- Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Brody, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology, 38*(2), 179-193. Doi: 10.1037/0012-1649.38.2.179
- Cutrona, C. E., Russell, D. W., Abraham, W. T., Gardner, K. A., Melby, J. N., Bryant, C., & Conger, R. D. (2003). Neighborhood context and financial strain as predictors of marital interaction and marital quality in African American couples. *Personal Relationships, 10*, 389-409. Doi: 10.1111/1475-6811.00056
- Dakin, J., & Wampler, R. (2008). Money doesn't buy happiness, but it helps: Marital satisfaction, psychological distress, and demographic differences between low- and middle-income clinic couples. *The American Journal of Family Therapy, 36*, 300-311. Doi: 10.1080/01926180701647512
- Dean, L., Carrol, J., & Yang, C. (2007). Materialism, perceived financial problems, and marital satisfaction. *Family and Consumer Sciences Research Journal, 35*(3), 260-281. Doi: 10.1177/1077727X06296625
- Dew, J. (2007). Two sides of the same coin? The differing roles of assets and consumer debt in marriage. *Journal of Family and Economic Issues, 28*(1), 89-104. Doi: 10.1007/s10834-006-9051-6
- Dew, J. (2008). Debt change and marital satisfaction change in recently married couples.

- Family Relations*, 57, 60-71. Doi: 10.1111/j.1741-3729.2007.00483.x
- Dew, J. (2009). The gendered meanings of assets for divorce. *Journal of Family Economic Issues*, 30, 20-31. Doi: 10.1007/s10834-008-9138-3
- Dew, J. (2011). The association between consumer debt and the likelihood of divorce. *Journal of Family Economic Issues*, 32, 354-365. Doi: 10.1007/s10834-011-9274-z
- Dew, J., Britt, S., & Huston, S. (2012). Examining the relationship between financial issues and divorce. *Family Relations*, 61, 615-628. Doi: 10.1111/j.1741-3729.2012.00715.x
- Dew, J., & Xiao, J. J. (2013). Financial declines, financial behaviors, and relationship happiness during the 2007-2009 recession. *Journal of Financial Therapy*, 4(1), 1-20. Retrieved from <http://dx.doi.org/10.4148/jft.v4i1.1723>
- Dew, J., & Yorgason, J. (2009). Economic pressure and marital conflict in retirement-aged couples. *Journal of Family Issues*, 31(2), 164-188. Doi: 10.1177/0192513X09344168
- Dillaway, H., & Broman, C. (2001). Race, class, and gender differences in marital satisfaction and divisions of household labor among dual-earner couples: A case for intersectional analysis. *Journal of Family Issues*, 22(3), 309-327. Doi: 10.1007/s11150-005-6696-0
- Elsby, M. W., Hobijn, B., & Sahin, A. (2010). The labor market in the great recession. *National Bureau of Economic Research*, 1-47.

- Fligstein, N., & Goldstein, A. (2009). Catalyst of disaster: Subprime mortgage securitization and the roots of the great recession. *Institute for Research on Labor and Employment*, 1-43. Retrieved from <https://escholarship.org/uc/item/83x2h03n#page-1>
- Frost, J. (2013, June 13). *Multiple regression analysis: use adjusted R-squared and predicted R-squared to include the correct number of variables*. Retrieved from The Minitab Blog: <http://blog.minitab.com/blog/adventures-in-statistics/multiple-regression-analysis-use-adjusted-r-squared-and-predicted-r-squared-to-include-the-correct-number-of-variables>
- Gibson-Davis, C. M., Edin, K., & McLanahan, S. (2005). High hope but even higher expectations: The retreat from marriage among low-income couples. *Journal of Marriage and Family*, 67(5), 1301-1312. Doi: 10.1111/j.1741-3737.2005.00218.x
- Grable, J. E., Britt, S., & Cantrell, J. (2007). An exploratory study of the role financial satisfaction has on the thought of subsequent divorce. *Family and Consumer Sciences Research Journal*, 36(2), 130-150. Doi: 10.1177/1077727X07309284
- Helms, H. M., Walls, J. K., Crouter, A. C., & McHale, S. M. (2010). Provider role attitudes, marital satisfaction, role overload, and housework: A dyadic approach. *Journal of Family Psychology*, 24(5), 568-577. Doi: 10.1037/a0020637
- Hicks, J., & Kingson, E. R. (2009). The economic crisis: How fare older americans? *Journal of American Society on Aging*, 33(3), 6-11. Retrieved from <http://generations.metapress.com/content/u75mw60qn1707605/>

- Hobfoll, S. E. (2012). Conservation of resources and disaster in cultural context: The caravans and passageways of resources. *Psychiatry, 75*(3), 227-232. Doi: 10.1521/psyc.2012.75.3.227
- Howe, G. W., Levy, M. L., & Caplan, R. D. (2004). Job loss and depressive symptoms in couples: Common stressors, stress transmission, or relationship disruption? *Journal of Family Psychology, 18*(4), 639-650. Doi: 10.1037/0893-3200.18.4.639
- Hurd, M. D., & Rohwedder, S. (2010). Effects of the financial crisis and great recession on American households. *National Bureau of Economic Research, 1-44*. Retrieved from <http://www.nber.org/papers/w16407>
- Jackson, J. B., Miller, R. B., Oka, M., & Henry, R. G. (2014). Gender differences in marital satisfaction: A meta-analysis. *Journal of Marriage and Family, 76*(1), 105-129. Doi: 10.1111/jomf.12077
- Katz, L. F. (2010). Long-term unemployment in the great recession. *Hearing on "Long-term unemployment: Causes, consequences and solutions"*, 1-13. Retrieved from [http://scholar.harvard.edu/files/lkatz/files/long\\_term\\_unemployment\\_in\\_the\\_great\\_recession.pdf](http://scholar.harvard.edu/files/lkatz/files/long_term_unemployment_in_the_great_recession.pdf)
- Kiel, P. (2014, September 15). *Unseen too: Wages of millions seized to pay past debts*. Retrieved from <http://www.propublica.org/article/unseen-toll-wages-of-millions-seized-to-pay-past-debts>
- Kinnunen, U., & Feldt, T. (2004). Economic stress and marital adjustment among couples: Analyses at the dyadic level. *European Journal of Social Psychology, 34*, 519-532. Doi: 10.1002/ejsp.213

- Kwon, H.-K., Rueter, M. A., Lee, M.-S., Koh, S., & Ok, S. W. (2003). Marital relationships following the Korean economic crisis: Applying the family stress model. *Journal of Marriage and Family*, 65, 316-325. Doi: 10.1111/j.1741-3737.2003.00316.x
- Liker, J. K., & Elder, G. H. (1983). Economic hardship and marital relations in the 1930s. *American Sociological Review*, 48(3), 343-359. Retrieved from <http://www.jstor.org/stable/2095227>
- Little, R. J., & Rubin, D. B. (1989). The analysis of social science data with missing values. *Sociological Methods and Research*, 18(2-3), 292-326. Doi: 10.1177/0049124189018002004
- Loscocco, K., & Walzer, S. (2013). Gender and the culture of heterosexual marriage in the United States. *Journal of Family Theory & Review*, 5(1), 1-14. Doi: 10.1111/jftr.12003
- Lynch, S. M. (2003). *Missing data*. Retrieved from <https://www.princeton.edu/~slynch/soc504/missingdata.pdf>
- Manning, W. D., Brown, S. L., & Payne, K. K. (2014). Two decades of stability and change in age at first union formation. *Journal of Marriage and Family*, 76(2), 247-260. Doi: 10.1111/jomf.12090
- Mattingly, M. J., & Smith, K. E. (2010). Changes in wives' employment when husbands stop working: A recession-prosperity comparison. *Family Relations*, 59, 343-357. Doi: 10.1111/j.1741-3729.2010.00607.x

- McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography*, 607-627.
- Nelson, S. J. (2011). *Housing factors associated with marital satisfaction*. (Unpublished master's thesis). Utah State University, Logan.
- Nelson, S., Delgadillo, L., & Dew, J. P. (2013). Housing cost burden and marital satisfaction. *Marriage and Family Review*, 49(6), 546-561. Doi: 10.1080/01494929.2013.789460
- Osborne, J., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research and Evaluation*, 8(2). Retrieved from <http://pareonline.net/getvn.asp?n=2&v=8>
- Previti, D., & Amato, P. R. (2003). Why stay married? Rewards, barriers, and marital stability. *Journal of Marriage and Family*, 65, 561-573. Doi: 10.1111/j.1741-3737.2003.00561.x
- Rick, S., Small, D., & Finkel, E. (2009). Fatal (fiscal) attraction: Spendthrifts and tightwads in marriage. *Journal of Marketing Research*, 48(2), 228-237. Retrieved from <http://dx.doi.org/10.1509/jmkr.48.2.228>
- Rogers, S. J. (2004). Dollars, dependency, and divorce: Four perspectives. *Journal of Marriage and Family*, 66, 59-74. Doi: 10.1111/j.1741-3737.2004.00005.x
- Rogers, S. J., & Amato, P. R. (1997). Is marital quality declining? The evidence from two generations. *Social Forces*, 75(3), 1089-1100. Doi: 10.1093/sf/75.3.1089
- Rogers, S. J., & Amato, P. R. (2000). Have changes in gender relations affected marital quality? *Social Forces*, 79(2), 731-753. Doi: 10.1093/sf/79.2.731

- Rook, K., Dooley, D., & Catalano, R. (1991). The effects of husbands' job stressors on the emotional health of their wives. *Journal of Marriage and Family, 53*, 165-177. Doi: 10.2307/353141
- Rothstein, J. (2011). Unemployment insurance and job search in the great recession. *National Bureau of Economic Research*, 1-58. Retrieved from <http://www.nber.org/papers/w17534>
- Schramm, D. G., Marshall, J. P., Harris, V. W., & Lee, T. R. (2005). After "I Do": The newlywed transition. *Marriage and Family Review, 38*(1), 45-67. Doi: 10.1300/J002v38n01\_05
- Story, L. B., & Bradbury, T. N. (2004). Understanding marriage and stress: Essential questions and challenges. *Clinical Psychology Review, 23*, 1139-1162. Retrieved from <http://dx.doi.org/10.1016/j.cpr.2003.10.002>
- Sullivan, T. A., Warren, E., & Westbrook, J. L. (2000). *The fragile middle class: Americans in debt*. New Haven, CT: Yale University Press.
- Thorne, D. (2010). Extreme financial strain: Emergent chores, gender inequality and emotional distress. *Journal of Family Economic Issues, 31*(2), 185-197. Doi: 10.1007/s10834-010-9189-0
- Tulane, S., Skogrand, L., & DeFrain, J. (2011). Couples in great marriages who considered divorcing. *Marriage and Family Review, 47*(5), 289-310. Doi: 10.1080/01494929.2011.594215

- Twenge, J. M., Campbell, W. K., & Foster, C. A. (2003). Parenthood and marital satisfaction: A meta-analytic review. *Journal of Marriage and Family, 65*, 574-583. Doi: 10.1111/j.1741-3737.2003.00574.x
- Vinokur, A. D., Price, R. H., & Caplan, R. D. (1996). Hard times and hurtful parnters: How financial strain affects depression and relationship satisfaction of unemployed persons and their spouses. *Journal of Personality and Social Psychology, 71*(1), 166-179. Doi: 10.1037/0022-3514.71.1.166
- Wang, H., & Amato, P. R. (2000). Predictors of divorce adjustment: Stressors, resources, and definitions. *Journal of Marriage and Family, 62*(3), 655-668. Doi: 10.1111/j.1741-3737.2000.00655.x
- Welsh, J. B. (2001). Finding gold in pink slips. *Financial Planning, 31*(4), 89-91.
- Whitton, S. W., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2008). Effects of parental divorce on marital commitment and confidence. *Journal of Family Psychology, 22*(5), 789-793. Doi: 10.1037/a0012800
- Wickrama, K., Lorenz, F. O., Conger, R. D., Elder, G. H., Abraham, W. T., & Fang, S.-A. (2006). Changes in family financial circumstances and the physical health of married and recently divorced mothers. *Social Science & Medicine, 63*, 123-136. Retrieved from <http://dx.doi.org/10.1016/j.socscimed.2005.12.003>
- Wilcox, W. B., & Nock, S. L. (2006). What's love got to do with it? Equality, equity, commitment and women's marital quality. *Social Forces, 84*(3), 1321-1345. Doi: 10.1353/sof.2006.0076
- Wilkie, W. L. (1994). *Consumer behavior* (3rd ed.). New York, NY: Wiley.

- Williams, L. (2012). *An annual look at the housing affordability challenges of America's working households*. Center for Housing Policy, February 2012. Retrived from <http://www.nhc.org/media/files/Landscape2012.pdf>
- Yeung, W. J., & Hofferth, S. L. (1998). Family adaptations to income and job loss in the U.S. *Journal of Family and Economic Issues*, 19(3), 255-283. Doi: 10.1023/A:1022962824012
- Zagorsky, J. L. (2005). Marriage and divorce's impact on wealth. *Journal of Sociology*, 41(4), 406-424. Doi: 10.1177/1440783305058478

**APPENDIX**

## Institutional Review Board

USU Assurance: FWA#00003308



Exemption #4

### Certificate of Exemption



FROM:

Melanie Domenech Rodriguez, IRB Chair  
True M. Rubal, IRB Administrator

To: Jeffrey Dew, Robert Stewart  
Date: July 22, 2014  
Protocol #: 5947  
Title: The 2007–2009 Recession, Financial Stressors, And Marital Outcomes

The Institutional Review Board has determined that the above-referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #4:

Research, involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

This exemption is valid for three years from the date of this correspondence, after which the study will be closed. If the research will extend beyond three years, it is your responsibility as the Principal Investigator to notify the IRB before the study's expiration date and submit a new application to continue the research. Research activities that continue beyond the expiration date without new certification of exempt status will be in violation of those federal guidelines which permit the exempt status.

As part of the IRB's quality assurance procedures, this research may be randomly selected for continuing review during the three year period of exemption. If so, you will receive a request for completion of a Protocol Status Report during the month of the anniversary date of this certification.

In all cases, it is your responsibility to notify the IRB prior to making any changes to the study by submitting an Amendment/Modification request. This will document whether or not the study still meets the requirements for exempt status under federal regulations.

Upon receipt of this memo, you may begin your research. If you have questions, please call the IRB office at [\(435\) 797-1821](tel:4357971821) or email to [irb@usu.edu](mailto:irb@usu.edu).

The IRB wishes you success with your research.

## CURRICULUM VITAE

### **Robert C. Stewart**

297 Rebecca Drive, Rexburg, ID 83440

Phone: 208-356-4014

Cell: 208-206-6399

stewartr@byui.edu

### **Education:**

Ph.D., Utah State University  
Emphasis: Family Relations

M.B.A., University of Phoenix, 2004  
Major: Business Administration

B.A., Brigham Young University, 2000  
Major: Marriage, Family, Human Development

A.A., Ricks College, 1998

### **Teaching Experience:**

*Utah State University: 2011*

*Course – Family Relations*

*Semester – Winter 2011*

*Class Size – 200 students*

*Faculty evaluation comments (Dr. Troy Beckert):*

“Your interactive nature shined through. You appeared comfortable with the class. Moreover, you appeared to like teaching...Honestly there was nothing in my observation that should be regarded as a weakness. I would certainly recommend you to another institution as a strong teacher based on that class.”

*Brigham Young University - Idaho: 2006 - Present*

*Course – Marriage (FAML 300)*

*Semesters* – Winter 2006, Spring 2006, Winter 2007, Fall 2007, Winter 2008, Winter 2009, Spring 2012, Fall 2012, Winter 2013, Spring 2013, Winter 2014, Fall 2014

*Class Size* – Generally between 30-45 students

*FAML 300 Instructor Evaluations:*

- Winter 2014 – 6.00
- Spring 2013 – 6.71
- Winter 2013 – 6.13
- Fall 2012 – 6.39
- Spring 2012 – 6.11
- Winter 2009 – 5.94
- Winter 2008 – no data
- Winter 2007 – 5.43
- Spring 2006 – no data
- Winter 2006 – no data

***Course – Parenting (FAML 200)***

*Semester* – Winter 2012, Fall 2013

*Class size*– 30-45 Students

*FAML 200 Instructor Evaluation:*

- Fall 2013 – 6.14
- Winter 2012 – 5.60

***Course – Money Management (HFED 340)***

*Semesters* – Fall 2011

*Class size*– 28 students

*HFED 340 Student Evaluation:*

- Fall 2011 – 5.92

***Course – Family Foundations (FDREL 200)***

*Semesters* – Fall 2009, Winter 2010, Spring 2010, Fall 2010, Winter 2011

*Class size* – Between 49 & 60 students

*FDREL 200 Evaluations:*

- Winter 2011 – 6.23
- Fall 2010 – 6.09
- Spring 2010 – 5.71
- Winter 2010 – 6.19
- Fall 2009 – 5.88

**Association Memberships:**

Utah Council on Family Relations – 2010-2011

National Council on Family Relations – 2010-present

Financial Therapy Association – 2011-2012

**Published Papers:**

Dew, J. P., & Stewart, R. (2012). A financial issue, a relationship issue, or both? Examining the predictors of marital financial conflict. *Journal of Financial Therapy*, 3(1), 43-61.

**Service:**

2014 Offered personal finance training in the community

2013 Presented a marriage lecture at BYU Idaho Education Week

2012 Provided pro-bono community marriage enhancement classes

**Recognition, Awards & Scholarships:**

2014 BYU Idaho Teaching Recognition: 90<sup>th</sup> percentile – Spring 2014 semester

2014 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Winter 2014 semester

2013 BYU Idaho Teaching Recognition: 90<sup>th</sup> percentile – Fall 2013 semester

2013 BYU Idaho Teaching Recognition: 90<sup>th</sup> percentile – Spring 2013 semester

2013 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Winter 2013 semester

2012 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Fall 2012 semester

2012 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Spring 2012 semester

- 2012 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Winter 2012 semester
- 2011 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Fall 2011 semester
- 2011 Financial Therapy Association Conference Outstanding Paper
- 2011 BYU Idaho Teaching Recognition: 90<sup>th</sup> percentile – Winter 2011 semester
- 2011 Dr. Don C. Carter Graduate Scholarship
- 2010 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Fall 2010 semester
- 2010 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Spring 2010 semester
- 2010 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Winter 2010 semester
- 2009 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Fall 2009 semester
- 2009 BYU Idaho Teaching Recognition: 70<sup>th</sup> percentile – Winter 2009 semester