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Correlations of Income Level and Employee Tradeoff Preference Between Wages and Fringe Benefits

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CORRELATIONS OF INCOME LEVEL AND EMPLOYEE TRADEOFF PREFERENCE BETWEEN WAGES AND FRINGE BENEFITS

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ABSTRACT

This thesis seeks to determine if a relationship exits between income level and employee preferences for various benefits as measured against a form of wage trade-off value utilizing Maslow's theory of hierarchy of needs as a basis.

The ever increasing cost of providing benefits makes it important for organizations to formulate benefit packages that maximize their value to employees as part of the overall compensation package. Research which adds to the understanding of how benefits are valued by employees can aid in the formulation of successful and efficient compensation structures.

A limited amount of research has been conducted to date seeking predictors of benefit satisfaction or employee valuation. Many of these studies have produced limited or sometimes contradictory results.

The purpose of the current study is to determine if income can be used as a predictor of the importance level an employee places on pay to predict their trade-off preference between pay and non-wage benefits. This study will test two hypotheses. The first hypothesis predicts that pay will rank ahead of non-wage benefits

in importance to employees but that this importance level will be negatively correlated to income. The second hypothesis predicts that employees with lower household incomes will be more likely to trade benefits for increased pay in order to address unmet income needs. This should be reflected by a negative correlation between income level and the willingness to trade benefits for increased cash wages.

One hundred fifty-two employees of a suburban hospital completed a written compensation questionnaire. The questionnaire measured income level, the ability of income to meet or exceed living expenses, the respondent's importance ranking of compensation attributes, and the respondent's willingness to trade benefits for additional cash wages. Data were analyzed on a percentage basis, by a Chi squared and by a correlation coefficient review.

While pay did rank ahead of other compensation attributes, and a substantial number of respondents indicated a willingness to trade benefits for additional pay, the Chi squared test as well as the correlation coefficient analysis failed to produce evidence to support any significant relationship of these variables with income level. Thus both hypotheses were rejected with respect to their anticipated correlation with income level.

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DEDICATION:

The completion of this project and the academic program with which it is associated, would not have been possible with out the support, sacrifice, patience, and encouragement provided by the three most important people in my life. With this recognition, this paper is dedicated to my wife Cathy, and daughters Amanda and Sarah.

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Preface

Prior to the 1940's compensation consisted of primarily monetary wages and included few if any non-wage benefits. During the 1940's non-wage benefits typically accounted for less than five percent of the average compensation package's total value to the employee and cost to the employer. Today some industries report that non-wage benefits consume thirty percent or more of the compensation package provided to their employees. This dramatic change is partially the result of a greater number of benefits being offered as well as a rapid increase in the purchase cost of many of the benefits.

As competitive pressures force American businesses to analyze their costs of producing products and services, it will become incumbent upon them to recognize this growing cost of providing non-wage benefits. If these benefits are valued by employees equal to or beyond their cost, they can be considered an asset. If however, the cost of providing benefits exceeds the value employees place on them, they then become a liability and an inefficient utilization of resources in the attraction and retention of labor.

Chapter I

INTRODUCTION

Compensation - A Description

Richard Vancil noted that the word compensation can have similar but different meanings. According to Vancil,

> The definition of compensation varies widely, depending on one's perspective. A business executive's dictionary might read, that which is given as equitable return for something rendered, usually services. The IRS might define it as anything of value which is given by an employer to an employee, and therefore is subject to consideration for tax. An employee might say, what I get to live on in return for working. (334)

Prior to the turn of the century, most American employees received cash wages or salary as a single form of compensation in exchange for their labor. Today a majority of American employees receive monetary wages combined with one or more non-wage benefits as the total compensation provided to them by their employer in exchange for their labor. Thus compensation for labor has become a multi-component package of money, services and security programs. The employee receives a quantifiable amount of money combined with the personal perspective value of the benefit plan. The employer pays for the cost of labor

with a quanifiable amount of cash wages plus the quantifiable cost of the benefit plan.

Today's compensation packages contain a variety of non-wage benefits including but not limited to, various types of insurance, pension plans, savings plans and paid time off benefits, as well as free or discounted services. Commonly offered benefits include medical insurance, life insurance, dental insurance, disability insurance, sick pay, prescription drug coverage, pension plans, thrift savings plans, vacation, holidays, tuition reimbursement, vision care, child care, health care spending accounts, child care spending accounts, health and fitness programs, and discounts on company sponsored products and services.

Prior to World War II, most American companies offered very few employee benefits. This began to change during the 1940's as a result of the price and wage restrictions implemented by the federal government. "Most benefit programs began in earnest during the war when wages were strictly regulated" (Ivancevich 471). Since companies could not increase wages to attract and retain labor due to those restrictions, they began to offer fringe benefits in order to compete with other firms and industries. Since that time, it has become increasingly commonplace for companies to add more and more benefit components

to their compensation packages. A variety of factors have influenced this trend.

> The rapid growth of fringe benefits over the past decades has been the result of the following: (1) government requirements that employers provide particular benefits such as Social Security; (2) the nontaxable status (and thus greater relative value) of many benefits for the individual employee; (3) government imposed wage control during World War II; (4) continual union pressure to increase dollars allocated to fringe benefits; (5) the desire for management to better satisfy employee needs; (6) the ability of companies to obtain group rates that provide better benefits at the same cost or the same benefits at lower cost; and recently (7) government's efforts to shift the cost of certain services to the private sector. (Bergmann 59)

Thus benefits continue to be offered by companies as a cost effective way to provide for or satisfy employees needs and desires in order to attract, motivate and retain labor. The optimal compensation plan from an employer's perspective will be one that satisfies the greatest number of priority needs of the greatest number of individuals at the lowest cost.

Abraham Maslow developed a theory to explain human behavior and motivation through a model of needs prioritization.

> Maslow's theory of hierarchy of needs stresses two fundamental premises: (1) Man is a wanting animal whose needs depend on what he already has. Only needs not yet satisfied can influence behavior. (2) Man's needs are arranged in a hierarchy of importance. Once

> one need is satisfied, another emerges and demands satisfaction. (Donnelly 305-306)

Maslow proposed that man seeks to satisfy five categories of need in the following order of priority; physiological needs, safety needs, social needs, esteem needs, and self actualization needs. "Physiological needs consist of the human body's primary needs" (306). This includes items relating to physical survival and comfort ranging from the basics of food and drink to material possessions which provide comfort and convenience such as housing, clothing and appliances.

> Physiological needs will dominate when they are unsatisfied, and no other needs will serve as a basis for motivation. A person who is lacking food, safety, love and esteem probably would hunger for food more strongly than for anything else. (306)

Safety needs become the next priority after the physiological needs are met. Safety needs consist of items which provide security from harm or loss of physical well being and the physiological need satisfiers.

> From a managerial standpoint, safety needs show up in an employees attempt to ensure job security and fringe benefits. Through wages or salary, individuals are able to satisfy their own and their families' physiological needs. Organizations also help to satisfy security or safety needs through both salary and fringe benefits programs. (306-308)

Thus wages and benefits address the first two priority need categories as described by Maslow's theory.

Benefit Trends In Cost And Value

During the past fifty years, more and more companies and industries began to include benefits in their compensation packages. During the same period, companies with existing benefit plans continued to add benefit options and broaden coverages. This trend, in combination with the rising cost of purchasing benefits, has resulted in benefit costs becoming a substantial percentage of overall payroll costs. This trend is evidenced by a variety of statistics representing different time periods. Bergmann quantifies this trend as follows,

> When benefits were first introduced they were truly fringe; that is, they made up only 3% of total compensation in 1929. In 1990, benefits constituted approximately 28% (38 cents added to each dollar of wages) of total compensation for the private sector. (397)

The statistics vary from source to source, but all represent a substantial growth over the period. "There is some variation due to industry and region of the country, but recent surveys show that average benefit costs equal nearly 38% of salaried employee base pay (1990)" (Hennessey 90). In present value terms, this

growth has far outpaced the rate of inflation. "Benefits in dollars per year per employee climbed from $644 in 1951 to $5,560 in 1979. That's a 208 percent increase over inflation as tracked by the consumer price index" (Lindsey 62).

Now that benefits represent such a sizable portion of total compensation, their cost may have exceeded the value employees place on them and thus represent, to some extent, an inefficient form of compensation.

> If compensation and benefits are to provide organizations with a cost effective way to attract, motivate and retain human resources then benefits packages that fail to provide valued benefits to employees may represent a waste of an organization's time and money. (Rabin 68)

This may be the case in many organizations today. Various researchers have found that employees do not accurately value benefits in relation to their cost. For example, "it appears that employees tend to undervalue their benefit packages and to underestimate the costs incurred by employers" (Lust 89). Not only have increasing costs outpaced the value employees place on benefits, these perceived values may indeed be declining. "Benefits costs continue to rise, but perceived value - the value employees place on benefit programs - is declining in many organizations" (Ruth 9).

The individuals need for a benefit and the priority they place on satisfying that need is the factor which can produce a differential between the value and the cost of any given benefit.

> A normatively appropriate model for valuing a benefit would include considerations of (1) the market cost of the benefit; (2) the employee's marginal rate of income taxation; (3) transaction costs; and (4) the employee's personal needs and preferences. Of these considerations, only an employee's needs and preferences might deflate the value of a benefit if a particular benefit is neither wanted or needed. (Wilson 310)

Therefore an organization is challenged to select and provide benefits which are needed and thereby valued by their employees. Employee needs will vary depending on their personal perspectives, personal situations and demographics. Selecting and providing benefits which meet the greatest number of common needs is more easily accomplished with a demographically homogeneous work force. This was somewhat the case fifty years ago.

> When benefit plans were in their infancy, their provisions were designed with just one kind of employee in mind: a male breadwinner who stayed married to a woman who was content to be a full time homemaker taking care of a growing family of children. (Foster 11)

This typical employee demographic profile has changed dramatically over the past fifty years. A great deal of demographic diversity exists in today's American

workforce as a result of changing social and economic factors.

> Some of the new important considerations are: a workforce that is older and better educated, a much greater number of women, smaller families, more women who leave the workforce only temporarily to have children, a growing number of two earner couples, more divorces and remarriages, more single parents, more empty nesters and other single person households without dependents, greater life expectancy, and much less feeling of lifetime commitment to one company. (11-12)

This diversity makes it increasingly difficult to provide a benefits package that efficiently meets the needs of any given company's employee population.

> No matter how hard it tries, a company cannot devise a benefits program that is ideal for each of its employees; the range in individual situations is too wide. The changing face of the American working population makes it virtually impossible for any benefits program to the best for everyone. (156)

As diversity in the workforce grew, companies added new benefit components and expanded the scope of existing benefits in an attempt to meet the broader range of needs which accompanied the expanding demographic profile. This expansion of the fixed benefit plan was one trend in benefit plan design; the goal being the satisfaction of the broadest range of needs to maintain the employee's perceived value of the benefit portion of the compensation package. The resulting cost of this

expansion along with the diminishing employee satisfaction results, however, have many organizations looking for alternative benefit plan designs (Barber 56).

Many organizations now require employees to pay for a portion of the cost of their benefits in response to the high cost of providing benefits. This however has a negative effect on employee satisfaction when employees are forced to pay for benefit components that are not desired but must be taken as a part of a fixed benefit package. In response to this issue, Flexible benefit plans were created and introduced.

> An increasingly popular option today is the "cafeteria" or "flexible" benefit plan, in which employees may choose among a variety of benefits, or choose among varying levels of benefits. Typically, employers establish limits for total plan costs and, within certain limits, allow employees to determine how the total benefit dollars are spent. (Barber 56)

The goals of a flexible benefit plan are to contain costs and increase the perceived value of the benefits to the individual employees. Flexible plans seek to accomplish this by,

> (a) limiting the total cost of benefits by allowing employees to choose personally valued benefits within a cost constraint and, (b) improving efficiency of benefit use through increased awareness of benefit costs. (56)

Flexible benefit plans are thought to have made

some positive impact on benefit satisfaction and cost containment, but empirical research to quantify this impact has been limited to date. These plans have certainly not solved all of the dilemmas of designing a benefit plan. Decisions still must be made as to what and how many options and scopes of coverages should be offered, along with what level of choice should be given to the employees and how much should the employees be required to contribute to the total cost. Such decisions have an impact on the administrative costs and adverse selection costs of the overall package.

In addition to today's cost of benefits and the challenges brought about by the increased demographic diversity of the workforce, the effective use of employee benefits as a part of the compensation package is important because it is one of the factors which can impact overall job satisfaction. Benefit satisfaction is one dimension of compensation satisfaction. Compensation satisfaction is one of the primary dimensions of job satisfaction. Job satisfaction holds importance in any organization because it impacts the ability to retain and motivate employees which ties to productivity and profitability (Vecchio 119,127).

Previous Research

Today's commonly held belief that compensation satisfaction is one dimension of job satisfaction is referenced by Herbert Heneman in his 1985 study of pay satisfaction;

> Locke's (1969, 1976) view that job satisfaction is determined by the correspondence between what is perceived to exist in the work environment by way of outcomes (rewards) and what one wants from that environment, is now widely accepted. While there is some disagreement about the relative importance of specific outcomes to employees in this process, there is general consensus that pay is one outcome of high importance. (Heneman 129)

In this same study, Heneman goes on to point out that previous to the 1970's, pay satisfaction had been commonly viewed and studied as a undimensional construct. Beginning in the 1970's Heneman and others began to establish that pay satisfaction is a multidimensional construct which is a combination of various components including but not limited to employee non wage benefits. Heneman's development of the Pay Satisfaction Questionnaire and the subsequent study of its validity and application by Heneman and various others along with other related research, has found evidence that this multidimensional concept is valid (129). Thus it would seem that compensation satisfaction could be considered a more accurate

description of the construct in replacement of the term pay satisfaction, even though the terms are many times used interchangeably.

A relatively large amount of study and research relating to pay, pay satisfaction and the broader general scope of compensation satisfaction has been performed to date. Research relating more specifically to employee benefits is comparatively limited as noted by several researchers. "Despite the importance of benefits to the compensation area, there has been relatively little empirical research on employee attitudes concerning benefits" (Lust 89). This lack of research is not just attributed to specific aspects of benefits, but encompasses the construct as a whole. "Surprisingly little empirical research has been conducted on flexible benefit programs, or for that matter, on the topic of employee benefits in general" (Barber 73).

Balkin provides a description of the relative lack of research regarding benefits as compared to that conducted on the topic of pay,

> While there exists a substantial body of literature that has examined the determinants of pay satisfaction (Scarpello, Huber & Vandenberg 1988; Heneman, 1985; Dreher, 1981; Weiner, 1980; Schwab & Wallace, 1974), very little empirical research has been devoted to studying the phenomenon of employee satisfaction with benefits. (323-324)

The recognition that pay and pay satisfaction are multidimensional spawned empirical studies which sought to determine and define the multiple attributes of the construct. Researchers then began to seek relative rankings of those attributes as to employee preferences and their impact on attitudes, motivations, behaviors, etc. Research has also been conducted seeking predictors of compensation satisfaction and compensation package preferences. Examples of such studies which explored these aspects of compensation include; "Job Preferences (Jurgensen 267); "Determinants And Behavioral Consequences Of Pay Satisfaction" (Weiner 741); "Predicting The Salary Satisfaction Of Exempt Employees" (Dreher 579); "The Role of Pay And Market Pay Variability In Job Application Decisions" (Rynes 353); "Pay Satisfaction: Its Multidimensional Nature And Measurement (Heneman 129); "Compensation Satisfaction: Its Measurement And Dimensionality" (Scarpello 163).

This exploration of the dimensionality and impact of compensation brought about the recognition that benefits themselves are multidimensional and produce variable impacts dependent on the combination of benefit types included in the studies. This recognition coupled with the dramatic rise in the cost of benefits has more recently spawned a small but

growing amount of interest in conducting studies more closely focused on benefits themselves. Examples of such benefit focused studies include; "The Perceived Value Of Fringe Benefits" (Wilson 309); "Benefit Coverage And Employee Cost: Critical Factors In Explaining Compensation Satisfaction" (Dreher 237); "Models Of Satisfaction With Benefits: Research Implications Based On The Nature Of The Constructs" (Lust 213); "The Determinants Of Employee Fringe Benefit Satisfaction" (89); "The Impact Of Flexible Benefits On Employee Satisfaction" (Barber 55); "The Determinants Of Employee Benefits Satisfaction" (Balkin 323); and "How Important Are Employee Benefits To Public Sector Employees" (Bergmann 397).

Some of the benefit specific studies seek to determine employee preferences. Some test the various benefits impact on motivation and satisfaction, while others seek to determine how employees establish perceived values of their benefits. Many of the studies have looked for predictors of benefit satisfaction, preference or valuation based on a variety of variables, demographic or otherwise. Various studies discuss a tie between the need for a particular benefit and the perceived value or preference a given employee will have for the benefit. None of the studies reviewed for this project, however,

carried the discussion of need, valuation and preference to Maslow's hierarchy of needs theory.

Summary and Purpose

Employees provide labor and service to an employer in exchange for compensation. The compensation is used by the employee to satisfy personal needs and wants. Prior to World War II, compensation consisted of primarily monetary wages and included few if any nonwage benefits.

Since the 1940's; nonwage benefits have become a common part of a majority of compensation plans; the number of benefit types and coverages have grown dramatically; the cost of benefits has increased well ahead of the pace of inflation; the workforce has become increasingly demographically diverse; and benefits have grown from three percent of total compensation to ranges as high as forty percent of total compensation.

> What has, in the past, been termed a "fringe" benefit is now a very significant and expensive component of the total compensation package. The value of such compensation to the employer, however, depends largely on employee perceptions of these benefits, rather than any objective value the benefit may have. If employees do not value benefits highly, or do not value benefits at least in excess of their cost, the employer in effect "loses" money. Dollars are being spent on employees, and employers are not receiving commensurate perceived compensation value in

return. (Wilson 309-310)

The monetary wage portion of the compensation can be used by each individual employee to purchase goods and services to satisfy their unique needs and wants in order of their own priorities and preferences. Nonwage benefits do not as easily span varying individual preferences and priorities. Different individuals will place varying personal values on different types and amounts of benefits according to their varying personal perspectives and situation. Today's highly diverse workforce amplifies this situation and creates the current dilemma compensation managers and benefit planners face.

A limited amount of research has been conducted to date seeking correlations and predictors of benefit satisfaction or employee valuation. Many of these studies have produced limited or sometimes mixed results. The proposed current study will seek correlations between income level and employee preferences for various benefits as measured against some form of wage tradeoff value, utilizing Maslow's theory of hierarchy of needs as a basis. Maslow's theory proports that physiological needs must first be satisfied before safety/security, social, esteem and self-actualization needs become salient. Thus income level in the form of cash wages, which directly satisfy

the primary physiological needs, should have some relationship to wage benefit ratios in that many of the commonly provided benefits address security needs, (ie insurance protects income), which are secondary to physiological needs.

The ever increasing cost of providing benefits to employees makes it important for organizations to formulate benefit packages that maximize their value to employees as part of the overall compensation package. The growing level of employee diversity in the American workforce makes this goal extremely difficult. This lends importance to gaining additional insight into factors which can predict employee preferences and satisfaction levels with benefits and the total compensation package of which they are a part. Research which adds to the understanding of how or why benefits are valued by employees can aid in the formulation of successful and efficient compensation structures which attract and retain quality employees by supporting overall job satisfaction.

Chapter II

LITERATURE REVIEW

The current study seeks to add to the understanding of the relative valuation employees place on non-wage benefits in contrast to aspects such as their cost or percentage of total compensation. As previously described, benefits have become a substantial part of most compensation plans. Thus the literature reviewed in preparation for this study primarily focused on the general topic of compensation.

The literature sources reviewed were generally business related works which focused on subjects such as general management, human resources, economics, compensation management and organizational behavior. The majority of these sources were academic or business related journals. Books, reference texts and periodicals with information related to compensation were also reviewed. These articles and texts covered a seventeen year time period, ranging from 1978 to 1995.

The topics covered in this group of literature varied from general compensation information to specific aspects such as pay only or benefits only. A number of the sources discussed topics such as the growth of non-wage benefits, changing compensation

structures, the rising cost of benefits and the growth of the flexible benefit plans. Research articles reviewed included studies on employee compensation preferences, the attributes of compensation as a construct, trade-off decision making related to compensation and the perceived value of benefits along with other themes. The following information will provide a brief overview of the research literature reviewed, describing the various theories, findings and information related to the topic of the current study. These references are presented in chronological order beginning in 1978 and ending with the most recent works.

Previous Studies

Clifford Jurgensen described an analysis of job preference survey data collected over a thirty year period in the article "Job Preferences (What Makes a Job Good or Bad?)" (267). The survey had been given to all of the job applicants at a Minnesota utility. Between 1945 and 1975, each applicant was asked to rank in order of importance ten job factors. The job factors provided were; advancement, benefits, company, co-workers, hours, pay, security, supervisor, type of work, and working conditions. The author analyzed the data to determine; the overall rank order of

preferences, preferences grouped by demographic variables (sex, age, education, and occupational category) and any changes in preferences over the thirty year time span. "Although changes during the thirty year period are relatively inconsequential, there was an increase in importance of benefits, pay, and type of work" (267). The overall aggregate data however, indicated that both men and women ranked pay ahead of benefits.

A study performed by Nan Weiner focusing on pay satisfaction determinants, introduced a modification of Lawler's equitable pay concept. Weiner factored in the relative level of pay of respondents against the difference between the pay received and what the individual believed they should receive. In describing why she felt that the relative level of a respondent's pay would have an impact, Wiener stated,

> it is unlikely that two individuals who each express a difference of $100 between the amount of pay one should receive and the amount of pay one does receive will feel equally satisfied if the salary of the first is $1,000 per month and that of the second is $500 per month. Even though the instrumental value of the money (ie, what it can buy) is equal to its absolute value, individuals at different income levels would value the same amount differently. (743)

In testing this proposition, Weiner found that the relative equitable pay concept did provide a better

operationalization of Lawler's original pay satisfaction measure and thus lent support to her proposition (749).

Zur Shapira examined in an empirical study how trade-off decisions are made between job factors relative to previous decision making theory. A portion of the study sought to examine whether or not people have a greater sensitivity to losses than gains in decision making situations. Shapira proposed that sensitivity to the direction of the trade (loss or gain) would cause decision making to be a nonsymmetrical process.

> This suggests that the same problem, when framed in different ways, may lead to different choices. It suggests that the trade-off process is not a symmetrical process; that is, in making trade-offs between two attributes the direction of trading is important. Suppose a person who holds a job (Wk, lk) is willing to earn more money ΔW^* while cutting his leisure time by Δl^*. Suppose that person is then asked to trade wages for leisure time in the other direction, that is, getting an increase in Δl^* while reducing his wages by the same amount ΔW^*. The asymmetry argument suggests that although the same amounts ΔW^* and Δl^* are involved in both cases, the person may be willing to make trade-offs in the first case but not in the second case. (334)

Shapira noted that the asymmetry concept is somewhat supported by the theory that utility considerations in decision making are not linear but are stepped where cutoff value levels are established

by the individual for certain attributes, beyond which the utility value applied to that attribute changes or is beyond consideration because it has reached a relative minimum or maximum utility as defined by the individual (333). The study's results did support these propositions. "The change in trading direction affected the relative importance of the attributes" (Shapira 344). The study also demonstrated that salary became less important compared to other job attributes as income level increased (341).

The concepts of direction of trade and the stepped function of utility with cut off limits may be relevant to pay verses fringe benefit trade-off decisions and the relative utilities of these attributes based against relative income levels.

In 1981 George Dreher published the results of a study which was designed to test predictors of pay satisfaction against commonly available company maintained personnel information. While this study was not strictly focused toward benefits and pay, it did include measurements of pay level, benefits satisfaction and pay satisfaction. A portion of the results of this study have some relevance to the current study with regard to pay and benefits. Dreher found in the study's data set that while there was no significant correlation between actual benefit levels

and pay levels, there was a positive correlation between pay satisfaction and pay level as well as between pay satisfaction and benefit satisfaction (585). Thus with a lower pay level, a decline in the benefit satisfaction level is observed regardless, to a statistical extent, of the actual benefit level.

Stephen Woodbury utilized real environment data drawn from biennial reports of the BLS Employee Compensation Surveys and employed economic mathematical utility function models to test the basis of substitution between wages and fringe benefits. Based on these mathematical models Woodbury found, "the estimates of the elasticity of substitution between wages and fringes, in that they consistently exceed unity, indicate that wages and wage supplements are easily substituted for each other" (179). Woodbury notes however that one of the weaknesses of his model is that,

> the assumption has been implicit throughout that employees value wage supplements at their cost to the employer, which amounts to assuming that groups of workers may effectively negotiate a package of wages and fringes they prefer. (180)

The preferences of employees was not available in the data set, only the reality of what changes in wages and benefits that did occur over time. Thus there is no verification in Woodbury's study that these changes

correlated with employee preferences or that employees value the benefits equal to the cost incurred by their employers to provide them.

Sara Rynes performed a study titled "The Role of Pay and Market Pay Variability in Job Application Decisions" (353). The study sought to test the impact of market pay variability on the job seeker's decision making process of choosing and accepting a job. The study also tested the reservation wage theory which proposes that an individual will hold a minimum wage level, beyond which he or she will not trade-off for greater levels of other attributes regardless how rich or attractive they may be (355). This theory is related to the stepped utility function described previously. Rynes reported results which supported the reservation wage theory. Rynes states,

> With respect to the issue of compensatory versus noncompensatory model usage, the finding that a majority of subjects appeared to evaluate employment opportunities in relation to a reservation wage standard implies that preferences for nonpecuniary attributes may be irrelevant to individuals' job choice decisions until minimum pay constraints have been met or exceeded. (362)

Davis, Giles and Feild conducted a survey which asked new college graduates to rank by preference eleven compensation and benefit attributes. The attribute median rankings from first to last were; cost

of living increases, medical and life insurance, stock options, vacation, retirement plan, leave, time off, four day work weeks, flex time, early retirement and short work days. "Thus four of the top five options were monetary benefits" (Davis 48). Davis notes that,

> These findings do not mean that time and work schedule alternatives are unimportant to new college graduates. Rather, the results tend to suggest that organizations should be aware of the high value placed by new college graduates on traditional financial benefits. (50)

In 1985, Heneman published a study which investigated the multidimensionality of the pay satisfaction construct. While it did support the hypothesis that pay satisfaction is a multidimensional construct, it also found evidence which indicated that pay level satisfaction and benefit level satisfaction are to some extent independent. Heneman comments,

> The evidence thus suggests that employees develop independent affective reactions about both of those aspects of compensation that serve as major costs to organizations. In turn, this means that assessments of employees' satisfaction with their pay level provides little information about their satisfaction with benefits and vice versa. (138)

This study however, did not record actual pay levels to test for possible pay level correlations with benefit satisfaction.

A 1985 study was conducted at the University of Arizona titled "The Perceived Value Of Fringe Benefits" (Wilson 309). This study surveyed employees of the university in order to examine their perception of the cost and value of their fringe benefits compared to the employer's actual cost and the market value of the benefits. The study found that employees could not accurately estimate the employer's cost of the benefits or their market value. A majority of employees undervalued their benefits as noted by Wilson,

> Undervaluation of the benefits is supported by the data. Subjects' cash substitution values for the benefits were significantly less than actual total costs. Less than four percent of subjects expressed a cash substitution value for the benefits in excess of its total cost. (315)

These undervalued cash substitution acceptance responses were made by the respondents based on their own underestimated market values of the benefits. The study did not explore how their responses would have changed with an awareness of accurate market cost information.

George Dreher conducted a study which explored the impact of benefit coverage levels and employee benefit costs on compensation satisfaction. Dreher collected actual salary level and benefit level data from a number of law enforcement organizations. Then

satisfaction surveys were collected from employees of the same organizations. Dreher found that for the groups studied salary level and benefit coverage levels were negatively correlated. Salary level pay satisfaction and benefit satisfaction were positively correlated. Benefit coverage levels were positively correlated with benefit satisfaction. Yet when salary level remained constant and increased benefit coverage level meant increased employee cost, then benefit satisfaction decreased (249-253). This would seem to indicate that salary level carries a greater importance and most employees would not be willing to trade-off salary for additional benefit level increases. The converse may also be true but was not tested by this study.

Scarpello, Huber and Vandenberg tested the variability of the Pay Satisfaction Questionnaire (PSQ) across varying contextual situations (ie. job classifications, company labor relations policies, etc.). The results indicated that the benefit items in the PSQ were affected differently by contextual situation variations versus the other categories contained in the questionnaire. Scarpello noted,

> Although the PSQ benefit items appear not to be sensitive to contextual factors, the pay level, raises, and structure administration items appear to be very sensitive to the job classification of PSQ respondents. (169)

This study did not, however, make it clear whether or not this was a validity issue related to the PSQ as a measurement instrument, or indicative that benefit satisfaction criteria are easily generalized across job classifications.

Gilbert Siegel published an article in 1989 which attempted to summarize the findings of compensation related empirical studies conducted over a twenty five year period. In summarizing a 1977 study by Monczka, Siegel notes that "Persons who are dissatisfied with non-monetary rewards also tend to be dissatisfied with pay" (178). Siegel also listed a number of demographic variables which seemed to affect employee attitudes regarding fringe benefits. "Research has shown that employee preferences in fringe packages vary with age, organizational position, family status, and number of years employed by the organization (183).

Paul Sweeny empirically conducted four separate studies utilizing relative deprivation theory models to measure their validity in explaining pay satisfaction. Not surprisingly the study found that pay level and pay satisfaction were positively correlated; pay level and want were negatively correlated (Sweeny 427). This would indicate diminishing rates of desire for additional pay as income level increases and thus a

diminishing value of additional pay versus other attributes.

In a 1990 study, John Lust tested a variety of demographic variables for correlation to benefit satisfaction. Lust proposed benefit satisfaction as a multidimensional construct in itself, apart from being a single dimension of pay satisfaction. Lust theorized,

> that overall benefit satisfaction has two components, satisfaction with benefit costs and satisfaction with the quality of the benefit package. These two facets of satisfaction are determined by comparisons to referent others and employee perceptions of the company's ability to offer benefits. These three perceptual variables are influenced in varying degrees by benefit availability, the actual benefit package, actual employee usage, actual cost both to the employer and employee, employer sponsored communication, and worker needs, values and expectations. This final variable (needs, values and expectations) is determined jointly by both personal characteristics such as gender, age education and family size; and job characteristics such as union/non-union status, tenure, pay-level and satisfaction, and the work environment. (214)

Lust noted that previous research had tested age, gender, marital status, job type managerial/non-managerial level, and tenure for correlation to benefit satisfaction with only tenure showing a significant correlation (215). Lust sought to test the demographic variables mentioned previously with three specific benefits (health insurance, pension and paid time off)

as opposed to overall benefit satisfaction. The study's results suggested a modest correlation between job level and the importance of health insurance and the importance of pension, as well as a negative correlation with the importance of paid time off (Lust 217).

Lust published another empirical study seeking the determinants of benefit satisfaction using demographic and attitudinal variables. In his discussion of the study, Lust comments that employees frequently undervalue benefits and their cost. He also noted that benefit satisfaction had been; positively correlated to improved coverage, age and pay level; and negatively correlated to employee cost (89). Lust found with this study a positive correlation between benefit satisfaction and pay level satisfaction as well as tenure, and a negative correlation with education (89). Previously, pay level had been tested but not pay level satisfaction. Lust concluded that because pay level satisfaction and benefit satisfaction are positively correlated, offering tradeoffs of one for the other could diminish the satisfaction of both. Lust comments,

> The findings do suggest, however that organizations may be ill-advised to attempt to trade off salary/wage dollars and benefits. Because the two areas are closely related, dissatisfaction with one component

> of total compensation will impact satisfaction with the other. (92)

This conclusion however indicates a cause and effect relationship which is not necessarily the case when two items are merely correlated.

Hemmasi conducted a two part study seeking predictors of benefit satisfaction. The first part of the study utilized only demographic variables in which pay level was found to have a significant positive correlation with benefit satisfaction. In the second part of the study, attitudinal variables were introduced along with the demographic variables. When the perceptual variable of pay level satisfaction was included, the pay level satisfaction became a significant predictor while pay level lost its significance. Hemmasi states,

> For the model containing only demographic correlates, pay level was the primary predictor. However when the perceptual values were added, pay level became insignificant, suggesting that it is not pay, per se, but rather pay satisfaction which had the impact. (440)

Consider the situation in which a two income family's combined income results in a high total income level, but one partner earns a relatively low wage. Due to the total family income's ability to provide for all of the family's needs, the low wage level partner may have

a high pay satisfaction and thus their low pay level would not be a significant predictor of benefit satisfaction.

Harry W. Haines performed a two step time interval study to test the effect of benefit awareness on benefit satisfaction levels. In this study the satisfaction levels of various benefit criteria were measured with a defined group of employees. Then a six month benefit awareness informational program was presented to the employee group after which the benefit satisfaction levels were remeasured. The study's results indicated an increase in benefit satisfaction after the informational program. Haines notes,

> The findings of this study support the idea that better communication of employee benefit plan features, leading to increased awareness, can facilitate benefit satisfaction. Twenty-two of the twenty-five areas showed statistically significant positive changes in employee satisfaction. (95)

The study did not however, measure other possibly correlated variables over the interval of the study. It would have been interesting for example, if pay satisfaction before and after the informational program would have been measured.

Williams and Dreher sought to explore how the various attributes of compensation packages impact the number of people who apply for a position and the

acceptance rates for the job position. The study's results found no significant correlation between pay level and applicant pool size or benefit levels and acceptance rates. It did find positive correlations between benefit levels and applicant pool size as well as pay and acceptance rates (Williams 586-588). This might be interpreted to indicate that the job seekers demand some minimum level of benefits but then place a priority on pay level in deciding to accept one position over another. This study however was not designed to test this specific hypothesis.

Barber published a 1992 study which sought to support anecdotal evidence that flexible benefit plans increased benefit satisfaction. This study measured benefit satisfaction before and after the implementation of a flexible benefit plan. Barber proposed that discrepancy theory could possibly be the basis for believing that benefit satisfaction and flexible benefit plans were positively correlated. Barber comments,

> Higher satisfaction might result if flexible benefits produce a better match between the benefits individual employees want and the benefits they receive. This need-satisfaction argument is consistent with Locke's discrepancy definition of job satisfaction. (57)

Thus satisfaction increases as the discrepancy between

wants and receipts diminish. The study did find a significant increase in benefit satisfaction with the flex plan implementation. The discrepancy theory was not supported, however, using a traditional versus non-traditional demographic profile as the predictive variable (Barber 68). The selection of the traditional versus non-traditional demographic variable as the test indicator for discrepancy may have been the factor producing this result and the discrepancy theory may yet have explanatory power if the need-receipt discrepancy is measured differently (ie: income level or need for income security, etc.).

Nathan Bennett conducted a study to test for attrition rate correlations with four attributes; firm characteristics, work force characteristics, location and employee benefit practices. While controlling for the first three general attributes, a significant correlation was found with the employee benefit practices attribute. "Both a low ratio of labor costs to benefits and a poor perception of benefits quality relative to other employers are associated with a high rate of turnover" (Bennett 494). Thus benefits can have an impact in the retention of employees. In a study which focused on part-time workers, respondents were asked to rank order, based on desire, twenty eight different non-wage benefits which were currently not

received by the respondent group. Regarding this part of the survey, Doerpinghaus reported the following results,

> Cash bonuses, merchandise discounts, profit sharing and stock purchase again emerged as highly desirable employee benefits. In fact, cash bonuses were listed as the number one benefit not currently received by part-timers that was highly desirable. (79)

This supports previously mentioned data which indicates that employees rank cash or monetary rewards ahead of non-monetary rewards.

Francis Vella published a 1993 article which reported on an empirical economic study concerning the correlation between hours worked, wage rates and the labor supply. One of the findings suggested that there is not a dollar value for dollar value tradeoff opportunity between wages and benefits. As benefits were offered in place of wages to create the same net value after taxation advantages were accounted for, the labor supply decreased. This same effect was amplified when taxation was applied to non-wage benefits as described by Vella,

> An examination of these estimates indicates that the impact of hours on wage rates decreased dramatically following the introduction of the fringe benefit taxes. This suggests that employers have responded to the tax by presenting a package that places a greater weight on wages. This also suggests that employees are less willing to

> accept fringes in place of wages when they are taxed. (719)

Thus in this example wages are preferred over benefits, particularly when both were taxed.

Timothy Judge designed a study to test the validity of the dimensions of pay satisfaction using the Pay Satisfaction Questionnaire, while also testing a variety of hypothesized predictions of some of the construct's dimensions. One of the findings of the study indicated a negative correlation between pay level and benefit satisfaction as well as age and benefit satisfaction while holding the benefit level variable constant (Judge 346).

David Balkin utilized discrepancy theory to form a variety of correlation predictions between independent demographic variables and benefit satisfaction. The study found that age and job level status were negatively correlated to benefit satisfaction. This supported Balkins prediction based on the idea that younger employees have fewer family commitments and are focused on income generation, whereas older individuals,

> may have made commitments in their personal life that have resulted in the need to care for a family and dependents. Individuals may have a greater need for benefits that offer security and provide welfare for the household. This suggests that older employees may have higher expectations of the

benefits they receive. (325)

Independently the study found that pay level was positively correlated with benefit satisfaction. Balkin proposes the following possible explanation,

> An implication of this finding is that employees may perceive an income effect associated with their benefits package which positively covaries with base salary (retirement benefits for example) and may perceive a larger amount of actual benefits received when they have higher incomes. (336)

This proposition however is only conjecture in that the study was not specifically designed to test this premise.

Bergmann published the results of a 1994 study designed to test employee knowledge of their benefits and measure the importance of individual benefits. The majority of the sample group of this study were able to correctly identify their individual benefit components which they currently received from their employer, however they typically underestimated the annual cost of the benefits (Bergmann 402). Interestingly the respondents ranked "satisfying needs" the lowest in a scale which asked them to rank the importance of fringe benefits in attracting, retaining, motivating and satisfying employee needs (Bergmann 403). Of twenty-seven different benefits included in the survey, ranging from health insurance to paid coffee breaks,

the highest rated benefits had something in common. "Overall the benefits that rated the highest were those that provided direct economic security (ie: retirement benefits, health insurance, sick pay, holiday pay and disability insurance)" (Bergmann 399). Each rating response for each listed benefit was independent of the others, in that, they were each rated on a separate scale. These ratings did not require a ranking against each other or did not require that a trade-off decision against each other be made.

Cable conducted a 1994 study which explored how varying compensation attributes impact respondents job search decisions. In discussing previous related research findings Cable noted,

> Rynes et al. (1983) found that pay level acted as a hurdle in job choice decisions, where nonpecuniary job factors affected decisions only if a predetermined level of pay was offered. Jurgensen (1978) found pay to be the most important job factor when respondents were asked what employees other than themselves looked for in a job, a question that may have reduced social desirability effects. (320)

This implies that other compensation factors become salient only after pay level needs or expectations are satisfied. These comments also provide further evidence of pay level's relative ranking above other job attributes, one of which would be benefits. Cables study found that "pay level was the most consequential

pay system characteristic, followed by individual based pay, fixed pay, job based pay and flexible benefits" (337).

Bonnie Rabin conducted a study to determine if the introduction of a flexible benefits plan in place of the traditional fixed benefit plan impacts benefit satisfaction. Rabin proposed that today's changing employee demographics could be the basis for predicting an increase in satisfaction with flexible benefits.

> The traditional benefits package was largely designed to meet the needs of a family comprised of an employed male head of household, a work-at-home female spouse and children. But the demographic and social changes of the last twenty years may have reduced the value of traditional benefits packages for many employees. For example, family medical coverage is often of limited value to younger unmarried workers and may even be redundant for employees within dual career couples. Similarly, employees who have no dependents often attach little value to life insurance and might prefer other benefits or a cash alternative. (68)

Thus if the needs which the provided benefits address are not present, then the benefit holds no compensation value to the employee. A flexible benefit plan allows employees to use benefit dollar credits to purchase best fit benefits needed by the employee. This imitates the use of wages to purchase items that are individually needed and preferred by an employee. The study found an increase in satisfaction with the flex

plan approach over the previous fixed plan (Rabin 82).

Literature Review Summary

Five of the empirical studies reviewed (Jurgensen 1978, Rynes 1983, Doepinghaus 1993, Vella 1993, Cable 1994) found, either direct or indirect evidence that employees place a higher priority and a higher level of importance on pay level over benefits. None of the literature reviewed found evidence contrary to pay holding the highest priority with workers. Additional subtle evidence of the importance that income holds with employees is demonstrated in the findings of two other studies. Kermit Davis found that respondents ranked financial benefits ahead of time and schedule benefits (48). Thomas Bergmann found that respondents rated income security benefits at the top of a list of twenty-seven total benefits listed in his survey instrument (399).

Several studies (Bergmann 1994, Hennessey 1992, Wilson 1985) confirmed the anecdotal evidence that most employees are unaware of the cost of their benefits and thus underestimate their value. The undervaluation of benefits by employees and the relative importance ranking of income over benefits might lead to the presupposition that benefits would not be easily substituted for wages. Several of the studies reviewed

had direct or indirect findings related to this focus. Stephen Woodbury's study indicated that benefits can substitute for wages (179). Marie Wilson found that employees were consistently willing to trade-off benefits for cash values below the actual cost of the benefits (315). George Dreher found that while benefit coverage levels and benefit satisfaction levels were positively correlated, when increased coverage levels meant increased employee cost, then benefit satisfaction decreased (253). Thus Wilson's and Dreher's findings are contrary to Woodbury's conclusion. In a fourth study, John Lust found that pay level satisfaction and benefit satisfaction were significantly positively correlated and concluded that because of this, attempting to substitute one for another in either direction could foul both satisfaction levels (92). Thus Lust's conclusion varies with Wilson's Dreher's and Woodbury's findings.

The concept of non-linear stepped utility function theory may be a dynamic which could partially explain these contradictory trade-off/substitution findings. This theory contends that utility considerations in decision making are not linear but are stepped, where cutoff value levels are established by an individual for individual attributes, beyond which the utility value applied to an attribute changes or is beyond

consideration because it has reached a relative minimum or maximum utility. Zur Shapira's study found that trade-off decision making was non-symmetrical with regard to the direction of the trade-off and that salary began to lose its relative importance against other attributes as income level increased (341). Nan Weiner's study demonstrated that relative income levels impacted the value individuals place on incremental amounts of pay. As income level increased, the value an individual placed on an incremental pay change amount would decline (749). Margaret Williams' study provides an example of how individuals might establish minimum or maximum utility limits on attributes in decision making. Williams' study found that benefit levels were positively correlated with applicant pool size but had no correlation with acceptance rates. Conversely it found that pay level positively correlated to acceptance rates but had no correlation with applicant pool size (586). Thus the job seekers had established a minimum acceptable level of benefits beyond which pay became the priority attribute upon which the job acceptance decision was made. Paul Sweeny's study found that as income rises, want for additional income decreases and thus establishes a diminishing level of importance placed on pay as compared to other job attributes (427).

A number of the studies reviewed sought to find correlations between a variety of variables/attributes and pay/benefit component attributes. George Dreher found pay level and pay satisfaction positively correlated (585). David Balkin found pay level positively correlated with benefit satisfaction (335). Three different studies (Dreher 1981, Lust 1990, Hemmasi 1992) found pay satisfaction positively correlated with benefit satisfaction. Hemmasi however did not find a correlation between pay level and benefit satisfaction (440). Also contradictory was Heneman's finding that pay satisfaction and benefit satisfaction were independent of each other (138). John Lust tested a variety of demographic variables for correlations with benefits and found only a modest correlation with one of the variables, job level (217). Thus a consistent predictor of benefit satisfaction or benefit's impact on compensation satisfaction has seemingly not yet been established.

Current Study Hypothesis

The current study's predictions will be based on theories presented in the literature review as well as Maslow's theory of hierarchy of needs, which proports that physiological needs must first be satisfied before safety/security needs become salient. This theory

would indicate that income level in the form of cash wages should impact employees preferences for varying wage-benefit ratios; in that cash wages can directly satisfy physiological needs where as many of the commonly provided benefits satisfy security needs.

Compensation, for which employees provide their labor, is today commonly a combination of wages and benefits. Wages provide a means by which each employee can purchase a wide range of goods and services which satisfy their needs and desires. Benefits provide for specific issues or needs. The compensation component which satisfies the greatest number of priority needs, should be valued the most by the employee and thus preferred over the other compensation components. Pay antectodaly has the greatest ability to address the widest variation of needs. Pay has also been consistently ranked as the highest priority compensation attribute in numerous previous studies. Thus, one of the current study's predictions will be that employees will rate pay ahead of other compensation components provided in the form of benefits. The theories of hierarchy of needs, relative deprivation and stepped utility function, however, would suggest that pay's importance level rating should diminish as income level increases. This leads to the current study's first hypothesis: H1 - The

mean importance rating of pay will exceed the ratings of benefits of a diverse group of employees, but pay's importance level rating will be negatively correlated to individual employees total household income.

The priority placed on pay ahead of benefits, however, does not mean that benefits are not important to employees, as evidenced in a number of the studies presented in the literature review. By applying the stepped utility function theory and Maslow's hierarchy of needs theory, an individual's preference for pay to address basic living expense needs will remain a priority until income level satisfies those physiological related needs, at which point the security needs which benefits address will become salient and increase in importance. This provides the basis for the current study's second hypothesis: H2 - A willingness to accept increased pay as a substitute for benefits will have a negative correlation with total household income levels.

Both hypotheses utilize income level as a predictor. Previous studies found inconsistent results with a respondent's pay or income level used as a predictor. The current study will utilize total household income level instead of specifically the income level of only the respondent. The purpose of this variation is to account for respondents who may

themselves have a relatively low pay level but are part of a two income household who's combined income addresses the respondents needs. This is intended to address what may have been a weakness of previous studies.

Chapter III

RESEARCH METHODOLOGY

Subjects

The selected subject group for the study was the benefits eligible employees of a small suburban hospital. The hospital employs close to six hundred people. Approximately four hundred of the employees are currently benefits eligible. The balance of the six hundred are non-benefits eligible due to a per diem status of employment or are part time employees who hold positions that require fewer than sixteen hours of work per week.

This population represented a diverse range of education and occupational classifications. This respondent group had individuals with educational backgrounds ranging from those with some high school but did not graduate, up to some with masters and doctorate degrees. All of the hospital's occupational categories were included in the study. The hospital employs people in a variety of job classifications including non-technical, technical, business clerical, business management, clinical management, clinical support

and direct patient care clinical functions. A representative description of job types includes but was not limited to; nurses, clerks, patient care technicians, physicians, transcriptionists, housekeepers, dietary workers, lab technicians, registrars, business office staff, accounting staff, maintenance staff, secretaries, security officers, phone operators, physical therapists, respiratory therapists, radiology technicians, pharmacists and administrative management. All organizational levels were invited to participate from hourly paid staff through salaried managers and administrators.

This population also represented a diverse range of salary levels. Salary levels range from entry level non-technical service position job grades to the professional job grades of administrators and physicians. At the time of the study, the hospital's average hourly pay rate based on the entire employee population was approximately sixteen dollars per hour. While a large range of the employee wage rates did exist in this population, the present study focused on total household income as its measure. In the cases where the respondents had working spouses the measure of household income would then be

larger than solely the respondent's individual income.

All of the benefits eligible employees included in the study receive the same core nonwage benefit options regardless of their job level. Each full time employee receives two to four weeks of paid vacation based on their length of employment. Part time employees accrue paid vacation hours at the same hour per hour worked rate as full time employees based on the number of actual hours worked. Each employee is provided dental insurance for themselves and can elect to include their dependent family members for an additional cost deducted from pay. Employees accrue paid sick leave hours at the rate of 0.046 hours per hour worked up to a maximum accrual balance of five hundred twenty hours. For a full time employee this equates to twelve sick leave days per year accrual up to a maximum of thirteen weeks of paid leave. The hospital provides each employee with the option of selecting one of two medical insurance plans for themselves only or themselves and their family. Each option requires the employee to pay for a portion of the insurance cost with a before tax pay deduction. Employees can opt out of the medical plans if they choose to

do so, provided they can demonstrate that they have personal coverage from another source. Each employee receives eight paid holidays per year. Due to the nature of the hospital's twenty four hour per day, seven day per week operation, some employees are required to work the calendar holiday and then select an alternative day off with pay. All employees receive a no cost term life insurance policy equivalent to one year's salary with an option to purchase additional coverage for themselves or their dependents. Employees also are provided no cost long term disability insurance which provides fifty percent of income for disabling conditions beyond six months. Lastly, the hospital provides employees with a pension plan, fully funded by the hospital, based on length of service and salary history.

Instrument

Primary data for this study was gathered through the use of a confidential survey (Appedix B). The questionnaire consisted of sixteen single and multiple part questions developed specifically for the study. The questionnaire development began with an outline of the basic information necessary to test the study's hypothesis.

Questions were then drafted in various formats and orders. A review of the draft answer formats,as they related to the ability to code and convert the information into a statistical form, was then conducted. Actual benefit cost information was obtained by interviewing the hospital's Finance Manager to ensure that questions relating to benefit costs would be realistic and salient to current conditions.

Prior to finalization of the questionnaire, five personal interviews with selected subjects were held to review the readability and clarity of the instructions, the intent of the questions, and the intended meaning of the answers. The interview subjects were selected to have different occupational and educational backgrounds. During each interview the subject was asked to read each question and its' coresponding answers one at a time and describe in their own words their interpretation of each item. Notes were taken during the interviews and portions of the questionnaire, identified as confusing or unclear, were revised. The result of this development process was a survey which contained questions designed to gather demographic data, attitudinal data, pay and benefit rankings, and situational

trade-off decision data.

Seven questions (1, 2, 3, 4, 5, 7, 8) pertained to the following demographic information; employment status, benefits eligibility, marital status, working spouse, dependent children, availability of benefits from another source other than the hospital, and total household income. Three of the questions (6, 9, 10) pertained to the attitudinal data of current income's ability to meet expense needs, satisfaction with current pay, and satisfaction with current benefits. One question (11) asked each respondent to rank order the importance of the nine common compensation components they currently receive: paid vacation, dental insurance, paid sick leave, pay, medical insurance, paid holidays, life insurance, pension, and long term disability insurance.

Five questions (12, 13, 14, 15, 16) presented situational trade-off scenarios between income and benefits. Question #12 asked the respondent if they would voluntarily trade their currently received group of insurance benefits and future company funded pension contributions for a wage increase equivalent to the benefits' current annual cost. Question #13 was a multi-part series

of questions which presented each respondent with the scenario in which their employer has eliminated the group of insurance and pension benefits and increased their pay by the benefits current per employee average cost of $3,600. Faced with this situation, the respondents were asked if they would be willing to purchase the individual lost benefits at costs which represented the company's current per employee average cost. For each benefit purchase declined, the respondent was asked if their decision was based on the fact that they already had coverage from another source or if it was a monetary value-need decision. Questions #14, 15, and 16 asked each respondent their willingness to trade the paid time off benefits of paid holidays, paid vacation, and paid sick leave for the equivalent percentage wage increases associated with the employer's cost of each.

Procedure

Prior to the distribution of the survey instrument, a copy of the questionnaire and a cover letter (Appendix A) was submitted to the hospital's Human Resources Manager along with a written request to use the employee population as

the study's subject pool. A cover letter explaining the educational purpose of the survey and stressing the survey's design for anonymity was attached to each questionnaire distributed. A pre-addressed return envelope was also attached.

Three hundred questionnaires were distributed proportionately to each department in the hospital. The cover letter denoted a return due date which was five days after the date of distribution. Instructions of how to return the surveys in the pre-addressed envelopes through the hospital's in-house mail system were included in the cover letter as well as at the end of the questionnaire itself. Both the cover letter and the survey contained expressions of appreciation for respondents participation.

Data Analysis

The first step in preparation for the survey data analysis was to develop a coded answer key and assign numerical indicators to each answer of each question on the survey. Utilizing numerical codes to represent respondent's answers allowed the data to be entered into a computerized spreadsheet. The spreadsheet provided a mechanism to consolidate all of the survey's response data

into one formatted database from which the necessary statistical calculations could be performed. A copy of the numerically coded answer key developed for the Compensation Questionnaire is included as Appendix C.

Once the raw data from the returned surveys had been entered into the spreadsheet data base and checked, two levels of analysis were performed. First, respondents which indicated a non-benefit eligible status were removed from the data base. This ensured that the responses analyzed were only derived from respondents to which the questionnaire was salient to their current situation. Then for the first level of analysis, a total, mean, and standard deviation of each question's data set was calculated. The total number of occurrences of like answers for each question's answer set was calculated and entered into an answer frequency table. Simple percentages of each answer option for each question was then calculated based on the data developed for the answer frequency table.

The second level of analysis consisted of statistical calculations to test for relationships and correlations between the questionnaire's variables. These procedures focused on testing

the study's stated propositions, but also included the development of a full correlation matrix for all of the variables of the questionnaire. A Chi Squared test of income level responses (question 11) and the willingness to trade benefits for increased cash wages (question 12) was calculated. Correlation coefficients between each of the survey's variable response data sets were calculated based on all survey responses. A second run of correlation coefficients between income level (question 11) and benefit trade-off decisions (questions 12-16) was then performed excluding any responses which indicated that the applicable benefit was already available to the household from another source. This was done to filter out the impact on the benefit trade-off decision of households which have redundant coverage of benefits.

Chapter IV
RESULTS

Questionnaire Response

Three hundred copies of the Compensation Questionnaire were distributed throughout the hospital employee population selected for the study. Of the three hundred questionnaires distributed, one hundred seventy one [57%] were returned by the requested deadline. Seven questionnaires [2.3%] were returned after the deadline and after the data entry and analysis had begun and were not included in the study's data set. Eight of the questionnaires [2.7%] returned by the deadline were rejected due to being significantly incomplete.

Questions #1 and #2 of the initially accepted surveys were reviewed to eliminate respondents who were not currently benefits eligible. This review resulted in the rejection of eleven additional questionnaires [3.7%]. Thus sixty percent of three hundred questionnaires were returned with fifteen percent being rejected due to being late, incomplete or non-benefits eligible. Fifty one percent of the total distributed questionnaire responses were incorporated into the

study's data set. A full copy of the Compensation Questionnaire's accepted data set is included in Appendix D. This data set represents the respondents' answers to the questionnaire as coded according to the answer key in Appendix C.

First Level Analysis Results

Initially the study's data set was organized into a simple response frequency table. These results are illustrated in Table 4-1. This table presents the number of occurrences in which like answers were given for each question. The column headings of the table indicate the specific question while the row headings indicate the answer by numerical code according to the answer key. The data in the field of the table represents the total number of each response option given for each question.

From Table 4-1, simple percentages were calculated against the total number of responses given for each of the questions. These percentage results are illustrated in Table 4-2. The column headings of this table also indicate the specific question while the row headings indicate the answer as coded by the questionnaire's answer key. The field of Table 4-2 represents the percentages of each response option given for each question.

Response Frequency Table

Table 4 - 1

Answer \ Question	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0
1	117	152	110	99	101	37	85	6	17	5	6	0	0	109	33	0	0
2	35		420	11	51	42	67	21	52	36	32	3	8	25	65	5	1
3						73		16	29	42	25	28	33	6	13	17	10
4								11	38	59	39	16	35	4	4	21	10
5								15	16	10	28	16	26	4	15	21	12
6								24			10	28	19	3	11	36	18
7								18			5	27	20	1	3	23	36
8								16			6	11	5		6	20	34
9								11			1	23	6		2	9	31
10								3									
11								11									

Answer \ Question	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16	
0	0	0	1	1	62	1	70	0	54	1	89	0	117	1	0	0	
1	2	2	107	61	65	69	52	54	68	88	18	117	22	40	16	44	
2	10	3	44	90	25	82	30	98	30	63	45	35	13	111	136	108	
3	15	5															
4	16	7															
5	21	9															
6	20	8															
7	19	18															
8	35	35															
9	14	65															
10																	
11																	

Response Percentage Table

Table 4 - 2

Answer \ Question	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
0	0	0	0	NA	0	0	0	0	0	0	0	0	0	0	0	0	0
1	77	152	72	90	66	24	56	4	11	3	4	0	0	72	22	0	0
2	23		28	10	34	28	44	14	34	24	21	2	5	16	43	3	1
3						48		10	19	28	16	18	22	4	8	11	6.5
4								7	25	39	27	11	23	2.5	3	14	6.5
5								10	11	6	18	11	17	2.5	10	14	8
6								16			6	18	13	2	7	24	12
7								12			3	18	13	1	2	15	24
8								11			4	7	3	0	4	13	22
9								7			1	15	4	0	1	6	20
10								2									
11								7									

Answer \ Question	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16	
0	0	0	0	0	NA	0	NA	0	NA	0	NA	0	NA	0	0	0	
1	1	1	70	40	72	46	63	36	69	58	29	77	63	27	11	29	
2	7	2	30	60	28	54	37	64	31	42	71	23	37	73	89	71	
3	10	3															
4	10	5															
5	14	6															
6	13	5															
7	13	12															
8	23	23															
9	9	43															
10	0	0															
11	0	0															

Mean, Median, Deviation

Table 4 - 3

QUESTION	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
MEAN	1.23	1.00	1.28	0.79	1.34	2.24	1.44	5.68	2.89	3.22	3.90	5.83	4.82	1.57	2.93	5.71	6.86
MEDIAN	1	1	1	1	1	2	1	6	3	3	4	6	4.5	1	2	6	7
SDEV.	0.42	0.00	0.45	0.55	0.47	0.82	0.50	2.79	1.21	0.99	1.71	2.08	1.77	1.18	2.04	1.84	1.81

QUESTION	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16	
MEAN	5.89	7.47	1.28	1.59	0.76	1.53	0.74	1.64	0.84	1.41	0.71	1.23	0.32	1.72	1.89	1.71	
MEDIAN	6	8	1	2	1	2	1	2	1	1	0	1	0	2	2	2	
SDEV.	2.17	1.99	0.47	0.51	0.72	0.51	0.77	0.48	0.73	0.51	0.90	0.42	0.62	0.46	0.31	0.46	

The mean, median, and standard deviation for each of the questions were also calculated. These results are illustrated in Table 4-3. Again, the column headings indicate the specific question while the row headings indicate the type of statistic by name.

Tables 4-1, 4-2, and 4-3 present the following descriptive results. At the time of the survey, seventy seven percent of the respondents were full time employees while twenty three percent held part time positions. All of the respondents accepted into the data set were benefits eligible for the hospital's core benefit package. Seventy two percent were married and twenty eight percent were single. Ninety percent of the married respondents had spouses who were also employed. Sixty-six percent of the respondents had dependent children.

Twenty four percent responded that their total household income does not always meet basic living expenses. Twenty eight percent indicated that their income meets basic living expenses while the balance of forty eight percent reported income that allows for discretionary spending or saving after covering their basic living expenses. Forty four-percent of respondents reported that benefit coverages were available to themselves and or their dependents outside of their primary employer. Fifty-six percent indicated

that they had no other available source of provided benefits coverage.

Responses were received for all of the questionnaires total household income bracket options ranging from "$0 - $10,000" through "greater than $100,000". The mean total household income response of the data set was 5.68 and the median result was six while the standard deviation result was 2.79 (5 = $40,001 - $50,000, 6 = $50,001 - $60,000). Percentages of each income bracket response are illustrated in Table 4-2. Forty five percent of respondents reported a negative pay satisfaction, nineteen percent were neutral and thirty-six percent responded that they were somewhat or very satisfied. Twenty-seven percent reported a negative benefits satisfaction of somewhat or very dissatisfied, twenty-eight percent were neutral and forty-five percent responded that they were somewhat or very satisfied.

Seventy-two percent of the respondents ranked pay as the highest priority compensation component of the nine attributes offered. Based on the mean rank order scores, the nine compensation attributes ranked in order of priority from highest to lowest as follows; pay, medical insurance, paid vacation, paid sick leave, paid holidays, dental insurance, pension benefits, life insurance, and long term disability insurance.

Seventy percent of the respondents replied that they would decline a $3600 per year pay increase and continue with their current insurance and pension benefits. Thirty percent replied that they would be willing to take the pay increase and eliminate the insurance and pension benefits. When presented with the scenario in which the benefits were eliminated and the pay increase had already occurred, only forty percent said they would be willing to purchase the medical insurance back for its current average cost while sixty percent responded that they would not repurchase the insurance. Seventy-two percent of those who would not repurchase responded that they would decline to purchase because they already had coverage from another source while twenty-eight percent indicated that they valued or needed the money more than the insurance. Under the same scenario, forty-six percent would elect to repurchase their dental insurance and fifty-four percent declined the repurchase option. Sixty-three percent of those declining this purchase already had alternative coverage and thirty-seven percent valued or needed the money more than the dental insurance. When asked about purchasing the life insurance option, only thirty-six percent would choose to purchase and sixty-four percent would decline. Sixty-nine percent of those declining

indicated that they had alternative coverage while thirty-one percent valued or needed the money more than the life insurance. Fifty-eight percent responded that they would repurchase the long term disability insurance while forty-two percent would decline. Only twenty-nine percent of those declining indicated that they had coverage from another source with seventy-one percent responding that they valued or needed the money more than the insurance. Seventy-seven percent would elect to participate in a pre-tax withholding of five percent of their earnings for retirement while twenty-three percent of the respondents declined such an option. Of those declining the option, sixty-three percent indicated that they preferred to invest for retirement on their own with a different method while thirty-seven percent responded that they preferred or needed to use the money for things other than retirement.

The last three items on the questionnaire asked respondents about their willingness to trade their paid time off benefits of holidays, vacation and sick leave for the equivalent increases in pay. Twenty-seven percent of the respondents indicated that they would trade off their paid holiday benefits for the increase in pay while seventy-three percent would decline such an option. Only eleven percent were willing to trade

off their vacation benefit with eighty-nine percent declining this option. Twenty-nine percent responded that they would trade their paid sick leave for the pay increase while seventy-one percent would decline.

Second Level Analysis Results

The second level of data analysis involved conducting tests of association between the variables contained in the questionnaire. The first test was a Chi squared test of the income level variable (question #8 of the questionnaire) and the willingness to trade benefits for pay (question #12 of the questionnaire). The calculated Chi squared value for the variable data was 0.26 which did not exceed the threshold tabular value of 18.3 at a .05 probability.

Correlation coefficients between all of the questionnaires variables were also calculated. The results of this series of coefficient calculations is illustrated in Table 4-4. A condensed version of this correlation matrix which focuses on the variables that are applicable to the study's hypothesis is illustrated in Table 4-5. This table includes the correlation coefficients calculated for the questionnaire variables involving income need, income level, income satisfaction, benefit satisfaction, rank importance of pay, and the benefit for pay trade-off decision

Correlation Coefficients

Table 4 - 4

QUES.	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
1	1.00																
2	NA	NA															
3	-0.1	NA	1.00														
4	0.10	NA	-0.89	1.00													
5	-0.19	NA	0.31	-0.26	1.00												
6	0.09	NA	-0.50	0.45	0.03	1.00											
7	0.11	NA	-0.34	0.32	-0.18	0.20	1.00										
8	0.13	NA	-0.68	0.59	-0.14	0.62	0.26	1.00									
9	0.01	NA	-0.28	0.28	0.09	0.56	0.20	0.48	1.00								
10	-0.14	NA	0.12	-0.09	0.08	-0.05	-0.02	-0.08	0.18	1.00							
11.1	-0.19	NA	0.17	-0.12	-0.02	-0.15	-0.16	-0.21	-0.15	0.03	1.00						
11.2	0.11	NA	-0.09	0.05	0.13	0.11	0.09	0.14	0.00	-0.12	-0.25	1.00					
11.3	-0.14	NA	-0.03	0.06	0.12	0.03	-0.17	0.07	0.04	0.12	0.20	-0.11	1.00				
11.4	-0.04	NA	0.10	-0.06	0.10	-0.15	-0.02	-0.08	-0.01	-0.05	0.23	0.03	0.07	1.00			
11.5	0.30	NA	-0.14	0.08	-0.07	0.14	0.21	0.21	0.13	-0.19	-0.55	0.35	-0.22	-0.24	1.00		
11.6	-0.14	NA	0.06	-0.03	0.04	-0.12	-0.13	-0.13	-0.09	0.11	0.67	-0.31	0.20	0.19	-0.56	1.00	
11.7	0.05	NA	-0.16	0.15	-0.12	0.12	0.06	0.17	0.16	-0.11	-0.34	-0.21	-0.22	-0.06	0.06	-0.30	1.00
11.8	-0.04	NA	0.07	-0.05	-0.11	-0.10	-0.03	-0.15	-0.09	0.11	-0.21	-0.40	-0.38	-0.31	-0.07	-0.19	-0.08
11.9	0.00	NA	0.08	-0.10	-0.01	0.04	0.08	-0.07	0.01	0.10	-0.41	-0.19	-0.32	-0.41	-0.05	-0.40	0.15
12	0.34	NA	-0.15	0.11	-0.07	0.05	0.12	0.10	-0.09	-0.16	-0.30	0.28	-0.12	-0.04	0.42	-0.33	0.06
13ab	0.26	NA	-0.28	0.21	-0.19	0.17	0.15	0.27	0.22	-0.19	-0.21	0.20	-0.13	-0.03	0.28	-0.26	0.14
abw	0.12	NA	-0.06	0.05	-0.15	0.01	-0.03	0.09	0.10	-0.14	-0.07	0.11	-0.10	0.06	0.13	-0.17	0.07
13cd	0.22	NA	-0.13	0.05	0.00	0.03	0.01	0.14	0.03	-0.12	-0.25	0.38	-0.12	-0.05	0.27	-0.24	0.04
cdw	0.09	NA	0.12	-0.13	0.10	-0.13	-0.14	-0.02	-0.08	-0.05	-0.16	0.27	-0.06	0.00	0.15	-0.19	-0.03
13e	0.05	NA	-0.06	0.07	0.00	0.03	0.05	0.05	0.12	-0.10	-0.07	-0.15	-0.11	0.09	-0.02	-0.03	0.31
ew	-0.07	NA	0.09	-0.08	0.08	-0.09	-0.06	-0.09	0.06	0.03	-0.04	-0.17	-0.05	0.12	-0.06	-0.03	0.20
13f	0.05	NA	0.11	-0.17	-0.08	-0.09	0.12	-0.11	-0.03	-0.05	0.00	-0.13	-0.23	0.08	0.01	0.05	-0.11
fw	0.04	NA	0.22	-0.25	-0.08	-0.15	0.05	-0.23	-0.08	-0.02	0.02	-0.12	-0.20	0.07	-0.02	0.05	-0.16
13g	0.03	NA	-0.02	0.04	-0.12	0.03	0.14	0.03	0.10	0.12	-0.08	-0.05	-0.02	-0.01	0.17	-0.09	0.01
gw	-0.03	NA	0.02	-0.02	-0.16	-0.04	0.08	-0.05	0.02	0.08	-0.02	-0.08	-0.04	-0.01	0.10	-0.08	-0.02
14	-0.18	NA	-0.11	0.06	0.03	0.07	-0.21	0.08	0.04	-0.06	-0.07	0.07	0.03	0.00	-0.01	-0.11	0.03
15	-0.02	NA	-0.03	-0.05	0.06	0.02	-0.13	0.05	-0.12	-0.08	-0.16	0.17	0.01	-0.14	0.13	-0.14	-0.05
16	-0.03	NA	0.07	-0.09	0.05	-0.10	0.04	-0.15	-0.13	-0.18	-0.05	0.07	-0.35	-0.01	0.06	-0.08	-0.05

QUES.	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16	
11.8	1.00																
11.9	0.34	1.00															
12	-0.07	0.01	1.00														
13ab	-0.07	0.00	0.39	1.00													
abw	-0.01	-0.03	0.25	0.87	1.00												
13cd	-0.04	-0.10	0.25	0.55	0.46	1.00											
cdw	0.07	-0.12	0.12	0.36	0.45	0.88	1.00										
13e	0.01	0.04	0.04	0.10	0.13	0.10	0.18	1.00									
ew	0.06	0.04	-0.06	0.02	0.14	0.08	0.22	0.86	1.00								
13f	0.15	0.19	0.04	0.10	0.07	0.05	0.04	0.33	0.32	1.00							
fw	0.18	0.18	0.02	0.03	0.05	0.02	0.07	0.30	0.35	0.93	1.00						
13g	0.09	-0.06	0.14	0.17	0.16	0.19	0.19	0.24	0.29	0.21	0.19	1.00					
gw	0.15	-0.03	0.10	0.14	0.17	0.15	0.17	0.24	0.31	0.24	0.25	0.93	1.00				
14	0.03	0.00	-0.16	-0.04	-0.04	0.01	0.00	-0.09	-0.07	-0.17	-0.21	-0.08	-0.06	1.00			
15	0.06	0.01	0.02	-0.07	-0.12	0.11	0.11	-0.17	-0.19	-0.11	-0.14	0.03	0.04	0.44	1.00		
16	0.21	0.11	-0.05	-0.01	0.01	0.04	0.06	-0.05	-0.02	0.00	0.02	0.07	0.09	0.28	0.25	1.00	

Correlation Coefficients Applicable To Hypothesis

Table 4 - 5

Question	6	7	8	9	10	11.4	12	13ab	13cd	13e	13f	13g	14	15	16
6	1.00														
7	0.02	1.00													
8	0.62	NA	1.00												
9	0.56	NA	0.48	1.00											
10	-0.05	NA	-0.08	0.18	1.00										
11.4	-0.15	NA	-0.08	-0.01	-0.05	1.00									
12	0.05	NA	0.10	-0.09	-0.16	-0.04	1.00								
13ab	0.17	NA	0.27	0.22	-0.19	-0.03	0.39	1.00							
13cd	0.03	NA	0.14	0.03	-0.12	-0.05	0.25	0.55	1.00						
13e	0.03	NA	0.05	0.12	-0.10	0.09	0.04	0.10	0.10	1.00					
13f	-0.09	NA	-0.11	-0.03	-0.05	0.08	0.04	0.10	0.05	0.33	1.00				
13g	0.03	NA	0.03	0.10	0.12	-0.01	0.14	0.17	0.19	0.24	0.21	1.00			
14	0.07	NA	0.08	0.04	-0.06	0.00	-0.16	-0.04	0.01	-0.09	-0.17	-0.08	1.00		
15	0.02	NA	0.05	-0.12	-0.08	-0.14	0.02	-0.07	0.11	-0.17	-0.11	0.03	0.44	1.00	
16	-0.10	NA	-0.15	-0.13	-0.18	-0.01	-0.05	-0.01	0.04	-0.05	0.00	0.07	0.28	0.25	1.00

scenarios.

A second series of correlation coefficients were calculated excluding the respondents who indicated they already had benefit coverages available from another source in addition to those provided by the hospital (question #7 of the questionnaire). The elimination of these respondents would filter out the effects of those who were not truly trading-off benefits for pay since they had some amount of coverage duplication. The results of this second series of coefficients calculations are illustrated in Table 4-6.

A third series of correlation coefficients was the final step of the data analysis. This third series of correlation calculations utilized the income need variable (question #6), the income level variable (question #8), the pay satisfaction variable (question #9) and the benefit satisfaction variable (question #10) in coefficient calculations against each of the benefit repurchase questions (13ab-13g) after excluding responses from those who indicated that they would not repurchase due to already having other available coverage of each benefit type. The results of these correlation coefficient calculations are illustrated in Table 4-7.

Correlation Coefficients Excluding Respondents With Other Available Coverage

Table 4 - 6

QUES.	6	7	8	9	10	11.4	12	13ab	13cd	13e	13f	13g	14	15	16
6	1.00														
7	0.00	1.00													
8	0.67	0.00	1.00												
9	0.56	0.00	0.51	1.00											
10	-0.04	0.00	-0.02	0.11	1.00										
11.4	-0.19	0.00	-0.16	0.02	-0.06	1.00									
12	-0.06	0.00	0.05	-0.11	-0.15	-0.27	1.00								
13ab	-0.03	0.00	0.15	0.08	-0.15	0.06	0.43	1.00							
13cd	-0.06	0.00	0.08	0.01	-0.13	0.06	0.27	0.59	1.00						
13e	0.03	0.00	0.10	0.08	-0.04	0.02	0.03	0.12	0.23	1.00					
13f	-0.16	0.00	-0.21	-0.05	0.10	0.01	0.00	0.16	0.14	0.30	1.00				
13g	-0.01	0.00	0.01	0.07	0.14	-0.07	0.03	0.25	0.30	0.30	0.29	1.00			
14	0.27	0.00	0.18	0.13	-0.04	-0.01	-0.15	-0.16	-0.09	-0.19	-0.08	0.07	1.00		
15	0.30	0.00	0.23	-0.04	-0.03	-0.16	0.04	-0.08	0.02	-0.21	-0.17	0.13	0.57	1.00	
16	0.01	0.00	-0.21	-0.05	-0.21	0.03	0.01	0.02	0.04	-0.04	0.01	0.17	0.46	0.32	1.00

Correlation Coefficients Excluding Respondents With Other Available Specific Coverages

Table 4-7

Question	13ab	13cd	13e	13f	13g
6	-0.07	0.01	0.03	-0.08	-0.13
8	-0.01	0.18	0.12	-0.08	-0.15
9	0.07	0.05	0.16	0.03	-0.09
10	-0.13	-0.14	-0.07	-0.01	0.02

Chapter V
DISCUSSION

First Level Analysis Discussion

Seventy-two percent of the respondents were married at the time of the survey. Ninety percent of these married respondents had working spouses. Thus over half [65%] of all respondents represented a dual income household. This lends support to the concept of utilizing total household income in lieu of individual income as the salient measurement in such a study. Nearly half [44%] of the respondents reported that they have benefits available from a source other than their primary employer. While not measured by the questionnaire, this may also be related to the high percentage of dual career couples. This availability of alternative sources of benefits impacted the pay for benefit trade-off decisions as will be discussed.

One of the goals of the study was to elicit responses form a broad range of household incomes. This was achieved in that all of the income brackets from $0 to $10,000 through greater than

$100,000 were represented in the questionnaire data set. Twenty-four percent of the respondents indicated that their total household income does not always meet basic living expenses. Twenty-eight percent responded that their income meets basic living expenses. Forty-eight percent reported that their income meets living expenses as well as allows for some amount of discretionary spending or saving. This data was intended to measure respondent's need for income on a relative scale regardless of their actual income level as measured by their response to the total household income level question. This need for income measurement would be used as a secondary test of association with compensation attribute rankings and willingness to trade benefits for additional pay. The primary tests of these associations would utilize actual reported household income levels.

A greater number of respondents [45%] reported a somewhat or very dissatisfied pay satisfaction as opposed to those who indicated they were somewhat or very satisfied with their pay [36%]. The balance gave a neutral response for pay satisfaction. Conversely a greater number of respondents [45%] reported a somewhat or very

satisfied benefit satisfaction as opposed to those who indicated they were somewhat or very dissatisfied with their benefits [27%]. Thus, as a group, the respondent population had a higher satisfaction level with their current benefits than their satisfaction with current pay.

As expected, the importance of pay ranked ahead of the other eight compensation attributes offered. Overwhelmingly respondents ranked pay first [72%] or second [16%]. Based on mean rank scores, medical insurance ranked second followed in order by the three paid time off benefits of vacation, sick leave, and holidays. Dental insurance ranked sixth followed by the pension benefit, and life insurance. The long term disability insurance ranked the lowest of the nine attributes.

It is interesting to note that this same order of importance for the non-pay benefits was not necessarily reflected in the pay verses benefit trade-off decision percentages. Questions were posed to the respondents asking them to indicate whether or not they would trade each of the non-pay benefits for the cash value of each benefit in the form of additional pay. The priority rank ordering of these benefits when

measured by the percentage of respondents willing to obtain or keep the benefit in lieu of the cash value was as follows. Paid vacation would rank first with only eleven percent of respondents willing to trade for its cash value. The pension benefit would be second with twenty-three percent willing to trade. Paid holidays and paid sick leave would rank third and fourth with twenty-seven and twenty-nine percent willing to trade respectively for their cash values. In the fifth position was long term disability coverage with forty-two percent willing to trade for its cash value. Dental insurance would rank sixth with fifty-four percent preferring the wage cash value over the benefit. Life insurance would follow in seventh place with sixty-four percent willing to trade for its cash value. Medical insurance, which was rated ahead of the other non-pay benefits when ranked without consideration of its cash value, would rank last based on seventy-two percent of the respondents preferring its wage cash value over obtaining/retaining the benefit.

There are two possible explanations for these variations. These variations may be a result of the fact that forty-four percent of the respondents have duplications in availability for

some or all of these benefits through their spouse's employer. Thus the need for the benefit to be supplied through their personal employer does not exist. This condition in effect negates the cost impact of the trade-off decision without altering the relative importance level the respondent holds for a particular benefit. For example, seventy-two percent of those who would not trade the wage cash value of the medical insurance for the benefit indicated that their decision was based on the fact that they already had such coverage from another source. Thus only twenty-eight percent were making the same trade-off decision based on a need or value comparison between the benefit coverage and its cash value in the form of wages.

This need or value comparison situational condition could be the second explanation of the variation between the relative importance rankings of benefits and the trade-off decision response obtained in the study. The relative importance ranking responses did not require the respondents to consider each benefit's cost. The trade-off decision scenarios did include the cost/value factor for those respondents that did not have duplicate coverage. An extreme example of this

effect to imagine what a respondent's choice would be if they were asked to choose between an all expense paid vacation to an exotic international destination or a local previously visited destination. Now consider the variation in choice that would occur if the relative cost of each choice would have to be paid by the respondent. The respondent would probably base the first decision solely on personal preference of the destinations. The second decision would involve destination preference combined with the respondent's cost valuation of each, and willingness or ability to pay.

Thirty percent of the respondents were willing to trade their combined group of insurance and pension benefits for an equivalent cash value wage increase of $3,600.00 per year. Ignoring the social consequences of such an action, the financial implications of such data is substantial. When applied to a five hundred employee organization, this would mean that the employer is spending over a half a million dollars annually on benefits for employees who would prefer to receive the equivalent in additional wages. The review of respondent's trade-off decisions on individual benefits, presented

earlier, demonstrated even higher percentages of those who would prefer the cash value in lieu of specific individual benefits such as; long term disability insurance [42%], dental insurance [54%], life insurance [64%], and medical insurance [72%].

Summary

This study had a number of goals. It sought to measure the importance level employees place on pay and non-wage benefits, with the anticipation that pay would be ranked ahead of other compensation attributes. The study also sought to measure employees valuation of their benefits compared to actual costs by testing their willingness to trade benefits for pay. These measurements were presented and discussed in the previous section.

Further, the study sought to identify possible predictors of these measures. It specifically focused on whether or not income related attributes had a relationship with the relative importance level employees place on pay and benefits. To this end a correlation coefficient analysis of the Compensation Questionnaire Data Set was performed.

The questionnaire had four pay related measures; question #6 which measured relative income need, question #8 which measured actual total household income, question #9 which measured pay satisfaction, and question 11.4 which measured pay importance ranking against other compensation attributes. In relation to each other, these pay related measures were found to have some amount of significant correlation., Questions #6 and #8 had a high correlation coefficient of 0.62. Based on the way that the answers to these two questions were numerically coded, this would indicate that the higher the total household income was, the greater the likelihood that the respondent would report that their income met all basic living expenses and allowed for some amount of discretionary spending or saving. The pay satisfaction measure had a positive correlation with both total household income [0.48] and the income need measure [0.56]. Thus a higher level of pay satisfaction was reported by respondents who reported higher household incomes and incomes supporting discretionary spending or saving.

The correlation analysis of question 11.4 against the other pay related measures addresses the study's first hypothesis. The first

hypothesis was: H1 - The mean importance rating of pay will exceed the ratings of benefits of a diverse group of employees, but pay's importance level rating will be negatively correlated to individual employees' total household income. As stated, this first hypothesis predicted that pay would rank ahead of other compensation attributes but would be negatively correlated to income level. The data results did find that respondents ranked pay overwhelmingly ahead of the other eight compensation attributes as previously described. However, there was no significant correlation found with the actual total household income measurement or the income need measurement. The correlation coefficient between pay importance ranking (question 11.4) and total household income (question 8) was found to be only -0.08. The correlation coefficient between pay importance ranking and the income need measurement (question 6) was only -0.15. Thus the first hypothesis was rejected.

Question 12, 13ab, 13cd, 13e, 13f, 13g, 14, 15, and 16 were all measurements of the respondents' willingness to trade-off benefits for cost equivalent pay increases. Tests of association and correlation of these measurements

against the income related measurements would address the study's second hypotheses which was: H2 - A willingness to accept increased pay as a substitute for benefits will have a negative correlation with total household income levels. As stated, this second hypothesis predicted that individuals with higher income levels and income levels which allowed for discretionary spending or saving would be less likely to trade benefits for additional pay. Conversely, individuals with lower household income levels which did not allow for discretionary spending/saving would be more likely to trade benefits for additional pay to help meet basic living expenses.

The first test of this hypothesis involved a Chi squared analysis of the responses given for the insurance and pension benefit group package for pay trade-off measurement (question 12) and the total household income measurement (question 8). The calculated Chi squared value for this data set was 0.26 which did not exceed the threshold tabular value of 18.3 at a .05 probability. Thus this analysis did not support an association between these two measurements. As a further check, correlation coefficients between the trade-off measurements and the income related

measurements were reviewed. Three different series of correlation coefficients were reviewed; coefficients from the entire data set applicable to the hypothesis (Table 4-5), correlation coefficients excluding respondents with other available coverage (Table 4-6),and correlation coefficients excluding respondents with other available specific coverages (Table 4-7). The coefficients calculated, excluding respondents with coverages available from another source, eliminate respondents who choose to trade-off benefits because they have duplicative coverage of the benefit and thus are not necessarily making a need versus preference decision between the benefits and pay.

In reviewing the correlation coefficients calculated from the total data set (Table 4-5), only the medical insurance trade-off measurement exhibited a mild correlation with total household income [0.27]. None of the other measurements presented even a mildly significant correlation. In reviewing the coefficients calculated excluding respondents with other available coverages (Tables 4-6 and 4-7) this mildly significant correlation with the medical insurance trade-off measurement declines to 0.15. Most of the other measurement

correlations also decline or remain at an insignificant low value. The one exception to this was the correlation coefficients for the holiday and vacation trade-off measurements which rose to a coefficient range of 0.18 to 0.30 against the income need measurement and the income level measurement (reference Table 4-6 questions 6 versus 14 and 15, and 8 versus 14 and 15). The direction of these correlations however was contradictory to the hypothesis. Thus the overall analysis of the correlation results and the Chi squared test indicates a rejection of the study's second hypothesis. The findings of this study cannot support the use of income measurements as a predictor of an employee's willingness to trade benefits for pay.

Limitations

This study contained two significant limitations. The first limitation involves the targeted respondent group population. This study utilized respondents from a single industry and a single organization. While the study's respondent population did reflect responses across a varied range of income levels and occupational backgrounds, the fact remains that all of the

respondents were a member of a single healthcare organization. Thus the inherent culture and attitude which exists within this single organization or with healthcare workers as a group, could have an effect on their perception of benefit issues which might not necessarily exist in other organizations or industries. The scope of this study did not include the ability to measure such an effect, if it does exist.

The second limitation involves the data gathering instrument utilized in the study. The Compensation Questionnaire was developed specifically for this study and as such had never been used before. Thus the reliability and validity of this instrument is untested. Therefore the format and construction of its questions and answers in relation to their intended constructs is somewhat subjective as opposed to being objectively tested against similar instruments which have already been proven to be reliable.

Suggestions for Future Research

While this study's findings could not support its hypothesis, it did measure a substantial willingness or preference to trade some benefits

for additional pay. In consideration of the fact that pay and benefits are a primary tool in attracting and retaining employees, and considering the ever increasing cost organizations face in providing benefits, continued research on this topic would be justified. Several general suggestions for future research of this topic in relation to this study could be made.

This study utilized total household income as the income variable in lieu of the respondents' individual income. This was done based on the premise that total household income shared between a dual career couple has a greater salient effect on a respondents' perceptions and choices. Further study which would validate or reject this assumption could prove beneficial to all future studies which utilize income as a variable.

Secondly, replication of this study in its current or similar form with respondent populations from multiple organizations and industries would be useful in determining if this study's results can be generalized outside of the single industry/organization it reflects. Likewise, a test of this study with a population which currently does not receive benefits might prove to be interesting. This might determine if

the direction of trade, pay for benefits versus benefits for pay, has any impact on the decision making of the respondent group.

Finally, as mentioned earlier, this study represented the first use of the data collection instrument titled "Compensation Questionnaire". Future studies which would test this instrument's validity and its reliability would be helpful. Assurance of this instrument's reliability would help validate this study's results, as well as its use as a basis for future studies.

Appendix A

COVER LETTER

My name is Perry Hirtz. I am currently taking evening classes at Lindenwood College. As a part of my required coursework, I am working on a research paper which focuses on employee attitudes and preferences regarding pay and benefits.

To complete this project I am respectfully asking for your help in completing and returning the attached questionnaire. The questionnaire is designed to be completely anonymous. **DO NOT** place your name on the questionnaire. All of the information gathered from the completed questionnaires will be compiled into statistical averages and formats. Your honest and accurate completion of the questionnaire is critical in gaining a true measure of the survey group's perspective on the topic of the research paper.

Your time and attention in completing this questionnaire is greatly appreciated. Once completed, the questionnaire can be returned by placing it in the envelope provided and dropping it in the hospital's in-house mail. Please return the questionnaire by March 30, 1996.

Thank you for your help.

Sincerely,

Perry Hirtz

Appendix B

COMPENSATION QUESTIONNAIRE

Do **not** put your name on this questionnaire. This survey is intended to be completely anonymous. Thank you for your cooperation.

1. What is your current employment status? (circle the most appropriate answer)

   Full Time Part Time Per Diem

2. Are you currently benefits eligible? (circle the most appropriate answer)

   Yes No

3. What is your current marital status? (circle the most appropriate answer)

   Married Single

4. If married, is your spouse employed? (circle the most appropriate answer)

   Yes No

5. Do you have any dependent children? (circle the most appropriate answer)

   Yes No

6. How well does your current total household income meet your needs? (circle the most appropriate answer)

income does not always meet all basic living expenses	income meets basic living expenses	income exceeds basic living and allows for some discretionary spending or saving

7. Do you or your spouse have benefits coverage for yourself or other immediate family members available from a source other than <u>your</u> employer? (circle <u>all</u> answers which apply)

No	Yes for myself	Yes for my spouse	Yes for my children

8. What is your <u>total</u> annual gross household income (including all salary and wages earned by <u>both</u> you and your spouse as well as any investment and business income if applicable)? (circle the most appropriate answer)

$0 - $10,000	$10,001 -$20,000	$20,001-$30,000	$30,001-$40,000
$40,001-$50,000	$50,001-$60,000	$60,001-$70,000	$70,001-$80,000
$80,001-$90,000	$90,001-$100,000	Greater than $100,000	

9. How would you describe your current satisfaction with your current rate of pay? (circle the most appropriate answer)

very dissatisfied	somewhat dissatisfied	neutral	somewhat satisfied	very satisfied

10. How would you describe your current satisfaction with your current employee benefits plan? (circle the most appropriate answer)

very dissatisfied	somewhat dissatisfied	neutral	somewhat satisfied	very satisfied

11. Please rank in order of importance to you the following items by placing a number next to each item (1 = most important to 9 = least important)

_____paid vacation	_____paid holidays
_____dental insurance	_____life insurance
_____paid sick leave	_____pension benefits
_____pay	_____long term disability insurance
_____medical insurance	

12. Your employer has decided to offer you the option to either continue your current benefit package or you can choose to increase your annual gross pay by $3,600.00 (plus eliminate the current payroll deductions for the employee's share of the cost of the following benefits), by eliminating your current company sponsored dental insurance, medical insurance, life insurance, long term disability insurance, and the annual pension contribution set aside by the company (previous pension account set-asides for previous years would remain intact.) All other current benefits would remain in place.

Place a check mark beside the option you would choose.

_____continue with your current benefit package

_____take the additional pay and eliminate the stated benefits.

13. Your employer has decided to increase each benefits eligible employee's gross annual pay by $3,600 and eliminate the current employee medical insurance benefit, dental insurance benefit, life insurance benefit, long term disability benefit and pension plan. Previously accumulated pension set asides are immediately issued to each employee in the form of a one time lump sum payment. This change affects all benefits eligible employees and your annual gross pay has now increased by $3,600. You can, however, choose to purchase any or all of the following insurance overages similar to those previously offered through the company.

A. You can purchase HMO medical for <u>yourself only</u> for $1,800 per year. Would you purchase this insurance? (circle the most appropriate answer)

Yes No

If no, why not? (circle the most appropriate answer)

I have coverage available from another source	I need family coverage	I value or need the money more than the insurance

B. You can purchase HMO medical <u>family coverage</u> insurance for $5,300 per year. Would you purchase this insurance? (circle the most appropriate answer)

Yes No

If no, why not?

I have coverage available from another source | I need single coverage | I value or need the money more than the insurance

C. You can purchase dental insurance for <u>yourself only</u> for $140 per year. Would you purchase this insurance? (circle the most appropriate answer)

Yes No

If no, why not?

I have coverage available from another source | I need family coverage | I value or need the money more than the insurance

D. You can purchase dental <u>family coverage</u> insurance for $625 per year. Would you purchase this insurance? (circle the most appropriate answer)

Yes No

If no, why not?

I have coverage available from another source | I need single coverage | I value or need the money more than the insurance

E. You can purchase life insurance for yourself for $18 per $1,000 coverage per year. Would you purchase this insurance? (circle the most appropriate answer)

Yes No

If no, why not?

I have coverage available from another source

I value or need the money more than the insurance

F. You can purchase long term disability insurance for yourself for $70 per year. Would you purchase this insurance? (circle the most appropriate answer)

Yes No

If no, why not?

I have coverage available from another source

I value or need the money more than the insurance

G. You can, through payroll deduction, enroll in a retirement savings account which takes 5% of your pretax pay and earns the prime interest rate in a tax deferred method. Would you enroll in this retirement saving plan? (circle the most appropriate answer)

Yes No

If no, why not?

I prefer to save/invest for retirement differently

I currently prefer or need to use the money for things other than retirement

14. You can take a pay increase of 0.38% for <u>each</u> paid holiday you currently receive by eliminating your currently provided paid holidays (ie: if you currently receive 8 paid holidays you could take a 3.04% pay increase). This would mean that you could work the holidays or take the time off without pay.

Place a checkmark beside the option you would prefer.

_____take the pay increase and eliminate paid holidays
_____decline the pay increase and retain paid holidays

15. You can take a 1.9% pay increase for <u>each</u> week of paid vacation you currently receive by eliminating paid vacations. Unpaid time off up to a total of three weeks per year could be scheduled with your supervisor at your discretion, but taking vacation would not be mandatory.

Place a checkmark beside the option you would prefer.

_____take the pay increase and eliminate paid vacation.
_____decline the pay increase and retain paid vacation

16. You can get a 0.20% pay increase for <u>each</u> sick leave day you currently accrue per year by eliminating paid sick leave (ie: if you currently accrue 12 days per year, you could take a 2.4% pay increase). Sick leave could still be taken when needed under limitations of current policy, but it would be unpaid time off.

Place a checkmark beside the option you would prefer.

_____take the pay increase and eliminate paid sick leave
_____decline the pay increase and retain paid sick leave

Please check to see that you have answered each question. When complete, place the questionnaire form in the envelope provided, seal it and place it in the in-house mail to Perry Hirtz - Engineering Department. Thank you for your participation.

Appendix C

COMPENSATION QUESTIONNAIRE

ANSWER KEY

Spreadsheet column "R#" = assisgned returned questinnaire number.
Spreadsheet Column "#" = 1 (to enable summing of sorted like responses)

1. What is your current employment status? (spreadsheet column "1")

Full Time	Part Time	Per Diem
(1)	(2)	(3)

2. Are you currently benefits eligible? (spreadsheet column "2")

Yes	No
(1)	(2)

3. What is your current marital status? (spreadsheet column "3")

Married	Single
(1)	(2)

4. If married, is your spouse employed? (spreadsheet column "4")

Yes	No
(1)	(2)

5. Do you have any <u>dependent</u> children? (spreadsheet column "5")

Yes	No
(1)	(2)

6. How well does your current total household income meet your needs? (spreadsheet column "6")

income does not always meet all <u>basic</u> living expenses	income meets <u>basic</u> living expenses	income exceeds <u>basic</u> living and allows for some discretionary spending or saving
(1)	(2)	(3)

7. Do you or your spouse have benefits coverage for yourself or other immediate family members available from a source other than <u>your</u> employer? (spreadsheet column "7")

No	Yes for myself	Yes for my spouse	Yes for my children
(1)	(2)	(2)	(2)

8. What is your <u>total</u> annual gross household income (including all salary and wages earned by <u>both</u> you and your spouse as well as any investment and business income if applicable)? (spreadsheet column "8")

$0 - $10,000	$10,001 -$20,000	$20,001-$30,000	$30,001-$40,000
(1)	(2)	(3)	(4)
$40,001-$50,000	$50,001-$60,000	$60,001-$70,000	$70,001-$80,000
(5)	(6)	(7)	(8)
$80,001-$90,000	$90,001-$100,000	Greater than $100,000	
(9)	(10)	(11)	

9. How would you describe your current satisfaction with your current rate of pay? (spreadsheet column "9")

very dissatisfied	somewhat dissatisfied	neutral	somewhat satisfied	very satisfied
(1)	(2)	(3)	(4)	(5)

10. How would you describe your current satisfaction with your current employee benefits plan? (spreadsheet column "10")

very dissatisfied	somewhat dissatisfied	neutral	somewhat satisfied	very satisfied
(1)	(2)	(3)	(4)	(5)

11. Please rank in order of importance to you the following items by placing a number next to each item (1 = most important to 9 = least important) (spreadsheet column labeled next to each item)

(11.1) _____paid vacation
(11.2) _____dental insurance
(11.3) _____paid sick leave
(11.4) _____pay
(11.5) _____medical insurance
(11.6) _____paid holidays
(11.7) _____life insurance
(11.8) _____pension benefits
(11.9) _____long term disability insurance

12. Your employer has decided to offer you the option to either continue your current benefit package or you can choose to increase your annual gross pay by $3,600.00 (plus eliminate the current payroll deductions for the employee's share of the cost of the following benefits), by eliminating your current company sponsored dental insurance, medical insurance, life insurance, long term disability insurance, and the annual pension contribution set aside by the company (previous pension account set-asides for previous years would remain intact.) All other current benefits would remain in place.

(Spreadsheet column "12")

_____continue with your current benefit package
(1)
_____take the additional pay and eliminate the stated benefits.
(2)

* For questions 13 A & B and 13 C & D exclude the negative responses given because the appropriate single/family coverage was not applicable and enter only the option which presented the applicable coverage for the respondent.

** For questions 13 A-G enter a "0" for all non responses (ie non response to the "If no, why not?" quetions after a "yes response to the preceeding question).

13. Your employer has decided to increase each benefits eligible employee's gross annual pay by $3,600 and eliminate the current employee medical insurance benefit, dental insurance benefit, life insurance benefit, long term disability benefit and pension plan. Previously accumulated pension set asides are immediately issued to each employee in the form of a one time lump sum payment. This change affects all benefits eligible employees and your annual gross pay has now increased by $3,600. You can, however, choose to purchase any or all of the following insurance overages similar to those previously offered through the company.

A. You can purchase HMO medical for <u>yourself only</u> for $1,800 per year. Would you purchase this insurance? (spreadsheet column "13ab")

Yes	No
(1)	(2)

**If no, why not? (spreadsheet column "abw")

I have coverage available from another source	I need family coverage	I value or need the money more than the insurance
(1)	(*)	(2)

B. You can purchase HMO medical <u>family coverage</u> insurance for $5,300 per year. Would you purchase this insurance? (spreadsheet column "13ab")

Yes	No
(1)	(2)

**If no, why not? (spreadsheet column "abw")

I have coverage available from another source	I need single coverage	I value or need the money more than the insurance
(1)	(*)	(2)

C. You can purchase dental insurance for <u>yourself only</u> for $140 per year. Would you purchase this insurance? (spreadsheet column "13cd")

Yes	No
(1)	(2)

**If no, why not? (spreadsheet column "cdw")

I have coverage available from another source	I need family coverage	I value or need the money more than the insurance
(1)	(*)	(2)

D. You can purchase dental <u>family coverage</u> insurance for $625 per year. Would you purchase this insurance? (spreadsheet column "13cd")

Yes	No
(1)	(2)

**If no, why not? (spreadsheet column "cdw")

I have coverage available from another source	I need single coverage	I value or need the money more than the insurance
(1)	(*)	(2)

E. You can purchase life insurance for yourself for $18 per $1,000 coverage per year. Would you purchase this insurance? (spreadsheet column "13e")

Yes	No
(1)	(2)

**If no, why not? (spreadsheet column "ew")

I have coverage available from another source	I value or need the money more than the insurance
(1)	(2)

F. You can purchase long term disability insurance for yourself for $70 per year. Would you purchase this insurance? (spreadsheet column "13f")

Yes	No
(1)	(2)

**If no, why not? (spreadsheet column "fw")

I have coverage available from another source	I value or need the money more than the insurance
(1)	(2)

G. You can, through payroll deduction, enroll in a retirement savings account which takes 5% of your pretax pay and earns the prime interest rate in a tax deferred method. Would you enroll in this retirement saving plan? (spreadsheet column "13g")

Yes	No
(1)	(2)

**If no, why not? (spreadsheet column "gw")

I prefer to save/invest for retirement differently	I currently prefer or need to use the money for things other than retirement
(1)	(2)

14. You can take a pay increase of 0.38% for <u>each</u> paid holiday you currently receive by eliminating your currently provided paid holidays (ie: if you currently receive 8 paid holidays you could take a 3.04% pay increase). This would mean that you could work the holidays or take the time off without pay.

(spreadsheet column "14")

_____take the pay increase and eliminate paid holidays
(1)
_____decline the pay increase and retain paid holidays
(2)

15. You can take a 1.9% pay increase for <u>each</u> week of paid vacation you currently receive by eliminating paid vacations. Unpaid time off up to a total of three weeks per year could be scheduled with your supervisor at your discretion, but taking vacation would not be mandatory.

(spreadsheet column "15")

_____take the pay increase and eliminate paid vacation
(1)
_____decline the pay increase and retain paid vacation
(2)

16. You can get a 0.20% pay increase for <u>each</u> sick leave day you currently accrue per year by eliminating paid sick leave (ie: if you currently accrue 12 days per year, you could take a 2.4% pay increase). Sick leave could still be taken when needed under limitations of current policy, but it would be unpaid time off.

(spreadsheet column "16")

_____take the pay increase and eliminate paid sick leave
(1)
_____decline the pay increase and retain paid sick leave
(2)

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	#	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
1	1	1	1	1	1	1	3	2	8	4	4	2	8	6	1	7	3	4
2	1	1	1	2	0	1	2	1	3	4	4	5	4	3	1	2	8	7
3	1	1	1	1	1	1	3	2	11	4	4	5	3	4	1	2	6	7
4	1	1	1	2	0	1	1	1	2	1	4	5	3	4	1	2	7	6
5	1	2	1	1	1	1	3	1	5	3	3	4	5	3	1	2	7	8
6	1	1	1	1	2	1	3	2	8	5	4	4	8	5	6	1	7	9
7	1	1	1	2	0	2	1	1	2	2	2	5	4	6	7	3	8	9
8	1	2	1	1	1	1	2	2	9	3	2	6	3	4	2	1	7	9
9	1	1	1	2	0	2	1	1	2	1	3	1	6	4	2	8	3	7
10	1	1	1	2	0	1	1	1	2	2	3	5	8	3	2	1	6	7
11	1	1	1	2	0	2	2	1	3	3	3	4	6	3	1	2	5	7
12	1	2	1	1	1	1	1	1	7	3	3	3	4	6	2	1	5	8
13	1	1	1	1	2	2	3	2	5	4	3	5	7	4	2	1	6	8
14	1	2	1	1	1	2	3	2	6	5	5	2	7	5	1	6	9	8
15	1	1	1	2	0	1	1	1	2	4	4	9	2	3	4	1	8	7
16	1	2	1	2	0	2	1	1	2	2	4	5	7	9	1	4	6	3
17	1	1	1	1	1	1	2	2	5	1	1	5	3	4	2	1	8	7
18	1	1	1	1	1	1	3	2	11	5	3	1	5	2	3	7	4	8
19	1	1	1	2	0	2	2	2	2	2	5	8	6	3	1	2	9	4
20	1	1	1	1	2	1	2	1	5	2	3	3	4	7	1	2	5	9
21	1	1	1	2	0	2	2	1	2	4	4	4	3	5	1	2	6	7
22	1	1	1	1	1	1	3	2	9	4	2	2	6	3	1	5	4	9
23	1	1	1	1	1	1	2	1	6	1	5	4	3	5	1	2	6	7
24	1	1	1	1	1	1	3	1	8	4	2	5	4	3	1	2	8	6
25	1	1	1	1	1	1	3	1	6	3	2	5	4	7	1	3	6	8
26	1	1	1	1	1	2	3	1	7	3	4	5	3	4	1	2	6	7
27	1	1	1	2	0	2	1	2	1	2	3	5	6	4	1	2	7	3
28	1	1	1	1	1	2	3	1	8	3	1	6	5	8	1	2	7	9
29	1	1	1	2	0	2	1	1	3	1	4	2	7	9	1	3	8	5
30	1	1	1	2	0	2	1	1	2	2	4	5	3	6	2	1	7	4
31	1	2	1	1	1	1	3	2	8	4	4	3	7	4	1	6	5	8
32	1	1	1	1	1	2	3	2	8	4	1	1	7	6	4	5	2	8
33	1	1	1	2	0	1	3	2	4	5	4	3	5	7	1	4	2	8
34	1	2	1	1	1	1	3	1	6	2	4	5	7	3	2	1	6	8
35	1	2	1	1	1	1	3	1	9	3	2	2	9	3	1	8	4	6
36	1	2	1	1	1	1	3	2	7	2	2	3	9	4	1	2	7	5
37	1	1	1	1	1	2	3	1	6	3	3	3	7	6	1	2	4	8
38	1	2	1	1	1	2	3	1	8	3	3	2	9	3	1	5	4	6
39	1	1	1	1	1	1	1	2	3	2	3	3	7	4	1	2	6	8
40	1	1	1	1	1	1	1	1	4	3	3	2	6	4	1	3	5	7
41	1	1	1	1	1	1	2	1	8	2	3	5	3	4	1	2	6	8
42	1	1	1	2	0	2	1	1	2	2	4	5	4	6	1	2	7	3
43	1	2	1	1	1	1	3	2	7	5	4	4	3	6	1	2	5	9
44	1	1	1	1	1	2	3	1	6	3	4	4	9	5	6	1	8	2
45	1	2	1	2	0	2	2	1	4	4	4	4	7	2	1	6	3	5
46	1	1	1	1	1	1	2	2	3	2	4	4	5	3	1	2	9	7
47	1	1	1	1	2	2	2	1	3	1	2	5	4	7	1	2	8	3
48	1	1	1	2	0	2	2	2	4	4	3	3	6	5	1	2	4	8
49	1	2	1	2	0	1	1	1	1	2	4	5	4	3	1	2	7	6

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16	
1	5	9	2	2	1	2	1	1	0	2	2	2	1	2	2	2	
2	6	9	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
3	8	9	1	2	1	1	0	2	1	2	2	1	0	1	1	2	
4	8	9	1	0	0	0	0	2	1	2	2	1	0	2	2	2	
5	6	9	2	2	1	2	1	1	0	1	0	1	0	2	2	2	
6	3	2	1	2	1	1	0	2	1	1	0	2	1	2	2	2	
7	2	1	1	2	2	2	2	2	1	1	0	1	0	2	2	2	
8	5	8	1	2	1	1	0	2	1	2	1	1	0	2	2	2	
9	5	9	2	1	0	1	0	1	0	1	0	1	0	2	2	2	
10	4	9	1	1	0	1	0	1	0	2	2	1	0	2	2	2	
11	8	9	2	2	2	1	0	2	2	1	0	1	0	1	1	2	
12	7	9	1	2	1	2	1	2	1	1	0	1	0	1	1	1	
13	3	9	1	2	2	1	0	2	1	1	0	1	0	2	1	2	
14	3	4	2	2	1	2	1	2	1	1	0	2	1	1	2	1	
15	5	6	1	2	2	2	2	2	2	2	2	1	0	1	1	1	
16	2	8	2	2	1	1	0	1	0	1	0	1	0	1	2	1	
17	6	9	1	1	0	1	0	2	1	2	2	1	0	1	2	2	
18	6	9	2	2	1	2	1	2	1	2	1	1	0	2	2	2	
19	7	5	1	1	0	1	0	1	0	2	2	2	1	1	2	2	
20	8	6	1	1	0	2	2	2	1	1	0	1	0	1	2	1	
21	8	9	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
22	7	8	1	2	1	1	0	2	1	2	1	2	2	2	2	1	
23	9	8	1	1	0	1	0	2	2	1	0	2	1	2	2	1	
24	7	9	1	1	0	1	0	2	1	1	0	1	0	2	2	2	
25	2	9	1	2	2	1	0	1	0	1	0	1	0	2	2	2	
26	8	9	1	2	1	2	1	2	1	2	1	1	0	2	2	1	
27	8	9	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
28	3	4	2	2	1	2	1	2	1	1	0	1	0	2	2	2	
29	4	6	1	1	0	2	2	2	2	2	2	1	0	2	2	2	
30	8	9	1	2	2	2	2	2	2	2	2	2	1	2	2	2	
31	2	9	1	2	1	2	1	1	0	1	0	1	0	2	2	2	
32	3	9	1	1	0	1	0	2	2	2	2	1	0	2	2	2	
33	6	9	1	1	0	1	0	2	2	2	2	1	0	1	2	1	
34	4	9	2	2	1	1	0	2	1	1	0	1	0	1	2	2	
35	5	7	2	2	1	2	1	2	1	2	2	1	0	2	2	2	
36	6	8	1	1	0	2	1	1	0	2	2	1	0	2	2	2	
37	5	9	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
38	7	8	2	2	1	2	1	2	1	2	1	1	0	2	2	2	
39	5	9	1	2	1	2	1	2	1	2	1	1	0	2	2	2	
40	9	8	2	2	1	2	1	1	0	2	2	1	0	2	2	2	
41	7	9	1	2	1	1	0	2	1	1	0	1	0	2	2	2	
42	8	9	1	2	2	2	2	2	2	2	2	2	2	2	2	2	
43	7	8	1	2	1	1	0	2	1	1	0	1	0	2	2	1	
44	3	7	1	1	0	1	0	2	2	2	2	1	0	2	2	2	
45	9	8	1	2	1	2	2	2	1	2	2	1	0	2	2	2	
46	6	8	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
47	9	6	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
48	7	9	1	1	0	1	0	2	1	2	2	1	0	1	2	1	
49	8	9	1	2	2	2	2	1	0	2	2	1	0	1	2	1	

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	#	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
50	1	1	1	1	1	2	3	2	7	4	3	5	8	4	1	2	6	7
51	1	2	1	1	1	1	3	1	9	5	2	2	4	5	1	3	7	9
52	1	1	1	2	0	1	1	1	2	1	1	8	9	7	6	1	5	3
53	1	1	1	1	1	1	2	1	5	2	2	4	6	3	2	1	5	7
54	1	1	1	1	1	2	3	2	6	4	4	4	7	6	2	1	5	8
55	1	1	1	1	1	1	3	2	6	4	2	4	3	5	1	2	7	8
56	1	1	1	1	1	2	3	1	7	2	2	6	4	7	1	2	8	5
57	1	1	1	1	1	1	3	2	7	5	4	4	9	5	1	3	7	6
58	1	1	1	2	0	1	3	1	4	3	3	8	3	4	1	2	9	5
59	1	1	1	1	1	1	2	1	3	1	3	4	6	3	1	2	5	7
60	1	1	1	2	0	2	1	1	1	2	3	4	3	5	1	2	6	7
61	1	1	1	1	1	1	1	1	11	3	4	7	6	9	2	1	8	5
62	1	1	1	1	1	2	3	1	6	3	3	7	9	3	1	2	8	4
63	1	1	1	2	0	2	3	1	3	4	4	4	8	5	2	1	6	7
64	1	1	1	2	0	2	3	1	4	4	4	4	3	7	1	2	5	8
65	1	1	1	2	0	1	1	1	1	2	2	2	3	4	1	5	6	7
66	1	1	1	1	1	2	2	2	9	3	2	4	9	2	3	1	8	6
67	1	1	1	2	0	1	2	1	2	2	4	2	5	3	1	6	4	8
68	1	1	1	1	1	1	1	2	3	2	4	4	3	5	2	1	6	7
69	1	1	1	1	1	1	3	2	8	4	4	4	3	6	1	2	5	9
70	1	1	1	2	0	2	1	1	2	3	4	8	6	4	5	1	9	7
71	1	2	1	2	0	1	1	2	2	1	2	4	5	3	2	1	6	7
72	1	1	1	1	1	1	3	2	6	3	4	4	7	9	1	2	3	6
73	1	1	1	1	1	2	3	1	10	5	4	2	6	7	1	3	4	8
74	1	1	1	1	1	1	2	1	7	2	4	4	5	3	2	1	7	6
75	1	1	1	1	1	1	3	2	11	5	4	2	4	7	1	3	8	9
76	1	1	1	1	1	1	2	1	6	2	4	6	9	8	1	2	7	4
77	1	1	1	1	1	1	3	2	8	2	2	4	6	3	1	5	2	8
78	1	1	1	1	1	2	3	1	9	3	2	1	9	7	3	5	2	6
79	1	1	1	1	1	1	2	2	5	2	3	8	7	6	5	2	9	4
80	1	1	1	2	0	1	1	1	1	1	3	7	3	4	2	1	6	5
81	1	2	1	1	1	2	3	2	7	2	4	3	7	4	2	1	5	8
82	1	1	1	1	2	1	3	2	11	4	4	7	6	9	1	2	8	3
83	1	1	1	1	1	1	2	2	8	2	2	2	7	4	1	6	3	8
84	1	1	1	1	1	1	1	1	6	2	2	4	6	5	1	7	8	9
85	1	1	1	1	1	1	2	1	3	2	4	6	3	7	1	2	8	9
86	1	2	1	1	2	1	3	2	9	2	2	2	6	5	1	9	3	7
87	1	2	1	1	1	1	2	2	5	3	2	2	6	3	1	4	5	6
88	1	2	1	1	1	1	3	2	6	2	3	4	5	6	2	1	7	9
89	1	1	1	1	1	1	3	2	6	4	4	3	9	2	1	5	4	7
90	1	1	1	1	1	2	3	2	6	3	3	3	9	4	1	2	8	6
91	1	1	1	1	2	1	2	1	5	3	2	3	6	4	1	2	5	9
92	1	1	1	1	1	1	2	2	6	1	2	6	3	7	2	1	8	9
93	1	1	1	1	1	2	3	1	11	4	5	3	5	9	1	2	7	4
94	1	1	1	1	1	1	1	2	4	2	4	6	5	8	1	2	9	3
95	1	2	1	1	1	1	3	1	7	2	2	6	3	8	1	2	7	9
96	1	1	1	2	0	2	2	1	3	2	2	5	8	7	1	2	6	4
97	1	1	1	1	1	1	3	1	7	2	4	6	9	7	1	2	8	3
98	1	1	1	2	0	1	2	1	3	2	2	3	5	4	2	1	7	6

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16
50	3	9	1	2	1	2	1	2	2	2	2	1	0	2	2	2
51	6	8	1	2	1	2	1	2	1	2	2	2	1	2	2	2
52	4	2	1	2	2	2	2	1	0	1	0	1	0	2	2	2
53	9	8	1	2	1	2	1	2	2	2	2	2	2	2	2	2
54	3	9	1	1	0	1	0	2	1	1	0	1	0	2	2	1
55	6	9	1	2	1	1	0	2	1	1	0	1	0	1	1	2
56	9	3	1	1	0	2	2	1	0	1	0	1	0	2	2	2
57	2	8	1	2	1	2	1	2	1	2	2	1	0	1	1	1
58	7	6	1	1	0	1	0	1	0	1	0	1	0	2	2	2
59	9	8	1	1	0	1	0	1	0	1	0	1	0	2	2	2
60	8	9	1	1	0	1	0	1	0	1	0	1	0	2	2	2
61	4	3	1	1	0	1	0	1	0	1	0	1	0	2	2	1
62	6	5	1	1	0	2	2	2	1	1	0	1	0	2	2	2
63	3	9	1	1	0	1	0	1	0	1	0	1	0	2	2	2
64	6	9	1	1	0	1	0	2	1	2	1	1	0	2	2	2
65	8	9	1	1	0	1	0	2	2	2	2	1	0	1	1	1
66	7	5	1	2	1	2	1	1	0	1	0	1	0	2	2	2
67	9	7	1	2	2	2	2	2	2	2	2	2	2	2	2	2
68	8	9	1	1	0	1	0	2	2	1	0	2	2	2	2	2
69	8	7	1	2	2	1	0	1	0	1	0	1	0	1	1	2
70	2	3	1	1	0	1	0	2	2	2	2	1	0	1	1	1
71	8	9	1	1	0	2	2	2	2	2	2	1	0	1	2	2
72	5	8	1	2	1	2	1	1	0	1	0	1	0	2	2	1
73	5	9	1	2	1	1	0	2	2	1	0	1	0	2	2	2
74	8	9	1	2	2	2	2	2	2	2	2	1	0	2	2	2
75	5	6	2	2	1	2	1	2	1	2	1	2	1	2	2	1
76	3	5	2	2	1	2	1	1	0	1	0	1	0	2	2	1
77	7	9	2	2	1	2	1	1	0	1	0	1	0	2	2	1
78	4	8	2	2	2	2	2	2	2	1	0	1	0	2	2	1
79	1	3	2	1	0	1	0	2	1	2	2	2	2	1	1	1
80	8	9	2	2	2	2	2	2	1	2	2	2	2	1	2	2
81	6	9	2	1	0	2	1	2	1	1	0	1	0	1	2	2
82	4	5	1	1	0	1	0	1	0	1	0	1	0	1	1	1
83	5	9	1	2	1	2	1	2	1	2	1	2	1	2	2	2
84	2	3	1	2	2	2	1	2	1	1	0	1	0	1	2	1
85	5	4	0	1	0	1	0	2	2	1	0	1	0	2	2	2
86	4	8	2	2	1	2	1	1	0	1	0	2	1	1	2	2
87	7	8	1	2	1	2	1	1	0	1	0	1	0	2	2	2
88	3	8	2	2	1	2	1	2	1	1	0	1	0	2	1	1
89	8	6	1	2	2	2	1	2	2	1	0	1	0	2	2	2
90	5	7	1	2	1	2	1	1	0	1	0	1	0	1	2	2
91	7	8	2	2	2	1	0	2	1	1	0	1	0	2	2	1
92	5	4	2	2	1	1	0	2	1	2	2	1	0	1	2	1
93	8	6	1	1	0	2	2	1	0	1	0	1	0	2	2	1
94	4	7	1	1	0	1	0	2	1	1	0	1	0	2	2	2
95	4	5	1	1	0	1	0	2	1	1	0	1	0	2	2	1
96	3	9	1	1	0	1	0	1	0	1	0	1	0	1	2	1
97	4	5	1	1	0	1	0	1	0	1	0	1	0	2	2	1
98	9	8	1	1	0	1	0	2	1	2	2	1	0	2	2	2

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	#	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
99	1	2	1	1	1	1	2	2	7	2	3	2	5	4	1	6	3	8
100	1	1	1	1	1	1	3	2	11	4	4	2	9	3	1	6	4	7
101	1	1	1	2	0	2	3	1	3	2	2	4	6	3	1	2	5	7
102	1	2	1	1	1	1	2	2	6	2	1	6	9	5	1	8	7	3
103	1	1	1	1	1	1	2	2	11	4	2	5	7	3	1	2	6	8
104	1	1	1	1	1	2	3	2	8	3	3	4	5	3	1	2	6	9
105	1	1	1	1	1	2	3	2	7	4	3	3	6	7	1	2	4	8
106	1	1	1	2	0	1	2	1	4	2	2	3	8	6	1	2	4	5
107	1	1	1	1	1	1	1	1	2	2	4	3	6	7	2	1	4	9
108	1	1	1	1	1	1	2	2	4	3	4	1	4	7	3	2	6	5
109	1	1	1	1	1	1	3	1	5	5	2	4	3	5	1	2	6	7
110	1	1	1	2	0	2	2	1	4	4	4	5	8	7	4	3	6	9
111	1	2	1	1	1	1	2	1	8	2	2	2	9	5	1	3	6	8
112	1	2	1	1	1	1	2	1	5	2	3	4	9	5	1	2	3	7
113	1	1	1	2	0	1	2	1	2	1	4	3	7	5	1	2	4	9
114	1	2	1	1	1	1	3	2	7	5	3	3	9	7	1	8	4	6
115	1	1	1	1	1	1	3	1	11	4	3	4	3	5	1	2	6	9
116	1	1	1	2	0	1	1	2	2	1	5	5	4	3	2	1	7	6
117	1	1	1	2	0	1	1	1	2	1	5	4	9	5	2	1	6	3
118	1	1	1	1	1	1	3	2	8	2	4	4	3	5	1	2	6	7
119	1	2	1	1	1	1	3	1	5	4	4	2	6	3	1	5	4	7
120	1	1	1	1	1	2	3	2	5	4	4	5	3	6	2	1	7	4
121	1	1	1	2	0	2	1	1	4	1	4	4	8	6	3	2	5	9
122	1	2	1	1	1	1	2	2	9	1	3	3	9	4	1	8	2	7
123	1	1	1	1	1	2	3	2	6	3	2	2	6	4	1	9	3	8
124	1	1	1	2	0	2	1	1	2	3	3	2	7	4	1	5	3	9
125	1	1	1	1	1	1	1	2	5	3	3	2	7	4	1	5	3	9
126	1	2	1	1	1	1	1	2	9	2	4	3	2	4	5	1	6	8
127	1	1	1	1	2	1	2	2	3	4	5	5	3	4	1	2	6	7
128	1	1	1	2	0	2	1	1	3	2	2	2	9	3	1	5	4	7
129	1	2	1	2	0	2	1	1	1	2	4	2	4	5	1	3	6	8
130	1	2	1	1	1	1	3	2	7	3	3	3	6	2	1	5	4	7
131	1	1	1	1	1	1	3	1	7	2	3	2	7	4	1	6	3	8
132	1	1	1	1	2	2	3	1	6	5	5	4	2	5	3	1	6	7
133	1	1	1	1	1	1	3	2	6	2	3	2	9	3	1	5	4	6
134	1	1	1	1	1	1	3	1	6	2	5	3	7	5	1	2	6	8
135	1	1	1	2	0	2	3	1	10	4	4	3	7	6	1	2	5	8
136	1	1	1	1	1	1	2	2	6	5	4	2	7	5	1	4	3	6
137	1	1	1	1	1	2	3	1	7	4	4	4	5	6	2	1	7	9
138	1	2	1	1	1	1	1	1	5	2	3	2	8	4	1	6	3	9
139	1	1	1	1	1	1	2	2	3	2	2	5	7	2	1	3	6	9
140	1	1	1	2	0	1	1	2	2	2	4	5	3	4	1	2	6	8
141	1	1	1	1	1	1	3	1	8	5	4	2	6	4	1	5	3	9
142	1	1	1	1	1	1	3	1	10	4	4	5	4	6	1	2	8	7
143	1	1	1	1	2	1	2	2	9	4	3	4	8	3	1	2	5	9
144	1	1	1	1	1	2	1	2	8	4	5	2	9	3	1	6	4	5
145	1	1	1	1	1	1	3	1	11	4	4	3	5	6	1	2	4	7
146	1	2	1	1	1	1	3	2	6	3	3	1	6	2	4	5	3	9
147	1	1	1	1	1	2	3	1	11	4	3	4	7	2	1	3	6	9

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16	
99	7	9	2	1	0	1	0	2	1	1	0	2	1	2	2	2	
100	5	8	1	2	1	2	1	1	0	1	0	1	0	2	2	1	
101	8	9	1	1	0	1	0	1	0	2	2	1	0	2	2	2	
102	2	4	2	2	1	2	1	2	1	2	1	2	1	1	2	2	
103	4	9	1	2	1	2	1	2	1	2	1	1	0	2	2	2	
104	7	8	1	2	1	2	1	2	1	2	1	2	1	2	2	2	
105	5	9	1	2	1	2	2	2	1	1	0	2	1	1	2	2	
106	7	9	1	2	2	2	2	2	1	2	2	2	2	2	2	2	
107	5	8	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
108	8	9	2	2	1	1	0	1	0	2	2	1	0	1	2	1	
109	8	9	1	2	1	2	1	2	1	1	0	1	0	2	2	2	
110	2	1	1	1	0	2	2	2	2	1	0	2	1	2	2	2	
111	4	7	2	2	1	2	1	2	1	1	0	1	0	1	2	2	
112	6	8	2	2	1	2	1	2	1	2	2	1	0	2	2	1	
113	6	8	1	1	0	2	2	2	1	0	0	1	0	2	2	2	
114	2	5	1	2	1	2	1	2	1	1	0	2	1	2	2	1	
115	8	7	1	1	0	1	0	2	1	1	0	1	0	2	2	1	
116	8	9	1	1	0	1	0	1	0	2	2	1	0	1	2	2	
117	8	7	1	2	2	1	0	1	0	1	0	1	0	2	2	2	
118	8	9	1	1	0	1	0	1	0	1	0	1	0	2	2	2	
119	8	9	2	2	1	2	1	2	1	2	2	2	1	2	2	2	
120	9	8	1	2	1	2	1	2	1	2	1	1	0	2	2	2	
121	1	7	2	2	1	2	1	1	0	1	0	1	0	2	2	2	
122	6	5	2	2	1	2	1	1	0	1	0	1	0	2	2	2	
123	5	7	2	2	1	1	0	2	1	2	2	1	0	2	2	2	
124	6	8	2	1	0	2	2	2	2	1	0	1	0	2	2	2	
125	6	8	2	2	1	2	1	2	1	1	0	1	0	2	2	2	
126	7	9	1	1	0	1	0	2	1	2	1	1	0	2	2	2	
127	8	9	1	1	0	1	0	2	2	2	2	2	1	1	1	2	
128	6	8	1	1	0	2	2	2	1	1	0	1	0	2	2	2	
129	7	9	1	2	2	2	2	2	2	2	2	1	0	1	1	1	
130	8	9	2	2	1	2	1	2	1	2	2	2	2	0	2	2	
131	5	9	1	2	1	2	1	1	0	1	0	1	0	2	2	2	
132	9	8	1	1	0	1	0	2	1	1	0	1	0	2	2	1	
133	8	7	2	2	1	2	2	2	1	1	0	1	0	2	2	2	
134	4	9	1	1	0	2	1	2	1	2	1	1	0	1	2	1	
135	4	9	2	2	2	2	2	2	2	1	0	2	1	1	2	1	
136	8	9	2	2	1	2	1	1	0	1	0	2	1	2	2	2	
137	3	8	1	1	0	1	0	1	0	1	0	1	0	2	2	1	
138	5	7	2	2	1	2	1	1	0	1	0	1	0	2	2	2	
139	4	8	2	2	1	2	1	2	1	2	1	1	0	2	2	2	
140	7	9	1	1	0	1	0	2	2	1	0	2	2	2	2	2	
141	8	7	1	2	1	2	1	1	0	1	0	2	2	2	2	2	
142	3	9	1	2	1	1	0	1	0	2	1	1	0	2	2	1	
143	6	7	1	2	2	2	2	2	1	1	0	1	0	2	2	2	
144	8	7	1	1	0	2	2	1	0	1	0	1	0	1	2	2	
145	8	9	1	2	2	2	2	2	2	1	0	2	1	2	2	2	
146	8	7	2	2	1	2	1	2	1	2	1	2	1	1	1	1	
147	5	8	1	1	0	1	0	2	1	1	0	1	0	2	2	2	

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	#	1	2	3	4	5	6	7	8	9	10	11.1	11.2	11.3	11.4	11.5	11.6	11.7
148	1	1	1	1	1	1	2	1	5	4	4	7	3	8	1	2	9	5
149	1	2	1	1	1	1	3	1	7	5	2	8	6	7	5	1	9	4
150	1	2	1	1	1	1	3	2	6	5	3	2	7	4	1	6	3	5
151	1	1	1	1	1	1	1	1	2	1	3	4	6	3	1	2	5	8
152	1	2	1	1	1	1	3	2	9	4	2	2	7	3	1	8	5	6

Appendix D

COMPENSATION QUESTIONNAIRE DATA SET

R#	11.8	11.9	12	13ab	abw	13cd	cdw	13e	ew	13f	fw	13g	gw	14	15	16	
148	6	4	1	1	0	1	0	2	2	2	2	2	2	2	2	2	
149	3	2	1	2	2	2	1	1	0	1	0	1	0	2	2	2	
150	9	8	2	2	1	1	0	2	1	2	2	1	0	2	2	2	
151	9	7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
152	9	4	2	2	1	1	0	1	0	1	0	1	0	1	2	2	

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