FINANCIAL WELL-BEING AND THE NEED FOR EMPLOYER-SPONSORED FINANCIAL LITERACY EDUCATION AS REPORTED BY EMPLOYEES OF A TEXAS PUBLIC RESEARCH UNIVERSITY

A Dissertation

by

MARGARET VANDERVOORT DRAKE

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2004

Major Subject: Educational Human Resource Development

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May 2004

Major Subject: Educational Human Resource Development

ABSTRACT

Financial Well-Being and the Need for Employer-Sponsored Financial Literacy Education as Reported by Employees of a Texas Public Research University. (May 2004)

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M.A., The University of Texas at Austin

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The purpose of this study was to examine financial well-being and the need for employer-sponsored financial literacy education as reported by employees at a Texas public research university. The population for this study consisted of all benefits-eligible employees of the Texas A&M University main campus. Survey research methodology was used for gathering and reporting data in this study. Demographic factors considered included gender, marital status, education level, ethnicity, age, and household annual gross income. Statistical procedures used included descriptive statistics, t-tests, analysis of variance, and chi-square analysis.

In examining all aspects of reported financial well-being, the research found that individuals varied in their responses, but relatively few reported a strong sense of financial well-being. Most were meeting their current needs, but many had concerns about the future. Over three-fourths of respondents articulated their desire for employer-sponsored financial literacy education. In expressing their concern for the future, respondents identified the three topics of most interest as benefits,

investments, and retirement planning. Higher levels of financial well-being were reported by well-educated, coupled men who were at least 50 and who had a financially comfortable total household annual gross income. Four of the six demographic characteristics considered clearly influenced the desire for employer-sponsored financial literacy education; only marital status and age did not affect the desire. Respondents who desired employer-sponsored financial literacy education reported a lower subjective perception, a lower behavioral assessment, and less satisfaction with their financial situation than did those who reported no interest in such education.

Recommendations included the following:

1. Employers should understand the demographics of their employee population and identify those groups who are at most risk for future security and who currently lack proficiency in personal financial management.
2. Information about benefits offered by the employer especially should be stressed in a personal financial literacy education program.
3. Employers should consider providing education on investing and on retirement planning to employees of all ages, with offerings being tailored to specific life course stages.

DEDICATION

To John –

for the next fifty-three and a half years from tomorrow –

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CHAPTER I

INTRODUCTION

> Well-being is a state of being where all members of a community have economic security; are respected, valued, and have personal worth; feel connected to those around them; are able to access necessary resources; and are able to participate in the decision-making process affecting them. (Marshall, McMullin, Ballantyne, Daciuk, & Wigdor, 1995, p. 1)

Satisfaction with one's personal financial situation in large part determines overall satisfaction with life (Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976). McGregor and Goldsmith (1998) described well-being as consisting of economic, physical, social, and emotional components as well as emerging environmental, political, and spiritual elements.

Two conceptual frameworks shape this study of personal financial well-being: life course (Elder, 1998; Elder & Johnson, 2000; Settersten, 2003) and family resource management (Deacon & Firebaugh, 1981). From a life course perspective, economic outcomes among preretirement age adults, for example, can be attributed to earlier events in the course of their lives (George, 1993; O'Rand & Krecker, 1990). Wilmoth and Koso (2002) claimed that most studies involving personal financial well-being explain economic outcomes as a product of individuals' participation in economic institutions over their life, including places of employment. Work careers influence economic outcomes by determining access

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to retirement benefits, shaping contributions to Social Security, and affecting one's ability to accumulate wealth (Holtz-Eakin & Smeeding, 1994; Schulz, 1995). Economic outcomes can be shaped by life events, such as changes in marital status, the birth of a child, illness, or disability over the life course (Fethke, 1989). What an individual encounters over time results in divergent later life outcomes through cumulative advantage and disadvantage (Dannefer, 1987; O'Rand, 1996). From the family resource management perspective, Davis and Helmick (1985) stated that the application of the Deacon-Firebaugh model to the domain of personal finances suggests that the output (satisfaction or dissatisfaction) depends on the inputs (resources and demands) and the quality of the throughput (the management process). Other researchers have applied the systems approach to understand the role of financial management practices in determining financial well-being (Fitzsimmons & Leach, 1994; Hira, Fanslow, & Vogelsang, 1992; Titus, Fanslow, & Hira, 1989).

Economic stress results in many social and psychological costs on the quality of individual and family life; the consequences of chronic financial difficulty are typically felt in many different areas of life. Researchers have reported that financial difficulty and the perception of economic pressure can be related to (a) hostile marital behaviors, (b) harsh and volatile parenting behaviors, (c) reduced ability by adolescents to adapt, (d) increased antisocial behavior, (e) alcohol abuse, and (f) hostile behavior (Conger & Elder, 1994; Elder, Conger, Foster, & Ardelt, 1992).

Personal financial pressures and stress can spill over into the workplace. Williams, Haldeman, and Cramer (1996) reported that some employee financial problems can be identified as sources of concern for employers because of lowered employee productivity. These problems include action by a collection agency, bankruptcy, excessive indebtedness, inability to meet credit obligations, medical bills, legal judgments, repossession of major purchase items, and experiencing a utility being turned off. Garman, Leech, and Grable (1996) estimated that 15% of American workers experience stress as a result of their poor financial behaviors to the extent that it negatively influences their productivity in the workplace. These researchers concluded that poor financial behaviors result in employers' experiencing high costs due to absenteeism, tardiness, fighting, sabotage, lowered worker morale, loss of customers due to poor service, loss of revenue from sales not made, increases in accident rates and risk taking, disability and workers' compensation claims, substance abuse, increased use of available healthcare resources by workers and relatives, and thefts.

Personal financial problems, as reflected in self-reports of low financial well-being, may be attributed to poor personal financial literacy. Jacob, Hudson, and Bush (2000) referred to financial literacy as knowledge of personal money management concepts and skills. A financially literate individual is a person who understands his or her relationship with money (e.g., the need for financial security, tolerance for risk) and can read about, discuss, and communicate regarding personal financial matters (Vitt et al., 2000). Furthermore, a financially literate individual is a lifelong learner who applies that learning to new financial situations. Garman and Forgue (2000) defined financial literacy as knowing the facts and vocabulary necessary to manage one's personal finances successfully. Based on their research, they concluded that this ability is not widespread among Americans. They described obstacles to financial literacy as including (a) a lack of knowledge about personal finance, (b) the complexities of personal financial life, (c) being overburdened with too many choices in financial decision-making, and (d) a lack of time to learn about personal finance.

A number of studies have shown that financial literacy and financial well-being are improved for individuals who participate in employer-sponsored financial literacy education programs (Bernheim & Garrett, 1996; Brennan, 1998; Clark & d'Ambrosio, 2002; DeVaney, Gorham, Bechman, & Haldeman, 1995; Joo, 1998; Kratzer, Brunson, Garman, Kim, & Joo, 1998; O'Neill, Xiao, Bristow, Brennan, & Kerbel, 2000). Studies have indicated that a comprehensive approach to financial education in the workplace can have beneficial results for workers, their families, and their employers (Bayer, Bernheim, & Scholz, 1996; Kratzer et al., 1998). Several studies have found that financial education in the workplace can improve an employee's financial behavior through increasing savings and improving retirement planning behavior (Bernheim & Garrett, 1996; DiPaula, 1998; Gorbach, 1997). Decker and Forsberg (2000) described employer-sponsored financial education as encompassing a variety of financial planning alternatives that may assist employees with various life-planning events. Financial literacy education may be defined as a transfer of knowledge and understanding sufficient to empower the employee to take personal responsibility for his or her financial well-being (Decker & Forsberg, 2000). The Chairman of the SEC stated that companies should take a greater role in teaching their workers about money; employers that provide financial literacy programs are more than repaid through higher worker morale, greater productivity, and lower employee turnover (Levitt, 1998).

Statement of the Problem

Goldsmith (2000) described economic well-being as the degree to which individuals and families have economic adequacy or security; it is the desire for or extent of protection against the economic risks people face in their daily lives (loss of employment, illness, bankruptcy, bank failures, poverty, or destitution in old age). Personal financial problems can affect employers (Williams et al., 1996). Comprehensive workplace financial education can improve a worker's personal financial wellness (Kratzer et al., 1998) and can be effective in improving workers' financial behaviors, especially in increasing amounts saved and invested for retirement (Bernheim & Garrett, 1996; DiPaula, 1998; Gorbach, 1997; Kratzer et al., 1998). Without improving personal financial literacy, both employees and employers face negative consequences from poor individual financial well-being.

Purpose of the Study

The purpose of this study was to examine financial well-being and the need for employer-sponsored financial literacy education as reported by employees at a Texas public research university. This study assessed the level of personal financial well-being described by employees and if a desire for employer-sponsored financial literacy education existed. The research also attempted to discover whether relationships exist between specific demographic variables and reported levels of financial well-being. Additionally, the research attempted to determine whether relationships exist between specific demographic variables and any reported desire for employer-sponsored financial literacy education. Finally, the study determined if there is a relationship between financial well-being and the desire for employer-sponsored financial literacy education.

Research Questions

The following research questions were addressed in this study:

1. What level of financial well-being is reported by employees at a Texas public research university?
2. Is there a need for employer-sponsored financial literacy education as reported by employees at a Texas public research university?
3. Do selected demographic characteristics influence financial well-being as reported by employees at a Texas public research university?

4. Do selected demographic characteristics influence the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?
5. Is there a relationship between financial well-being and the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

Definition of Terms

An *employee* is a person who is hired by another person or business for a wage or fixed payment in exchange for personal services and who does not provide the services as part of an independent business. For the purposes of this study, employees included both faculty and staff.

An *employer* is a person or business that pays a wage or fixed payment to other person(s) in exchange for the services of such persons. For the purposes of this study, the employer is Texas A&M University.

Employer-sponsored financial literacy education, for the purposes of this study, refers to an array of methods and media offered by employers for providing employees information, education, training, tools, and resources about personal financial literacy.

Financial literacy is "the ability to read, analyze, manage, and communicate about the personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect everyday financial decisions, including events in the general economy" (Vitt et al., 2000, p. 2).

Financial well-being is the degree to which individuals and families have economic adequacy or security; it is the desire for or extent of protection against the economic risks people face in their daily lives such as loss of employment, illness, bankruptcy, bank failures, poverty, or destitution in old age (Goldsmith, 2000).

Personal finance is the study of personal and family resources considered important in achieving financial success; it involves how people spend, save, protect, and invest their financial resources. Topics typically include tax management, budgeting, cash management, use of credit cards, borrowing, major expenditures, risk management, investments, retirement planning, and estate planning (Garman & Forgue, 2000).

Selected demographic characteristics, for the purpose of this study, include gender, marital status, education level, ethnicity, age, and household annual gross income.

A *Texas public research university ("university")* is an institution classified by the Carnegie Foundation for the Advancement of Teaching as Doctoral/Research Universities–Extensive. Such institutions typically offer a wide range of baccalaureate programs and are committed to graduate education through the doctorate. Additionally, they award 50 or more doctoral degrees per year across at least 15 disciplines (Carnegie Foundation, 2000). For the purposes of this study, the researcher selected one such institution funded by the Texas State Legislature: Texas A&M University main campus located in College Station, Texas.

Assumptions

1. The participants surveyed understood the survey instrument, had the ability to self-report, and responded objectively and honestly.
2. The individual who turned in the survey was the individual who completed the survey.
3. The researcher was impartial in collecting and analyzing the data.
4. The interpretation of the data collected accurately reflected what the responding participants intended.

Limitations

1. The study was limited to information acquired from literature reviews and survey instruments.
2. The study was limited to employees of Texas A&M University main campus.
3. Findings from the study may not be generalizable to any group other than the employer in the study.

Significance of the Study

Poor personal financial well-being reflects problems and circumstances that negatively affect individuals, their families, and their employers. The U.S. Department of Labor (1998) reported that employers are in the best position to help employees understand and address the financial issues in their personal lives. One group of researchers (Vitt et al., 2000) encouraged employers to offer workplace financial education because of the mutual benefit for both employee and employer and went so far as to suggest that public policy initiatives be developed to offer incentives for those employers who do.

Texas public universities are major employers in the State of Texas and provide the environment in which future generations of Texans are educated. Given the connections between work and personal lives, having a workforce in these universities that reports a positive sense of financial well-being and is productive in the workplace is essential to the well-being of the state.

This study examined self-reported levels of financial well-being of employees and their reported desire for employer-sponsored financial literacy education. Improvement opportunities were suggested that may assist critical stakeholders in providing appropriate employer-sponsored financial literacy education to employees. Critical stakeholders include (a) faculty, staff, and administrators; (b) current and potential providers of personal financial literacy education; and (c) individuals and organizations interested in the improvement of personal financial well-being and personal financial literacy.

Contents of the Dissertation

This dissertation is organized into five chapters. It reports research from the statement of the problem to recommendations for future study. Chapter I introduces the problem and purpose of the study; it also establishes research questions, definitions, assumptions, limitations, and a statement of significance of the study.

Chapter II contains the review of the literature. Seven major areas are reviewed. First, the topic of financial well-being is introduced and the conceptual framework is discussed. Next is a discussion of personal financial management and its associated competencies. Dimensions of financial well-being and personal financial literacy are reviewed. Then a review of the literature regarding employees, employers, and employer-sponsored financial literacy education is presented. Finally, the attributes of such employer-sponsored financial literacy education as part of human resource development are described.

Chapter III provides an explanation of the methodology and procedures used in this study. The population studied, the instrument development process, and the data collection and data analysis procedures are described in this chapter. Chapter IV contains the analysis of the data and presents the findings of the research. Chapter V presents the researcher's conclusions and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

Personal financial well-being or wellness is an intricate network of concepts from economics and finance, sociology and psychology, demography and history, education, human ecology, and family and consumer science. Research efforts in the area of personal financial well-being are varied and occasionally sketchy. Before exploring how individuals and their employers prepare for and respond to issues surrounding personal financial well-being and financial literacy education, it is important to describe the complexity of the personal financial landscape in America. The U.S. Department of the Treasury (2002) has stated that:

> Whether it is a 10-year-old making the choices to spend his allowance on a video game or new pair of sneakers; a 30-year-old budgeting her paycheck to meet multiple financial goals such as investing for retirement, saving for a house down payment, and paying daily living expenses; or a 65-year-old making decisions about whether to take a lump-sum or series of payments from a retirement plan, all Americans need the knowledge and critical decision-making tools to save and spend their dollars effectively. Financial education offers Americans the knowledge and skills that we need to reach our full potential. (p. 6)

The satisfaction individuals have with their personal financial situation is a major determinant of satisfaction with their overall life (Andrews & Withey, 1976; Campbell et al., 1976). However, personal financial well-being is a domain in which people express a relatively high level of dissatisfaction (Andrews & Withey, 1976; Campbell, 1981; Campbell et al., 1976).

Personal financial pressures and stress can spill over into the workplace. Williams et al. (1996) reported that some employee financial problems can be identified as sources of concern for employers because of lowered employee productivity. Garman et al. (1996) estimated that 15% of American workers experience stress because of their poor financial behaviors to the extent that it negatively influences their productivity in the workplace.

Wilmoth and Koso (2002) observed that most studies involving personal financial well-being explain economic outcomes as a product of individuals' participation in economic institutions over their life, including places of employment. Work careers influence economic outcomes by determining access to retirement benefits, shaping contributions to Social Security, and affecting one's ability to accumulate wealth (Holtz-Eakin & Smeeding, 1994; Schulz, 1995).

The domains that recur throughout the literature as the major contributors to life satisfaction are family, finance, and employment (Andrews & Withey, 1976; Bharadwaj & Wilkening, 1977; Campbell, 1981; Campbell et al., 1976). This review of the literature focuses on these threads and weaves personal financial well-being and financial literacy together in seven areas: (a) financial well-being; (b) the conceptual frameworks; (c) personal financial management and its associated competencies; (d) dimensions of financial well-being; (e) personal financial literacy; (f) employees, employers, and financial literacy education; and (g) employer-sponsored financial literacy education as part of human resource development (HRD).

Financial Well-Being

Before looking specifically at financial well-being, it is perhaps helpful to consider well-being as a whole. Subjective well-being refers to an individual's perceptions of overall life quality (Andrews & Withey, 1976; Campbell et al., 1976). A variety of specific concepts and measures have been used to explore subjective well-being including life satisfaction, morale, and happiness. Ardelt (1997) defined life satisfaction as feelings of contentment and lack of dissatisfaction with one's life. Brod, Stewart, Sands, and Walton (1999) described quality of life as a subjective overall evaluation by an individual of life in general as well as specific areas such as social life, finances, employment, or living situation.

Marshall et al. (1995) stated that "well-being is a state of being where all members of a community have economic security; are respected, valued, and have personal worth; feel connected to those around them; are able to access necessary resources; and are able to participate in the decision-making process affecting them" (p. 1). McGregor and Goldsmith (1998) described well-being as comprising economic, physical, social, and emotional factors as well as emerging environmental, political, and spiritual dimensions. Van Praag, Frijters, and Ferrer-i-Carbonnell (2003) portrayed a two-layer model of well-being as consisting of satisfaction in six areas: (a) job, (b) financial, (c) house, (d) health, (e) leisure, and (f) environmental. A number of authors have focused specifically on the concept of financial well-being for individuals. Table 1 highlights the literature.

Table 1. Representative Descriptions of Financial or Financial Well-Being by Various Authors

Author and Date	Description of Financial Well-Being
Strumpel (1976)	Stated that the meaning of financial well-being has evolved from simple happiness or general satisfaction with one's material or financial situation to a complicated perception of both material and non-material aspects of an individual's financial situation. This perception includes satisfaction with income and savings, awareness of opportunities, ability to make ends meet, sense of material security, and sense of fairness of the reward distribution system.
Fergusson, Horwood, & Beautrais (1981)	Described financial well-being with levels of financial inputs, such as income and assets.
Williams (1983)	Identified financial well-being as a function of material and non-material aspects of one's financial situation.
Hayhoe (1990)	Categorized financial well-being as individuals' perception of satisfaction with their financial situation.
Porter (1990)	Defined financial well-being as a sense of one's financial situation that is based on objective attributes and perceived attributes that are judged against standards of comparison to form evaluated attributes of that financial situation.
Porter & Garman (1993)	Stated that financial well-being depends upon an individual's perceived objective attributes of the financial situation after comparing it with certain financial standards of comparison as well as objective and subjective attributes of the financial situation.
Draughn, LeBoeuf, Wozniak, Lawrence, & Welch (1994)	Discussed financial well-being as consisting of three components: financial adequacy, perceived financial well-being, and satisfaction with level of living.

Table 1 (continued)

Author and Date	Description of Financial Well-Being
Joo (1998)	Conceptualized financial wellness as a level of financial health. It includes satisfaction with material and non-material aspects of one's financial situation, perception (or subjective assessment) of financial stability including adequacy of financial resources, and the objective amount of material and non-material financial resources that each individual possesses.
Goldsmith (2000)	Described financial well-being as the degree to which individuals and families have economic adequacy or security. It is the desire for or extent of protection against the economic risks people face in their daily lives, such as loss of employment, illness, bankruptcy, bank failures, poverty, and destitution in old age. It is often used as a measure of quality of life and each person and each family defines what constitutes financial well-being for them.

The definition of satisfaction with financial resources is conceptually straightforward (George, 1992). It refers to subjective evaluations of the degree to which one's financial resources are adequate versus inadequate or bring satisfaction versus dissatisfaction. Three single-item measures have been used most frequently to elicit self-reports of satisfaction with financial resources: (a) satisfaction with one's income, (b) satisfaction with one's financial situation in general, and (c) satisfaction with one's standard of living. Satisfaction with one's financial situation appears to be the broadest of the three, eliciting evaluations of one's overall financial status. Satisfaction with income refers specifically to evaluations of the amount of money one earns or receives from regular income sources. George (1992) concluded by stating that satisfaction with standard of living refers to one's evaluation of the quantity and quality of goods and services purchased in the marketplace or otherwise at one's disposal.

Financial wellness has been measured with different types of scales. First, an objective scale of economic status, such as income or assets, has been used (Fletcher & Lorenz, 1985; Porter, 1990; Sabelhaus & Manchester, 1995; Williams, 1983). Secondly, subjective perception of personal finances has measured financial wellness (Porter, 1990). Behavioral assessment of personal financial management has measured financial wellness in a third type of scale (Joo, 1998). Finally, overall satisfaction with one's financial situation has measured financial wellness (Draughn et al., 1994; Greenley, Greenberg, & Brown; 1997; Morgan, 1992).

Conceptual Framework

Two concepts provide the framework for this study of personal financial well-being and employer-sponsored financial literacy education: (a) life course theory and (b) family resource management.

Life Course Theory

Life course theory provides a way to study the changes that individuals encounter as they live their lives (Elder, 1998). Atchley (2000) defined life course as "an ideal sequence of events that people are expected to experience and positions that they are expected to occupy as they mature and move through life" (p. 528). Life course theory and research, stated Elder (1998):

> alert us to this real world, a world in which lives are lived and where people work out paths of development as best they can. It tells us how lives are socially organized in biological and historical time, and how the resulting social pattern affects the way we think, feel, and act. (p. xx)

Settersten (2003) noted that a central proposition of life course scholarship is that development is lifelong and that aging is a process that begins at birth, not at some arbitrary point in later life. He also stated that given the lifelong nature of development, specific life periods such as adolescence, adulthood, and old age cannot be adequately understood in isolation from other periods. While development during a specific life period may be unique, it is experienced within the context of the past, present, and anticipated future (Settersten, 2003). Kohli (1986) described work as the central activity that organizes modern life course.

Elder and Johnson (2000) stated that life course studies seek to develop a conceptual framework of social pathways and their relation to social-historical conditions, with emphasis on their implications for developmental trajectories. Some life changes may stem from (a) large-scale social transformations, such as the collapse of governments; (b) economic swings, such as the Roaring Twenties and the Great Depression; and (c) wars and military mobilizations. Other changes occur through conventional life transitions, such as leaving home, taking a full-time job, marrying, and having a child.

Elder and Johnson (2000) identified three concepts in life course study: (a) life span, (b) life history, and (c) life cycle. Life span indicates the temporal scope of inquiry and specialization, as in life-span developmental psychology or life-span sociology. A life-span study extends across a substantial period of life and typically links behavior in two or more life stages. Life history typically refers to a chronology of events and activities across life domains, such as residence, household composition, education, worklife, and family events. The life cycle has been used to describe a sequence of events in the life course, though it has distinct meaning in population studies where it refers to the reproductive process from one generation to the next. Within a life cycle of generational succession, newborns are socialized to maturity, give birth to the next generation, grow old, and die. These concepts support five core principles of the life course (Elder & Johnson, 2000) as shown in Table 2. Elder (1998) stated that the multiple trajectories of individuals and their developmental implications are basic elements of the life course as conceptualized in research and theory.

Table 2. Principles of the Life Course

Principles and Developmental Contexts	Description
Lifelong Development and Aging	Human development and aging are lifelong processes.
Human Agency	Individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstances.
Historical Time and Place	The life course of individuals is embedded in and shaped by the historical times and places they experience over their lifetime.
Timing	The developmental antecedents and consequences of life transitions, events, and behavior patterns vary according to their timing in a person's life.
Linked Lives	Lives are lived interdependently and social-historical influences are expressed through this network of shared relationships.

Hareven (1996) explained that the life course approach elaborates how patterns of support and assistance are shaped and reshaped by historical circumstances and cultural traditions. For example, historical events such as economic recessions can diminish opportunity structures. Such events can constrict job availability, while concurrently increasing the probability of resource pooling and intergenerational doubling-up (Hareven, 1996). Specific examples of pooling and doubling up are the increase in home-returning among young adults because of high young adult unemployment and lack of affordable housing (Mitchell, Wister, & McGee, 2000) and the increases in the number of grandparents raising grandchildren (Glass & Huneycutt, 2002).

From a life course perspective, economic outcomes among preretirement age adults can be attributed to previous life course events (George, 1993; O'Rand & Krecker, 1990). Wilmoth and Koso (2002) observed that most studies explain economic outcomes as a product of participation in economic institutions over the life course. Work careers influence economic outcomes by determining access to pension benefits, shaping contributions to Social Security, and affecting one's ability to accumulate wealth (Holtz-Eakin & Smeeding, 1994; Schulz, 1995). Economic outcomes can also be affected by other life events, including changes in marital status over the life course (Crystal & Waehrer, 1996; Fethke, 1989). Life events, such as changes in marital status, lead to divergent later life outcomes through cumulative advantage and disadvantage (Dannefer, 1987; O'Rand, 1996).

Family Resource Management

Atchley (2000) stated that "the family is a major social context for negotiation and decision-making about pathways from one life stage to the next" (p. 136). He further described the three aspects of the different life stages in the life course. First, the stages are related to more particular patterns such as occupational career and family development. Secondly, specific likelihoods of events go along with specific life stages. Finally, noted Atchley (2000), individuals must make particular kinds of choices during each period of their life course. Price and

McKenry (2003) noted that "the changes families experience over time can be understood only within the context of the changes of individuals in families" (p. 11). As pertaining to families, life course relates in three conceptual ways: stages, tasks, and transitions. Families have developmental histories with alternative periods of change and stability. Stability represents stages and change represents transitions. "Within each stage, families have tasks that must be accomplished in order to successfully pass through each stage" (Price & McKenry, 2003, p. 12). Directly related to the conceptual framework of life course, then, is the second part of the conceptual framework for a study of personal financial well-being and financial literacy: the systems approach to family resource management as conceptualized by Deacon and Firebaugh (1981, 1988).

Their approach offers a framework for how money managers plan and implement resources to meet demands. These are the tasks described by Price and McKenry (2003). The three major components of this management model are input, throughput, and output (Deacon & Firebaugh, 1981, 1988). Demands, consisting of goals and events, and resources are the input to the management system. Planning and implementing are identified as throughput. Demands, responses, and changed resources represent the output, some of which becomes part of the input of the next managerial stage through feedback. The output depends on both the input and the throughput processes. This view of management acknowledges the wholeness of decision-making, and managerial actions are viewed not as isolated in time but related to past and future (Deacon & Firebaugh, 1981, 1988).

Other researchers applied the systems approach to understand the role of financial management practices in determining financial well-being. Davis and Helmick (1985) used the Deacon and Firebaugh (1981) model as the framework in their study designed to assess the direct effect of selected inputs on a composite measure of financial satisfaction. The measure reflected satisfaction with consumption level, family wealth, and financial security. The results supported Davis and Helmick's hypothesis that reference point variables (i.e., perceived change in financial condition and aspirations for the future) exerted a significant direct impact on financial satisfaction. Fitzsimmons and Leach (1994) modified the Deacon and Firebaugh systems model to explain changes in net worth. They discussed the direct effects of inputs on throughputs and the indirect effects on outputs. Resources and goals were inputs, financial management practices were proposed at throughputs, and used resources and met goals were classified as outputs in the model.

Titus et al. (1989) stated that age, marital status, household size, education, occupation, and income are sociodemographic variables that indicate demands and resources of households. Also included are the knowledge and attitudes of the money manager toward financial management. Throughputs consist of the actual financial management practices of the money manager, such as budgeting, record keeping, credit usage, savings, and risk management. How these activities are accomplished affects whether financial goals are met and resources are maximized. Output in financial management studies represents the financial well-being of families and has been measured by objective indicators such as net worth and debt-to-income ratio and the subjective indicator of satisfaction. These authors observed that feedback is the portion of output or net worth that reenters the system as input to affect successive financial decisions.

Twenty-five years after the initial work by Deacon and Firebaugh (1975), Prawitz and Garrison (2001) continued exploration of levels of change. They identified three new constructs: (a) values appraisal, (b) paradigm shift, and (c) schema adaptation. The researchers described in values appraisal how families manage demands on their resources without having to change their beliefs and convictions. Prawitz and Garrison (2001) provided scenarios for paradigm shifts (i.e., a family choosing a school for its academic excellence by adapting their strong religious stance) and for a worldview change (i.e., a family adapting their schema about the right kind of care for an elderly family member).

Personal Financial Management and Competencies

Moving from the conceptual frameworks and theory to practical aspects of personal financial well-being and financial literacy, attention is now turned to describing personal financial management and the associated competencies. The Chairman of the SEC stated that 65 million households are at risk of failing to realize one or more major life goals because they have not developed a basic financial plan (Levitt, 1998). Developing that basic financial plan requires competency in personal financial management. Descriptions of personal financial management and the competencies required abound in the literature. In chronological order, some of the more cogent selections from the literature follow.

Williams (1985) examined the relationship among personal management, resource satisfaction, sense of control, and quality of life using the technique of path analysis. Results provided empirical support for the Deacon and Firebaugh model of (a) resources as inputs, (b) management behavior as throughputs, and (c) resource satisfaction as outputs. Furthermore, the study confirmed that increases in money income could increase resource satisfaction largely when it is accompanied by effective management practices; increased effectiveness of management behavior may mediate downward shifts in real income. Williams (1985) concluded by stating that since educational programs improve effective management, such personal financial educational programs can be cost effective in contributing to quality of life.

Dwyer (1989) described personal financial planning as the lifelong process of an individual's achieving goals appropriate to desired lifestyles by increasing and conserving financial resources, assets, and income, both now and in the future. This author identified seven stages of life that make up the life course process of financial planning: (a) building the nest, (b) birth of the family, (c) growth of the family, (d) the college years, (e) the accumulation stage, (f) the conservation stage, and (g) retirement.

Davis and Weber (1990) identified four practices as essential prerequisites to effective financial management: (a) budgeting, (b) preparing some form of income/expense or cash-flow statement, (c) comparing the income/expense statement to the budget, and (d) preparing a personal balance sheet or estimate of household net worth. These authors analyzed 672 useable instruments from a population of 1,200 non-metropolitan Kansas households and found that only 37% practiced all four essential behaviors.

Winger and Frasca (1997) approached personal financial planning by defining financial success as obtaining the maximum benefits from finite financial resources. They encouraged individuals to use personal financial planning as a means of achieving the most important financial goal of financial independence or having sufficient income or resources to be self-reliant. These authors emphasized planning as a lifelong process of preparing for the various phases of life: (a) consumption and savings, (b) debt, (c) insurance, (d) investment, (e) retirement, (f) estate, and (g) tax (Winger & Frasca, 1997)

Keown (1998) claimed that personal financial planning allows an individual to (a) manage the unplanned, (b) accumulate wealth for special expenses, (c) realistically save for retirement, (d) protect assets, (e) invest intelligently, and (f) minimize tax payments. He argued that ignoring personal financial planning can have painful results, regardless of how much income an individual might have.

Rejda and McNamara (1998) portrayed personal financial planning as the development of a comprehensive plan in which an individual determines financial goals and objectives and selects the best strategies for attaining them. These authors identified five major benefits of personal financial planning to individuals: (a) attainment of financial goals, (b) higher standard of living, (c) protection against major risks and unexpected events, (d) reduction or avoidance of problems with creditors, and (e) reduction in estate settlement costs.

Kapoor, Dlabay, and Hughes (1999) described personal financial planning as the process of an individual's managing money to achieve personal economic satisfaction, enhancing the quality of life, and increasing satisfaction by reducing uncertainty about future needs and resources. These authors identified six steps necessary in the financial planning process: (a) determine the current financial situation, (b) develop financial goals, (c) identify alternative courses of action, (d) evaluate alternatives, (e) create and implement a financial plan, and (f) reevaluate and revise the plan. They stressed the importance of the adult life cycle as the basis for financial activities, taking into consideration marital status, household size, and employment as well as specific life events such as marriage, divorce, the birth of a child, retirement, the purchase of a home, and loss of a job (Kapoor et al., 1999).

Gitman and Joehnik (1999) described personal financial planning as a process that covers the key elements of an individual's financial affairs and is aimed at achievement of financial goals. These authors promoted different types of financial plans: (a) asset acquisition, (b) liability and insurance, (c) savings and investment, (d) employee benefit, (e) tax, and (f) retirement and estate (Gitman & Joehnik, 1999).

Ramaglia and MacDonald (1999) also approached personal financial planning from a life cycle approach, emphasizing both the microeconomic and the macroeconomic impacts on individuals. They described the financial changes over the last 20 years that have placed American families and individuals in charge of their own financial destiny, often with no formal preparation in consumer survivor skills. These authors observed that an excess of financial and consumer information is available to families and individuals and that organizing and applying useful knowledge is an acquired skill (Ramaglia & MacDonald, 1999).

Garman and Forgue (2000) described personal financial planning as the development and implementation of coordinated and integrated long-range plans to achieve financial success, which is the achievement of financial aspirations that are desired, planned, or attempted. They identified five lifetime objectives in support of personal financial planning: (a) maximizing earnings and wealth, (b) practicing efficient consumption, (c) finding life satisfaction (some aspects of which they asserted are financial), (d) reaching financial security, and (e) accumulating wealth for retirement and an estate (Garman & Forgue, 2000).

Goldsmith (2000) defined financial management as the science or practice of managing money or other assets. Financial management requires systematic and disciplined thought and action. In systems terminology, Goldsmith described financial management as a transformation process involving the (a) identification of financial goals; (b) collection of information; (c) analysis of resources; (d) decisions about whether to spend, invest, or save; and (e) evaluation of decisions. She observed that financial management takes the perspective that money, like any other resource, can be controlled and used to achieve goals. Goldsmith concluded by suggesting that handling money is one of the most common managerial skills, but also one of the most difficult. In summary, she stated that "the goal of financial management is to maximize net worth and satisfaction" (Goldsmith, 2000, p. 315).

Goldsmith (2001) described personal financial planning as the process of managing one's finances to reach goals and to increase personal satisfaction. She identified three steps in the personal financial planning process: (a) setting financial goals; (b) creating and activating plans; and (c) monitoring, evaluating, and revising plans.

Madura (2002) described personal finance or personal financial planning as the process of an individual's planning his or her spending, financing, and investing to optimize the financial situation. He depicted a personal financial plan as specifying financial goals and describing the spending, financing, and investing plans that are intended to achieve those goals.

Dimensions of Financial Well-Being

Although there are many dimensions of financial well-being in American culture and society, three have been selected from the available literature as having significant impact on individuals, families, and ultimately employers. Those three are (a) savings, (b) consumer debt, and (c) retirement.

Savings

Keynes (1935) identified motives for why individuals save. These motives are the basis for much of modern economic thinking and include:

1. To build up a reserve against unforeseen contingencies (the precautionary motive)
2. To provide for an anticipated future relationship between income and the needs of the individual (the life-cycle motive)
3. To enjoy interest and appreciation (the intertemporal substitution motive)
4. To enjoy a gradually increasing expenditure (the improvement [of living standard] motive)
5. To enjoy a sense of independence and the power to do things (the independence motive)
6. To secure resources to carry out speculative or business projects (the enterprise motive)
7. To bequeath a fortune (the bequest motive)
8. To satisfy pure miserliness (the avarice motive), and
9. To accumulate deposits to buy houses, cars, and other durables (the down payment motive)

The standard theory for explaining personal saving is the life cycle model (U.S. General Accounting Office, 2001). Individuals save and accumulate assets to smooth out their consumption and standard of living over their lifetimes (Friedman, 1957; Modigliani & Brumberg, 1954). In general, the primary reasons people save are for retirement, precautionary, bequest, and large cost categories; ideally, wealth accumulation peaks just before retirement (U.S. General Accounting Office, 2001).

However, the current level of savings in this country is of concern. The personal savings now fluctuates around zero or even negative (U.S. General Accounting Office, 2001). Looking at the savings rate in America from a different perspective, McConnell and Brue (2001) showed that the average propensity to consume in America in 1999 was .976 indicating that the average American consumed 97.6 cents of every dollar of disposable income, leaving fewer than 3 cents of each dollar of disposable income for savings.

Consumer Debt

The credit card industry in this country is large and pervasive. In 2000, credit card issuers mailed 3.54 billion solicitations to consumers in the United States; this corresponds to an average of three credit card offers per month per household (Synovate, 2003). As of September 2001, consumers had about $700.3 billion outstanding in revolving credit; about 60% of U.S. households revolve some portion of their credit card balances each month (Hogarth, 2002). Kennickell, Starr-McCluer, and Surette (2000) reported that for those who do not pay their credit card bills in full each month, balances averaged $4,100 in 1998. These authors also reported that one out of five families with incomes under $50,000 spent at least 40% of after-tax income on debt servicing. Defaulting on credit cards is often related to bankruptcy (Hogarth, 2002). Non-business bankruptcy filings rose from 287,570 in 1980 to 1,452,030 in 2001 (American Bankruptcy Institute, 2002). Bankruptcies have risen from 7.8 filings per 1,000 households in 1990 to 11.6 per 1,000 households in 2000 (Koretz, 2001).

Fox and Bartholomae (2000) stated that of the various types of debt identified by the purpose and source of the funds borrowed, the most threatening to the long-term financial well-being of the family is high-interest consumer credit used to purchase nondurable goods and services. Nondurable goods include items that typically do not last longer than the payment period and yield no economic return while being held. They cited paying for a meal with a high-interest credit card as being a classic example. The average American household head has nine credit cards, including bank, gas, retail, and phone cards (Kapoor et al., 1999).

Financial satisfaction and credit practices and attitudes appear to be directly related (Lown & Ju, 1992). These authors reported that families with higher debt-to-income ratios were less satisfied with their overall financial situation, whereas those using credit cards for convenience instead of installment purchases and those comfortable maintaining large total amounts of debt were more satisfied with their finances. Porter and Garman (1993) reported that worries about debt repayment and meeting financial emergencies are associated with lower perceived levels of financial well-being among individuals.

Retirement

In saving for retirement, individuals theoretically take into account not only their expected retirement age and the number of years they expect to live in retirement but also project their expected income, real returns on assets accumulated, and inflation over their lifetime (U.S. General Accounting Office, 2001). Social Security is part of the anticipated source of income for most

American workers. However, reports about the solvency of that system coupled with the increasing number of retirees being supported by a smaller number of workers paying into the system are of great concern to many. A number of studies target the serious situation facing Americans as they move into their later years (Coile & Gruber, 2000; Crippen, 2001; Devlin & Arye, 1997; Meyerson, Sabelhaus, Simpson, & Smith, 2001; Montalto, 2001; Page, 1998; President's Commission, 2001; Smith & Hamilton, 2001; Stanfield, 2000).

The Employee Benefit Research Institute (2002) reported in the 2002 Retirement Confidence Survey that 38% of workers indicated they have tried to calculate needs for retirement; however, 40% of these did not give an amount when asked and 3% reported they could not do the calculation. Fifteen percent of all workers reported that they had nothing saved for retirement; 38% of workers aged 40 to 59 had less than $50,000 total accumulated for retirement.

In particular, individuals born between 1946 and 1964, usually referred to as baby boomers, may be facing problems in retirement due to inadequate preparation. O'Neill (1998) estimated that approximately half of baby boomers are not enrolled in employer-sponsored pension plans. Dennis and Migliaccio (1997) stated that those boomers most at economic risk include 18 million persons who are single, do not own homes, and are hard-pressed to save even marginal amounts.

Lusardi (2001) studied data from the 1992 segment of the Health and Retirement Study (HRS) and found that approximately 30% of households whose head is close to retirement had done little to no planning for retirement. A quarter of the households in her sample had less than $30,000 in total net worth; such an amount would buy an annuity of approximately $2,200 a year. Perhaps most importantly, Lusardi (2001) found that households who had given little thought to retirement had far lower wealth than those who had given the subject more thought. Ameriks, Caplin, and Leahy (2002) analyzed data from a 2000 TIAA-CREF survey of 1,191 households and found that the correlation of planning with both net worth and gross financial assets was positive and statistically significant.

Fox and Bartholomae (2000) reported that empirical studies of the adequacy of retirement savings consistently find that American families are under-financing their retirement. They concluded that these families need to either increase savings or reduce living standards below expected levels upon retirement. Yuh, Montalto, and Hanna (1998), using 1995 nationally representative data of households with heads over the age of 35, estimated that only 52% of households were on track for retirement at preretirement consumption levels. In this study, the adequacy of retirement savings varied widely across demographic groups. For example, only 39% of Black, non-Hispanic households and 40% of households headed by unmarried women were found to be adequately prepared for retirement.

Personal Financial Literacy

Jacob et al. (2000) described financial literacy as knowledge of personal money management concepts and skills. The term *financial* applies to the wide range of money-related activities in daily lives, from balancing a checkbook to managing a credit card, from preparing a monthly budget to taking out a loan, buying insurance, or investing. *Literacy* implies knowledge of the terms, practices, laws, rights, social norms, and attitudes needed to understand and perform these vital financial tasks. These authors stated that financial literacy also includes being able to read and to apply basic math skills, both skills essential to making prudent financial choices.

Additionally, Jacob et al. (2000) explained that financial literacy consists of personal financial knowledge and skills; it involves the ability to understand financial terms and concepts and to translate that knowledge skillfully into behavior. Topics include the concepts of saving, earning interest, budgeting, buying insurance, managing credit and loans, and how to work with financial service institutions. Financial literacy embodies the minimum knowledge necessary to participate gainfully in the economy; it is the essential set of tools that will define how daily money choices are made (Jacob et al., 2000).

Vitt et al. (2000) described personal financial literacy as the ability to read, analyze, manage, and communicate about the personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect everyday financial decisions, including events in the general economy (Vitt et al., 2000). The Chairman of the SEC stated succinctly that there is an unacceptably wide gap between personal financial knowledge and individual financial responsibilities and that this gap negatively affects not only individuals and families directly, but also the American economy (Levitt, 1998).

Garman and Forgue (2000) defined financial literacy as knowing the facts and vocabulary necessary to manage one's personal finances successfully. They observed that this ability is not widespread among Americans and noted that obstacles to financial literacy include a lack of knowledge about personal finance, the complexities of financial life, being overburdened with too many choices in financial decision-making, and a lack of time to learn about personal finance.

Hogarth (2002) identified five critical reasons why financial literacy is important:

1. Well-informed, well-educated consumers should make better decisions for their families, increasing their economic security and well-being.
2. An effective and efficient marketplace requires knowledgeable consumers able to make informed choices.
3. Three demographic shifts will impact the economy: aging baby boomers, youth who are coming to financial independence with limited role models and experiences, and immigrants who need to learn to manage in the U.S. marketplace.
4. Responsibility for long-term well-being has shifted in the last 15 to twenty years away from employers and the government to individuals.
5. The financial marketplace of the 21st century has become more complex. (p. 27)

What happens when individuals are not financially literate and experience financial difficulties and stress? Titus et al. (1989) reported that the costs associated with personal financial difficulties are significant for the individuals involved.

Personal stress, illness, marital discord, child abuse, and loss of home often coincide with financial failure. Financial stress exacts many social and psychological costs on the quality of individual and family life (Fox & Bartholomae, 2000). Family financial planning is a general preventive strategy that can help reduce these social and psychological costs, thereby enhancing the well-being of family life. The next area of the literature to be examined considers the impact of financial difficulties and lack of financial literacy on specific groups of individuals and families.

Couples, Children, and Families

A subjective sense of financial well-being affects family processes independent of objective economic indicators of strain or adequacy (Conger et al., 1992; Fox & Chancey, 1998; Voydanoff & Donnelly, 1988). How men and women perceive their economic security and calculate their financial well-being is a strong predictor of family conflict and parenting distress (Conger et al., 1992; Fox & Chancey, 1998). Both objective and subjective measures of income adequacy play into the likelihood of domestic violence (Fox, Benson, DeMaris, & Van Wyk (2002). Fox and Bartholomae (2000) observed that threats to family income such as job loss, divorce, retirement, or disability can contribute to economic stress, which may be more specifically defined as the hardship, pressure, tension, or strain experienced as a result of changes in an individual's or family's financial affairs. Economic stress, also referred to by family researchers as economic distress, economic hardship, economic strain, economic pressure, or financial strain, can be the product of the inability to meet financial obligations; the uncertainty of income sources; the instability of employment; and the inadequacy of earnings to meet needs and desires (Fox & Bartholomae, 2000). Economic stress can also be the product of conditions in the general economy at the national, regional, or local level. Economic stress in the family manifests itself directly by influencing individual well-being and indirectly by influencing family interaction (Conger at al., 1992; Elder & Caspi, 1988).

The demographics of the American family continue to change. Family structure affects the financial well-being of families. Cantor (1993) reported on six trends, all of which started in the 1980s. First, multigenerational families are becoming the norm; the author estimated that by 2020 the typical family will consist of at least four generations. Secondly, families are becoming increasingly vertical by having a greater number of relationships that cross generational lines and fewer siblings and other age-peers within a single generation. Thirdly, kin networks are becoming increasingly top-heavy, with more older family members than younger; the average married couple now has more parents than children. Next, because of the lengthening life expectancy and lower birthrates, shifts are occurring in the time spent in various family roles; Cantor (1993) noted that middle generation women in the future will probably spend, on average, more years with parents over 65 than with children under age 18. Next, as the period of childbearing increasingly becomes more concentrated and age differences between first and last child narrow, the lines of demarcation between generations become sharper.

Finally, Cantor (1993) observed the alterations in the timing of childbearing, the increasing incidence of divorce and reconstructed or step-families, and single-parent families, all affecting and complicating family structure.

Teachman, Tedrow, and Crowder (2000) summarized the changing demography of American families. They noted the declining prevalence of early marriage, the increasing level of marital dissolution, and the growing tendency to never marry, especially among some racial and ethnic groups. These developments also imply that relatively more children are born outside of marriage, spend at least part of their childhood in a single-parent household, and endure multiple changes in family composition. The authors stated that these demographic changes have brought about sharp changes in the economic stability of families (Teachman et al., 2000).

The results of poor financial well-being, caused at least in part by poor personal financial literacy, can result in discomfort and even great harm to the overall well-being of husbands, wives, parents, and children; the consequences of chronic financial difficulty are typically felt in many different areas of family life (Camp, 1999). Using a Delphi technique with a panel of 17 nationally recognized experts in the field of family therapy, Fish and Osborn (1992) reported that six of the top nine weaknesses of family life in the United States were financially related. These weaknesses included (a) inordinate financial stress, (b) economic strains on middle and lower incomes, (c) anxiety about future financial security (especially retirement and health care), and (d) job insecurity.

Lack of financial resources has been linked to lower educational attainment in children and eventual low occupational achievement, unemployment, and poverty in adulthood (Amato & Keith, 1991). The interpersonal strains associated with financial problems have also been associated with inconsistent parental discipline and lower levels of nurturing behavior in parents toward children (Lempers, Clark-Lempers, & Simon, 1989). Lorenz, Conger, Simon, Whitbeck, and Elder (1991) reported that financial difficulties resulted in lower marital quality and higher levels of hostility between spouses. Conger, Ge, and Lorenz (1994) linked economic stress to deterioration in marital relationships. Although domestic violence occurs across the socioeconomic spectrum, low income and poverty are among the strongest and most consistent correlates of male-to-female domestic violence (Greenfield et al., 1998; Rennison & Welchans, 2000; Tjaden & Thoennes, 1998).

Financial difficulties also affect parental relationships and children because parents experiencing economic stress may find that the quality of their parenting suffers. Parental well-being is affected by economic stress, which influences parenting behaviors, child-rearing practices, and the quality of parent-child interactions (Takeuchi, Williams, & Adair, 1991). Children who experience economic stress have (a) greater levels of depression, (b) more impulsive and antisocial behaviors (Takeuchi et al., 1991), and (c) decreased levels of self-esteem (Ho, Lempers, & Clark-Lempers, 1995).

For some parents and children, the prospect of funding college is problematic. Todd and DeVaney (1997) described the competing pressures families face in planning for their retirement and the college education of their children, finding that about 25% of all families use retirement assets to pay for college expenses. Fox and Bartholomae (2000) observed that as families struggle to retire debt from the formation stage, they encounter significant additional educational expenses as children approach college age. Lee, Hanna, and Siregar (1997) found that only 29% of households with children under the age of 18 had saved anything for education goals.

In summary, financial difficulties are among the most serious issues facing parents and children. However, when couples employ systematic money management strategies, conflict during tough financial times may be reduced or eliminated. For example, the frequency of financial arguments is reduced when couples use financial management strategies such as record keeping, goal setting practices, and savings (Godwin, 1994; Lawrence, Thomasson, Wozniak, & Prawitz, 1993). Fox and Bartholomae (2000) stated that financial planning, when used by individuals and families, can decrease family vulnerability and exposure to economic stress.

Older Individuals and Women

Financial difficulties among older adults, particularly older women, are often caused by an accumulation of life course decisions and complex economic factors. Representative portions of the literature in this area will highlight some of the data and key issues. DeViney and Solomon (1995) stated that a major component of aging well is financial well-being. Income affects major dimensions of aging well: (a) type of housing, (b) access to medical care, and (c) maintenance of social relationships. As with any age group, the elderly exhibit differences in economic status. At any age, well-being is not randomly distributed among all members of a cohort (DeViney & Solomon, 1995). Further, these differences are often magnified as a cohort ages (Dannefer, 1987). Consequences of opportunities and choices early in the life course affect later life. These opportunities and choices are influenced by social structure and life course events that may have different consequences for men versus women.

Junk, Stenberg, and Anderson (1993) observed that retirement years for individuals may be times of relative financial well-being or times of financial stress and uncertainty depending upon the financial decisions made earlier in their lives. These authors noted that increasingly the changing demographics of American families are causing deviations from traditional financial life stages. Using the Deacon and Firebaugh resource management model as their theoretical base, Junk et al. (1993) analyzed data from the Informal Caregivers Survey conducted by the U.S. Census Bureau in 1982 and the 1990 Western Regional Project (#W-176). Members of the sandwich generation, those between the ages of 40 and 65, frequently serve simultaneously as a support system for their aging parents and for their dependent children. Their research confirmed that those in the sandwich generation may not experience the retirement lifestyle for which they had hoped. In addition to financial responsibilities for children and parents, members of the sandwich generation indicated that their parent care responsibilities would influence the timing of their retirement, the use of their retirement income, and their need for post-retirement employment (Junk et al., 1993).

Keith (1993) stated that chronic financial strain is a source of stress for many older adults. Burkhauser, Butler, and Holden (1991) reported that the poverty rate for unmarried elders is two to four times higher than for couples. Rank and Hirschl (1999) used the Panel Study of Income Dynamics for 1968-1992, representing approximately 37,000 person years of adults aged 60 and over, to estimate the proportion of adults who will experience poverty at some point during their older years. These researchers found that 40% of respondents experienced at least one year of poverty between the ages of 60 and 90. Rank and Hirschl (1999) found that being Black, having less than 12 years of education, and not being married substantially increased the likelihood of poverty after age 60; older women were twice as likely to be living in poverty as older men.

Perkins (1995) noted that women tend to make the transition into retirement without benefit of planning, due in large part to the still prevailing myth among women that they will be cared for in old age. The fear of growing old is one element that prevents women from aggressively planning for their retirement (Perkins, 1992). The time for planning is during midlife, from ages 35 to 55, regardless of whether a woman is single, married, divorced, widowed, working full time, part time, or unemployed (Hayes & Deren, 1990).

Butrica and Iams (2000) reported that 21% of divorced older women were in poverty compared with 5% of married, 18% of widowed, and 21% of never-married older women based on their analysis of data from the 1996 Survey of Income and Program Participation (SIPP). Stroup and Pollock (1999) reported that older divorced females suffer an economic loss of about 28% upon retirement as compared to their married counterparts.

DeVaney and Kim (2003) studied a sample of 976 women between the ages of 45 and 58. The researchers considered this the best age to determine how knowledgeable these women were about their employer-sponsored pension plans. Only 21% reported knowing "a lot" about these plans at a time when the women were reaching retirement age and were "probably approaching the peak of their earning ability" (DeVaney & Kim, 2003, p. 24).

A number of studies have addressed the relationship between retirement planning and education about retirement, particularly with regard to life satisfaction and well-being (Bartle, 1989; Dailey, 1996, 2000; Davis, 1998; DeHainaut, 2000; Duran-Medina, 1991; Kumelachew, 1995; Landers, 1992; Tackett, 2001; Termini, 1985; Turner, 1989). For example, Termini (1985) analyzed responses from 296 employees in a large corporation regarding their interest in employer-sponsored retirement education; topics of financial concern rated highest. A key finding of Termini (1985) was the importance of offering targeted retirement education to employees in all age groups.

In a study of 498 employees and retirees of a public school system, Bartle (1989) reported that individuals retired without a full understanding of their retirement benefits, that employees were more likely to participate in work-sponsored retirement education programs if they were applicable to their needs, and that different approaches to financial education programs were needed for different classifications of employees. In a study of over 2500 university employees from five western states, Turner (1989) reported that few respondents in her study had done any concrete planning for their retirement years.

In a study of 613 public university employees, Kumelachew (1995) reported that a majority of both male and female respondents were not knowledgeable regarding information about retirement; over 78% reported that retirement planning and education should start before age 40. In a study of 641 both active and retired respondents who were members of a state teachers' retirement system, Landers (1992) found that less than 35% had done any retirement planning. Clearly, for individuals in their later years, particularly women, there are linkages between financial literacy and financial well-being.

Students

Students in both high school and college face financial challenges as they move into their adult years. The Jump$tart Coalition for Personal Financial Literacy targets financial literacy in the K-12 student population (Mandell, 2001). Mandell (1997) studied responses from 1,509 high school seniors in 63 schools and reported that 43% failed a basic test of personal financial literacy in the areas of income, money management, savings and investment, and spending. He concluded that students are leaving schools and moving into the workplace without the ability to make critical financial decisions affecting their lives. The Coalition administered two additional surveys of financial literacy in high school seniors (Jump$tart Coalition for Personal Financial Literacy, 2002). The Coalition reported that in 2000, over 59% of high school seniors surveyed failed the basic test and in 2002 the percentage failing the test exceeded 68%.

On the college level, one indicator of potential financial difficulties for individuals is the use of credit. Hayhoe, Leach, and Turner (1999) studied responses from 426 students in five state-supported universities. Eighty percent of the students reported having at least one credit card; two students reported having 18 credit cards each. Of those students having at least one credit card, 75% reported carrying a balance on at least one card and 17% reported carrying the maximum balance on at least one card.

Lytton, Decker, and Grable (2001) studied responses from 514 students from 15 college and universities in nine states regarding their credit card behaviors. Ninety-two percent of the students reported having at least one credit card in their own name, with an average of 3.3 total cards per student. The authors studied the relationship of students and credit behaviors to behaviors of employees as reported in the literature. The literature suggested that employees with financial concerns were more likely to miss work and perform at a decreased level of productivity. Based on the sample studied, the same pattern appeared to be true for the college students, with a significant relationship between debt and academic productivity as measured by skipping classes to handle financial problems or working extra hours to meet bills and expenses. The authors concluded that college students may, in fact, demonstrate some of the same behavior patterns reflected by workers experiencing financial stress. Based on an analysis of student credit behaviors, financial attitudes, and class attendance, the data suggested that at least 13% of students in the sample had financial problems that diminished their productivity as students. Assuming that a relationship exists between financial behaviors and employee productivity, it is plausible that these same students, if they move into the workforce without significantly changing their behaviors, may exhibit greater levels of absenteeism and lower productivity than other employees. The authors recommended that employers consider an employee financial education program specifically targeted at interns and new hires as well as current employees to better manage their money. Furthermore, these researches noted that their data showed that 68% of the students in the sample did not know how to evaluate employee benefits. Emphasizing benefits education during the recruiting process was suggested (Lytton et al., 2001).

Minorities and Low-Income Individuals

Gomel, Tinsley, Parke, and Clark (1998) studied the relationships between economic hardship, coping, and family relationships in families of differing ethnic groups. Their findings indicated that although there are similarities, different ethnic groups approach economic hardships differently and use differing coping mechanisms.

Collectively, African Americans, Hispanics, and other minority groups, as defined by the U.S. Census, are burdened with consumer debt, have a low savings rate, own fewer interest-earning assets, and are less likely than Whites to own their own home or have access to adequate health care and health insurance (Myers, 1991). Bowen, Lago, & Furry (1997) reviewed the literature on money management in families with limited incomes and in the two largest minority groups in the United States, African Americans and Hispanics. The authors reported that there is preliminary evidence of differences in the way families with limited incomes manage their money and in the way various ethnic and racial groups handle money. Families with low incomes were more likely than middle-income families to have difficulty saving and to discuss family finances openly in their children's presence; they were less likely to use formal banking services or to search for product information before buying. Hudson (2002) identified six key factors threatening the economic security of older populations of color. They are low wages, intermittent work histories, family responsibilities, inadequate pension coverage, poor financial literacy, and discrimination.

Jacob et al. (2000) reported that most lower-income people understand their economic situation and struggle to get by. Low-income families that lack basic financial skills are more vulnerable to sudden economic shocks such as health emergencies or unexpected job losses. These authors stated that decreased family stability, increased foreclosure risks, and disinvestments in homes and local businesses challenge already disadvantaged lower-income communities. Difficulties that lower-income people are more likely to face in day-to-day financial dealings include reduced access to basic financial services, difficulties in saving and building assets, predatory lending, misuse of credit cards, and debt (Jacob et al., 2000).

For example, Jacob et al. (2000) reported that checking and savings accounts are basic financial tools; yet, almost 12% of the adult population in the United States have neither and hence have no formal relationship with a financial institution. Hogarth and O'Donnell (1997) noted that a high proportion of lower-income consumers are unbanked. Consequently, these authors expressed concern that such consumers are inadequately prepared because of lack of experience and information about personal finance and consumer education concepts to make informed financial decisions. The poor, young people, seniors, and minorities are disproportionately represented among this population; as reported by Kennickell, Starr-McCluer, and Sunden (1997), 85% of unbanked households in 1995 had incomes of less than $25,000 and 54% were non-White or Hispanic. Bird, Hagstrom, and Wild (1999) reported that 23.2% of households at 100-150% of the poverty-line level in 1995 had a credit-card-debt-to-income ratio above 1.0; this means that such households owed more on their credit cards than they earn in a year.

Employees, Employers, and Financial Literacy Education

When individuals become employees of an organization, they bring the effects of their personal financial well-being into the workplace. For employed individuals, core components of their financial well-being are tied to the legal protections and benefits they receive as employees. Workplace financial education, or personal financial literacy education, broadly defined refers to any information, education, and services provided by an employer to help employees make informed personal financial decisions on retirement plans, employee benefits, personal financial management, and consumer rights (Garman, 1997). Workplace personal financial education is the single most important and appropriate arena for reaching most people (Vitt et al., 2000). Although the authors acknowledged that financial security is the responsibility of the individual, they stated that it is neither possible nor prudent for employers to move away from involvement in the future economic security of American employees.

Financial literacy provides information about employer-sponsored benefits or, additionally, may be a benefit in itself. The two purposes are often inseparable because of the holistic nature of personal financial management. To position the importance of employer-sponsored financial literacy education, it is important to describe the framework of employee benefits.

Benefits

Employers offer indirect compensation and employee benefits, together commonly called benefits, for four basic purposes: (a) to attract better employees, (b) to improve employee satisfaction and decrease turnover, (c) to respond to external forces, and (d) to meet employee expectations (DeNisi & Griffin, 2001). Benefits generally refer to various rewards, incentives, and other things of value that an organization provides to its employees beyond their wages, salaries, and other forms of direct compensation.

Employee benefits as a percentage of wage and salaries grew considerably in the twentieth century and Wiatrowski (1990) noted that one of the most striking developments in personnel administration has been the growing complexity of employee compensation. Since 1915, employers have progressed from providing no benefits to providing a standard package of benefits designed for a male-supported family to providing innovative and flexible benefits to meet different family needs. Although the details vary widely, these benefits today are standard components of the compensation package and workers generally expect them (Wiatrowski, 1990). In 1935, benefits accounted for less than 1% of total labor costs (Gerhart & Miklovich, 1992). By 2002, the U.S. Chamber of Commerce (2004) reported that the amount had grown to 42.3% of payroll costs.

Most benefits fall into one of five categories: (a) social insurance or mandated protection plans, (b) private group insurance, (c) retirement, (d) pay for time not worked, and (e) other types of benefits (DeNisi & Griffin, 2001; Noe, Hollenbeck, Gerhart, & Wright, 2000).

Social insurance. The Old Age, Survivors, Disability, and Health Insurance (OASDHI) Program was created by the Social Security Act of 1935. Amendments include survivors insurance (1939), disability insurance (1956), and hospital and supplementary medical insurance (1965). The Program is designed to provide limited income to retired individuals to supplement their own personal savings, private pensions, part-time work, and other sources of income (DeNisi & Griffin, 2001; Noe et al., 2000).

Private group insurance. Included in this category of employee benefits are medical, dental, and vision insurances as well as other protections such as long- and short-term disability insurances (Noe et al., 2000).

Retirement. There are two major types of retirement plans for employees: defined benefit and defined contribution plans. Defined benefit plans are pension plans in which the size of the benefit is known precisely and is usually based on a simple formula based on some combination of years of service, age, and salary. Defined contribution plans, on the other hand, are pension plans in which the size of the benefit depends on how much money is contributed to the plan (DeNisi & Griffin, 2001); 401(k) and 403(b) plans are examples of defined contribution plans. Defined benefit plans insulate employees from investment risk, which is borne by or through the employer. In contrast, defined contribution plans shift risk to employees and are additionally advantageous to employers because of reduced administrative costs.

Pay for time not worked. In contrast to other western nations, there is no federal legislation requiring or governing paid time off granted by employers to their employees (DeNisi & Griffin, 2001). However, employees have come to expect a variety of paid days away from work for holidays, vacation, personal leave, and health care and sick days. In certain circumstances accumulated paid time off can represent a considerable financial asset to employees; for example, at the time of termination or retirement, employees might be paid for unused vacation days.

Other types of benefits. Included in this category is a wide array of benefits. One major grouping increasing in popularity is what are called family friendly or work/life programs (Noe et al., 2000) or life cycle benefits (DeNisi & Griffin, 2001); these may include elder care and child care. Wellness programs concentrate of keeping employees from becoming sick, rather than simply paying expenses when they become sick. Employee Assistance Programs (EAPs) are designed to assist employees with concerns such as substance abuse and domestic and personal problems (Noe et al., 2000).

Employer-Sponsored Financial Literacy Education

In spite of legal requirements and recognized good business practices, some employers provide insufficient information to employees about their various protections and benefits. This is unfortunate for three primary reasons (Noe et al., 2000). First, some protections and benefits mandated by federal and state laws are not well understood by employees; employers have an obligation to educate employees about these protections. Secondly, employer-sponsored benefits are expensive for employers to provide; by not communicating and training employees, employees may not understand or appreciate the benefits. Thirdly, personal financial management is so closely integrated with compensation, benefits, work/life interactions, and life course events that employers who do not offer personal financial literacy miss important opportunities to improve recruitment, retention, employee satisfaction, and employee productivity (Noe et al., 2000).

Hennessey, Perrewe, and Hochwarter (1992) showed that awareness about benefits can be increased through communication via several media and that, as awareness increased, so did satisfaction with benefits. Giallourakis and Taylor (1991) reported that typical benefits information and training is inadequate considering that employers spend on average over $15,000 annually per worker per year in benefits and many benefits are complex in nature.

A review of the literature on employer-sponsored financial literacy education reveals both research studies and anecdotal information on the importance of such education to employers and to the financial well-being of employees. Brennan (1998) identified four advantages to employers who sponsor financial education for employees. First, employers reduce liability that could arise from not providing it. Secondly, they are able to increase productivity because employees are less worried about finances. Next, such education can help the employee to understand better their benefits. Finally, financial education is part of the strategy to retain a quality workforce. Barber, Dunham, and Formisano (1992) documented that the more employees perceived they knew about their benefits, the more satisfied they were with those benefits.

Lucero and Allen (1994) found that employees were becoming increasingly dependent on employer-provided benefits because they do not have the ability or desire to provide for their own economic security. Global competition, technology, changing values, and demographics have redefined the relationship between employer and employee (Rappaport, 1995). This changing employment landscape coupled with rising benefits costs and lack of knowledge about benefits features and functions as described previously have resulted in employers increasingly offering some form of financial planning education to employees.

Weagley and Moore (1997) studied the relationship between knowledge and satisfaction with employee benefits utilizing a sample of employees from a multi-campus, midwestern university. They reported that the level of knowledge of employee benefits in the workforce was demonstrated to be significantly related to employee satisfaction with employee benefits. These researchers stated that while knowledge cannot automatically be created, their findings support the importance of clear communication between those who manage the benefits and those whose financial security is in large measure dependent upon those benefits.

Champion-Hughes (2001) encouraged organizations to make every effort to offer their employees a totally integrated benefits system, including family-friendly benefits such as complete financial literacy education. She stated that by helping employees balance work and family responsibilities, companies can increase the overall productivity of employees, reduce absenteeism, and better retain valued employees.

Bernheim and Garrett (1996) reported that workplace financial education is often limited to topics relevant to retirement planning and investments. However, employees want more, according to numerous researchers. Topics requested by employees include understanding benefits, debt management, buying and leasing a vehicle, estate planning, the role of financial advisors, budgeting, cash management, college planning, tax planning, credit management, estate planning, insurance planning, elder care, IRAs, and consumer protection laws (Kim, Bagwell, & Garman, 1998; Kratzer et al., 1998).

Bernheim and Garrett (1996) found that employer-based retirement education strongly influenced household financial behavior. They studied 2,055 responses from a nationally representative sample between ages 30 and 48. In addition to collecting standard economic and demographic information, these researchers queried respondents on retirement education in the workplace, economic and financial knowledge, and sources of information and advice on retirement planning. They found that rates of savings, both in general and for the purposes of retirement, increased significantly with the provision of employer-based education. In later research, Bernheim and Garrett (in press) reported that financial education significantly stimulated retirement savings among low and moderate savers.

As described earlier, Williams et al. (1996) reported that employee financial concerns can become problems for employers. In one study, Garman et al. (1996) concluded that approximately 15% of American workers experience stress from poor financial behaviors to the extent that it negatively impacts their productivity. Garman (1999) studied workers with credit delinquencies and noted that one-third to one-half of such workers reported that they spend time at work dealing with money matters and such workers wasted on average 20 hours per month.

Workplace financial education may be part of larger work/life, wellness, or Employee Assistance Programs (EAP) sponsored by employers to address issues of employees' personal concerns that may spill over into their work and negatively impact productivity (Bond, Galinsky, & Swanberg, 1997; Galinsky & Bond, 1998; Traynor, 1999). EAPs began after World War II during the rise of the alcohol and drug rehabilitation movement; although originally aimed only at employee alcohol and drug problems, EAPs now are being designed to help employees with a wide variety of problems that ultimately interfere with job performance such as (a) stress; (b) personal, emotional, or financial concerns; and (c) family difficulties (Champion-Hughes, 2001). Treatment may come in the form of in-house assistance, counseling, or outside referrals. For example, the EAP at the University of Maine pays for employees "to see a debt management counselor, provide emergency loans and address emotional issues that can accompany debt, such as depression, stress, anxiety and substance abuse" (BenefitNews.com, 2003, p. 2).

Work/life services were developed based on the more recent realization that employees are more productive when they are assisted in coping with personal stressors and such pragmatic life-cycle concerns as child care and elder care needs (Stein, 2002). The Center for Ethical Business Cultures (1997) described work/life strategies as initiatives by employers to attract a talented workforce, to retain them, and to make them productive in the face of growing family and personal issues. While terminology varies, the intent of these work/life programs is uniform: strengthening the organization by giving employees the means to balance or integrate competing responsibilities.

Stein (2002) reported that a growing number of employers are integrating Employee Assistance Programs and work/life services. These integrated programs provide a single comprehensive support focus to assist an increasingly diverse workforce with concerns and problems that might otherwise prevent it from performing at its best. Stein (2002) also reported an increasing number of separate health and wellness programs being integrated with EAPs and work/life services. This integration better serves employees because they now have a single point of contact in seeking help or information.

Regardless of the program name under which it falls, financial literacy education as a benefit is being recognized as a strategic business tool in the management of human resources. Research supports the inclusion of financial literacy as an employee benefit. In the largest, most recent study of workplace financial literacy programs, Vitt et al. (2000) analyzed 18 employer-sponsored financial literacy education programs including those at Blue Shield of California, Shell Oil, Weyerhaeuser, Dow Agro-Sciences, Kemper Insurance, ITT Canon, The University of Tennessee, and UPS. Nielson, Camacho, Phillips, and Brown (1992) stated that the biggest advantage to offering a financial planning benefit is that it can help reduce employees' financial concerns and encourage them to take more responsibility for their finances instead of relying upon their employer's choices. Financial issues affect employees' motivation in two ways. One is the positive motivation employees receive from the belief that they are working toward financial independence with the employer's help. The second way is the elimination of financial worries that can detract from job performance (Nielson et al., 1992).

Employer-Sponsored Financial Literacy Education as Part of Human Resource Development

The link between employer-sponsored financial literacy education and human resource development is two-fold. First, Swanson and Holton (2001) identified 18 definitions of human resource development (HRD) from various sources. Their own definition of human resource development is "a process for developing and unleashing human expertise through organization development and personal training and development for the purpose of improving performance" (p. 4). Although this definition and the others in their collection tend to focus first on the organization, there is a strong emphasis on the functioning of the employees within the organization.

Secondly, as noted earlier, Stein (2002) reported that a growing number of employers are integrating Employee Assistance Programs and work/life services. These integrated programs provide a single, all-inclusive support focus that assists an increasingly diverse workforce with concerns and problems that might otherwise prevent it from performing at its best. Harris and DeSimone (1994) stated that employer-provided programs of this type serve "the same goal as any other HRD activity: to ensure the employee is now and will continue to be an effective contributor to the organization's effectiveness" (p. 298). These authors noted that personal problems are a part of life. "Whether problems are chronic, as in the case of alcoholism, or situational, as in the case of financial problems, they can affect behavior at work as well as one's personal life" (Harris & DeSimone, 1994, p. 288). When considering the various definitions and descriptions of financial literacy as presented earlier in Table 1, consistent themes emerge including individuals (a) being knowledgeable, educated, trained, and informed on the issues of managing money and assets, banking, investments, credit, insurance, and taxes; (b) understanding the basic concepts underlying the management of money and assets; and (c) using that knowledge and understanding to plan and apply financial decisions (Hogarth, 2002). Harris and DeSimone (1994) noted that employer-sponsored programs that ensure employee well-being:

> use the same techniques and other HRD interventions. These techniques include workshops, role playing, behavior modeling, discussions, lectures, coaching, and audiovisual presentations. In addition, the process of delivering . . . is the same as that of any other HRD program, and includes needs assessment, planning and implementation, and intervention. (p. 289)

Summary

Traditionally, workplace financial literacy programs focused on retirement preparation. Currently, retirement planning sessions and services remain the most frequently offered workplace programs (Vitt et al., 2000). Increasingly, employers are recognizing the need and the benefits of workplace financial literacy.

According to a survey by the International Society of Certified Benefit Specialists and the Employee Benefit Survey Group of Deloitte and Touche, investment education is now the top concern of employee benefits professionals (Burzawa, 1998). For example, the Society for Human Resource Management (SHRM) (2001) received responses from 754 human resource professionals in the Society's annual survey of benefits. SHRM reported that many employers help their employees plan for their financial futures through financial planning and retirement-related benefits. Forty-three percent reported offering retirement planning services, up from the reported 36% in 1997. Twenty-eight percent reported offering financial planning services, up from 20% in 1997 (SHRM, 2001).

Furthermore, Deloitte and Touche (2003) reported that providing financial retirement planning tools and information was one of the top five priorities for 2003. Their data were based on 476 responses to their ninth annual survey of benefits priorities. Morrell (1994) observed that it is important that organizations know that they have a moral obligation to help employees achieve financial success in retirement fund management. Reflecting current thinking in human resource management, this obligation is a prime example of the forging of a partnership between employee and employer to achieve mutual well-being for both (Morrell, 1994).

A growing number of programs incorporate whole life or holistic planning, including the financial aspects that surround major career and life events throughout the life course (Vitt et al., 2000). Moreover, these authors believe that course content should continue to expand in organizations of all sizes to include foundations in money management as well as insurance, credit, and financial goal setting. Therefore, offering workplace financial literacy education is an important strategy for employers in managing their human resources and is critically important for employees.

CHAPTER III

METHODOLOGY

The intent of this study was to collect accurate information about how individuals report their financial well-being and their desire for employer-sponsored financial literacy education. The purpose of survey research is to provide a systematic and accurate description of facts about, and characteristics of, the population of interest (Isaac & Michael, 1995). Therefore, survey research methodology was used for gathering and reporting data in this study. Two primary sources were used to frame the research methodology: Gall, Borg, and Gall (1996) and Dillman (2000).

This chapter describes how a self-administered mail survey was developed, disseminated, and analyzed in order to answer the five research questions. The research questions are:

1. What level of financial well-being is reported by employees at a Texas public research university?
2. Is there a need for employer-sponsored financial literacy education as reported by employees at a Texas public research university?
3. Do selected demographic characteristics influence financial well-being as reported by employees at a Texas public research university?

4. Do selected demographic characteristics influence the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?
5. Is there a relationship between financial well-being and the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

This chapter is divided into four sections. The first gives details of how the study population was defined and the sample identified. The second describes the development of the survey instrument. Section three describes the data collection procedures. The next section defines the data analysis procedures.

Study Population

The population for this study consisted of all benefits-eligible employees of the Texas A&M University main campus located in College Station, Texas. Benefits eligible employees were those employees who are appointed for at least 20 hours per week for a period of at least four and one-half months. The researcher was provided data in an Excel spreadsheet of all employees meeting these criteria by the Office of Budget/Payroll/Personnel (B/P/P) Operations at Texas A&M University System.

According to data provided by B/P/P personnel, the number of benefits-eligible employees on the main Texas A&M University campus at the time survey preparation began was 10,315. Using Krejcie and Morgan (1970), a sample size of

370 was identified. In order to approach that desired sample size, over-sampling was used based on the following formula:

$$\frac{\textit{desired sample size}}{\textit{proportion likely to respond}} \text{ (÷) } = \textit{number of participants to include in original sample}$$

Review of other similar studies of personal finances in a variety of settings showed return rates varying from 36% to 64.4% as depicted in Table 3.

Table 3. Return Rates of Instruments Used in Personal Financial Management Studies

Population	Response Rate	Source
Registered nurses at a large public university	36.0 %	Gullotte, 1990
Virginia taxpayers	36.5 %	Porter, 1990
State employees	54.1 %	Landers, 1992
Employees from several private corporations	56.7 %	Kim, 2000
Employees from two large public universities	59.0 %	Kumelachew, 1995
Employees of a large public university	64.0 %	Turner, 1989
Clerical workers in a private corporation	64.4 %	Joo, 1998

Based on these percentages, the researcher projected an estimated response rate of 50% and randomly selected 740 individuals to receive the survey. Numbers were randomly generated using SPSS (2002) software on a personal computer.

Instrument Development

Following a review of the literature, a survey was developed by the researcher from an amalgamation of sections from three different, but related, validated instruments. These instruments were developed by three other researchers: Porter (1990), Joo (1998), and Kim (2000). Permission was sought and granted by each to use materials from their surveys.

Porter (1990) tested a model of financial well-being using a sample of Virginia citizens. She developed a data collection instrument called "Financial Practices and Attitudes of Virginia Citizens" to assess the reported personal financial well-being of respondents. Subsequently, Joo (1998) looked at personal financial wellness and worker job productivity in a sample of clerical workers of a large employer in the eastern United States. More recently, Kim (2000) examined the effects of workplace financial education on personal finances and work outcomes in a sample of white-collar workers in three separate offices of an insurance company in the United States. In each study, the authors reported that items in the instruments were developed from previous research and the conceptual background of personal financial wellness or well-being. The instruments were reviewed by expert panels, were revised as appropriate, and were pilot tested in each case.

The research for this study used components from these three previous instruments to develop a survey that would address the research questions relating to personal financial well-being and the desire for employer-sponsored financial literacy education in the study population. Less than 15% of the items were modified by this researcher and then only to reflect current socioeconomic language and structures. For example, (a) the ranges for household annual gross income were increased, (b) ethnicity categories were updated, and (c) some items were edited for improvements in grammar and clarity.

The initial draft of the instrument for this study was then reviewed by a small group of experts for clarity and validity. These individuals included two human resources professionals, one adult learning professional, one financial planner, one expert in aging research, one educational development specialist, one professional trainer, and two faculty at another public research university. Several minor changes in wording for clarification and in document layout were made to the initial instrument based on feedback from the group.

Next, the survey was pilot-tested with ten employees at a public research university. Each individual was asked to provide feedback on the (a) length of time it took to complete the survey; (b) clarity of instructions, the information sheet, and the actual survey; and (c) organization and flow of the survey items. Minor refinements were made to the survey instrument based on the feedback provided by pilot test participants.

The final survey instrument consisted of a total of 129 items grouped as follows: subjective perception of personal finance; solvency measure; perceptions of overall financial well-being; financial stress level; behavioral assessment;

financial stressors; actions taken during work time for personal financial issues; financial situation five years ago compared to present; financial situation two years ago compared to present; financial situation anticipated in five years; years of work and performance; sources of personal financial management knowledge; interest in employer-sponsored personal financial management education; topics of interest; reasons why respondents had no interest; and demographic information. Also included was a comments section. Appendix A lists all of the items included in the final survey by data number, item or variable number, variable label, value, and value label.

Personal finance can be a highly sensitive subject for individuals. Consequently, great care was taken not only in the development of the instrument, but also in the implementation of the survey process. The primary guide used for both was the Tailored Design Method (Dillman, 2000). Some of the techniques used in this Method include (a) developing a readable, pleasing document with visual appeal and clear instructions; (b) establishing rapport and trust with participants through a pre-notice letter; (c)offering a small token of appreciation for participating in the survey; and (d) reminding participants in a follow-up mailing to return the survey. Dillman describes this method as

> the development of survey procedures that create respondent trust and perceptions of increased rewards and reduced costs for being a respondent, which take into account features of the survey situation and have as their goal the overall reduction of survey error. (p. 27)

Fundamental to this approach is social exchange theory. Dillman (2000) stated that "[t]he likelihood of responding to the request to complete a self-administered questionnaire, and doing so accurately, is greater when the respondent trusts that the expected rewards of responding will outweigh the anticipated costs" (p. 27). Dillman's recommendations for creating trust and influencing respondents' expectations for rewards and costs were used throughout the survey process.

Data Collection Procedures

The survey was conducted during March and April 2003. Following the Total Design Method (Dillman, 2000), a pre-notice letter (Appendix B) signed by the chair of the doctoral committee and the researcher was sent on March 17, 2003, to all participants in the sample via campus mail at Texas A&M University; this letter described the purpose of the study and requested each individual's participation in the study. One week later, on March 24, 2003, a survey packet was sent to all participants in the sample via campus mail (Salant & Dillman, 1994). The survey packet included four items. An information sheet (Appendix C) contained information about the research study, assurance of confidentiality, instructions for completing the survey, and instructions for returning the instrument in a pre-addressed, stamped envelope. The second item in the packet was the survey instrument, which was ten pages front and back printed in landscape orientation on 8-1/2 by 14 inch white paper with a light green cover. The text of the instrument is shown in Appendix D. The third item in the packet was a token financial incentive

(Dillman, 2000) of a two-dollar bill in U.S. currency. The last item in the packet was a stamped envelope pre-addressed with the researcher's home address. All surveys had been pre-coded in the lower right-hand corner of the back cover to allow for identification of non-respondents if further correspondence were necessary (Dillman, 2000).

On March 31, 2003, a third mailing was sent to all individuals in the sample thanking them for participating if they had already returned the survey and reminding them to please do so if they had not (Appendix E). This mailing was the next step in the Tailored Design Method (Dillman, 2000).

As the surveys were received, the researcher logged the date of receipt into the master Excel spreadsheet. The researcher used data from surveys received through mail delivery on April 28, 2003. Of the original 740 surveys mailed, 18 were returned by the Campus Mail Center as being undeliverable. By April 28, 2003, 470 were returned; six of these were blank resulting in 464 usable surveys. The return rate of usable surveys (464) to deliverable surveys (722) was 64.3 %.

The quantitative data from the 464 usable surveys were entered into an Excel spreadsheet to facilitate statistical analysis. An experienced data entry professional was retained for the data entry process to ensure accuracy and completeness; data then were verified by the researcher. Comments were transcribed verbatim for qualitative analysis.

Data Analysis Procedures

Results of the study have been reported using numerical and graphic techniques. Analysis and interpretation of the data followed the principles prescribed by Gall et al. (1996). The data entered in the Excel spreadsheet were interfaced with SPSS (2002). Statistical procedures used to analyze the data included descriptive statistics, t-tests, analysis of variance, and chi-square analysis. Demographic data were analyzed as they related to each factor. An alpha level of .05 was used to establish significance.

Summary

Steps recommended by Gall et al. (1996) and Dillman (2000) in constructing and administering a research instrument were followed in this study in order to complete an analysis of the need for employer-sponsored financial literacy education as reported by employees of a large Texas organization. The first step was to define the research objectives, which are the research questions stated in Chapter I. Step two was defining a target population and finding methods to contact an appropriate sample of that population. Benefits-eligible employees at Texas A&M University's main campus made up the population.

The third step was designing the survey instrument. Existing formats and three previously administered surveys provided the structural basis for the development of a single, hybrid instrument. The fourth step involved review of the instrument by a panel of experts and then pilot-testing the survey. The next step included implementation of the instrument based on the Tailored Design Method (Dillman, 2000).

The final step was analyzing the data using SPSS in order to answer the research questions. A combination of descriptive and inferential statistics was used for this purpose. Multiple displays such as tables and charts were used to present findings. A brief qualitative analysis of comments from respondents was also made.

CHAPTER IV

ANALYSIS AND FINDINGS

The intent of this chapter is to present the results of the statistical analyses of the data collected in order to formulate findings that answer the five research questions. Demographic data were presented as well in order to characterize the study population and the sample. Percentages in some cases may not total 100.0 due to rounding. Answers to open-ended questions and comments were analyzed using a qualitative method. This qualitative analysis is presented in order to help provide corroboration and illumination of the quantitative findings.

Demographics

The demographic data of the responding employees are presented. Descriptive statistics using frequency counts and percentages were used to describe this data. Demographic characteristics considered in this study included six areas: gender, marital status, education level, ethnicity, age, and household annual gross income. Appendix F contains the complete demographic data for respondents to the survey.

Table 4 contains the data for gender. Among Texas A&M University respondents to the survey, 49.5% were male and 50.5% were female. These percentages compare with the Texas A&M University employee population as a whole as reported by the Office of Human Resources (W. Wynn, personal communication, October 28, 2003) with males making up 53.2% and females 46.8% of employees.

Table 4. Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Gender	Respondent Frequency	Respondent Percentage	Population Frequency	Population Percentage
Male	229	49.5	5,432	53.2
Female	234	50.5	4,775	46.8
No Response[1]	1			
Total	464	100.0	10,207	100.0

Note 1: Missing data were not calculated in percentages.

Table 5 contains the data for marital status. For purposes of this study, marital status was grouped in two categories. This was done to collapse several small, unusable groups into larger, meaningful categories. The first grouping, labeled as single, included those respondents who indicated they had never married or were separated, divorced, or widowed. The second grouping, labeled coupled, included data from respondents who indicated they were married, not married but living with a partner/significant other, remarried after divorce, or remarried after spouse's death. Among Texas A&M University respondents to the survey, 36.4% were single; 63.6% indicated that they were coupled. These percentages compare with the Texas A&M University population as a whole as reported by the Office of

Human Resources (W. Wynn, personal communication, October 28, 2003) with single employees making up 40.9% and coupled 59.1%.

Table 5. Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Marital Status	Respondent Frequency	Respondent Percentage	Population Frequency	Population Percentage
Single[1]	168	36.4	4,177	40.9
Coupled[2]	294	63.6	6,030	59.1
No Response[3]	2			
Total	464	100.0	10,207	100.0

Note 1: Includes never married, separated, divorced, and widowed.
Note 2: Includes married, not married but living with a partner/significant other, remarried after divorce, and remarried after spouse's death.
Note 3: Missing data were not calculated in percentages.

Table 6 contains the data regarding respondents' education level. For purposes of this study, respondents were grouped in three categories. Among Texas A&M University respondents to the survey, 20.8% had an education level up through high school; 31.8% reported that they had attended a trade or vocational school, had some college or an associate's degree, or had a bachelor's degree; and 47.4% had a graduate or professional degree. These percentages compare with the Texas A&M University population as a whole as reported by the Office of Human Resources (W. Wynn, personal communication, October 28, 2003) with 28.8%

reporting an education level of high school or less; 28.7% showing as having up through a bachelor's degree; and 42.5% having a graduate or professional degree.

Table 6. Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Education Level	Respondent Frequency	Respondent Percentage	Population Frequency	Population Percentage
Up through high school[1]	96	20.8	2,941	28.8
Up through bachelor's degree[2]	147	31.8	2,930	28.7
Graduate/professional degree	219	47.4	4,336	42.5
No Response[3]	2			
Total	464	100.0	10,207	100.0

Note 1: Includes less than high school and high school diploma or GED.
Note 2: Includes trade/vocational training, some college or associate's degree, and bachelor's degree.
Note 3: Missing data were not calculated in percentages.

Table 7 contains the data regarding ethnicity of respondents. Among Texas A&M University respondents to the survey, 69.8% indicated they were White; 6.4% Black; 9.3% Hispanic; and 14.4% Asian. Four respondents identified themselves as Native Americans and seven as Other. These two groups were so small that they were not included in the statistical analysis. Therefore, they have been recorded as No Response in Table 7. These percentages compare with the Texas A&M University population as a whole as reported by the Office of Human Resources (W.

Wynn, personal communication, October 28, 2003) with Whites making up 69.4%; Blacks 7.8%; Hispanics 10.8%; and Asians 12.0%.

Table 7. Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Ethnicity	Respondent Frequency	Respondent Percentage	Population Frequency	Population Percentage
White	315	69.8	7,057	69.4
Black	29	6.4	789	7.8
Hispanic	42	9.3	1,102	10.8
Asian	65	14.4	1,221	12.0
No Response[1]	13		38	
Total	464	99.9	10,207	100.0

Note 1: Includes four Native American, seven other, and two no response; data were not calculated in percentages.

Table 8 contains the data regarding respondents' ages. For purposes of this study, respondents' ages of were grouped in four categories. Among Texas A&M University respondents to the survey, 28.5% were 29 years of age or younger; 26.5% were 30 to 39 years of age; 23.6% were 40 to 49; and 21.4% were 50 years of age or older. These percentages compare with the Texas A&M University population as a whole as reported by the Office of Human Resources (W. Wynn, personal communication, October 28, 2003) with those 29 and younger making up

26.3% of the population; those 30-39 making up 26.6%; those 40-49 making up 23.1%; and those 50 and older making up 24.0% of the population.

Table 8. Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Age	Respondent Frequency	Respondent Percentage	Population Frequency	Population Percentage
29 or younger	129	28.5	2,657	26.0
30 - 39	120	26.5	2,685	26.3
40 - 49	107	23.6	2,338	22.9
50 or older	97	21.4	2,426	23.8
No Response[1]	11		1	
Total	464	100.0	10,207	99.0

Note 1: Missing data were not calculated in percentages.

Table 9 contains the data regarding respondents' household annual gross income (HAGI). For purposes of this study, household annual gross income was grouped in four categories. Among Texas A&M University respondents to the survey, 22.5% indicated an HAGI of less than $20,000; 27.3% reported between $20,000 and $40,000; 25.6% reported $40,001 to $80,000; and 24.7% greater than $80,000 in annual gross income for the household. These four categories, thus, each contain approximately one quarter of the responses. Note that there is a $20,000 step in the second group and a $40,000 step in the third group.

Table 9. Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Household Annual Gross Income	Frequency	Percentage
Less than $20,000	102	22.5
$20,000 - $40,000	124	27.3
$40,001 - $80,000	116	25.6
Greater than $80,000	112	24.7
No Response[1]	10	
Total	464	100.1

Note 1: Missing data were not calculated in percentages.

Following this presentation of the demographics, the next five sections address the five research questions. As described in Chapter III, descriptive and inferential statistics were used as appropriate to form conclusions that were drawn. Note that beginning with Research Question 3, use of null hypotheses was made.

Answer to Research Question 1

Research Question 1 asked: What level of financial well-being is reported by employees at a Texas public research university?

For the purposes of this study, financial well-being was operationally measured in four ways: (a) a subjective perception, (b) a behavioral assessment, (c) an objective measure, and (d) satisfaction. To answer this research question, responses to four survey areas were analyzed to provide information about the reported overall financial well-being of respondents. The subjective perception was compiled from the mean of the eight statements asked in Part A. The behavioral assessment was calculated as the mean of the 12 item responses in Part E. The objective measure was determined by analysis of one item asked in Part B of the survey. Finally, satisfaction was based on the response to Item 1 in Part C.

Subjective Perception

Respondents' subjective perception was measured by the pooling of the eight items in Part A of the survey. These items measured respondents' subjective perception of their current financial situation in five areas: (a) cash management, (b) credit management, (c) income adequacy, (d) personal financial management, and (e) consumer shopping skills. The specific item performance for these five areas will be discussed in subsequent paragraphs. The participants were asked to answer the questions by circling a letter on a Likert scale that consisted of four choices: "Agree," "Tend to Agree," "Tend to Disagree," and "Disagree." These choices were shown in the survey as A, TA, TD, and D and coded in the dataset as 1, 2, 3, and 4, respectively. The eight items are shown in Table 10.

Table 10. Items Measuring Subjective Perception of Financial Situation in a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003

Part A Item Number	Item
1	I am satisfied with the amount of money that I am able to save.
2	I would be able to handle a financial emergency of $500 to $1,000.
3	I think I will have enough money to live comfortably in retirement.
4	I worry about being able to pay my monthly living expenses.
5	When I think of my financial situation, I am optimistic about the future.
6	I worry about how much money I owe.
7	I am knowledgeable about consumer protection laws and regulations.
8	I would have trouble borrowing $2,000 cash if I needed it.

Cash management. Cash management was addressed by Item A1: "I am satisfied with the amount of money that I am able to save" and by Item A2: "I would be able to handle a financial emergency of $500 to $1,000." Table 11 describes the frequencies and percentages of responses. A little more than a third of respondents (35.5%, combining categories of Agree and Tend to Agree) reported that they are satisfied with the amount of money that they are able to save. Almost two-thirds of respondents (64.4%, combining categories of Tend to Disagree and

Disagree) reported that they are not satisfied with their ability to save. Over three-fourths of respondents (76.1%, combining categories of Agree and Tend to Agree) reported that they would be able to handle a financial emergency of $500 to $1,000. Only 23.8% of respondents (combining categories of Tend to Disagree and Disagree) reported that they would be unable to handle a financial emergency of $500 to $1,000.

Table 11. Responses to Survey Items Measuring Subjective Perception of Cash Management as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement	A	TA	TD	D[1]	Total
A1	I am satisfied with the amount of money that I am able to save.					
	Frequency[2]	56	108	138	159	461
	Percentage	12.1	23.4	29.9	34.5	99.9
A2	I would be able to handle a financial emergency of $500 to $1,000.					
	Frequency[2]	252	99	49	61	461
	Percentage	54.7	21.5	10.6	13.2	100.0

Note 1: A = Agree; TA = Tend to Agree; TD = Tend to Disagree; D = Disagree.
Note 2: There was no response from three individuals; missing data were not calculated in percentages.

Credit management. Credit management was addressed by Item A6: "I worry about how much money I owe" and Item A8: "I would have trouble borrowing $2,000 cash if I needed it." Table 12 describes the frequencies and percentages of responses. Almost half of respondents (49.2%, combining categories of Agree and Tend to Agree) reported that they worry about how much money they owe. Just over half of respondents (50.7%, combining categories of Tend to Disagree and Disagree) reported that they do not worry about how much money they owe. A little over a quarter of respondents (26.8%, combining categories of Agree and Tend to Agree) reported that they would have trouble borrowing $2,000 cash. Almost three-fourths of respondents (73.1%, combining categories of Tend to Disagree and Disagree) reported that they would not have trouble borrowing $2,000 cash.

Table 12. Responses to Survey Items Measuring Subjective Perception of Credit Management as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement		A	TA	TD	D[1]	Total
A6	I worry about how much money I owe.						
		Frequency[2]	106	121	91	143	461
		Percentage	23.0	26.2	19.7	31.0	99.9
A8	I would have trouble borrowing $2,000 cash if I needed it.						
		Frequency[3]	67	56	106	229	458
		Percentage	14.6	12.2	23.1	50.0	99.9

Note 1: A = Agree; TA = Tend to Agree; TD = Tend to Disagree; D = Disagree.
Note 2: There was no response from three individuals; missing data were not calculated in percentages.
Note 3: There was no response from six individuals; missing data were not calculated in percentages.

Income adequacy. Income adequacy was addressed by Item A4: "I worry about being able to pay my monthly living expenses." Table 13 describes the frequencies and percentages of responses. Over a third of respondents (37.0%, combining categories of Agree and Tend to Agree) reported that they worry about being able to pay monthly living expenses. The rest (63.0%, combining categories of Tend to Disagree and Disagree) reported that they do not worry about being able to pay monthly living expenses.

Table 13. Responses to a Survey Item Measuring Subjective Perception of Income Adequacy as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement		A	TA	TD	D[1]	Total
A4	I worry about being able to pay my monthly living expenses.						
		Frequency[2]	63	107	115	175	460
		Percentage	13.7	23.3	25.0	38.0	100.0

Note 1: A = Agree; TA = Tend to Agree; TD = Tend to Disagree; D = Disagree.
Note 2: There was no response from four individuals; missing data were not calculated in percentages.

Personal financial management. Personal financial management was measured by two statements of subjective perception about future financial situations; Item A3 read "I think I will have enough money to live comfortably in retirement" and Item A5 stated "When I think about my future financial situation, I am optimistic about the future." Table 14 describes the frequencies and percentages of responses. Almost half of respondents (49.8%, combining categories of Agree and Tend to Agree) reported that they think that they will have enough money to live comfortably in retirement. Almost half of respondents (50.1%, combining categories of Tend to Disagree and Disagree) reported that they do not think that they will have enough money to live comfortably in retirement. Almost three-fourths (72.2%, combining categories of Agree and Tend to Agree) reported that they are optimistic about their financial future. More than a quarter of respondents (27.7%, combining categories of Tend to Disagree and Disagree) reported that they are not optimistic about their financial future.

Table 14. Responses to Survey Items Measuring Subjective Perception of Personal Financial Management as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement		A	TA	TD	D[1]	Total
A3	I think I will have enough money to live comfortably in retirement.						
		Frequency[2]	63	164	127	101	455
		Percentage	13.8	36.0	27.9	22.2	99.9
A5	When I think of my financial situation, I am optimistic about the future.						
		Frequency[3]	111	220	94	33	458
		Percentage	24.2	48.0	20.5	7.2	99.9

Note 1: A = Agree; TA = Tend to Agree; TD = Tend to Disagree; D = Disagree.
Note 2: There was no response from nine individuals; missing data were not calculated in percentages.
Note 3: There was no response from six individuals; missing data were not calculated in percentages.

Consumer shopping skills. Item A7 addressed consumer shopping skills: "I am knowledgeable about consumer protection laws and regulations." Table 15 describes the frequencies and percentages of responses. Less than half of respondents (42.3%, combining categories of Agree and Tend to Agree) reported that they consider themselves knowledgeable about consumer protection laws and regulations. Over half of respondents (57.8%, combining categories of Tend to Disagree and Disagree) reported that they do not consider themselves knowledgeable about consumer protection laws and regulations.

Table 15. Responses to a Survey Item Measuring Subjective Perception of Consumer Shopping Skills as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement	A	TA	TD	D[1]	Total
A7	I am knowledgeable about consumer protection laws and regulations.					
	Frequency[2]	54	140	154	111	459
	Percentage	11.8	30.5	33.6	24.2	100.1

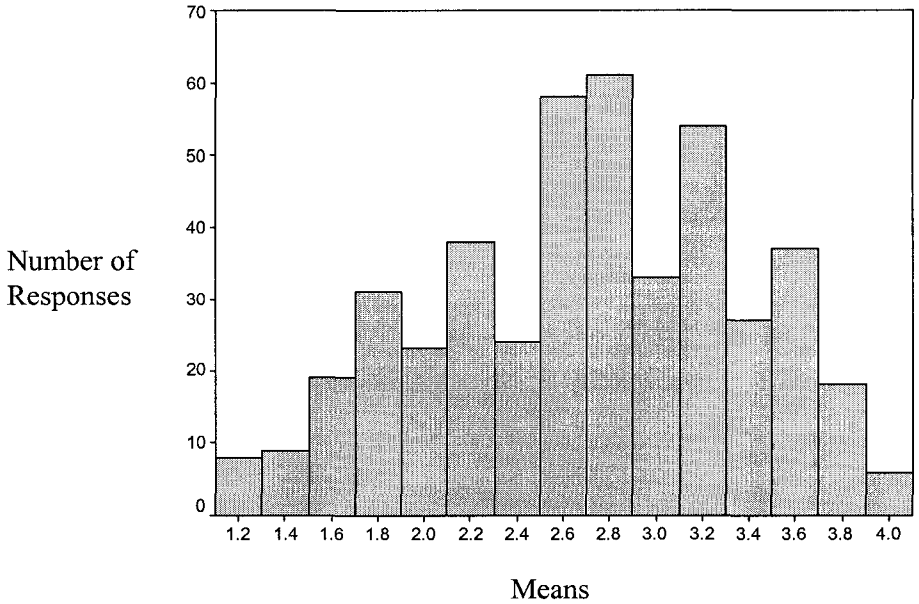
Note 1: A = Agree; TA = Tend to Agree; TD = Tend to Disagree; D = Disagree.
Note 2: There was no response from five individuals; missing data were not calculated in percentages.

In order to prepare for further analysis regarding the subjective perception of financial well-being, a mean for the eight items was calculated as follows. The eight statements were reviewed for consistent directionality. Specifically, it was necessary that a score of 1 always was a "positive" response. Items 4, 6, and 8 were written in a negative direction such that a response of 1 was actually the most negative response. Accordingly, responses to items 4, 6, and 8 were electronically reversed. That is, a script in SPSS was written and executed that allowed the researcher to confirm that only the specific items had been changed in the correct direction.

Once responses to all items had consistent directionality, the eight items were summed. SPSS is designed so that if any of the eight item values is missing, the sum is not calculated and is reported as a missing value. The sum was then divided by eight to calculate the mean for the eight items. The mean of the eight items was now consistent with the individual items. That is, the smaller the mean, the more positive the perception of financial wellness. However, since most people tend to think of the higher of two means as representing a better score, the final step was to transform the initial mean. The 1 to 4 scale is still maintained; however, the most positive response is now a 4. As a result of this final step, the higher mean now represents the more positive perceived response.

From reviewing the data, there was clearly a full range of means for responses from lowest to highest as shown in Figure 1. The minimum was 1.00 indicating that at least one respondent marked "Agree" for all items; the maximum was 4.00 indicating that at least one respondent marked "Disagree" for all items. Respondents appeared to bring both discretion and thought to their responses, since only two respondents marked all eight items "Agree" and only six respondents marked all eight items "Disagree."

Figure 1. Frequency of Means for Responses to 8 Items Measuring Subjective Perception of Financial Situation as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464).



The mean for the eight items addressing the subjective measure of financial well-being was 2.69 with a standard deviation of 0.66, the median was 2.75, and the mode was 2.8 (when values were rounded to the nearest tenth). The response choices could also be considered as follows: the response Disagree ranges from 1.00 to 1.50; Tend to Disagree from 1.51 to 2.50; Tend to Agree from 2.51 to 3.50; and Agree from 3.51 to 4.00. The three measures of central tendency all fall into the range of Tend to Agree, 2.51 to 3.50. In other words, the clustering of the mean, the median, and the mode suggest that respondents reported their subjective perception in the range of Tend to Agree and have the same overall relative sense of subjective perception of their current financial situation.

Behavioral Assessment

The behavioral assessment was measured by the pooling of the 12 items in Part E of the survey. These items measured respondents' behavioral assessment of their current financial situation in five areas: (a) cash management, (b) credit management, (c) income adequacy, (d) personal financial management, and (e) consumer shopping skills. The specific item performance for these five areas will be discussed in subsequent paragraphs. The participants were asked to answer the questions by circling a letter on a Likert scale that consisted of four choices: "Never," "Sometimes," "Usually," and "Always." These choices were shown in the survey as N, S, U, and A and coded in the dataset as 1, 2, 3, and 4, respectively. The 12 items are shown in Table 16.

Table 16. Items for Behavioral Assessment of Financial Situation in a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003

Survey Part E Item Number	Item
1	I set money aside for savings.
2	I reached the maximum limit on a credit card.
3	I had a plan to reach my financial goals.
4	I purchased something expensive that I wanted but did not really need.
5	I comparison shopped at two or more stores or websites for an expensive consumer product.
6	I spent more money than I had.

Table 16 (continued)

Survey Part E Item Number	Item
7	I paid credit card bills in full and avoided finance charges.
8	I had to cut living expenses.
9	I had a weekly or monthly budget that I followed.
10	I had to use a credit card because I ran out of cash.
11	I set money aside for retirement other than TRS or ORP.
12	I had financial problems because I did not have enough money.

Cash management. Cash management was addressed by Item E1: "I set money aside for savings"; by Item E6: "I spent more money than I had"; and by Item E11: "I set money aside for retirement other than TRS or ORP." Table 17 describes the frequencies and percentages of responses. Some 12.4% of respondents never and 43.8% sometimes set money aside for savings. Less than half (43.8% or 21.6% Usually and 22.2% Always) set money aside for savings on some sort of regular basis. Almost half of respondents (48.6%) reported that they never spent more money than they had. On the other hand, others reported that at least some of the time they spent more than they had with 40.3% sometimes overspending, 7.4% usually spending more than they had, and 3.7% always spending more than they had. Almost half of respondents (48.5%) reported that they never set money aside for retirement other than mandatory retirement program payroll deductions. Some

19.7% sometimes set aside money for retirement, while 31.9% committed to usually or always setting money aside for retirement.

Table 17. Responses to Survey Items for Behavioral Assessment of Cash Management as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement		N	S	U	A[1]	Total
E1	I set money aside for savings.						
		Frequency[2]	57	201	99	102	459
		Percentage	12.4	43.8	21.6	22.2	100.0
E6	I spent more money than I had.						
		Frequency[3]	224	186	34	17	461
		Percentage	48.6	40.3	7.4	3.7	100.0
E11	I set money aside for retirement other than TRS or ORP.						
		Frequency[4]	222	90	58	88	458
		Percentage	48.5	19.7	12.7	19.2	100.1

Note 1: N = Never; S = Sometimes; U = Usually; A = Always.
Note 2: There was no response from five individuals; missing data were not calculated in percentages.
Note 3: There was no response from three individuals; missing data were not calculated in percentages.
Note 4: There was no response from six individuals; missing data were not calculated in percentages.

Credit management. Credit management was addressed by Item E2: "I reached the maximum limit on a credit card" and by Item E7: "I paid credit card bills in full and avoided finance charges." Table 18 describes the frequencies and percentages of responses. Some 88.4% of respondents reported that they never (64.9%) or only sometimes (23.5%) % reached the maximum limit on a credit card.

Those who usually reached the maximum limit on a credit card made up 6.3% of the sample, while 5.2% reported that they always reached the maximum limit. Over half of respondents (58.6%) reported that at least some of the time they carry forward a balance on their credit cards, thus incurring finance charges. Some 19.2% never paid credit card bills in full and avoided finance charges; 22.0% sometimes did; and 17.4% usually paid credit card bills in full and avoided finance charges. On the other hand, 41.4% reported that they always paid credit card bills in full.

Table 18. Responses to Survey Items for Behavioral Assessment of Credit Management as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement		N	S	U	A[1]	Total
E2	I reached the maximum limit on a credit card.						
		Frequency[2]	298	108	29	24	459
		Percentage	64.9	23.5	6.3	5.2	99.9
E7	I paid credit card bills in full and avoided finance charges.						
		Frequency[2]	88	101	80	190	459
		Percentage	19.2	22.0	17.4	41.4	100.0

Note 1: N = Never; S = Sometimes; U = Usually; A = Always.
Note 2: There was no response from five individuals; missing data were not calculated in percentages.

Income adequacy. Income adequacy was addressed by Item E8: "I had to cut living expenses"; by Item E10: "I had to use a credit card because I ran out of cash"; and by Item E12: "I had financial problems because I did not have enough money." Table 19 describes the frequencies and percentages of responses. Almost one quarter (23.6%) reported that they never had to cut living expenses and 56.6% said they only sometimes had to cut living expenses. On the other hand, 14.3% usually and 5.4% always felt forced to cut living expenses. With regard to using a credit card because an individual ran out of cash, 48.3% of respondents reported that they never dealt with this circumstance and 37.8% reported that only sometimes had they used a credit card because they ran out of cash.

However, 10.2% usually and 3.7% always made use of a credit card because they had run out of cash. Almost half of respondents (47.6%) reported that they never had financial problems because they did not have enough money, while 37.9% reported that they sometimes had financial problems because they did not have enough money. On the other hand, 8.2% reported that they usually had financial problems because they did not have enough money and 6.3% reported that they always had such problems.

Table 19. Responses to Survey Items for Behavioral Assessment of Income Adequacy as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement	N	S	U	A[1]	Total
E8	I had to cut living expenses.					
	Frequency[2]	109	261	66	25	461
	Percentage	23.6	56.6	14.3	5.4	99.9
E10	I had to use a credit card because I ran out of cash.					
	Frequency[3]	222	174	47	17	460
	Percentage	48.3	37.8	10.2	3.7	100.0
E12	I had financial problems because I did not have enough money.					
	Frequency[4]	220	175	38	29	462
	Percentage	47.6	37.9	8.2	6.3	100.0

Note 1: N = Never; S = Sometimes; U = Usually; A = Always.
Note 2: There was no response from three individuals; missing data were not calculated in percentages.
Note 3: There was no response from four individuals; missing data were not calculated in percentages.
Note 4: There was no response from two individuals; missing data were not calculated in percentages.

Personal financial management. Personal financial management was addressed by Item E3: "I had a plan to reach my financial goals" and by Item E9: "I had a weekly or monthly budget that I followed." Table 20 describes the frequencies and percentages of responses. Almost half (45.8%) of respondents reported that they either never (14.7%) or only sometimes (31.1%) had a plan to reach their financial goals. In contrast, 36.3% of respondents reported that they usually had a plan to reach their financial goals and 17.9% always had a plan. Almost one quarter (23.3%) reported that they never followed a weekly or monthly budget and 32.2% reported that they only sometimes used a budget. In contrast, 30.9% usually followed a budget and 13.5% reported that they always had a weekly or monthly budget to follow.

Table 20. Responses to Survey Items for Behavioral Assessment of Personal Financial Management as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement		N	S	U	A[1]	Total
E3	I had a plan to reach my financial goals.						
		Frequency[2]	67	142	166	82	457
		Percentage	14.7	31.1	36.3	17.9	100.0
E9	I had a weekly or monthly budget that I followed.						
		Frequency[3]	107	148	142	62	459
		Percentage	23.3	32.2	30.9	13.5	99.9

Note 1: N = Never; S = Sometimes; U = Usually; A = Always.
Note 2: There was no response from seven individuals; missing data were not calculated in percentages.
Note 3: There was no response from five individuals; missing data were not calculated in percentages.

Consumer shopping skills. Consumer shopping skills were addressed by Item E4: "I purchased something expensive that I wanted but did not really need" and by Item E5: "I comparison shopped at two or more stores or websites for an expensive consumer product." Table 21 describes the frequencies and percentages of responses. Some 30.8% of respondents reported that they never purchased something expensive that they wanted but did not really need and 57.7% reported that only sometimes did they make such purchases. On the other hand, 6.7%

reported that they usually made such purchases while 4.8% reported that they always purchased something expensive that they wanted but did not really need. Over one third of respondents (36.0%) reported that they never (17.8%) or only sometimes (18.2%) comparison shopped. In contrast, 23.6% reported usually comparison shopping and 40.3% reported that they always comparison shopped at two or more stores or websites for an expensive consumer product.

Table 21. Responses to Survey Items for Behavioral Assessment of Consumer Shopping Skills as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Item Number	Statement		N	S	U	A[1]	Total
E4	I purchased something expensive that I wanted but did not really need.						
		Frequency[2]	142	266	31	22	461
		Percentage	30.8	57.7	6.7	4.8	100.0
E5	I comparison shopped at two or more stores or websites for an expensive consumer product.						
		Frequency[2]	82	84	109	186	461
		Percentage	17.8	18.2	23.6	40.3	99.9

Note 1: N = Never; S = Sometimes; U = Usually; A = Always.
Note 2: There was no response from three individuals; missing data were not calculated in percentages.

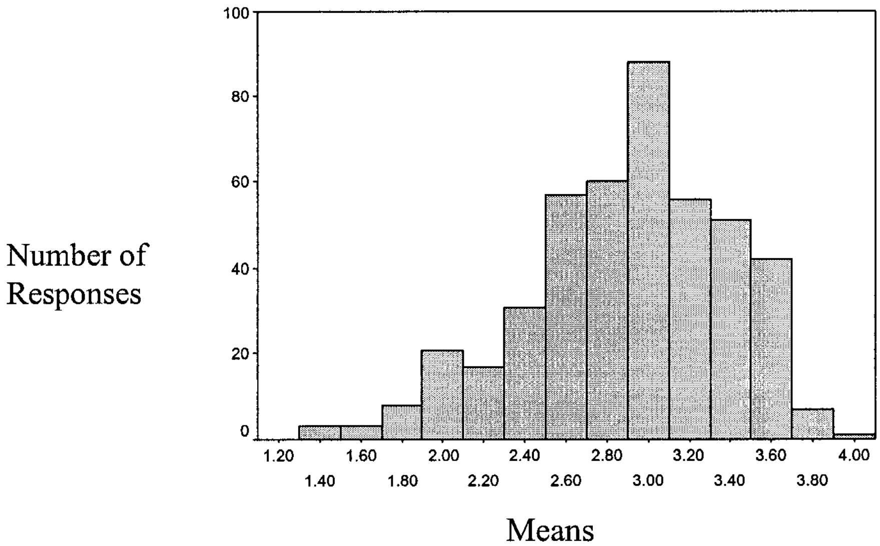
In order to prepare for further analysis regarding the behavioral assessment of financial well-being, a mean for the 12 items was calculated as follows. The 12 statements were reviewed for consistent directionality. Specifically, it was necessary that a score of 1 always was the least frequent response. Items 2, 4, 6, 8, 10, and 12 were written in a negative direction such that a response of 1 was actually the most frequent occurrence. Accordingly, responses to items 2, 4, 6, 8, 10, and 12 were electronically reversed. That is, a script in SPSS was written and executed that allowed the researcher to confirm that only the specific items had been changed in the correct direction.

Once responses to all items had consistent directionality, the 12 items were summed. SPSS is designed so that if any of the 12 item values is missing, the sum is not calculated and is reported as a missing value. The sum was then divided by 12 to calculate the mean for the 12 items. The mean of the 12 items was now consistent with the individual items. That is, the smaller the mean, the less frequently the behavior was noted. Conversely, the larger the mean, the more frequently the behavior occurred.

The mean for the 12 items addressing the behavioral assessment of financial well-being was 2.89, with a standard deviation of 0.49, the median was 2.92, and the mode was 3.0 (when values were rounded to the nearest tenth). The range of means for responses from lowest to highest is shown in Figure 2. The response choices could also be considered as follows: the response Never ranges from 1.00 to 1.50; Sometimes from 1.51 to 2.50; Usually from 2.51 to 3.50; and Always from 3.51 to 4.00. The three measures of central tendency all fall into the range of Usually, 2.51 to 3.50. In other words, the clustering of the mean, the median, and the mode suggest that respondents report their behavioral assessment in the range of

Usually and have the same overall relative sense of behavioral assessment of their current financial practices.

Figure 2. Frequency of Means for Responses to 12 Items of Behavioral Assessment of Financial Situation as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464).



Objective Measure

Part B of the survey focused on respondents' objective measure of their current financial situation based on solvency. The solvency was measured with the question,

> We are interested in where you would be financially if you sold all of your major possessions (including your home), turned all of your investments and other assets into cash, and paid all your debts. Would you be in debt, break even, or have something left over?

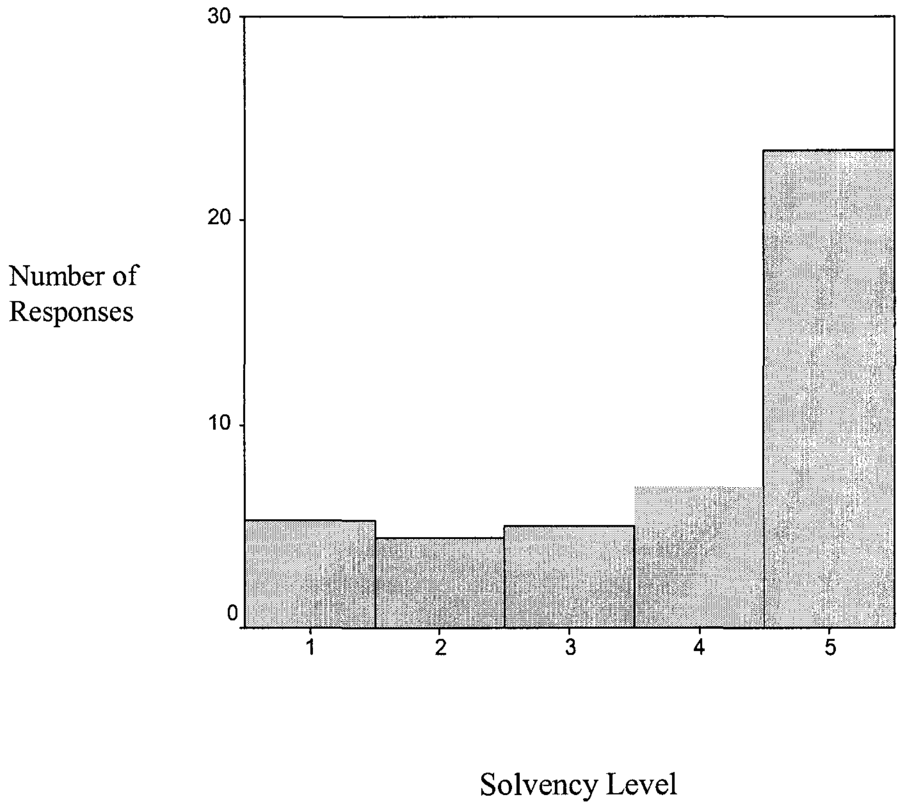
Respondents were asked to circle a number from 1 to 5 to indicate their solvency. The mean for the objective measure of financial well-being was 3.87, with a standard deviation of 1.44, the median was 5, and the mode was 5. Level 1 "Would be in debt" was selected by 11.8%; 9.8% indicated Level 2; 11.1% indicated Level 3 "Would break even"; 15.5% indicated Level 4; and 51.9% indicated Level 5 "Would have money left over." Levels 1 and 2 accounted for 21.6% of respondents, implying that these individuals had a negative net worth or, in other words, were insolvent. Table 22 and Figure 3 show these results.

Table 22. Responses to a Survey Item for Objective Measure of Financial Situation as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Scale	Statement	Frequency[1]	Percentage
1	Would be in debt	53	11.8
2		44	9.8
3	Would break even	50	11.1
4		70	15.5
5	Would have money left over	234	51.9
	Totals	451	100.1

Note 1: There was no response from 13 individuals; missing data were not calculated in percentages.

Figure 3. Number of Responses to a Survey Item for Objective Measure of Financial Situation as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464).



Satisfaction

Part C1 of the survey measured respondents' satisfaction with their financial situation. The item read,

> Suppose that a person who is entirely satisfied with his or her financial situation would be at the top of these steps, and a person who is extremely dissatisfied with his or her financial situation would be on one of the bottom steps. On what step do you see yourself?

Participants were asked to circle a number from 1 to 10 on a step scale to indicate their level of satisfaction with step 1 being the lowest and step 10 the highest. A simple drawing of numbered stair steps was included in the survey and can be seen in Appendix G.

As shown in Table 23, respondents' placement of themselves on the steps to indicate their perception of their personal financial situation varied. The mean for respondents' satisfaction with their financial situation was 5.51, with a standard deviation of 2.05, the median was 6, and the mode was 7. Almost half (49.6%) of respondents reported that they saw themselves on level 5 or below while 50.6% reported that they saw themselves on level 6 or higher. Step 7 had the most responses with 82 individuals selecting it. Figure 4 depicts these results graphically. Note that relatively few individuals, only 6.4% combined, reported being on either of the two lowest steps, and only 5.0% reported themselves as being on either of the top two steps.

Table 23. Responses to a Survey Item Measuring Satisfaction With Financial Situation as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

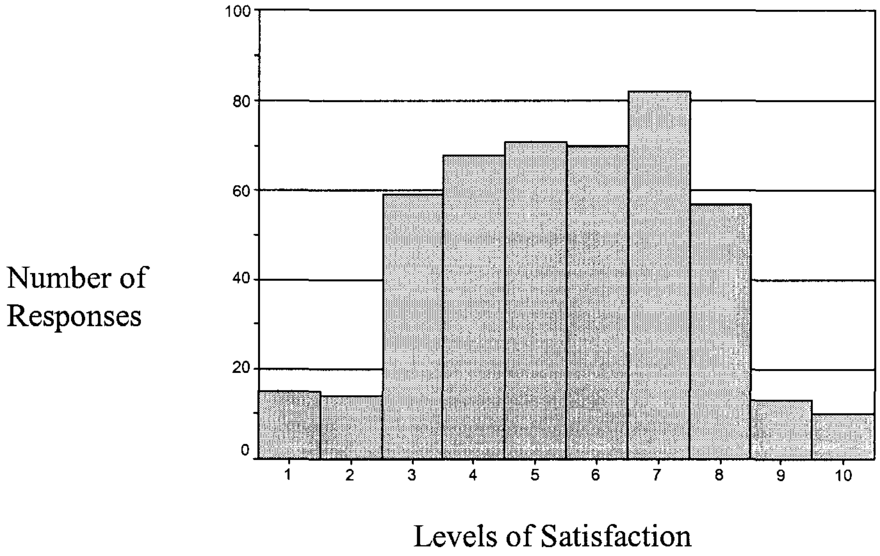
Scale	Frequency[1]	Percentage
1	15	3.3
2	14	3.1
3	59	12.9
4	68	14.8
5	71	15.5

Table 23 (continued)

Scale	Frequency[1]	Percentage
6	70	15.3
7	82	17.9
8	57	12.4
9	13	2.8
10	10	2.2
Totals	459	100.2

Note 1: There was no response from five individuals; missing data were not calculated in percentages.

Figure 4. Number of Responses to a Survey Item Measuring Satisfaction With Financial Situation as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464).



Answer to Research Question 2

Research Question 2 investigated: Is there a need for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

For the purposes of this study, the desire for employer-sponsored financial literacy education was operationally assessed by asking the sample of Texas A&M University benefits-eligible employees if they would like the University to offer personal financial management education, such as workshops, classes, and lectures during working hours. To answer this research question, responses to Part L of the survey were analyzed to provide information about the reported desire for such an employee benefit. Specifically, participants were asked to respond to the question, "Some employers offer their employees personal financial management education (workshops, classes, lectures, etc.) during regular work hours. Would you like your employer to offer this type of employee benefit?"

Respondents were asked to indicate their preference by checking a box indicating either Yes or No. More than three-fourths of respondents (76.0%) indicated that they would like their employer to provide personal financial management education during regular work hours. Only 24.0% of respondents replied negatively. Table 24 shows the results of the responses.

Table 24. Need for Employer-sponsored Financial Literacy Education (FLE) as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Need for FLE	Frequency	Percentage
Yes	351	76.0
No	111	24.0
No Response[1]	2	
Total	464	100.0

Note 1: Missing data were not calculated in percentages.

Those 351 respondents who responded positively were then asked to review a list of financial literacy education topics and identify the three topics that were of most interest to them. That list included banking (checking/saving accounts, money markets, etc.); benefits offered by the University; budgeting (goal setting, record keeping); buying a home; college planning; consumer protection laws; estate planning; getting out of debt; insurance planning; investing; managing credit; retirement planning; tax planning; and wills and estate planning. Respondents were asked to describe additional topics if they so chose. Two respondents offered suggestions for additional topics: "credit rating/appeals" and "retirement planning geared to faculty, not staff." Table 25 shows the results of respondents' choices.

Table 25. Responses to a Survey Item Indicating Choice of Topics in Employer-sponsored Financial Literacy Education (FLE) as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Topic	Frequency[1]	Percentage
Banking	76	6.5
Benefits	114	9.8
Budgeting	82	7.1
Buying a home	72	6.2
College planning	63	5.4
Consumer protection	52	4.5
Estate planning	57	4.9
Getting out of debt	91	7.8
Insurance planning	54	4.6
Investing	127	10.9
Managing credit	48	4.1
Retirement planning	187	16.1
Tax planning	81	7.0
Wills and estate planning	56	4.8
Other	2	0.2
Total	1,162	99.9

Note 1: Respondents were asked to mark up to three choices.

Of the 14 topics, 3 topics were clearly identified as being of more importance to respondents. The three items of benefits, investing, and retirement planning accounted for 36.8% of all responses. For the sake of efficiency and focus, this study will now limit further analysis to these three areas of organizational support for employees.

Those 111 respondents who answered negatively were then asked to identify reasons why they were not interested in personal financial management education in such forms as workshops, classes, and lectures during regular work hours. Suggested reasons were: I am simply not interested; my supervisor would not let me go; I don't think my employer has any business offering a benefit like that; I don't have time to attend; and I already know enough about managing my personal finances. Table 26 shows the results of respondents' choices.

Of the five reasons, three reasons were clearly identified as being of more importance to respondents. These three items accounted for 82.7% of all responses. Those three reasons were: I am simply not interested (28.3%); I don't have time to attend (29.8%); and I already know enough about managing my personal finances (24.6%). For the sake of efficiency and focus, this study will now limit further analysis to these three reasons for not desiring employer-sponsored financial literacy education.

Respondents also had the opportunity to make comments in an additional item called: Other (please describe). The 13 comments received from respondents contained a variety of individual concerns and had no focused themes. Therefore, they are not included in this discussion but may be found in Appendix H.

Table 26. Responses to a Survey Item Indicating No Interest in Employer-sponsored Financial Literacy Education (FLE) as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003 (n = 464)

Response	Frequency[1]	Percentage
I am simply not interested.	54	28.3
My supervisor would not let me go.	6	3.1
I don't think my employer has any business offering a benefit like that.	11	5.8
I don't have time to attend.	57	29.8
I already know enough about managing my personal finances.	47	24.6
Other	16	8.4
Total	191	100.0

Note 1: Respondents were asked to mark all that applied.

Answer to Research Question 3

Research Question 3 asked: Do selected demographic characteristics influence financial well-being as reported by employees at a Texas public research university?

Demographic data for the Texas A&M University employees responding to the research survey were presented earlier in this chapter. Descriptive statistics using frequency counts and percentages were used to describe this data. Demographic characteristics considered in this study included six areas: gender, marital status, education level, ethnicity, age, and household annual gross income.

In Research Question 1, for the purposes of this study, financial well-being was operationally measured in four ways: (a) respondents' subjective perception of their financial situation, (b) respondents' behavioral assessment of their financial situation, (c) respondents' objective measure of their financial situation, and (d) respondents' satisfaction with their financial situation. To answer that research question, responses to four survey areas were analyzed to provide information about reported overall financial well-being based on the responses of those who returned the survey.

Subjective Perception

Respondents' subjective perception was measured by the pooling of the eight items in Part A of the survey. These items measured respondents' subjective perception of their current financial situation in five areas: cash management, credit management, income adequacy, personal financial management, and consumer shopping skills. The participants were asked to answer the questions by circling a letter on a Likert scale that consisted of four choices: "Agree," "Tend to Agree," "Tend to Disagree," and "Disagree." These choices were shown in the survey as A, TA, TD, and D and coded in the dataset as 1, 2, 3, and 4, respectively.

In order to prepare for further analysis regarding the subjective perception of financial well-being, a mean for the eight items was calculated as follows. First each of the eight items was examined to be sure that all responses were 1, 2, 3, or 4 and any errant values were deleted. Next, the eight statements were reviewed for consistent directionality. Specifically, it was necessary that a score of 1 always was a positive response. Items 4, 6, and 8 were written in a negative direction such that a response of 1 was actually the most negative response. Accordingly, responses to items 4, 6, and 8 were electronically reversed. That is, a script in SPSS was written and executed that allowed the researcher to confirm that only the specific items had been changed in the correct direction.

Once responses to all items had consistent directionality, the eight items were summed. SPSS is designed so that if any of the eight item values is missing, the sum is not calculated and is reported as a missing value. The sum was then divided by eight to calculate the mean for the eight items. The mean of the eight items was now consistent with the individual items. That is, the smaller the mean, the more positive the perception of financial wellness. However, since most people tend to think of the higher of two means as representing a better score, the final step was to transform the initial mean. The 1 to 4 scale is still maintained; however, the most positive response was now a 4. As a result of this final step, the higher mean now represented the more positive perceived response. The mean for the eight items addressing the subjective measure of financial well-being was 2.69, with a standard deviation of 0.66, the median was 2.75, and the mode was 2.8 (when values were rounded to the nearest tenth).

Behavioral Assessment

The behavioral assessment was measured by the pooling of the 12 items in Part E of the survey. These items measured respondents' behavioral assessment of their current financial situation in five areas: cash management, credit management, income adequacy, personal financial management, and consumer shopping skills. The participants were asked to answer the questions by circling a letter on a Likert scale that consisted of four choices: "Never," "Sometimes," "Usually," and "Always." These choices were shown in the survey as N, S, U, and A and coded in the dataset as 1, 2, 3, and 4, respectively.

In order to prepare for further analysis regarding the behavioral assessment of financial well-being, a mean for the 12 items was calculated as follows. First each of the 12 items was examined to be sure that all responses were 1, 2, 3, or 4 and any errant values were deleted. Next, the 12 statements were reviewed for consistent directionality. Specifically, it was necessary that a score of 1 always was the least frequent response. Items 2, 4, 6, 8, 10, and 12 were written in a negative direction such that a response of 1 was actually the most frequent occurrence. Accordingly, responses to items 2, 4, 6, 8, 10, and 12 were electronically reversed. That is, a script was written in SPSS and executed that allowed the researcher to confirm that only the specific items had been changed in the correct direction.

Once responses to all items had consistent directionality, the 12 items were summed. SPSS is designed so that if any of the 12 item values is missing, the sum is not calculated and is reported as a missing value. The sum was then divided by 12 to calculate the mean for the 12 items. The mean of the 12 items was now consistent with the individual items. That is, the lower the mean, the less frequently the behavior was noted. Conversely, the higher the mean, the more frequently the behavior occurred. The mean for the 12 items addressing the behavioral assessment of financial well-being was 2.89, with a standard deviation of 0.49, the median was 2.92, and the mode was 3.0.

Objective Measure

Part B of the survey focused on respondents' objective measure of their current financial situation based on solvency. The solvency was measured with the question,

> We are interested in where you would be financially if you sold all of your major possessions (including your home), turned all of your investments and other assets into cash, and paid all your debts. Would you be in debt, break even, or have something left over?

Respondents were asked to circle a number from 1 to 5 to indicate their solvency. The mean for the objective measure of financial well-being was 3.87, with a standard deviation of 1.44, the median was 5, and the mode was 5.

Satisfaction

Part C1 of the survey measured respondents' satisfaction with their financial situation. Participants were asked,

> Suppose that a person who is entirely satisfied with his or her financial situation would be at the top of these steps, and a person who is extremely

dissatisfied with his or her financial situation would be on one of the bottom steps. On what step do you see yourself?

A simple drawing of numbered stair steps was included and can be seen in Appendix G. Participants were asked to circle a number from 1 to 10 on the stair step scale to indicate their level of satisfaction, with step 1 being the lowest and step 10 being the highest. The mean for respondents' satisfaction with their financial situation was 5.51, with a standard deviation of 2.05, the median was 6, and the mode was 7.

We now look at each of these four assessments by each of the key demographic elements of gender, marital status, education level, ethnicity, age, and household annual gross income.

Gender

Subjective perception. Null Hypothesis 1 investigated respondents' subjective perception of their financial situation by gender and was analyzed using an independent samples t-test. Table 27 reports the descriptive statistics for the two groups.

Table 27. Descriptive Statistics for Subjective Perception of Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Male	222	2.77	0.64
Female	223	2.60	0.67

Note 1: Does not equal 464 because of incomplete responses.

Table 28 provides the data for the independent samples t-test. The level of significance for the procedure was 0.006. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, males reported a more positive subjective perception of their financial situation than did females.

Table 28. Summary of Independent Samples t-test for Subjective Perception of Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
2.755	443	0.006

Note 1: Significant at = 0.05.

Behavioral assessment. Null Hypothesis 2 investigated respondents' behavioral assessment of their financial situation by gender and was analyzed using an independent samples t-test. Table 29 reports the descriptive statistics for the two groups.

Table 29. Descriptive Statistics for Behavioral Assessment of Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Male	220	2.96	0.47
Female	224	2.83	0.48

Note 1: Does not equal 464 because of incomplete responses.

Table 30 provides the data for the independent samples t-test. The level of significance for the procedure was 0.004. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, males reported a more positive behavioral assessment of their financial situation than did females.

Table 30. Summary of Independent Samples t-test for Behavioral Assessment of Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

t	df	Significance[1]
2.866	442	0.004

Note 1: Significant at = 0.05.

Objective measure. Null Hypothesis 3 investigated respondents' objective measure of their financial situation by gender and was analyzed using an independent samples t-test. Table 31 reports the descriptive statistics for the two groups.

Table 31. Descriptive Statistics for Objective Measure of Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Male	223	4.01	1.28
Female	227	3.71	1.57

Note 1: Does not equal 464 because of incomplete responses.

Table 32 provides the data for the independent samples t-test. The level of significance for the procedure was 0.024. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, males reported a more positive objective measure of their financial situation than did females.

Table 32. Summary of Independent Samples t-test for Objective Measure of Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Not Assumed)

t	df	Significance[1]
2.258	443	0.024

Note 1: Significant at = 0.05.

Satisfaction. Null Hypothesis 4 investigated respondents' satisfaction with their financial situation by gender and was analyzed using an independent samples t-test. Table 33 reports the descriptive statistics for the two groups.

Table 33. Descriptive Statistics for Satisfaction With Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Male	228	5.66	2.14
Female	230	5.28	1.95

Note 1: Does not equal 464 because of incomplete responses.

Table 34 provides the data for the independent samples t-test. The level of significance for the procedure was 0.048. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, males reported greater satisfaction with their financial situation than did females.

Table 34. Summary of Independent Samples t-test for Satisfaction With Financial Situation by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
1.984	456	0.048

Note 1: Significant at = 0.05.

Marital Status

Subjective perception. Null Hypothesis 5 investigated respondents' subjective perception of their financial situation by marital status and was analyzed using an independent samples t-test. Table 35 reports the descriptive statistics for the two groups.

Table 35. Descriptive Statistics for Subjective Perception of Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Single	160	2.49	0.65
Coupled	284	2.80	0.65

Note 1: Does not equal 464 because of incomplete responses.

Table 36 provides the data for the independent samples t-test. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, coupled respondents reported a more positive subjective perception of their financial situation than did single respondents.

Table 36. Summary of Independent Samples t-test for Subjective Perception of Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
-4.721	442	0.001

Note 1: Significant at = 0.05.

Behavioral assessment. Null Hypothesis 6 investigated respondents' behavioral assessment of their financial situation by marital status and was analyzed using an independent samples t-test. Table 37 reports the descriptive statistics for the two groups.

Table 37. Descriptive Statistics for Behavioral Assessment of Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Single	160	2.76	0.50
Coupled	283	2.97	0.46

Note 1: Does not equal 464 because of incomplete responses.

Table 38 provides the data for the independent samples t-test. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, coupled respondents reported a more positive behavioral assessment of their financial situation than did single respondents.

Table 38. Summary of Independent Samples t-test for Behavioral Assessment of Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
-4.480	441	0.001

Note 1: Significant at = 0.05.

Objective measure. Null Hypothesis 7 investigated respondents' objective measure of their financial situation by marital status and was analyzed using an independent samples t-test. Table 39 reports the descriptive statistics for the two groups.

Table 39. Descriptive Statistics for Objective Measure of Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Single	164	3.35	1.51
Coupled	285	4.16	1.31

Note 1: Does not equal 464 because of incomplete responses.

Table 40 provides the data for the independent samples t-test. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, coupled respondents reported a more positive objective measure of their financial situation than did single respondents.

Table 40. Summary of Independent Samples t-test for Objective Measure of Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Not Assumed)

t	df	Significance[1]
-5.780	303	0.001

Note 1: Significant at = 0.05.

Satisfaction. Null Hypothesis 8 investigated respondents' satisfaction with their financial situation by marital status and was analyzed using an independent samples t-test. Table 41 reports the descriptive statistics for the two groups.

Table 41. Descriptive Statistics for Satisfaction With Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Single	166	5.02	1.89
Coupled	291	5.72	2.10

Note 1: Does not equal 464 because of incomplete responses.

Table 42 provides the data for the independent samples t-test. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, coupled respondents reported greater satisfaction with their financial situation than did single respondents.

Table 42. Summary of Independent Samples t-test for Satisfaction With Financial Situation by Marital Status as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Not Assumed)

t	df	Significance[1]
-3.674	374	0.001

Note 1: Significant at = 0.05.

Education Level

Subjective perception. Null Hypothesis 9 investigated respondents' subjective perception of their financial situation by education level and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 43 reports the descriptive statistics for the four groups.

Table 43. Descriptive Statistics for Subjective Perception of Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Up through high school	91	2.35	0.70
Up through bachelor's degree[3]	141	2.62	0.66
Graduate/professional	212	2.87	0.58

Note 1: Does not equal 464 because of incomplete responses.
Note 2: Includes less than high school and high school diploma or GED.
Note 3: Includes trade/vocational training, some college or associate's degree, and bachelor's degree.

Table 44 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those respondents who had an education level up through high school reported themselves as having a statistically lower subjective perception of their financial situation than those who had an education level of up through a bachelor's degree or those who had a graduate or professional degree. In turn, those who had an education level of up through a bachelor's degree reported themselves as having a statistically lower subjective perception than those who had a graduate or professional degree.

Table 44. Summary of ANOVA for Subjective Perception of Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	17.968	2	8.984	22.449	0.001
Within Groups	176.485	441	0.400		
Total	194.453	443			

Note 1: Significant at = 0.05.

Behavioral assessment. Null Hypothesis 10 investigated respondents' behavioral assessment of their financial situation by education level and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 45 reports the descriptive statistics for the four groups.

Table 45. Descriptive Statistics for Behavioral Assessment of Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Up through high school[2]	91	2.63	0.54
Up through bachelor's degree[3]	141	2.87	0.46
Graduate/professional	211	3.02	0.42

Note 1: Does not equal 464 because of incomplete responses.
Note 2: Includes less than high school and high school diploma or GED.
Note 3: Includes trade/vocational training, some college or associate's degree, and bachelor's degree.

Table 46 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those respondents who had an education level up through high school reported themselves as having a statistically lower behavioral assessment of their financial situation than those who had an education level of up through a bachelor's degree or those who had a graduate or professional degree. In turn, those who had an education level of up through a bachelor's degree reported themselves as having a statistically lower behavioral assessment than those who had a graduate or professional degree.

Table 46. Summary of ANOVA for Behavioral Assessment of Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	9.705	2	4.853	22.867	0.001
Within Groups	93.372	440	0.212		
Total	103.077	442			

Note 1: Significant at = 0.05.

Objective measure. Null Hypothesis 11 investigated respondents' objective measure of their financial situation by education level and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 47 reports the descriptive statistics for the four groups.

Table 47. Descriptive Statistics for Objective Measure of Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Up through high school[2]	93	3.38	1.55
Up through bachelor's degree[3]	142	3.77	1.42
Graduate/professional	214	4.14	1.33

Note 1: Does not equal 464 because of incomplete responses.
Note 2: Includes less than high school and high school diploma or GED.
Note 3: Includes trade/vocational training, some college or associate's degree, and bachelor's degree.

Table 48 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those respondents who had an education level of up through high school reported themselves as having a statistically lower objective measure of their financial situation than those who had a graduate or professional degree. Those who had an education level of more than high school up through a bachelor's degree were statistically the same as either of the other groups.

Table 48. Summary of ANOVA for Objective Measure of Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	39.759	2	19.880	10.019	0.001
Within Groups	884.953	446	1.984		
Total	924.713	448			

Note 1: Significant at = 0.05.

Satisfaction. Null Hypothesis 12 investigated respondents' satisfaction with their financial situation by education level and was analyzed using an Analysis of

Variance (ANOVA) procedure. Table 49 reports the descriptive statistics for the three groups.

Table 49. Descriptive Statistics for Satisfaction With Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Up through high school[2]	96	4.99	2.17
Up through bachelor's degree[3]	147	5.20	2.01
Graduate/professional	214	5.86	1.96

Note 1: Does not equal 464 because of incomplete responses.
Note 2: Includes less than high school and high school diploma or GED.
Note 3: Includes trade/vocational training, some college or associate's degree, and bachelor's degree.

Table 50 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those respondents who had an education level of up through high school and those who had an education level of up through a bachelor's degree reported themselves as having statistically less satisfaction with their financial situation than those who had a graduate or professional degree.

Table 50. Summary of ANOVA for Satisfaction With Financial Situation by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	66.386	2	33.193	8.122	0.001
Within Groups	1855.339	454	4.087		
Total	1921.724	456			

Note 1: Significant at = 0.05.

Ethnicity

Subjective perception. Null Hypothesis 13 investigated respondents' subjective perception of their financial situation by ethnicity and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 51 reports the descriptive statistics for the four groups.

Table 51. Descriptive Statistics for Subjective Perception of Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
White	305	2.76	0.65
Black	27	2.26	0.63
Hispanic	39	2.54	0.71
Asian	63	2.67	0.57

Note 1: Does not equal 464 because of incomplete responses.

Table 52 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that Blacks reported themselves as having a statistically lower subjective perception of their financial situation than either Asians or Whites. Asians and Whites reported statistically the same level of behavior. Hispanics were statistically the same as all other groups.

Table 52. Summary of ANOVA for Subjective Perception of Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	7.134	3	2.378	5.680	0.001
Within Groups	108.013	430	0.419		
Total	187.147	433			

Note 1: Significant at = 0.05.

Behavioral assessment. Null Hypothesis 14 investigated respondents' behavioral assessment of their financial situation by ethnicity and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 53 reports the descriptive statistics for the four groups.

Table 53. Descriptive Statistics for Behavioral Assessment of Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
White	303	2.94	0.47
Black	27	2.45	0.53
Hispanic	40	2.86	0.49
Asian	62	2.90	0.42

Note 1: Does not equal 464 because of incomplete responses.

Table 54 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that Blacks reported themselves as having a statistically lower behavioral assessment of their financial situation than Hispanics, Asians, or Whites. Hispanics, Asians, and Whites reported statistically the same behavioral assessment of their financial situation.

Table 54. Summary of ANOVA for Behavioral Assessment of Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	5.978	3	1.993	9.144	0.001
Within Groups	93.267	428	0.218		
Total	99.245	431			

Note 1: Significant at = 0.05.

Objective measure. Null Hypothesis 15 investigated respondents' objective measure of their financial situation by ethnicity and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 55 reports the descriptive statistics for the four groups.

Table 55. Descriptive Statistics for Objective Measure of Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
White	305	4.04	1.40
Black	28	2.79	1.57
Hispanic	42	3.33	1.43
Asian	63	3.89	1.25

Note 1: Does not equal 464 because of incomplete responses.

Table 56 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that Blacks reported themselves as having a statistically lower objective measure of their financial situation than either Asians or Whites. Hispanics were statistically the same as all other groups.

Table 56. Summary of ANOVA for Objective Measure of Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	53.784	3	17.928	9.243	0.001
Within Groups	841.798	434	1.940		
Total	895.582	437			

Note 1: Significant at = 0.05.

Satisfaction. Null Hypothesis 16 investigated respondents' satisfaction with their financial situation by ethnicity and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 57 reports the descriptive statistics for the four groups.

Table 57. Descriptive Statistics for Satisfaction With Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
29 or younger	311	5.71	2.07
30 – 39	29	4.28	2.05
40 – 49	42	5.40	1.82
50 or older	64	4.81	1.92

Note 1: Does not equal 464 because of incomplete responses.

Table 58 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that Blacks reported themselves as having statistically less satisfaction with their financial situation than either Hispanics or Whites. Hispanics and Whites reported statistically the same level of behavior. Asians were statistically the same as all other groups.

Table 58. Summary of ANOVA for Satisfaction With Financial Situation by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	87.659	3	29.220	7.123	0.001
Within Groups	1813.193	442	4.102		
Total	1900.852	445			

Note 1: Significant at = 0.05.

Age

Subjective perception. Null Hypothesis 17 investigated respondents' subjective perception of their financial situation by age and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 59 reports the descriptive statistics for the four groups.

Table 59. Descriptive Statistics for Subjective Perception of Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
29 or younger	123	2.56	0.61
30 – 39	117	2.68	0.59
40 – 49	102	2.66	0.77
50 or older	94	2.90	0.64

Note 1: Does not equal 464 because of incomplete responses.

Table 60 provides the data for the ANOVA. The level of significance for the procedure was 0.002. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those less than 29 years of age reported themselves as having a statistically lower subjective perception of their financial situation than those 50 and older. Those in their 30's and those in their 40's were statistically the same as all other groups.

Table 60. Summary of ANOVA for Subjective Perception of Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	6.388	3	2.129	4.988	0.002
Within Groups	184.408	432	0.427		
Total	190.796	435			

Note 1: Significant at = 0.05.

Behavioral assessment. Null Hypothesis 18 investigated respondents' behavioral assessment of their financial situation by age and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 61 reports the descriptive statistics for the four groups.

Table 61. Descriptive Statistics for Behavioral Assessment of Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
29 or younger	125	2.87	0.44
30 – 39	113	2.86	0.47
40 – 49	102	2.84	0.56
50 or older	94	3.03	0.44

Note 1: Does not equal 464 because of incomplete responses.

Table 62 provides the data for the ANOVA. The level of significance for the procedure was 0.015. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those 40 through 49 years of age reported themselves as having a statistically lower behavioral assessment of their financial situation than those 50 and older. Those less than 29 years of age and those 30 through 39 years of age were statistically the same as all other groups.

Table 62. Summary of ANOVA for Behavioral Assessment of Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	2.412	3	0.804	3.522	0.015
Within Groups	98.169	430	0.228		
Total	100.581	433			

Note 1: Significant at = 0.05.

Objective measure. Null Hypothesis 19 investigated respondents' objective measure of their financial situation by age and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 63 reports the descriptive statistics for the four groups.

Table 63. Descriptive Statistics for Objective Measure of Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
29 or younger	125	3.34	1.51
30 – 39	115	3.76	1.39
40 – 49	106	3.98	1.44
50 or older	94	4.56	1.04

Note 1: Does not equal 464 because of incomplete responses.

Table 64 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those less than 29 years of age reported themselves as having a statistically lower objective measure of their financial situation than either those in their 40's or those 50 and older. Additionally, those in their 30's and those in their 40's reported themselves as having a statistically lower objective measure of their financial situation that those 50 and older.

Table 64. Summary of ANOVA for Objective Measure of Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	82.619	3	27.540	14.564	0.001
Within Groups	824.470	436	1.891		
Total	907.089	439			

Note 1: Significant at = 0.05.

Satisfaction. Null Hypothesis 20 investigated respondents' satisfaction with their financial situation by age and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 65 reports the descriptive statistics for the four groups.

Table 65. Descriptive Statistics for Satisfaction With Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
29 or younger	128	5.10	1.75
30 – 39	118	5.31	1.85
40 – 49	107	5.47	2.09
50 or older	95	6.22	2.42

Note 1: Does not equal 464 because of incomplete responses.

Table 66 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those 29 years of age and younger and those in their 30's reported themselves as having statistically less satisfaction with their financial situation than those 50 and older. Those 40 through 49 years of age were statistically the same as all other groups.

Table 66. Summary of ANOVA for Satisfaction With Financial Situation by Age as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	74.129	3	24.710	6.083	0.001
Within Groups	1803.690	444	4.062		
Total	1877.819	447			

Note 1: Significant at = 0.05.

Household Annual Gross Income

Subjective perception. Null Hypothesis 21 investigated respondents' subjective perception of their financial situation by household annual gross income (HAGI) and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 67 reports the descriptive statistics for the four groups.

Table 67. Descriptive Statistics for Subjective Perception of Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Less than $20,000	94	2.43	0.62
$20,000 - $40,000	121	2.45	0.64
$40,001 - $80,000	113	2.66	0.59
Greater than $80,000	109	3.19	0.49

Note 1: Does not equal 464 because of incomplete responses.

Table 68 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those with HAGI less than \$20,000 reported themselves as having a statistically lower subjective perception of their financial situation than either those with an HAGI of \$40,000 to \$80,000 or those with an HAGI greater than \$80,000. Additionally, those with an HAGI of \$20,000 to \$40,000 and those with an HAGI of \$40,001 to \$80,000 reported themselves as having a statistically lower subjective perception of their financial situation than those with an income greater than \$80,000.

Table 68. Summary of ANOVA for Subjective Perception of Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	40.825	3	13.608	39.308	0.001
Within Groups	149.904	433	0.346		
Total	190.730	436			

Note 1: Significant at = 0.05.

Behavioral assessment. Null Hypothesis 22 investigated respondents' behavioral assessment of their financial situation by household annual gross income and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 69 reports the descriptive statistics for the four groups.

Table 69. Descriptive Statistics for Behavioral Assessment of Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Less than $20,000	97	2.77	0.51
$20,000 - $40,000	118	2.71	0.47
$40,001 - $80,000	114	2.89	0.44
Greater than $80,000	108	3.20	0.37

Note 1: Does not equal 464 because of incomplete responses.

Table 70 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those with an HAGI of less than $20,000 and those with an annual income of $40,001 to $80,000 reported themselves as having a statistically lower behavioral assessment of their financial situation than those with an HAGI greater than

$80,000. Those with an HAGI of $20,000 to $40,000 reported themselves as having a statistically lower behavioral assessment of their financial situation than either those with an HAGI of $40,001 to $80,000 or an HAGI greater than $80,000.

Table 70. Summary of ANOVA for Behavioral Assessment of Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	15.635	3	5.212	26.168	0.001
Within Groups	86.239	433	0.199		
Total	101.874	436			

Note 1: Significant at = 0.05.

Objective measure. Null Hypothesis 23 investigated respondents' objective measure of their financial situation by household annual gross income and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 71 reports the descriptive statistics for the four groups.

Table 71. Descriptive Statistics for Objective Measure of Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Less than $20,000	98	2.96	1.50
$20,000 - $40,000	123	3.67	1.42
$40,001 - $80,000	111	3.98	1.43
Greater than $80,000	111	4.75	0.74

Note 1: Does not equal 464 because of incomplete responses.

Table 72 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those with an HAGI of less than \$20,000 reported themselves as having a statistically lower objective measure than any of the other groups. Those with an HAGI of \$20,000 to \$40,000 and those with an HAGI of \$40,001 to \$80,000 reported themselves as having a statistically lower objective measure of their financial situation than those with an HAGI greater than \$80,000.

Table 72. Summary of ANOVA for Objective Measure of Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	172.871	3	57.624	33.831	0.001
Within Groups	747.730	439	1.703		
Total	920.600	442			

Note 1: Significant at = 0.05.

Satisfaction. Null Hypothesis 24 investigated respondents' satisfaction with their financial situation by household annual gross income and was analyzed using an Analysis of Variance (ANOVA) procedure. Table 73 reports the descriptive statistics for the four groups.

Table 73. Descriptive Statistics for Satisfaction With Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Less than $20,000	100	4.70	1.93
$20,000 - $40,000	124	4.72	1.90
$40,001 - $80,000	115	5.50	1.87
Greater than $80,000	110	6.96	1.58

Note 1: Does not equal 464 because of incomplete responses.

Table 74 provides the data for the ANOVA. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that at least one of the means in the population from which these sample means were drawn was different from at least one other. That is, there is a statistical difference among the population means. The Scheffe post hoc analysis showed that those with an HAGI of less than $20,000 and those with an HAGI of $20,000 to $40,000 reported themselves as having statistically less satisfaction with their financial situation than either those with an HAGI of $40,001 to $80,000 or those with an HAGI greater than $80,000. Additionally, those with an HAGI of $40,001 to $80,000 reported themselves as having statistically less satisfaction with their financial situation than those with an HAGI greater than $80,000.

Table 74. Summary of ANOVA for Satisfaction With Financial Situation by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

	Sum of Squares	df	Mean Square	F	Significance[1]
Between Groups	374.992	3	124.997	37.616	0.001
Within Groups	1478.723	445	3.323		
Total	1853.715	448			

Note 1: Significant at = 0.05.

Answer to Research Question 4

Research Question 4 asked: Do selected demographic characteristics influence the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

Demographic data of the responding employees at Texas A&M University were presented earlier in this chapter. Descriptive statistics using frequency counts and percentages were used to describe this data. Demographic characteristics considered in this study included six areas: gender, marital status, education level, ethnicity, age, and household annual gross income.

In Research Question 2, the desire for employer-sponsored financial literacy education was operationally assessed by asking the sample of Texas A&M University benefits-eligible employees if they would like the University to offer personal financial management education, such as workshops, classes, and lectures during working hours. To answer this research question, responses to Part L of the survey were analyzed to provide information about the reported desire for such an employee benefit. Specifically, participants were asked to respond to the question, "Some employers offer their employees personal financial management education (workshops, classes, lectures, etc.) during regular work hours. Would you like your employer to offer this type of employee benefit?" Respondents were asked to indicate their preference by checking a box indicating either Yes or No.

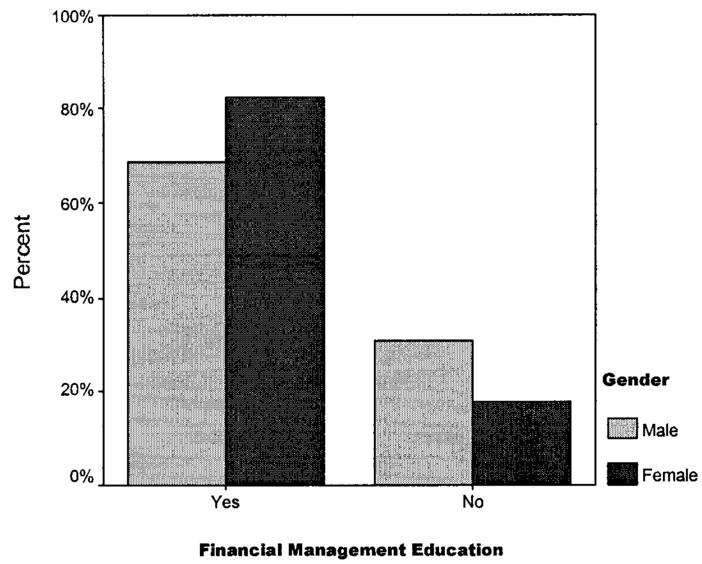
We now look at each of these two responses by each of the key demographic elements of gender, marital status, education level, ethnicity, age, and household annual gross income in order to answer Research Question 4.

A chi-square analysis was used since the two variables under investigation were categorical values. As a result of the analyses, two areas were found to be statistically independent. That is, in the population each of two demographic variables do not impact nor interact with the option of having employer-sponsored financial literacy education. Those two areas of statistical independence are marital status and age. Four areas – gender, education level, ethnicity, and household annual gross income – were found to be statistically dependent. That is, the preference for employer-sponsored financial literacy education is impacted by the demographic variable. Each of these relationships is discussed as follows.

Gender

Null Hypothesis 25 investigated whether gender and the desire for employer-sponsored financial literacy were related and was analyzed using a Chi-Square Test of Independence. The level of significance for the procedure was 0.001. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no dependence. Statistical dependence was observed. The test revealed that in the population gender and the desire for employer-sponsored financial literacy are associated, $\chi^2(1, n = 461) = 11.176, p<0.05$. In practical terms, the pattern observed indicated that while approximately three-fourths (75.9%) of the combined groups favored employer-sponsored financial literacy education, there is a full 10-point difference between the two genders. Just fewer than 70% (69.2%) of the men responded Yes, while over 80% (82.5%) of the women said Yes. Figure 5 shows the results graphically.

Figure 5. Desire for Employer-sponsored Financial Literacy Education by Gender as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003.



Marital Status

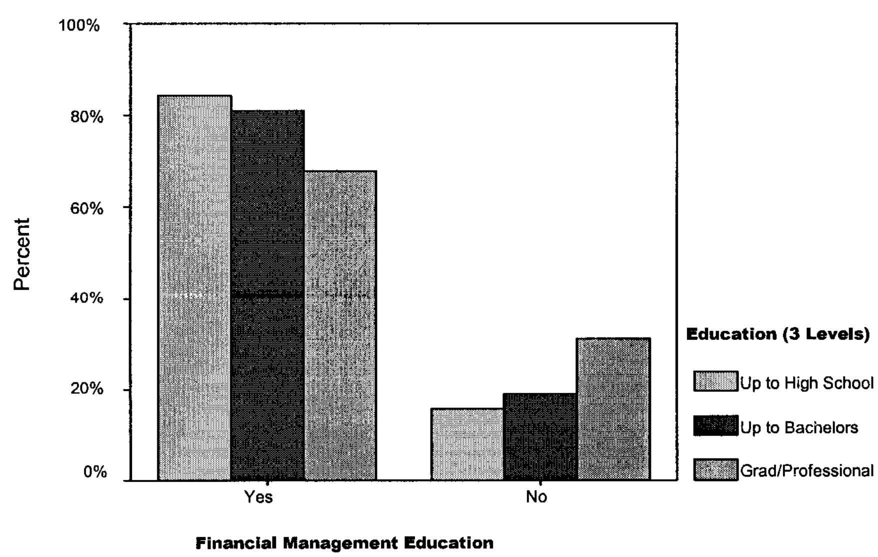
Null Hypothesis 26 investigated whether marital status and the desire for employer-sponsored financial literacy were related and was analyzed using a Chi-Square Test of Independence. The level of significance for the procedure was 0.578. This was greater than the alpha level of 0.05. As a result, the decision was made to accept the null hypothesis of no dependence. Statistical independence was observed, $\chi^2(1, n = 460) = 0.310, p>0.05$.

Education Level

Null Hypothesis 27 investigated whether education level and the desire for employer-sponsored financial literacy were related and was analyzed using a Chi-

Square Test of Independence. The level of significance for the procedure was 0.002. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no dependence. Statistical dependence was observed. The test revealed that in the population education level and the desire for employer-sponsored financial literacy are associated, $\chi^2(2, n = 460) = 12.023, p<0.05$. In practical terms, the pattern observed indicated that while approximately three-fourths (75.9%) of the combined groups favored employer-sponsored financial literacy education, there is a full 12-point difference between those with an education level up through high school (84.4%) and those with an education level of up through a bachelor's degree (81.0%) on the one hand and those with a graduate or professional degree on the other (68.7%). Figure 6 shows the results graphically.

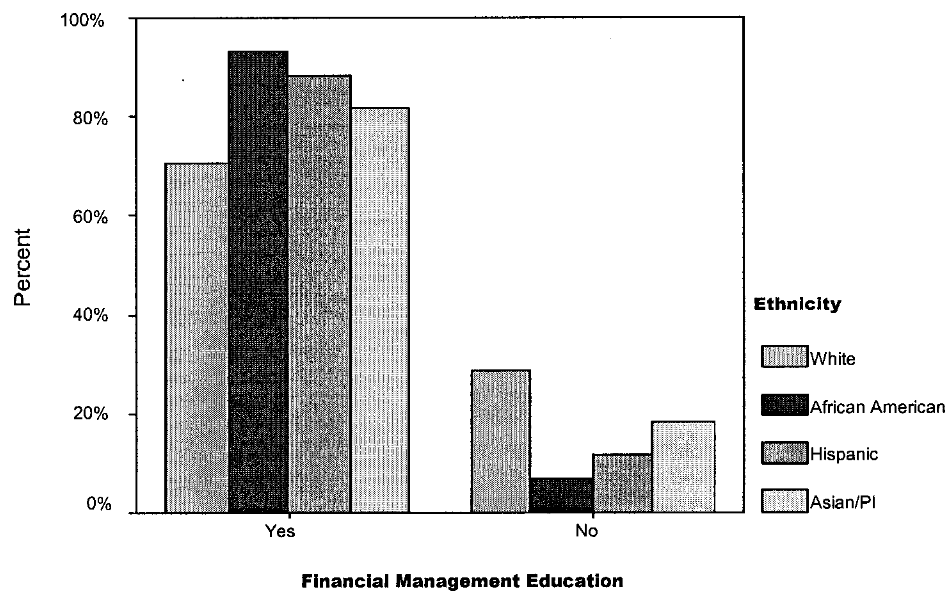
Figure 6. Desire for Employer-sponsored Financial Literacy Education by Education Level as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003.



Ethnicity

Null Hypothesis 28 investigated whether ethnicity and the desire for employer-sponsored financial literacy were related and was analyzed using a Chi-Square Test of Independence. The level of significance for the procedure was 0.004. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no dependence. Statistical dependence was observed. The test revealed that in the population ethnicity and the desire for employer-sponsored financial literacy are associated, $\chi^2(3, n = 449) = 13.281, p<0.05$. The results are depicted graphically in Figure 7. In practical terms, the pattern observed indicated that while approximately three-fourths (75.5%) of the combined groups favor employer-sponsored financial literacy education, there is considerable variation among the four groups. Specifically, 70.9% of Whites responded Yes, 81.5% of Asians, 88.1% of Hispanics, and fully 93.1% of Blacks said Yes.

Figure 7. Desire for Employer-sponsored Financial Literacy Education by Ethnicity as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003.



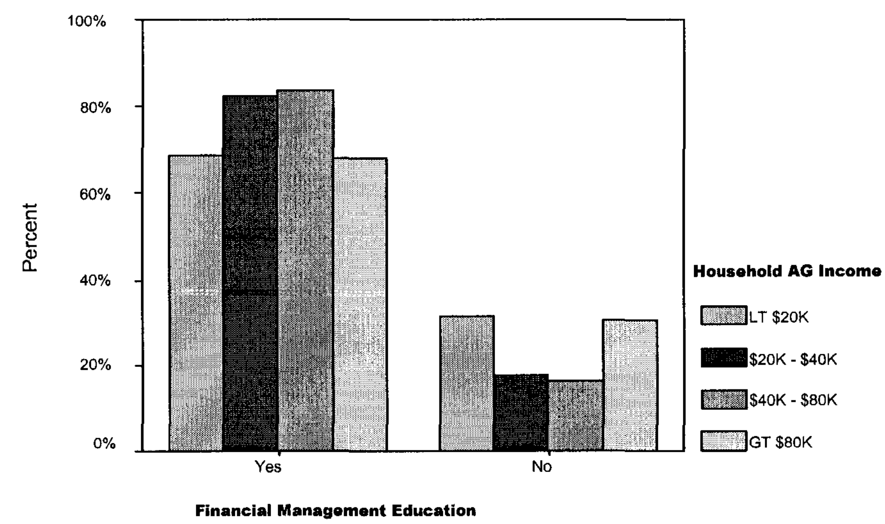
Age

Null Hypothesis 29 investigated whether age and the desire for employer-sponsored financial literacy were related and was analyzed using a Chi-Square Test of Independence. The level of significance for the procedure was 0.277. This was greater than the alpha level of 0.05. As a result, the decision was made to accept the null hypothesis of no dependence. Statistical independence was observed, $\chi^2(3, n = 451) = 3.861, p>0.05$.

Household Annual Gross Income

Null Hypothesis 30 investigated whether household annual gross income (HAGI) and the desire for employer-sponsored financial literacy were related and was analyzed using a Chi-Square Test of Independence. The level of significance for the procedure was 0.006. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no dependence. Statistical dependence was observed. The test revealed that in the population household annual gross income and the desire for employer-sponsored financial literacy are associated, $\chi^2(3, n = 452) = 12.364, p<0.05$. In practical terms, the pattern observed indicated that while approximately three-fourths (76.3%) of the combined groups favor employer-sponsored financial literacy education, there is considerable variation among the four groups. Specifically, 68.6% of those respondents with an HAGI of less than $20,000 responded Yes; 69.1% of those with an HAGI of $80,000 or more said Yes, as did 82.3% of those with an HAGI of $20,000 to $40,000 and 83.6% of those with an HAGI of $40,001 to $80,000. Figure 8 shows the results graphically.

Figure 8. Desire for Employer-sponsored Financial Literacy Education by Household Annual Gross Income as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003.



Answer to Research Question 5

Research Question 5 asked: Is there a relationship between financial well-being and the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

In Research Question 1, for the purposes of this study, financial well-being was operationally measured in four ways: (a) respondents' subjective perception of their financial situation, (b) respondents' behavioral assessment of their financial situation, (c) respondents' objective measure of their financial situation, and (d) respondents' satisfaction with their financial situation. To answer that research question, responses to four survey areas were analyzed to provide information about reported overall financial well-being based on the responses of those who returned the survey.

In Research Question 2, the desire for employer-sponsored financial literacy education was operationally assessed by asking the sample of Texas A&M University benefits-eligible employees if they would like the University to offer personal financial management education, such as workshops, classes, and lectures during working hours. To answer this research question, responses to Part L of the survey were analyzed to provide information about the reported desire for such an employee benefit. Specifically, participants were asked to respond to the question, "Some employers offer their employees personal financial management education (workshops, classes, lectures, etc.) during regular work hours. Would you like your employer to offer this type of employee benefit?" Respondents were asked to indicate their preference by checking a box indicating either Yes or No.

We now look at the interrelationship of each of these two research questions in order to answer Research Question 5.

Subjective Perception

Null Hypothesis 31 investigated respondents' subjective perception of their financial situation and their desire for employer-sponsored financial literacy education and was analyzed using an independent samples t-test. Table 75 reports the descriptive statistics for the two groups.

Table 75. Descriptive Statistics for Subjective Perception of Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Yes	340	2.64	0.66
No	105	2.85	0.65

Note 1: Does not equal 464 because of incomplete responses.

Table 76 provides the data for the independent samples t-test. The level of significance for the procedure was 0.004. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, respondents who said Yes to employer-sponsored financial literacy education had a lower subjective perception of their financial situation than did those who said No.

Table 76. Summary of Independent Samples t-test for Subjective Perception of Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
-2.881	443	0.004

Note 1: Significant at = 0.05.

Behavioral Assessment

Null Hypothesis 32 investigated respondents' behavioral assessment of their financial situation and their desire for employer-sponsored financial literacy education and was analyzed using an independent samples t-test. Table 77 reports the descriptive statistics for the two groups.

Table 77. Descriptive Statistics for Behavioral Assessment of Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Yes	338	2.86	0.48
No	105	2.99	0.46

Note 1: Does not equal 464 because of incomplete responses.

Table 78 provides the data for the independent samples t-test. The level of significance for the procedure was 0.012. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, respondents who said Yes to employer-sponsored financial literacy education had a lower behavioral assessment of their financial situation than did those who said No.

Table 78. Summary of Independent Samples t-test for Behavioral Assessment of Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
-2.531	441	0.012

Note 1: Significant at = 0.05.

Objective Measure

Null Hypothesis 33 investigated respondents' objective measure of their financial situation and their desire for employer-sponsored financial literacy education and was analyzed using an independent samples t-test. Table 79 reports the descriptive statistics for the two groups.

Table 79. Descriptive Statistics for Objective Measure of Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Yes	340	3.83	1.44
No	109	3.94	1.44

Note 1: Does not equal 464 because of incomplete responses.

Table 80 provides the data for the independent samples t-test. The level of significance for the procedure was 0.455. This was greater than the alpha level of 0.05. As a result, the decision was made to accept the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were the same. That is, there is no statistical difference between the population means.

Table 80. Summary of Independent Samples t-test for Objective Measure of Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
-0.749	447	0.455

Note 1: Significant at = 0.05.

Satisfaction

Null Hypothesis 34 investigated respondents' satisfaction with their financial situation and their desire for employer-sponsored financial literacy education and was analyzed using an independent samples t-test. Table 81 reports the descriptive statistics for the two groups.

Table 81. Descriptive Statistics for Satisfaction With Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464)

Group	n[1]	M	SD
Yes	347	5.36	2.04
No	110	5.81	2.07

Note 1: Does not equal 464 because of incomplete responses.

Table 82 provides the data for the independent samples t-test. The level of significance for the procedure was 0.046. This was less than the alpha level of 0.05. As a result, the decision was made to reject the null hypothesis of no difference. Therefore, it was inferred that the means in the population from which these sample means were drawn were different. That is, there is a statistical difference between the population means. Specifically, respondents who said Yes to employer-sponsored financial literacy education had less satisfaction with their financial situation than did those who said No.

Table 82. Summary of Independent Samples t-test for Satisfaction With Financial Situation by Desire for Employer-sponsored Financial Literacy Education as Reported by Respondents to a Survey of Benefits-eligible Employees of the Texas A&M University Main Campus, 2003 (n = 464) (Equal Variances Assumed)

t	df	Significance[1]
-2.003	455	0.046

Note 1: Significant at = 0.05.

Qualitative Analysis

The respondents were given the opportunity to provide comments in the survey in order to elicit additional information and clarification about their perceptions and opinions (Fink & Kosecoff, 1998). They were invited to comment about personal financial management or about the survey itself. Comments ranged from a single word to short paragraphs describing specific issues and concerns. The range of comments was analyzed using the qualitative constant-comparative method as outlined by Merriam (1998). All comments and recommendations were read such that prominent concepts and ideas could be identified and grouped in categories. Two categories were identified. The first addressed the survey itself and the survey process, and the second dealt with personal financial management. A total of 102 individuals, or 21.9% of the respondents, provided comments in Section N. All comments received in Section N are compiled in Appendix I.

Several comments were received concerning the small token of appreciation included with each survey packet. Nine respondents thanked the researcher for the money; one person returned the token, saying "Thank you for the money, but I am returning it as I don't feel it is appropriate to accept for filling out a survey." A second area of comments was about the survey design itself. Seven individuals commented positively about the instrument; one suggested that the instrument be shortened. Other single comments were made about the use of a unique number on the survey, Institutional Review Board requirements, use of a reminder letter, and the use of a small piggy bank logo.

The second grouping of comments related to personal financial management. Themes which emerged included concerns with adequacy of income, security in retirement, frustration with the economy, repayment of student loans, and credit card or consumer debt. The following are representative of the type of comments received:

- "I live very conservatively, have good credit, little debt, pay all my monthly bills when due, save regularly. However, I am <u>very</u> concerned about having adequate retirement income."
- "My struggle is that I know I have credit card debt and no retirement beyond TRS; I just don't know what the first step should be? Get out of debt or invest?"
- "Newly hired employees who are young should be required to attend classes that offer illustrations about credit debt, savings, the time value of money, and other items that can provide REAL benefits."
- "I consider my finances to be average for a poor working citizen. I would be happier if I had more. But I am thankful for what I have. I am living and not hungry."

Summary

The analysis and findings chapter has reviewed the data that were collected in this study of financial well-being and the need for employer-sponsored financial literacy education as reported by employees at Texas A&M University. Demographic data were reviewed to establish the characteristics of the population. Descriptive data analysis was used to characterize the need for employer-sponsored financial literacy education as reported by employees at the university. Finally, a brief analysis of qualitative data was completed to increase the validity and reliability of the findings and to explore for additional findings that may not have been evident from the quantitative aspects of investigation. The findings are further summarized in the following chapter. Conclusions and recommendations are also discussed in relation to these findings and the current literature.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The final chapter, which is divided into three sections, provides an overview of the research. The first section, Summary, describes the overall intent and design of the study as well as the findings. The second section, Conclusions, presents the conclusions that can be supported by the findings. The last section, Recommendations, offers recommendations for future research as well as suggestions for application of the findings and conclusions in practice.

The summary of findings, the conclusions, and the recommendations that follow are based on the data collected in this project, corroborating information and concepts from literature references, and the insight of the researcher. The intended audiences that should find this report useful are senior administrators in institutions of higher education, human resource directors, benefits administrators, and training and development personnel. Additionally, all parties that have an interest in personal financial well-being in general and work/life and Employee Assistance Programs in particular that include personal financial literacy education may have an interest is the issues discussed here.

The findings and conclusions from this study contribute to the body of literature in personal financial management. Additionally, they contribute to the body of literature in human resource development, especially in the areas of employee development and employer-sponsored programs that promote employee well-being such as work/life programs and Employee Assistance Programs.

Summary

Literature

Goldsmith (2000) described economic well-being as the degree to which individuals and families have economic adequacy or security; it is the desire for or extent of protection against the economic risks people face in their daily lives (loss of employment, illness, bankruptcy, bank failures, poverty, or destitution in old age). Personal financial problems of employees can affect employers (Williams et al., 1996). Comprehensive workplace financial education can improve a worker's personal financial wellness (Kratzer et al., 1998) and can be effective in improving workers' financial behaviors, especially in increasing amounts saved and invested for retirement (Bernheim & Garrett, 1996; DiPaula, 1998; Gorbach, 1997; Kratzer et al., 1998). Without improving personal financial literacy, both employees and employers face negative consequences from poor individual financial well-being.

Harris and DeSimone (1994) noted that personal problems are a part of life. "Whether problems are chronic, as in the case of alcoholism, or situational, as in the case of financial problems, they can affect behavior at work as well as one's personal life" (p. 288). Stein (2002) reported that a growing number of employers are integrating Employee Assistance Programs and work/life services. These integrated programs provide a single, all-inclusive support focus that assists an increasingly diverse workforce with concerns and problems that might otherwise prevent it from performing at its best. Harris and DeSimone (1994) stated that employer-provided programs of this type serve "the same goal as any other HRD activity: to ensure the employee is now and will continue to be an effective contributor to the organization's effectiveness" (p. 298). These authors noted that employer-sponsored programs that ensure employee well-being

> use the same techniques and other HRD interventions. These techniques include workshops, role playing, behavior modeling, discussions, lectures, coaching, and audiovisual presentations. In addition, the process of delivering . . . is the same as that of any other HRD program, and includes needs assessment, planning and implementation, and intervention. (Harris & DeSimone, 1994, p. 289)

Purpose

The purpose of this study was to examine financial well-being and the need for employer-sponsored financial literacy education as reported by employees at a major Texas public research university: Texas A&M University main campus in College Station, Texas. This study assessed the level of personal financial well-being described by employees and if a desire for employer-sponsored financial literacy education existed. The research also attempted to discover whether relationships existed between specific demographic variables and reported levels of financial well-being and whether relationships existed between specific demographic variables and any reported desire for employer-sponsored financial literacy education. Finally, the study determined if there is a relationship between financial well-being and the desire for employer-sponsored financial literacy education.

Methodology

The project was conducted in a legal and ethical manner following the appropriate methods of research involving human subjects. A comprehensive survey was developed based on previous research as updated by this researcher. Informed consent procedures were followed closely, and the confidentiality of individual responses was assured. The researcher made concerted efforts to adhere to accuracy in the collection, recording, and analysis of the data collected using accepted quantitative and qualitative methods.

Findings

The analysis of demographic data found that the sample approached the population in the key characteristics of gender, marital status, education level, ethnicity, and age. It was not possible to compare the characteristic of household annual gross income between the sample and the population.

Research Question 1. Research Question 1 asked: What level of financial well-being is reported by employees at a Texas public research university?

The subjective perception measuring how each respondent felt about his or her life at a moment in time showed that as a whole individuals felt varying amounts of anxiety and concern. Although respondents had positive feelings about being able to handle a financial emergency or being able to borrow money, they were less optimistic about the amount they were saving. And although they appeared to be sanguine about their ability to handle monthly living expenses, more than half were concerned about having enough in retirement. In other words, overall they felt they were managing adequately now, but had concerns for the future.

Behaviorally, respondents as a whole were living within their means and only infrequently had to use a credit card because they ran out of cash. Although many rarely maxed out a credit card, many also did not pay the entire outstanding balance on a regular basis thus incurring interest charges. However, the greatest gap in behavior focused on lack of formal planning (i.e., a financial plan, weekly budget, monthly budget), a competency that the literature and previous studies show is crucial in family resource management.

When respondents objectively assessed their financial well-being based on solvency, many reported being at the breakeven point or above. However, fully 20% reported that they would be in debt if they liquidated their assets and tried to pay off all their bills.

With regard to satisfaction with their financial situation, few respondents were totally despondent and few felt completely satisfied. Unsurprisingly, most respondents were somewhere in the middle with about half reporting somewhere below a mid-level of satisfaction and about half above.

Considering all aspects of reported financial well-being, individuals varied in their responses, but relatively few reported a strong sense of well-being financially. Most were getting by and meeting their current needs, but many had concerns about retirement and other events in the future.

Research Question 2. Research Question 2 asked: Is there a need for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

The answer to this question was a resounding "Yes"! Over three-fourths of respondents articulated the need for employer-sponsored financial literacy education. In concert with their concern for the future, as indicated above, respondents identified the three topics of most interest as benefits, investing, and retirement planning. It is encouraging to note that this group of individuals realized (a) that they wanted and needed a deeper understanding of their employer-offered benefits, (b) that they desired to secure their future through investments for upcoming wants and needs, and (c) that they recognized the need to prepare at least financially for a secure retirement.

Those who indicated that there was no need for employer-sponsored financial literacy education responded that they were either not interested or felt they already knew enough. Of concern from the University's perspective is the group indicated they did not have time to attend.

Research Question 3. Research Question 3 asked: Do selected demographic characteristics influence financial well-being as reported by employees at a Texas public research university?

Clearly, certain demographic characteristics influenced financial well-being. Not surprisingly, males reported more positively about all four dimensions of financial well-being than did women. Furthermore, coupled respondents reported more positively than did single respondents. Here we see aspects such as two incomes in some cases, a sharing of common tasks and goals, and a potential for a shared future, all positively influencing financial well-being. In general, those with more formal education tended to report higher levels of financial well-being.

Additionally, Asians and Whites reported a higher sense of financial well-being in all four dimensions than did Blacks or Hispanics. With regard to age, younger individuals were generally less positive about their financial well-being than older persons except with regard to the behavioral assessment. Here, those in their 40s, the group who frequently feels the most intense familial financial pressures of teenagers, college expenses, and costs associated with caring for aging relatives, reported the lowest scores in the behavioral area. In examining the effect of household annual gross income on reported financial well-being, those with a higher HAGI reported higher overall financial well-being. In summary, higher levels of financial well-being across all four dimensions were reported by well-educated, coupled men who were at least 50 with a financially comfortable total household annual gross income.

Research Question 4. Research Question 4 asked: Do selected demographic characteristics influence the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

Four of the six demographic characteristics considered clearly influenced the desire for employer-sponsored financial literacy education. In this population, women, those with less formal education, and those with lower household annual gross incomes were more desirous of employer-sponsored financial literacy education than were others in each respective measure. Whites were the least interested; however, Asians, Hispanics, and Blacks all showed great interest with the highest level being reported by Blacks. The status of coupled versus single had no bearing on the desire. Age also was statistically independent.

Research Question 5. Research Question 5 asked: Is there a relationship between financial well-being and the desire for employer-sponsored financial literacy education as reported by employees at a Texas public research university?

Specifically, respondents who desired employer-sponsored financial literacy education reported a lower subjective perception, a lower behavioral assessment, and less satisfaction with their financial situation than did those who reported no interest in such education. It is encouraging to note that these individuals apparently realized there were gaps in their knowledge about personal financial management and were seeking ways to narrow the gap.

Conclusions

1. The domains that recur throughout the literature as the major contributors to life satisfaction are family, finance, and employment (Andrews & Withey, 1976; Bharadwaj & Wilkening, 1977; Campbell,

1981; Campbell et al., 1976). These domains notably occur in the lives of survey respondents, and we clearly see the results of their interplay in the reported data.

2. Life course theory provides a way to study the changes that individuals encounter as they live their lives (Elder, 1998). Atchley (2000) defined life course as "an ideal sequence of events that people are expected to experience and positions that they are expected to occupy as they mature and move through life" (p. 528). Work careers influence economic outcomes by determining access to pension benefits, shaping contributions to Social Security, and affecting one's ability to accumulate wealth (Holtz-Eakin & Smeeding, 1994; Schulz, 1995). Economic outcomes can also be affected by other life events, including changes in marital status over the life course (Crystal & Waehrer, 1996; Fethke, 1989). Life events, such as changes in marital status, lead to divergent later life outcomes through cumulative advantage and disadvantage (Dannefer, 1987; O'Rand, 1996). We see these events and the cumulative advantage and disadvantage reflected in the survey responses, thus substantiating the application of life course theory.
3. Davis and Helmick (1985) used the Deacon and Firebaugh (1981) family resource management model as the framework in their study designed to assess the direct effect of selected inputs on a composite measure of financial satisfaction. The measure reflected satisfaction with

consumption level, family wealth, and financial security. The results of this researcher's current study supported Davis and Helmick's hypothesis that reference point variables (i.e., perceived change in financial condition and aspirations for the future) exerted a significant direct impact on financial satisfaction. Clearly, the respondents to the survey, as revealed through their answers, are making their way through life-facing challenges, successes, and failures and are applying or failing to apply sound financial management practices. Given the overwhelming desire for financial literacy education being offered by their employer, it is clear that respondents are aware of gaps in their personal financial management knowledge.

4. Titus et al. (1989) stated that age, marital status, household size, education, occupation, and income are sociodemographic variables that indicate demands and resources of households. For respondents in the current study, demographics unmistakably play a major role. Who one is as indicated by race, gender, and age; the events one encounters such as marriage or divorce, illness, and loss; and the opportunities one experiences such as education and job mobility all influence one's level of satisfaction with overall well-being and specifically with financial well-being. We all have different stories to tell, but we all have desires for safety, security, and a sense of belonging regardless of how we might be described. Clearly employees as a whole in this study report relatively

low satisfaction with their financial well-being. Furthermore, the demographic characteristics of gender, marital status, education level, ethnicity, age, and household annual gross income impacted the level of satisfaction and clearly all except marital status and age affected the desire for employer-sponsored financial literacy education.

Recommendations

Recommendations for Future Research

1. This study should be replicated in other public research university settings. The population for this study was found in a large public research university with a unique, pervasive, and longstanding set of traditions. The findings of this study were supported by the literature. However, it would be important to determine if similar findings resulted from studies in other public research universities.
2. This study should be replicated in other higher education, other employer, and other geographic settings. The population for this study was found in a large public research university in a rural location with a unique, pervasive, and longstanding set of traditions. The findings of this study were supported by the literature. However, it would be important to determine if similar findings resulted from studies in differing employer settings.

3. Demographic factors should be further explored, particularly those of gender and ethnicity, to determine personal financial management competencies in different populations. Historically, women, especially single women, and persons of color were at an economic disadvantage compared to White, married males. Further research should probe current differences in personal financial management competences based on gender, ethnicity, and family structure.
4. Further research is needed to determine the amount and the types of employer-sponsored financial literacy education being offered and the response of employees to such offerings.
5. Further research is needed regarding the effectiveness of employer-sponsored financial literacy education. Evaluation standards should be developed and used to measure that effectiveness in order to answer the questions, "Is employer-sponsored financial literacy education effective for employees; in other words, is it making a positive difference in their lives?" and "Is employer-sponsored financial literacy education worth its cost to employers?"

Recommendations for Practice

1. Employers should evaluate their current offerings of financial literacy including benefits information for their employees.
2. Employers should understand the demographics of their employee population, identifying those groups who are at most risk regarding

financial security and who currently lack proficiency in personal financial management so that targeted financial literacy education can be offered.

3. Employers should enlist the contributions of professional adult educators and human resource development specialists on their staff or who are outside consultants to develop a comprehensive personal financial literacy program for employees based on the demographics of the employee base and on standard needs assessment methodologies. Adults often find the need to make sense out of their life experiences as an incentive for engaging in learning activity (Merriam & Caffarella, 1999). However, "an adult's past experiences can become obstacles to new learning. Some may have to unlearn negative attitudes toward learning, old ways of doing things, prejudicial views…" (Merriam & Caffarella, 1999, p. 190). The sensitive nature of personal financial management can further complicate both content and delivery methodologies, thus increasing the need for the expertise of professional adult educators and human resource development specialists.
4. Personal financial literacy education should be an ongoing process and program for an organization, not a quick-fix, feel-good operation that only once or only sporadically addresses employee needs. The educational program can deliver information and training through a variety of methodologies including classroom settings, the web,

workshops, awareness fairs or displays, brochures, payroll stuffers, one-on-one counseling, and mentoring. The core issue is tailoring the program to the employee demographics and the organizational culture. A long-term, comprehensive plan should address these issues.

5. Information about benefits offered by the employer should be particularly stressed in a personal financial literacy education program for several reasons. First, employees need to understand this critical component of their personal financial resources. Secondly, employee understanding of benefits may result in more appropriate use, certainly improving employees' circumstances and possibly reducing costs for employers. Next, explaining and clarifying information for employees builds trust and builds an appreciation in employees for what the employer is actually providing in the way of benefits.
6. Employers should consider providing education on investing and on retirement planning to employees of all ages, with offerings being tailored to specific life course stages.
7. Employees should be taught specific personal financial management techniques such as planning, budgeting, making a will, and preparing for large expenditures such as purchasing a house or financing a college education.

8. Employers should provide training to employees about insurances and their importance in financial well-being. Special emphasis should be given to those types of insurances offered by the employer.
9. Part of an employer-sponsored financial literacy education program can be made available through outside sources such as banks, not-for-profit credit counseling organizations, insurance and annuity companies, and government agencies at all levels. Employers should explore and evaluate outside sources for applicability in their environment.
10. Employers should examine financial literacy education programs being offered by their competitors to determine best of breed. They should also determine what offerings might be available in the community and point employees to such resources.

Summary

A study of the need for employer-sponsored financial literacy education as reported by employees of a large Texas organization has been completed. This study assessed the level of personal financial well-being described by employees and determined that a desire for employer-sponsored financial literacy education existed in the sample. The study showed that certain relationships existed between specific demographic variables and reported levels of financial well-being and that certain relationships existed between specific demographic variables and a desire for employer-sponsored financial literacy education. Finally, the study determined that there is a relationship between certain dimensions of financial well-being and the desire for employer-sponsored financial literacy education.

Formal learning in high school and in higher education creates access to employment and to earnings. Jobs and income ultimately influence where individuals live, their associates and friends, their purchasing abilities and decisions, and their leisure and social choices. Financial literacy education affects the life course of individuals by increasing personal financial management competencies and by improving access to the health care system, finance and banking, investment choices, and asset accumulation and protection. Although financial literacy education may be available from a variety of different sources, most individuals can best be reached in their workplace. The benefits of effective personal financial literary education are many and can be mutually beneficial for both the organization and the individual.

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APPENDIX A

SURVEY ITEMS BY DATA NUMBER, ITEM OR VARIABLE NUMBER, VARIABLE LABEL, VALUE, AND VALUE LABEL

Survey Items by Data Number, Item or Variable Number,
Variable Label, Value, and Value Label

Data Number	Item/ Variable Number	Variable Label	Value	Value Label
ID (Identification number)				
SUBJECTIVE PERCEPTION OF PERSONAL FINANCES				
1	A1	Savings amount	1 2 3 4	agree tend to agree tend to disagree disagree
2	A2	Financial emergency	1 2 3 4	agree tend to agree tend to disagree disagree
3	A3	Retirement savings	1 2 3 4	agree tend to agree tend to disagree disagree
4	A4	Monthly living expenses	1 2 3 4	agree tend to agree tend to disagree disagree
5	A5	Optimistic	1 2 3 4	agree tend to agree tend to disagree disagree
6	A6	Money owed	1 2 3 4	agree tend to agree tend to disagree disagree
7	A7	Consumer protection	1 2 3 4	agree tend to agree tend to disagree disagree
8	A8	Borrowing $2000	1 2 3 4	agree tend to agree tend to disagree disagree
SOLVENCY MEASURE				
9	B	Solvency	1-5	low - high
PERCEPTIONS OF OVERALL FINANCIAL WELL-BEING				
10	C1	Satisfaction with financial situation	1-10	low - high

11	C2	Rating of how financially well-off	1-5	low - high
12	C3	Feelings about financial situation	1-5	low - high
FINANCIAL STRESS LEVEL				
13	D	Financial stress level	1-10	low – high
BEHAVIORAL ASSESSMENT				
14	E1	Savings	1 2 3 4	never sometimes usually always
15	E2	Max credit card	1 2 3 4	never sometimes usually always
16	E3	Plan for goals	1 2 3 4	never sometimes usually always
17	E4	Expensive purchase	1 2 3 4	never sometimes usually always
18	E5	Comparison shop	1 2 3 4	never sometimes usually always
19	E6	Spent more	1 2 3 4	never sometimes usually always
20	E7	Pay bills in full	1 2 3 4	never sometimes usually always
21	E8	Cut living expenses	1 2 3 4	never sometimes usually always
22	E9	Budget to follow	1 2 3 4	never sometimes usually always

23	E10	Ran out of cash	1 2 3 4	never sometimes usually always
24	E11	Money for retirement	1 2 3 4	never sometimes usually always
25	E12	Not enough money	1 2 3 4	never sometimes usually always
FINANCIAL STRESSORS				
26	F1	Income decreased	1 2	yes no
27	F2	Changed job	1 2	yes no
28	F3	Investment loss	1 2	yes no
29	F4	Serious injury	1 2	yes no
30	F5	Disabled	1 2	yes no
31	F6	Seriously ill	1 2	yes no
32	F7	Married	1 2	yes no
33	F8	Divorced/separated	1 2	yes no
34	F9	Birth	1 2	yes no
35	F10	Started college	1 2	yes no
36	F11	Retirement	1 2	yes no
37	F12	Lost job	1 2	yes no
38	F13	Death	1 2	yes no
39	F14	Moved	1 2	yes no
40	F15	Major house repair	1 2	yes no
41	F16	Vehicle accident	1 2	yes no

42	F17	Vehicle repair	1 2	yes no
43	F18	Vehicle repossessed	1 2	yes no
44	F19	Mortgage foreclosed	1 2	yes no
45	F20	Utilities off	1 2	yes no
46	F21	Bankruptcy	1 2	yes no
47	F22	Large medical bills	1 2	yes no
48	F23	Overdue notice	1 2	yes no
49	F24	Legal problem	1 2	yes no
50	F25	None	1 2	yes no
ACTIONS TAKEN DURING WORKTIME FOR PERSONAL FINANCIAL ISSUES				
51	G1	Talk with planner	1 2	yes no
52	G2	Calls to lawyer or CPA	1 2	yes no
53	G3	Talked with co-workers	1 2	yes no
54	G4	Talked with lender	1 2	yes no
55	G5	Overdue credit	1 2	yes no
56	G6	Calls to friends or relatives	1 2	yes no
57	G7	Credit or budget counselor	1 2	yes no
58	G8	Financial workshop	1 2	yes no
59	G9	Benefits	1 2	yes no
60	G10	None	1 2	yes no

FINANCIAL SITUATION FIVE YEARS AGO COMPARED TO PRESENT				
61	H1	Total income	1 2 3	decreased remained the same increased
62	H2	Financial assets	1 2 3	decreased remained the same increased
63	H3	Overall situation	1 2 3	decreased remained the same increased
64	H4	Retirement nest egg	1 2 3	decreased remained the same increased
65	H5	Standard of living	1 2 3	decreased remained the same increased
FINANCIAL SITUATION TWO YEARS AGO COMPARED TO PRESENT				
66	H6	Met living expenses	1 2 3	decreased remained the same increased
67	H7	Save and invest	1 2 3	decreased remained the same increased
68	H8	Unexpected expenses	1 2 3	decreased remained the same increased
69	H9	Consumer debt	1 2 3	decreased remained the same increased
70	H10	Total income	1 2 3	decreased remained the same increased
71	H11	Worry	1 2 3	decreased remained the same increased
72	H12	Property insurance	1 2 3	decreased remained the same increased
73	H13	Standard of living	1 2 3	decreased remained the same increased

74	H14	Overall financial situation	1 2 3	decreased remained the same increased
75	H15	Use of credit cards	1 2 3	decreased remained the same increased
FINANCIAL SITUATION ANTICIPATED IN FIVE YEARS				
76	I1	Amount of income	1 2 3	probably be worse be the same probably be better
77	I2	Save and invest	1 2 3	probably be worse be the same probably be better
78	I3	Emergency expenses	1 2 3	probably be worse be the same probably be better
79	I4	Retirement nest egg	1 2 3	probably be worse be the same probably be better
80	I5	Amount of debt	1 2 3	probably be worse be the same probably be better
81	I6	Overall financial situation	1 2 3	probably be worse be the same probably be better
82	I7	Insurance coverage	1 2 3	probably be worse be the same probably be better
83	I8	Standard of living	1 2 3	probably be worse be the same probably be better
YEARS OF WORK AND PERFORMANCE				
84	J1	Years working for TAMU	1 2 3 4 5 6 7	less than 1 year 1 to 2 years 3 to 5 years 6 to 9 years 10 -14 years 15 to 19 years 20 or more years

85	J2	Work accomplished	1-5	low - high
86	J3	Work performance	1-5	low - high
87	J4	Performance rating	1-5	low - high
SOURCES OF PERSONAL FINANCIAL MANAGEMENT KNOWLEDGE				
88	K1	Family	1 2	yes no
89	K2	Friends/co-workers	1 2	yes no
90	K3	Reading	1 2	yes no
91	K4	TV/radio	1 2	yes no
92	K5	Class or workshop K-12	1 2	yes no
93	K6	Class or workshop college	1 2	yes no
94	K7	Public seminars	1 2	yes no
95	K8	Class at work	1 2	yes no
96	K9	Financial professional	1 2	yes no
97	K10	HR personnel	1 2	yes no
98	K11	Other	1 2	yes--text no
INTEREST IN EMPLOYER-SPONSORED PERSONAL FINANCIAL MANAGEMENT				
99	L0	Interest in PFM	1	yes
			2	no
TOPICS OF INTEREST				
100	L1	Banking	1 2	yes no
101	L2	Benefits	1 2	yes no
102	L3	Budgeting	1 2	yes no
103	L4	Buying a home	1 2	yes no
104	L5	College planning	1 2	yes no

105	L6	Consumer protection laws	1 2	yes no
106	L7	Estate planning	1 2	yes no
107	L8	Getting out of debt	1 2	yes no
108	L9	Insurance planning	1 2	yes no
109	L10	Investing	1 2	yes no
110	L11	Managing credit	1 2	yes no
111	L12	Retirement planning	1 2	yes no
112	L13	Tax planning	1 2	yes no
113	L14	Wills and estate planning	1 2	yes no
114	L15	Other	1 2	yes--text no
REASONS WHY RESPONDENT HAS NO INTEREST				
115	L16	Not interested	1 2	yes no
116	L17	Supervisor said no	1 2	yes no
117	L18	Employer has no business	1 2	yes no
118	L19	Time	1 2	yes no
119	L20	Know enough	1 2	yes no
120	L21	Other	1 2	yes--text no
DEMOGRAPHIC INFORMATION				
121	M1	Gender	1 2	male female
122	M2	Marital status	1 2 3 4 5 6 7	never married not married but living w/other married separated divorced remarried after divorce remarried after spouse's death

			8	widowed
123	M3	Education	1 2 3 4 5 6	less than high school high school trade/vocational training associate's degree bachelor's degree graduate or professional degree
124	M4	Ethnicity	1 2 3 4 5 6	white black hispanic native American asian other--text
125	M5	Age in years		
126	M6	Household annual gross income	1 2 3 4 5 6 7 8 9 10	less than $20,000 $20,001 - 30,000 $30,001 - 40,000 $40,001 - 50,000 $50,001 - 60,000 $60,001 – 70,000 $70,001 – 80,000 $80,001 – 90,000 $90,000 – 100,000 more than $100,000
126	M7	Housing	1 2 3 4	own rent live with relative or friend other--text
127	M8	Self Spouse Children under 6 Children 6 – 12 Children 13 – 18 Children 19 and older Parent, grandparent, other adult	# # # # # # #	
128	M9	Category of employment	1 2 3 4 5 6	faculty—associate/full prof faculty—assistant prof all other faculty classified staff administrative/professional other--text
COMMENTS				
129	N	Comments		text

APPENDIX B

PRE-NOTICE LETTER FOR SURVEY

Pre-notice Letter for Survey

March 17, 2003

Dear Texas A&M Colleague:

A few days from now you will receive in campus mail a request to fill out a brief survey for an important research project being conducted here at A&M.

The research concerns the experiences individuals have in managing their personal finances and in learning about personal financial management.

We are writing in advance because some people like to know ahead of time that they will be contacted. The study is an important one that may help employers like Texas A&M develop and improve the work/life programs they offer to their employees.

Thank you for your time and consideration. It is only with the generous help of our colleagues that research is successful.

Sincerely,

Kenneth E. Paprock
Associate Professor

Margaret Drake
Doctoral Candidate

P.S. We will be enclosing a small token of appreciation with the survey as a way of saying thank you for your help.

APPENDIX C

INFORMATION SHEET FOR SURVEY ON

PERSONAL FINANCIAL WELL-BEING, SPRING 2003

INFORMATION SHEET FOR SURVEY ON PERSONAL FINANCIAL WELL-BEING SPRING 2003

1. I understand that this research study is examining the financial well-being of a group of employees and the need for employer-sponsored financial literacy education as reported by those employees. The study will attempt to discover whether relationships exist between specific demographic variables and reported levels of financial well-being and if relationships exist between specific demographic variables and any reported desire for employer-sponsored financial literacy education. I understand that:
    a. this survey is being conducted in March and April of 2003;
    b. the persons being surveyed represent a sample of faculty and staff employees at Texas A&M University in College Station, Texas; and
    c. approximately 740 individuals are being sent this survey.

2. I understand that I am being given, without any obligation whatsoever, $2 from the researcher conducting this study.

3. I understand that my participation is voluntary and I can choose to respond or not respond without any harm or loss of benefits to me.

4. I understand that I may refuse to answer without any harm or loss benefits to me any questions that make me uncomfortable.

5. I understand that my answers to survey questions are completely confidential and will be released only as summaries in which no individual's answers can be identified. I understand that no one other than the researcher will have access to my completed survey and that after survey data has been entered into an electronic database, the researcher will destroy my survey. During the data entry process, my completed survey will remain under the researcher's direct supervision. I understand that surveys, data files, and paper documents will be protected at all times in secured space.

6. I understand that this research study has been reviewed and approved by the Institutional Review Board Human Subjects Research, Texas A&M University. For research related problems or questions regard subjects' rights, I can contact the Institutional Review Board through Dr. Michael W. Buckley, Director of Support Services, Office of the Vice President for Research at (979) 458-4067 or mwbuckley@tamu.edu.

7. I understand that by returning the enclosed survey I am demonstrating that I have read and understand the information provided on this Information Sheet and that I am agreeing to participate in this study.

8. If I have any questions, I understand that I can contact the researchers for this study as follows:

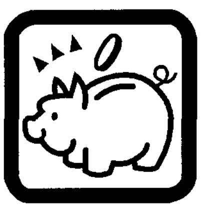
Kenneth E. Paprock, Ph.D. Associate Professor, Educational Human Resource Development at Texas A&M University By Campus Mail: 511 Harrington 4226 TAMU By email: kpaprock@tamu.edu By phone: (979) 845-5488	Margaret Drake Graduate Student, Educational Human Resource Development at Texas A&M University By U.S. Mail: 4 Bridlington Court San Antonio, Texas 78218 By email: jdrake@satx.rr.com By phone: (210) 822-2005

APPENDIX D

INSTRUMENT

PERSONAL FINANCIAL WELL-BEING:

HOW ARE YOU DOING?



Texas A&M University
Department of Educational Administration and Human Resource Development
College Station, Texas
Spring 2003

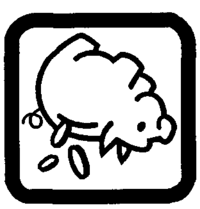
Please return your completed survey by ***April 4, 2003***, in the pre-addressed, stamped envelope to:

Personal Financial Well-being Survey
% Margaret Drake
4 Bridlington Court
San Antonio, TX 78218

Please help us by completing this survey about your thoughts and opinions regarding your personal financial well-being.

Your individual responses will be kept strictly confidential.

Thank you for your honest and candid answers!!



PERSONAL FINANCIAL WELL-BEING: HOW ARE YOU DOING?

PART A. We would like to know how you feel about your current financial situation. For each statement, please circle one response for how much you agree or disagree. Here is the scale:

A: Agree
TA: Tend to Agree
TD: Tend to Disagree
D: Disagree

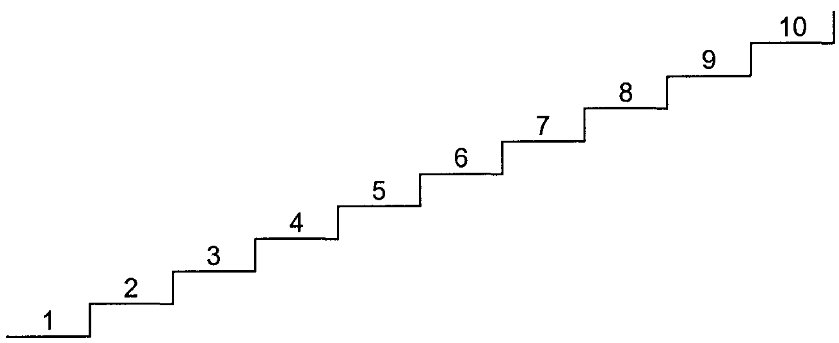
1.	I am satisfied with the amount of money that I am able to save.	A	TA	TD	D
2.	I would be able to handle a financial emergency of $500 to $1,000.	A	TA	TD	D
3.	I think I will have enough money to live comfortably in retirement.	A	TA	TD	D
4.	I worry about being able to pay my monthly living expenses.	A	TA	TD	D
5.	When I think of my financial situation, I am optimistic about the future.	A	TA	TD	D
6.	I worry about how much money I owe.	A	TA	TD	D
7.	I am knowledgeable about consumer protection laws and regulations.	A	TA	TD	D
8.	I would have trouble borrowing $2,000 cash if I needed it.	A	TA	TD	D

PART B. We are interested in where you would be financially if you sold all of your major possessions (including your home), turned all of your investments and other assets into cash and paid all your debts. Would you be in debt, break even, or have something left over? Please circle the number closest to where you are.

1	2	3	4	5
Would be in debt		Would break even		Would have money left over

PART C. We are interested in your perceptions about your personal financial situation.

1. Suppose that a person who is entirely satisfied with his or her financial situation would be at the top of these steps, and a person who is extremely dissatisfied with his or her financial situation would be on one of the bottom steps. On what step do you see yourself? Please circle the number that best describes your situation.



2. How well off are you financially? Please circle the number closest to where you are.

1	2	3	4	5
I feel like I am always in financial trouble				I feel like I am doing well

3. How do you feel about your current financial situation? Please circle the number closest to where you are.

1	2	3	4	5
I find it hard to pay my bills				I find it easy to save

PART D. We are interested in how stressful you find your personal financial situation. Please <u>circle</u> the number that best indicates your current financial stress level.

1	2	3	4	5	6	7	8	9	10
No stress at all									Extremely stressful

PART E. We are interested in the way people behave financially. Here are some examples of personal financial behavior. Please <u>circle</u> the letter that best reflects your actions in 2002.

N: Never
S: Sometimes
U: Usually
A: Always

1.	I set money aside for savings.	N	S	U	A
2.	I reached the maximum limit on a credit card.	N	S	U	A
3.	I had a plan to reach my financial goals.	N	S	U	A
4.	I purchased something expensive that I wanted but did not really need.	N	S	U	A
5.	I comparison shopped at two or more stores or websites for an expensive consumer product.	N	S	U	A
6.	I spent more money than I had.	N	S	U	A
7.	I paid credit card bills in full and avoided finance charges.	N	S	U	A
8.	I had to cut living expenses.	N	S	U	A
9.	I had a weekly or monthly budget that I followed.	N	S	U	A
10.	I had to use a credit card because I ran out of cash.	N	S	U	A
11.	I set money aside for retirement other than TRS or ORP.	N	S	U	A
12.	I had financial problems because I did not have enough money.	N	S	U	A

PART F. We are interested in some of the experiences and events that happened to you in 2002. Please circle *all* that happened.

1. My income decreased.
2. I changed my job.
3. I had an investment and/or business loss.
4. I was seriously injured on the job.
5. I was diagnosed as disabled.
6. I was seriously ill.
7. Some (or one) of my family members got married.
8. I divorced or separated from my spouse.
9. I (or my spouse) gave birth to a child.
10. Some (or one) of my family members started college.
11. Some (or one) of my family members retired.
12. Some (or one) of my family members lost a job.
13. Some (or one) of my family members died.
14. I moved from one residence to another.
15. I had a major house repair.
16. I had a vehicle accident that cost me a lot of money.
17. I had a major vehicle repair expense.
18. My vehicle was repossessed.
19. My home mortgage loan was foreclosed.
20. One of my utilities was turned off.
21. I filed for personal bankruptcy.
22. I had large medical bills.
23. I received an overdue notice from a creditor.
24. I had a legal problem.
25. None of the above events happened to me or my family during 2002.

Please continue to Part G ➔

PART G. We are interested in ways in which people deal with personal financial issues and concerns during work hours. In 2002 while at work, did you do any of the following? Please circle *all* that apply.

1. Talked with a financial planner.
2. Made calls to a lawyer or a CPA.
3. Talked with co-workers about money-related matters.
4. Talked with a lender about a loan.
5. Made calls regarding an overdue credit payment.
6. Made calls to friends and/or relatives about financial matters.
7. Made calls to a credit/budget counselor.
8. Attended a personal financial workshop or event.
9. Met with someone in Human Resources regarding my benefits.
10. None of the above.

PART H. We are interested in how people are getting along financially today compared to the past. Please circle the number of the answer that best describes your situation.

Compared to five years ago...	DECREASED	REMAINED THE SAME	INCREASED
1. My total income has...	1	2	3
2. My financial assets have...	1	2	3
3. My overall financial situation has...	1	2	3
4. My retirement nest egg has...	1	2	3
5. My standard of living (the things that I purchase such as housing, food, transportation, and recreation) has...	1	2	3

Compared to two years ago…		DECREASED	REMAINED THE SAME	INCREASED
6	My ability to meet my usual monthly living expenses has…	1	2	3
7.	The amount that I am able to save and invest has…	1	2	3
8.	My ability to meet unexpected expenses has…	1	2	3
9.	The total consumer debt that I owe…	1	2	3
10.	The total amount of income I have has…	1	2	3
11.	How often I worry about the amount of money I am required to pay on my monthly bills has…	1	2	3
12.	The property insurance coverage I have has…	1	2	3
13.	My standard of living (the things that I purchase such as housing, food, transportation, and recreation) has…	1	2	3
14.	My overall financial situation has…	1	2	3
15.	My use of credit cards has…	1	2	3

Please continue to Part I on the next page →

PART I. We are interested in how people expect to be doing financially five years from now. Please circle the number of the answer that best describes your situation.

In five years I expect...	PROBABLY BE WORSE	BE THE SAME	PROBABLY BE BETTER
1. My total amount of income will...	1	2	3
2. My ability to save and invest will...	1	2	3
3. My ability to meet large emergency expenses will...	1	2	3
4. My retirement nest egg will...	1	2	3
5. The amount of debt I have will...	1	2	3
6. My overall financial situation will...	1	2	3
7. My insurance coverage will...	1	2	3
8. My standard of living (the things that I purchase such as housing, food, transportation, and recreation) will...	1	2	3

PART J. We are interested in people and their work. Please circle the number of the answer that best fits your situation.

1. About how many years have you been working for TAMU?
   a. Less than 1 year
   b. 1 to 2 years
   c. 3 to 5 years
   d. 6 to 9 years
   e. 10 to 14 years
   f. 15 to 19 years
   g. 20 or more years

Please circle the number closest to where you are in each case.

2. How would you rate yourself in terms of how much work you accomplish?

1	2	3	4	5
Poor		Average		Excellent

3. How would you rate yourself in terms of the quality of your work performance?

1	2	3	4	5
Poor		Average		Excellent

4. What was your performance rating this past year from your boss?

1	2	3	4	5
Poor		Average		Excellent

PART K. People learn about personal financial management in different ways. Where did you learn about managing your personal finances? Please circle the *three* most important sources for you.

1. Family
2. Friends/co-workers
3. Reading (Money magazine, Wall Street Journal, etc.)
4. TV/radio (CNBC, Bloomberg network, Jim Cramer show, Suze Orman show, etc.)
5. Class/workshop in grades K-12
6. Class/workshop in college
7. Public seminars/conferences
8. Class/workshop at work
9. Financial professional (lawyer, CPA, certified financial advisor)
10. Human Resources personnel
11. Other (please identify)________________________

PART L. Some employers offer their employees personal financial management education (workshops, classes, lectures, etc.) during regular work hours. Would you like your employer to offer this type of employee benefit? Please check either YES or NO.

☐ **YES** The topics that are of the most interest to me are…(please circle the *three* most important)

1. Banking (checking/saving accounts, money markets, etc.)
2. Benefits offered by the University
3. Budgeting (goal setting, record keeping)
4. Buying a home
5. College planning
6. Consumer protection laws
7. Estate planning
8. Getting out of debt
9. Insurance planning
10. Investing
11. Managing credit
12. Retirement planning
13. Tax planning
14. Wills and estate planning
15. Other (please describe) ________________________

☐ **NO** I would not like my employer to offer personal financial management education because… (please circle *all* that apply)

1. I am simply not interested.
2. My supervisor would not let me go.
3. I don't think my employer has any business offering a benefit like that.
4. I don't have time to attend.
5. I already know enough about managing my personal finances.
6. Other (please describe) ________________________

Please continue to Part M ➔

PART M. We are interested in describing the people who respond to this survey. For each question, please circle the answer that best applies to you. Your individual responses will remain strictly confidential.

1. What is your gender?
   a. Male
   b. Female

2. What is your marital status?
   a. Never married
   b. Not married but living with a partner/significant other
   c. Married
   d. Separated
   e. Divorced
   f. Remarried after divorce
   g. Remarried after spouse's death
   h. Widowed

3. What is the highest level of education you have completed?
   a. Less than high school
   b. High school
   c. Trade/vocational training
   d. Associate's degree
   e. Bachelor's degree
   f. Graduate or professional degree

4. What is your ethnicity?
   a. White
   b. Black
   c. Hispanic
   d. Native American
   e. Asian
   f. Other (please specify)________________________

5. What is your age in years?___________________

6. What is your household's approximate annual gross income before taxes?
    a. Less than $20,000
    b. $20,001 - $30,000
    c. $30,001 - $40,000
    d. $40,001 - $50,000
    e. $50,001 - $60,000
    f. $60,001 - $70,000
    g. $70,001 - $80,000
    h. $80,001 - $90,000
    i. $90,001 - $100,000
    j. More than $100,000

7. What is your current housing category?
    a. Own
    b. Rent
    c. Live with relative or friend
    d. Other (please specify)______________________

8. How many people are supported by the household income?

Number of People

______ Yourself (Check)

______ Spouse (Check)

______ Children younger than age 6 (Indicate the total number)

______ Children age 6 to 12 (Indicate the total number)

______ Children age 13 to 18 (Indicate the total number)

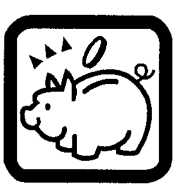
______ Children 19 and older (Indicate the total number)

______ Parent, grandparent, or other adult (Indicate the total number)

9. What is your employment category?

    a. Faculty—Associate or full professor
    b. Faculty—Assistant professor
    c. All other faculty
    d. Classified staff
    e. Administrative and professional
    f. Other (please specify)______________________

Part N. We are interested in any comments you may have about personal financial management or about this survey.



THE END

Thank you for taking the time to complete this survey!
Your assistance in providing this information is appreciated!!

Please return your completed survey by *April 4, 2003*, in the pre-addressed, stamped envelope to:

Personal Financial Well-Being Survey
%Margaret Drake
4 Bridlington Court
San Antonio, TX 78218

QUESTIONS??

Please contact:

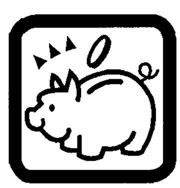
Margaret Drake
4 Bridlington Court
San Antonio, Texas 78218

(210) 822-2005

jdrake@satx.rr.com

Please return your completed survey by *April 4, 2003,* in the pre-addressed, stamped envelope to:

Personal Financial Well-being Survey
Margaret Drake
4 Bridlington Court
San Antonio, TX 78218



APPENDIX E

REMINDER LETTER

March 31, 2003

Dear Texas A&M Colleague:

Last week we mailed a survey to you asking your opinions about personal financial management. Your name was selected randomly from a list of Texas A&M employees.

If you have already completed and returned the survey, please accept our sincere thanks! If not, please do so today. We are especially grateful for your help because by including your views in the study, we hope to help employers improve their work/life programs for their employees.

If you did not receive the survey or if it was misplaced, please call (210) 822-2005 or send email to jdrake@satx.rr.com and we will get another one to you today.

Sincerely,

Margaret Drake
Doctoral Candidate

APPENDIX F

DEMOGRAPHIC VARIABLES OF SAMPLE OF BENEFITS-ELIGIBLE EMPLOYEES OF THE TEXAS A&M UNIVERSITY MAIN CAMPUS USING FREQUENCIES AND PERCENT, 2003

Demographic Variables of Sample of Benefits-eligible Employees of the Texas A&M University Main Campus Using Frequencies and Percent, 2003

Variables	Frequency	Percentage
Gender		
Male	229	49.4
Female	234	50.5
No Response	1	.2
Total	464	100.0
Marital Status		
Never married	115	24.8
Not married but living with a partner	22	4.7
Married	244	52.6
Separated	9	1.9
Divorced	39	8.4
Remarried after divorce	27	5.8
Remarried after spouse's death	1	.2
Widowed	5	1.1
No Response	2	.4
Total	464	100.0
Highest Level of Education		
Less than high school	11	2.4
High school	85	18.3
Trade/vocational training	25	5.4
Associate's degree	19	4.1
Bachelor's degree	103	22.2
Graduate or professional degree	219	47.2
No Response	2	.4
Total	464	100.0
Ethnicity		
White	315	67.9
Black	29	6.3
Hispanic	42	9.1
Native American	4	.9
Asian	65	14.0
Other	7	1.5
No Response	2	.4
Total	464	100.0

Age in Years		
20	1	.2
21	4	.9
22	8	1.7
23	13	2.8
24	16	3.4
25	22	4.7
26	13	2.8
27	20	4.3
28	23	5.0
29	9	1.9
30	19	4.1
31	10	2.2
32	19	4.1
33	8	1.7
34	14	3.0
35	8	1.7
36	9	1.9
37	16	3.4
38	11	2.4
39	6	1.3
40	12	2.6
41	7	1.5
42	12	2.6
43	7	1.5
44	9	1.9
45	10	2.2
46	15	3.2
47	4	.9
48	16	3.4
49	15	3.2
50	5	1.1
51	5	1.1
52	7	1.5
53	8	1.7
54	11	2.4
55	5	1.1
56	4	.9
57	4	.9
58	9	1.9
59	8	1.7
60	5	1.1
61	6	1.3
62	5	1.1
63	3	.6
64	2	.4

65	2	.4
66	2	.4
67	1	.2
68	4	.9
70	1	.2
No Response	11	2.4
Total	464	100.0
Household Approximate Annual Gross Income Before Taxes		
Less than $20,000	102	22.0
$20,001 - $30,000	75	16.2
$30,001 - $40,000	49	10.6
$40,001 - $50,000	33	7.1
$50,001 - $60,000	41	8.8
$60,001 - $70,000	20	4.2
$70,001 - $80,000	22	4.7
$80,001 - $90,000	20	4.3
$90,001 - $100,000	23	5.0
More than $100,000	69	14.9
No Response	10	2.2
Total	464	100.0
Current Housing Category		
Own	262	56.5
Rent	187	40.3
Live with relative or friend	12	2.6
Other	1	.2
No Response	2	.4
Total	464	100.0
Number Supported by Household Income		
1	138	29.7
2	136	29.3
3	79	17.0
4	74	15.9
5	19	4.1
6	9	1.9
7	3	.6
8	2	.4
No Response	4	.9
Total	464	100.0
Employment Category		
Faculty—Associate or full professor	46	9.9
Faculty—Assistant professor	13	2.8
All other faculty	28	6.0

Classified staff	231	49.8
Administrative and professional	26	5.6
Other	120	25.9
Total	464	100.0

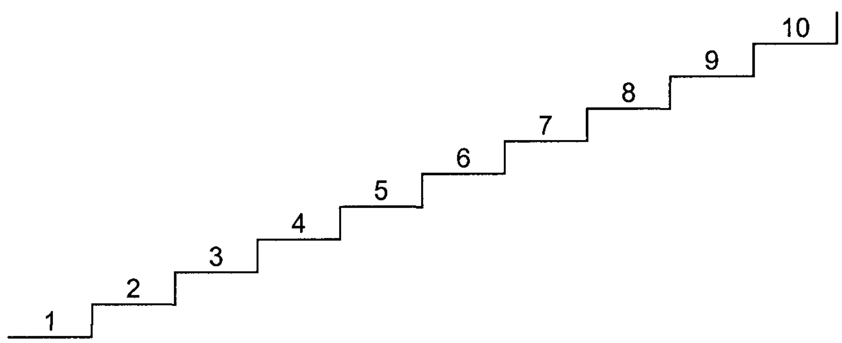
APPENDIX G

LADDER DIAGRAM DESIGNED TO CAPTURE SATISFACTION WITH PERSONAL FINANCIAL SITUATION

Ladder Diagram Designed to Capture Satisfaction with

Personal Financial Situation

1. Suppose that a person who is entirely satisfied with his or her financial situation would be at the top of these steps, and a person who is extremely dissatisfied with his or her financial situation would be on one of the bottom steps. On what step do you see yourself? Please <u>circle</u> the number that best describes your situation.



APPENDIX H

COMMENTS RECEIVED IN SURVEY SECTION L REGARDING REASONS WHY INDIVIDUALS WERE NOT INTERESTED IN EMPLOYER-SPONSORED PERSONAL FINANCIAL MANAGEMENT

Comments Received in Survey Section L Regarding Reasons Why Individuals Were Not Interested in Employer-Sponsored Personal Financial Management

1. I am most interested in the personal attention of a financial planner, not general topics.

2. I need to be paid more.

3. Satisfied w/my current resources

4. Honestly, I am not interested; I would not be as money matters bore me to death! I have to live with it already; I may as well not listen to people talk about it.

5. I trust my own investigations more than an employer-sponsored event.

6. It would be too generic—not specific enough to my situation.

7. Perception by others if attended

8. I think this should be offered, I just don't have time to personally attend.

9. I think they are not interested.

10. HR knows <u>nothing</u> about finance!

11. No interest in "beginning" topics

12. My employer (TAMU) doesn't follow sound money management. If they offer it but don't follow it, how can they expect people to "believe" such hypocrisy?

13. These things are always designed for people with more money than I have.

APPENDIX I

COMMENTS RECEIVED IN SURVEY SECTION N

Comments Received in Survey Section N

1. I made a note on an earlier page about participating in Financial Peace University (www.daveramsey.com) at Christ United Methodist Church. This helped me pay off credit card debt I(now owe none) and start to make progress on saving and staying out of debt.

2. Questions are structured in a way that variables such as family and friends that are professional investment brokers. I don't get in financial difficulties because I have family to fall back on for support. There are other singles without that support. Part F: You failed to include purchasing a home or vehicle that could cause financial setbacks.

3. I have had to borrow school loans because Texas state schools do not waiver [sic] tuition costs. Most graduate students that I have talked to (including myself) live <u>above</u> (or well above) their financial means, expecting to pay back loans/bills/credit debt when they acquire a steady job.

4. Thanks for sending the survey. I realized my financial standing better.

5. I am not sure if this survey is applicable for graduate assistants (international) as our financial needs are a lot different from US citizens.

6. I hesitated about completing this because of the identifying # on the back of this package. It makes this survey not completely anonymous. I decided to do it anyway because I know the response rate to surveys is usually low! Loved the $2 bill & it's a wonderful idea. Thanks!

7. Texas A&M is a good place to work, but do not appreciate the hard work we do. Things could be better in 5 years if we get a better pay raise. We could get out of debt if we get raises every year with the cost of living going steadily up.

8. Thanks for the $2. Hope this helps. Good luck!

9. I am interested about learning more about personal financial management.

10. Hello: It would be helpful if there was a section for N/A. Also, I felt as though some of the questions did not pertain to me because my husband is currently working on his Ph.D. (so of course we are financially strapped.) Thanks!

11. Need higher pay.

12. Most of the questions/situations don't quite apply to me.

13. My situation is atypical since my employment with the University is a second career for me.

14. This is a good survey. Hope my views were useful.

15. Thanks for the $2 bill!!

16. I live very conservatively, have good credit, little debt, pay all my monthly bills when due, save regularly. However, I am very concerned about having adequate retirement income.

17. I am a non-resident alien in the States and I have been here for only less than two years. Before coming here I was a university student and most of my expenses were supported by my family and my scholarship. Therefore, Part H might not reflect my situation well. I hope that I have been helpful.

18. My struggle is that I know I have credit card debt & no retirement beyond TRS; I just don't know what the first step should be? Get out of debt or invest? Too much misinformation around.

19. People should use common sense, don't spend more than you make, don't spend two dollars to save a dollar, etc. However, with TAMU as a role model, I can understand why so many people are in debt!

20. Easy to fill out was a plus!

21. Sorry, I turn a blind eye to investments for the most part.

22. Support of grown/married children is not covered. Support of aged parents. Effect of ORP loss on retirement planning (put off for 5+ years likely).

23. My husband's income is a very significant aspect in my financial management. It makes it much easier on me.

24. I feel that the University does not pay graduate students a comparable amount that other major research universities do. I can manage to live on $989.09 per month, but it is the tuition that is unmanageable. If I choose to stay at TAMU for the 5-6 years (avg. for my area), I would have to pay over $25,000. That is not an amount I would be able to save from my monthly income. As a result, many grad students are in financial trouble. I was told that it was TX law that states grad students must pay for tuition, but The University of Texas pays for all their grad students' tuition. Anyways, not to bore you any longer...many grad students in my area are going to leave TAMU for other (and in many ways

better) programs that don't leave them worrying about how to pay for the water bill.

25. Most of the income goes to (1) tuition and various fees of TAMU and (2) rent.

26. GENERAL: I have had trouble managing my finances because I did not have enough or barely enough to get along. Not because I CAN'T I do not think it should be a problem for any rational individual unless of course they have unexpected expenses, etc. SURVEY: Standard of living—too vague, does not take into account various locations and if it does it's just a feeling you are after. Nice little body [the small pig cartoon], makes it bearable to fill out survey. Also, thanx for the $2 bill; it's cool; first time I saw that.

27. Well written; quick and easy

28. I think that I could do better if I moved to the public [sic] sector. Working for TAMU and making about ½ of what others are doing the public sector. Just starting out it is good experience, I guess. Spending within my means has been one of my hardest concepts to learn in life.

29. I saw my finances getting out of control 4 years ago. At that time I decided to get a M.S. to qualify me for the next job. After I graduated, I found new employment. My financial situation improved and I was able to start paying off my debt. My new co-workers gave me good ideas in reorganizing my debt. My extended family has also become financially stable and my financial obligation to them has decreased. My office does provide access to financial workshops, but I find the classes intimidating. I would rather talk to my family, friends, or co-workers. I registered for an on-line credit analysis service that was offered by one of my credit cards (for one year). I had unlimited access to my credit report and my credit rating. This is where I really learned/understood how my credit use affected my credit rating.

30. After finishing professional school, I did an internship, residency, graduate school and spent numerous years as a lecturer. So, even though I have excelled in all my work and been more productive than most tenured faulty, my average annual income up until 4 years ago was only $20,000. I will never make up for such poor wages. That is why as a professor, working in this system has let me down financially. I know scores of faculty who have rank and are abusing the system and don't do near the work that is being done by lecturers.

31. Saving for retirement is a challenge. Political maneuverings in Austin and Washington, DC are very confusing to me (especially on retirement/social security issues, etc.). Grew up in lower middle class so understanding (and especially trusting) investments, TDAs, bonds, stock market, etc. is very

difficult for me. No family experience. I tend to obsess over money and credit issues; have to struggle to maintain perspective.

32. I worry a lot about paying my bills. My problem is mostly due to medical bills, and I am getting ready to go to CCCS [sic] to try and improve my situation. This is compounded by the lack of "competitive" jobs in College Station—though I choose to live here, my financial situation has not changed.
33. I like this survey. It will be of great help to international employees if they get some seminars during registration. It will be of great help if I can receive summary of this survey.

34. Insurance, both vehicle and home, rise year after year. Salaries just do not keep up with the increased cost of living expenses.

35. I hate doing surveys!

36. I have doubts that this survey is anything more than more paperwork on top of more paperwork on top of more paperwork on top of more paperwork on top of more paperwork on top of more paperwork that ends up at the bottom of all paperwork. I hope I am wrong and I thank you for taking this survey.

37. Thank you for the $2.00. Didn't know there were any $2 bills still floating around!

38. The survey was very exciting and I would like to learn more about managing my money.

39. I was laid off last year and am working as a visiting prof on a 10-month appointment. I'm looking for a more permanent position, but right now my financial outlook is pessimistic reflecting my recent experience. Fortunately, I married well and my wife has been a great helpmate at managing our finances.

40. I am currently a student at Texas A&M. I used to work in the past and made really good money. Now that I am back to get my masters degree things have changed financially for me.

41. The combined income of my wife and me is comfortable to meet expenses and save money every month. However, we have two factors that worry us: (1) Both my wife and myself are lecturers and the University may terminate our jobs any moment and (2) we do not have enough money to retire and keep the standard of living we have now. These two factors, next to the country's economy, produce a lot of stress and anxiety.

42. I have had generally negative experiences with "financial planners". No certification process, poorly trained and informed, or just outright liars. At best , they state the obvious and expect to collect 2-1/2 %.

43. Everyone in this day and age needs to plan for retirement.

44. I would like to get out of debt but we need to sell items that we don't really need—motorcycle, etc. that would help us pay more bills. These are just regular bills also—house, utilities, insurance, etc. Hopefully, we will when husband's income improves.

45. My responses are greatly influenced by the fact that my spouse works and that I have some outside income. I could not support myself on a TAMU salary without these. Your survey did not account for such factors as these.

46. Do let me know the results of the survey. It is of significant importance to all employees, as far as I can understand the survey's purpose.

47. Thanks for the opportunity.

48. For completeness, I think it would be a good question (probably excluded from statistics) to ask how people plan to "solve", w/in a few years, their financial situation if any exists. Maybe a multiple choice or brief answer. It gets people to think or at least be aware.

49. In my opinion, I do not think you can teach anyone "personal financial management". Everyone knows its importance. The habits need to be changed.

50. Interesting survey and approach!

51. Thanks for the opportunity to participate. There were some statements that helped provide me with some insight on my situation.

52. Thanks for the $2 bill!! I have been trying to come across those for so long since I collect almost/uniquely rare currency, that these $2 bills were hard to come by. Survey was an eye-opener and helped me see how much change has occurred in my personal financing. Thumbs-up!!

53. This is a very interesting survey. It should be taken more often for future references. Thank you.

54. Will results be published or shared with those participating in survey? Thanks for the opportunity to participate and for the $2 bill!

55. I think this survey is OK because that way we can feel that you care about the work we are doing or interested in knowing more about ourselves [sic]. Thank you.

56. I'm currently a doctoral student as well as faculty (part-time) and considering my personal finances to be on hold in all aspects for the next few years.

57. Part L: I think workshops are a great idea provided they are run by people who actually have experience and insight. Too often I have "consulted" with someone only to find them parrot their brochure (yes, I can read) or to discover they really have no more information than I do (yes, I can think, too). I also recognize that I am financially conservative but competent. Many people need some help so the workshops should be offered.

58. I'm just confusing. Because I just graduated from the University last year in Korea and then I came here in TAMU. Also, last year I married. Therefore, actually my income has been increased (during undergraduate student, I didn't make money). So, my financial situation seems to be good, but it's not. So I just confused how to check answers. Anyway, I would like to hope my survey is helpful.

59. Financial situation now is flawed because I am also a full-time student. I wasn't five years ago, nor will I be five years from now.

60. This University pays less than most other schools and doesn't waive or supplement tuition for master's students as many other schools do. I find this irritating. I work hard for the University and have to pay for it. My academic contribution will increase the quality at this University and help draw in more status and qualified students, staff and professors.

61. Your survey may want to ask about student status and how cost of education affects personal finances. Also, don't you need a signature on the permission form and don't the respondents need to return it?

62. Some answers may appear to conflict. Due to the death of a parent, an inheritance was incurred. These funds were not budgeted into finances so debt (mortgage) was eliminated but funds were not used for monthly expenses.

63. Both my husband and I are current graduate students. Debt is mainly from student loans.

64. Being a graduate student (international) some of these questions are not applicable for me so I have mentioned NA.

65. I would like to have my tuition waived instead of only 1/3 of it instead of any of these financial advising workshops since graduate tuition is the key reason I am in debt (i.e., the reason for my financial stress).

66. Ordinarily I would not complete any survey, but felt guilty keeping your $2. Your tricked worked! Please keep the questionnaire short.

67. Good document

68. Graduate student—live off of loans and what little I get paid from my TA position.

69. Answers may look skewed because all retirement savings comes out of my husband's income/position.

70. We live on what might seem to you as a very small amount of money, but it's not bad. I've learned that you have to have a certain amount of money to survive but it's not the amount of money that you have that makes you happy. It's pretty simple—you have to learn to live with what you have. I didn't mind doing the survey at all. I hope is helps you. Thank you.

71. Nice survey! Good luck, Margaret! P.S. Thank you for the $2.

72. My husband and I both work and have been married previously. We have 5 children between the two of us with 1 still at home. Occasionally, the older children need financial help and so far we have been able to provide that. We are looking forward to the day they do not depend on us.

73. Good luck with your research!

74. I really don't have any experience in investing. But I am very interested in stocks. My associate's is in child development, not college hours. Thanks!

75. Programs my employer has on financial matters would be very useful. This survey helped me realize and accept where I was financially. Goals for financial management are to spend on what is needed first and then if money is left over, then spend on what you want. Take percent of income and put some in savings account would be desired.

76. I feel like credit management is important and I would certainly like to have more savings. I have investments, but they seem to be fluctuating too much. Advice would be welcome on investing 401K assets.

77. It was a good idea to send reminding letters about survey. Good job.

78. People cannot save money when living expenses are equal to their income. How can someone who is alone pay $400 rent, pay for gas, food, auto insurance, electricity, clothes, auto, upkeep on $10 an hour. It is very tough to do and since I am going back to school and getting loans to do so my debt is only increasing. By the time I finish with school I will be in debt worse than ever before. You cannot save when there is nothing left after expenses.

79. We recently left the Houston area to move to a rural setting. That move has definitely decreased our living expenses. However, it decreased our income as well. In the last two years our daughter has moved out on her own which also caused our expenses to decrease.

80. Newly hired employees who are young should be required to attend classes that offer illustrations about credit debt, savings, the time value of money and other items that can provide REAL benefits.
81. The monthly payroll is reasonable. However, considering the huge amount of tuition and fees for the University, makes my life as a graduate student really hard.

82. This survey was a good one. Hope it can help my financial management [?] by using counseling someway.

83. Live according to my budget, not to my wants. It is not what I make, it is what I do with what I make.

84. I believe in tithing to my church and it gives me peace about my finances. My God always comes thru for me!

85. I made the choice to move to College Station and work for the University to get a new experience—however, I took a major pay cut in doing so. The cost of living is less here, but I would be better off living with someone to share expenses. I wish the University paid more! I enjoyed the survey! Thanks.

86. I consider my finances to be average for a poor working citizen. I would be happier if I had more. But I am thankful for what I have. I am living and not hungry.

87. I can't make a living on TAMU pay. I have less than two years to 55. I'm moving on!

88. Part H could stand a revision; take 9 and 15 for example. As income increases both total debt and the amount charged on a credit card would be expected to increase.

89. My boss has lied to me and misled me about my financial support. This makes financial planning difficult. This has happened twice. I wish I had never come here, now I'm financially trapped. Instead of helping, Human Resources has put obstacles in my way with regard to obtaining benefits. Whose side are they supposed to be on?

90. I make $23,000 yearly. I am not able to meet all my utilities, mortgage, car payment and car insurance on $633.00 every 2 weeks take home pay. A&M needs to cut the pork at the top, i.e., directors, assoc. directors, asst. directors, etc.

91. Interesting!

92. Would like to retire. Not enough planning in prior years. Good survey.

93. Excellent subject of interest to many people.

94. I think offering more information on financial planning, especially to young professionals, is a necessity.

95. I am an international student/worker. I would love to know more about ways to establish and improve credit rating. There is no such system in my home country.

96. This survey was awesome. That way you can see where people rate. Thanks!

97. I changed my employment status from fulltime to part-time in 2001-2002. I plan of retiring in 2004.

98. Thank you for the money, but I am returning it as I don't feel it is appropriate to accept for filling out a survey.

99. Send money…another $2?

100. I apologize for getting this returned late. Tax season slowed my response. Good luck with your research.

101. I did not feel that most of the questions took into account my potential earnings once I earn my Master's (i.e., student loans are the only way in which I can meet my financial obligations).

102. Upon coming to TAMU, I received no advice on ORP. I learned the hard way.

VITA

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