CHAPTER II. REVIEW OF RELATED LITERATURE

The purpose of this study was to develop a conceptual model that describes the relationship between personal financial wellness and employee job productivity and test a part of the model. This chapter presents the review of related research of the components of the conceptual model of personal financial wellness and employee job productivity. The literature about personal financial wellness, financial problems, financial stress, the relationship between stress and productivity are discussed. Also included are the need for workplace financial education, employee assistance program, employee assistance program and stress management, workplace financial education and its effectiveness, and productivity. This chapter ends with the summary of the literature review.

Financial Wellness

Meaning of Financial Wellness

The terms economic well-being and financial well-being are used interchangeably in this study. Economic well-being and financial well-being can be proxies of financial wellness. The meaning of economic well-being has evolved from simple happiness or general satisfaction with one’s material or financial situation to a complicated perception of both the material and non-material aspects of an individual’s financial situation. The complicated 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 (Strumpel, 1976).

Williams (1983) theorized economic well-being as a function of material and non-material aspects of one’s financial situation. To identify economic well-being, she included money income, real or full income, agreement about distribution, and psychic income or perceived adequacy of income as independent variables. Fergusson, Horwood, and Beautrais (1981) described economic well-being with the level of financial inputs, such as income and assets.
Hayhoe (1990) observed that “economic well-being is an individual’s perception of satisfaction with their financial situation” (p.119). 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” (p.22). Porter and Garman (1993) asserted 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. They assumed financial well-being to be a function of personal characteristics, objective attributes, perceived attributes, and evaluated attributes of the financial domain.

Draughn, LeBoeuf, Wozniak, Lawrence, and Welch (1994) discussed economic well-being as consisting of three components: financial adequacy, perceived economic well-being, and satisfaction with level of living. Financial adequacy was an objective assessment of adequacy of income to meet overall economic survival. Perceived economic well-being was defined as a subjective assessment of overall economic survival. Satisfaction with level of living reflected the perception of ability to meet financial demands for needs.

In summary, financial wellness can be conceptualized 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.

**Measures of Financial Wellness**

Financial wellness can be measured by several different types of scales. First, an objective scale of economic status, such as income, consumption, wealth, and assets, can be used to measure financial wellness. Williams (1983) measured financial well-being as the amount of money income. Porter (1990) used quantitative, observable indicators, such as income and savings, to measure financial well-being. Sabelhaus and Manchester (1995) used income and consumption
to compare the economic well-being of baby boomers and their parents. Fletcher and Lorenz (1985) used total family income to measure economic well-being.

Second, subjective perception of personal finance can be used to measure financial wellness. Porter (1990) also measured financial well-being using a perceived measure of financial domain. The financial domain included cash management, credit management, capital accumulation, risk management, retirement and estate planning, and general management. Perceived attributes means “the value-related qualitative indicators of financial situation” (Porter, 1990, p.23). For example, subjective perception in cash management was measured with the following question: “I am satisfied with the amount of money that I can save each year.” Utilizing a random sample of 506 Virginia citizens, Porter identified perceived attributes as the most significant single predictor of financial well-being. Kratzer (1991) measured perceived economic well-being using satisfaction with the household financial situation and perceptions of income adequacy and change in financial condition.

Third, behavioral assessment of personal financial management can measure financial wellness. This will be discussed more in the following section.

Fourth, overall satisfaction with one’s financial situation can be a measure of financial wellness. Morgan (1992) used a single statement to measure economic satisfaction, which is “how satisfied are you with your financial situation?” Draughn et al. (1994) used the following item to measure financial wellness “generally, how satisfied are you with how economically well-off are you now?” Greenley, Greenberg, and Brown (1997) found the following statement as one of the final measures in “Quality of Life” scale: “How comfortable and well-off you are financially?”

Fifth, financial ratios can be used to measure an individual’s financial wellness (DeVaney, 1994; DeVaney & Lytton, 1995; Greninger, Hampton, Kitt, & Achacoso, 1996). Certain financial ratios have been used as an assessment of financial health of businesses for a long time. However, history of financial ratios as tools of assessment of families’ and individuals’ financial
wellness is relatively short (Greninger, et al., 1996). A consumer’s ability to repay is one of the important attributes in personal financial wellness. Langrehr and Langrehr (1989) argued that ratio analysis was weak in terms of accuracy, and they recommended the use of the ratio of monthly debt and lease payments to monthly residual income plus debt and lease payments as a preferred measure for measuring the ability to repay. DeVaney (1993a) tested the use of financial ratios to predict insolvency and found three financial ratios — liquidity ratio, solvency ratio, and gross annual debt payments to disposable income ratio — were statistically significant. DeVaney (1993b) also used financial ratios to examine the changes in the financial status of American households. She suggested that the following ratios apply to family financial well-being research: solvency ratio, investment asset/net worth ratio, liquidity ratio, annual consumer debt payments/disposable income ratio, annual shelter costs/total income ratio, and gross annual debt payments/disposable income ratio. Greninger et al. (1996) identified and refined financial ratios using a Delphi study in the areas of liquidity, savings, asset allocation, inflation protection, tax burden, housing expenses, and insolvency. Based on the Delphi finding, they proposed a profile of financial well-being for the typical family and individual. According to their results, financial well-being profiles of savings ratio and insolvency ratio are as follows:

\[
\text{Savings ratio} = \frac{\text{savings}}{\text{gross income}} \geq 10\%
\]

\[
\text{Insolvency ratio} = \frac{\text{non-mortgage debt payments}}{\text{after-tax income}} \leq 15\% \text{ reasonable}
\]

\[
\geq 20\% \text{ danger point}
\]

**Personal Financial Management**

Subjective perception and behavioral assessment of personal financial management are important measures of personal financial wellness. Personal financial management can be thought of as an important component in personal financial wellness. Personal financial management is “the management of the personal and family resources to achieve financial success. Financial success is the achievement of financial aspirations that are desired, planned, or attempted” (Garman & Forgue, 1997, p.4). It includes (a) financial planning under long-term and short-term financial
goals, (b) financial management of income and credit, (c) financial practice through purchasing of housing, insurance, automobile, and other durable and non-durable consumer goods and various services including banking, insurance, and investment, and (d) investment for the future (Garman & Forgue, 1997; Kapoor et al., 1994; Mathur, 1989).

Prochaska-Cue (1993) explored a model of personal financial management style. She developed a sequence model of personal management by incorporating Deacon and Firebaugh’s individual personal managerial system, Gross, Crandall, and Knoll’s family system model, Retting’s cognitive conceptual family decision making framework, and McKenney’s cognitive style model. Figure 1 is the diagram of the Prochaska-Cue personal financial management sequence.

According to this model, an individual selects “information to consider at first (indicated by double slash). The selected information enters the person’s cognitive system and is perceived and evaluated by that person’s preferred information processing style. A predetermined preference for action combines with two information processing preferences for how information is perceived and evaluated. Actual behavior or action then occurs, the results of which feed back into the individual’s cognitive system as an incoming information component” (p.117). Using factor analysis, she developed the Prochaska-Cue Inventory of Financial Management Style, which consists of an analyzing style scale and a holistic style scale. The analyzing style scale includes 14 items of financial management activity, financial planning, budgeting, record keeping, using a checkbook, savings, emergency fund, investing, insurance, taxes, credit, estate planning, property ownership, and shopping. Those are:
Personal Management Style

Information Process Style

Preference for information perception
Preference for information evaluation

Action Style

Preference for action

Figure 1
Prochaska-Cue Model of the Sequence of Personal Management (1988)
1. I have carefully inventoried my need for insurance, conducted adequate comparison shopping, and believe that I have the best insurance coverage for my situation.
2. I have an updated will which carefully outlines what I wish for my estate if I should die.
3. I have an updated household inventory listing all of my personal possessions.
4. I have carefully considered ownership of my property and, if appropriate, have a joint owner named.
5. I have financial records organized in appropriately labeled file folders where I can quickly and easily put my hands on a particular piece of paper.
6. I tend to remember financial details.
7. My budget includes a careful plan for emergency and other unexpected expenses.
8. My plans for using money include a goals statement, budget, and written records.
9. When telling someone who should know about my finances, I am sure to relate lots of specific details.
10. In general, my finances are somewhat orderly.
11. I set financial goals annually and measure my progress toward these goals frequently.
12. I feel investing is important and have a specific plan for reaching my financial goals.
13. Before investing, I carefully study the alternatives, considering them according to the criteria I’ve set, and make the final decision only after careful deliberation.
14. I always put money in my regular savings account first before any bills or other expenses are paid (Prochaska-Cue, 1993, pp. 127-128).

The holistic style scale includes 8 items from the personal finance area, and those are:

1. In recalling how I spend money during the past month, I remember general categories of expenses, but few specifics.
2. I buy mostly on impulse; if it feels right, I’ll get it.
3. When someone else tells me something about their finances, I tend to remember in general what they say but pay little attention to details.
4. I can’t always tell someone else how I solve financial problems.
5. I may review several insurance options and then pick the one that just feels like it meets my needs best.
6. When I shop for groceries, I just walk through the store and pick up what I need.
7. When I have a financial problem, I start to come up with solutions before I have much information.
8. Regular savings is a bore; I would rather live for today (Prochaska-Cue, 1993, pp. 128-129).
Jeries and Allen (1986) surveyed 258 random families in Iowa to investigate satisfaction and dissatisfaction with financial management. Among the personal financial management factors, they used the following items: follow a written budget, record keeping of expenditures, record keeping of income, record keeping of canceled check, and financial preparedness. Using regression analysis, they found the financial preparedness for small emergencies to be the most important variable explaining satisfaction with financial management.

Fitzsimmons, Hira, Bauer, and Hafstrom (1993) developed a financial management scale from a survey of 301 rural households. Using a combination of previously studied variables, they surveyed 23 financial management variables in the area of financial planning, savings, record keeping, budgeting, shopping skill, and income adequacy. Principal axis factor analysis was used to identify two categories of financial management scales: a scale of financial problems and a scale of financial management. The financial problems scale consisted of (a) cannot afford to buy adequate insurance, (b) do not have enough money to pay for health insurance, (c) do not have enough money for doctor, dentist, or medicine, (d) cannot afford to buy new shoes or clothes, (e) cannot afford to pay for utilities, and (f) cannot afford to keep car(s) in running order. The financial management scale included the items of (a) budgeting, (b) record keeping, (c) evaluation of the spending on a regular basis, and (d) using a written budget. These scales can be used as a measure of personal financial wellness.

**Financial Problems**

Financial problems are not just the problems of the poor. A decade ago, the U.S. Department of Agriculture said the declining employment opportunities, income instability and eroded purchasing power of U.S. households were important issues of families, policy makers, and educators (U. S. Department of Agriculture, 1988). Households’ concerns about financial matters have been increasing. Cash (1996) quoted Czumbal in his article to describe the increasing concern about the financial matters of households. He quoted that “Many people feel trapped. Even with two incomes, they don’t have enough money or the time. Downsizing and lack of job security… these are financial issues. Employees are living in fear of what will
happen next” (Cash, 1996). A survey also showed these concerns in that “two-thirds of Americans say they have trouble paying their bills and worry about money” (“Coping with,” 1996).

Consumer debt is increasing faster than inflation. In 1996, for the first time in history, more than a million people filed personal bankruptcy. The number of filings for personal bankruptcy in 1996 was 1,242,700, and this was up 35 percent from the previous year (“Criticism,” 1997). And 1997, 1,350,118 consumer bankruptcies were filed (“Bankruptcies,” 1998). The following are some statistics that show increasing consumer debt in America in the recent past.

“ In the U. S. the ratio of consumer and mortgage debt outstanding to disposable income has risen from about 61 percent at the end of the last recession in 1982 to more than 81 percent in 1991” (Francis, 1991, p.1).

“A survey commissioned by the Washington-based National Foundation for Consumer Credit found that 18 million United States households need help managing their debts” (McLauhlin, 1994, p.9).

“In the U. S., total consumer debt stands at a record $4.8 trillion. That means 92 percent of what income families have after paying taxes is needed to pay debts, according to the American Bankers Association. Consumers are spending money faster than they can make it” (Fix, 1995, p.4).

“According to Stephen Brobeck, executive director of the Consumer Federation of America, a Washington advocacy group, a record 3.7 percent of the United States’s 450 million credit-card accounts were in arrears at the end of 1996… In a study for the Consumer Federation of America in February, Brobeck estimated that 60 percent of America’s 100 million households either have no debts or pay off most of their credit cards every month. But the other 40 million households carry average balance of nearly $10,000 from month to month, resulting in more than $1,000 in annual interest. The worst cases have ‘revolving debt’ as high as $50,000, the study found” (Magner, 1997, p.1).

“ Since 1990, the average credit card debt per household has doubled to nearly $2,500… Last year, a record 1.13 million individuals filed for personal bankruptcy, up to 28.6 percent from 1995” (Francis, 1997, p.1).

“According to a survey of 7,200 Americans conducted by a comprehensive personal finance Web site and an on-line personal investment, one-third of Americans spend their paychecks before they get them; 32 percent
have simply stopped saving altogether; 20 percent routinely get overdue notices from creditors; 17 percent of respondents don’t have enough money to pay their taxes; 10 percent ask family, friends or colleagues for loans; and 4 percent declared personal bankruptcy in the past year” (“Survey Shows,” 1997, p. 27).

One of the reasons for financial problems is financial illiteracy of individuals. Financial literacy refers to adequate knowledge of personal finance facts and vocabulary for successful personal financial management (Garman & Forgue, 1997). According to Garman and Forgue this ability is not widespread among Americans. They discussed a lack of knowledge in personal finance, the complexities of financial life, a feeling of being over-burdened with so many choices in financial decision making, and a lack of time to learn about personal finance as obstacles to financial literacy.

A nationwide survey of college students consumer knowledge supported these observations about low consumer skills and the lack of financial education. The survey results showed the average score of consumer knowledge as 51% (Consumer Federation of America and American Express Company, 1994). A recent national survey of self assessment of financial literacy in the area of retirement showed inadequate level of understanding (Cutler & Devlin, 1996). While about half of the (49%) national sample answered that they were financially knowledgeable about retirement planning, only half of the self-identified knowledgeable people really knew some facts about Social Security and Medicare. Based upon the survey results, Culter and Devlin mentioned the growing need for more financial education.

Garman, Porter, & McMillion (1989) observed the main causes of employee financial troubles from a survey of 47 Virginia corporations’ Employee Benefit Offices. They found overuse of credit, overspending, lack of budgeting, too many debts, inadequate shopping and spending skills, low salary or wages, and lack of knowledge about money as the main causes of employee financial trouble.

Poor financial behaviors are often accompanied with personal financial problems. Poor financial behaviors are “personal and family money management practices that have consequential,
detrimental and negative impacts on one’s life at home and/or work” (Garman et al., 1996). Garman et al. identified 35 examples of poor financial behaviors that negatively impact family and work life.

Personal financial problems are frequently cited in the press as a cause of workplace troubles. For example, a Wal-Mart employee was accused of embezzlement in a phony refund scheme, and the reason of the embezzlement was shortage of income (Hemphill, 1997). Also there was a newspaper article that a truck driver stole air force missiles because of debt problems (“Truck driver,” 1997).

Sporakowski (1979) argued that financial problems cause stress and crisis. He noted the significant relationship between financial problems and stress-related illnesses. Also, he said that financial problems influence a person’s other daily life function. Related to this, Cash (1996) identified financial problems as the number one source of stress.

Financial Stress

Meaning of Financial Stress

Financial stress refers to the stress caused by personal, family, and other financial situations. Financial stress is hypothesized to be an important source of distress in people’s lives because many fundamental activities of daily life and many chances to succeed are closely related to current levels of personal financial resources (Pearlin & Radabaugh, 1976). In Dillman and Horton’s (1986) study, more than 18% of the respondents selected financial problems as the single most important factor causing stress.

Measures of Financial Stress

In most research, measures of financial stress include income adequacy. Some researchers have measured availability of money for necessities such as food, housing, and clothing (Dillman & Horton, 1986; Mayer & Jenkins, 1989; Pearlin, Menaghan, Lieberman, & Mullan, 1981; Pearlin & Radabaugh, 1976; Peirce, et al., 1996; Ross & Huber, 1985; Williams, 1993). Besides the
availability for necessities, researchers have measured income adequacy for more optional goods and services such as furniture, automobiles, recreation and leisure activities, insurance, and medical and dental care (Mayer & Jencks, 1989; Pearlin et al., 1981; Peirce et al., 1996).

Pearlin and Radabaugh (1976) used availability of money for food, medical care, and clothing in their research on economic strains and alcohol consumption. Pearlin et al. (1981) measured economic strain in their stress process research. Economic strain was measured by the difficulty people have in acquiring both the necessities of life and some more optional goods and services such as furniture, automobiles, and recreation. Mayer and Jencks (1989) measured ten material hardships as proxies of financial stress. Those were affordability of food, use of food stamps, food budget, unpaid rent, crowded housing, experience of eviction, ability to keep utilities on, housing problems, insurance coverage, degree of medical care, and dental care of household. Elder et al. (1992) used difficulty in paying bills and a report on how much money was left over at the end of each month to measure economic constraints. They found economic constraints were a component of economic pressure as well as economic adjustment.

Researchers also have included job related variables as measurements of financial stress. Dillman and Horton (1986) measured unemployment in the household and the security of a job as sources of financial stress. Elder, et al. (1992) dealt with unstable work, income loss, and low income as sources of economic depression. They defined a person’s work life over the past year as unstable if he or she lost a job, was placed on reduced hours, was demoted to a position of lower pay and skill, or was moved into very different lines of work.

Williams (1993) identified both income adequacy and job stability as evidence of financial stress. She identified financial stress through observation of low-income consumers. The following were some of the factors that she used to measure financial stress: inadequate income to repair equipment or vehicles, borrowing for groceries, no budget planning for priority needs, illness, and inadequate skills and ability for decent jobs that have fringe benefits, insurance, promotions, and transferability.
Some researchers measured different levels of financial stress. Peirce et al. (1996) divided financial stress into two categories: chronic financial stress and acute financial stress. Chronic financial stress was measured by how often the respondent did not have enough money to afford food, medical care, clothing, and family leisure activities, and how the respondents’ finances usually worked out at the end of the month. Acute financial stress was measured by financial life events taken from the Psychiatric Epidemiologic Research Inventory Life Events Scale. Five specific events were included: having less money than usual; have to borrow money; going on welfare; experiencing a foreclosure on a loan or mortgage; and reporting a miscellaneous event.

Causes of Financial Stress

Sporakowski (1979) discussed financial stress events as related to one’s stage in the life cycle. In the beginning family stage, debts from schooling, the wedding, and establishing a home are potential financial stressors. Having a child is a big financial stressor. Having children includes the expenses of food, clothing, transportation, education, college, wedding, and helping out with gifts or loans. For the middle years of the life cycle, preparing for retirement can be a financial stressor. In the aging stage, adjusting to reduced retirement income, changing living arrangements, and death of spouse are financial stress events.

Some major financial events are related to financial stress. From the survey of 1,197 households in California, Varcoe (1990) found job related events, such as job loss, changing a job, and retirement, had the most significant impact on financial stress. Also, the respondents mentioned their inability to save money and using savings for everyday expenses as problems.

Williams (1982) identified financial problems as the results from unexpected changes which necessitate a re-evaluation of the use of resources. The following situations are potential financial stressors: change in income level from a lower paying job or investment returns; change of employment status; product or service no longer purchased due to economic or business conditions; shortage of materials; loss of ability to borrow; change in life-styles; billing error; wrongful debt obligation or defective merchandise; unscrupulous or fraudulent advice, practice,
or scheme; adverse job politics; loss of ability to fulfill home responsibilities; need to support parent or other person; elderly or younger relative(s) moving into the home; premature death of spouse; birth of a child; retarded or handicapped child; illness or disability; accident; divorce; outstanding talent of a family member to be developed; major house or car repair; lawsuit; and change in prices. She also discussed the low level of financial management skill as a cause of financial problems.

In summary, causes of financial stress can be categorized into four items: (a) life cycle events, (b) job related events, (c) unexpected changes, and (d) unfavorable financial situation. Life cycle events include family and personal events that relate to financial need, such as marriage, child birth and rearing, education, aging, care for parents, and death. Job related events refer to job loss, job change, unstable work, and retirement. Unexpected death, accident, illness, major repair, and divorce can fall under unexpected changes. Unfavorable financial situation means a financial situation that causes a high level of stress, such as pre-existing excessive consumer debt, overdue notice from creditor, mortgage loan foreclosure, eviction, wage garnishment, and vehicle repossession. Under these financial stressors, inadequate income and inability to make ends meet due to not enough knowledge and skills of personal finance may exist. In summary, financial illiteracy, lack of consumer competency, and lack of management skill as well as an inadequate level of education for decent jobs are some causes of financial stress.

**Impacts of Financial Stress**

Researchers are concerned about financial stress and its impacts on daily life, such as the relationship between financial stress and alcohol consumption and the relationship between economic hardship and marital quality.

Several researchers (Moos, Fenn, Billings, & Moos, 1989; Pearlin & Radabaugh, 1976) have reported the relationship between financial stress and alcohol involvement. Pearlin and Radabaugh examined alcohol involvement as one of the coping mechanisms for emotional distress. The inability to afford basic necessities contributes to anxiety and this psychological
state leads to drinking as an emotional control mechanism. Even though there are people who do not use alcohol as distress management, Pearlin and Radabaugh found a positive relationship between anxiety and alcohol consumption. Researchers have found buffering effects of social supports on the financial stress and alcohol involvement relationship (Peirce et al., 1996). Buffering effects mean the protection from deleterious effects of stress. Peirce et al. used three different social supports as buffers. The three social supports were tangible, belonging, and appraisal financial resources and services. The tangible support refers to behavioral support from other people, such as baby sitters, and other help for daily chores. Belonging support means an emotional support of friends and relatives. Appraisal support refers to support from others in the form of advice, referral, and counseling. They found tangible support to have a buffering influence on the financial stress-alcohol involvement relationship. However, there were no buffering effects of belonging and appraisal support on this relationship (Peirce, et al., 1996). Those who received help from their tangible resources and services showed lower alcohol consumption when they confronted financial stress.

Financial stress is also related to marital quality and instability. In a study using a sample of 76 white, middle-class couples, Conger et al. (1990) found an indirect relationship between economic stress and married couples’ evaluation of the marriage. Economic pressure promoted hostility in marital interactions and curtailed the warm and supportive behaviors spouses express toward one another. Financial stress and health also showed a close relationship. Worry about money was one of the three primary causes of lower back pain; the other two being fear and anger (Cash, 1996).

**Coping Behavior of Financial Stress**

Coping refers to cognitive and behavioral efforts to master, reduce, or tolerate the internal and external demands that are created by stressful transactions (Folkman & Lazarus, 1980). According to Folkman (1984), coping has two major functions: (a) regulation of emotions or distress, and (b) management of the problem that is causing the distress.
Researchers used two different categories of coping strategy in financial stress studies: emotional coping and financial adjustment. Dillman and Horton (1986) examined emotional coping strategies. They used telephone interviews with a statewide random sample of 607 Washington residents to identify financial stress and ways of coping. They found that most persons experiencing financial stress smoked, ate something, got angry, or yelled more as coping strategies than those who did not experience financial stress. On the other hand, only 6% of the persons experiencing financial stress used a productive coping mechanism, such as talking with a professional financial counselor or planner.

The economic and financial adjustments variables have been used in other research. Hogan and Bauer (1988) discussed methods for reducing financial problems. According to Hogan and Bauer, families can rescale their level of consumption to solve their financial problems or expand their income through changing jobs or adding another job. Changing income adequacy, changing gender role responsibilities, and improving management effectiveness through budgeting and savings were other methods for reducing family financial problems. Olson (1994) investigated the effectiveness of the four behavioral adjustments described by Hogan and Bauer (i.e., rescaling the level of consumption, changing income adequacy, improving management effectiveness, and changing gender role responsibilities) in a random sample of Consumer Credit Counseling Service clients in New Mexico. Olson found that a reduction of expenditure on food eaten away from home as the most frequently used method for rescaling level of consumption. Olson also found that among changing income adequacy strategies, shopping sales more frequently than before and an increased use of coupons were helpful methods. Planning and making shopping lists were significant methods in improving management effectiveness strategies. No gender role responsibility changes were identified in Olson’s study.

Varcoe (1990) examined the use of financial management adjustments such as using savings, putting off paying bills, cutting back some expenses, and borrowing money from friends or family as coping strategies. According to Varcoe’s study, using savings was the most frequently used coping strategy. The second most frequently used coping strategy was cutting back on
clothing, entertainment and other expenses, followed by borrowing money from friends or family, and putting off paying bills.

Elder et al. (1992) investigated the following financial coping strategies: using savings; borrowing from friends or relatives; using more credit; arranging for a second mortgage; accepting government assistance; delaying payments on daily bills, life insurance, or mortgage; selling possessions; postponing major purchases, a vacation, or medical care; and reducing social activity, charitable contributions, energy consumption, or food purchases. They conceptualized economic adjustments as “specific actions taken by the family to help make ends meet” (p.13).

Shinn (1992) used a more comprehensive measure of financial coping strategies. Shinn summarized six categories of coping strategies from previous literature: (a) family work effort, (b) financial management, (c) over-extension, (d) informal economy, (e) do-it-yourself increase, and (f) utilizing social programs. Family work effort included a second or third job taken by a family member and starting a home business. Financial management referred to a decrease in expenses, such as food or clothing, change of consumption habits, postponement of purchases and medical or dental care, and selling assets. Over-extension included utilizing credit, using savings to meet expenses, letting insurance policies lapse, forfeiting a land contract or mortgage, failing to pay taxes, and declaring bankruptcy. Informal economy meant utilizing the bartering system and sharing with others in the community. She investigated the determinants of financial coping strategies of Idaho households, by using self developed questionnaires, and found that age, income, and education influenced the use of the six financial coping strategies. Younger respondents were more likely to use the financial coping strategies than older respondents. Those who had incomes of $15,000 to $24,999 (the second lowest income group among the four income groups of the study) were more likely to use the financial coping strategies than any other group. Education and financial coping strategies had a curvilinear relationship. Specifically, those who had the highest and those who had the lowest level of education were less likely to use financial coping strategies, and those who are in the middle showed greater use of financial coping strategies.
The Relationship between Stress and Productivity

The relationship between stress — whether it is caused from financial matters or not — and employee productivity also has been examined. Workplace stress is certainly one of the main causes of decreased workplace productivity (Cartwright, Cooper, & Barron, 1993; Content and Competitive, 1994; Hager, 1994; Mughal, Walsh, & Wilding, 1996). The following statistics show the scope and impacts of stress at the workplace (Content and Competitive, 1994):

1. 30% of all adults report high work stress nearly every day.
2. 11 million people reported health-endangering levels of work stress, which is second only to loud noise as the most reported work hazard.
3. Psychological disorders are most frequent in the prime working years of people from age 25 to 44.
4. Psychological disorders are rated among the leading occupational injuries and diseases.
5. $273.3 billion is lost annually due to decreased productivity, health care costs, accidents and crime.

Cartwright et al. (1993) examined job-related stress and occupational accidents with company car drivers and found an indirect relationship between stress and accidents. It has been estimated that 60 to 80% of job related accidents are stress related (Cartwright et al., 1993). The findings of interviews with 600 American workers conducted by Northwestern National Life of Minneapolis in 1994 showed “seven in ten workers say job stress lowers their productivity, and they experience frequent health ailments” (Hager, 1994, p. 18). Hager discussed the workers’ stress from an assortment of physical and psychological ailments. He also argued that employers are confronted with higher turnover, lower productivity, more frequent absenteeism, and greater health care costs due to employees’ stress.

Financial Stress and Productivity

Sporakowski (1979) reported that financial problems have impacts on workplace functioning. The relationship between financial stress and productivity can be explained by various theories. Williams et al. (1990) and Williams et al. (1996) discussed some applicable theories: Need Hierarchy Theory, Choice and Exchange Theory, Family in Crisis and Strain Theory, and Productivity Auditing Theory. Among these theories, the Choice and Exchange theory of Nye
(1978) can be used to provide a theoretical framework for exploring whether there are significant associations between financial stress and productivity. This theory has four components: alternatives, costs, rewards, and outcomes (See Figure 2). Williams et al. (1990) explained this theory as “when an individual or family is faced with a problem there is an array of alternatives from which to choose. Each alternative has associated costs and rewards. The alternative(s) chosen, with the accompanying costs and rewards, determine the outcome” (p. 57).

Nye developed nine theoretical propositions that can be used in hypothesis development. Based on Nye’s propositions, Williams et al. identified four relevant hypotheses about the relationship between personal financial problems and job productivity. The four hypotheses are:

(a) Given a set of established actions designed to reduce financial stress, which of the alternative actions are perceived to be the least costly and most rewarding and yield the desired outcome of increased worker productivity?;

(b) When a worker perceives the immediate outcome of any of the possible actions to be decreased stress and enhanced ability to concentrate on the job at hand, the worker will select the action which promises the best opportunity for eliminating future financial problems;

(c) When a worker perceives that the long-term outcome for each action is reduction of the possibility for future financial problems, the worker will choose the alternative which will give the greatest and most immediate financial relief; and,

(d) When a worker perceives that the costs and rewards of the alternatives are equal, the worker will choose the action which will enable him or her to have the greatest personal control over his or her personal financial situation (p.149).
Figure 2

Choice and Exchange Theory
McCubbin and Patterson (1983) proposed a Double ABCX Model that adapted the Hill’s ABCX model (Hill, 1958, 1949). Hill’s ABCX Family Crisis Model can be described as follows:

A (the stressor of event) - interacting with B (the family’s crisis meeting resources) - interacting with C (the definition the family makes of the event) - produce X (the crisis) (McCubbin & Patterson, 1983, p.88).

McCubbin and Patterson added four additional post crisis factors to the ABCX Family Crisis Model. The four factors were; (a) the additional life stressors and strains which may make family adaptation more difficult to achieve; (b) the critical psychological intrafamilial, and social factors families use in managing crisis situations; (c) the process families engage in to achieve satisfactory resolution; and (d) the outcome of these family efforts. They describe the model with the following figure 3 (McCubbin & Patterson, 1983 , p.91).

Garman et al. (1996) explained the relationship between financial stress and productivity with the “Within the Circle - Out of Balance - Spiraling Sphere Model”. Most families manage their financial difficulties by keeping balance (within the circle). However, sometimes severe factors create an imbalance to families (out of balance). As this imbalance increases, factors that develop into more serious financial problems (spiraling sphere), such as eviction, wage garnishment, or job loss, produce failures both in family life and work life.

Researchers have found many impacts of personal financial stress on workplace productivity. Williams et al. (1990) discussed indirect as well as direct relationships of financial problems and productivity. Some of the indirect relationships are potential employee turnover due to personal finance concerns, demanding more benefits and wages, and stress in family that hinders workplace productivity.
Figure 3

The Double ABCX Model
Statistics from various sources show the negative impacts of personal financial problems on employee productivity.

“A worker with financial problems experiences lack of concentration resulting in poor quality or quantity of work, fatigue due to stress, becomes more accident prone and exhibits higher grievance rates” (Bailey, 1986).

“Financial problems cost U. S. companies a minimum of $ 40 billion each year” (Harris, 1987).

“Personal financial problems affected nearly one-third of America’s corporate workforce performance” (Cited in Williams et al., 1990).

“Focus groups of employees indicate that about 13% report financial problems as a primary issue and 20% report them as secondary issues resulting from other problems” (Cited in Williams et al., 1990).

Garman et al. (1996) said employers pay a high price for productivity losses caused by the poor personal financial behaviors of employees. They estimated that approximately 15% of workers are experiencing stress from poor financial behaviors to the extent that productivity is negatively impacted. Brown (1993a) reported “10% is a very conservative estimate of the number of employees in the workplace with financial difficulties.” Brown (1993b) also observed that “The waste factor could be 15-20%!”

There is much evidence that reveals the relationship between financial stress and productivity. Cash (1996) cited an article from the American Journal of Health Promotion which showed financial problems as the second leading source of employee stress. Also, he documented the relationship between stress level and absenteeism in a recent survey. According to Cash, respondents with high stress levels were 2.6 times more likely to experience five or more days of absenteeism than employees with low stress levels. Cash also quoted the Department of Defense study that gave personal financial problems as one of the top four causes of lost productivity in the military (Cash, 1996).

The Need for Workplace Education

Mason (1993) said the need for financial counselors has never been greater for helping people to solve their financial problems. He noted the following facts account for the high demand for financial counselors: increasing personal bankruptcy, serious number of consumers who have
heavy debt, shortage of income, and inability to save. According to Williams (1993), the roles of financial counselors and planners are “to mobilize community and government resources to improve the economic well-being, to assist families who are struggling for survival, making decisions between food and fuel, and living with crises as a way of life, to educate in specific ways to utilize resources, to promote knowledge, to protect rights, to empathize in their struggles and decisions, and to give hope out of despair” (p. 121). Atchley (1998) asserted the increasing need for personal finance. Atchley noted that most Americans are poorly informed about personal finance and the cost of poor financial behavior and management is high.

Problem employees can damage workplace morale and diminish productivity (Garrett, 1993). Based on his experience as a pastoral counselor, Brown pointed out the importance and effectiveness of workplace financial counseling (Brown, 1979a; Brown, 1993a). Workplace support is helpful for both employees and employers. The need for workplace financial education is increasing. According to Varcoe’s (1990) research of financial stress and coping strategy, respondents wanted to learn more about investments, estate-planning, retirement, and day-to-day money management techniques. Parker (1994) found workplace support was the most significant factor affecting the degree of welfare reliance by single mothers.

Helping employees with personal problems influences productivity. Wagner (1982) asserted that workplace assistance for employees with problems “can bring about incredible success in improving productivity and reducing costs” (p. 59). Garman (1997c) suggested that financial education in the workplace is a key factor in both recruitment and retention of workers. He also said “the best employers today are selling prospective employees on the idea that they offer an excellent financial education program.” Garman also provided some rationale for personal finance education for employees: (a) financial education for employees is the right thing to do, (b) many workers are not participating in employer-sponsored retirement plans, (c) participation by highly compensated employees in an employer-sponsored plan is limited when non-highly paid employees do not participate, (d) employees who are educated about the benefits of retirement plans choose to participate, (e) Department of Labor regulations encourage financial
education, (f) employers fear lawsuits from former employees claiming negligence, and (g) employees who experience difficulties with their personal finances often carry those problems to the workplace with negative results for the employer (Garman, 1998).

A recent article asserted the need of workplace financial education for five basic reasons ("Management briefing," 1998). The reasons are: (a) fulfilling Department of Labor recommendations, (b) helping employers avoid lawsuits, (c) improving employee financial well-being, (d) removing limits on tax-deferred savings for highly compensated employees, and (e) increasing workplace productivity.

Employees are increasingly demanding choice from employers. Employees are also asking for financial wellness programs from their employers (Pape, 1995). Research also showed that employees rely heavily on employer-sponsored retirement education when it is available (Bernheim & Garrett, 1996).

Garman and Leech (1997) suggested the following as comprehensive personal finance employee education: “(a) how to make effective decisions about the financial opportunities offered through employer-provided fringe benefits, (b) how to avoid personal financial problems, and (c) how to obtain remedial assistance” (p.179). Many employers are expanding retirement education to include comprehensive financial education programs (Mannix, 1998).

**Employee Assistance Programs**

This section discusses several aspects of employee assistance programs. Workplace financial education is one type of employee assistance programs. Therefore some discussion of employee assistance programs is useful.

**What are Employee Assistance Programs?**
The term employee assistance program (EAP) refers to treatment, help, or education for employees who have experienced various personal problems that detract from their workplace
productivity (Brown, 1979b; Ford, 1993; Steele, 1995). The philosophy of employee assistance programs is that EAP is reactive to workers’ problems that interfere with their job performance. The primary objectives of workplace employee counseling programs are improvement of worker productivity and reducing job turnover rates (Dewe, 1994; Galvin & Roessler, 1986; Kurtz, Googins, & Howard, 1984; Moore, 1993; Quick, 1997; Swanson & Murphy, 1991; Sullivan, Hartmann, & Wolk, 1995). Employee assistance programs also can be used as a method of worker control and as a conflict-avoidance device between management and labor union (Steele, 1995).

Even though employee assistance programs have their origins in the occupational alcohol programs, today’s programs vary from a simple referral service to direct treatment. The general concept of employee assistance program includes three-phases: referral, early intervention, and face-to-face treatment (Hook, 1988). A typical employee assistance program includes of a program policy and procedures statement, employee education of problems, a supervisory training program, clinical services, and follow-up monitoring (Luthans & Waldersee, 1989). Blum and Roman (1992) identified functions of an employee assistance program according to two types: management-related strategies and benefits-related strategies. The functions of management-related employee assistance program strategies are (a) retain services of valued employees, (b) provide assistance to troubled supervisors, and (c) provide due process for those employees whose personal problems may be affecting their jobs. On the other hand, the functions of benefits-related strategies are (a) controlling costs of health care usage, (b) channeling function for employees’ and dependents’ use of services for substance abuse, psychiatric problems, and family problems, and (c) improving morale.

Employee assistance programs have variability in terms of their areas of programs; however, there are some essential components for an effective employee assistance program. Researchers identified the following components for an effective employee assistance program: (a) commitment and support from top management, (b) a clear, written set of policies and procedures that outlines the purpose of the employee assistance program and how it functions in
the organization; (c) close cooperation with and involvement of local union(s) and employers, (d) training of supervisors for their role in problem identification, (e) employee education and promotion of employee assistance program services to foster widespread utilization throughout the company, (f) a continuum of care, including referral to community agencies and follow-up of each case, (g) an explicit policy on confidentiality of employee information, (h) maintenance of records for program evaluation purposes, and (i) coverage of employee assistance program services by company health insurance benefits (Davis & Gibson, 1994; Ford, 1993; Sonnenstuhl & Trice, 1986; Swanson & Murphy, 1991).

**Effectiveness of Employee Assistance Program**

Research has shown the effectiveness of employee assistance programs with a positive return on investment in such programs. Some researchers identified the return on investment of employee assistance program as 1:5 (Brown, 1993a; Minter, 1990). Others identified the return on investment as 1:7 after five years from the initial establishment of an employee assistance program (Maiden, 1988). To measure the effectiveness of employee assistance programs, cost-benefits analysis has been utilized. The potential costs of employee assistance programs are personnel, equipment, supplies, contractor fees, electricity, telephones, other utilities, staff training, office space, shared facilities, shared equipment, and donated time (French, Zarkin, & Bray, 1995; Tersine & Hazeldine, 1982). The possible savings are achieved through lowered medical costs, absenteeism, and job related accidents, as well as through improved job productivity (French, et al., 1995; Garman & Leech, 1997; Minter, 1990; Settineri, 1991; Swanson & Murphy, 1991; Tersine & Hazeldine, 1982). In addition, employee assistance programs have positive effects on commitment to employers by providing workers a place to discuss their problems and receive warm assistance (Ford, 1993).

There are some negative consequences when employers reduce funding for an employee assistance program (Lucero & Allen, 1994). Lucero and Allen stated “depending on the extent of the benefits, negative consequences of reduction can range from mild dissatisfaction to severe outcomes such as outrage, resentment, and anger associated with violation of the psychological
contract. Other negative consequences can include reductions in trust, loyalty, and organizational commitment as the employer-employee relationship is damaged” (p.433).

Some methodological weaknesses, however, exist in the cost effectiveness estimates of employee assistance programs (Ford, 1993; Luthans & Waldensee, 1989; Swanson & Murphy, 1991). Some of the reasons for weakness are the ambiguous definition of “success” and poor operationalization of the personal problem and work performance. Swanson and Murphy recommended use of various levels of program evaluation and a wide range of outcome measures in assessing effectiveness of employee assistance programs. The proposed indicators are: the percentage of employees who enter treatment, the percentage that return to work after treatment, changes in the status of the personal problem after treatment, improved work performance, and cost savings to the company.

To overcome some methodological weaknesses in estimation, French et al. (1995) developed an economic methodology to evaluate the effectiveness of employee assistance programs. They identified four components of an employee assistance program evaluation strategy: a process description, a cost analysis, an outcome analysis, and an economic evaluation to estimate cost-effectiveness ratios. They suggested experimental design as an ideal methodology, and quasi-experiment with nonequivalent comparison groups as the most practical and theoretically acceptable alternative. They developed an equation of the relationship between an outcome variable and a collection of explanatory variables.

**Employee Assistance Program and Stress Management**

Wheeler and Lyon (1992) examined how employers respond to worker stress. The results showed employers considered stress as a “modern-day problem related to the way of life” and regarded the workplace as well as the family as sources of stress. Also, they identified four styles of stress management: (a) ad hoc, (b) intention-oriented, (c) rule-oriented, and (d) rights-oriented style. The ad hoc style of stress management can be characterized as a low level, not well organized crisis-driven style. The intention-oriented style is driven by good will and good
intention; however, there is a lack of organization, such as no formal structure of policies. The rule-oriented style has well-defined policies and procedures, and the rights-oriented style is a proactive approach with strategic planning.

Dewe (1994) discussed the framework of workplace intervention of stress management. According to him, stress management programs can be conceptualized by three levels of intervention: primary, secondary, and tertiary. The purpose of the primary interventions is the reduction of work environment stressors. The proposed outcomes of this level of intervention are increasing productivity and motivation. Secondary interventions are the most common work stress interventions. The purposes of the secondary interventions are to provide employees the means and ways to better cope with workplace demands. The secondary intervention includes techniques and skills. Some of the recommended techniques were exercise, relaxation, meditation, biofeedback and cognitive restructuring. Time management, conflict reduction, strategies for developing leadership, delegation, and improved communication styles were some of the proposed skills. At the tertiary level, the intervention is to reduce the disabling properties of a disorder by helping employees cope more effectively with the consequences. Employee assistance programs are included in the tertiary level of intervention. He pointed out the importance of relevant theories for efficient stress management in the workplace. The combination of theory and practice based on empirical research is needed for successful stress management.

The usefulness of workplace stress management can be categorized as follows. First, a stress management program generates positive attitudes by workers toward employers. Workers feel the employers are concerned about them, and this assurance leads to a higher level of commitment. Workplace education and counseling provide employees the opportunity to be heard. Second, workplace stress management has the potential for improving employee well-being. Third, it reduces the costs of stress arising from productivity losses and stress-related disorders (Murphy, 1984; Wagner, 1982).
Workplace Financial Education And Its Effectiveness

People want to get the financial information from their workplace. From a total of 2,055 households in a nationwide survey, Bernheim and Garrett (1996) found that employees relied on employer-based financial education to a large extent when it was available, and the employer-based financial education strongly influenced household financial behavior, especially on retirement savings. According to a recent survey by National Family Opinion Research, Inc. for American Express Financial Advisors, 85% of respondents were seeking financial information in their workplaces (Gorbach, 1997). The 1997 Retirement Confident Survey (RCS) also reported that 86% of the respondents used “employer-provided materials or attend employer-sponsored seminars when provided.” Workplace financial education is an issue for the employers also. Employees with money problems cost employers money. When employees have failed to manage their personal finances, it creates financial concerns for employers as well as for workers (Cohart, 1997).

Workplace financial education commonly includes the following programs: retirement planning, benefit education, money management, credit management, college planning, investments, estate planning, insurance, major purchases (vehicle or house), and tax planning (American Express Financial Advisors, 1995; EDSA Group, 1997). The delivery methods of financial education in the workplace varies. The common methods are (a) comprehensive financial counseling, (b) limited financial counseling, (c) group seminars, (d) workshops, (e) lunch and learn sessions, (f) computer-generated plan, (g) telephone “hot-line,” (h) computer diskette and CD ROM, (i) video and/or audio tape with workbook, (j) printed materials, (k) newsletter, and (l) Internet and Intranet (Leech, 1997; Renninger, 1997; Wechsler, 1997).

Pomeroy (1997) asserted that the benefits of workplace financial education programs to employers are as follows: (a) workplace financial education provides employees retirement saving information, (b) increases employee productivity, (c) saves money for employers by motivating employees to save more money in their retirement plans, (d) encourages informed
participation in employer-sponsored benefits, (e) creates greater worker commitment to employers, and (f) reduces employee theft.

An empirical survey by National Family Opinion Research showed an increase in participation in defined benefit plans due to the workplace financial education. For example, companies have experienced an increase of 52% in contributions by employees after they conducted workplace financial education (Gorbach, 1997). Workplace financial education programs affected retirement contributions and asset allocations of workers (1997 Retirement Confident Survey, 1997; DiPaula, in press). According to the 1997 RCS, 45% of the respondents reported that the workplace financial education led them to begin contributing to the retirement plans, 49% said that the education led them to change asset allocations, and 38% reported they changed the amount they contributed to retirement plans. DiPaula found that 50% of the participants increased their retirement savings, 70% estimated the savings and assets they needed in retirement, and 55% used asset allocation strategies. Fletcher, et al. (1997) found that the participation in financial educational workshops influenced individual financial knowledge, attitudes, and behavior.

Productivity

Meaning of Productivity

Productivity is generally defined by economists as the amount of goods and/or services produced per hours of human labor (Muckler, 1982, p.13). Judson (1976) discussed three different types of productivity: technical productivity, economic productivity, and social productivity. Technical productivity is the direct production of goods or services from individuals or work groups using tools of the workplace. Economic productivity is the monetary output from technical productivity. Social productivity is the desirability and usefulness of the products or services produced. Some researchers defined productivity as the efficiency with which resources are used to produce goods and services (Prokopenko, 1987; Ross, 1981). Riggs and Felix (1983) defined productivity as “the measure of how specified resources are managed to accomplish timely objectives stated in terms of quantity and quality” (p.4).
Measures of Productivity

According to Ross (1981) productivity measures “make possible better management — of work, of workers, of yourself” (p.42). In managing work, measures of productivity provide a means to justify projects and expenditures and to allocate limited funds and resources among competing uses. In managing workers, it facilitates delegation as well as effective means for supervision and development of subordinates. Also, measures of productivity and performance allow workers to focus on objectives rather than activities. (Ross, 1981).

Productivity measurements, like most other behavioral and social science measurements have some problems (Muckler, 1982). Some of the problems are collection and dissemination of productivity measures, reliability of output measurements, and problems with identification of work performance.

Some overall measures of productivity are:

<table>
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<th>Productivity Measure</th>
<th>Formula</th>
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| 1. Output (in goods or services) | \[
\text{Productivity} = \frac{\text{Output (in goods or services)}}{\text{Input (in dollars, both direct and indirect)}}
\]
| 2. Total Output of Economy (Real Gross National Product) | \[
\text{Productivity} = \frac{\text{Total Output of Economy (Real Gross National Product)}}{\text{Total Civilian Employment}}
\]
| 3. Physical Output | \[
\text{Productivity} = \frac{\text{Physical Output}}{\text{Total Man-hours of Work}}
\]
| 4. Total Sales ($) | \[
\text{Dollarized Productivity} = \frac{\text{Total Sales ($)}}{\text{Total Payroll ($)}}
\]

Productivity measure (1) is a global measure which is concerned with all aspects of producing goods and services as well as the amount of output. The second measure restricts productivity to human resources of an organization or a system. The third measure indicates a relationship of output per labor hour worked. The fourth measure translates input and output into monetary
Some companies have devised more specific measures of overall productivity. People Effectiveness Index (PEI) by Texas Instrument is calculated by the following formula (Ross, 1981, p.51).

\[
\text{PEI} = \frac{\text{Net Sales Billed}}{\text{Total Payroll + Payroll-related benefits}}
\]

This index gives a measurement of productivity improvement, takes into account decreases in prices and increases in wages and benefits, and is easily calculated using two figures that appear in each annual report.

For many years, researchers have recommended specific job performance as a measure of productivity. Ross (1981) proposed functional and departmental measures that can apply to different tasks in the workplace. For example, a productivity measure of customer support function can be measured with cost per field technician, cost per warranty call back, and service cost per unit shipped. Productivity of the personnel function can be measured with rate of offers accepted, hires per recruiter, and department expense to total company expenses.

Ross also discussed individual measures of productivity. Individual measures of productivity should be specific, quantitative, and clear. He suggested a set of responsibilities in the job to measure individual productivity (Ross, 1981). Individual performance appraisal includes specific dimensions of consideration. Day and Silverman (1989) used a performance appraisal of six identified dimensions: "potential for success (e.g., likelihood of becoming a manager in the firm), technical ability (e.g., understands technical aspects of the job), timeliness of work (e.g., completes work within time budgets), client relations (e.g., gains the confidence, respect, and cooperation of clients), cooperation (e.g., demonstrates a positive and professional manner in working with personnel at all levels), and work ethic (e.g., willing to work long hours and complete assigned tasks)” (p.28-29).
Several different definitions of job performance have been utilized in the literature. Behrman, and Perreault (1982) developed a measurement of industrial salesperson’s performance based on the responses of 200 salespersons and 42 managers from five industrial firms. Some criteria, they used for salesperson’s productivity were: “achieving quantity and quality sales objectives, controlling unnecessary company expenses, developing and maintaining customer goodwill, providing information to the company and following company policy, developing and using technical knowledge, giving high-quality sales presentations and working well with customers, and working well with other personnel in the firm” (p.358). In the beginning of their research, each criterion consisted of six to nine individual items, a total of 65 items. After statistical tests of correlation and factor analysis, a set of 31 individual items representing five aspects —sales objectives, technical knowledge, providing information, controlling expenses, and sales presentation — of industrial sales performance, were derived.

Jones, Powell, and Roberts (1991) developed a comprehensive measurement system by incorporating criteria of quality of product, quantity of product, safety in workplace, and employee involvement. Blasi, Conte, and Kruse (1996) used sales per employee and value-added per employee as productivity measures in a performance comparison research study of public companies that have different levels of employee stock ownership. Sales per employee was calculated with total sales divided by total employment, and the value-added per employee was calculated with final sales minus cost of raw materials divided by total employment.

Martin and Morgan (1995) measured productivity with human capital factors. They examined gender difference in demographic, job productivity, and behavioral factors for 106 bank middle managers. They used both of the standard measures of human capital factors and specific factors of productivity in banking. The standard measures of human capital factors included education in years, college major, number of continuing education courses taken, current position level, years working in the industry, length of time in current position, being out of the labor force for any length of time, and the number of restrictions placed on employment, such as spousal geographical location and child-care responsibilities. The specific factors of productivity in
banking consisted of number of promotions, number of different positions held, and number of functional areas in which the bankers worked (Martin & Morgan, 1995, p. 59).

Merck & Co., Inc. developed a performance rating using expanded definitions for three major areas of performance: specific job measures and ongoing duties, planned objectives, and management of people. Their performance rating ranges from exceptional, standard with distinction, high standard, standard with room for improvement, not adequate, and progressing (Wagel, 1987).

**Summary of Literature Review**

Many U. S. households have financial problems. Increasing consumer debts and increasing personal bankruptcies are examples of the financial problems that the U. S. households have. Financial problems are related to the financial stress of individuals. Researchers have identified four different causes of financial stress: personal life cycle factors, job-related events, unexpected changes, and unfavorable financial situation (Sporakowski, 1979; Varcoe, 1990; Williams, 1982). Financial stress influences various individual life functions including workplace productivity. The literature indicates the negative impact of personal financial problems on workplace productivity (Garman et al., 1996; Luther et al., 1997); however, no empirical research has been conducted to show the direct impacts.

Financial wellness can be explained by financial and economic well-being. Researchers define financial well-being as a perceived satisfaction or a sense of financial situation. Financial well-being has been measured with a set of objective, subjective, and behavioral attributes within the financial domain. Based on previous measures of financial well-being, a person’s financial wellness can be examined with five different scales: objective scales of economic status, subjective perception of personal finance, behavioral assessment of personal financial management, overall satisfaction with financial situation, and financial ratios. The personal financial management domain includes financial planning, financial management of income and credit, financial practice, consumer competency, and investments.
Individuals have various coping strategies for financial stress. Researchers have investigated financial copings and emotional copings (Elder et al., 1992; Dillman & Horton, 1986; Hogan & Bauer, 1988; Shinn, 1992; Varcoe, 1990). Financial education, including workplace education, is one of the coping strategies. However, investigation of workplace financial education as a coping strategy has not been conducted. Workplace education, often a type of employee assistance program, has been found to have a positive impact on workplaces. One of the employee assistance program’s advantages for employers and workers is a potential improvement in job productivity, which is defined as an efficiency of resources, as measured by a global index, individual performance responsibilities, and performance ratings.

Previous research suggested the relationship between financial problems and workplace productivity. Positive relationships between employee assistance programs and employee productivity also have been shown in previous research. However, the empirical impacts of financial problems on employee productivity and the effects of workplace financial education on employee productivity were not evident in the literature, suggesting a need for more empirical research.