EMPLOYEE BENEFIT FAMILIARITY: AN ANALYSIS OF HOW BENEFIT FAMILIARITY WILL AFFECT BENEFIT VALUATION

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THESIS ABSTRACT

EMPLOYEE BENEFIT FAMILIARITY: AN ANALYSIS OF HOW BENEFIT FAMILIARITY WILL AFFECT BENEFIT VALUATION

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Current literature and research on the benefits employees prefer in their benefits packages is reviewed. The findings reveal some strong preferences for different groups of people. An understanding of these preferences is important in the design of flexible benefit plans. In addition, when designing benefit plans it is important to understand what knowledge of benefits employees possess and how the benefit package can best be communicated. In addition to these topics, the importance of how benefits are valued by employees is reviewed.

This thesis reports a study designed to examine the correlation between benefit familiarity and benefit value. Two aspects of benefit value were studied. The first was the perceived personal value of benefits to the benefit receiver. The second was the monetary valuation of the benefits to the worker. The results supported several hypotheses regarding correlations between self-perceived benefit familiarity and a benefit's value.

Research groups included 45 staff members of a large southeastern university enrolled in a standard benefits plan and 45 employees of an international company in the petroleum industry who were enrolled in a flexible benefits plan. A sound understanding of the familiarity people have with their benefits was found to be important in understanding the value they attach to benefits. Those enrolled in the flexible plan were found to possess a higher mean level of self-perceived familiarity than those in the standard plan. In addition, those from the flexible plan were found to more accurately estimate their employer's contributions to their benefits and more accurately estimate their benefits monetary valuation for two benefits studied: medical coverage and pension plan.

Correlations between monetary valuations of employees' medical coverage and pension plans and perceived personal values for those plans were not statistically significant. In regard to benefit preferences, strong individual differences were revealed. Monetary benefits were preferred at almost twice the rate of nonmonetary benefits. When analyzed individually, familiarity levels were shown to be correlated to the preferences for two of the benefits: medical-life insurance and early retirement. However, when comparing employees from the flexible plan with those from the standard plan, insignificant differences were found between the two groups in their perceived personal values for those benefits studied. Both groups seemed to prefer monetary benefits at almost twice the rate of nonmonetary benefits.

The importance of this research is discussed in terms of helping employers communicate the cost and worth of benefits to employees. Limitations of the study and suggestions for future research in the area of benefit value are discussed. Following the literature review, research results examining benefit familiarity and valuation are presented.

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I. INTRODUCTION

Establishing and maintaining a compensation system requires not only understanding what a company can afford to offer, but understanding what the employees want. One of the key areas where it is essential to understand employee preferences is in the area of benefits. Having a good benefits package can be extremely expensive and it is important for an organization to optimize the employee's value of those benefits.

Research has shown that current employees, as well as prospective employees, have certain benefit preferences, and that these preferences play a big role in acceptance of jobs and job retention (Brostroff, 1993; Chonko, Tanner, & Weeks, 1992; Davis, Giles, & Feild, 1985a, 1985b, 1988a, 1988b; Employee Benefit Plan Review, 1985; Hart, 1990; Hughes & Tomkiewicz, 1989; Lewellen & Lanser, 1973; Morgenstern, 1993; White, 1983). It is obvious that employee preferences will continue to play an important role in future design and maintenance of compensation and benefits systems.

Understanding employee valuation of benefits is necessary for the success of a benefits package. There has not been extensive research in this area, and having an improved understanding of the benefits package may lead to improved benefit monetary valuations due to the fact that employees will know exactly what the benefits are worth (Barber, Dunham, & Formisano, 1992). Improving the monetary valuation employees place on benefits has been studied through cash trade-offs. Results showed that by knowing a benefits package's cost it was easier for employees to place a true monetary valuation on their benefits (Wilson, Northcraft, & Neale, 1985). Use of a flexible plan

should, by its nature, increase total benefit value because choices are offered and the true dollar value of the benefits is needed in order to make those choices (Tane, 1992).

Purpose

The purpose of the literature review is to analyze employee benefit preferences, valuation of benefits, and flexible benefits (flex) plans. Understanding what employees know about their benefits and understanding how the benefits are communicated are also vital in achieving the success of a benefits plan. Assessing the familiarity levels employees possess, in addition to the monetary valuation employees place on their benefits, may help to explain the way benefit are valued.

Scope

The literature review will address two main topics and two subtopics. The first, and all encompassing topic, will be employee benefit preferences. The second topic, and area in need of further research, will be benefit value. The other topics will be discussed due to their importance in assessing benefit value. The first subtopic will be how flexible benefit plans fit into the value process. The second subtopic will be the importance of communication in making benefit choices and the knowledge that the employee holds of benefits.

Statement of the Research Problem

Companies are offering a multitude of benefits, at a great expense, in hopes to attract, retain, and motivate employees (Brostroff, 1993; Chonko et al., 1992). However, many of the benefits monetary valuations are not understood (Famulari & Manser, 1989; Wilson et al., 1985). What good is spending a lot of money on an employee benefit if the worker does not understand what the benefit does for them or

realize the monetary valuation of it? Under flexible benefit plans workers are expected to allocate benefit dollars (Tane, 1992). How can employees be expected to make decisions that will have a major affect on their lives when they may not completely understand the benefits from which they must choose?

Good communication programs need to become a standard for the benefits arena. Many employees are just expected to know the details of benefit programs when in fact there is little information provided. A good communication program can enhance the choosing of benefits which best fit employees' needs. In addition, it may help them appreciate the benefit value of such benefit programs. Benefit value is defined in this research as being the combination of one's total monetary valuation (understanding of both employee and employer costs to a benefit) and perceived personal value (one's personal preference for the benefit).

One problem related to benefits is trying to understand how much knowledge employees possess of the benefits they are offered. It is necessary to learn how a flex plan will affect an individual's familiarity levels, benefit monetary valuation, and perceived personal value in contrast to a standard plan (i.e., nonflexible). Past research has emphasized the preferences that employees have for different benefits (Chonko et al., 1992; Employee Benefit Plan Review, 1985; Lewellen & Lanser, 1973; White, 1983). The focus of the current study was to learn how familiarity with benefits affects an employee's monetary valuation and perceived personal value of their benefits. The way benefit knowledge affects how benefits are valued is important to understand and has not received much research attention. It is also important to know if people enrolled in a flex plan have a different level of familiarity, perceived personal value, and monetary valuation for their benefits from those enrolled in a standard plan.

II. LITERATURE REVIEW

Benefit Preferences

The research on benefits preferences has included samples of current employees, as well as new entrants to the work force. For example, studies of new college graduates (Davis et al., 1985a, 1985b, 1988a, 1988b), reveal several significant findings. Davis et al., suggest "survey data from prospective employee samples are beneficial in a number of ways. First, external survey information can help benefit planners identify emerging trends in preferences. Second, broader samples can help identify subgroup differences in benefit preferences... Finally, information from external surveys can help organizations maintain a competitive benefit package" (1988a: 62). For these reasons it is important for organizations to regularly conduct and review benefit preference surveys.

An early study (Davis et al., 1985a) addressed personal differences and how those differences affected benefit preferences. The authors studied four categories of personal characteristics. These categories included demographic factors, college experiences, work experiences, and motivational factors. Findings in this survey were similar to those of the later national study, in that monetary benefits were generally preferred over time-related benefits. Two exceptions were vacations and flexible work hours, which increased in importance over time. Some interesting individual differences included the fact that gender was a factor in benefit preference divergence. College graduates who were female had a much stronger preference for time-related

benefits (e.g., four day work week) than males. Another difference the study revealed was that older students more often preferred company stock than younger students (Davis et al., 1985a).

As discussed, new college graduates appear to prefer some benefits more than others. But what about current employee benefit preferences? Some studies have addressed executives', as well as other current employees' benefits preferences (Chonko et al., 1992; Employee Benefit Plan Review, 1985; Lewellen & Lanser, 1973; White, 1983).

Lewellen and Lanser found that executives preferred more non-cash and supplemental benefits in addition to increased vacation time (1973: 115). Their study also indicated that pension benefits were highly preferred and stock options not as important as predicted by many compensation experts. Life insurance was shown to be monetarily undervalued, while leisure time was very important to executives. The authors suggested giving a choice in selecting benefits--a flexible benefits program (1973: 116-120)--which will be discussed in more detail later.

Chonko et al. studied how salespeople perceived different reward plans (1992). Again, attraction and retention of employees were mentioned as being outcomes of a well-developed plan. In this study, it was shown that benefits were not as important to salespeople as pay raises and promotion opportunities; however, there were differences based on different demographic factors. An important conclusion of the study was "Based on the data presented ..., no one reward package will serve all salespeople" (1992: 71).

In a study by White, it was found that "tax status affected the preferences for education, retirement, and legal benefits, while job classification influenced the preferences for all other noncash benefits except life insurance" (1983: 539). This is interesting from the standpoint that employees at different organization levels have

different preferences for benefits. Recently, such differences in levels have been analyzed. Research has analyzed differences in child care needs (Hart, 1990), what general benefit needs employees have (Morgenstern, 1993), and, of course, health care and pensions (Brostoff, 1993; Burzawa, 1992; Fisher, 1992; Hager, 1990; Jones & Jeffay, 1992; Masterson, 1990; National Underwriter, 1993). White discovered some interesting ways in which tax status affected employee benefit preferences, but he also made a suggestion that there may be preference bias based on familiarity with those benefits (1983: 555).

Health benefits is an area experiencing strong interest today. According to an article in National Underwriter, "According to the 1993 poll [taken by the Gallup Organization for Employee Benefit Research], 65 percent of Americans said they would be willing to accept a reduction in employer contributions to a pension plan in exchange for increased health benefits," which is up from 60 percent in 1991 (1993: 39). This survey shows Americans are becoming more aware of the cost of health benefits and if allowed to choose only one benefit health care would be preferred (National Underwriter, 1993: 39). It is noteworthy that this finding parallels that of the previously reviewed research of recent college graduates.

An older survey analyzed 17,000 employee benefits preferences (Employee Benefit Plan Review, 1985). In this survey it was apparent that employees desired benefit improvement so strongly that about half of them were willing to contribute themselves. Medical care, vision programs, and pension plans again led the list for most preferred benefits, while people were most likely to give up other benefits in favor of medical plans. Employees even favored alternative cost-effective plans at a rate of eight out of ten. This survey showed employees were, on the average, satisfied with vacations, holidays, and sick days (Employee Benefit Plan Review, 1985: 28-30).

As indicated, there are some strong differences between preferences among the benefit options of the typical benefits package. Both recent college graduates and current employees at different levels of employment have various preferences for the ways in which they would like to be compensated. This section of the literature review has focused on developing an understanding of the factors which influence benefit preferences for two reasons. First, benefit preferences will be used to measure one's perceived personal value of benefits, which will be discussed in more detail later. Two of the four hypotheses (stated on pages 27-28) developed from this literature review include a measure of one's perceived personal value of benefits, therefore understanding benefit preferences is a key element to this research. Second, preferences need to be understood when designing a flexible benefits plan so that the proper benefits may be provided for employees to choose among. Flexible benefits plans are a key focus of this research. The components of individuals benefits preference schemes have been discussed in order to explain why different people prefer certain benefits over others and how the flexible benefits plans will better them.

With a better understanding of which factors can influence preferences, what is the next step? Giving employees a choice in their benefits should allow employees to maximize their satisfaction with the plan. Such is the aim of the flexible benefits plan.

Flexible Benefits

Once benefit preference variation is understood, the next step is knowing how to effectively accommodate different needs and desires. Obviously, if employees have strong benefit preferences, an employer would want each employee to have the ability to optimize their personal benefit options in a package. This leads to the concept of a flexible benefit plan. Masterson writes, "A flexible benefit plan is generally defined as a

healthcare program that allows employees to choose among different benefits" (1990: 22). There are also broader definitions, such as the one offered by O'Brien, which says "a flexible benefits plan--also referred to as a cafeteria plan--is an employer-sponsored benefits program in which employees choose the coverage(s) and option(s) best suited to their needs" (1992: 50). With an idea of what a flexible (flex) plan is, it can now be demonstrated how employee preferences can be optimized under a plan of this nature.

There is literature available on all facets of flex plans. Such topics include how to install a flex plan (Jones & Jeffay, 1992; Meisenheimer & Wiatrowski, 1989; O'Brien, 1992), deciding if instituting a flex plan is worth the trouble (Haslinger & Sheerin, 1990; Turner, 1989), how a flex plan changes the nature of traditional benefits, such as vacation time (Schorr & Faulkner, 1992), and defined contribution plans (Hager, 1990), in addition to other areas. In analyzing all of the possibilities that a flex plan has to offer, it may be difficult to decide where to begin and what to include in a particular company's flex plan.

Kienast, MacLachlan, McAlister, and Sampson discuss how to redesign a compensation package. They suggest that while employees have benefit preferences, the best strategy to choosing an optimal package would be to survey benefit satisfaction and then work on improving it. They suggest using techniques which have proven successful in consumer research, which measure utility by asking for trade-offs to be made. They also speculate that different level employees are going to have different preferences (1983: 127-133).

A good point about flex plans, in an article by King, is one made by a principal of Brokers Diversified Services, who recommends keeping flex plans simple. Dealing with a few basic major options is the suggested route. Also needing consideration is the type

of industry where flex plans will work best, specifically those where there is little need for traditional benefits (King, 1989: 9, 14).

At Hughes Aircraft Company, the Director of Corporate Human Resources Management makes the same recommendations discussed above. In addition to a simple plan which offers a few major options, offering choices which are real to the employees is recommended. By giving choices, the flex plan itself may not reduce costs immediately for the employer's benefit program, but hopefully the maximization of benefits used, and the use of alternative health care options, will cut costs in the long run. Hughes instituted a flex plan which required a $600 to $700 contribution from the employees, while prior to the flex plan no payment was required. However, satisfaction with benefits remained at their previous level of 81 percent. Obviously, for these 65,000 employees, the options provided by the flex has offset the contribution requirement (Employee Benefit Plan Review, 1992: 12-14).

At Quaker Oats the employees were actively involved in designing their new flex plan. The company hoped "to design the new package to improve benefits value to employees, to facilitate cost containment for the company, and to promote an employee ownership philosophy that would encourage employees to buy into the program" (Employee Benefit Plan Review, 1993: 18). In this particular company, three-fifths of the employees felt that the ability to make choices was the best feature the plan offered. Building the plan this way did in fact increase employees' perceptions of their benefits' value and it proved very successful (Employee Benefit Plan Review, 1993: 22). This type of value is combined perceived value and monetary valuation of the benefit to the employee. There also needs to be an understanding of what the benefits cost, i.e., the monetary valuation, which will be discussed later.

One particular study (Barber et al., 1992) suggested that improved communications of benefit options leads to an increased satisfaction level and monetary valuation with them. The study concluded that an increased understanding of benefits was the result of the implementation of a flex plan, in part due to better communication of the benefit choices (Barber et al., 1992: 68-69).

As can be seen in these few company examples, flexible benefits plans successfully maintained or increased employee's benefit satisfaction, perceived value, and monetary valuation. However, how can the flexible plans allow for employees to optimize their benefit preferences? Haslinger and Sheerin discuss four key elements of a flex plan. These include benefit trade-offs (giving up some benefits in favor of others), flexible credits, cost sharing, and program enhancement. Employee's total value of a benefits package can be maximized by allowing for a choice among benefits, while keeping a simple range of choices, because there is a diversity of needs among employees (1990: 41).

Employers need to know what employees desire the most, so that the most satisfying packages can be provided. The preference dilemma has gone beyond employees. Kenkel writes of a case where West Virginia surveyed employees to see what benefits they desired and what were affordable prices. The state was trying to deal with the problem of uninsured employees, but this example shows how wide spread the preference dilemma has become (1991: 36).

Employee preferences appear to agree with what employers are offering in flex plans. Part of a 1986 survey revealed 98 percent of the companies offering a flex plan included medical benefits as part of the program. However, life insurance was the second most common flexible option, showing companies are giving employees a say in exactly which choices they prefer (Management World, 1986: 4). According to a more

recent survey (Woolsey, 1992), childcare benefits are becoming more commonly offered to employees. Employers are beginning to view this benefit as a management tool, where by helping employees deal with easing their childcare problems, employees will be more productive. In the survey, 90 percent of employers said that absenteeism and tardiness are results of childcare problems. The article recommends surveying employees on childcare problems to find out exactly what is needed and desired (Woolsey, 1992: 3, 10).

In a recent survey "of 1,000 people, 84 percent say a flexible benefit plan would be influential if they had to choose between two jobs with the same salary and benefits level" (Small Business Reports, 1993: 44). In this survey, by the Employee Benefit Research Institute, healthcare, pensions, and vacations were the three most preferred benefits to be included in a flex plan (Small Business Reports, 1993: 44).

Obviously, the changing demographics of available employees contributes to the popularity of flex plans (Meisenheimer & Wiatrowski, 1989; O'Brien, 1992). However, these plans help both the employees and the employer.

As it can be seen, employees' benefit preferences play a big role in the establishment of a flex plan. First of all, the fact that employees have benefit preferences leads to the use of flexible plans in order for employees to be able to pick and choose the benefits they want. Secondly, benefit preferences should be taken into account when trying to decide exactly which benefit options to provide. There are many facets to a flexible benefits plan and only the basics were discussed here. However, one of the most important characteristics of a successful benefits plan is good communication of its characteristics to the users.

Comparing employees enrolled in a flexible benefits plan against those in a standard benefits plan will be the basis for testing two of the hypotheses developed in

this research (p. 27-28). This section has attempted to provide for a general understanding of what flex plans are, the value they have over traditional plans, and what affects they have on employee performance. It is important to know the properties of the flexible benefits plan because the hypotheses developed later in this research are focused on the fact that it is the nature of the benefits plan (i.e. standard or flexible) that will result in different levels of benefit monetary valuation for medical coverage and pension plan due to the high amount of communication flexible benefit plans provide. However, it is also hypothesized that the benefits plan an individual is enrolled in will result in an insignificant change for one's personal preference for those two benefits studied. This hypothesis suggests familiarity is a variable which has an insignificant affect on one's benefit preferences. The communication of benefits plans, which are suspected to affect benefit familiarity, will be addressed next.

Communication of the Plan

According to Bradford, "Tailor-made communications programs will give flexible benefit plans the best chances for success" (1993: 36). Some of the different aspects of a successful communications program discussed include identifying the audiences and the types of media to use and development of a timeline with realistic goals. These aspects were identified by Microsoft, which has implemented a flex plan (Bradford, 1993: 36). Hammond feels employees must realize the fact that their personal benefit costs are continually increasing. He thinks flex plans can help employees get the benefits they need and want. However, it is the communication of the options in the flex plan that will give employees the ability to identify their choices. For example, it is recommended that examples be provided of how higher employee cost of a flex plan is offset by savings on

taxes and that doing so will make a difference in the success of a flex plan (Hammond, 1992: 14-15).

Some other suggestions for successful flex plan communications include knowing the employee population and basing the information on employee and employer needs. These communication efforts include determining employee benefit preferences and then establishing the program (Employee Benefit Plan Review, 1984: 6-7). More modern techniques for discussing benefits include interactive benefit systems (Diblase, 1986a). These systems communicate savings due to different choices in benefits and they can project cost and future needs before decisions are made (Diblase, 1986a: 37). These systems allow for changes to be calculated instantaneously and they have been well received. Due to their individual nature, these interactive systems have been successful when used for flexible plans (Diblase, 1986a: 38, 40). This is just one of the many ways employers are informing employees of their benefits. For over ten years businesses have been interested in ways to better communicate benefit packages. In one particular review (Business Insurance, 1983), the new interest in the translation of benefits to employees is discussed. There is an Employee Benefits Communication Awards competition, where many entries are made on an integrated level. These information efforts include plans for flexible benefits communications as well as fixed traditional plans. The plans integrate different forms of media, from video to written, to allow each to do its best communication due to the fact that people learn differently through different media (Business Insurance, 1983: 31-32).

According to a 1985 survey, about half of the 17,000 employees questioned said booklets provided the most useful benefit information. In addition, a quarter of the employees felt verbal communications were very useful. The point made is that use of more formal communication techniques would lessen the chance that misinformation is

passed on about benefits. The employees surveyed felt more personal communications would be the best (Employee Benefit Plan Review, 1985: 30).

According to Diblase, one of the many reasons employee benefit communications are becoming increasingly difficult is due to the many new forms of health care options. A good point, made by the Director of External Communications for Equicor, is that employees' benefit value depends on the monetary and personal perceptions people have for benefits. Thus, it is the communication of these benefits that will affect the way benefits costs are understood and thus affect the benefit values. It is vital for employees to see benefits as part of their overall compensation. Using mixed media is recommended, as well as making the communication process a continuous one. One good way to show the monetary valuation of benefits is by translating the benefits into costs and then using graphic pictures to help employees understand what is going on. A final point is that employees know an attempt is being made to contain costs, so show employees what the company is doing for them and not to them (Diblase, 1986b: 7).

A multimedia communications approach is especially recommended for the explanation of a flex plan. An understanding of the plan is vital to its success and a translation of what everything means can be very difficult (Employee Benefit Plan Review, 1992: 14, 16). As familiarity with the plan increases, the communications effort should be augmented, in addition to becoming more specific (O'Brien, 1992: 56-58).

The translation of benefits is vital to the success of a compensation program. This process includes everything from learning what employees prefer, to explaining the implementation of a new flex plan. As can be seen from the literature, there are many different forms of communication, ranging from word of mouth to complex computer systems. The key to these communications efforts is to help employees choose

what they want and choose the benefits best suited for them. Hager says "If the plan is perceived as valuable and good by the employees, then positive feelings for the company are fostered at the same time" (1990: 219-220). Besides the tax advantage of benefits, which is still being fought over (Employee Benefit Plan Review, 1986a; Spencer, 1985), it is clear there are several other advantages to a flexible benefits program.

As it can be seen, it is very important to understand what employees know about their benefit packages. Apparently there is a lack of knowledge about benefits (LaRock, 1992), and this goes back to the importance of the communications of the benefits package. The way people make benefit decisions is based on what they know (LaRock, 1992: 8). If communication efforts can give employees the best knowledge about their choices, then the employee can choose among their preferences under a fully informed system. In addition to making better decisions for themselves, it has been said that having a better understanding of benefits leads to an increased monetary valuation of the benefits package by employees (Barber et al., 1992: 68-69). Implementation of a flex plan involves giving choices. Anyone appreciates the value of being given a choice. Giving these choices requires explaining the differences. Therefore, it is in the nature of a flex plan to better educate employees. It is through this education that they will better understand their benefits, thus having a higher benefit value (Wilson et al., 1985: 319).

The relevant research performed in the area of benefits communication has been discussed due to its relative importance in developing employees familiarity levels with their benefits, a key focus of this research. Communication of the benefits plans is vital to employees becoming knowledgeable of their available benefits. Several hypotheses are made based on the employees' different levels of benefit knowledge, which are developed from the self-perceived familiarity levels employees possess (p. 27-28). Different

levels of knowledge may develop from different communication systems, where some systems teach better than others. Different benefits plans have different communication systems, and the hypotheses developed later are based on the conclusion that flexible plans have higher levels of communication and thus result in having employees who are more knowledgeable of their benefits and have a higher level of self-perceived familiarity. What the employees know about these benefits can be a large factor in determining the success of a benefits package. Employee knowledge is the next topic.

Knowledge of Benefits

Mitchell's (1990) writing, cited in Employee Benefit Plan Review, reveals that "workers [are] generally ill-informed as to the provisions and structure of their pension plans" (LaRock, 1992: 8). In addition, "unionized workers, higher income employees, those better educated, and those with longer seniority are better informed about their pensions than are other workers" (LaRock, 1992: 8). The point being made is that people make rational decisions, and optimize personal preferences, based on what knowledge they have about their coverage (LaRock, 1992: 8). Understanding the audience's level of benefit knowledge is key to developing an effective communications strategy (Employee Benefit Plan Review, 1986b: 27).

A 1984 survey revealed only five percent of the respondents were aware of the total cost of benefit packages. It also revealed salaried, non-unionized employees were more knowledgeable of their benefit plans than hourly-rated employees. Employees in larger companies were more informed than those in smaller companies, and the youngest and oldest employees were more knowledgeable than those in the middles of their careers (Best's Review, 1984: 80, 82). More recently, it was found that "American workers have an 'expectations gap' about their retirement income and from what sources it will

come, according to a recent study of 1,000 employees" (Fisher, 1992: 15). Workers are overestimating what employer plans will contribute to their retirement and underestimating Social Security's role in paying for retirement (Fisher, 1992: 15).

As the above statistics show, understanding what the employees know about benefits, in addition to which benefits they prefer and what other companies offer, is vital to establishing a successful benefits program. Benefit programs should be defined with a purpose, and lack of knowledge will make understanding what benefits do for the employees nearly impossible. Use of benefit programs, as well as employees' help in building programs, are some of the ways employees become more familiar with programs (Kuenster, 1990: 100).

The hypotheses developed in this research suggest that different levels of knowledge (for medical coverage and pension plan) are important for two reasons. First, it is suggested that increased levels of knowledge, for the two benefits studied, will lead to employees being more accurate when asked to measure those benefits' monetary valuations, the topic discussed next. Second, while benefit preferences have been shown to be affected by many variables (Brostroff, 1993; Chonko et al., 1992; Davis et al., 1985a, 1985b, 1988a, 1988b; Employee Benefit Plan Review, 1985; Hart, 1990; Hughes & Tomkiewicz, 1989; Lewellen & Lanser, 1973; Morgenstern, 1993; White, 1983), knowledge levels of the two benefits studied are suspected to have an insignificant affect on employees' preferences for those benefits. These hypotheses are explained in detail later in the Description of the Research Hypotheses section.

Valuation

In addition to what employees know about their benefits, there has been an interest in, and research on, the two ways employee benefits are valued (Allport &

Ambruster, 1983; Barber, Dunham, & Formisano, 1992; Famulari & Manser, 1989; Haslinger & Sheerin, 1990; Schionning & Young, 1992; Tane, 1992; Wilson et al, 1985). This literature looks at some of the individual factors that affect a benefit's perceived personal value--how the benefit is preferred by the employee--as well as how accurately employees estimate the monetary valuation - an assessment of that benefit's cost. Some of the factors affecting perceived personal value are family status, age, health history, and income level. Experience with benefits is a suggested factor which will influence a benefit's monetary valuation to an employee (Allport & Ambruster, 1983: 26, 32). This is important because the more highly benefits costs are understood, the more likely that employees will be attracted and retained by organizations.

Other research has analyzed the monetary valuation employees place on benefits through a cash trade-off plan (Famulari & Manser, 1989; Wilson et al., 1985). The results of the earlier study (Wilson et al., 1985) indicated that there was "(a) a lack of employee knowledge regarding employer cost and market value of the studied benefit [medical insurance], and (b) significant undervaluation of the benefit by employees" (1985: 309). This was a model based on a subjective evaluation of benefits. However, the possibility of an objective model is discussed, which would include an employee's particular preferences and personal needs. If a benefit is not wanted, nor needed, it is suggested that the monetary valuation of the benefit would be deflated. It is also suggested that under a flex plan monetary valuation of the employee's benefits would be higher because the employee would be allowed to choose among their own preferences, therefore requiring more information to be provided about the benefits (Wilson et al., 1985: 310, 319). These suggestions, in combination with similar suggestions made in other research (Barber et al., 1992; Famulari & Manser, 1989; Haslinger & Sheerin,

1989; Schionning & Young, 1992; Tane, 1992), are to be tested in this research and are the basis for several of the hypotheses developed (p. 27-28).

There has also been other research which has addressed monetary valuation. A more recent analysis (Famulari & Manser, 1989) concluded that using employer cost as a way to measure the monetary valuation employees place on benefits is a limited approach. There are apparently substantial differences between cost and monetary valuation which need to be examined further and there are obviously many factors involved when an employee calculates the dollar value of his/her benefits package. Some of the suggested factors included: different median characteristics of the work force, differences in median job amenities, the after-tax value of compensation, and income and family structure were all suggested to be associated with variations in employee value (Famulari & Manser, 1989: 28). Haslinger and Sheerin discuss the fact that "Employee value consists of both real and perceived elements. Real employee value includes benefits that offer meaningful protection and a meaningful degree of control on the part of employees. Perceived employee value tends to revolve around the range of benefits offered and the choices within each benefit area" (1990: 41). This suggests that flex plans, which by their nature offer a degree of control, should increase the real value of benefits on an employees behalf.

Tane says that in a flex plan employees will know the true value of a benefits package because they will be allocating the dollars spent. Another fact is that employees have different preferences, and therefore different people will have different perceived personal values for the same benefit (Tane, 1992: 36). Schionning and Young agree with this philosophy, saying that providing benefit choices allows for employees to select the benefits they intuitively value most (1992: 83). However, the costs of these

plans are dramatically increasing and cost containment measures must be taken (Burzawa, 1992; McFadden, 1989; Schionning & Young, 1992).

While the hypotheses in this research are developed to agree with the conclusion by Wilson et al. (1985: 319), that those in the flex plan will better estimate their benefits monetary valuation, they also partially disagree. Other hypotheses developed suggest that monetary valuation (for medical coverage and pension plan) will not be significantly related to preference, or personal valuation, for those two benefits. While different people have different preferences for their benefits, this research suspects that monetary valuation will not be related to those preferences. The main rationale for this hypothesis is that even if one is inaccurate in estimating his/her benefits' costs (e.g., medical coverage's or pension plan's), this may not be an indicator of the personal value placed on those benefits. Since monetary valuation is suspected to be affected by familiarity and have an insignificant effect on perceived personal value, it is also hypothesized that familiarity will have an insignificant effect on personal value for benefits. In addition, enrollment in a flex plan is also suggested to have an insignificant effect on personal value, since this enrollment is suspected to affect familiarity levels.

Conclusion

Implications from Literature Review for this Research. There is a need for future research in the area of benefit valuation. Not only do employee preferences have to be continuously monitored, but what they know about those benefits needs to be understood. Evaluating benefit familiarity is necessary in building communication efforts which will inform employees on all of their benefits. Fully understanding benefits will allow for the maximization of their benefit values by maximizing monetary valuations. It could be possible that as familiarity with a benefit increases, so will the

monetary valuation one places on that benefit. However, while monetary valuation may be a function of familiarity, the same may not hold true for the perceived personal value of a benefit. Wilson et al. feel that an insufficient understanding of the monetary valuation of a benefit also means there is an undervaluation for that benefit's value (1985). While lack of familiarity may lead to a monetary undervaluation, it is suspected to have an insignificant affect on perceived personal value. A personal value method for benefit valuation is a second method, possibly independent of the monetary valuation method. These issues are an area that needs to be researched.

Is valuation related to familiarity? This is important to understand because if they are in fact related, then there is an even a greater need for good communication programs. Another question is whether or not communications are better in a flex plan due to the fact that there are choices that must be made? If this answer is yes, then maybe employees in a flex plan are more knowledgeable of their benefits than those in traditional plans. It could be that this increased knowledge also leads to an increased monetary valuation because employees must choose those benefits and need to understand the total cost of them. These questions need to be answered in order for human resources managers to build the best benefits packages for their employees and companies.

Famulari and Manser conclude their research by making the statement that "More research on employee values is needed" (1989: 28). In addition, Wilson et al. end their research on benefit valuation by making the statement that "this perspective does suggest that 'cafeteria' benefits administration programs--where employer contribution dollars are 'given' to the employee and the employee than 'spends' (allocates) those dollars on benefits--would provide higher perceived value [referred to as monetary valuation in this research] of benefits provided" (1985: 319). This

statement needs testing, because if it is in fact true then facets of the flex plan should be incorporated into as many benefit plans as possible.

Further research needs to be conducted in the area of benefit valuation for several reasons. First, there needs to be a comparison between flexible plans and the standard plans to see if employees under these two plans value their benefits in different ways. Second, the possibility that the perceived personal valuation and the monetary valuation methods are independent of one another needs exploration. There needs to be a comparison between those in a standard plan to those in a flex plan to see if employees who are enrolled in a flex plan are better estimators of their benefits' monetary valuation and hold a higher perceived personal value of those benefits, as suggested by Wilson et al. (1985). In addition, their suggestion that those in the flex plan will be more familiar with their benefits than those in the standard plan, due to the fact that they must put together their own packages, needs research.

III. METHODOLOGY

Conceptual Model

From conclusions made in prior research (Barber et al., 1992; Famulari & Manser, 1989; Haslinger & Sheerin, 1989; Schionning & Young, 1992; Tane, 1992; Wilson et al., 1985), a conceptual model has been developed for this research. It has been suggested that by providing more benefits information and increasing the level of self-perceived benefits familiarity, employees will hold a higher total monetary valuation of their benefits (Wilson et al., 1985: 310, 319). Benefit value has been described as having two components, an actual (real) and a perceived value, as held by the employee (Haslinger & Sheerin, 1990:41; Wilson et al., 1985: 310, 319). On this suggestion, a model (see Appendix A) has been developed to show that benefit familiarity, developed from the different communication processes of the flex plan versus the standard plan, will affect the benefit value held by those in the flex plan. The model also suggests that the perceived personal value scale and monetary valuations held by employees are two independent measures. It is suspected that the total monetary valuation (comprised of the accuracy with which employees estimate their benefits cost to their employers and their own contributions) will be influenced by familiarity levels. However, the perceived personal value for benefits that employees possess is shown as an independent element of the overall benefit value, and it is suspected that this is a basic trait that all employees possess independent of the type of monetary valuation held by the employee.

Hypotheses have been developed directly from the model. The hypotheses suggest that benefit value is a function of benefit familiarity and that monetary valuation is also affected by benefit familiarity. Conversely, as the model shows, personal perceived value is suspected to be independent of monetary valuation, as well as independent of familiarity.

Description of the Research Hypotheses

Benefit valuation has been a research topic of interest not only to scholars, but to corporations alike. Companies want to know which benefits to offer in order to attract and retain employees. However, knowing how the benefits are being valued by the receivers is vital to understanding the influence of a benefits package. In addition, employees under different types of benefit plans, such as the flex plan, have been studied. A good knowledge of a benefits package may lead to a high benefit value for what is being provided. It may also lead to a complete understanding of the benefits total cost, making the total compensation more attractive. The study reported in this thesis attempts to show a correlation between benefit familiarity and benefit monetary valuation and between benefit familiarity and estimation of employer's cost . Both the perceived personal value and the accuracy with which a monetary value is placed on benefits are to be analyzed with respect to familiarity.

There is a perceived personal value and a monetary valuation that people place on benefits. Possibly, those in a flex plan will be better estimators of their benefits' dollar monetary valuation. This could be due to the fact that they will be given more benefit information and thus be more knowledgeable (Wilson et al., 1985: 310, 319). Monetary valuation can be further broken down into two parts. There is a an accuracy with which the cost of the benefits to the employer are estimated as well as an estimation

of individual contribution (Wilson et al., 1985). Research has shown employees to be very accurate when asked to estimate their own contributions, while not accurate at all when estimating employer contributions to their benefits (Wilson et al., 1985). Because of this finding, the first hypothesis developed in this study is designed to test the part of monetary valuation dealing only with estimation of employer cost.

Part "a" of hypothesis 1 (see p. 27) is designed to show that as the levels of self-perceived familiarity with benefits increases, so will the accuracy with which employees estimate the employer cost of their benefits for two types of benefits: medical coverage and pension plan. This study will attempt to show that under the flex plan employees are more familiar with the two benefits studied. Allocating the dollars spent could lead to employees under a flex plan being more accurate with estimating the benefits monetary valuation (Tane, 1992: 36).

It has been shown that those employees who are poor at estimating their benefits cost to employers also undervalue their benefits monetary valuation (Wilson et al., 1985). Part "b" of hypothesis 1 (see p. 27) is aimed at showing that this monetary valuation is also correlated to levels of self-perceived benefits familiarity in a positive way.

Wilson et al. concluded from their study that "employees are ignorant of the market value and high employer cost of their benefit, and they significantly undervalue the benefit" (1985: 318). As has been stated before, previous research has suggested that those enrolled in a flex plan will better estimate their benefits monetary valuation (Tane, 1992; Wilson et al., 1985). Under these suggestions, parts "a" and "b" of the second hypothesis (see p. 27-28) have been designed to show that those enrolled in a flexible benefits plan will be more accurate when estimating their benefits cost to their

employer and hold a higher monetary valuation for those benefits over those in the standard plan.

While this study looks at familiarity with benefits as a contributor to how accurate employees are at estimating their benefits cost, part "c" of the second hypothesis (see p. 28) suggests that there will be an insignificant difference in the two groups of respondents' perceived personal value for medical coverage and pension plan. Wilson et al. also stated that "The value of such compensation to the employer, however, depends largely on employee perceptions of these benefits, rather than any objective value the benefits might have" (1985: 309). Therefore, it seems important to understand the personal value of the benefits being offered to the workers, rather than just how accurate the employees are at estimating the cost of the benefits.

The next two hypotheses (see p. 28) will compare the different valuation measures included in this study. The third hypothesis is written to suggest that the cost estimation and monetary valuation measures are positively correlated for medical coverage and pension plan. As one better estimates his/her employer's contribution to his/her benefit, it is logical to suggest (s)he will better estimate the monetary valuation for that benefit. After all, estimating employer's cost is one of the suggested variables affecting total monetary valuation.

The final hypothesis (see p. 28) that this study will attempt to support deals with proving that a perceived personal value of benefits is insignificantly related to the cost estimation for benefits, as well as, the estimated monetary valuation--the cash substitution value--which is what Wilson et al. used to measure a benefit's worth. These hypotheses suggest familiarity is correlated to cost estimation and monetary valuation. If enrollment in the flex plan results in a higher familiarity, cost estimation, and monetary valuation, but an insignificant difference in the preference for those two

benefits, then cost estimation and monetary valuation should also result in an insignificant preference difference.

The present study will compare staff members of a large southeastern university and employees currently enrolled in a flex plan. Different levels of benefit familiarity should be the basis for comparisons of valuation differences. Comparing the two groups should show different monetary valuations for the benefits in question. A question will ask each subject to place a employer price tag on his/her benefits estimated cost. A comparison will be made between their benefits actual and estimated cost to the employer. Using a benefit-cash trade off scale will measure benefit monetary valuation. The benefits perceived personal value will also be measured on the questionnaire.

Statement of Research Hypotheses

1) Employee ratings of benefit information provided by their organization and employee self-perceived familiarity with benefits will have a positive correlation with the following:

a. accuracy of employee estimates of employer cost related to two types of benefits: medical coverage and pension plan.

b. accuracy of employee monetary valuations of two types of benefits: medical coverage and pension plan.

2) The type of benefit package, that is, flexible benefits versus standard benefits, will affect the accuracy of employee cost estimates, estimated monetary valuation, and perceived personal value of medical coverage and pension plan, as follows:

a. Employees under the flexible plan will more accurately estimate the employer's contributions to the medical and pension plans than employees under the standard plan.

b. Employees under the flexible plan will more accurately estimate the monetary valuations of the medical and pension plans than employees under the standard plan.

c. There will be an insignificant difference in the perceived personal value of the medical and pension plans by employees in the flexible system versus those in the standard system.

3) There will be a significant positive correlation between employee cost estimates for medical coverage and pension plan and the monetary valuations of those benefits.

4) There will be an insignificant correlation between the following:

a. employee cost estimates for medical coverage and pension plan and the perceived personal value of those benefits.

b. employee monetary valuations for medical coverage and pension plan and the perceived personal value of those benefits.

Population and Sample

Two populations are involved in this study. The first population is employees enrolled in a standard benefits plan and the second population is employees who receive their benefits in the form of a flexible plan. Each population was sampled. The goal of this research was to have two sample groups with about fifty respondents. A random sample was achieved by generating a list of names, assigning random numbers to those names, and then choosing random numbered people to survey.

The first population, employees enrolled in a standard plan, was sampled by surveying staff members of the university. There are some flexible features to the university's standard plan which need mentioning. This school offers the ability for

employees to contribute a certain amount of pre-tax dollars for medical expenses not covered by the plan. In addition, employees can make an additional contribution to a retirement plan with pre-tax dollars above their state retirement plan. However, these flexible features are found in many standard plans and are almost becoming standard themselves. The university's benefits plan is still a standard one in the sense that employees do not choose their benefits and set the amount of coverages they desire. The university phone directory was used to provide the list of names from which the respondents were selected. The questionnaires were mailed to administrators, managers, secretaries, and other staff members of similar positions.

The second population, employees enrolled in a flexible benefits plan, was sampled by surveying employees of a large southeastern international production company, in the petroleum industry, who wished to not be named in this study. There benefits plan was a flexible one in the sense that each employee was given a choice of three medical plans and a variable 401K pension plan. The employee elected the amount of medical coverage that (s)he needed, in addition to selecting the amount (s)he would like to contribute to her/his pension plan. These benefits are not mandatory for the employees and there are other benefits they may enroll in, such as child care, flextime, and other pre-tax investment opportunities. A list of employees from the personnel department was used to select the respondents. The questionnaires were mailed to employees of similar position title to those at the university.

Three hundred questionnaires were sent to each sample group in an attempt to attain 50 useable responses; this was to compensate for non-response. University staff members were sampled first. Employees of the company which offers a flex plan were sampled second.

Measures and Variables Used

The dependent variables in the study are: (a) employee estimates of employer monetary contributions to the medical plan and the pension plan (cost estimates), (b) the accuracy of employee cost estimates (i.e., employee estimates compared to actual contributions) for the medical and pension plans, (c) employee monetary valuations of their medical coverage and pension plan, (d) the accuracy of employee monetary valuation estimates (i.e., employee estimates compared to actual contributions), and (e) employee perceived personal value of their medical coverage and pension plan. The independent variables in the study are: (a) employee assessments of their exposure to benefits information, which represents a measure of familiarity, measured on a 5 point Likert scale, and (b) the type of benefit system in which the employee is currently enrolled, that is, flexible system or standard system. The type of benefit plan represents two hypothesized levels of benefits familiarity, with the flexible system considered to provide higher benefit familiarity than the standard system.

A written questionnaire was used to obtain measures of the dependent and independent variables (see Appendices B & C). The dependent variable of employee cost estimates was measured by asking respondents to estimate their employer's monetary contribution to the medical plan and the pension plan (questions 2 a & b respectively). The dependent variable of accuracy of cost estimates was measured by dividing the employee "estimated" amount (provided from the answers to questions 2 a & b) by the "actual" employer contribution (obtained directly from the organization) for each respondent. This yielded an accuracy figure in terms of a percentage for each respondent. The dependent variable of monetary valuation was measured by using the cash substitution procedure (questions 3 & 4) that has appeared in previous valuation research (e.g., Famulari & Manser, 1989; Wilson et al., 1985). The cash value was

determined by first taking the point where the respondent switched from "cash and benefit" to the "cash only" option. Second, using the point where the respondent chose "cash only" the difference was calculated between the "cash only" and the "cash and benefit" options to see how much cash it took to make the respondent switch. Finally, this cash value represents a total dollar value to the respondent for his/her benefit. This cash value was then divided by the particular benefit's total value (combined employee and employer contributions to the benefit) to derive a monetary valuation accuracy in terms of a percentage. An estimated dollar value of each benefit was asked for. Famulari and Manser stated that "there is the cash-equivalent approach, wherein value is the least amount of money an individual would be willing to accept in exchange for not receiving a certain benefit" (1989: 25). Famulari and Manser also discussed the three most commonly utilized techniques to estimate cash-equivalent value. The first approach is referred to as Utility-Based Estimates. In this method some functional form for utility is assumed. A particular demand system is estimated, and then parameter estimates are used to compare the cost of reaching levels of utility with and without a given noncash benefit. The second method described is called the Survey Approach. With this method employees are directly asked about their willingness to pay for certain noncash benefits. The third approach is called The Hedonic Approach. The theory behind this approach is that variation in the observed mix of benefits is derived from employees' different preferences for those benefits and employers' different ability to provide those benefits (1989: 27). Famulari and Manser also suggested that "Employer cost as a proxy for how the median employee's value of benefits has changed over time also seems reasonable" (1989: 28).

The dependent variable of personal valuation was measured by asking respondents to complete a benefits preference form (question 5). This form, developed and used by

Davis et al. (1988b), requires respondents to assign a given amount of preference points among 11 different benefits. This procedure allows the respondent to indicate the "relative" value of each benefit compared to other benefits and provides a more realistic approach to the measurement of preferences than an absolute rating procedure. As has been stated in the prior research by Davis et al., "One important asset of using the point distribution approach to measure preferences is that respondents were not forced to rank order the benefits . . . Instead, the respondents could assign equal points to any number of benefit preferences, thereby allowing them to express indifference among subsets of the benefit alternatives" (1988b: 3). The same form and dollar values used by Davis et al. was used in this study, with the exception that only 10 benefits were offered instead of the 11 the original form offered. The option of "higher starting salary" was excluded due to the fact that all respondents were already employed.

In organizational settings, employees are asked to decide upon their relative preferences for different kinds of benefits because of budgetary limitations. This is achieved either through formal arrangements such as the flexible benefits plan, or through feedback to the personnel department obtained through meetings, questionnaires, or informal channels. In the present study, the points assigned by respondents to medical coverage and the pension plan represent a realistic measure of their personal valuation of benefits. It should be stated that the benefit preference form used in this study provides approximate cost figures for each of the ten benefit options. These cost amounts were calculated to represent "equal" monetary values to the respondents, thereby dampening any tendency to assign preference points on a purely economic basis.

The independent variable of self-perceived familiarity was measured by asking respondents to reply with levels of agreement to questions on medical coverage and

pension plan (question 1). A general level of familiarity was attained by asking them to rate those questions on a 5 point Likert scale and then adding the answers for all parts of the question. Answers to all individual parts of the question were summed together to yield a total score representing each respondents level of familiarity. This was similar to the technique used by Williams and Levy to measure knowledge of performance appraisal systems (1992). Surveying those in a flexible plan and those in a standard plan served as the measure for plan enrollment.

Other author's suggestions, and a literature review, led to the formations of the hypotheses made about these variables. While this study looks at the major variables associated with benefit valuation, not all variables have been included. Some of the variables left out are such things as the demographics which affect personal preferences (Davis et al., 1985a, 1985b, 1988a, 1988b). Because not all variables will be included, all of the variance in the dependent variable will not be accounted for by the independent variables. However, the intention of this study is to better understand how the chosen variables are related to the dependent variable. Variables not chosen were left out because their relationship is already understood.

The benefit package monetary substitution technique, to place a dollar value on benefits, use in previous studies (Famulari & Manser, 1989; Wilson et al., 1985), has upheld its validity and reliability. Validity and reliability for assessing benefit worth came from comparing estimated benefit worth to actual cost of the benefits obtained from the company. Reliability for the measurement of familiarity was also assessed.

Since most of the data was actual dollar amounts, Yes or No responses, point allocation, or ratings some coding of the variables was necessary. Using the appropriate coding to analyze the information under SAS was necessary.

Methods of Data Collection

Data was collected through the use of a questionnaire. The questionnaires were mailed to the university staff members via intercampus mail and mailed directly to the chosen company's personnel department where they were put in interoffice mail. The university questionnaires were returned via a return address enclosed on the original mailing to a campus address. The second sample returned their questionnaires to their personnel director, who mailed all of them back to this author. The data was collected mostly at one sitting and individually. The questionnaire should have been done basically during one time period. A preprinted return address hopefully encouraged questionnaire returns from the university sample, in addition to offering a report of the findings. The questionnaire was also as concise as possible and that should have encouraged a response. As far as the questionnaires gathered from the chosen company, going through the personnel department was hopefully an additional incentive to respond.

The data gathered from the questionnaire was held strictly confidential. A letter was enclosed with the questionnaire to notify the subjects of this. There should have been no concern on the part of the subjects that their names were attached to the results. After the information was gathered for mailing addresses and cost correlations were calculated, there was no longer an attachment of the name to the data. With respect to the data collected from the company, there is no publication of the individual's names or the company name and strict confidentiality was stressed. The only obligation of the company included in this study was help in getting the questionnaires distributed to the employees and supplying medical coverage and pension plan cost figures.

Data Collection

Three hundred people from both sample populations were sent questionnaires. There was approximately a 24% response rate, however, only 45 of the responses from the university staff respondents were usable. Therefore, an equal amount of 45 of the respondents from the second sample group were used so as to compare equal sample sizes. Reasons for inability to use responses included: incomplete responses, removing the identification number attached to each questionnaire which allowed the attainment of the individual's actual benefit cost figures, not selecting a level where "cash only" was preferred on the third and fourth questions, and answering questions in a manner not consistent with the directions. In addition, those in the university sample who answered "yes" to having been enrolled in a flexible benefits plan were not included. Finally, those not participating in either a medical coverage plan, a pension plan, or both were excluded from the pool of usable responses. This was due to the fact that this research assumes different familiarity levels based on exposure to the flex plan. Removing respondents with flex experience from the university sample was necessary.

Experimental Design

This study is cross sectional because the questionnaire's data was collected at one point in time. This study is an experimental design in the form of a field experiment. Two groups--university staff members and employees who receive benefits in the form of a flex plan--were the basis on which comparisons are made. Data on the variables discussed earlier came from the questionnaire. The questionnaire was four pages--open and close ended in nature--and served as a measure of the independent variables. This study is a continuation of previous research and suggestions have been made as to the type of findings discovered.

Data Analysis

The first test to be conducted was a test of reliability for question one on the survey. Cronbach's coefficient alpha (α) was employed to ensure a high average reliability coefficient calculated from all of the possible split-half reliabilities (Gatewood & Feild, 1990: 178). A coefficient alpha was calculated for the two groups studied in this thesis (see Results).

Due to a lack of normality (see Results and Table 1), and to avoid making other assumptions about population distributions, non-parametric statistical procedures were employed. To test the first hypothesis, the rating of benefit familiarity was tested with respect to accuracy of employee estimation of benefits cost and monetary valuation to see if a positive correlation existed. First, a sum of all benefit familiarity questions was computed to place a total score on the individual's level of benefit familiarity. Next, a percentage of accuracy was calculated by comparing the subjects estimate of their benefits' cost to the actual benefits' cost. The same type of percentage of accuracy was calculated for monetary valuation to see by what percentage employees under or over valued their benefits dollar worth in relation to the total cost of their benefits. This was done so that the employees from the two different benefit plans could be compared on an equal basis since their benefits cost different amounts. Kendall's rank correlation coefficient, τ, a nonparametric statistics, was calculated. The correlational coefficients between benefit familiarity and cost accuracy, as well as benefit familiarity and monetary valuation revealed the strength of the linear relationship between these two variables that was independent of their respective scales of measurement (Siegel, 1956).

For the second hypothesis, it is suspected that the type of benefit plan the respondent is covered by will affect the accuracy of cost estimates as well as valuation of

the benefits. The Mann-Whitney U test, U, was used to see if those under the flex plan were better estimators of their benefit's cost (hypothesis a.) and held a higher monetary valuation of both their pension plan and medical coverage (hypothesis b.). The null hypothesis tested was that the estimation of benefit's cost and monetary valuation were at equal levels in the two groups (Siegel, 1956).

The Kruskal-Wallis One Way ANOVA for ranked data, H, was used to see if there was a difference in the two groups personal values held of their benefits (hypothesis c.). The null hypothesis tested was that there were no difference among the mean ranking of the ten benefit options between the two groups (Siegel, 1956).

For the third hypothesis, Kendall's rank correlation coefficient, τ, was calculated. The correlation determined if a positive linear relationship existed between the accuracy with which employees estimate their employer's cost of their medical coverage and pension plan with the employee's monetary valuation of those two benefits.

To test the fourth and final hypothesis, the Spearman Rank Correlation Coefficient (Mendenhall, Reinmuth, & Beaver, 1993: 908), r_s, was calculated using each benefit's personal valuation as the dependent variable and first accuracy of cost estimation and then accuracy of monetary valuation for medical coverage and pension plan as the independent variables.

To analyze the benefit preference survey information, a transformation of the data was required. This was because the allocations of preference points among benefit options represents a different type of score, known as an ipsative measure, which "yields scores in a set of variables such that each score is dependent on the other scores" (Davis et al., 1988b: 3). In order to properly analyze this data, transforming the point scores into rank-order scores was performed, as has been done in previous

research (Davis et al., 1988b: 3). Performing this transformation also made the use of nonparametric statistics available (Siegel, 1956).

V. RESULTS

Reliability Analysis

All measures on the questionnaire came from previous research except for the first question. For this reason it was necessary to test the reliability of the question measuring respondents' levels of benefit familiarity. To test the reliability of the first question the two sample groups were kept separate and a reliability analysis was conducted by calculating Cronbach's Coefficient Alpha (α) Reliability Estimate (Gatewood & Feild, 1990). A preliminary analysis of reliability for the university staff respondents yielded an α=.54 when all parts of the question were included. Upon closer examination of the answers, items i and j had visibly different answers. The answers were different than the answers to the other items because they were extremely more variable than the answers to the other items and generally lower responses. Generally, most items were responded to with some agreement, agreement or strong agreement. Conversely, items i and j received answers at both extremes of the scale while other answers remained consistently at one end of the scale. Many subjects disagreed to items i and j while strongly agreeing to the other items. However, other respondents still strongly agreed to items i and j. For this reason the researcher decided to drop these items from the question. Once parts i and j of the question were dropped out, the coefficient increased to α=.82 for the question measuring benefit familiarity. This is a comfortable level of reliability (Gatewood & Feild, 1990), and therefore parts i and j were not included for the data analysis. The reliability analysis was then

conducted for the second sample group without their answers to parts i and j. This group's answers to the question measuring self-perceived benefit familiarity revealed a coefficient of α=.81. The researcher concluded from this analysis that the question measuring self-perceived benefit familiarity was a reliable one, as revised excluding parts i and j. The remaining questions were considered reliable because they were duplicated from reliable research (Davis et al., 1988b; Wilson et al., 1985).

Transformation of Variables

The questions measuring the employees' estimation of their medical and pension plans costs to their employers, as well as the questions used to attain a monetary valuation for medical and pension plans, yielded a dollar amount figure for each respondent. The data for accuracy with which employees estimated their benefits' cost to their employers was calculated for the respondents. First, the actual employers and employees contributions' to the medical coverages were calculated. For the university sample, the university contributes 60% of the medical premium (which equals $206 a month for family coverage and $101 a month for single coverage), and the individual pays the remaining 40% (which equals $137 a month for family coverage and $67 a month for single coverage). For the second sample, the employer contributes 70% of the medical premium (which equals $150, $225, and $300 for plans A, B, and C respectively), and the employee pays the remaining 30% (which equals $64, $96, and $129 for plans A, B, and C respectively). Second, the data for an accuracy figure for each respondents estimation of the employer's contribution to medical coverage was calculated. This was done by comparing the answer from question 2(a), which asked the respondent to estimate his/her employer's contribution with the actual contribution. Third, the data for an accuracy figure for each respondents monetary valuation for

medical coverage was calculated. This was done by taking the point where subjects switched from the "cash & benefit" option to the "cash only" option and comparing this figure to the actual monetary worth of the medical coverage (attained by combining employee and employer contributions). This was the same process used in previous research (Wilson et al., 1985).

Next, the salaries for both groups of respondents were attained. For the university sample salaries were accessible because they are public information, and for the second sample group the salaries were attained through the personnel department. Actual employer and total contribution to the employees' pension plans were then calculated. For the university sample, the state contributes 6.31% of the employees' salary to their pension plans, while the employees contributes 5% of their salary via a payroll deduction. For the second sample's pension plans, each employee is allowed to contribute up to 7% of his/her salary to his/her plan and the employer matches this contribution dollar for dollar. Any contribution made by the employee over 7% is no longer matched.

The data for an accuracy figure for each respondents estimation of the employer's contribution to his/her pension plan was calculated the same as for medical coverage. In addition, the data for an accuracy figure for each respondents monetary valuation for his/her pension plan was calculated the same as was done for medical coverage. These accuracy figures were the data used in analyzing the results so that everyone could be compared on an equal level, due to the fact that different employees' benefits cost different amounts. All descriptive statistics for the two groups responses to these measures can be seen in Table 1.

The formal test for normality was conducted using SAS. The value of the test statistic for normality is represented by W. The column labeled P<W, in Table 1, is the

TABLE 1

Summary of Descriptive Statistics for the Two Samples

	Flexible Benefits Plan Sample (N=45)				Standard Benefits Plan Sample (N=45)			
	Mean	SD	Variance	P<W	Mean	SD	Variance	P<W
Total Familiarity Points (Sum Of Question 1)	45.13	1.89	3.57	.227	31.47	1.60	2.57	.027*
Accuracy of Medical $ Estimates (From Question 2a)	.90	.08	.01	.001 ***	.73	.24	.06	.187
Accuracy of Pension $ Estimates (From Question 2b)	.92	.08	.01	.000 ***	.71	.23	.05	.163
Accuracy of Medical Monetary Valuation (From Question 3)	.91	.09	.01	.000 ***	.87	.31	.09	.00***
Accuracy of Pension Monetary Valuation (From Question 4)	.96	.09	.01	.157	.92	.54	.29	.00***

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

probability describing how doubtful the idea of normality is (Schlotzhauer & Littell, 1987: 118). "Probability values (p-values) can range from zero to one ($0 \leq Prob \leq 1$). Values very close to zero indicate the data are not a sample from a normal distribution and produce the most doubt in the idea" (Schlotzhauer & Littell, 1987: 118-119). As

can be seen from Table 1, some of the data were not normally distributed ($p<.001$). Therefore, the necessary assumption of normality required to perform parametric statistics was violated and nonparametric statistics were employed.

Test of Correlation

Results from calculating Kendall's rank correlation coefficient (τ) are found in Table 2. This table includes τ, its corresponding Z-score, and the associated p-value. The closer to zero the p-values, the more likely the probability that the Z-score indicates that the value of the test statistic (τ) could not have reasonably occurred by chance. With very small p-values the null hypothesis is rejected and is concluded not true (Schlotzhauer & Littell, 1987: 127). The null hypothesis being tested in this case is that the two variables are not associated in the population from which this sample was drawn. With very small p-values the null is rejected and the two variables are concluded to be associated in the population from which this sample was drawn (Siegel, 1956: 222).

There was a significant positive correlation found ($p<.001$) between the total familiarity scores subjects reported with their accuracy in estimating their benefits' costs to their employer, as well as with employees' accuracy in estimating their benefits' monetary valuation for two benefits: medical coverage and pension plan. In addition, significant positive correlations were found ($p<.001$) between cost estimates for medical coverage and pension plan and the monetary valuations of those benefits. These findings supported both hypotheses 1 and 3 in this research (p. 27-28). Hypothesis 1 stated that employee ratings of benefit information and employee self-perceived familiarity with benefits will have a positive correlation with the accuracy of employee estimates of employer cost and the accuracy of employee monetary valuations

of two types of benefits: medical coverage and pension plan. Hypothesis 3 stated that there will be a significant positive correlation between employee cost estimates for medical coverage and pension plan and the monetary valuation on those benefits.

TABLE 2

Kendall's Rank Correlation Coefficients

	Accuracy of Medical $ Estimates	Accuracy of Pension $ Estimates	Accuracy of Medical Valuation	Accuracy of Pension Valuation
Total Familiarity Points	τ=.34 Z=4.80 p=.00003 ***	τ=.37 Z=5.16 p=.00003 ***	τ=.32 Z=4.52 p=.00003 ***	τ=.33 Z=4.65 p=.00003 ***
Accuracy of Medical $ Estimates		τ=.81 Z=11.31 p=.00003 ***	τ=.47 Z=6.50 p=.00003 ***	τ=.30 Z=4.19 p=.00003 ***
Accuracy of Pension $ Estimates			τ=.43 Z=6.00 p=.00003 ***	τ=.29 Z=4.10 p=.00003 ***

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

Sample Groups Differences

The results from performing the Mann-Whitney U-Test can be found in Table 3. Comparing the levels of accuracy for those enrolled in the flexible plan versus those enrolled in the standard plan revealed significant differences. The results show significant differences in group levels of self-perceived familiarity, the two groups accuracy for estimating benefits cost, as well as the two groups accuracy in estimating benefits monetary valuation, all at the p<.01 level.

TABLE 3

Summary of Mann-Whitney U-Test: Comparing Subject Differences in Self-Perceived Familiarity Levels, Cost Estimation Accuracy, and Monetary Valuation Accuracy Based on Enrollment in the Flexible or Standard Plan

	Z-Score	Prob>/Z/
Total Familiarity Points	8.20	.0001 ***
Accuracy of Medical $ Estimates	4.13	.0001 ***
Accuracy of Pension $ Estimates	4.72	.0001 ***
Accuracy of Medical Valuation	2.72	.0065 **
Accuracy of Pension Valuation	3.94	.0001 ***

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

As seen in Table 1, those in the flexible plan had a higher mean accuracy for estimating benefits cost as well as estimates of their monetary valuation for medical coverage and pension plan. These significant differences ($p<.01$) in the two groups shows that those in the flexible plan held significantly higher accuracy measures than those in the standard plan. These findings supported both hypotheses 2(a) and 2(b) (p. 27-28). Hypothesis 2(a) stated that employees under the flexible plan will more accurately estimate the employer's contributions to the medical and pension plans than employees under the standard plan. Similarly, hypothesis 2(b) stated that employees under the flexible plan will more accurately estimate the monetary valuation of the medical and pension plans than employees under the standard plan.

To see if the two groups differed in their rating of benefit preferences on Question 5 of the Questionnaire, a Kruskal-Wallis One-Way ANOVA for ranked data was performed (Table 4).

TABLE 4

Summary of Kruskal-Wallis One-Way ANOVA: Testing Subjects Differences in Employees' Preferences for Benefits Based on Enrollment in the Flexible or Standard Plan

	H	Prob>/H/
A. Cost of Living	.13	.715
B. Early Retirement	2.87	.091*
C. Days Off	1.64	.200
D. Pension	.56	.456
E. Four Day Week	.04	.849
F. Medical-Life Insurance	3.17	.075*
G. Flextime	.08	.776
H. Stock Options	1.46	.227
I. Leave of Absence	.32	.573
J. Vacation	.23	.629

*$p<.10$

As can be seen from Table 4, there were insignificant differences ($p>.05$) found between the two groups for the rating of preference for the 10 benefit options offered. There was, however, a moderate difference found ($p<.10$) for early retirement and medical-life insurance (H=2.87 and H=3.17 respectively). Those in the standard plan had a higher mean rank for the early retirement option, and those in the flexible plan

had a higher mean rank for the medical-life insurance option, as can be seen in Table 5. These findings, while not highly significant ($p<.01$), were mentioned because of the findings reported next which may contribute to these moderate differences. These only moderate differences supported hypothesis 2(c) in this research (p. 28). Hypothesis 2 (c) stated that there will be an insignificant difference in the perceived personal value of the medical and pension plans by employees in the flexible system versus those in the standard system.

TABLE 5

Summary of Statistics for Preference Points: Raw Scores and Scores Converted to Rankings

	Flexible Plan (N=45)			Standard Plan (N=45)		
	Mean Preference	Mean Rank	SD Ranks	Mean Preference	Mean Rank	SD Ranks
A. Cost of Living	19.60	8.17	2.19	21.50	7.91	2.32
B. Early Retirement	3.48	3.24	1.86	3.73	3.58	1.53
C. Days Off	5.62	4.12	2.11	5.37	4.59	1.72
D. Pension	21.00	8.88	0.97	20.50	8.54	1.40
E. Four Day Week	9.17	5.26	2.62	10.50	5.33	2.70
F. Medical-Life Insurance	17.90	8.31	1.66	16.40	7.92	1.30
G. Flextime	5.86	4.29	1.81	5.33	4.19	1.76
H. Stock Options	3.68	3.29	2.09	3.75	3.63	1.98
I. Leave of Absence	6.13	4.67	1.71	5.31	4.54	1.96
J. Vacation	7.37	4.84	1.95	7.20	4.76	2.10

Preference Differences

The affect of self-perceived familiarity on differences in benefit preferences was analyzed by computing a Spearman rank-order correlation. Table 5 shows the mean preference points, and their conversions mean ranks, that respondents in the two plans had for the possible benefit options.

To analyze preference differences, Table 6 shows the results from the computation of a Spearman rank-order correlation.

TABLE 6

Summary of Spearman Rank Correlation Coefficients r_s: Correlations between Employees' Total Familiarity Points with Their Benefit Preferences

	A	B	C	D	E	F	G	H	I	J
Total Familiarity Points										
r_s=	.02	-.20	-.01	.09	-.13	.20	.02	-.08	.09	.04
t=	.14	-1.88 *	-.07	.84	-1.26	1.94 *	.19	-.75	.80	.39

Each letter above corresponds to the following benefit: A. Cost of Living B. Early Retirement C. Days Off D. Pension E. Four Day Week F. Medical-Life Insurance G. Flextime H. Stock Options I. Leave of Absence J. Vacation

*$p<.05$

As can be seen, there were 2 significant findings ($p<.05$). There was a significant negative correlation found between self-perceived familiarity with early retirement (r_s=-.20). That is, as the total self-perceived points increased, preference for early retirement decreased. There was also a significant positive correlation found between self-perceived familiarity with medical-life insurance (r_s=.20). That is, as the total amount of self-perceived familiarity points increased, so did preference for

medical-life insurance. It can be seen (Table 5) that those in the flexible plan held a slightly higher mean ranking for medical-life insurance, and a slightly lower mean ranking for early retirement, although this difference was only moderately significant ($p<.10$, Table 4). Since self-perceived familiarity was correlated to these two benefits, it is possible that these different familiarity levels contribute the moderate difference in the two groups preferences for those benefits (Table 4). Table 1 shows those in the flexible plan have a higher mean level of familiarity points. However, while the level of self-perceived familiarity variable was correlated to those two preferences, differences in group preferences were still insignificant ($p>.05$) and in support of hypothesis 2(c). While familiarity level may have led to the moderately significant ($p<.10$) group differences in preference for those two benefits ($H=2.87$ and $H=3.17$ for early retirement and medical-life insurance respectively), this variable's affect on group benefit preference differences at a higher statistical level ($p<.05$) was insignificant. It appears that other variables than self-perceived familiarity are what affects benefit preference.

Table 7 shows the Spearman rank-order correlations between accuracy of cost estimation and accuracy of monetary valuation for medical coverage and pension plan with the preferences for the 10 different benefits offered.

As can be seen (Table 7), all correlations found between (a) accuracy of cost estimation and (b) monetary valuation for medical coverage and pension plan with any of the 10 benefit options respondents expressed their preferences for were insignificant ($p>.05$). These findings supported hypothesis 4 in this research (p. 28). Hypothesis 4 stated that there will be an insignificant correlation between (a) employee cost estimates and (b) employee monetary valuation for medical coverage and pension plan and the perceived personal value of those benefits.

TABLE 7

Summary of Spearman Rank Correlation Coefficients r_s: Correlations between Employees' Cost Estimations and Monetary Valuations with Their Benefit Preferences

	A	B	C	D	E	F	G	H	I	J
Accuracy Medical $ Estimates										
r_s=	-.07	-.15	-.08	.04	-.09	.06	.14	-.03	.04	.05
t=	-.69	-1.43	-.72	.34	-.81	.58	1.36	-.31	.36	.47
Accuracy Pension $ Estimates										
r_s=	-.04	-.16	-.11	.00	-.05	.08	.14	.02	-.05	.08
t=	-.34	-1.54	-1.00	.00	-.50	.76	1.28	.20	-.42	.75
Accuracy Medical Valuation										
r_s=	.01	-.14	.10	-.12	-.17	.14	.17	-.07	.04	-.10
t=	.12	-1.34	.96	-1.16	-1.64	1.32	1.57	-.70	.40	-.91
Accuracy Pension Valuation										
r_s=	.14	-.15	.01	.05	-.09	.12	-.03	-.12	.02	-.04
t=	1.35	-1.39	.12	.45	-.81	1.14	-.29	-1.14	.16	-.36

Each letter above corresponds to the following benefit: A. Cost of Living B. Early Retirement C. Days Off D. Pension E. Four Day Week F. Medical-Life Insurance G. Flextime H. Stock Options I. Leave of Absence J. Vacation

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

VI. DISCUSSION

The present study examined employees accuracy in estimating their benefits' (a) cost to their employer, (b) monetary valuation (for medical coverage and pension plans), and (c) perceived personal value for benefits as influenced by different levels of self-perceived benefit familiarity. Different levels of familiarity were assumed to be due to enrollment in a flexible or standard benefits plan. It was hypothesized that those with higher levels of self-perceived familiarity would be more accurate when asked to estimate their benefits' cost to their employer as well as have a more accurate estimate of their benefits' monetary valuation (for medical coverage and pension plan). In addition, it was suspected that those enrolled in a flexible benefits plan would be the group which more accurately estimated the cost and monetary valuation. Other hypotheses include the suspection of a correlation between cost estimation and monetary valuation. However, it was also hypothesized that perceived personal value, as measured by a preference scale, would be insignificantly correlated to cost estimates and monetary valuation and there would be insignificant differences in personal value for medical insurance and pension plan between those in the flexible plan and those in the standard plan. Results from the study pertaining to each of these hypotheses are discussed below.

Self-Perceived Familiarity

The first hypothesis proposed in this study examined the correlation between rating of self-perceived familiarity and employee's estimates of employer cost and employee's estimates of monetary valuation for the two benefits: medical coverage and

pension plan. Hypothesis 1 predicted that as self-perceived familiarity with benefits increased (as measured by the total amount of familiarity points from question 1 in the questionnaire) so would (a) the accuracy with which employees estimated the cost of their benefits to their employers and (b) the accuracy with which employees estimated the total monetary valuation of their benefits for two types of benefits: medical coverage and pension plan. The results, discussed in the previous section, from the computation of Kendall's rank correlation coefficient revealed that there were strong correlations between the total number of self-perceived familiarity points employees possessed and the following: accuracy of their medical coverage cost estimates (τ= .34), accuracy of their pension cost estimates (τ= .37), accuracy of their medical coverage monetary valuation (τ= .32), and accuracy of their pension monetary valuation (τ= .33). All correlations were supported at a p< .001 level and thus supported the researcher's hypothesis. This finding is in agreement with the reasoning behind the suggestion made in the research by Wilson et al. (1985) that those in a flexible benefits plan would hold a higher monetary valuation for their benefits over those in a standard plan. The reasoning offered in the present study is that it is the familiarity that one possesses of his/her benefits that affects the accuracy with which one estimates his/her benefits cost to his/her employer as well as his/her benefits' monetary valuation. Thus, the highly significant correlations provide evidence for this reasoning and support Wilson et al. (1985) suggestion. This research also suggests these findings are in agreement with other research (Barber et al., 1992; Famulari & Manser, 1992; Tane, 1992), in that due to the higher levels of communication of the flex plan those employees were more familiar with their medical coverage and pension plan benefits.

While not a hypothesis, this research has suggested that self-perceived familiarity would not have been correlated to benefit preference. This suggestion was

what led to the development of hypothesis 2(c), which suggested that there would have been insignificant group differences for those benefit preferences. There were two significant correlations ($p<.05$) found between familiarity and benefit preferences. Familiarity was positively related to medical-life insurance ($r_s=.20$) and negatively related to early retirement ($r_s=-.20$). While there were these correlations, group differences for benefit preferences were only moderately significant ($p<.10$) for those two benefits, and at a higher statistical level ($p<.05$) differences were insignificant for all benefits surveyed. This researcher suggests that other variables, other than self-perceived familiarity, are what affects group benefit preference.

Group Differences

The second hypothesis proposed in this study examined the differences in (a) cost estimation, (b) monetary valuation, and (c) perceived personal value between the group sampled from the standard plan and the group sampled from the flexible plan. Hypothesis 2(a) predicted that those in the flexible benefits plan would more accurately estimate the employer's contributions to the medical and pension plans over those in the standard plan. The results from the Mann-Whitney U test, shown in Table 3, revealed significant differences in the two groups estimation of employers' contribution to their medical plans ($Z= 4.13$), and estimation of employers' contribution to the pension plan ($Z= 4.72$), both at the $p< .001$ level. Table 1 revealed those in the flexible plan held a higher mean accuracy for estimating employer's contributions to their medical plan (mean=.90) and pension plan (mean=.92) than those in the standard plan (mean=.73 and mean=.71 respectively).

Hypothesis 2(b) predicted that those in the flexible benefits plan would be more accurate when estimating monetary valuation of the medical and pension plans than those

under the standard plan. Through a measurement of the accuracy with which employees estimated the monetary valuation (combined employee and employer costs), Table 3 shows a significant difference in the two groups accuracy in measuring their medical coverage's monetary valuation ($Z=2.72$) and their pension plan's monetary valuation ($Z=3.94$) both at a $p<.01$ level of significance. Table 1 shows those in the flexible plan held a higher mean accuracy for estimating their medical coverages' monetary valuations (mean=.91) and their pension plans' monetary valuations (mean=.96) than those in the standard plan (mean=.87 and mean=.92 respectively). The significance of the evidence found strongly supported part "a" and "b" of the second hypothesis. In addition, both hypotheses 2(a) and 2(b) supported the suggestions made in prior research (Barber at al., 1992; Famulari & Manser, 1989; Tane, 1992; Wilson et al., 1985) that those in a flexible benefits plan would be more accurate than those in a standard plan when asked to estimate the following: (a) their benefits' cost to their employer and (b) their monetary valuations for their benefits' total value (their contribution plus their employer's contribution).

This researcher suggests that the increased accuracy's with which one estimated their employer's contribution to benefits may have contributed to the increase in the accuracy with which (s)he estimated his/her benefit's total monetary valuation. Prior research (Wilson et al., 1985) has documented that employee samples form different medical coverage plans were accurate when asked to estimate their own contribution to their benefits and this estimation measure was therefore not studied again. However, the same research also revealed employees were not accurate when asked to estimate their employer's contributions. This part of one's total monetary valuation was studied. For this reason, this researcher suggests that since monetary valuation is comprised of two parts (employees estimates of their own and employer's contributions to their

benefits), and the estimation of the self contribution part was shown to be accurate for those of different plans (Wilson et al., 1985), then it was the increased accuracy estimates for employer's contributions which may have caused the increased accuracy when estimating monetary valuation.

Hypothesis 2(c) predicted that there would be an insignificant difference in the two groups average personal valuations held of the two benefits medical coverage and pension plan. Table 4 revealed insignificant differences ($p>.05$) for the two groups average preference rankings for all 10 benefits offered. However, there were two moderately significant group differences found ($p<.10$). The two groups differed in their mean preference rank for early retirement and medical-life insurance. Table 5 revealed that those in the flexible plan had a slightly lower mean (mean=3.24) rank for the early retirement option than those in the standard plan (mean=3.58), and those in the flexible plan had a slightly higher mean rank (mean=8.31) for the medical-life insurance option than those in the standard plan (mean=7.92). These findings were only moderately significant and the researcher's hypothesis 2(c) was supported at a stronger level of statistical significance ($p<.05$). However, while self-perceived benefit familiarity for medical coverage and pension plan was significantly correlated to these two benefit options ($p<.05$), group differences were still insignificant ($p>.05$). The moderately significant group differences were reported to show that while the different familiarity levels, possibly from enrollment in a flexible plan versus a standard plan, were significantly correlated ($p<.05$) to preference for those two benefits, they may have only accounted for a moderate difference in personal values for those two benefits ($p<.10$).

This finding is important because while parts "a" and "b" of the second hypothesis supported the suggestion in previous research (Barber et al., 1992;

Famulari & Manser, 1989; Tane, 1992; Wilson et al.,1985), part "c" dissents from the same line of reasoning. Those enrolled in a flexible benefits plan were shown to have an insignificant difference in their perceived personal value for benefits offered over those in a standard plan. However, there were some significant correlations found between the benefit options and the familiarity levels. As Table 6 shows, there were two significant correlations found between total familiarity points and benefit options ($p<.05$). Early retirement was negatively related to total familiarity points, and medical-life insurance was positively related to total familiarity points. That is, as total familiarity points increased, the mean rank for early retirement decreased, in addition, the mean rank for medical-life insurance increased. This finding was important because while the two groups differences on their mean rank for these options were insignificant, when taken at an individual level as the total amount of familiarity points one possessed increased, personal preference for early retirement decreased and personal preference for medical-life insurance increased.

This insignificant ($p<.05$) group difference finding agreed with the findings in the previous research by Davis et al. where similar group preferences for the benefit options were found for students from three geographical subgroups (1988b: 8). This research has shown similar preferences for benefits for employees of different benefit plan subgroups. The findings from this research are also consistent with the results of an earlier benefit study by Davis et al. (1988b) in showing that the monetary options received a much higher value than the nonmonetary options. For those in the flexible plan, the pension plan option was most preferred, closely followed by a cost of living adjustment and medical-life insurance. For those in the standard plan, pension plan was also most preferred, closely followed by medical-life insurance and the cost of living adjustment. As can be seen in Table 5, both groups valued these three monetary benefits

with approximately twice as many benefit preference points as some of the time-oriented benefits offered in the questionnaire. This finding is in agreement with the previous research performed by Davis et al. (1988b).

The Correlation between Dollar Estimation and Monetary Valuation

The third hypothesis proposed in this study examined the correlation between the employees' accuracy estimates of employers' costs for their medical and pension plans and the accuracy estimates for the monetary valuation they held for those benefits.

As can be seen in Table 2, the computation of Kendall's rank correlation coefficient revealed there were significant positive correlations ($p < .001$) between the following: (a) the accuracy with which employees estimated their employer's contribution to their medical coverage and the accuracy with which employees estimated the total monetary valuation of their medical coverage plan ($\tau = .32$) and (b) the accuracy with which employees estimated their employer's contribution to their pension plan and the accuracy with which employees estimated the total monetary valuation of their pension plan ($\tau = .29$).

Hypothesis 3 predicted that as the accuracy with which one estimated his/her benefit's cost to his/her employer increased, so would the accuracy increase for the monetary valuation one held for that benefit for the following: medical coverage and pension plan. The highly significant positive correlations found supported this researcher's hypothesis. This hypothesis supports the concept that as one better understands the cost of their benefits to his/her employer, he/she also better understands the total value of his/her benefits,and is in agreement with previous research conducted by Wilson et al. (1985).

Cost Estimates' and Monetary Valuations' Affects
on Perceived Personal Values

The fourth hypothesis proposed in this study examined the correlation between (a) accuracy of cost estimates and (b) monetary valuations with (c) perceived personal valuation . Hypothesis 4(a) predicted that there would be an insignificant relationship between the following two pairs of variables: (a) accuracy of cost estimates for medical coverage with perceived personal value for medical coverage and (b) accuracy of cost estimates for pension plan with perceived personal value for pension plan. Hypothesis 4(b) predicted that there would be an insignificant relationship between these following two pairs of variables: (a) accuracy of monetary valuation for medical coverage with perceived personal value for medical coverage and (b) accuracy of monetary valuation for pension plan with perceived personal value for pension plan. The figures reported in Table 7 revealed that all correlations, resulting from the computation of the Spearman rank correlation coefficient, were insignificant ($p > .05$). The Spearman rank correlation coefficient was calculated to analyze the correlations between the (a) accuracy of cost estimates and (b) accuracy of monetary valuation for medical coverage and pension plan with all 10 benefit options offered. All 40 correlations were insignificant ($p > .05$) and supported the fourth hypothesis made in this research. These findings are in agreement with hypothesis 2(c) made in this research, in showing that the two groups in this study had insignificant differences ($p > .05$) in their perceived personal values for the 10 benefits offered.

A Re-Visit to the Model

With the research findings supporting all 4 of the hypotheses it is important to analyze the conceptual model once again in terms of the hypotheses (see Appendix D). As can be seen, the results in Table 2 supported the first and third hypotheses. Hypothesis

1 stated that self-perceived familiarity will be positively correlated to the accuracy of employee estimates of employer cost and accuracy of employee monetary valuations of two types of benefits: medical coverage and pension plan. Hypothesis 3 stated that there will be a significant positive correlation between employee cost estimates for medical coverage and pension plan and the monetary valuations of those benefits.

The results in Table 3 supported hypothesis 3. Hypotheses 3(a) and 3(b) stated that employees under the flex plan will more accurately estimate the employer's contributions and the monetary valuations of the medical coverage and pension plans than employees under the standard plan.

Table 4's results supported hypothesis 2(c) by showing there was an insignificant difference in the perceived personal value of the medical and pension plans by employees in the flexible system versus those in the standard system.

Finally, the results in Tables 6 and 7 supported the fourth hypothesis. Hypothesis 4 stated that there will be an insignificant correlation between (a) employee cost estimates and (b) employee monetary valuation for medical coverage and pension plan and the perceived personal value of those benefits. The correlations reported in Tables 6 and 7 were insignificant. Therefore, the model was supported in showing that perceived personal value is independent of the other factors which contribute to one's benefit value.

This strong significance of the research findings indicate that this model is very useful in understanding some of the factors influencing one's benefit value.

VII. SUMMARY OF THE FINDINGS AND THEIR IMPLICATIONS

Familiarity

The results of this study revealed several important statistically significant findings. First, as employees' rating of self-perceived benefit familiarity increased, so did the accuracy with which employees estimated their benefits' cost to the employer as well as the accuracy with which employees estimated their benefits' monetary valuation (combined employee and employer contributions) for two types of benefits: medical coverage and pension plan. Second, it was shown that those enrolled in a flexible benefits plan were more accurate when asked to estimate their medical coverage's and pension plan's cost to their employer than those in the standard plan. In addition, those enrolled in the flexible plan were shown to be more accurate in estimating the monetary valuation's of their medical coverage and pension plan. Familiarity was also shown to be correlated with the perceived personal values of early retirement and medical-life insurance. However, while there was this correlation, there were insignificant differences in the two group perceived personal values for all benefit options surveyed. This suggests that while familiarity may have been a variable affecting the monetary valuations and cost estimations for those in the flex plan, it may not have been one which affect perceived personal value for the flex plan group versus the standard plan group.

These findings are important because this research has shown that those in the flexible plan held a higher mean level of total familiarity points than those in the standard plan. This leads the researcher to believe that since those in the flexible plan

held significantly higher levels of familiarity and were more accurate in estimating cost and valuation, and familiarity points were correlated to accuracy measures, than possibly it was the higher familiarity levels of those in the flex plan that contributed to a higher accuracy when estimating cost and valuation for those in the flex plan. These findings are important to all employers who provide benefit plans. This research has shown the potential value to familiarizing employees with their benefits as being to have employees who better understand the total cost of their benefits. It has also shown that those in the sample from the flex plan were more familiar than those in the sample from the standard plan. Possibly it is the nature of the flex plan that caused those enrolled in it to have a higher level of familiarity than those in the standard plan, as suggested in previous research (Barber et al., 1992; Famulari & Manser, 1989; Tane, 1992; Wilson et al., 1985). However, there is no reason why those enrolled in a standard plan can not be informed as much as those in the flex plan, the employees just needs to be given additional education.

While this research has shown familiarity to be correlated to accuracy of cost estimates and monetary valuation for medical coverage and pension plan, it has also shown that the accuracy with which employees estimated their employer's contribution to their medical coverage and pension plan was correlated to the accuracy with which they estimated the monetary valuation for the for the two plans respectively. This is another important reason for employers to plan benefit communication efforts which will maximize employee awareness of the employer's contribution in order to maximize benefit monetary valuation. This researcher suggests that the findings are congruent with Wilson et al. (1985) who suggested those in the flexible benefits plan would better estimate benefits cost and hold a higher monetary valuation.

Perceived Personal Value

The results from this study have shown a significant correlation between benefit familiarity points with the following: (a) medical-life insurance (a positive correlation) and (b) early retirement (a negative correlation). However, while these correlations existed, this research has shown that familiarity led to an insignificant difference in the perceived personal values for benefits, as measured by a benefit preference question, between the two groups. Apparently, there are other variables which offset the correlation. In addition, the correlations between (a) accuracy of cost estimates and (b)monetary valuation estimates with the perceived personal values were insignificant. This researcher suggests that these findings are congruent with Davis et al. (1988b) who revealed insignificant group differences for benefit preferences between various demographic groups of students. These findings are important to note because while this research has shown group differences for benefit familiarity, it has shown insignificant group differences for benefit preferences (a measure of perceived personal valuation). It is also important for employers who provide benefits to understand that this research has revealed while familiarity of medical coverage and pension plan strongly correlated with several variables, it only significantly correlated with the preference for two benefits.

Implications for Affects of Benefit Familiarity

Survey results have shown that those in a flexible benefits plan held a higher level of self-perceived benefit familiarity, for medical coverage and pension plan, than those in a standard plan. Results have also shown that familiarity affected the accuracy with which employees estimated two benefits' costs and monetary valuations. While this was shown, there were insignificant differences found between the two groups perceived

personal valuation for benefits. These results imply that possibly those in a flex plan are more familiar with their medical coverage and pension plan benefits and therefore hold a higher understanding of those benefits' costs.

The present findings suggest several recommendations for employers who wish to maximize an understanding of the cost of the benefits packages they provide. For employees to perceive their benefits as what they actually cost, and understand the total value of their compensation, this research suggests employees should be made familiar with all facets of their benefits. This research implies the nature of a benefits plan (flex or standard) is related to familiarity and therefore affects one's total monetary valuation. However, it does not imply that familiarity alone will cause groups under the flex or standard plans to have different preferences. While familiarity was correlated to both plan enrollment and one's preference for two benefits, group enrollment was shown to cause an insignificant difference in the preference for those two benefits. This finding suggests that there are other variables, besides familiarity, which affect benefit preferences for those enrolled in different benefit plans.

Assumptions and Limitations

This study does have some limitations, as most do. Not all independent variables influencing benefits valued were included in order to keep the size of this research realistic. Previous research has documented correlations for such variables as demographic influences, and this study tried to reveal different additional correlations not previously well understood. Another limitation, unfortunate but common, was a low response rate.

One assumption in this research was that the different levels of benefit familiarity among the two groups of interest were a partial cause for the different total

monetary valuations. In comparing the monetary and personal values of benefits, it was shown that there was an insignificant relationship between how accurate one estimated the cost of a benefit and how important those benefits were to that person. However, it was shown that familiarity affected the level of accuracy with which one estimated the cost of his/her medical coverage and pension plan benefits.

It was also assumed that those receiving more benefit information were better off because it was helpful to them. If people do not read or understand the information they are receiving then obviously this information does not help them. For the purposes of this research it was assumed that those in flex plans, as shown that they perceived themselves as being more familiar with their medical coverage and pension plan benefits, benefitted from the additional information.

This research also assumed the nature of the pension plan did not affect the measures. The university sample was under a defined benefit plan, which is uncommon. Those from the flex plan were under a defined contribution plan. It was assumed that these differences had a minimal affect on other measures.

Other assumptions made were conclusions drawn from previous research. Drawing from the conclusions, this study attempted to add on and discover more correlations which can be useful in future research.

Importance of the Research and Need for Future Research

With the ever increasing importance of benefits in today's society, it is necessary to understand how employees value them. The flex plan is becoming ever more popular, while there is not a full understanding of what workers know about the benefits they are choosing among. The benefits employees prefer have been well documented (Davis et al., 1985a, 1985b, 1988a, 1988b), but the reason underlying how benefits

are valued is not so well understood. There have not been many studies conducted on the familiarity that workers possess of their benefits. It has been concluded that an employee's being a poor estimator of a benefit's cost means that the employee undervalues his/her benefit (Wilson et al., 1985). However, this research has suggested that total monetary valuation--comprised of total employee and employer benefit contribution estimation--and perceived personal value, the two parts to one's benefit value, are not related.

Communication may be the key to high levels of knowledge. This study tried to show these correlations, thus the need for good communication programs when hired and discussing benefits, as well as throughout employment. It has been suggested that under a flex plan employees can place a better total monetary valuation on their benefits (Wilson et al., 1985). This study has revealed this connection and thus the need for good communication.

By placing a better total monetary valuation on benefits, employees may appreciate the cost of their benefits and have a higher value for their compensation. The company is already paying for these benefits, why not show the workers how to get the most out of them by better educating their employees. By giving choices, the flex plan itself may not reduce costs immediately for the employer's benefit program, but hopefully the maximization of benefits used, and the use of alternative health care options, will cut costs in the long run (Employee Benefit Plan Review, 1992: 12-14). This area needs further research. This study has shown benefit familiarity to be closely related to total benefit monetary valuation, and a whole new attitude should be taken when designing compensation packages. Employees will no longer feel that their benefits are useless if valuation can be maximized, and those high benefit cost can possibly be used as a positive motivation for employees. Research should be performed in this area

to see if employees who better understand their benefits' cost hold a higher value for their compensation.

Benefit value needs to be better understood from a "why" standpoint. By conducting this study, possibly one questions was answered on why people may inaccurately estimate the total monetary valuation of their benefits. In addition, hopefully knowledge contributes to this valuation process and better communication programs can be encouraged for flex plan companies as well as non-flex companies. If benefits are to be used to their fullest potential, and motivate employees, research in this direction needs to be taken. Research also needs to be directed at developing a model which will explain all the independent variables which affect one's benefit value. With a better understanding of these variables, employers can enhance the value employees hold of their benefits and realize just how much their compensation is worth.

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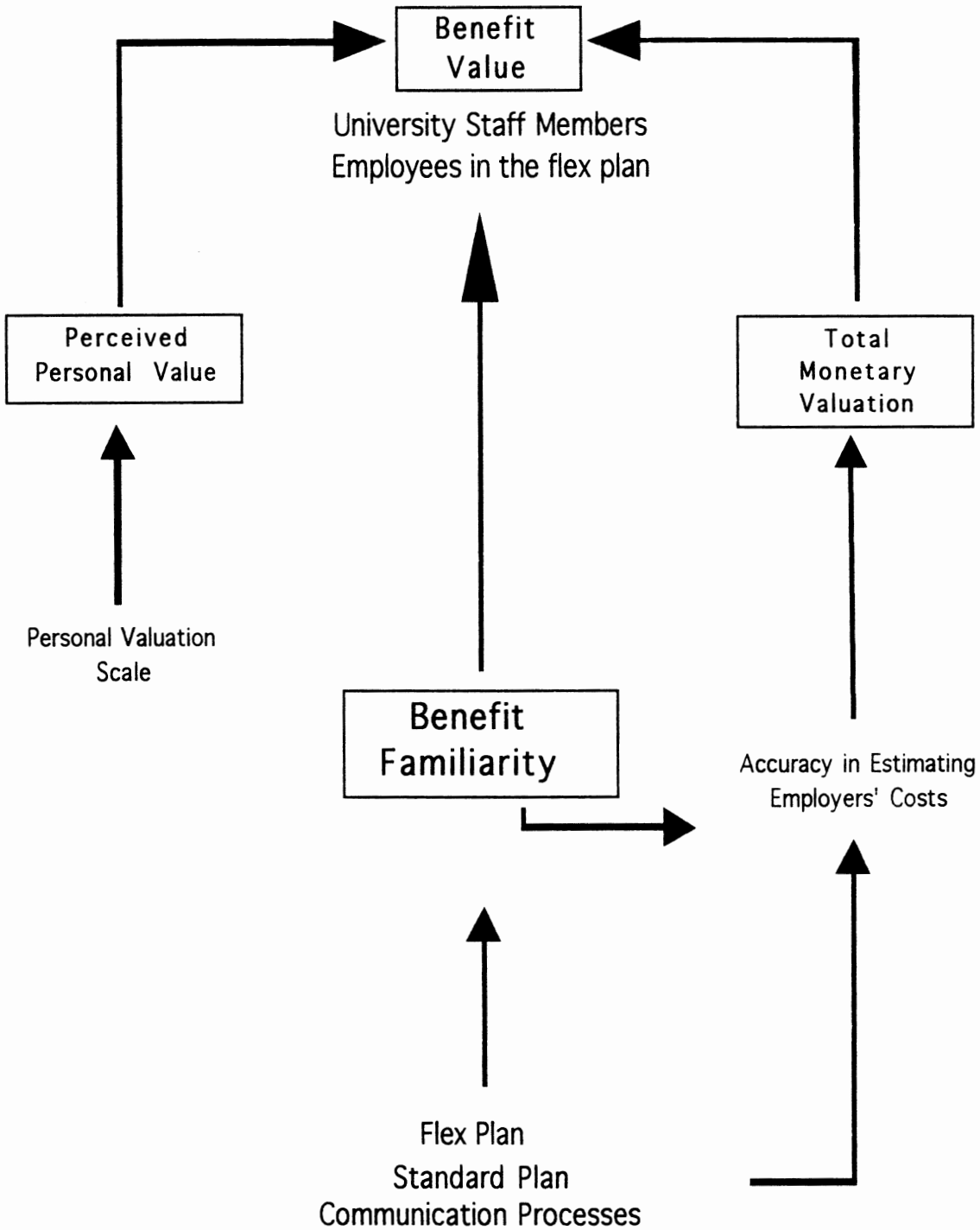
APPENDICES

APPENDIX A

CONCEPTUAL MODEL

Conceptual Model



APPENDIX B

QUESTIONNAIRE SENT TO SAMPLE ONE

M. Cheney Brunner
College of Business
401 Department of Management
Auburn University, AL 36849

Dear Sir or Madam:

I am currently a candidate for a Master of Science in Human Resources Management at Auburn University. The following questionnaire is being presented for your completion so that I may collect data for the thesis I am writing. My thesis involves a study of employee benefits, and your answers will allow the testing of several hypotheses that have been made in previous research of benefits.

The answers you provide will be held in complete confidentiality, and in no way will your name be revealed in the writing of this thesis. The thesis will compare your answers to actual cost figures, and only the correlation found will be reported. This thesis is attempting to compare employees in a flexible benefits plan to those in a standard benefits plan.

I need your responses back as soon as possible so that I may complete this thesis and submit it to the Graduate School for approval. Once completed, please simply fold and staple the four page questionnaire, ensure my address sticker appears on the front, and drop in a campus mail box or return to room 401 in the College of Business.

I would like to offer a summary of my findings in exchange for your help. Would you like for me to send you a copy of the summary of my findings? (Please circle one).

YES NO

I appreciate your help in completing my thesis, and I look forward to studying your responses. Thank you very much for your help.

Sincerely,

M. Cheney Brunner

Benefit Questionnaire

1. Please mark each of the following statements as to how much you agree or disagree with the statement:

5	4	3	2	1
Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree

a. ___ My organization provides employees with a well-explained brochure about the medical coverage plan.

b. ___ My organization provides employees with a well-explained brochure about the retirement plan.

c. ___ Meetings are frequently held by my organization to explain any changes in the medical coverage plan and to answer employee questions.

d. ___ Meetings are frequently held by my organization to explain any changes in the retirement plan and to answer employee questions.

e. ___ My organization's personnel staff are knowledgeable and informative about all aspects of the medical coverage plan.

f. ___ My organization's personnel staff are knowledgeable and informative about all aspects of the retirement plan.

g. ___ I feel that I understand the most important aspects of my medical coverage - including what is covered and how to file claims.

h. ___ I feel that I understand the most important aspects of my retirement plan - including what is covered and how to claim my retirement pay.

i. ___ My organization frequently brings in medical insurance specialists to educate and answer any questions about the plan.

j. ___ My organization frequently brings in retirement plan specialists to educate and answer any questions about the plan.

k. ___ I believe I have as good an understanding of my medical coverage as I need.

l. ___ I believe I have as good an understanding of my retirement plan as I need.

2. Please answer the following questions with a dollar estimate.

   a. Please estimate the monthly amount contributed by <u>your employer</u> to your <u>medical insurance</u> plan : $___

   b. Please estimate the monthly amount contributed by <u>your employer</u> to your <u>retirement plan</u> : $___

3. Please check your preference for one of the two options presented in each question below for being given either a fixed salary bonus, or a smaller salary bonus combined with an insurance benefit: (Note: Please assume that either option would be an addition to your current salary, and that you would be without insurance, and have to purchase your own medical insurance if you were to chose the "bonus only" option).

a. ___$50 per pay period and current medical insurance	or	___$100 per pay period
b. ___$300 per pay period	or	___$225 per pay period and current medical insurance
c. ___$100 per pay period and current medical insurance	or	___$200 per pay period
d. ___$175 per pay period and current medical insurance	or	___$300 per pay period
e. ___$400 per pay period	or	___$250 per pay period and current medical insurance
f. ___$125 per pay period and current medical insurance	or	___$300 per pay period
g. ___$300 per pay period and current medical insurance	or	___$500 per pay period
h. ___$300 per pay period	or	___$75 per pay period and current medical insurance
i. ___$150 per pay period and current medical insurance	or	___$400 per pay period
j. ___$500 per pay period	or	___$225 per pay period and current medical insurance
k. ___$100 per pay period and current medical insurance	or	___$400 per pay period

l. ___$500 per pay period	or	___$175 per pay period and current medical insurance
m. ___$500 per pay period	or	___$150 per pay period and current medical insurance

4. Please check your preference for one of the two options presented in each question below for being given either a fixed salary bonus, or a smaller salary bonus combined with a retirement benefit: (Note: Assume that either option would be an addition to your current salary, and that you would be without a state retirement plan, and have to purchase your own retirement plan if you were to chose the "bonus only" option).

a. ___$50 per pay period and state retirement plan	or	___$100 per pay period
b. ___$300 per pay period	or	___$200 per pay period and state retirement plan
c. ___$400 per pay period	or	___$250 per pay period and state retirement plan
d. ___$100 per pay period and state retirement plan	or	___$300 per pay period
e. ___$250 per pay period and state retirement plan	or	___$500 per pay period
f. ___$400 per pay period	or	___$100 per pay period and state retirement plan
g. ___$50 per pay period and state retirement plan	or	___$400 per pay period
h. ___$500 per pay period	or	___$100 per pay period and state retirement plan
i. ___$50 per pay period and state retirement plan	or	___$500 per pay period
j. ___$600 per pay period	or	___$100 per pay period and state retirement plan
k. ___$600 per pay period	or	___$50 per pay period and state retirement plan
l. ___$100 per pay period and state retirement plan	or	___$700 per pay period

m. ___$700 per pay period or ___$50 per pay period and state retirement plan

5. Below is a list of typical benefit options found in many benefit packages. If such options were available to you, what would be your relative preference for each one? To indicate your preferences, please allocate 100 points among the 10 options listed below in order of your preferences. You may assign any number of points to any option as long as the total of your points equals 100. (Note: All benefit options are offered at an equal monetary value).

a. ___ Cost-of-living increase of at least $1,320 every year.

b. ___ Early retirement at $62^1/_2$ years of age (rather than 65) with the same benefits.

c. ___ Fifteen nonconsecutive days off with pay every year for personal use (not vacation).

d. ___ An increase in yearly retirement income from $^1/_2$ to $^3/_4$ of average salary for your last three years of employment.

e. ___ Four day workweek at the same salary (nine and one-half hours per day).

f. ___ Medical and life insurance premiums equal to $110 per month paid by the company.

g. ___ Let you come to work anytime between 6 am and 9 am and leave anytime between 3 pm and 6 pm as long as you total 38 hours per week over five consecutive days.

h. ___ Opportunity to buy 264 shares of company's stock for 80% of its market value every year (present market value is $25 per share; thus you could initially purchase each share for $20).

i. ___ Paid 15 week leave of absence every five years.

j. ___ Three weeks of extra vacation with pay every year.

6. Please answer the following questions either Yes or No.

a. Have you ever participated in a flexible benefits plan? ___

b. Are you currently enrolled in a flexible benefits plan? ___

7. Which form of medical coverage are you covered by: (Please check one of the following).

___Family Coverage ___Single Person Coverage ___Not Covered

AGAIN, THANK YOU FOR YOUR HELP!

APPENDIX C

QUESTIONNAIRE SENT TO SAMPLE TWO

M. Cheney Brunner
201 Heather Drive
Central, SC 29630
(803) 654-2979

Dear Sir or Madam:

I am currently a candidate for a Master of Science in Human Resources Management at Auburn University, and I am Clemson University Alumnus. The following questionnaire is being presented for your completion so that I may collect data for the thesis I am writing. My thesis involves a study of employee benefits, and your answers will allow the testing of several hypotheses that have been made in previous research of benefits.

The answers you provide will be held in complete confidentiality, and in no way will your name be revealed in the writing of this thesis. The thesis will compare your answers to actual cost figures, and only the correlation found will be reported. This thesis is attempting to compare employees in a flexible benefits plan to those in a standard benefits plan.

I need your responses back by Friday, February 3rd so that I may complete this thesis and submit it to the Graduate School for approval. Once completed, please simply fold and tape closed the four page questionnaire and return it to your Human Resources Director.

I will be providing a summary of my findings to your company in exchange for your help. Would you like for me to send <u>you</u> a copy of the summary of my findings? (Please circle one). YES NO

I appreciate your help in completing my thesis, and I look forward to studying your responses. Thank you very much for your help.

Sincerely,

M. Cheney Brunner

Benefit Questionnaire

1. Please mark each of the following statements as to how much you agree or disagree with the statement:

5	4	3	2	1
Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree

a. ___ My organization provides employees with a well-explained brochure about the medical coverage plan.

b. ___ My organization provides employees with a well-explained brochure about the retirement plan.

c. ___ Meetings are frequently held by my organization to explain any changes in the medical coverage plan and to answer employee questions.

d. ___ Meetings are frequently held by my organization to explain any changes in the retirement plan and to answer employee questions.

e. ___ My organization's personnel staff are knowledgeable and informative about all aspects of the medical coverage plan.

f. ___ My organization's personnel staff are knowledgeable and informative about all aspects of the retirement plan.

g. ___ I feel that I understand the most important aspects of my medical coverage - including what is covered and how to file claims.

h. ___ I feel that I understand the most important aspects of my retirement plan - including what is covered and how to claim my retirement pay.

i. ___ My organization frequently brings in medical insurance specialists to educate and answer any questions about the plan.

j. ___ My organization frequently brings in retirement plan specialists to educate and answer any questions about the plan.

k. ___ I believe I have as good an understanding of my medical coverage as I need.

l. ___ I believe I have as good an understanding of my retirement plan as I need.

2. Please answer the following questions with a dollar estimate.

   a. Please estimate the monthly amount contributed by your employer to your medical insurance plan : $___

   b. Please estimate the monthly amount contributed by your employer to your retirement plan : $___

3. Please check your preference for one of the two options presented in each question below for being given either a fixed salary bonus, or a smaller salary bonus combined with an insurance benefit: (Note: Please assume that either option would be an addition to your current salary, and that you would be without insurance, and have to purchase your own medical insurance if you were to chose the "bonus only" option).

a. ___$300 per pay period	or	___$225 per pay period and current medical insurance
b. ___$100 per pay period and current medical insurance	or	___$200 per pay period
c. ___$175 per pay period and current medical insurance	or	___$300 per pay period
d. ___$400 per pay period	or	___$250 per pay period and current medical insurance
e. ___$125 per pay period and current medical insurance	or	___$300 per pay period
f. ___$300 per pay period and current medical insurance	or	___$500 per pay period
g. ___$300 per pay period	or	___$75 per pay period and current medical insurance
h. ___$150 per pay period and current medical insurance	or	___$400 per pay period
i. ___$500 per pay period	or	___$225 per pay period and current medical insurance
j. ___$100 per pay period and current medical insurance	or	___$400 per pay period
k. ___$500 per pay period	or	___$175 per pay period and current medical insurance

l. ___$500 per pay period	or	___$150 per pay period and current medical insurance
m. ___$100 per pay period and current medical insurance	or	___$500 per pay period

4. Please check your preference for one of the two options presented in each question below for being given either a fixed salary bonus, or a smaller salary bonus combined with a retirement benefit: (Note: Assume that either option would be an addition to your current salary, and that you would be without a company retirement plan, and have to purchase your own retirement plan if you were to chose the "bonus only" option).

a. ___$300 per pay period	or	___$200 per pay period and current retirement plan
b. ___$400 per pay period	or	___$250 per pay period and current retirement plan
c. ___$100 per pay period and current retirement plan	or	___$300 per pay period
d. ___$250 per pay period and current retirement plan	or	___$500 per pay period
e. ___$400 per pay period	or	___$100 per pay period and current retirement plan
f. ___$50 per pay period and current retirement plan	or	___$400 per pay period
g. ___$500 per pay period	or	___$100 per pay period and current retirement plan
h. ___$50 per pay period and current retirement plan	or	___$500 per pay period
i. ___$600 per pay period	or	___$100 per pay period and current retirement plan
j. ___$600 per pay period	or	___$50 per pay period and current retirement plan
k. ___$100 per pay period and current retirement plan	or	___$700 per pay period
l. ___$700 per pay period	or	___$50 per pay period and current retirement plan

m. ___$100 per pay period and current retirement plan	or	___$800 per pay period
n. ___$800 per pay period	or	___$50 per pay period and current retirement plan
o. ___$100 per pay period and current retirement plan	or	___$900 per pay period
p. ___$900 per pay period	or	___$50 per pay period and current retirement plan

5. Below is a list of typical benefit options found in many benefit packages. If such options were available to you, what would be your relative preference for each one? To indicate your preferences, please allocate 100 points among the 10 options listed below in order of your preferences. You may assign any number of points to any option as long as the total of your points equals 100. (Note: All benefit options are offered at an equal monetary value).

a. ___ Cost-of-living increase of at least $1,320 every year.

b. ___ Early retirement at $62\frac{1}{2}$ years of age (rather than 65) with the same benefits.

c. ___ Fifteen nonconsecutive days off with pay every year for personal use (not vacation).

d. ___ An increase in yearly retirement income from $\frac{1}{2}$ to $\frac{3}{4}$ of average salary for your last three years of employment.

e. ___ Four day workweek at the same salary (nine and one-half hours per day).

f. ____ Medical and life insurance premiums equal to $110 per month paid by the company.

g. ___ Let you come to work anytime between 6 am and 9 am and leave anytime between 3 pm and 6 pm as long as you total 38 hours per week over five consecutive days.

h. ___ Opportunity to buy 264 shares of company's stock for 80% of its market value every year (present market value is $25 per share; thus you could initially purchase each share for $20).

i. ___ Paid 15 week leave of absence every five years.

j. ___ Three weeks of extra vacation with pay every year.

AGAIN, THANK YOU FOR YOUR HELP!

APPENDIX D

A RE-VISIT TO THE MODEL

A Re-Visit to the Model