

## WORKING PAPER SERIES

# **Changing Employment Contracts: The Relative Effects of Proposed Changes in Compensation, Benefits and Job Security on Employee Outcomes**

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**CHANGING EMPLOYMENT CONTRACTS:  
THE RELATIVE EFFECTS OF PROPOSED CHANGES IN  
COMPENSATION, BENEFITS AND JOB SECURITY ON EMPLOYEE OUTCOMES**

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**ABSTRACT**

Using survey responses from 1285 employees of a large telecommunications organization, we examine the effects of three elements of implicit employment contracts - compensation, benefits, and employment security. Findings suggest that employees are highly sensitive to changes in the employment security, base pay, and medical plan cost provisions of implicit contracts.

Change is endemic to market-based economies and consequently to the employment relationships embedded in them. It is yesterday's news that the terms and conditions under which people work are changing. Accounts of these changes are widely reported. Over 70% of the Fortune 500 multinationals report that they have restructured their organization in the past five years. Forty percent responded that they were either in the midst of a restructuring or that it was an ongoing and continuous process (Axel, 1993). Such restructuring often includes changing provisions and hence expectations about the employment relationship.

Anecdotal evidence suggests that much of this change results in shifting costs and increasing the uncertainty that employees must face in their employment relationships. Surveys of compensation practices report increased use of variable pay. Two recent surveys of North American employers report that about 70% use some form of incentive or bonus plan (Axel, 1993). Under the U.S. system of employment-based health care, costs are being shifted to employees by requiring them to pay deductibles and co-payments for their health care coverage. In 1985, 45% of U.S. employers required employee contributions; by 1992, about 82% did (Hewitt, 1994). Finally, it is believed that organizations' continuous restructuring and downsizing have made employees more anxious and uncertain about their employment security (Cascio, 1992). Even the rhetoric of some employers - GE offers "employability, not a career"; Union Carbide offers "a partnership in which risks and gains are shared" - signals changes in the traditional employment relationship.

Modeling the employment relationship as a contractual exchange between the organization and employees is common (Simon, 1951; Barnard, 1938; Rousseau and Parks, 1992; Williamson, 1975; Jensen and Meckling, 1976). Such contracts take many forms, ranging from formal ones such as those negotiated with unions and professional athletes to less formal contracts described as bundles of expectations, often implied and unexpressed. Describing such contracts, Rousseau and Greller (1994: 386) state, "in simple terms, the implicit contract encompasses the actions employees believe are expected of them and the responses they expect in return from the employer." Conceptually, these contracts are treated as multidimensional bundles of expected inducements which serve to offset expected contributions.

Yet the research on the impact of changes in the employment relationship on employee attitudes and behaviors is dominated by simple bivariate models and relationships. Perhaps this is best illustrated by the agency theory literature. Agency theory does model the employment relationship as an implicit contract. However, the agency theory based research tends to treat pay incentives and performance as representing the entire contract, or at least its most salient

feature. The literature is virtually silent about other possible dimensions of the contract that may affect employee outcomes.

The purpose of our study is to examine the effects of proposed changes in three basic elements of the implicit employment contract - compensation (total cash and bonuses), benefits (health care coverage and retirement), and employment security - on employee outcomes. The outcomes assessed are employee satisfaction, intention to stay, and willingness to accept another employer's job offer. The study is distinct in a number of ways. Conceptually, it reintroduces the importance of analyzing multiple dimensions of the employment relationship when studying the effects of changes on employee outcomes. Further, by simulating variations in the levels of the three contract elements (compensation, benefits, and security), we are able to gain some insights into the efficacy of models which prescribe multiple elements to implicit employment contracts, since the current research into contracts is dominated by simple bivariate relationships (e.g., agency theory).

This study may also have practical implications for virtually any employer. Since so little is known about the effects of multiple changes in the provisions of implicit contracts, gaining some insights into the effects of these changes on employee outcomes has the potential to help improve managers' decisions.

### **CONCEPTUAL FRAMEWORK AND HYPOTHESES**

The notion that the employment relationship can be modeled as a contractual exchange is common to many disciplines, ranging from organizational theory (e.g., Bernard, 1938; Simon, 1951; March & Simon, 1958) and psychology (e.g., Blau, 1964; Mowday, Porter & Steers, 1982; Rousseau & Parks, 1992), to industrial relations (Doeringer & Piore, 1971) and organization economics (e.g., Jensen & Meckling, 1976; Williamson, 1975). The contract model defines the exchange in terms of quid pro quos; the inducements or returns expected to offset the required contributions (Simon, 1951, 1991; Rousseau & Parks, 1992). As noted earlier, the terms and conditions of the exchange can be formally stipulated or, as is often the case in the employment setting, more ambiguously with some terms stipulated and others more implicit or understood. As Rousseau and Greller (1994: 386) noted, "Typically, contracts are incomplete due to bounded rationality, which limits individual information seeking (Simon, 1957) and to a changing organizational environment, that makes it impossible (and undesirable) to specify all conditions up front." Consequently, employees form expectations about a bundle of returns, or inducements (e.g., pay levels and increases, health care benefits, training, employment security, challenging work, coworker relations, etc.), which in some sense compensate for a bundle of expected contributions (e.g., performing at or above standard, offering customers

timely services, flexibility in work assignments, contributing new ideas, coming to work on time, etc.) (Simon, 1951; Williamson, 1985; Rousseau & Parks, 1992). Since the employment contract is almost universally described in terms of bundles of returns offsetting bundles of contributions, rather than simply a bivariate return-contribution relationship, our study examines the effects of proposed changes in multiple elements of the contract rather than an individual provision. We selected three elements to study - employment security, employee compensation and benefits - while methodologically accounting for others.

### **Employment Security and Uncertainty**

Theories from several fields indicate that secure, longer-term contracts tend to be preferable for both employees and employers when the work environment is complex and uncertain (Doeringer & Piore, 1971; Williamson, 1975; Pfeffer, 1994). Their underlying premise, which is best described in internal labor market models, is that employment security offsets the risk and vicissitudes individuals face in the uncertain external environment. In return, employers receive a stable, experienced workforce with some degree of flexibility to work assignments and to introduction of new technology (Doeringer & Piore, 1971; Osterman, 1984). The logic is that security of employment signals a long-standing commitment by the organization to its workforce. Pfeffer (1994: 31) claims that "norms of reciprocity (i.e., implicit contract) tend to guarantee that this commitment is repaid." Citing a review of existing empirical evidence, he states "there is no evidence that employment security has had an adverse effect" (Pfeffer, 1994: 3).

Anecdotal evidence in the press and recent surveys suggests, however, that the waves of restructuring, coupled with recurring reports of layoffs and downsizing, may signal a decrease in employment security, at least in the U.S. (Henkoff, 1994; Axel, 1993). Further, surveys report an increased use of temporary and contingent workers, which also signals less employment security (BNA, 1991). If contemporary employers require greater flexibility to successfully compete, then they may be shifting some of the risk to employees. General Electric's policy of offering "employability," rather than the security implied by a "career," illustrates this shift of risk to individuals. The logic is that employment security, rather than being offset by stable, flexible, committed and experienced employees, is instead encouraging higher labor costs and inflexibility. Pfeffer (1994: 31) counters the contingent worker/employability notion by arguing that "an employer that signals through word and deed that its employees are disposable is not likely to generate much commitment or satisfaction."

Whichever model one subscribes to, it is clear that expectations about employment security provisions are presumed to be an important element in the implicit employment contract.

Hence, we hypothesize that:

**H1:** Employment security, other factors considered, is

- 1a: positively related to job satisfaction.
- 1b: positively related to willingness to accept an offer from another company that provides such security.
- 1c: inversely related to intentions to search for another job.

Implicit contract models presume that individuals are risk averse and more risk averse than organizations, which are better able to mitigate their risk among alternative investments (Nalbantian, 1987). However, employers asking individuals to accept less secure employment may offset this undesirable job attribute with increased returns by, for example, offering additional pay opportunities such as performance-based pay plans. Another possibility, overlooked in the implicit contract literature, is that individuals may differ in their disposition for risk taking. Some may even treat risky assignments as a return rather than a consequence. More likely, we suggest, is that employers believe that they will attract and retain "risk takers" who are willing to take on the risk when it is compensated for by sharing the financial results. Hence, compensation provisions may be particularly salient where employment risk is high.

### **Compensation**

Employee compensation is clearly an important element in any employment contract (Milkovich & Newman, 1993). Employees contract to contribute their time, talent, efforts, etc. as required, within certain bounds, by the employer, and the employer offers payments compensating for these contributions (Mahoney, 1989). Within the contract literature, compensation plays a key role. Agency theory treats incentive pay as a contract which in its optimal form matches the objectives of principal (owners) and agents (employees). Indeed, as noted earlier, the agency based research virtually ignores other aspects of the employment contract and has focused almost solely on incentive pay issues (Jensen & Meckling, 1976; Baker, Jansen & Murphy, 1988; Eisenhardt, 1989). In their work on implicit psychological contracts, Rousseau and others (1992, 1994) treat compensation as a transactional element and contrast it to more relational elements such as worker relations, challenging assignments and the like.

Rousseau and Greller (1994) assert that the policies and mechanics of compensation systems signal to employees, thereby influencing employees' expectations about their pay. Annual increases, performance-based pay, seniority increases, and skill-based pay are examples of mechanisms that imply the nature of the contract and create expectations.

Looking beyond the employee contract literature to the considerable research on employee compensation, we can derive some hypotheses about the probable effects employee compensation will have on employee outcomes as part of the contract. There is, for example, ample evidence that pay levels can affect employee attraction (Gerhart & Milkovich, 1992; Rynes, Schwab & Heneman, 1983), job satisfaction (Heneman, 1985; Miceli & Lane, 1991), and withdrawal and intention to search for another job (Motowidlo, 1983). Based on the employee contract and compensation literature, we predict the following:

**H2:** Total cash compensation, other factors considered, is

2a: positively related to job satisfaction.

2b: positively related to willingness to accept an offer from another company with similar pay provisions.

2c: inversely related to intentions to search for another job.

**H3:** Bonus pay opportunity, other factors considered, is

3a: positively related to job satisfaction.

3b: positively related to willingness to accept an offer from another company with similar bonus provisions.

3c: inversely related to intentions to search for another job.

### **Employee Benefits**

Employee benefits are believed to be an important element in the exchange between employers and employees (Gerhart & Milkovich, 1992; Lucero & Allen, 1994). Employers offer benefits to help mitigate employees' current (e.g., health care, dependent care) and future risks (e.g., retirement) in exchange for employee contributions such as organizational membership. Lucero and Allen (1994) argue that recent actions by employers to control costs by reducing coverage or shifting costs to employees are viewed by employees as violations of the implicit contract. Under the implicit employment contract model, cost containment actions by employers, especially when unilaterally taken, are in effect reneging on implicit understandings. Reneging is the flip side of committing, and it becomes especially problematic under implicit or incomplete contracts, since ambiguities in understandings may exist (Milgrom & Roberts, 1992). Lucero and Allen (1994: 426) believe that "it is quite possible that adverse reactions associated with the reduction of current benefits are greater than alternative approaches to cost control." As well, behavioral decision theory predicts that departures from status quo tend to be resisted. Kahneman and Tversky (1982), for example, state that individuals react more adversely to the losses of current status than they do to the loss of some future gain *which is* of equal value to the current loss.

Employee benefits have long been believed to influence organization commitment and satisfaction (DeCenzo & Holoviak, 1990; Milkovich & Newman, 1993). Research suggests that satisfaction with benefits increases with improved coverage and decreases with greater costs to employees (Dreher, Ash & Bretz, 1988). Dreher et al. (1988) found that employee satisfaction was especially closely linked to health insurance costs. There is also evidence that pensions and health care benefits reduce voluntary turnover (Mitchell, 1982, 1983). Benefits are also believed to influence job choice intentions (e.g., Huseman, Hatfield, & Driver, 1975).

Based on this literature, we predict:

**H4:** Overall benefits coverage, other factors considered, is

4a: positively related to job satisfaction.

4b: inversely related to willingness to accept an offer from another company with similar benefits provisions.

4c: inversely related to intentions to search for another job.

**H5:** Employee health care benefit costs (premium and co-payment), other factors considered, are

5a: positively related to job satisfaction.

5b: positively related to willingness to accept an offer from another company with similar health plan provisions.

5c: inversely related to intentions to search for another job.

**H6:** Coverage for retirement needs (income and health care), other factors considered, is

6a: positively related to job satisfaction.

6b: positively related to willingness to accept an offer from another company with similar retirement benefits.

6c: inversely related to intentions to search for another job.

### **Other Factors in the Contract**

The employment contract literature does not specify boundaries on what elements may constitute the implicit understandings and expectations that constitute the "contract." The economic and organization literature treats compensation and risk as playing the primary role. Relational elements are included as part of the bundle of expectations in the psychological contract literature. Implicit understandings of relational contracts tend to be unique to the individual, however Rousseau (1989) suggests some of the variability in these understandings may be related to employee characteristics. Length of employment, for example, may increase employees' expectations that loyalty and hard work will be rewarded with secure employment. There is also reason to believe that expectations about benefits will depend in part on employees' needs, as related, for example, to their marital status and the number of children they have (Williams and MacDermid, 1994).

The purpose of our study is to examine the effects of proposed changes in three of the key elements often discussed: security, compensation and benefits. We also attempt to account for the effects of other variables that may influence employees' understandings of implicit employment contracts. We therefore consider in our analyses the individual attributes that may moderate the effects of the elements of the employment contract.

**H7:** The effects of changes in compensation, benefits and security on employee outcomes are moderated by employee characteristics.

## METHODS

Values of the 8 elements of implicit employment contracts (employment security, total cash earnings, bonus, portion of total earnings spent on benefits, medical plan premium, medical plan cost-sharing provisions, pension, and post-retirement medical plan) were experimentally manipulated using a factorial design with partial confounding (Cochran & Cox, 1957). Participants were asked to evaluate a series of multi-attribute scenarios describing jobs with differing levels of these pay, benefits and employment security variables. Responses were then regressed on the explanatory variables to determine their relative effects on employees' evaluations of jobs.

This type of experimental manipulation has sometimes been criticized as having limited external validity due to differences in the experimental and field environments (Lane, Murphy & Marques, 1982; York, 1989). Empirical research on the extent to which this is in fact a problem has been limited. In a recent study of arbitrator decision-making, Olson, Dell'Omo and Jarley (1992) found that decisions made in experimental and in field settings were highly consistent when the decision problems were the same in both.

Studies involving the use of self-report methodologies where participants are asked about their reactions to their jobs have also been the subject of some criticism (Spector, 1994). As Spector (1994: 386) points out, however, there has been "relatively little criticism in the literature of self-reports as measures of people's feelings about and perceptions of work." Where, as here, respondents are being asked about their affective reactions to employment conditions, responses are generally considered to be valid indicators of their feelings.

The method employed in this study has a number of advantages. First, it provides higher internal validity than field studies when suitable field data on control and explanatory variables is difficult to collect (Olson, et al., 1992). Second, the method overcomes the problems of multicollinearity often encountered in field research (Rynes, Weber & Milkovich, 1989). Third, social desirability effects and priming artifacts associated with self-report attribute ratings or rankings are weakened (Rynes, et al., 1983; Judge & Bretz, 1992). Fourth, a lower degree of

self-insight is required of respondents than is the case with self-report attribute studies (Rynes et al., 1983). Finally, requiring respondents to provide a holistic evaluation of multi-attribute scenarios is more similar to actual decision problems than is a self-report attribute design (Rynes et al., 1983).

### **Sample**

Actual employees rather than inexperienced college students were used to enhance external validity. The full sample consisted of 2520 randomly selected employees of a large telecommunications company. Employees were drawn from a variety of settings, encompassing more than 50 offices from 3 business units and 11 states. Offices varied in size from 5 employees to 1000, and included small, entrepreneurial arrangements as well as large, well-established entities. The sample also covered a broad range of occupations, including clerical, technical, professional and management positions. Executives and bargaining unit employees were not surveyed.

A total of 1290 surveys were returned, representing a response rate of 51%. Average age of the respondents is 40 to 44 years, and average tenure with the company is 15 to 19 years (responses choices for these variables were defined ranges). 79% of the respondents are married, 55% have one or more children under the age of 18, and 39% are females.

### **Design and Procedures**

Surveys were constructed based on a partially confounded  $2^5$  factorial design in blocks of 8 units (Cochran & Cox, 1957). 40 different surveys, each containing 8 scenarios with varying levels of 5 of the 8 employment contract variables, were produced using this design. Three variables (employment security, total cash earnings, and medical plan cost-sharing provisions) were included in all of the surveys, with different combinations of the other five variables taken two at a time. The design, which allows the estimation of main effects and two-factor interactions, was used because of concern about the effects of information overload on responses. A full factorial design, in which all 8 factors are uncorrelated, yields a total of 256 unique scenarios ( $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$ ). Even if respondents had been willing to evaluate all of these scenarios (and they were not), fatigue would undoubtedly have had an effect on their judgments. Confounded factorial designs were in fact developed to address just this issue (Cochran & Cox, 1957). Further, zero correlations are not required to assess the effects of explanatory variables; there is ample evidence that regression weights remain stable across cue structures varying in the amount of intercorrelation among cues (Zedeck, 1977; Lane et al., 1982).

We moved from 8 variable presentations to 5 variable presentations after a pretest of an earlier version of the survey, which included 10 scenarios and all 8 variables, generated consistently strong objections from participants that the information was overwhelming and impossible to process with any degree of consistency. Moreover, evidence suggests that, owing to cognitive limitations, respondents tend to base judgments on a relatively small number of factors (Sanchez & Levine, 1989).

Surveys were mailed to employees by the participating company and follow-up letters were sent two weeks later. Respondents mailed the completed surveys directly to the researchers. To ensure anonymity, no identifiers were used. Returned surveys were evenly distributed across the 40 versions.

## Measures

**Dependent variables.** Respondents were asked to evaluate each scenario according to three dimensions. They were asked how *satisfied* they would be with a job having the described characteristics; how likely they would be to *accept* such a job if offered to them by another company; and how likely they would be to *look for another job* if conditions in their current job were changed to those described. A 5-point Likert scale (1=very dissatisfied, or very unlikely, 5=very satisfied, or very likely) was used (Schmitt & Jajimoski, 1991).

**Employment contract variables.** To maximize realism, levels of the 8 employment security, pay and benefits variables were defined in consultation with the company compensation and benefits staff. Since the sample included a wide range of employees with varying pay and benefits, values on many of the variables were expressed in relative rather than absolute terms. Thus, the two levels of *total cash earnings* were 10% above or 10% below "your current salary plus any current bonus." Similarly, *bonus* was expressed as equal to, or 10% higher than, "the bonus you are currently eligible to receive, and *pension* benefits as the same as, or 10% higher than, "those provided by your current Personal Retirement Account." *Employment security* (called "work relationship with company" in the survey) was defined as temporary ("employment would continue only as long as the project for which the job was created continued") or core ("anticipate a long-term, full-time career with the company"). *Medical plan premium* was expressed in terms of the amount the employee was required to pay for coverage (no charge versus modest charge, e.g. \$10/individual per month). The health plan *cost-sharing* variable was described in terms of deductible amounts, coinsurance rates, out-of-pocket maximums, and charges for office visits (to Health Maintenance Organizations). Overall cost-sharing, rather than the individual provisions, was varied; -thus when deductible amount was high, so too were the other cost-sharing provisions. Absolute amounts (e.g., \$180

deductible versus \$425 for individuals) were in most cases used to define levels, which represented current rates and higher rates. Since the charge for office visits varies across Health Maintenance Organizations, the two levels were defined as the same as, or 10% higher than, current charges. Overall *benefits* coverage was defined as "the company pays an amount equal to [27% or 37%] of your current salary toward your benefits." The lower level of this variable represented the current amount paid by the company (not including paid time off benefits). *Past-retirement medical* insurance was varied according to the amount of contribution that was required from the employee to pre-fund the benefit. Because company staff indicated that this type of benefit would not normally be offered to a temporary employee, different providers (company or an approved insurance company) were described for the two groups.

**Demographic variables.** Data on respondent demographics were obtained from survey questions. Respondents were asked about marital status, number of children, education, gender, income, geographic location, age, tenure (with the company), and health status. Health status questions asked for a general assessment of the respondent's health (excellent, good, fair, or poor); the number of days illness, injury or disability kept the respondent from working; whether and how often the respondent or family members had received medical treatment during 1994; and whether and how often the respondent or dependents had been hospitalized during 1994.

### **Analyses**

Because the variables appearing in the survey differed across versions, a single regression equation could not be estimated for all respondents. The data were divided into subsets in which all five variables were the same. Each subset included four versions, thus there were a total of ten data sets. Each of the three outcome variables was then regressed on the explanatory variables to assess their relative effects on respondents' judgments. Models were estimated with employment contract variables only, with employment contract and demographic variables, and with interaction terms to determine which combination of variables provided the best fit with the data.

## **RESULTS**

### **The effects of changes in implicit employment contracts.**

We focus our discussion here on the results of the models that seemed to provide the best fit, i.e. the models including employment contract variables only. Results are shown in Table 1 (satisfaction), Table 2 (likelihood of accepting a job), and Table 3 (likelihood of leaving a job). Results of other models are discussed briefly in the following section.

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Insert Tables 1, 2, & 3 about here  
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As the Tables show, we found strong support for Hypotheses 1 and 2. Employment security (CORE) and total cash earnings (EARN) appear to be the two most important elements of the employment contract, of those studied. The estimated coefficients on both of these variables are significant across all equations, and the effects are all in the predicted direction. Thus, reductions in employment security or total cash earnings tend to decrease employees' satisfaction and their willingness to accept a similar job, and increase their interest in finding another job. The coefficients are large relative to the range of the dependent variable (1 to 5), and they are quite a bit higher than those on other variables in the equations. This suggests that employees are highly sensitive to changes in these two conditions of the employment contract.

Support was also found for Hypothesis 5. While the estimated coefficients on health care premium (PREMIUM) and cost-sharing provisions (COSTSHR) are small relative to those on employment security and cash earnings, and non-significant in a few cases, the pattern of effects nevertheless suggests that these variables are important predictors of employees' judgments. Estimated coefficients are in the predicted direction and statistically significant for PREMIUM in all but one of the analyses, and in 77% of the analyses for COSTSHR. These results suggest that increases in employee health plan costs tend to reduce satisfaction with, and attraction to, jobs and increase the likelihood of looking for another job. It would thus seem that employees consider this one particular benefit to be a fairly important component of their employment contracts.

Results of the regression analyses provided mixed support for Hypotheses 3 (bonus), 4 (overall benefits coverage), and 6 (retirement benefits). Estimated effects are relatively small and not consistently significant. Coefficients on bonus amounts (BONUS) and post-retirement medical coverage (RETMED) are statistically significant and in the predicted direction in half of the analyses. The coefficients are significant in only a third of the analyses in the case of pension benefits (PENSN) and overall benefits coverage (PERBEN). Three of these variables (PERBEN, RETMED, and PENSN) do perform relatively well in the models of satisfaction, providing support for hypotheses 4a and 6a. Estimated coefficients on these variables are positive and statistically significant in 3 out of the 4 models in which they are included; thus, higher overall benefits coverage and retirement benefits are associated with higher levels of satisfaction. These effects are not robust, however, across models of the other two outcomes. Similarly, BONUS coefficients are positive and significant in three of the four models using it to

predict the likelihood of accepting a job (Hypothesis 3b), but the variable exhibits less explanatory power in the other models. It would seem, then, that these components of the employment relationship are less salient than employment security, base pay, and medical coverage. Yet it is clear from the above findings that employees respond negatively to real or risked income loss. It may be that employees view the magnitude of the risk or the loss associated with these four conditions as low compared to that associated with job security, base pay and medical coverage. For example, the monetary implications of a reduction in overall benefits coverage, which could include a vast array of benefits of varying relevance or importance to the employee, may be quite different from those of a reduction in medical benefits. Similarly, future losses (e.g., pension reductions) may induce less of a reaction than present losses. Finally, potential gains (e.g., bonus) may generate less attention than potential losses (e.g., higher premiums).

**Other models.** Partial support was found for Hypothesis 7. Overall, the addition of demographic variables to the regression equations produce no noticeable changes in the portion of variance explained, or on the estimated effects of the implicit contract variables. Only two of the demographic variables exhibit any consistent pattern of effects. Respondent gender is significant in 60% of the models, while tenure is significant in 50%. Men tend to be more critical of jobs; that is, they are on the whole less satisfied, less likely to accept a job, and more likely to try to leave a job than are women. Tenure is negatively related to the likelihood of leaving a job, however the direction of effects on satisfaction and likelihood of accepting a job varies across survey versions.

To explore these effects further, separate regression equations were estimated for men and women, and for employees with low tenure (less than 15 years) and high tenure (more than 25 years). The results suggest that the groups in some cases respond differently to changes in implicit contract variables. Differences in the responses of men and women to the CORE and EARN variables tend to be small. More substantial differences were found in the reactions to medical care manipulations. In almost half of the regression models, estimated coefficients on COSTSHR and PREMIUM among males are two to four times the size of those among women. One explanation for this is that women are less sensitive to changes in health care plans where they are employed because they also have coverage under a spouse's plan. Further information on alternative health care coverage is needed to explore this further.

No evidence was found of consistent or large differences in the responses of low tenure and high tenure employees to the CORE and EARN variables. There do appear to be differences in sensitivity to the COSTSHR variable. That is, low tenure employees exhibit

stronger reactions to increases in medical plan cost-sharing provisions than do high tenure employees. Low tenure employees tend to be younger than high tenure employees (correlation between the two variables is .69), and may have young children and thus higher medical costs. Surprisingly, no substantive differences were found between low and high tenure groups in the effects of retirement benefits (PENS and RETMED). This result may be due to the fact that the company had instituted a major change in pension benefits one year prior to the distribution of surveys, and all employees may therefore have been sensitized to the value of this benefit.

In a third set of regression equations, employment contract variables were crossed to assess two-way interaction effects. There is no noticeable increase in the variance explained by adding these terms (R-square values increase by .05 or less). Only one interaction term yields a consistent pattern of effects. The variable representing employment security crossed with total cash earnings exhibits statistically significant effects across all equations. The effect seems to be one of simple magnification, thus the strength but not the direction of effects of each of these variables depends on values on the other. It is also interesting to note that adding in this interaction term substantially reduces the estimated strength of the effects of the medical plan cost-sharing variable. The effect of the medical plan premium variable, on the other hand, remains robust across all models. Further investigation of the effect of this variable is indicated.

### **DISCUSSION**

Our results suggest that employees are highly sensitive to changes in the risks and returns embedded in their employment contracts. Of the factors studied, employment security and total cash earnings appear to be the most important components of the employment relationship. Reductions in employment security and earnings tend to decrease employees' satisfaction, decrease their willingness to accept a job with similar characteristics, and increase their interest in finding another job.

We also found evidence that employees view medical coverage provisions as key elements of the employment contract. Increases in the premium charged to employees for coverage, and the portion of medical costs for which employees are responsible (cost-sharing provisions), are associated with decreases in satisfaction and willingness to accept a job with similar characteristics, and increases in their interest in finding another job.

Bonus pay does not appear to play a central role in influencing employees' reactions to various employment contracts. While lower bonus opportunities appear to be related to diminished willingness to accept a job with similar bonus provisions, the variable exhibited no consistent relationships with satisfaction or the interest in finding another job. Similarly, overall

benefits coverage and the two retirement benefits (pension and post-retirement medical coverage) appear to be related to just one outcome: employee satisfaction.

Contrary to our predictions, responses to employment conditions are for the most part homogenous across diverse employee groups. We did find evidence that men are more sensitive than women to changes in both of the medical plan attributes (premium and cost-sharing). Additionally, employees who have worked for the company for a relatively short period of time exhibit stronger negative reactions to increases in medical plan cost-sharing than do their counterparts with longer tenure. Surprisingly, there appear to be no differences in the responses of low and high tenure employees to changes in retirement benefits.

### **Limitations of the Study**

Because data for this study were obtained from a single organization, generalizability may be limited. One concern is that the reference point from which respondents evaluate hypothetical changes in employment contracts may vary across organizations and the effects of these changes may also vary across organizations. For example, loss of job security may be far less threatening in an organization that has explicitly communicated the impermanent nature of the employment relationship and where self-selection on the basis of risk preferences will presumably have occurred. Similarly, moving from paying no health premium to paying a moderate premium may have more of a symbolic impact than a change of similar magnitude where the reference point is a premium payment of some kind. On the other hand, there is extensive variation among survey respondents, in terms of their income and occupation, and the contexts in which they work, and the results may therefore generalize to a variety of other organizational settings. External validity is also enhanced by the use of actual employees, rather than the inexperienced college students often used in experimental studies.

It is possible that the results obtained in our study were affected by the way in which variables were operationalized. For example, the two levels of the bonus variable were defined at current and higher levels (a gain), while those of the premium variable were defined at current and higher amounts (a loss). Losses may induce larger responses than gains. Since not all variables that included a hypothetical loss (e.g., post-retirement medical coverage) exhibit statistically significant effects, operationalization effects, if any, cannot fully account for the result. Similarly, there was greater distance between levels of the total cash earnings variable than of other variables. This too may have induced a larger response. Again, operationalization effects cannot fully account for results, since variables with smaller distances also perform well in the analyses.

It may be that we did not fully account for the effects of all of the important elements of implicit contracts. That is, we include elements of the economic "transactional" contract, such as pay for services, but there are no directly measured elements of the socio-emotional "relational" contract, such as respect, or loyalty (Rousseau & Parks, 1992). Relational contracts, however, are highly subjective and are therefore "idiosyncratically perceived and understood by individuals" (Rousseau & Parks, 1992: 21). By accounting for the effects of individual characteristics, therefore, we at least partially account for the effects of individual differences in relational contracts. For example, Rousseau (1989) suggests that employees' expectations about employment security tend to increase with tenure. This implies that the importance of employment security will increase with tenure. By including tenure in our analyses, then, we are accounting for the effects of relational contracts on employees' reactions to modifications of the employment exchange.

### **Implications and Future Research**

Our study suggests that there are multiple components of implicit employment contracts that are central to employees' responses to their work environment. The returns that employees most value, and perhaps expect, in exchange for their contributions go well beyond direct pay provisions. Employment security appears to be at least as important, if not more so, than compensation. Income security, provided by benefits such as health insurance, would also seem to be very important. These findings imply that employees' reactions to changes in implicit employment contracts are based not only on changes in the returns, but also on changes in the risk structure. Our results thus suggest that theories of employment contracts, such as the agency model, need to be elaborated to include other elements of the contracts, such as employment security and medical coverage.

In contrast to narrowly focused theories like the agency model, psychological contract models may not be explicit enough. The theory specifies, in general terms, the process by which psychological contracts are established, their characteristics, and the consequences of violating them, but not their content. Emphasis is placed on the subjective and developmental nature of psychological contracts, and thus their uniqueness to the individual and the context. Our findings indicate, however, that there are certain elements of employment contracts that are so central as to be common to most implicit contracts. Financial returns and protection, as well as the promise of continued employment, appear to be such key elements of the implicit employment contract.

Our findings suggest that future research on the effects of various employment contracts needs to be more multi-dimensional. Studies of the effects of variable pay provisions, for

example, need to account for what our findings suggest are the significant effects of expectations about employment security and benefits (particularly health care).

This study begins to explore the potential effects of changes in components of implicit employment contracts about which empirical knowledge is limited. Empirical research on the effects of contingent employment provisions is virtually non-existent. Research on the effects of employee benefits is also very limited (Williams & MacDermid, 1994). It may be premature to suggest major implications for practitioners without further research. Our study does, however, suggest that viewing human resource innovations in an exchange framework, especially in terms of returns and contributions, may be beneficial.

The current study does not address many of the issues raised about the effects of the fundamental changes occurring in the employment exchange. Employees expect some returns in exchange for their contributions to the employer. The returns are changing: promotions, raises, protection from loss of income (due to injury, illness, old age, etc.), and continued employment can no longer be expected in return for loyalty and hard work. While our study suggests that such violations of implicit contracts will induce significant changes in attitudes, we do not examine the effects on actual behaviors. Do employees lower their contributions when they perceive reductions in the rewards? What is the effect on employee attraction, performance, and retention?

Research is also needed on the effects of other changes not examined in this study. For example, the intrinsic rewards of social interactions in the workplace are being reduced in many organizations moving to "virtual" offices, where employees work at home or on the road, but not in an office. Similarly, the combination of flattening job structures and downsizing has substantially reduced the promotion opportunities for employees in many organizations. Finally, as stated above, our study does not fully examine the effects of changes in relational contracts.

A third line of research is needed to explore what employers are expecting in return for the rewards they give to their employees. It would seem that loyalty is becoming less of a concern. If so, then there are clear complications for the design of human resource policies and procedures.

Studies of a similar nature conducted in other organizations would provide information about the extent to which the results of our study generalize to other settings. An examination of the effects of differing operationalizations of variables would also be informative.

Changes in employment contracts is a topic of enormous interest to both researchers and practitioners. Our findings suggest that modeling the exchange between employees and

employers in terms of bundles of expectations about returns and contributions provides a rich framework for theoretical and empirical research.

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**TABLE 1**  
**Regression Estimates of Factors Affecting Satisfaction**

Explanatory Variable	Regression Model									
	1	2	3	4	5	6	7	8	9	10
CORE	1.25**	1.01 **	1.27**	1.35**	1.05**	1.11 **	1.04**	1.32**	1.30**	1.39**
EARN	1.06**	1.07**	0.94**	0.86**	1.18**	1.22**	1.13**	1.05**	1.03**	1.08**
COSTSHR	0.29**	0.18*	0.27**	0.20**	0.14*	0.24**	0.29**	0.13	0.22**	0.21 **
BONUS	0.12	0.11	0.27**	0.22**						
PERBEN	0.19**				0.07	0.15*	0.18*			
PREMIUM		0.48**			0.23**			0.28**	0.30**	
PENSN			0.20*			0.14		0.22**		0.17*
RETMED				0.17*			0.10		0.14*	0.21**
R <sup>2</sup>	.43	.33	.40	.41	.40	.44	.36	.42	.43	.44
N	784	699	620	764	738	659	667	849	862	884

Note: Cell entries are beta coefficients; blank cells indicate that the variable was not Included in the model

N = number of respondents \* 8

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

**TABLE 2**  
**Regression Estimates of Factors Affecting Likelihood of Accepting a Job**

Explanatory Variable	Regression Model									
	1	2	3	4	5	6	7	8	9	10
CORE	1.04**	0.80**	0.82**	0.96**	0.79**	0.88**	0.98**	0.99**	1.08**	1.16**
EARN	0.86**	0.90**	0.61**	0.70**	0.97**	0.84**	0.93**	0.81**	0.92**	0.90**
COSTSHR	0.29**	0.18**	0.30**	0.21*	0.12	0.35**	0.26**	0.05	0.15*	0.20**
BONUS	0.17*	0.15	0.28**	0.22**						
PERBEN	0.13				0.05	0.05	0.19*			
PREMIUM		0.34**			0.22**			0.22**	0.09	
PENSN			0.05			-0.02		0.12		0.11
RETMED				0.18*			0.20*		0.06	0.14
R <sup>2</sup>	.30	.22	.16	.22	.23	.23	.30	.23	.28	.30
N	784	699	620	764	738	659	667	849	862	884

Note: Cell entries are beta coefficients; blank cells indicate that the variable was not included in the model

N = number of respondents \* 8

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

**TABLE 3**  
**Regression Estimates of Factors Affecting Likelihood of Leaving a Job**

Explanatory Variable	Regression Model									
	1	2	3	4	5	6	7	8	9	10
CORE	-1.47**	-1.19**	-1.65**	-1.47**	-1.22**	-1.43**	-1.17**	-1.52**	-1.38**	-1.55**
EARN	-0.87**	-0.88**	-0.72**	-0.67**	-0.98**	-0.72**	-0.86**	-0.80**	-0.85**	-0.89**
COSTSHR	-0.25**	-0.17	-0.25**	-0.12	-0.14	-0.21	-0.28**	-0.19*	-0.15	-0.23**
BONUS	-0.18*	-0.12	-0.06	-0.15						
PERBEN	-0.15				-0.00	-0.09	-0.13			
PREMIUM		-0.34**			-0.20*			-0.24**	-0.16*	
PENSN			-0.09			-0.06		-0.20*		-0.15
RETMED				-0.13			-0.15		-0.13	-0.19*
R <sup>2</sup>	.36	.27	.36	.32	.33	.31	.30	.35	.34	.38
N	784	699	620	764	738	659	667	849	862	884

Note: Cell entries are beta coefficients; blank cells indicate that the variable was not included in the model

N = number of respondents \* 8

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