

“What is the association between equity compensation and voluntary executive turnover?”



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Article taken from: Balsam, Steven and Miharjo, Setiyono. (2007). “The effect of equity compensation on voluntary executive turnover.” *Journal of Accounting and Economics* 43: 95–119.

What is the Effect of Equity Compensation on Voluntary Executive Turnover?

by Steven Balsam, Professor of Accounting and the Merves Research Fellow

What is the association between equity compensation and voluntary executive turnover? Equity compensation, or more precisely, forfeitable equity compensation, can reduce voluntary executive turnover by imposing a cost on the executive which a prospective employer may not be willing to reimburse. Examining one of the asserted benefits of equity compensation, employee retention, is important because equity compensation has been increasing over time, both in absolute value and as a percentage of the executive compensation package, and is becoming increasingly costly to shareholders in terms of cash expended on share repurchases and dilution. It is also timely, as many corporations are reviewing their use of equity compensation in light of Statement of Financial Accounting Standards (SFAS) 123R, which mandated expensing for employee stock options.

The vast majority of publicly-traded corporations provide equity compensation, usually stock options, to their executives in an effort to retain them and motivate them to act in the shareholders’ interests. Equity compensation provides a direct link between executive compensation and shareholder wealth and consequently aligns the interests of a firm’s executives with those of its shareholders. Research has shown that firms with the greatest demand for incentive alignment, e.g., high investment opportunities, are more likely to use stock options. Other research has looked at the effectiveness of stock/option based compensation, finding that performance is positively associated with the percentage of compensation that is equity-based.

In contrast, there is little research on whether equity compensation is effective in retaining executives, and the results of that research are mixed. Our results show that executive turnover is inversely related to the intrinsic value of *unexercisable in-the-money stock options*, the *time value of unexercised options*, the value of restricted stock held, and to a lesser extent, the degree to which the executive receives cash compensation in excess of that of his/her peers. These results hold for CEOs and non-CEOs alike, after controlling for the value of stock options and shares granted to directors, executive age, insider ownership, firm performance, growth opportunities, CEO tenure (CEO regression only), and concurrent and lagged CEO turnover (non-CEO regression only).

In sensitivity analysis we add additional variables to control for characteristics of the board. Including these additional variables, e.g., board composition, existence of the founder of the corporation on the board of directors, does not alter the overall findings of our primary analysis, although the degree to which the executive receives cash compensation in excess of his/her peers is no longer significantly associated with either CEO or non-CEO turnover. Additional analysis also shows our results do not change if we drop those departures coded as “retirement,” or if we limit our analysis to executives below the traditional retirement age.

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In our final analysis we examine whether compensation plans help firms retain their most productive executives. While we find some evidence that “weak” executives respond to the incentives provided by the compensation package, we find voluntary turnover lower and the link between the equity compensation and voluntary turnover to be more significant for “strong” executives. This is a particularly important finding consistent with the compensation package countering the greater opportunities “strong” executives are likely to have in the market.

Theory

The focus of the prior literature is involuntary turnover. In contrast, the focus of our study is on voluntary executive turnover. The executive has the choice to remain with the firm, retire early, or seek employment with another company. His or her decision will, in part, be influenced by the monetary cost of leaving his or her current employer. Potential employers can, and often do, reimburse executives for the monetary losses incurred by the executive leaving his/her current employer, as illustrated by the recent hiring by Boeing of Jim McNerney as CEO. McNerney, at the time CEO of 3M, forfeited significant amounts of unvested equity compensation in moving to Boeing. However, as reported in Boeing’s 8-K filed July 6, 2005 the package he received at Boeing made provisions for equity that Mr. McNerney left behind.

“As compensation to replace unvested 3M equity awards that Mr. McNerney will forfeit, he was granted, effective July 1, 2005, the following Buy-Out Restricted Stock Awards: (i) for forfeited 3M stock options, 159,000 shares of restricted Boeing stock with vesting and restrictions lapsing in five equal annual installments beginning on May 10, 2006; (ii) for forfeited 3M restricted stock awards, 162,000 shares of restricted Boeing stock with vesting and restrictions lapsing in six equal annual installments beginning on January 1, 2006; and (iii) for forfeited 3M restricted stock awards, 70,000 shares of restricted Boeing stock with vesting and restrictions lapsing in three equal annual installments beginning on July 1, 2006. The aggregate value of the Buy-Out Restricted Stock Awards as of July 1, 2005 was \$25,289,880.”

In general, an executive can be reimbursed for monetary losses through a one-time signing bonus that includes an equity component to replace the amounts left behind at his/her prior employer and/or through an increased level of compensation that continues into the future.¹ However, our expectation is the greater the amount involved, the less likely the potential employer would be willing to reimburse the employee. From the viewpoint of the current employer the amount should be large enough to deter raiding of executives, and given the willingness of a potential employer to pay for certain executives (e.g., Boeing’s willingness to reimburse McNerney for the more than \$25 million that he left behind), the amount has to be greater for more highly valued executives.

¹ Analysis of the subset of observations where we can trace the executive to a new employer shows a combination of the two, i.e., a large grant of equity compensation in his/her first year with the new employer that replaces a significant portion of the compensation left behind, plus an increased level of compensation that persists in future years.

While other parts of the compensation package can tie the executive to the company, for example a pension plan where the payout is structured to increase with years of service, our focus in this study is on equity compensation, i.e., stock options and restricted stock. We limit ourselves for two reasons. First equity compensation as a percent of total compensation has increased dramatically in recent years, and is, in many cases the largest component of the executive compensation package. Second, information on pensions, in particular the value of the plan benefit and the amount that would be forfeited should the executive leave the company, does not currently appear in public disclosures.

Consequently, although the monetary cost of leaving includes the costs of all compensation foregone, including, but not limited to the value of equity

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compensation forgone, we only examine the latter. To estimate the value of a share of restricted stock we use the value of its unrestricted counterpart at the end of the prior year. The value of an option is comprised of two components, the intrinsic value, which measures the excess of the market price of the share over the exercise price of the option at a point in time, plus the time value, which factors in the probability the share price will increase prior to the time the option expires. If an option is unexercisable, the holder cannot exercise it until one or more conditions are satisfied and will suffer a total loss if he or she leaves the company. If an option is exercisable, the holder can exercise the option prior to leaving the company. Thus, while the holder realizes the intrinsic value from the exercise of the option, they forgo the time value component. We use the intrinsic value of *unexercisable in-the-money stock options*² at the end of the prior year to proxy for the intrinsic value forfeited if the executive leaves the firm, and calculate the *time value of unexercised options* to proxy for the time value forfeited if the executive leaves the firm. Our expectation is the greater the monetary cost, the less likely the executive will leave his/her position.

Measuring Executive Turnover

Executive turnover is measured when the executive is identified as departing the firm by *ExecuComp*. *ExecuComp* classifies executive departure into four categories: (1) deceased; (2) retired; (3) resigned; and (4) unknown. For obvious reasons, we eliminate turnover caused by death. We classify as involuntary, turnover where press articles suggest the executive was fired, forced from his/her position, or was departing due to unspecified policy differences. We also classify as involuntary, turnover where the executive was under 60 and the departure was not announced at least six months in advance and the press announcement of departure was silent as to his or her taking a new position. We classify 496 observations, or just over 25 percent of our turnover observations, as involuntary.

² If the option is out-of-the-money, the intrinsic value is zero.

³ To the extent that those options vest and are exercised subsequent to year end but prior to departure our variable contains measurement error. However the value of unexercisable options at time of departure is not available.

⁴ We exclude the value of stock and option grants as they are already included in model (1), i.e., *unexercisable in-the-money options*, *exercisable in-the-money options*, *time value of unexercised options* and *restricted shares*.

Models

Our hypothesis is that as the value of equity compensation to be forfeited increases, voluntary executive turnover decreases. We test this hypothesis using two models, one for CEOs and one for all other executives. We present separate models for two reasons. First, presenting results for the CEO only will allow a comparison of our results to the prior literature which has primarily focused on the CEO. Second, it will allow us to incorporate different variables into each model. In particular, CEO turnover is likely to affect turnover among lower level executives. Consequently using a separate model for non-CEOs allows us incorporate CEO turnover as an additional explanatory variable.

To measure the value of equity compensation that would be forfeited if the executive leaves the firm we use the intrinsic value of the options that have not vested, the time value of all options held, and the fair value of restricted stock held. To proxy for the intrinsic value of the options that would be forfeited if the executive leaves the company we use the value of *unexercisable in-the-money stock options (INMONUN)* at the end of the prior year as reported in *ExecuComp*.³ To control for scale differences across executives and firms we deflate

INMONUN by total direct compensation (*TDC1*) as reported by *ExecuComp* for the year prior to turnover, where total direct compensation includes salary, bonus, other current compensation, long-term incentive payments, restricted stock grants valued at grant date, and the Black-Scholes value of stock option grants valued at grant date. We expect this deflated variable, which we refer to as *unexercisable in-the-money options*, to be inversely related to turnover.

Analogous to *INMONUN*, *ExecuComp* provides the value of exercisable in-the-money stock options, *INMONEX*, at the end of each fiscal year. As with *INMONUN*, we deflate *INMONEX* by total direct compensation to calculate *exercisable in-the-money options*. Since by definition, this value could be realized from the options should the executive decide to leave the company, we do not expect *exercisable in-the-money options* to be related to turnover.

To proxy for the time value forfeited if the executive leaves the firm we calculate the time value of unexercised options. As with the prior variables, we deflate this amount by total direct compensation to calculate *time value of unexercised options*. We expect *time value of unexercised options* to be inversely related to turnover.

To proxy for the value of restricted stock forfeited if the executive leaves the firm we use the market value of those shares (*RSTKHLDV*) as provided by *ExecuComp* at the end of the prior year. As with the prior variables we deflate *RSTKHLDV* by total direct compensation to calculate *restricted shares*. We expect *restricted shares* to be inversely related to turnover.

The higher paid an executive is, relative to his or her opportunity cost, the less likely he or she is going to voluntarily leave the firm. We use *residual* to control for this effect, where *residual* is the difference between the total cash compensation received by the executive and the average earned by an executive of the same rank, within the same two digit SIC code, size decile, and year.⁴ To be consistent with our other variables, we deflate the excess by total direct compensation, so that *residual* represents the amount the executive is over/underpaid in percentage terms.

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September 11 Victims, Random Events, and the Ethics of Compensation

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When does government have a moral obligation to provide compensation to victims?



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A set of principles is needed if government is to make distinctions in compensating the victims of different types of unfortunate events. We will offer four such principles. Our principles are derived both from inductive consideration of moral intuitions associated with particular cases as well as prior literature on government obligations. We give significant consideration to well-established issues in risk management and insurance; in particular, the problems of “moral hazard” and “adverse selection,” and the interplay of these practical phenomena with more theoretical considerations. Our analysis stresses the responsibilities of both government and individuals, as well as the utility of outcomes.

We begin by posing the broad question: When does government have a moral obligation to provide compensation to victims?

Clearly, the most paternalistic view would be that government should compensate victims of all of life’s uncertainties, from “cradle to grave.” Such an approach naturally would include generous forms of the social insurance that exist throughout much of the world today. For example, one would expect comprehensive social security programs for pensioners and the disabled, as well as comprehensive national health insurance. In addition, the most paternalistic approach would provide government-financed life insurance for dependent beneficiaries in the case of untimely death, as well as various types of property-liability insurance — automobile, workers’ compensation, professional malpractice, etc. — presumably on a first-party no-fault basis, but including compensation for “pain and suffering” as well as economic loss. Furthermore, the fully paternalistic system would not be complete without affording pain-and-suffering benefits for other untoward events not commonly insured (either privately or publicly) in today’s world: e.g., birth defects, degenerative disease, poor upbringing, etc.

Obviously, such a paternalistic system would be prohibitively expensive even under the most ordinary, non-catastrophic conditions. In addition, the system would be subject to intolerable degrees of moral hazard, as individual citizens would have little financial incentive to take reasonable precautions against a wide variety of risks (for related reasons, we believe that such a paternalistic system may also be *unjust* because it blurs the distinction between “brute bad luck” and “option bad luck”). Positing that this type of paternalistic system is *prima facie* impracticable, we turn our attention to what the next most generous, but reasonably practicable, compensation principle would be. In other words, having acknowledged that the moral argument for comprehensive all-risk insurance leads to a policy dead end, what more restrictive moral principle could we impose?

Government Liability

Essentially, we need to introduce some further moral reason for government to be involved in compensation; that is, something beyond the idea that it is the responsibility of government to take care of all of its citizens’ needs. One empirically evident candidate for this criterion is the concept of liability, or culpability (see Stone, 1989, regarding the ubiquitous nature of justifying public policy actions based upon attributions of responsibility for harm). That is, it seems natural to argue that government should compensate victims if government could have done more to avoid/mitigate losses, but failed to do so (or if indeed government were directly responsible for exposing individuals to risk, as in a mandatory inoculation program).¹

To justify the liability criterion, one can look to work such as that of Arthur Ripstein (1999) on the philosophical foundations of the civil justice (tort) system. According to Ripstein, the tort system is attractive because it implicitly balances the goals of security and liberty; that is, tort law balances the security interests of potential victims with the liberty interests of those who could harm them through lack of reasonable care (or in the common parlance of the insurance literature, “tortfeasors”). Usually, one thinks of balancing the interests of private parties; however, in the case of government as the potential tortfeasor, one can view government as “standing in” for a society with an obligation to compensate an injured party. Essentially, the entire society places its liberty at risk because compensation is provided from tax receipts.

As Ripstein notes, the central standard of tort liability is “reasonable care.” In other words, the tortfeasor is held liable only if he/she fails to exercise a level of care deemed “reasonable” by judicial fact-finders. To be sure, the law and public policy might well require a higher standard of reasonable care from government because of its broad resources; however, such a standard should not be confused with “perfection.”

Our *first compensation principle* is, thus, as follows:

(1) Government should compensate victims of unpredictable events whenever it has failed to take reasonable pre-event risk-control and risk-reduction measures (and especially in the extreme case in which government intentionally exposes certain individuals to risk).

In applying this principle in practice, public policy makers would quickly encounter the difficult question of whether or not certain actions of government can be construed as reasonable. For example, in the context of the September 11 attacks, one might argue that various intelligence and security lapses of the government permitted the tragedy to occur. Would these lapses be evidence of government’s failure to take reasonable pre-event risk-control/reduction steps? If the answer were “yes” in the case of September 11, would it *necessarily* be the same for the Oklahoma City bombing? We think the answer here is clearly “no.”

¹ Note that from such a restrictive moral perspective, one could justify today’s social insurance programs only by utilitarian arguments, since it is generally not the government’s fault that its citizens age, become disabled, and suffer from a variety of illnesses.

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Since prior literature shows turnover may be affected by other factors, we also include the value of options and stock granted to directors, executive age, insider ownership, and variables proxying for the performance of the firm and the firm's growth opportunities as control variables.⁵ The value of options and shares granted to outside directors are used to control for the incentives caused by director compensation, i.e., we expect monitoring to be greater when director compensation is tied to share price. Both values are then deflated by total director compensation to yield the percentage of director compensation represented by option (*director option grants*) and share grants (*director stock grants*).⁶ As with our other variables *director option grants* and *director stock grants* are measured for the year prior to turnover. We expect *director option grants* and *director stock grants* to be positively associated with turnover.

Executive age is included to control for the possibility that as the executive gets older he or she retires, either voluntarily or in some cases, as the result of company policy/tradition. We expect *executive age* to be positively associated with turnover. If insider ownership has the effect of entrenching management, turnover will be inversely related to the percentage of shares owned by insiders. Consequently we expect *insider ownership* to be negatively related to turnover.

To control for performance, which based upon prior literature we expect to be inversely related to turnover, we use prior year stock (*return to shareholders*) and accounting (*return on assets*) returns. We include the market to book value of equity (*market to book value*) measured at the end of the prior year to control for growth, and an indicator variable if the company operates in a high technology industry (*hightech*), as we expect turnover to be greater for growth firms operating in dynamic industries.

In our CEO model we include CEO tenure as an additional independent variable, as the CEO may become more entrenched over time. In our non-CEO model we include both contemporaneous and lagged CEO turnover, as while CEO turnover is likely to lead to an increase in turnover of lower level executives, the impact may not be immediate.

The formal models are as follows.

CEO model

$$\text{Turnover} = \alpha + \beta_1 \text{Unexercisable in-the-money options} + \beta_2 \text{Exercisable in-the-money options} + \beta_3 \text{Time value of unexercised options} + \beta_4 \text{Restricted shares} + \beta_5 \text{Residual} + \beta_6 \text{Director option grants} + \beta_7 \text{Director stock grants} + \beta_8 \text{Executive age} + \beta_9 \text{Insider ownership} + \beta_{10} \text{Return to shareholders} + \beta_{11} \text{Return on assets} + \beta_{12} \text{Market to book value} + \beta_{13} \text{Hightech} + \beta_{14} \text{CEO Tenure} + \epsilon$$

Non-CEO model

$$\text{Turnover} = \alpha + \beta_1 \text{Unexercisable in-the-money options} + \beta_2 \text{Exercisable in-the-money options} + \beta_3 \text{Time value of unexercised options} + \beta_4 \text{Restricted shares} + \beta_5 \text{Residual} + \beta_6 \text{Director option grants} + \beta_7 \text{Director stock grants} + \beta_8 \text{Executive age} + \beta_9 \text{Insider ownership} + \beta_{10} \text{Return to shareholders} + \beta_{11} \text{Return on assets} + \beta_{12} \text{Market to book value} + \beta_{13} \text{Hightech} + \beta_{14} \text{CEO turnover} + \beta_{15} \text{Lag CEO turnover} + \epsilon$$

where *Turnover* is equal to one if the executive leaves during the year and zero otherwise, and all other vari-

ables are as described above. To control for the econometric issues that may arise from the pooling of multiple executives from a single firm over a period of years we use the SAS procedure GLIMMIX. GLIMMIX controls for both firm and time fixed and random effects in a logistical setting.

"...equity compensation, both stock and options, can provide incentive for an executive to remain with his or her current employer."

Descriptive Statistics

For both the CEO and non-CEO samples we see *unexercisable in-the-money options*, *time value of unexercised options* and *restricted shares* are higher for the non-turnover classification. While not expected, we also find *exercisable in-the-money options* higher for CEOs in the non-turnover classification, perhaps because of its correlation with *unexercisable in-the-money options*. *Residual* is also less negative for the non-turnover sample groups. These differences are all consistent with voluntary turnover being lower when the executive's monetary loss from leaving is greater.

Regression Results

Supporting our hypothesis, in both the CEO and non-CEO models, we find the coefficients on *unexercisable in-the-money options*, *time value of unexercised options*, and *restricted shares* to be negative and significant. We also find the coefficients on *residual* to be negative and significant in both models, albeit at slightly lower significance levels. In contrast the coefficient on *exercisable in-the-money options* is insignificantly different from zero in the CEO model and positive and significant in the non-CEO model. We interpret these results as follows. *Unexercisable in-the-money options*, *time value of unexercised options*, and *restricted shares*, as well as *residual*, proxy for the monetary loss the executive would suffer if he or she left the company, so they provide disincentive to leave. In contrast *exercisable in-the-money options*, the intrinsic value of options that can be exercised if the executive decides to leave the company, provide no disincentive for the CEO to leave, and perhaps some incentive for lower level executives to leave.

We then examine the standardized coefficients, which are the change in probability of turnover from a one standard deviation change in an independent variable, to compare the strength of the relationship between the dependent and independent variables. By standardizing the coefficients, the independent variables can be compared directly to determine which has the largest impact on the dependent variable. The standardized coefficients indicate that *unexercisable in-the-money options* are most important in reducing CEO turnover with a one standard deviation increase reducing voluntary CEO turnover by almost 40 percent, while the *time value of unexercised options* is most important in reducing non-CEO turnover with a one standard deviation increase reducing voluntary non-CEO turnover by almost 24 percent. Of the compensation variables, in both the CEO and non-CEO regressions, *residual* is the least important in reducing turnover as a one standard deviation increase reduces voluntary CEO turnover by seven and six percent, respectively.

⁵ We include board composition and ownership variables in a sensitivity analysis because they are only available for a subset of our observations.

⁶ As an alternative to proxy for the effect of director compensation on turnover we used indicator variables that take the value of 1 if the firm grants any options/shares to its directors and zero otherwise. We do so because a large number of firms, more than 50 percent in the case of shares, do not grant options and/or shares in a given year. The results are unchanged.

Strong Versus Weak Performers

From the point of view of the firm, executives fall into one of three categories: those the firm wishes to retain; those the firm does not want to retain but rather than fire encourages to leave, perhaps to avoid the payment of severance;⁷ and those the firm fires. In theory the executive compensation package should be structured to retain those strong performers, while encouraging weaker ones to depart. In practice we may observe just the opposite, i.e., strong performers departing at a higher rate than weak performers, as while strong performers have other opportunities, weak performers do not. By examining voluntary turnover across strong and weak performers we can infer whether or not the compensation package is doing its part to counter external incentives and encourage productive retention.

Due to the nature of our data, it is difficult to determine which executives have been fired and which leave the firm voluntarily. However, using the preexisting literature, we have classified turnover into voluntary or involuntary. Unfortunately the literature provides no guidance on how to distinguish between those executives the firm wishes to retain and those it is encouraging to leave. Further, we cannot directly observe managerial performance rather we have to infer it using proxy measures. One measure is raise received, i.e., the firm may send a signal to executives by not giving them a raise and/or bonus when other executives get one. Partitioning our sample based upon this variable we see that turnover is greater for the weak performer subsample. For illustration purposes, voluntary turnover for non-CEOs is 4.44 percent per year. However when we look at non-CEOs who did not receive a raise in the prior year, voluntary turnover is even higher, 12.40 percent, while for those who did, voluntary turnover is 3.20 percent.

To examine whether it is the incentives provided by the compensation package that drive this higher turnover, we first examine the retention incentives for each group of executives. For this analysis we classify executives as weak if they did not receive an increase in either salary, total cash compensation, or total direct compensation, whereas the average executive at their firm did. We determine that the values of *unexercisable in-the-money options*, *time value of unexercised options*, *restricted shares*, and *residual* are all statistically greater for the strong performer subsample, consistent with the compensation package being designed to retain those executives. Consequently, while weak executives will suffer a monetary loss if they leave the firm, that is *unexercisable in-the-money options*, *time value of unexercised options*, and *restricted shares* are all positive and statistically significant, their loss will be less than that of strong executives.

To test this we augment models our and with interactions between an indicator variable *strong* and the four variables *unexercisable in-the-money options*, *time value of unexercised options*, *restricted shares*, and *residual* show affect on voluntary executive turnover. Thus the coefficient on *unexercisable in-the-money options* represents the relationship between that variable and voluntary turnover for weak executives, while the coefficient on *unexercisable in-the-money options*strong* represents the incremental effect for strong executives, which we expect to be negative if the compensation plan is more effective at retaining strong executives.

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⁷ Severance can be costly (e.g., the reported \$140 million package Michael Ovitz received when dismissed by Disney); consequently, the corporation may attempt to avoid paying it by encouraging the executive to look for employment elsewhere.

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In the context of terrorism or other violent criminal activity, one useful measure of government liability for failure to take preventive action is the size or extent of the criminal conspiracy involved. In other words, it seems more reasonable to expect government intelligence, defense, and law-enforcement agencies to be able to prevent a criminal act perpetrated by a large, international organization (such as *al Qaeda*) than one carried out by a conspiracy of two or three individuals (as in Oklahoma City).

Victim Responsibility

Continuing with the deontological analysis, we now turn to the role of individual victims. Should the failure of individuals to take their own risk-control and risk-reduction measures argue against government's responsibility? In other words, is there a "contributory negligence" clause in the social contract?

Clearly, it would seem that government should, to an extent, be absolved of some of its obligation to compensate victims whenever (a) government is not the direct cause of the untoward event, and (b) the victims themselves made themselves more vulnerable to loss by failing to take certain obvious and easily manageable pre-event actions.

However, it also seems reasonable to argue that government, being more resourceful and insightful than the individual (an assumption that is not unreasonable in the insurance context, where the aggregation of data across numerous individuals is necessary for the understanding of risks), should in most cases carry a heavier burden than the individual.

To answer this rather complex question, we find it helpful to employ a distinction made by Dworkin (2000) between "brute bad luck" (i.e., a bad outcome that could not be anticipated, such as being hit by a meteor) and "option bad luck" (i.e., a bad outcome that results from a deliberate gamble, such as losing money in the stock market). Clearly, there are strong moral reasons for government to address outcomes of the former type, but not the latter, if we wish to respect individual liberty and allow people to take responsibility for their own deliberate choices.

In this light, a victim's failure to take reasonable pre-event risk-control or risk-reduction measures may lead to "option bad luck," and not justify government compensation. If this failure to take risk-control/reduction measures is actually *encouraged* by the expectation of government compensation, then we face the problem of "moral hazard."

Similarly, a victim's failure to arrange for reasonable pre-event risk financing also may result in "option bad luck," and not justify compensation. In this case, if the failure of potential victims to take risk-financing measures is *encouraged* by the expectation of government compensation, then we face the "commitment problem" identified by Moss (2002); if this failure is limited primarily to *higher-risk* potential victims, then we have the problem of "adverse selection."² Under this paradigm, government has a stronger reason for compensating victims if private market insurance is either unavailable (as in the case of some property-liability terrorism coverage) or unaffordable (e.g., if potential victims are simply too poor to buy even the most reasonably priced policies³).

To address these issues, we add the *second* and *third* compensation principles:

(2) Government's responsibility to compensate victims under Principle 1 is lessened if the victims failed to take reasonable pre-event risk-control or risk-reduction measures (and especially if the compensation program itself were to create a significant problem of moral hazard).

(3) Government's responsibility to compensate victims under Principle 1 is lessened if the victims failed to take reasonable pre-event risk-financing measures (and especially if the compensation program itself were to create a significant commitment problem — e.g., adverse selection).

Utilitarian Considerations

Putting aside questions of the comparative responsibilities of government and individuals for the moment, we now turn to an analysis of how government's actions can affect the utility of outcomes.

From a strictly utilitarian perspective, we ask:

When is government compensation most useful in terms of maximizing social welfare?

"...reasonable people may differ with respect to whether or not the failure to compensate will cause significant hardships."

To some extent, this question is best answered on a case-by-case basis; however, from institutional experience, we can identify two types of scenarios in which government action would be most helpful: (a) when the financial stability – and possibly even existence – of private reinsurance markets is threatened; and (b) when the absence of government compensation, *ipso facto*, is likely to cause further significant loss or other negative consequences to the economy or society as a whole.

Scenario (a) emerged in the wakes of several natural disasters (Hurricanes *Andrew* and *Iniki* in 1992; the Northridge Earthquake in 1994) as well as the September 11 attacks, and led to the creation of various public catastrophe insurance funds (at the state level) and the Terrorism Risk Insurance Act of 2002, respectively. Scenario (b) is one that frequently arises in property loss adjustment, when the lack of funds to replace a damaged roof can lead to further water damage of a property. Obviously, this latter type of situation can apply equally well to medical and liability contexts, because the payment of economic and pain-and-suffering claims immediately following a catastrophe may obviate the need for lengthy and expensive litigation (a major objective of the Air Transportation Stabilization Act of 2001).

These two scenarios are both addressed generically by our *fourth* compensation principle:

(4) Government should compensate victims of unpredictable events when the failure to compensate is likely to cause additional and significant negative economic/social ramifications.

It should be noted that real-world determination of such consequences is likely to be difficult, and reasonable people may differ with respect to whether or not the failure to compensate will cause significant hardships. Certain parties (e.g., the airline industry after September 11, 2001) are also likely to have tactical financial reasons for exaggerating the potential ill results of a failure to compensate. Consider, for example, the argument that a lack of government compensation might decimate the insurance industry because of the obligations insurance companies would otherwise incur. Arguments of this type were offered after the September 11 terrorist attacks. However, some have argued rather forcefully (see Smetters, 2003) that the insurance industry was never in such shape following September 11 as many imagined, and that the industry has more capacity to cope with terrorism losses than is commonly believed.

We need not resolve these types of empirical questions here. While we believe our Principle 4 is well justified, we recognize that actually demonstrating the ill consequences of a failure to compensate may often be non-trivial. ■

References

Dworkin, R. (2000). *Sovereign Virtue: The Theory and Practice of Equality*, Cambridge, MA: Harvard University Press.

Moss, D. A. (2002). *When All Else Fails: Government as the Ultimate Risk Manager*, Cambridge, MA: Harvard University Press.

Ripstein, A. (1999). *Equality, Responsibility, and the Law*, Cambridge, U.K.: Cambridge University Press.

Smetters, K. (2003). "Insuring against Terrorism: The Policy Challenge," unpublished manuscript.

Stone, D. A. (1989). "Causal Stories and the Foundation of Policy Agendas," *Political Science Quarterly*, 104, 281–300.

Taken from:

Lascher, E. L., Jr. and Powers, M. R. (2004). "September 11 Victims, Random Events, and the Ethics of Compensation," *American Behavioral Scientist*, 48, 3: 281–294.

² Adverse selection is likely to be the first manifestation of the commitment problem. In other words, higher-risk potential victims generally will be the first ones to rely on expected government compensation, because they are the ones for whom private risk financing is most expensive.

³ In the case of poor potential victims, the most efficient and effective type of government intervention might well be to provide more extensive pre-event social insurance. This approach would have the advantages of reducing the number of post-event petitions for compensation, as well as treating the poor with dignity rather than as "beggars" after the fact. However, as noted above, our present work is focused on post-event compensation schemes.

2006 Publications: Fox/STHM Faculty

Abad-Navarro C., **Banker, R.**, and Mashruwala, R. (2006). "Eficiencia Relativa Como Indicador del Rendimiento Futuro." *Revista Iberoamericana de Contabilidad de Gestion*, 4(8).

Anderson, M., **Banker, R.** and Ravindran, S. (2006). "Value Implications of Investments in Information Technology." *Management Science*, 52(9): 1359-1376.

Asthana, S. and **Krishnan, Jayanthi** (2006). "Factors Associated with the Early Adoption of the SECs Revised Auditor Fee Disclosure Rules." *Auditing: A Journal of Practice and Theory*, 25 (2): 41-51.

Bae, Kee-Hong, Bailey, Warren, and **Mao, Connie X.** (2006). "Stock Market Liberalization and the Information Environment." *Journal of International Money & Finance*, 25(3): 404-428.

Balsam, S. and Gifford, R.H. (2006). "Employee Stock Option Exercises — an International Analysis." *Corporate Ownership & Control*, 3(3): 49-54.

Banker, R. (2006). "IFORS Operational Research Hall of Fame William W. Cooper." *International Transactions in Operational Research*, 13: 379-383.

Banker, R. and Chen, L. (2006). "Predicting Earnings Using a Model Based on Cost Variability and Cost Stickiness." *Accounting Review*, 81(2): 285-307.

Banker, R., Kalvenes, J. and R. Patterson, (2006). "Information Technology, Contract Completeness and Buyer-Supplier Relationships." *Information Systems Research*, 17: 180-193.

Banker, R., Bardhan, I. and Asdemir, O. (2006). "Understanding the Impact of Collaboration Software on Product Design and Development." *Information Systems Research*, 17: 352-373.

Banker, R., Bardhan, I., Chang, H. and Lin, S. (2006). "Plant Information Systems, Manufacturing Capabilities and Plant Performance." *MIS Quarterly*, 30(2): 315-337.

Blackstone, E. A. and Fuhr, J. P. Jr., (2006). "Unintended Consequences: Generic Competition in the Prescription Drug Market." *Medicare Patient Management*, 1(2): 25-43.

Blackstone, E., Buck, A. and **Hakim S.** (2006). "Determinants of Airport Choice in a Multi-Airport Choice in a Multi-Airport Region." *Atlantic Economic Journal*, 34(3): 313-326.

Blau, G. (2006). "A Process Model for Understanding Victim Responses to Worksite/Function Closure." *Human Resource Management Review*, 16(1): 12-28.

Blau, G. and Holladay, B. (2006). "Testing the Discriminant Validity Of A Four-Dimension Occupational Commitment Measure." *Journal of Occupational and Organizational Psychology*, 79: 691-704.

Blau, G. and Ward-Cook, K. (2006). "A Brief Note On Further Investigating Correlates Of Work Exhaustion." *Journal of Allied Health*, 35(1), e6-e21, available online at www.ingen-taselect.com/rpsv/cw/asahp/00907421/contpl.htm.

Blau, G., Daymont T., Hochner, A., Koziara, K., and Doyle, K. (2006). "Exploring the Impact of Certification Activity, Years of Laboratory Experience and Highest Degree Held on Occupational Commitment, Job Loss Insecurity, and Intent to Leave Occupation For Medical Tech." *Journal of Allied Health*, 35(4): 208-215.

Blau, G., Holladay, B., and **Aaronson, W.** (2006). "Further Testing the Impact of Shift Schedule on Task Scale Variables for Medical Laboratory Professionals." *Journal of Allied Health*, forthcoming.

Blau, G., Ward-Cook, K., and Culver-Edgar, L. (2006). "Testing For The Impact Of Correlates On Medical Technologists' Intent To Leave Their Job." *Journal of Allied Health*, 35(2): 94-100.

Bourbonniere M, Feng Z, Intrator O, Angelelli J, Mor V, **Zinn J.** (2006). "The Use of Contract Licensed Staff in U.S. Nursing Homes." *Medical Care Research and Review*, 63(1): 88-109.

Cai, G., and **Sarkar, S. K.** (2006). "Modified Simes' Critical Values Under Positive Dependence." *Journal of Statistical Planning and Inference*, 136: 4119-4474.

Connolly, D. and **Lee, S.** (2006). "Developing Information Technology Proficiencies and Fluency in Hospitality Students." *Journal of*

Hospitality & Tourism Education, 18(3): 15-29.

Coombs, J, **Mudambi, R.**, and Deeds, D. (2006). "An Examination of the Investments in U.S. Biotechnology Firms by Foreign and Domestic Corporate Partners." *Journal of Business Venturing*, 21(4): 405-428.

Corral, K., **Schuff, D.**, and St. Louis, R.D., (2006). "Are Star Schema Diagrams More Understandable than Entity-relationship Diagrams? A Recall Experiment." *Decision Support Systems*, (42)1: 450-468.

Cummins, J. David and Maria Rubio-Misas (2006). "Deregulation, Consolidation, and Efficiency: Evidence from the Spanish Insurance Industry." *Journal of Money, Credit, and Banking*, 38 (no. 2): 323-356.

Cummins, J. David and Neil A. Doherty (2006). "The Economics of Insurance Intermediaries." *Journal of Risk and Insurance*, 53: 359-396.

Cummins, J. David, (2006). "Should the Government Provide Insurance for Catastrophes?" *Federal Reserve Bank of St. Louis Review*, 88 (July/August): 337-379.

Cummins, J. David, (2006). "The Insurance Brokerage Industry Post-October 2004." *Risk Management and Insurance Review*, 9: 90-101.

Cummins, J. David, Christopher M. Lewis, and Ran Wei (2006). "The Market Value Impact of Operational Loss Events for U.S. Banks and Insurers." *Journal of Banking and Finance*, 30: 2605-2634.

Danielson, M. and **Press, E.** (2006). "Do Stock Options Always Align Manager and Shareholders' Interests? An Alternative Perspective." *Advances in Financial Education*, 4.

Danielson, M. and **Scott J.** (2006). "The Benefits of Leasing: The Small Firm Perspective (with Morris Danielson)." *Journal of Equipment Lease Financing*, 24: 1-10.

Deckop, J. R., Konrad, A. M., Perlmutter, F. D., and Freely, J. L. (2006). "The Effect of Human Resource Management Practices on the Retention of Former Welfare Clients." *Human Resource Management*, 45(4): 539-559.

Deckop, J. R., Merriman, K. K., and Gupta, S. (2006). "The Effects of CEO Pay Structure on Corporate Social Performance." *Journal of Management*, 32(2): 329-342.

Deckop, J.R. (Ed.) *Human Resource Management Ethics*. (2006). Greenwich, CT: Information Age Publishers.

DeSarbo, Wayne S., **DiBenedetto, C.** Anthony, Jedidi, Kamel, and Song, Michael (2006). "A Constrained Latent Structure Multivariate Regression Methodology for Empirically Deriving Strategic Types." *Management Science*, 52(6): 909-924.

Dhanaraj, C. and **Parkhe, A.** (2006). "Orchestrating Innovation Networks." *Academy of Management Review*, 31: 659-669.

DiBenedetto, C. A., Song, X. Michael, and Song, Lisa Y. (2006). "The Strategic Advantage of New Product Pioneering: Perceptions of Senior Managers in China." *SCMS Journal of Indian*

"Creating knowledge and bringing it to the classroom is the most important contribution from Fox' community of researchers."

— **M. Moshe Porat, Dean**

The Fox School of Business and School of Tourism and Hospitality Management

Banker, R. and Chang, H. (2006). "The Super-Efficiency Procedure for Outlier Identification, Not for Ranking Efficient Units." *European Journal of Operational Research*, 175(2): 1311-1320.

* Bold font represents Fox and STHM faculty

- Management*, 3(2): 24–37
- Duru, A., Mansi, S. and Reeb, D. (2005). “Earnings-Based Bonus Plans and the Agency Costs of Debt.” *Journal of Accounting and Public Policy*, 24: 431–447.
- Evashwick, C. and Aaronson, W. E. (2006). “The Continuum of Care Today.” *Health Progress*, 87(5): 46–55.
- Fesenmaier, D. R., K. W. Wöber and H., Werthner (2006). *Travel Destination Recommendation Systems: Behavioral Foundations and Applications*. London, UK: CAB International.
- Gao, Yan; Mao, C. X.; Zhong, Rui. (2006). “Divergence of Opinion and Long-Term Performance of Initial Public Offerings.” *Journal of Financial Research*, 29(1): 113–129.
- Gershon, M. E. (2006). “An Analytical Ranking Procedure Integrating AHP and ELECTRE.” *Asian Information Science Journal*, 9(No. 2): 233–248.
- Gershon, M. E. and Boulter, K. (2006). “Critical Chain versus Critical Path in Project Management.” *Journal of Applied Business and Economics*, 6(2): 7–15.
- Gershon, M. E. and Christobek, M. (2006). “Comparing the Cost of Quality Between C=0 Acceptance Plans and MIL-STD-105E Plans.” *International Journal of Productivity and Quality Management*, 1(No. 3): 272–289.
- Getzen, T. (2006). “Aggregation and the Measurement of Health Care Costs.” *HSR: Health Services Research*, 41(5): 1938–1954.
- Giacalone, R. A. (2006). “New Ethics in the Office.” *BizEd*, 5: 24
- Giacalone, R. A. and Thompson, K. R. (2006) “From the Guest Co-Editors: Special Issue on Ethics and Social Responsibility.” *Academy of Management Learning & Education*, 5: 261–265.
- Giacalone, R.A. and Thompson, K. (2006). “Business Ethics and Social Responsibility Education: Shifting the Worldview.” *Academy of Management Learning and Education*, 5: 266–277.
- Goergen, M., Khurshed A. and Mudambi, R. (2006). “The Strategy of Going Public: How UK Firms Choose Their Listing Contracts.” *Journal of Business Finance and Accounting*, 33(1&2): 306–328.
- Goldblatt, Joe. (2006). *The Art of the Event*. New York, New York: John Wiley & Sons.
- Goldblatt, Joe. (2006). “Certify Yourself.” *Events Magazine*, 20(9).
- Gretzel, U. and D. R. Fesenmaier. (2006). “Persuasion in Recommender Systems.” *International Journal of eCommerce*, 11(2): 81–100.”
- Gretzel, U., Fesenmaier, D. R., Formica, S. and J. T. O’Leary (2006). “Searching for the Future: Challenges Facing Destination Marketing Organizations.” *Journal of Travel Research*, 45(2): 116–126.
- Heiberger, R. M. and Holland, B. (2006). “Mean-Mean Multiple Comparison Displays for Families of Linear Contrasts.” *Journal of Computational and Graphical Statistics*, 15(4): 937–955.
- Holden, S. and VanDerhei, J. (2006). “401(k) Participant Account Balances.” *Journal of Financial Service Professionals*, 60(5): 79–89.
- Hwang, Y. H. and D. R. Fesenmaier (2006). “Nature of Japanese Travelers’ Multi-destination Travel in the United States.” *Tourism Review International*, 9(3): 271–280.
- Hwang, Y. H., Gretzel, U. and D. R. Fesenmaier (2006). “Multi-city Trip Patterns of International Travelers to the U.S.: An Analysis of Trip Structures.” *Annals of Tourism Research*, 33(4): 1057–1078.
- Intrator, O., Grabowski D., Zinn, J., Schleinitz, M., and Feng, Z. (2006). “Hospitalization of Nursing Home Residents: The Effect of States’ Medicaid and Bed-hold Policies.” *Health Services Research*. Early articles, published article online 5–Dec–2006.
- Jang, S. S., Hu, C., and Bai, B. (2006). “A Canonical Correlation Analysis of e-Relationship Marketing and Hotel Financial Performance.” *Tourism and Hospitality Research — The Surrey Quarterly Review*, 6(4): 241–250.
- Kim, D., Hwang, Y. and D. R. Fesenmaier (2006). “Modeling Tourism Advertising Effectiveness.” *Journal of Travel Research*, 44(1): 42–49.
- Kopecky, K. J. and VanHoose, D. (2006). “Capital Regulation, Heterogeneous Monitoring Costs and Aggregate Loan Quality.” *Journal of Banking and Finance*, 30(8): 2235–2255.
- Kotabe, M. and Jiang, C. (2006). “Three Dimensional: The Markets of Japan, Korea, and China are Far from Homogeneous.” *Marketing Management*, 15(2): 39–43.
- Kotabe, M. and Mol, M. J. (2006). “International Sourcing: Redressing the Balance,” in John T. Mentzer, Matthew B. Myers, and Theodore P. Stank, ed., *Handbook of Global Supply Chain Management*, London: Sage Publications, 393–406.
- Kotabe, M. and Mol, M. J. (2006). *Global Supply Chain Management, I and II*, Northampton, MA: Edward Elgar Publishing.
- Kotabe, M., Murray, J. Y. and Chandra, M. (2006). “Outsourcing of Services by Service Firms: An Empirical Investigation,” in Marc J. Schniederjans, Ashlyn M. Schniederjans, and Dara G. Schniederjans, ed., *Outsourcing Management Information Systems*, Hershey, PA: Idea Group Publishing: 200–223.
- Lancioni, R. A., Stein, A., and Smith, M. (2006). “Political and Organizational Hurdles to Price Setting.” *Journal of Professional Pricing*, 15(4): 5.
- Lee, S., and Kamp, H. (2005). “Learning Styles of Hospitality Students: Do Career Interests Make Differences in Learning Styles?” *Journal of Hospitality & Tourism Education*, 17(3): 27–33.
- Leeds, M. A., von Allmen, P. & Schiming, R. (2006). *Economics*, Boston: Addison Wesley.
- Lyytinen, K. & Yoo, Y. (2006). “Designing and Implementing Effectively High Impact Ubiquitous Computing Environments”. *Information Systems and E-Business Management*, 4(4): 395–3976
- McAulay, B., Zeitz, J., and Blau, G. (2006). “Testing a ‘Push-Pull’ Theory of Work Commitment Among Organizational Professionals.” *Social Science Journal*, 43: 571–596.
- McCain, S.-L. C., Hu, C., and Woods, R. H. (2006). “Examining Job-related Factors Perceived by Salespersons in the U.S. Timeshare Industry: A Path Analysis.” *Journal of Travel and Tourism Marketing*, 19(1): 29–38.
- McMillan, G. S. and R. Duska, R. D. Hamilton, III, and Casey, D. (2006). “The Ethical Dilemma of Research and Development versus Secrecy.” *Journal of Business Ethics*, 65(3).
- Moideenkutty, U., Blau, G., Kumar, R., and Nakalath, A. (2006). “Comparing Correlates of Organizational Citizenship Behavior and In-Role Performance.” *International Journal of Commerce and Management*, 16 (1): 15–28.
- Murphy, F. and Rosenthal, E. (2006). “Energy Policies and the Allocation of Their Value Added.” *Energy Journal*, 27(2): 143–156.
- Nanda, D., Hu, C., and Bai, B. (2006). “Exploring Family Roles in Purchasing Decisions During Vacation Planning: Review and Discussions for Future Research.” *Journal of Travel and Tourism Marketing*, 20(3–4).
- Pan, B. and D. R. Fesenmaier (2006). “Exploring the Structure of Travel Planning on the Internet.” *Annals of Tourism Research*, 33(3): 809–832.
- Parkhe, A., Wasserman, S. and Ralston, D. A. (2006). “New Frontiers in Network Theory Development.” *Academy of Management Review*, 31: 560–568.
- Pilyavsky, A., Aaronson, W., Bernet, P., Rosko, M., Valdmanis, V., and Golubchikov, M. (2006). “East – West: Does It Make A Difference On Hospital Efficiencies In Ukraine?” *Health Economics*, 15: 1173–1186.
- Press, E. (2006). “When Does R&D Expense Distort Profitability Estimates?” in *CFA Digest*, 36.
- Raghavarao, D. and Padgett, L. (2006). *Block Designs, Analysis, Combinatorics and Applications*. Singapore: World Scientific.
- Raghavarao, D. and Wiley, J. B. (2006). “Design Strategies for Sequential Choice Experiments Involving Economic Alternatives.” *Journal of Statistical Planning and Inference*, 136: 3287–3306.
- Schuff, D., Turetken, O., and D’Arcy, J., (2006). “A Multi-Attribute, Multi-Weight Clustering Approach to Managing ‘E-Mail Overload’.” *Decision Support Systems*, (42)3: 1350–1365.

continued page 8

* Bold font represents Fox and STHM faculty

- Sethuraman, S., Raghavbarao, D., and Sinha, B. K. (2006). "Optimal s^n Factorial Designs When Observations within Blocks are Correlated." *Computational Statistics and Data Analysis*, 50: 2855–2862.
- Steckel, R. H. & Krishnan, Jayanthi (2006). "Wealth Mobility of Men and Women During the 1960s and 1970s." *Review of Income and Wealth*, 52(2): 189–212.
- Stein, A., Lancioni, R., and Smith, M. (2006). "Accommodative Strategies for Inter-Departmental Price-Setting in Industrial Markets: Organizational Perspectives and Recommendations." *Journal of Professional Pricing*, 15(1): 22–26.
- Stone, C. A. and Zissu, A. M. (2006). "Defining the 3-D Securitization Space of Future Export Receivables from Emerging Markets." *Journal of Global Business and Technology*, 2(2).
- Stone, C. A. and Zissu, A. M. (2006). "Securitization of Senior Life Settlements: Managing Extension Risk." *The Journal of Derivatives*, 13(3): 66–72.
- Thavaneswaran, A., Singh, J., and Appadoo, S. S. (2006). "Option Pricing for Some Stochastic Volatility Models." *Journal of Risk Finance*, 7(4): 425–445.
- Thavaneswaran, A. and Singh, J. (2006). "RCA Models with Correlated Errors Applied Mathematics Letters." *Applied Mathematical Letters*, (19): 824–829.
- Treichel, M.Z. and Scott, J. (2006). "Women-Owned Business and Access to Credit: Evidence from Three Surveys Since 1987." *Venture Capital: An International Journal of Entrepreneurial Finance*, 8: 51–67
- Upneja, A., Lee, S. and Dalbor, M. (2006). "An Analysis of the Equity Valuation Literature as Applied to the Lodging Industry." *Journal of Hospitality and Tourism*, 4(1): 19–27.
- VanDerhei, J., Copeland, C. and Salisbury, D. (2006). *Retirement Security in the United States: Current Sources, Future Prospects, and Likely Outcomes of Current Trends*. Washington, DC: Employee Benefit Research Institute — Education and Research Fund.
- Viswanathan, K. S. (2006). "The Pricing of Insurer Demutualization Initial Public Offerings." *Journal of Risk and Insurance*, 73: 439–468.
- Wang, Y. and D. R. Fesenmaier (2006). "Identifying the Success Factors of Web-based Marketing Strategies: An Investigation of Convention and Visitors Bureaus in the United States." *Journal of Travel Research*, 44(3): 239–249.
- Wang, Y., Hwang, Y. and D. R. Fesenmaier (2006). "Futuring Internet Marketing Activities Using Change Propensity Analysis." *Journal of Travel Research*, 45(2): 158–166.
- Xiang, Z. and D. R. Fesenmaier (2006). "Assessing the Initial Step in the Persuasion Process: Meta Tags on Destination Marketing Websites." *Journal of Information Technology and Tourism*, 8(2): 91–104.
- Yoo, Y., Boland, R. K., Jr., and Lyytinen, K. (2006). "From Organization Design to Organization Designing." *Organization Science*, 17(2): 215–229.
- Zinn, J. Mor, V., Feng, Z. and Intrator, O. (2006). "Doing Better to Do Good: The Impact of Strategic Adaptation on Nursing Home Performance Health Services Research." *Health Services Research Online*. Early articles, published article online 25–Oct–2006.

Balsam continued

Empirically while we find our test variables have an effect on the retention of weak executives, we generally find the retentive effect to be greater for strong executives. In our CEO regression we find a negative and significant, overall and incremental effects for *unexercisable in-the-money options* and *time value of unexercised options* for strong executives. In our non-CEO regression we find negative and significant, overall and incremental effects for *unexercisable in-the-money options*, *time value of unexercised options*, and *restricted shares* for strong executives.

Conclusions

By showing that the intrinsic value of *unexercisable in-the-money options*, *time value of unexercised options*, and value of *restricted shares* are negatively associated with voluntary executive turnover, this study shows that equity compensation, both stock and options, can provide incentive for an executive to remain with his or her current employer. Further we show that the effect is productive retention. That is, even though we expect stronger executives to have greater employment opportunities, we find that their turnover is lower than that of weak executives. These results are robust to the inclusion of a number of control variables shown by previous research to effect turnover, as well as to a number of partitions used to isolate voluntary non-retirement turnover.

These findings have practical implications for corporations and compensation consultants at a time when many companies are reexamining equity compensation in the wake of SFAS 123R, which for the first time, requires the expensing of stock options on the income statement. In particular, most companies are looking for ways to control that expense. One way would be to reduce the number of stock options granted. Yet, as we show, corporations can lower executive turnover by designing compensation packages so that executives have a significant amount of their wealth in unvested options or restricted stock. Compensation plan designers can do so by either increasing the amount of *restricted shares* and options granted, by increasing their vesting and exercise periods, by granting in-the-money options, or by a combination of the three. Since increasing the number of *restricted shares* and options granted may not be feasible in the post SFAS 123R environment, designers need to look at the grant parameters to maximize the retentive effect with the same number or even fewer shares available. ■

Taken from:

Balsam, Steven and Miharjo, Setiyono. (2007). "The effect of equity compensation on voluntary executive turnover." *Journal of Accounting and Economics*, 43: 95–119.

2006 Publications: Ph.D. Candidates

Fox School of Business
and School of Tourism
and Hospitality Management

Danis M., Linde-Zwirble W. T., Astor A.,
Lidicker J. R., Angus D. C. (2006). "How Does
Lack of Insurance Affect Use of Intensive Care?
A Population-based Study." *Critical Care
Medicine*, Aug 34 (8): 2043-8

Lancioni, R. A., **Stein, A.**, and Smith, M. (2006).
"Political and Organizational Hurdles to Price
Setting." *Journal of Professional Pricing*, 15(4): 5.

Nagurney, A., Wakolbinger, T. and **Zhao, L.**
(2006). "The Evolution and Emergence of
Integrated Social and Financial Networks with
Electronic Transactions: A Dynamic Supernet-
work Theory for the Modeling, Analysis, and
Computation of Financial Flows and
Relationship Levels." *Computational Economics*,
27: 353-393.

Schauer, E. and **Wheaton, E.** (2006). "Sex
Trafficking into the United States." *Criminal
Justice Review*, 31: 146-169.

Stein, A., Lancioni, R., and Smith, M. (2006).
"Accommodative Strategies for Inter-
Departmental Price-Setting in Industrial
Markets: Organizational Perspectives and
Recommendations." *Journal of Professional
Pricing*, 15(1): 22-26.

Xiang, Z. and Fesenmaier, D. R. (2006).
"Assessing the Initial Step in the Persuasion
Process: Meta Tags on Destination Marketing
Websites." *Journal of Information Technology &
Tourism*, 8(2): 91-104.

Zhang, Y. and Asthana, S. (2006). "Effect of R&D
Investments on Persistence of Abnormal
Earnings." *Review of Accounting and Finance*,
5(2): 124-139.

* Bold font represents Fox and STHM Ph.D. candidates

Senior Undergraduate Research Scholars

Lisa Gibbings, '07
Major: Marketing
Thesis Title: Consumer Acculturation
Faculty mentor: Michael F. Smith; Marketing; Fox
School of Business;

Corrie Buff, '07
Major: Economics and Political Science
Thesis Title: The Banking Relationships of
Women-Owned Businesses
Faculty mentor: Jonathan A. Scott / Finance
Department; Fox School of Business and
Management

Andrew Atkins, '07
Major: Actuarial Science
Thesis Title: Reactions to Potential Social Security
Reform Options
Faculty mentor: Jack VanDerhei; Risk
Management; Fox School of Business;



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Economics and Finance, Chair, Department of
Finance, Temple University, Fox School of Business
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Journal of Information Technology and Tourism

Editor: Daniel R. Fesenmaier, Ph.D., Professor and
Director, National Laboratory for Tourism &
eCommerce, School of Tourism and Hospitality
Management Temple University, Philadelphia, PA.

Journal of International Management

Editor: M. Kotabe, The Washburn Chair of
International Business and Marketing, Temple
University, Fox School of Business and Management,
Philadelphia, PA.

Managing Editor: K. Cahill, Assistant Director,
IGMS/CIBER, Temple University, Fox School of
Business and Management, Philadelphia, PA.

Journal of Product Innovation Management

Editor: Anthony Di Benedetto, Ph.D., Professor,
Department of Marketing, Temple University, Fox
School of Business, Philadelphia, PA.

Journal of Risk Finance

Editor: Michael R. Powers, Ph.D., Professor,
Department of Risk Management and Insurance,
Temple University, Fox School of Business and
Management, Philadelphia, PA.

Risk Management and Insurance Review

Editors: Michael R. Powers, Ph.D., Professor,
Department of Risk Management and Insurance,
Temple University, Fox School of Business and
Management, Philadelphia, PA. and Mary A. Weiss,
Ph.D., Professor, Department of Risk Management
and Insurance, Temple University, Fox School of
Business and Management, Philadelphia, PA.

Benefits Quarterly

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Professor, Department of Risk Management and
Insurance, Temple University, Fox School of Business
and Management, Philadelphia, PA.

The Financier

Editors: Anne Zissu, Ph.D., Professor, Department of
Finance, Temple University, Fox School of Business
and Management, Philadelphia, PA. and Charles A.
Stone, University Paris Dauphine.

The Securitization Conduit

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- Irwin L. Gross Institute for Business & Information Technology

National Laboratory for Tourism and e-Commerce

Featured Center

National Laboratory for Tourism and e-Commerce (NLTeC)

The importance of information technology in tourism, especially of the World Wide Web, has increased tremendously over the past years — and this trend will certainly continue. New technological tools and applications and the “consumer generated media” are emerging on a daily basis and offer numerous opportunities for the tourism industry. However, since the technology itself is now available to almost everyone, its use alone does not necessarily bring the desired competitive advantage. The integration of IT into the organizational fabric is the key to success. At Temple University, the National Laboratory for Tourism & eCommerce (NLTeC) is addressing those issues through their programs in teaching, outreach and research.

NLTeC is a multi-disciplinary, multi-departmental and multi-university. NLTeC is housed in School of Tourism and Hospitality Management affiliated with Fox School of Business and Management at Temple University. The primary mission of the National Laboratory for Tourism & eCommerce is to conduct and facilitate high quality inter and multi-disciplinary research and development in those areas of tourism impacted by technology. To this end, NLTeC provides a unique and powerful setting for scholars and practitioners to consider the nature and role of information technology in tourism industry. Research by laboratory faculty, staff and fellows include the following areas: advertising, business, communications, computer science, education, environmental studies, geography, marketing, management information system, psychology, and urban and regional planning.

The primary area of research explore how marketing destinations use online tools. More recently the focus is on the lack of technological capacity in the tourism industry to deal with the changes in consumer preferences and behavior. The NLTeC researchers study online advertising practice and are able to compare marketing effectiveness and are able to better understand the dynamics of a tourism market. The internet also provides different ways for consumers to share information and experience which make this area of research very popular and applicable to the industry. A new emphasis research looks at how small and medium size tourism enterprises manage the financial issues related to the risk of catastrophic events (both natural and man-made).

NLTeC is internationally recognized as the leading research institute in this field. Its success is due largely to the many partnerships created among faculty from the University of Vienna, Institute for Tourism and Leisure Studies; Texas A&M, Department of Recreation, Park & Tourism Sciences; Istituto Trentino Cultura, eCTRL-Electronic Commerce and Tourism Research Laboratory. Also, many public and private sector tourism organizations, such as, BACVA-Baltimore Area Convention and Visitors Association, Madden Preprint Publishing, SITE Foundation – The Research Arm of the Society of Incentive & Travel Executives, Nichols Tourism Group, Northern Indiana Tourism Development Commission and Elkhart County Convention & Visitors Bureau, and the Pennsylvania Office of Tourism, have contributed to the work of the laboratory.

National Laboratory for Tourism and eCommerce is the home for the *Journal of Information Technology and Tourism*. Editor: Daniel R. Fesenmaier, Ph.D.

Featured Projects

SMART Baltimore The BACVA market research system integrates data and online tools into an information environment.

eSafe is the first comprehensive online knowledge-based system that seeks to continually improve safety, security and risk management for festivals and other events.

King Tut In Philadelphia. Working with Philadelphia's Franklin Institute to evaluate the visitor experience.

SMART Survey enables tourism organizations to design, create, conduct and manage consumer surveys via the Internet.

The Amish Bed & Breakfast website (northern Indiana) integrates virtual tours into their destination marketing.

The Heritage Tourism website (Illinois) was created as a portal for information on heritage tourism development projects.

Travel Information Studies - NLTeC is conducting a series of studies which examine on the nature of use and the impact of information for travel in the United States.

Faculty

- Dr. Daniel Fesenmaier
- Dr. Clark Hu
- Yongho Hyun
- Heejun Kim
- Dr. Seoki Lee
- Dr. Ulhas Rao
- Dr. Wesley Roehl
- Dr. Iis P. Tussyadiah

Graduate Students

- Todd Alexander
- Stacey Barlow
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Featuring Doctoral Student: Allison D. Watts



Bachelor of Science in Business Administration
Bloomsburg University, Bloomsburg, Pennsylvania
(1980)

Masters of Science, Dynamics of Organization
University of Pennsylvania, Philadelphia, Pennsylvania
(1992)

Ph.D. Candidate, ABD, Strategic Management
Temple University, Philadelphia, Pennsylvania

Q: In which areas of research are you most interested?

A: My research interests center on science, technology, and innovation in organizations. The main premise of my dissertation is that firms with a strong grounding in the basic or pure sciences (chemistry, biology, astronomy, mathematics, etc.) take a different approach to increasing their knowledge base than firms with a strong applied science foundation (computer science, engineering, medicine, etc.). Firms with the former approach (i.e. research-based pharmaceutical firms) rely on a formal understanding and training in the underlying sciences while those in the latter category (i.e. generic pharmaceutical producer) are more solution driven. These differences will be evident in the firm's emphasis on R&D spending, organizational structure, new product introductions, and financial performance.

Q: How does your research contribute to your academic discipline?

A: Technology combines theoretical scientific knowledge and practical knowledge of the problem to generate a viable solution (Dosi, 1982). My dissertation builds on Cohen and Levinthal's (1990) assertion that investments in research and development (R&D) contribute to firm knowledge. I suggest that scientific foundation affects organizational choices, new product output and financial performance. In short, the relationship between knowledge and performance differs on the basis of the underlying science. My work contributes by breaking down "science" categorically and testing hypotheses on the basis of scientific foundation.

Q: Why Temple University? How did you make the decision to pursue a doctorate from the Fox School of Business?

A: I worked for 20 years in industry — mostly accounting, financial planning and strategic planning jobs for two large corporations. The idea of pursuing a Ph.D. came while I was working on my masters'

degree but I didn't act on it for several more years. After returning from international assignments in Asia, I was interested in starting a Ph.D. program and sought a program in the Philadelphia area. Being a native Pennsylvanian, I was familiar with Temple University but didn't have much knowledge about their Ph.D. programs. Because Temple had a strong strategy program and was building their international program it seemed a good fit with my background and future interests.

Q: How does the Fox School of Business support your doctoral program?

A: Initially, the support was in the form of graduate assistantships with a variety of professors. This helped develop hands-on research skills (i.e. finding and working with data, databases) in addition to getting to know faculty — a plus later on when considering dissertation committee members. Second, teaching courses helped to develop my teaching skills and provided an income. Finally, the Temple University Center for International Business Education Research (CIBER) helped to fund my attendance at a conference in Portugal to present a paper.

Q: What are your academic plans for the future?

A: I am currently seeking a tenure track position.

Publications

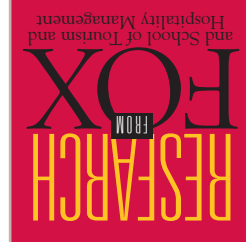
Watts, Allison, D. and Hamilton III, Robert D. (2007). "Excessive Resource Control and Strategic Alliance Failure." *The International Journal of Technology Intelligence and Planning*, forthcoming.

Chaganti, Rajeswararao, **Watts, Allison D.**, Chaganti, Radha and Treichel Monica. (2006). "Ethnic-Immigrants in Founding Teams: Effects on Prospector Strategy and Performance in Internet-Based New Ventures." *The Journal of Business Venturing*, forthcoming.

FEATURED GRANTS

Youngjin Yoo, Associate Professor, Management Information Systems with Richard Boland, Jr. and Kalle Lyytinen, Weatherhead School Of Management, Case Western University. Dr. Yoo and his associates have received \$686,366 for a three-year term from the National Science Foundation, Innovation and Organization Change Program. Their work explores the nature and processes of the emergence of distributed innovations in architecture, construction and engineering industries and the role of information infrastructure in that process. They combine field studies with multiplex, heterogeneous, and dynamic network modeling of construction projects.

Volume 2, Number 2
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A PLACE WHERE IDEAS AND COLLABORATION FLOURISH



The Cochran Research Center at Temple University Fox School of Business Management and its affiliate School of Tourism and Hospitality Management supports research and promotes partnerships among their own faculty and with others from the schools and colleges throughout the university.

Our mission is to become a leader in business and management research and community engagement to better serve our stakeholders — students, faculty, industry and the people of Pennsylvania.

To facilitate this process, staff at the Cochran Research Center help faculty to:

- Identify research opportunities matching the expertise and capacity of faculty and students;
- Sponsor a series of workshops that focus on proposal and grant writing themes and exploring new funding opportunities; and
- Assist in the compilation of proposals, budgets and communications between principal investigator, funder and university administration.

In addition to striving for excellence in research and community engagement, faculty affiliated with the Cochran Research Center are dedicated to promoting educational goals, working with students in the classroom, in the community, and in the research arena. The Cochran Research Center Online at <http://www.sbm.temple.edu/crc>

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