

# The Potential Effects of Workplace Financial Education

## Based on the Relationship between Personal Financial Wellness and Worker Job Productivity©

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*Personal financial wellness affects worker job productivity. Based on the empirical research of clerical workers (N=447), the relationship between financial behavior and absenteeism and the relationship between financial behavior and work time used for personal financial matters were identified. The relationship between personal financial wellness and productivity suggests that the potential effects of workplace financial education are positive for workers and employers.*

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### Introduction

Many U. S. households have financial problems. Increasing consumer debts and increasing personal bankruptcies are examples of the financial problems that U. S. households have. Financial problems are related to the financial stress of individuals. Financial stress influences various individual life functions including workplace productivity. The literature indicates the negative impact of personal financial problems on workplace productivity (Garman, Leech, & Grable, 1996; Luther, Garman, Leech, Griffitt, & Gilroy, 1997).

Individuals have various coping strategies for dealing with financial stress. Researchers have investigated financial coping and emotional coping (Elder, Conger, Foster, & Ardel, 1992; Dillman & Horton, 1986; Hogan & Bauer, 1988; Shinn, 1992; Varcoe, 1990). Financial education, including workplace education, is also a coping strategy. However, investigation of workplace

financial education as a coping strategy has not appeared in much research. Workplace financial education, often a type of employee assistance program, has been found to have a positive impact on the workplace. One of the advantages of an employee assistance program in financial education 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 (Brown, 1979; Garman et al., 1996; Williams, Haldeman, & Cramer, 1996). Positive relationships between employee assistance programs and employee productivity also have been shown in previous research (Garman & Leech, 1997; Minter, 1990). However, the empirical impacts of financial problems on employee productivity and the effects of workplace financial education on employee

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productivity have not appeared in the literature, suggesting a need for more empirical research.

The purposes of this research were to examine the relationship between personal financial wellness and worker job productivity. Based on the relationship between personal financial wellness and job productivity, the potential effects of workplace financial education are discussed.

### **Financial Problems**

Financial problems are not just the concerns 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 facing families, policy makers, and educators (U. S. Department of Agriculture, 1988). Households' concerns about financial matters have been increasing. A survey also revealed 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 for 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). In 1997, 1,350,118 consumer bankruptcies were filed ("Bankruptcies," 1998).

One of the reasons for personal 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 & Fogue, 1997). According to Garman and Fogue, 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 an 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 troubles.

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 for the embezzlement was a shortage of income (Hemphill, 1997). Also there was the story about a truck driver who 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 functions. Related to this, Cash (1996) identified financial problems as the number one source of stress.

### **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 numbers 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 that the cost of poor financial behaviors 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, 1979; Brown, 1993). 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 strategies, 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 (1997) 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 for 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).

### **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 at 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). 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. Fletcher, Beebout, & Mendenhall (1997) found that the participation in financial educational workshops influenced individual financial knowledge, attitudes, and behavior.

### **Methodology**

In order to test the relationship between personal financial wellness and worker job productivity, a survey research design was undertaken. The instrument inquired about personal financial wellness, worker job productivity, financial stressors, and demographic characteristics. A questionnaire was developed and pre-tested. The personal financial wellness measures consisted of four different scales: the subjective perception of personal finance, the behavioral assessment of personal finance, objective scales, and overall financial wellness scales. Worker job productivity was examined using four different measures: self-reports of productivity change, performance rating, absenteeism, and work time used for personal financial matters. A mail survey (N=474) of white collar clerical workers was conducted during January, February, and March of 1998. From a random sample of 447 (27 out of the original 474 were undeliverable), 288 questionnaires were returned (64.4%). Seventeen questionnaires were determined unusable resulting in a 60.4% usable return rate (271/447).

### **The Relationship between Personal Financial Wellness and Worker Job Productivity**

To examine the relationship between personal financial wellness and worker job productivity multiple regression analysis was conducted. To control the demographic characteristics and financial stressors, the multiple regression equation included selected demographic variables and the financial stressors index if those were significantly correlated with a dependent productivity measure.

Dependent variables were absenteeism and the work time use index. The independent variables were personal financial wellness measures, demographic characteristics, and financial stressors. Among nine personal financial measures (subjective perception, behavioral assessment, overall satisfaction with financial situation index, solvency measure, amount of reserve funds, monthly credit payments, monthly installment loan payments, monthly savings, and voluntary supplementary tax-sheltered employer-sponsored retirement contributions), the ones that showed significant correlation with the productivity measures were entered into the regression equation.

#### **Absenteeism**

Age was included in the regression equations as a demographic characteristic. The financial stressor index showed a significant correlation with absenteeism; therefore, it was also included in the equations. A total of five different regression equations with different personal financial measures were tested. The behavioral assessment index showed statistically significant relationships with absenteeism. As shown in Table 1, behavioral assessment of personal financial wellness negatively influenced absenteeism. Those who had higher levels of behavioral assessment scores, in other words those who behaved well financially, tended to be absent less from work, controlling for financial stressors and the age of the respondents. The three independent variables — age, financial stressors, and behavioral assessment index explained 6.1% of the variance of absenteeism. This suggests that there are other factors that explain the variance of absenteeism.

Table 1  
Regression Result of Behavioral Assessment Index and Absenteeism (N=253)

| Variable <sup>3</sup> | b         | Beta   |
|-----------------------|-----------|--------|
| Constant              | 4.617     |        |
| Age                   | -1.06E-02 | -.074  |
| Financial Stressors   | .126      | .151*  |
| FBT                   | -2.90E-02 | -.128* |

$$R^2 = .061$$

$$F = 5.402^{**}$$

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

The R square, however, suggests, as could be expected, that there are other factors that explain the variance of absenteeism of workers. For, example, the health conditions of respondents may be one of the significant independent variables. Also, the presence of young children may be another factor that explains the variance of absenteeism. Neither of these factors was examined in this research. The regression equations in this research only included age and financial stressors in addition to the personal financial wellness measures. While the small number of independent variables may be one of the reasons for the low R squares in those equations, the relationship between absenteeism and personal financial wellness is statistically significant.

#### **Work Time Used for Personal Financial Matters.**

The regression equations included age of the respondents, housing tenure, number of financial dependents, and financial stressors. A total of seven different regression equations were tested. This discussion focuses on the relationships between behavioral assessment index, overall satisfaction index, and work time used for personal financial matters.

The behavioral assessment of personal finance influenced the work time use index. Table 2 shows the regression results. The behavioral assessments of personal finance also had a negative relationship with work time use. Those who reported high levels of personal financial wellness in terms of their behavioral assessment dealt with fewer personal financial matters at work, controlling for financial stressors and age. The equation explained 11% of the variance in work time use.

<sup>3</sup> Age: Respondent's age in years  
Financial Stressor: The financial stressors index  
FBT: Behavioral assessment index

Table 2  
Regression Result of Behavioral Assessment Index and Work Time Use Index (N=248)

| Variable <sup>4</sup> | b         | Beta   |
|-----------------------|-----------|--------|
| Constant              | 2.581     |        |
| Age                   | -1.57E-02 | -.128  |
| HousingD              | -.168     | -.057  |
| Number                | .107      | .099   |
| Length of employment  | -2.15E-02 | -.029  |
| Financial Stressors   | .101      | .140*  |
| FBT                   | -2.65E-02 | -.135* |

$R^2 = .110$

$F = 4.965^{**}$

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

Table 3 shows the regression results with the overall satisfaction index. The overall satisfaction index is a composite index of the satisfaction with personal financial situations, perceived financial wellness, and feeling about financial situation. The overall satisfaction index had a negative regression coefficient, meaning those who are more satisfied with their financial situation tended to deal with fewer personal financial matters at work, controlling for other variables. The equation explained 12.9% of the variance of work time use.

The R squares, however, suggest that there are other variables that explain the variance of the work time used for personal financial matters. Besides the selected demographic characteristics and the personal financial wellness measures, other factors may exist. For example, a huge amount of consumer debt may be one of the factors. If a worker has huge debts, he may need more time to deal with these matters. Also, special personal financial needs can be another factor. If a worker plans to buy a vehicle, he may use his work time to consult with a loan officer. Neither of these factors was examined in this research. While the R squares suggest the existence of other factors, the relationship between work time used for personal financial

<sup>4</sup> Age: Respondent's age in years

HousingD: Dummy variable for Housing: 1 if homeowner, otherwise, 0

Number: Number of financial dependents

Marital StatusD: Dummy variable for Marital status: 1 if married, otherwise, 0

FBT: Behavioral assessment (Assessment of respondents' personal financial behaviors utilizing the twelve 4-point questions)

matters and personal financial wellness is statistically significant.

Table 3  
Regression Result of Overall Satisfaction Index and Work Time Use Index (N= 237)

| Variable <sup>5</sup> | b          | Beta   |
|-----------------------|------------|--------|
| Constant              | 2.501      |        |
| Age                   | -1.56.E-02 | -.124  |
| HousingD              | -.144      | -.049  |
| Number                | 8.944E-02  | .080   |
| Length of employment  | -1.73E-02  | -.023  |
| Financial Stressors   | 7.711E-02  | .108   |
| FMT                   | -9.41E-02  | -.197* |

$R^2 = .129$

$F = 5.698^{**}$

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

### **Personal Financial Wellness and Absenteeism: Potential Effects of Financial Education**

This section further discusses the regression analysis of absenteeism with personal financial wellness. As discussed earlier, personal financial wellness affects the absenteeism of workers. Those who had higher scores on behavioral assessments showed lower absenteeism, when controlling for age and financial stressors.

This relationship between financial wellness and absenteeism has some practical implications. The regression coefficient in Table 1 shows that one unit increase of behavioral assessment score (FBT) corresponds with a decrease in absenteeism by 0.029 units, controlling for the respondent's age and financial stressors. Absenteeism was measured with the following categories: (1) none, (2) 1 to 3 days, (3) 4 to 6 days, (4) 7 to 9 days, (5) 10 to 12 days, and (6) more than 12 days. Therefore, 0.029 units of three workdays would be 42 minutes, when assuming an 8-hour work day (0.029 x 3 days x 8 hour per day x 60 minutes). Every 1-point

<sup>5</sup> Age: Respondent's age in years

HousingD: Dummy variable for Housing: 1 if homeowner, otherwise, 0

Number: Number of financial dependents

Marital StatusD: Dummy variable for Marital status: 1 if married, otherwise, 0

FMT: Overall satisfaction with financial situation index

increase in the behavioral assessment, on a 48-point scale, can reduce approximately 42 minutes of absence from work in one year. If workers change their financial behavior in a positive way absenteeism may decrease by 42 minutes in one year per worker. The behavior assessment scale includes the following 12 items: I set money aside for savings, I set money aside for retirement, I had a plan to reach my financial goals, I had a weekly or monthly budget that I followed, I comparison shopped at two or more stores for an expensive consumer product, I purchased something expensive that I wanted, but really did not need, I paid credit card bills in full and avoided finance charges, I reached maximum limit on a credit card, I spend more money than I had, I had to cut living expenses, I had to use a credit card because I ran out of cash, and I had financial troubles because I did not have enough money. The relatively minor but positive changes in worker behavior in one or more of the above 12 behavioral assessment items—for example, if financial education encouraged those who never set money aside for retirement to sometimes save money toward retirement (which is a 1-point increase in the behavioral assessment score)—may result in a decrease in absenteeism.

Literature has supported the effectiveness of workplace education on productivity. Wagner (1982) said helping workers with problems can bring “incredible success in improving productivity and reducing costs” (p.59). Workplace financial education can influence the retirement contributions of workers. For example, Bernheim and Garrett (1996) found the strong influence of workplace financial education on retirement savings. Workers who participated on the workplace retirement education saved significantly more toward retirement than those who did not participate. Also, companies have experienced an increase of 52% in retirement contributions from employees after conducting workplace financial education (Gorbach, 1997). Financial education also influences individual knowledge, attitude, and behavior (Fletcher, et al., 1997).

Previous research has shown the effects of workplace financial education on personal financial wellness, particularly in the amount of money saved for retirement. It is not illogical to assume that financial education could easily

improve a worker’s behavioral assessment score at least 2 to 4 points, particularly because it is a 48-point scale<sup>6</sup>. For example, consider the case of a worker who never sets money aside for retirement. His current behavioral assessment score on the item is 1. If the worker starts to set money aside for retirement regularly, perhaps due to financial education, his behavioral assessment score on the item may move to 4. This 3-point increase in behavioral assessment score translates to 126 minutes in reduced absenteeism in one year. By converting the reduction of absenteeism to an hourly wage of \$15.00<sup>7</sup> (assuming the average annual income is \$30,000), the employer could potentially save \$31.50 in one year for such a worker who improves his financial behavior. This statement is accurate for all workers who improve financial behaviors, including those with money problems as well as others who have some room for improvement in their personal financial behaviors.

It should be noted, however, that the relationship between financial behavior and absenteeism may be in the reverse direction. Increases in absenteeism might result in decreases in behavioral assessment scores. For example, a wage earner who rarely misses a work day may enjoy better financial wellness compared to a worker who is often absent from work. Most would agree, however, that regardless of which factor may “cause” the other, particularly among salaried workers as in this study, employees may be more receptive to financial education rather than to seminars on the virtues of good work attendance.

There are two types of absenteeism: avoidable and unavoidable (Dalton & Mesch, 1991). Workplace financial education may affect avoidable absenteeism by providing behavioral

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<sup>6</sup> The possible behavioral assessment score ranged from 12 to 48. The behavioral assessment score of the respondents ranged 16 to 48. And the mean of the behavioral assessment score of the respondent was 34. More than one half (53.4%) of the respondents reported their behavioral assessment score below the mean.

<sup>7</sup> According to the Statistical abstract of the United States 1997, the white-collar administrative support clerical workers average salary was \$16.55.

solutions for workers to confront their financial problems.

### **Personal Financial Wellness and Work Time Used for Personal Financial Matters: Potential Effects of Financial Education**

This section further discusses the regression results of work time used for personal financial matters. Subjective perception, behavioral assessments, overall personal financial wellness measures, solvency, and amount of monthly installment loan payments have significant impacts on work time used for personal financial matters. Among these five personal financial wellness measures, behavioral assessment and overall satisfaction index are more likely to be affected by financial education.

People who use their work time to deal with personal financial matters did so in one or more of eight different ways — talk with coworkers about money related matters, talked with a lender about a loan, make calls regarding an overdue credit payment, make calls to friends or relatives about financial matters, make calls to a lawyer, talked with a financial planner, make calls to arrange a vehicle loan, make calls to a credit or budget counselor —Based on the reports of the eight items, a work time use index (WT) was calculated. The WT range is 0 to 8. About one-third (32.8%, 181/270) of the 270 workers never dealt with personal financial matters at work. Among those workers who dealt with personal financial matters during work hours, about one-half (50.3%, 91/181) dealt with personal financial matters in one of the eight different ways. Most of the remaining workers dealt with personal financial matters in two or three ways (39.2%, 71/181).

A conservative estimate is that a worker with financial problems spends 15 minutes per day dealing with personal financial matters, or 75 minutes per week, or 62.5 hours in a 50-week work year<sup>8</sup>. The relationship between personal financial wellness, especially behavioral

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<sup>8</sup> Experts from non-profit and profit oriented credit counseling services as well as researchers say that people with money problems, often spend an hour or more per day dealing with their personal financial problems.

assessment and overall satisfaction with financial situation, and work time used for personal financial matters has some practical implications. The regression coefficient of behavioral assessment index (FBT) is -0.0265 (Table 2). This indicates that every 1-point increase in the behavioral assessment index corresponds with 0.0265 decrease in work time used for personal financial matters. Consequently every 1-point increase in behavioral assessment, on a 48-point scale, can reduce 111 minutes of work time used for personal financial matters annually (0.0265 x .75 minute/week x 50 week). If workers, including those with money problems as well as others who have room for improvement in their personal financial behaviors, change their financial behavior in a positive way, work time used for personal financial matters may decrease. Workers may change their personal financial behavior in one or more of the 12 ways in the behavioral assessment index.

As noted earlier, previous literature has shown the positive effects of workplace financial education on financial behaviors (Bernheim & Garrett, 1996; Bernheim, Garrett, & Maki, 1997; Gorbach, 1997; Fletcher et al., 1997, Heath, 1996; The 1997 RCS, 1997). It is not illogical to assume that financial education could easily improve a worker's behavioral assessment score at least 2 to 4 points, particularly since it is a 48-point scale. For example, consider the case of a worker who never budgets his income. His current behavioral assessment score on the item is 1. If the worker starts to budget regularly, due to the financial education, his behavioral assessment score on the item may move to 4. This 3-point increase in the behavioral assessment score translates to 333 minutes in reduced work time lost in one year dealing with personal financial matters. By converting the reduction of work time used for personal financial matters to an hourly wage of \$15.00 (assuming the average annual income is \$30,000), an employer would save approximately \$83.25 in one year for such a worker who improves his financial behavior.

Financial education may affect not only financial behavior of workers but also their overall satisfaction with their financial situation. The regression coefficient of the overall satisfaction index (FMT) is -0.0941 (Table 3). This indicates that every 1-point increases in the overall

satisfaction with financial situation corresponds with a 0.0941 decrease in work time used for personal financial matters. By applying the conservative estimate of 15 minutes per day, a 1-point increase in personal financial wellness in overall satisfaction with their financial situations of workers translates into 353 minutes ( $0.0941 \times 75 \text{ minute/week} \times 50 \text{ weeks}$ ) of reduced work time lost dealing with personal financial matters. By converting the reduction of work time lost to an hourly wage of \$15.00, the employer could potentially save \$88.22 in one year for such a worker who improves his financial behavior.

It should be noted, however, that the relationship between financial behavior and work time used for personal financial matters and the relationship between overall satisfaction with financial situation and work time used may operate in the reverse direction of that explained above. Increases in work time used for personal financial matters could potentially decrease behavioral assessment scores and overall satisfaction with financial situation. While this is a logical argument, it is weak.

In summary, minor but genuinely positive changes in a worker's behavioral assessment and overall satisfaction with financial situation, perhaps due to financial education, has the potential to save a total of \$171.47 ( $\$83.25 + \$88.22$ ) per worker in one year due to reduced work time used for personal financial matters. By combining this potential savings with the projected savings from reduced absenteeism, an employer could possibly save \$202.97 ( $\$171.47 + \$31.50$ ) for such a worker who improves his financial behavior.

A more realistic increase in financial behavior, perhaps resulting from workplace financial education, could be 6 points on the 48-point scale. For example, consider the case of a worker who never budgets his income and never saves money for retirement. If the worker starts to budget regularly and save money for retirement regularly, his behavioral assessment score will move by 6 points. This 6-point increase in behavioral assessment score translates to \$63.00 savings in one year due to the reduced absenteeism. (See previous section where the 3-point increase in the behavioral assessment score would result in \$31.50 savings in one year per worker due to reduced absenteeism.) This 6-point increase may also result in \$166.50 in

savings due to reduced work time used for personal financial matters. (The 3-point increase translates to \$83.25 savings in one year.) Therefore, the potential savings for a worker who improves his financial behavior may be \$229.50 ( $\$63.00$  from reduced absenteeism and  $\$166.50$  from reduced work time used for personal financial matters) in one year. In addition to the behavioral change, overall satisfaction with personal financial situation may also be changed. If overall satisfaction with personal financial situation increases by 2 points, this increase may save \$176.44 in one year for a worker who improves his overall satisfaction with financial situation. In sum, the potential savings for employers through positive changes in a worker's financial behavior and overall satisfaction with his or her personal financial situation, perhaps as a result of workplace financial education, may be \$405.94 in one year.

The above calculation may be extrapolated to a employer who has a large number of employees. To illustrate, assume that an employer of 1,000 employees has 15% of workers who have poor financial behaviors and that financial education can affect two-thirds of those workers positively. This means the employer may realize a savings of \$40,594 ( $\$405.94 \times 1,000 \times 0.15 \times 2/3$ ). Further and importantly, since financial education impacts workers with no money problems as well as those experiencing financial difficulties, it is likely that 30% or more workers will improve their financial behaviors and wellness after receiving comprehensive financial education. Therefore, an employer of 1,000 workers where 30% of the workforce improves their financial behaviors and wellness may realize a savings of \$116,550 ( $\$388.50 \times 300$ ) in one year.

### **Conclusion**

Personal financial wellness affects absenteeism and work time used for personal financial matters. Among the eleven measures of personal financial wellness, behavioral assessments influenced absenteeism and work time used for personal financial matters. The relationship between behavioral assessment and absenteeism and the relationship between behavioral assessment and work time used for personal financial matters showed some potential effects of financial education. Because financial

behaviors of workers were related to absenteeism and work time used for personal financial matters, behavior change in a positive direction, perhaps stimulated by workplace financial education, may lead to lowered absenteeism and a reduction in work time used for personal financial matters.

Personal finance employee education may have potential positive effects on worker job productivity. Workers desire comprehensive financial education, and such workplace education may be a key factor in increasing both job productivity and profits.

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