COMING FORWARD: INSTITUTIONAL INFLUENCES ON VOLUNTARY DISCLOSURE

MICHAEL D. PFARRER

KEN G. SMITH

KATHRYN M. BARTOL

DMITRY M. KHANIN

XIAOMENG ZHANG

Robert H. Smith School of Business

University of Maryland

College Park, MD 20742

Tel: (301) 653-0458

mpfarrer@rhsmith.umd.edu

kgsmith@rhsmith.umd.edu

kbartol@rhsmith.umd.edu

dkhanin@rhsmith.umd.edu

xizhang@rhsmith.umd.edu

November 16, 2005

COMING FORWARD: INSTITUTIONAL INFLUENCES

ON VOLUNTARY DISCLOSURE

We investigate the formal and informal institutional influences on a firm's decision to voluntarily disclose deviant behavior. With a nine-year sample that includes 170 voluntary restaters, we find that firms are more likely to voluntarily restate their earnings when informal industry pressures increase; that is, when industry leaders, peers, and network members did so previously. In contrast, firms are less likely to come forward after an increase in formal sanctions, or when other industry members were forced to restate. Additionally, the effect of industry peers and network members on the likelihood of restating varies with the status of the restating firm.

White-collar crime and corporate corruption have enormous costs to society (Simpson, 2002; Sutherland, 1949). For example, the costs of white-collar crime in the U.S. have been estimated to exceed $450 billion annually (Fitoussi, 2004), and one form of corporate corruption, accounting fraud, is estimated to exceed $40 billion (Federal Bureau of Investigation, 2004). Indeed, AIG, the world's fourth largest insurance company, lost $45 billion in market value after investigators discovered accounting fraud. When AIG restated its corporate earnings going back to 2000, it reduced profits by almost $4 billion, cutting its net worth by $2.3 billion (Teather, 2005).

Corporate corruption such as accounting fraud is often corrected through formal coercive sanctions, including indictments of top management, civil or criminal punishment, corporate bankruptcy, and even dissolution of the firm (Braithwaite, 1982; Simpson, 2002). Certainly, the Sarbanes-Oxley Act of 2002, which requires that CEOs and CFOs personally sign and approve all financial statements, was formally created to make top managers responsible to shareholders for the accuracy of their financial statements. However, legal sanctions can be expensive—*The Economist* estimated the net private cost of implementing Sarbanes-Oxley to be $1.4 trillion (2005)—and often are ineffective in controlling corporate corruption (Simpson, 2002).

An alternative to imposing formal sanctions to correct deviant behavior involves instituting informal operating norms and practices within an industry (Braithwaite and Fisse, 1983; Innes, 1999). That is, industry members may establish rules of proper behavior and withhold legitimacy from the deviant firm for violating them (Ghoshal and Moran, 1996; Ouchi, 1979; 1980). In this research, we examine the impact of formal and informal institutional forces on a firm's decision to voluntarily restate its corporate earnings. Whereas formal coercive sanctions are enforced through legal or official means and therefore may induce involuntary

compliance, informal pressures work more through imitative and normative pressures, thus encouraging *voluntary* behaviors. We hypothesize that firms will be influenced to voluntarily restate when they see industry leaders, peers, and network members doing the same. In contrast, we posit that the threat of formal sanctions by regulators will have a negative effect on voluntary disclosure. Additionally, we test to see if a firm's status in the industry moderates the impact of these institutional influences.

We contribute to the literature on white-collar crime and corporate corruption by examining how both formal and informal institutional pressures work to affect the likelihood of the firm self-correcting its deviant behavior, in this case voluntarily restating its earnings. Most of the literature on corporate corruption has ignored the institutional influences on a firm's decision to come forward, instead focusing retroactively on those who already have been formally sanctioned or on environments that are conducive to deviance (e.g., Baucus, 1994; Coleman, 1987; Finney and Lesieur, 1982). Therefore, we contribute to a long-standing question among organizational, sociological, and legal scholars: In what ways is society's ability to regulate deviance influenced by informal pressures versus formal state sanctions (cf. Ayres and Braithwaite, 1992; King and Lennox, 2000; May, 2004; Simpson, 2002)? We also contribute to the literature on firm-level attribution and explanations, which has suggested that firms come forward in order to take responsibility for their actions and to seek leniency from official sanctions (e.g., Benson, 1985; Lee, Peterson, and Tiedens, 2004; Marcus and Goodman, 1991; Salancik and Meindl, 1984). However, this literature has not looked at the potential impact of firms informally "getting a push" from industry members.

In addition, we contribute to institutional research by examining how informal pressures lead firms to voluntary disclose negative information that can damage their legitimacy, at least in

the short term. Traditionally, institutional theory has examined how firms conform to isomorphic pressures in order to gain legitimacy and enhance their chances at survival (Elsbach, 2003; Suchman, 1995; Zucker, 1987). In contrast, voluntarily restating earnings will certainly affect the firm's legitimacy and financial situation negatively in the short-term, whereas concealment may not. Thus, our research highlights a dilemma for managers: disclosure offers short-term negative consequences with potential long-term financial and reputational benefits, while concealment may offer the opposite. Finally, we contribute boundary conditions to institutional theory by examining how a firm's status may moderate the impact of institutional pressures on its decision to correct its deviant behavior.

VOLUNTARY DISCLOSURE

In order to focus our study on corrupt and deviant organizational behavior, our sample only contains corporate earnings restatements that resulted from "aggressive accounting practices", including fraud (United States General Accounting Office, 2002: 4). Our sample includes firms that were formally forced to restate earnings, firms that informally volunteered to restate earnings, and those that did not restate.[1] A firm's decision to restate its earnings has significant financial and managerial consequences. For example, the United States General Accounting Office (GAO) reported that restatements announced over the 1997-2002 timeframe resulted in more than $200 billion in market losses, including an average 18% decline in market value for the restating firm's stock in the 60 days after the announcement (2002). In addition, Srinivasan found that nearly 50% of restatements in his sample of 409 firms generated lawsuits (2005). Likewise, there were 147 CEO dismissals, 191 CFO dismissals, and 117 auditor changes.

[1] Restatements due to benign reasons, including oversight, stock splits, changes in accounting rules, discontinued operations, and human error are not included. (Please see Akhigbe, Kudla, and Madura [2005] and Srinvasan [2005] for similar samples.)

A firm's decision to restate earnings poses a classic dilemma for top managers. Managers can voluntarily come forward, admit their deviance was wrong, and hope that punishment is not severe; or they can remain silent, hoping that their deviant acts go unnoticed. However, research in management (Elsbach, 1994, 2003; Lee, Peterson, and Tiedens, 2004; Salancik and Meindl, 1984; Siegel and Brockner, 2005) and sociology (Benoit, 1995; Benson, 1985; Innes, 1999; Nagel and Swenson, 1993; Simpson, 2002) has shown that voluntary disclosure of deviant behavior may be a more effective strategy than concealment. Voluntary disclosure can mitigate punishment (Nagel and Swenson, 1993; Reason, 2005), limit sentence severity (Simpson, 2002), and may help limit damage to the firm's legitimacy (Palmrose, Richardson, and Scholz, 2004). In particular, managers facing negative performance often claim responsibility for their actions in order to show stakeholders that they are in control (Salancik and Meindl, 1984). Similarly, stock performance among firms whose managers accept responsibility, admit wrongdoing, and attempt to remedy the situation tend to outperform those firms whose managers do not come forward and take responsibility for deviant behavior (Lee, Peterson, and Tiedens, 2004; Marcus and Goodman, 1991). Regarding restatements, recent research has shown that the stocks of firms that were forced to restate by the SEC lost 9.3%, or more than twice the amount of voluntary restaters (-4.2%), in the immediate two-day window surrounding the announcement (Akhigbe et al., 2005).

Additional organizational research supports the idea that stakeholders form more favorable opinions of companies that attempt to voluntarily correct deviant behavior compared to companies that conceal it. Benoit found that Exxon's failure to accept responsibility after the Valdez oil spill led to a stronger public backlash than that directed at Johnson & Johnson in the Tylenol case (1995). In contrast to Exxon, Johnson & Johnson publicly acknowledged the

problem and acted swiftly (within 48 hours) to fix it, while Exxon attempted to shift blame to the ship's captain and even to the State of Alaska for delaying the environmental cleanup (Benoit, 1995). Similarly, Texaco, in the wake of its discrimination scandal, quickly admitted wrongdoing and put procedures in place to correct the deviant behavior. Although short-term reactions among stakeholders were decidedly negative, Texaco's disclosure and acceptance of responsibility led to its being viewed as a model of employee relations in less than five years (Singer, 2004). Thus, while voluntary disclosure may first look unappealing to a firm, it actually may be the best course of action for the organization that wants to limit its losses and minimize damage to its legitimacy (Elsbach, 2003; Suchman, 1995; Zucker, 1987)[2].

We recognize that the decision to voluntarily restate corporate earnings is likely affected by multiple factors, including personal characteristics of decisions makers (Zhang, Bartol, Smith, Pfarrer, and Khanin, 2005), organizational incentives and oversight (Beneish, 1999; Benoit, 1995; Healy, 1985; Richardson, Tuna, and Wu, 2002; Simpson, 2002), and institutional or social factors. Below, we focus on the informal and formal institutional and firm-level status variables that influence a firm's decision to voluntarily correct its deviant behavior.

INFORMAL AND FORMAL INSTITUTIONAL INFLUENCES ON VOLUNTARY DISCLOSURE

Institutional theory examines the role of social pressures in shaping firm behavior (Ingram and Simons, 1995; Oliver, 1997). Informal institutional pressures to correct deviant

[2] The SEC has recently indicated that it will "reward cooperation" and self-reporting while simultaneously increasing punishment for those firms that do not cooperate with investigations (Reason, 2005: 2).

Even the NCAA stresses the importance of voluntary disclosure:

Regulation 32.2.1.2 Self-Disclosure by an Institution. Self-disclosure shall be considered in establishing penalties, and, if an institution uncovers a violation prior to its being reported to the NCAA and/or its conference, such disclosure shall be considered as a mitigating factor in determining the penalty (NCAA, 2005).

behavior arise from the behavior of industry leaders, peers, and network associates. Amid uncertainty about the ramifications of disclosing deviant behavior, the focal firm will observe how other industry members have dealt with deviance. In other words, when the focal firm sees other firms in the industry voluntarily restating earnings, it may also be compelled to do so.

Mimetic Influences

Imitating other firms' behavior occurs as a result of uncertainty, or when a clear course of action is unavailable (Mizruchi and Fein, 1999). The decision to voluntarily correct deviant behavior is clearly fraught with uncertainty, given the potential negative performance and legitimacy implications associated with disclosure or of subsequently getting caught (Akhigbe et al, 2005; Palmrose et al., 2004; Wu, 2002). Such uncertainty will lead the firm to check competitors' actions and responses (Peteraf and Shanley, 1997; Terlaak and King, 2002). Several research studies have shown that in a response to uncertainty, firms will imitate similar, large, and/or successful firms (e.g., Deephouse, 1996; Fligstein, 1985; Greve, 2000; Haunschild and Miner, 1997; Haveman, 1993). In the case of voluntarily correcting deviant behavior, the focal firm may imitate other firms in its industry that have previously come forward, including industry leaders and peers.

For example, in a longitudinal study of 165 savings and loans (S&Ls), Haveman found that specific S&Ls tended to mimic large and highly profitable S&Ls, i.e. industry leaders (1993). The change in behavior was primarily done in response to uncertainty, and that for many firms it was a response to the changing norms in the industry (cf. March, 1981). Similarly, Haunschild and Miner observed that firms were more likely to hire a particular investment banker when many other similar firms had already done so. In addition, the likelihood of using a given investment banker increased when previous users were large and successful (1997).

The above theory and empirical tests suggest that when important industry leaders come forward or when many firms in an industry voluntarily correct deviance, these actions may influence the focal firm to do the same. Specifically, when a focal firm sees industry leaders and peers voluntarily restating their corporate earnings, the likelihood of similar self-correcting behavior is enhanced.

Hypothesis 1a (H1a): Industry leaders that voluntarily restate will increase the likelihood that a focal firm will voluntarily restate its earnings.

Hypothesis 1b (H1b): The greater the number of voluntary restaters in the industry, the greater the likelihood that a focal firm will voluntarily restate its earnings.

Network Influences

Firm behavior can also be influenced by social networks, or a set of relationships in an industry (Granovetter, 1985; Gulati, 1998). These networks connect firms by personal relations (Granovetter, 1985), serve as conduits for social and technical information (Gulati, 1998), and can facilitate diffusion of acceptable behaviors (Davis, 1991). Network relationships also distribute norms, values, and procedures to members as signals to conform due to other members in a social group suggesting it is the right thing to do (DiMaggio and Powell, 1983; Ghoshal and Moran, 1996). Firms can experience these informal pressures through personnel exchange, board interlocks, membership in trade associations, and sharing similar auditors.

Given the above, it is plausible to postulate that stronger, closer ties among firms will lead to stronger self-policing within the industry. Abrahamson and Rosenkopf (1997) discussed this “trickle down” effect, stating that industry influence informally persuades other members to adopt specific norms and standards. Similarly, Edelman and her colleagues discovered that the overarching professionalism and network ties in the legal field helped diffuse informal practices

regarding firm arbitration procedures into de facto “laws of the land”, even though no formal laws regarding these procedures had ever been passed (1992, 1999). In a similar vein, Rao, Davis, and Ward (2000) discovered that the interrelation of company boards (interlocks) had an impact on whether or not a firm left the NASDAQ to join the NYSE, irrespective of performance implications.

It is apparent, then, that firm decisions to correct deviance are not based solely on economic expectations, but also take social context into account. Thus, when the focal firm views network members voluntarily self-correcting deviance, such behavior influences it to potentially do the same under similar circumstances. Specifically, if network associates are voluntarily restating earnings, they are sending a signal to the focal firm that it too should engage in this self-correcting behavior.

Hypothesis 1c (H1c): A direct network connection between a focal firm and other firms in an industry that voluntarily restated their earnings will increase the likelihood that a focal firm will voluntarily restate its earnings.

Formal Influences

Institutional theory predicts that firms will not only be influenced by informal pressures like those described above, but they will also face formal, coercive pressures to conform to societal standards. Scott (2001) notes that the state’s ability to impose its will upon organizations through the use of sanctions is a major regulatory mechanism of control, and one that can induce conformity. Similarly, DiMaggio and Powell (1983) and Greening and Gray (1994) note that organizations may view regulatory pressures as force or persuasion to conform to expected behaviors.

Despite the relationship between formal institutional forces and conforming behavior, we predict that coercive pressures will *decrease* the likelihood of voluntary restatements. In other words, the impact of formal sanctions on other members of the industry will lower the chances that a firm will *voluntarily* correct its deviant behavior. Donaldson and Dunfee note that "coercion can invalidate consent" (1994: 263). Perhaps this occurs because the focal firm's motivation to come forward is weakened, not enforced, after viewing the ramifications of induced restatements. That is, the spirit of self-policing can "totally evaporate" if the law is too oppressive (Harvard Law Review, 2003: 2141).

Research in sociology has strongly supported the view that coercion does not create compliance among corporate offenders (cf. Simpson, 2002). Sanctions may over-punish firms, resulting in a backlash from other industry members who then view the law as heavy-handed and unfair. When the SEC forces an industry peer or leader to restate its earnings, other members of the industry may recoil from the negative effects of the enforcement and avoid voluntarily restating themselves (Reason, 2005). Thus, the coercion may actually have the opposite of its intended effect. Instead of influencing firms to self-correct their deviant behavior, the impact of the coercion may in fact drive them to conceal their wrongdoing and avoid detection. The business press supports this notion. Given the recent events surrounding firm and executive prosecutions, several firms feel that the SEC as operating "outside of judicial review and scrutiny" (Reason, 2005: 3) and that the "calculus of cooperation [between firms and the SEC] may be heading in the opposite direction" (Reason, 2005: 3).

Thus, firms considering whether they should voluntarily correct their deviant behavior may be influenced by the prior examples set by the SEC and other regulators in formally sanctioning other firms. Having witnessed how forced restatements affect other firms'

performance, image, reputation, and legitimacy in an industry, a focal company may decide to not voluntarily restate its earnings in order to avoid similar damages.

Hypothesis 2 (H2): The greater the number of forced restaters in an industry, the lesser the likelihood that a focal firm will voluntarily restate its earnings.

MODERATING ROLE OF FIRM STATUS

A firm's status can moderate the impact of institutional influences on its decision to correct its deviant behavior (Phillips and Zuckerman, 2001). Status is a measure of a firm's perceived quality vis a vis its peers (Podolny, 1993). Firm status can be related to firm performance, firm size, firm rankings in particular attributes, firm reputation, and the quality of a firm's relationships (Fombrun, 1996; Podolny, 1994; Washington and Zajac, 2005).

As a focal firm's status in the industry rises, the impact of informal institutional pressures on it to correct its deviant behavior will wane. Higher-status firms are not worried that they may suffer rejection based on nonconforming behavior (Deephouse, 1999; Phillips and Zuckerman, 2001) because they have accumulated "idiosyncrasy credits" that allow them to absorb legitimacy challenges without penalty (Deephouse and Carter, 2005; Hollander, 1958). Higher-status firms are therefore "emboldened to deviate" from industry norms (Phillips and Zuckerman, 2001: 380). In contrast, lower-status firms are concerned with the legitimacy of their actions and therefore will take actions to "demonstrate their conformity to accepted practice" in the industry (Phillips and Zuckerman, 2001: 382).

Regarding formal pressures, the negative impact of previous forced restatements and the threats of formal legal sanctions to induce voluntary disclosure may be strengthened as a firm's status increases. That is, if formal sanctions reduce the likelihood of coming forward for the average firm, this impact will be magnified for firms of higher status, which may fear being

singled out due to their prominence within the industry (Brooks, Highhouse, Russell, and Mohr, 2003). In contrast, the negative impact of formal sanctions on voluntary disclosure may be weakened for lower-status firms. That is, the desire to conform and avoid legitimacy challenges may somewhat override concerns about the law's heavy hand.

Thus, higher status may mitigate the positive impact of informal pressures from industry leaders, peers, or network members on voluntary restatements. For lower status, the reverse is true: the impact of informal pressures on self-correcting deviant behavior may be strengthened due to a stronger desire among these firms for legitimacy and acceptance.

Hypothesis 3a (H3a): The positive relationship between informal institutional influences and the likelihood of a focal firm's voluntarily restating its earnings will decrease with the focal firm's status.

Hypothesis 3b (H3b): The negative relationship between formal institutional influences and the likelihood of a focal firm's voluntarily restating its earnings will increase with the focal firm's status.

METHODS

Data

The sample consists of 2,532 companies over an eight-year timeframe, 1994-2001. The companies were selected based on the population of companies in the Execucomp database, which draws data from annual financial statements, proxy statements, and SEC 10-k annual reports. The sample is heterogeneous, with firms representing nearly 100 four-digit SIC codes. The 2,532 companies represent current and past members of the S&P 1,500. The S&P 1,500 consists of those firms in the S&P 500, the S&P MidCap 400, and the S&P SmallCap 600[3]. In 2005, the index represents approximately 90% of U.S. market capitalization with company

capitalization varying from $40 million to $382 billion (median = $1.95 billion). By using current and past members of the S&P 1,500, our sample has asset ranges from $214,000 to $105 billion (median = $931 million). Thus, our sample contains only publicly traded firms that, while varied in size across the sample, are relatively large in comparison to the general population of US firms. Nevertheless, given that only public firms formally restate their earnings, our sample appears to be representative of this universe as a whole.

We conducted t-tests to check for differences between those firms labeled as voluntary restaters and the remainder of the sample. Tests on firm size (assets [$t = 1.42$, $p < .16$], number of employees [$t= -0.03$, $p < .96$]) firm performance (return on sales [$t = -0.14$, $p < .88$), and overall firm health (Z-score [$t = 1.11$, $p < .26$]) showed no significant differences between voluntary restaters and the rest of the sample.

The restatement list was taken from the 2002 GAO report, *Financial Statement Restatements: Trends, Market Impacts, Regulatory Responses, and Remaining Challenges*. The GAO reported 919 firm restatements in the five and one-half year period ending June 2002 (and prior to the enactment of Sarbanes-Oxley). Firms in the database restated their earnings due to accounting irregularities including aggressive accounting practices, intentional misuse of facts, and fraud. That is, restatements due to benign reasons (e.g., oversight, stock splits, changes in accounting rules, human error, and discontinued operations) are not included in our sample. The GAO list was also compared to similar lists collected by Wu (2002), Richardson et al. (2002), and the Huron Consulting Group. Of the 919 cases listed in the GAO report, Execucomp provided information on 385.[4]

---

[3] More detailed information is available at www.standardandpoors.com/indices.

[4] 230 companies are labeled as restaters by GAO, of which 98 were labeled as voluntary restaters. Since a number of companies restated more than one year of earnings, restatement years, or events, total 385, while voluntary restatement events total 170.

In order to confirm that the restatement cases were due to aggressive and/or irregular behavior, three coders simulated the GAO search and classification process. Using Lexis-Nexis, 10-k statements, annual reports, and conversations with the GAO, the SEC, and one of the above authors (Wu), the coders investigated each company to determine the announcement date(s) of the expected restatement and the reason(s) for the restatement, and recorded it. After completing 385 case studies, and consistent with GAO, the coders confirmed that each company restated future earnings for aggressive reasons. In particular, the coders confirmed that instances of aggressive accounting practices in the sample were confined mostly to revenue recognition (40%) and cost or expenses (38%). The remainder of the restatements pertains to fraudulent accounting for in-process R&D, misclassification of assets, merger and acquisition accounting, and internal restructuring (GAO, 2002).

At the same time, the coders labeled 170 of these 385 restatement events as voluntary and 215 as forced. Voluntary restatements were deemed to occur when a firm proactively announced that it was restating earnings without prodding from the SEC or other regulatory agencies like FASB. The GAO sample provided the announcement date of each restatement. After reading announcements via media wires and company reports, each coder independently labeled a restatement as “voluntary” or “forced”. After conferring with each other, the coders agreed that 170 of the 385 announcements should be labeled “voluntary”, whereas the GAO had originally coded 149 restatements as voluntary. With a sub-sample of 30 overlapping cases, where all three coders reviewed the same case material, there was 90% agreement among the coders as to the voluntary versus forced classification.

Dependent Variable

We measure firms' voluntary disclosure of deviant behavior by their propensity to voluntarily restate earnings. The dependent variable, *voluntary,* is a dichotomous variable measured at the firm-year level. Thus, every firm is at risk to voluntarily restate in a given year.

Independent Variables

We lagged each of our independent variables to rule out reverse causality (Kenny, 1979). Given that our study examines the impact of informal and formal institutional influences, we measure all of our variables at the four-digit SIC code level.

Leader influences. The impact of industry leaders' voluntarily correcting deviant behavior is defined as the extent to which firms that previously voluntarily restated earnings held leadership positions in the industry. It is measured by a dichotomous variable that labels a firm "1" if it was in the industry's 75th percentile or greater in ROA *and* also voluntarily restated its earnings in the prior year. Haveman (1993) and Haunschild and Miner (1997) also used ROA in their studies of mimetic influences on firm behavior.

Peer influences. Peers' self-correction of deviant behavior is defined as the extent of previous voluntarily restatements by firms in a given industry. It is measured as the *count* of these voluntary restaters in a given industry in the prior year. Several institutional studies have used this as a measure of mimetic behavior, including Guillen (2002), Haveman (1993), and Haunschild and Miner (1997).

Network influences. Network relationships personally connect firms (Granovetter, 1985), can serve as transporters of information (Gulati, 1998), and can facilitate diffusion of behaviors (Davis, 1991; Haunschild, 1992). In this research it is measured as a dichotomous variable (*network*) that returns "1" if another firm in the industry voluntarily restated its earnings previously *and* shared the same auditor with the focal firm in the prior year. We hypothesize that

the focal firm is influenced by the network ties established by sharing the same accountant with firms in the industry (Lee and Pennings, 2002), which will lead to a voluntarily correction of deviant behavior.

Formal influences. Governmental and regulatory pressures can impose structure on firms and induce them to conform through the threat of sanctions (Rao and Neilsen, 1992; Scott, 2001). However, these forces may have the opposite of the desired effect on voluntary behavior. We hypothesize that the focal firm will be less likely to voluntarily restate its earnings after having witnessed other industry members being forced to restate theirs. We measure regulatory forces (*forced*) as the count of forced restaters in a given industry that were previously forced to restate by the SEC or another regulatory body in the prior year.

Status. We measure status as the *rank* of the number of the firm's employees vis a vis other industry members. Size and rank have been measures of status or prestige in several institutional studies (e.g., Haveman, 1993; Rindova, Williamson, Petkova, and Sever, 2006; Terlaak and King, 2002). We hypothesize that an increase in status will decrease the impact of informal institutional pressures, but magnify the impact of formal sanctions on the likelihood of voluntary disclosure. In other words, high status will decrease the likelihood that leaders, peers, and network members will positively influence the firm's decision to voluntarily restate its earnings; but it will amplify the negative impact of formal influences on the firm's decision to come forward. Please note that rank is often reverse coded (i.e., the firm with the most employees in the industry is ranked 1 [cf. Rindova et al., 2005].) However, in order to properly interpret the effect of status on the other independent variables, we have *not* reverse coded rank (i.e., the firm with the *least* employees in the industry is ranked 1, and the firm with the *most* employees is ranked *n*, with n equal to the total number of firms in the industry.) Thus, we

interpret a negative coefficient on the interaction term as signifying that an increase in status decreases the impact of the informal institutional influences on the focal firm's decision to voluntarily restate, but further *increases* the impact of formal pressures. In addition, the interactions between status and the other covariates are standardized. Rank variables are rectangularly distributed; that is, the magnitude in the difference between a rank of 1 and 2 or 4 and 5 may not be equal, and is effectively unknown. Thus, ranked variables are unlikely to produce linear relationships with other variables (Cohen and Cohen, 1983). By standardizing the interactions, we provide better interpretation of the results.

Control Variables

Firms' decisions to voluntarily correct deviant behavior may be influenced by individual (Zhang et al., 2005) and firm-level factors (Beneish, 1999; Benoit, 1995; Healy, 1985; Richardson et al., 2002; Simpson, 2002). In order to show the impact of institutional forces above and beyond that of other forces, we control for these pressures by using measures of executive compensation and firm performance.

Option percentage. Linking pay to performance can often lead to risky strategies and decision-making (Larcker, 1983; Wiseman and Gomez-Majia, 1998), which in turn may lead to firms avoiding voluntarily restating their earnings. Since restatements negatively impact stock prices (GAO, 2002), managers with options dependent on these stock prices would likely avoid voluntarily correcting this deviant behavior. The variable, *option*, measures option compensation as the ratio of the TMT's mean option value to total compensation (salary + bonus + options + additional income). Stock options are normally valued using two methods, either the Black-Scholes model, or the SEC method. We opt for the Black-Scholes method due to its prevalence

in capital markets models and its long-tenured (30-plus years) position as a proper evaluation of stock option value.

Firm performance. Previous firm performance may influence a firm's desire to voluntarily correct deviant behavior. That is, firms that are performing well may be less worried about the negative implications of coming forward, while poorly performing firms may fear the harmful effects on performance and thus decide to conceal their transgressions.

Performance may also affect legitimacy. Highly performing firms may be viewed as more legitimate, *ceteris paribus*, given their ability to better acquire resources (Deephouse, 1996). Similarly, poorly performing firms may have a negative image among stakeholders, which would hurt their legitimacy, irrespective of how they are conforming to social norms and expectations. In our model, we control for firm performance with the variable *ROS*, signifying return on sales.

Multiple restaters. We add a third control variable for the impact of multiple restatements by one firm. Our sample includes 170 voluntary and 215 forced restatements. We control for multiple restatements by a given firm with the variable *multiple*. We recognize that multiple restatements by a given firm can have an undue impact on the focal firm's likelihood of volunteering bad news. Yet we also recognize that these multiple restatements are often independent events (e.g., restatements occurring in 1995 and 1999) and their frequency can impact a firm for a given year, or over several.

Estimation Procedures

A typical procedure for estimating longitudinal data is to use a hazard model (Hellman and Puri, 2000). We use the Cox proportional hazards regression model (Cox, 1972) to test our hypotheses. The Cox model asserts that the hazard rate for the *j*th subject in the data is:

$$h(t|x_j) = h_0(t)\exp(x_j\beta_x)$$

where the regression coefficients β_x are to be estimated from the data (Cleves, Gould, and Gutierrez, 2004). Hazard models in general account for the occurrence or nonoccurrence of an event as well as the timing of that event. For our purposes, we measure whether or not a firm voluntarily restated its earnings during the eight-year period 1994-2001.

Cox models, unlike parametric hazard models (e.g., Weibull or Gompertz), make no assumptions about the shape of the hazard over time (Cleves et al., 2004). Fewer restrictions allow for flexibility in analyzing longitudinal data where hazard shape assumptions are difficult to make. Because of this, the Cox model provides a conservative test of regression coefficients. Other hazard models may distort the estimated hazard rate, and thus they may be less reflective of the data if our assumptions of the shape of the hazard curve turn out to be incorrect (Cleves et al., 2004; Hellman and Puri, 2000). The Cox model also produces "high quality estimates" in large-sample studies, even when most observations are censored (Ferrier, Smith, and Grimm, 1999: 381; Tuma and Hannan, 1984). Finally, the Cox model allows for serial correlation through the use of time-varying covariates (Ferrier et al., 1999). Given that our sample consists of pooled time series data with repeated measures, i.e., each firm has eight years of data and can restate its earnings, or "fail" multiple times, this feature of the Cox model allowed us to observe multiple observations of the same firm that are not independent across time periods.

RESULTS

Table 1 presents descriptive statistics and a correlation matrix for the covariates and control variables used in our survival analysis.

Insert Table 1 about here

Table 2, columns 1-5 report the results of the Cox proportional hazard model as well as the coefficients and hazard ratios for each of the models.[5] We refer to column 1 when discussing the main effects and the impact of institutional influences on voluntary disclosure.

Insert Table 2 about here

H1a tested the influence of leader behavior on the focal firm's likelihood of coming forward ($\beta = 1.880$, $p < .001$). Industry leaders that previously voluntarily restated their earnings increased the likelihood that a focal firm will follow suit. This coefficient corresponds to more than a six-fold increase in the likelihood of the focal firm coming forward (HR = 6.55). Thus, leader behavior appears to strongly impact the focal firm when deciding to self-correct its behavior, i.e., when deciding to voluntarily restate or not.

H1b focused on the impact of the frequency of mimetic forces on a firm's likelihood of voluntarily restating and self-correcting its deviant behavior. Our results show support for this hypothesis ($\beta = .594$, $p < .001$). Namely, as the number of prior voluntary restaters in an industry increases, so does the likelihood that a focal firm will voluntarily restate its earnings. By examining the hazard ratio, we see that an increase in previous voluntary restaters nearly doubles the likelihood of the focal firm coming forward (HR = 1.81).

Similarly, our results also support our test of the impact of network relationships (H1c) on a firm's desire to voluntarily restate its earnings ($\beta = 1.706$, $p < .001$). Specifically, industry

[5] Hazard model coefficients are difficult to interpret beyond their sign and significance. The hazard ratio (HR) tells us how much the likelihood of voluntarily restating will increase (HR > 1.00) or decrease (HR < 1.00) for a unit increase in an independent variable. For example, leaders that voluntarily restated in the prior year increased the likelihood of the focal firm voluntarily restating its earnings by more than six times (HR = 6.55).

peers that voluntarily restated and that share auditors with the focal firm increase the likelihood that the focal firm will come forward and amend its deviant behavior. The hazard ratio corresponding to this result shows a near six-fold impact on the focal firm coming forward (HR = 5.51). Peers, leaders, and networks therefore have significant impact on the future likelihood of self-correcting behavior through voluntary disclosure. Importantly, these results remain robust across all models in Table 2.

As we have mentioned throughout this paper, firms either voluntarily restate or are forced to do so by regulatory bodies like the SEC. *Forced* is a measure of the number of firms in the industry in the prior year that have been coerced to restate their earnings by the SEC or other regulatory body. Our results support the prediction we made in H2, that industry peers who were previously forced to restate would have a negative impact on future voluntary disclosure of wrongdoing. Previous forced restaters decrease the likelihood of the focal firm coming forward by 30% ($\beta = -.0358$, $p < .01$; HR = 0.70). Similar to our tests of informal institutional influences, the negative impact of formal sanctions on voluntary disclosure remains robust across all models in Table 2.

Finally, our tests of the moderating role of status on the impact of informal and formal institutional influences (H3a, H3b) were mixed. An increase in status negatively affects the impact of peers on voluntary disclosure (Table 2, Model 3: $\beta = -0.025$, $p < .01$) as we predicted, decreasing the likelihood by about 25% (HR = 0.74). However, our test of the impact of status on leader influences was non-significant, despite the anticipated negative sign (Model 2). Further, our test of the impact of status on network influences showed the opposite effect (Model 4: $\beta = 0.032$, $p < .05$). That is, the positive relationship between network affiliation and the likelihood of a focal firm's voluntarily restating its earnings was enhanced nearly 50% by an increase in the

firm's status (HR = 1.47). Finally, our test of the interaction of status and forced restaters was non-significant (Model 5). Thus, H3b was not supported.

Robustness Checks

It is important to note that our results are robust across several variable proxies and analyses. In Table 3, we re-ran the models with *forced* restaters as the dependent variable. Note that none of our institutional or contextual hypotheses are supported when we switch to the forced restater dependent variable except that the count of previous voluntary restaters now decreases the likelihood of future forced restaters by about 40% ($\beta = -0.934$, $p < .001$; HR = 0.39), and the number of previous forced restaters in an industry nearly doubles the chances of future forced restatements ($\beta = 0.556$, $p < .001$; HR = 1.76). These two results are the inverse of those in Table 2, and suggest that previous volunteers do not increase forced restatements, but that previous forced restatements may encourage regulators to further investigate a given industry. The results of Table 3 also suggest that the informal institutional environment drives voluntary decisions and not coercive decisions, which is what theory would predict.

We also substituted several measures to check for consistency: *Count* and *forced* were measured using a cumulative sum of prior voluntary and forced restaters with no impact on results. We alternated the number of employees for ROA in measuring our *leader* variable, as well as changing the percentile from 75^{th} to 90^{th}. Neither change affected our results. We also used rank measures of assets and ROA in place of employees in measuring our *status* variable. Finally, we ran the model using the 149 restaters labeled *voluntary* by the GAO in place of our 170. Results remained highly similar.

Given that our results are contingent on the behavior of like-firms, we also ran tests using two-digit SIC codes instead of four, as well as models that dropped industries with less than 4

members. Neither action affected our results. We also were sensitive to the strong rise in restatements over the last few years (Huron, 2002). Financial restatements trebled from the 1994-1997 to 1998-2001 periods (Richardson et al., 2002; Wu, 2002), including a 22% increase in restatements from 2001 to 2002 alone (Huron, 2002). We ran piecewise models limiting testing to the 1994-1997 period and the 1998-2001 period. Our results were unaffected. Last, given the nature of our dependent variable and longitudinal design, the analysis was also run using discrete event history techniques as well as other types of parametric hazard models with no change in results. We ran repeated measures logit and probit models with robust estimators of variance in place of the Cox model. While our results with the discrete time event history techniques were often stronger, we report the Cox regressions to show that our results are robust under a more conservative test. (All analyses that are not shown are available from the first author.)

DISCUSSION

Our study shows that the decision to self-correct deviant behavior, in this case by voluntarily restating earnings, is positively influenced by informal institutional forces. In contrast, previous formal sanctions decrease the likelihood of a firm voluntarily restating its earnings. We also find that higher status reduces the impact of prior restaters on the likelihood of voluntary disclosure. However, an increase in status increases the impact of the network effect on coming forward.

Unlike previous research on corporate corruption and firm-level attribution that has ignored the institutional impact on a firm's decision to correct deviant behavior, this research helps identify the extent to which coming forward is based on the behaviors of others. We also address a key question in dealing with white-collar crime and corporate corruption: In what ways is society's ability to regulate deviance influenced by informal pressures versus formal

state sanctions? We find that both informal and formal pressures influence voluntary behavior, albeit in contradictory ways. This has important ramifications for public policy when deciding how best to handle corporate crime as well as for managers who are contemplating voluntarily admitting wrongdoing. Finally, our study extends institutional research by illuminating how conformity may *threaten* legitimacy and survival in the short-run, despite its perhaps long-term benefits. Voluntary disclosure poses a dilemma for managers: In opting to come forward, the firm will potentially face short-term financial loss and challenges to its legitimacy, even if the decision is ultimately more beneficial than concealing firm deviance and subsequently getting caught by officials. We also reveal the potential moderating effects of firm status on the impact of informal social pressures.

In three tests of informal influences on voluntary disclosure, we found that firms are more likely to voluntarily restate their earnings when they see industry leaders, peers and network members doing so. Imitative behavior often occurs under conditions of uncertainty (DiMaggio and Powell, 1983; Haunschild and Miner, 1997; Haveman, 1993); that is, when a clear course of action is unavailable (Mizruchi and Fein, 1999). Firms are unsure of whether their decision to voluntarily come forward will be the right one. Instead of disclosing deviant behavior, they could deny any wrongdoing or simply remain silent. By coming forward, firms may be reducing the uncertainty about the consequences of their actions. It would be interesting to know if there is value in being the first to voluntarily disclose versus the last.

Similarly, our test of network relationships showed that the focal firm engages in similar behaviors of those with which it shares a connection, in this case, the same accounting firm. It would be interesting to examine whether other types of formal and informal social ties, including personnel exchange, board interlocks, and belonging to the same clubs, educational institutions,

and professional associations would affect a firm's decision to disclose negative information. It would also be important to examine whether the actual motivation to come forward comes from advice from accounting firms or purely through the connection to other firms.[6] While past research has often focused on the positive impact of networks, future research could look more at the proclivity for firms to imitate negative behaviors due to their associations with other network members.

Our hypothesis of formal influences, the tendency for a focal firm to not voluntarily restate after other industry members were forced by regulators to do so, was also supported. Whereas past institutional research has shown the impact of coercive forces on firm conformity (e.g., Konrad and Linnehan, 1995; Rao and Neilsen, 1992; Stern, 1979), we believe that it has not focused exclusively on voluntary behaviors. Coercion implies involuntary action to a certain extent, i.e., firms that fail to comply will be punished. But our study shows that past formal sanctions do not encourage *voluntary* correction of deviance. These results support recent research in sociology that has challenged the notion that official penalties serve as a strong deterrent to corporate corruption (Simpson, 2002). Of course, it is possible that when other industry members are forced to restate, firms stop their aggressive accounting practices. However, Table 3 reports that prior forced restaters are positively related to the likelihood of a focal firm being forced to restate. Thus, formal sanctions against firms in an industry lead to more formal sanctions.

[6] Six accounting firms accounted for 99.4% of the restatements in our sample. Of these six, a binomial probability test reveals that one (PricewaterhouseCoopers [PWC]) is involved in significantly more restatements than would be expected, given the percentage of companies each represents in the entire sample. For example, PWC represents 20.1% of all firms in the sample, but 27.9% of restating firms ($p < .001$). We re-ran our data controlling for this difference and found no change in results. Thus, there is no "PWC effect" to overshadow the network relationship between firms that shared an auditor and also voluntarily restated earnings.

In contrast, Table 2 reports that prior forced restaters are negatively related to the likelihood of voluntary disclosure. The two results together suggest that formal sanctions are adversely affecting voluntary disclosure and not correcting accounting practices. An interesting extension to our current study could look at the timing of both informal and formal institutional forces on controlling corporate deviance. Perhaps the timing of this "carrot and stick approach" is more important than the use of informal or formal pressures alone (cf. Ayres and Braithwaite, 1992; Braithwaite, 1989).

In addition, our findings relating voluntary disclosure and firm status are interesting. Specifically, higher status seems to *decrease* the impact of peer behavior on the focal firm's decision to voluntarily restate its earnings, but it seems to *increase* the network effect. In other words, higher-status firms are less impacted by peer pressures, but those that share auditors with other voluntary restaters are more likely to come forward. Further research should investigate this apparent paradox. Perhaps the closeness of ties exhibited in the network relationships has a larger impact on higher-status firms. That is, status may afford them certain privileges or positions of authority in the network, and failure to comply with informal rules could cost them respect, legitimacy, and social standing among other network members. In contrast, high status firms may not feel the social pressure from other industry members, perhaps because they feel their legitimacy is not vulnerable.

Institutional theory has often been criticized for dealing only with institutional environments like education (Meyer, Scott, and Strang, 1987), government (Meyer and Scott, 1983; Tolbert and Zucker, 1983) and with highly regulated industries (Deephouse, 1996; Haveman, 1993). This paper helps to counter such criticism. We are utilizing data from over 2,500 firms in nearly 100 four-digit SIC codes across a complete economic cycle (1994-2001),

and our results demonstrate a strong impact of different types of institutional forces, especially mimetic and normative.[7] In addition, our setting provides a departure from traditional institutional research by focusing on how institutional forces and socialization mechanisms play a role in the self-policing of public industries as well as influencing individual firms to heed these patterns of voluntary disclosure, despite their potential negative, short-term implications.

Strengths of this research include a focus on the diverse sample of public firms, a longitudinal design over a full market cycle (1994-2001), robust measures of institutional forces and firm-level status, robust statistical techniques, and the examination of an important and timely decision for many firms to voluntarily correct deviant behavior. Still, our paper isolated a specific type of deviance. We emphasized the impact of institutional forces on deviant behavior for which the firm was directly responsible. Future studies could look at the performance, image, reputation, and legitimacy impact on firms that are victims of accidents, errors, or deliberate wrongdoings directed *at* them. Would the influence of institutional forces to come forward and disclose these unfortunate events be as strong as we have seen in this research?

Similarly, tests that uncover the limits of institutional forces on firm behavior would be interesting. Given that voluntarily coming forward and correcting deviant behavior is inherently a negative event, albeit a supposedly *less* negative one for the firm facing bad news (Akhigbe et al. 2005), research that delves into the reasons behind why some firms may not disclose negative information despite pressures from others would add strength to current institutional research. A key question is, what are the boundary conditions of voluntary disclosure? Research on

[7] For a review of empirical tests of mimetic, normative, and coercive forces in organizational research, see Mizruchi and Fein, 1999. Like the authors, we recognize that each of these three forces is not necessarily empirically distinguishable. Indeed, DiMaggio and Powell have admitted such (Mizruchi and Fein, 1999). Multiple studies since the "Iron Cage" publication have tested these forces in varying combinations, and many have also used mimetic forces to represent normative forces, or coercive to represent mimetic, and so on. Regardless of the ambiguity, however, we feel that our tests are a robust measure of institutional forces.

attention (Ocasio, 1997; Hoffman and Ocasio, 2001), abandonment (Abrahamson and Fairchild, 1999; Strang and Macy, 2001; Rao, Greve, and Davis, 2001) and diffusion of responsibility (Darley and Latane, 1968; Jones and Foshay, 1984) have begun to get at this, and similar questions: Do firms not come forward because they feel enough others have, thus allowing them to hide? After enough volunteers, do the regulators' media's, and public's attention wane? Or do firms not come forward because they see that the benefits of volunteering are really not that great? Or perhaps, do firms not come forward because they think someone else will, thus taking the blame for them?

In conclusion, our paper contributes to a nascent research stream in the organizational literature by investigating the impact of institutional or social influences on a firm's proclivity to come forward and voluntarily address behavior that is deemed deviant and illegitimate by other industry members. Our results indicate that firms are more likely to voluntarily restate when industry peers, industry leaders, and network members did so previously. We also find that formal pressures to come forward have the opposite of their intended effect: Official sanctions actually *deter* firms from correcting deviant behavior. Last, although our tests regarding status are somewhat inconclusive, we find that higher-status alters the impact of informal pressures on voluntary disclosure, albeit in contrasting ways.

We hope that our findings serve as an anchor point to further research on voluntary disclosure as well as the factors that impact this difficult decision. Understanding the causes and consequences of the voluntarily disclosure of organizational deviance to stakeholders and society could enhance the managerial decision-making process over this important issue as well as the design of public policy. And by identifying the extent to which voluntary disclosure is based on the behaviors of others, we begin to inform social, legal and normative bodies of the institutional

forces that prevail in voluntary decisions. Further, by examining society's promotion of initial voluntary behavior we can possibly predict cascading non-coercive institutional effects in other social settings. Understanding the effects of these forces could have significant impacts on the self-policing mechanisms of industries and the subsequent voluntary behavior associated with other social problems.

REFERENCES

Abrahamson, E. and G. Fairchild

1999 “Management fashion: Lifecycles, triggers, and collective learning processes.” Administrative Science Quarterly, 44: 708-740.

Abrahamson, E. and L. Rosenkopf

1997 “Social network effects on the extent of innovation diffusion: A computer simulation.” Organization Science, 8: 289-309.

Akhigbe, A., R.J. Kudla, and J. Madura

2005 “Why are some corporate earnings restatements more damaging?” Applied Financial Economics, 15: 327-336.

Ayres, I., and J. Braithwaite

1992. Responsive Regulation: Transcending the Deregulation Debate. New York: Oxford University Press.

Baucus, M.S.

1994 “Pressure, opportunity and predisposition: A multivariate model of organization illegality.” Journal of Management, 20: 699-721.

Beneish, M. D.

1999 “Incentives and penalties related to earnings overstatements that violate GAAP.” The Accounting Review, 74: 425-457.

Benoit, W.L.

1995 “Accounts, Excuses, and Apologies: A Theory of Image Restoration Strategies. Albany: State University of New York Press.

Benson, M.L.

1985 “Denying the guilty mind: Accounting for involvement in a white-collar crime.” Criminology, 23: 583-606.

Braithwaite, J.

1982 “Enforced self-regulation: A new strategy for corporate crime control.” Michigan Law Review, 80: 1466-1507.

1989 Crime, Shame, and Reintegration. New York: Cambridge University Press.

Braithwaite, J. and B. Fisse

1983 “Asbestos and health: A case of informal social control.” Australian-New Zealand Journal of Criminology, 16: 67-80.

Brooks, M., S. Highhouse, S. Russell, and D.Mohr

2003. “Familiarity, ambivalence, and organization reputation: Is organization fame a double-edged sword?” Journal of Applied Psychology, 88: 904-914.

Cleves, M.A., W.W. Gould, and R.G. Gutierrez

2004 An Introduction to Survival Analysis Using Stata. College Station, TX: Stata Press.

Cohen, J. and P. Cohen

1983 Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences. Hillsdale, NJ: Lawrence Erlbaum Associates.

Coleman, J.W.

1987 “Toward an integrated theory of white-collar crime.” American Journal of Sociology, 93: 406-439.

Cox, D.R.

1972 “Regression models and life-tables. Journal of the Royal Statistical Society.” Series B, 34: 187-220.

Darely, J., and B. Latane

1968 “Bystander intervention in emergencies: Diffusion of responsibility.” Journal of Personality and Social Psychology, 10: 215-221.

Davis, G.F.

1991 Agents without principles? The spread of the poison pill through the intercorporate network.” Administrative Science Quarterly, 36: 583-613.

Deephouse, D.L.

1996 “Does isomorphism legitimate?” Academy of Management Journal, 39: 1024-1039.

1999 “To be different, or to be the same? It’s a question (and theory) of strategic balance.” Strategic Management Journal, 20: 147-166.

Deephouse, D.L., and S.M. Carter

2005 “An examination of differences between organisational legitimacy and organisational reputation.” Journal of Management Studies, 42: 329-360.

DiMaggio, P.J., and W.W. Powell

1983. “The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields.” American Sociological Review, 48: 147-160.

Donaldson, T., and T.W. Dunfee

1994 “Toward a unified conception of business ethics: Integrative social contracts theory.” Academy of Management Review, 19: 252-294.

The Economist

2005 “A price worth paying? Auditing Sarbanes-Oxley.” May 21.

Edelman, L.B

1992 “Legal ambiguity and symbolic structures: Organizational mediation of civil rights law.”

American Journal of Sociology, 97: 1531-1576.

Edelman, L.B., C. Uggen, and H.S. Erlanger

1999 “The endogeneity of legal regulation grievance procedures as rational myth.” American Journal of Sociology, 105: 406-454.

Elsbach, K.D.

1994 “Managing organizational legitimacy in the California cattle industry: The construction and effectiveness of verbal accounts.” Administrative Science Quarterly, 39: 57-88.

2003. “Organizational perception management.” Research in Organizational Behavior, 25: 296-332.

Ferrier, W.J., K.G. Smith, and C.M. Grimm

1999 “The role of competition in market share erosion and dethronement: A study of industry leaders and challengers.” Academy of Management Journal, 42: 372-388.

Finney, H.C., and H.R. Lesieur

1982 “A contingency theory of organizational crime. In S.B. Bacharach (ed.), Research in the Sociology of Organizations, vol. 1, 255-299. Greenwich, CT: JAI Press.

Fligstein, N.

1985 “The spread of the multidivisional form among large firms, 1919-1979.” American Sociological Review, 50: 377-391.

Fombrun, C.J.

1996 Reputation: Realizing Value from the Corporate Image. Boston: Harvard Business School Press.

Ghoshal, S., and P. Moran

1996 “Bad for practice: A critique of the transaction cost theory.” Academy of Management Review, 21: 13-47.

Granovetter, M.

1985 “Economic action and social structure: The problem of embeddedness.” American Journal of Sociology, 91: 481-510.

Greening, D.W., and B. Gray

1994 ‘testing a model of organizational response to social and political issues.” Academy of Management Journal, 37: 467-498.

Greve, H.R.

2000 “Market niche entry decisions: Competition, learning, and strategy in Tokyo banking, 1894-1936.” Academy of Management Journal, 43: 816-836.

Guillen, M.F.

2002 “Structural inertia, imitation, and foreign expansion: South Korean firms and business groups in China, 1987-1995.” Academy of Management Journal, 45: 509-525.

Gulati, R.

1998 “Alliances and networks.” Strategic Management Journal, 19: 293-317.

Harvard Law Review

2003. “The good, the bad, and their corporate codes of ethics: Enron, Sarbanes-Oxley, and the problems with legislating good behavior.” 116: 2123-2141.

Haunschild, P.R., and A.S. Miner

1997 “Modes or interorganizational imitation: The effects of outcome salience and uncertainty.” Administrative Science Quarterly, 42: 472-500.

Haveman, H.

1993 “Follow the leader. Mimetic isomorphism, and entry into new markets.” Administrative Science Quarterly, 38: 593-627.

Healy, P. M.

1985 “The effect of bonus schemes on accounting decisions.” Journal of Accounting and Economics 7: 85-107.

Hellman, T., and M. Puri

2000 “The interaction between product market and financing strategy: The role of venture capital.” The Review of Financial Studies, 13: 959-984.

Hoffman, A.J., and W. Ocasio

2001 “Not all events are attended equally: Toward a middle-range theory of industry attention to external events.” Organization Science, 12: 414-434.

Hollander, E.P.

1958 “Conformity, status, and the idiosyncrasy credit.” Psychological Review, 65: 117-127.

Huron Consulting Group, LLC.

2003 An Analysis of Restatement Matters: Rules, Errors, Ethics. Chicago: Huron Consulting Group, LLC.

Ingram, P., and T. Simons

1995 “Institutional and resource dependence determinants of responsiveness to work-family issues.” Academy of Management Journal, 38: 1466-1482.

Innes, R.

1999 “Self-policing and optimal law enforcement when violator remediation is valuable.” Journal of Political Economy, 107: 1305-1325.

Jones, L.M., and N.N. Foshay

1984 “Diffusion of responsibility in a nonemergency situation: Response to a greeting from a stranger.” The Journal of Social Psychology, 123: 155-158.

Kenny, D.A.

1979 Correlation and Causality. New York: Wiley.

King, A.A., and M.J. Lenox

2000 “Industry self-regulation without sanctions: The chemical industry’s responsible care program.” Academy of Management Journal, 43: 698-716.

Konrad, A.M. and F. Linnehan

1995 “Formalized HRM structures: Coordinating equal employment opportunity or concealing organizational practices?” Academy of Management Journal, 38: 787-820.Larcker, D.F.

1983 “The association between performance plan adoption and corporate capital investment.” Journal of Accounting and Economics, 5: 3-30.

Lee, K., and J.M. Pennings

2002 “Mimicry and the market: Adoption of a new organizational form.” Academy of Management Journal, 45: 144-162.

Lee, F., C. Peterson, and L.Z. Tiedens

2004 “Mea culpa: Predicting stock prices from organizational attributions.” Personal and Social Psychology Bulletin, 30: 1636-1649.

March, J.G.

1981 “Decisions in organizations and theories of choice.” In A.H. Van de Ven and W.F. Joyce (eds.), Perspectives on Organization Design and Behavior: 205-244. New York: Wiley.

Marcus, A.A., and R.S. Goodman

1991 “Victims and shareholders: The dilemmas of presenting organization policy during a crisis.” Academy of Management Journal, 14: 281-305.

May, P.J.

2004 “Compliance motivations: Affirmative and negative bases.” Law & Society Review, 38: 41-68.

Meyer, J.W., and B. Rowan

1977 “Institutionalized organizations: Formal structure as myth and ceremony.” American Journal of Sociology, 83: 340-363.

Meyer, J.W., and W.R. Scott

1983 “Centralization and the legitimacy problems of local government.” In J.W. Meyer and W.R. Scott (Eds.), Organizational Environments: 199-215. Newbury Park, CA: Sage.

Meyer, J.W., W.R. Scott, and D. Strang

1987 “Centralization, fragmentation, and school district complexity.” Administrative Science Quarterly, 32: 186-201.

Mizruchi, M.S., and L.C. Fein

1999 “The social construction of organizational knowledge: A study of the uses of coercive, mimetic, and normative isomorphism.” Administrative Science Quarterly, 44: 653-683.

Nagel, I.H., and W.M. Swenson

1993 “The federal sentencing guidelines for corporations: Their development, theoretical underpinnings, and some thoughts about their future.” Washington University Law Quarterly, 71: 205-259.

The National Collegiate Athletic Association

2004 2004-2005 NCAA Division I Manual: Constitution, Operating Bylaws, Administrative Bylaws. Indianapolis: The National Collegiate Athletic Association.

Ocasio, W.

1997 “Toward an attention-based view of the firm.” Strategic Management Journal, 18: 187-206.

Oliver, C.

1997 “Sustainable competitive advantage: Combining institutional and resource-based views.” Strategic Management Journal, 18: 697-713.

Ouchi, W.G.

1979 “A conceptual framework for the design of organizational control mechanisms.” Management Science, 9: 833-848.

Ouchi, W.G.

1980 “Markets, bureaucracies, and clans.” Administrative Science Quarterly, 25: 129-141.

Palmrose, Z.-V., V.J. Richardson and S. Scholz

2004 “Determinants of market reactions to restatement announcements.” Journal of Accounting and Economics, 37: 59-89.

Peteraf, M., and M. Shanley

1997 “Getting to know you: A theory of strategic group identity.” Strategic Management Journal, 18: 165-186.

Phillips, D.J., and E.W. Zuckerman

2001 “Middle-status conformity: Theoretical restatement and empirical demonstration in two markets.” American Journal of Sociology, 107: 379-429.

Podolny, J.M.

1993 “A status-based model of market competition.” American Journal of Sociology, 98: 829-872.

1994 “Market uncertainty and the social character of economic exchange.” Administrative Science Quarterly, 39: 458-483.

Rao, H., G.F. Davis, and A. Ward

2000 “Embeddedness, social identity, and mobility: Why firms leave the NASDAQ and join the New York Stock Exchange.” Administrative Science Quarterly, 45: 268-292.

Rao, H., H. Greve, and G.F. Davis

2001 “Fool’s gold: Social proof in the initiation and abandonment of coverage by Wall Street analysts.” Administrative Science Quarterly, 46: 502-526.

Rao, H., and Neilsen, E.H.

1992 “An ecology of agency arrangements: Mortality of savings and loan associations, 1960-1987.” Administrative Science Quarterly, 37: 448-470.

Reason, T.

2005 “The limits of mercy.” CFO Magazine. http://www.cfo.com, April 1.

Richardson, S., I. Tuna, and M. Wu

2002 “Predicting earnings management: The case of earnings restatements. Working paper, University of Pennsylvania-The Wharton School, Philadelphia.

Rindova, V.P., I.O. Williamson, A.P. Petkova, and J.M. Sever

2006 “Being good or being known: An empirical examination of the dimensions, antecedents, and consequences of organizational reputation” Academy of Management Journal, in press.

Salancik, G.R., and J.R. Meindl

1984 “Organization attributions as strategic illusions of management control.” Administrative Science Quarterly, 29: 238-254.

Scott, W.R.

2001 Institutions and Organizations (2nd ed.). Thousand Oaks, CA: Sage.

Siegel, P.A., and J. Brockner

2005 “Individual and organizational consequences of CEO claimed handicapping: What’s good for the CEO may not be so good for the firm.” Organizational Behavior and Human Decision Processes, 96: 1-22.

Simpson, S.S.

2002 Corporate Crime, Law, and Social Control. Cambridge: Cambridge University Press.

Singer, A.W.

2004 “Your good name after you lost it.” Across the Board, 41: 33-38.

Srinivasan, S.

2005 “Consequences of financial reporting failure for outside directors: Evidence from accounting restatements and audit committee members.” Journal of Accounting Research, 43: 291-334.

Stern, R.N.

1979 “The development of an interorganizational control network: The case of intercollegiate athletics.” Administrative Science Quarterly, 24: 242-266.

Strang, D. and M.W. Macy

2001 :In search of excellence: Fads, success stories, and adaptive emulation.” American Journal of Sociology, 107: 147-182.

Suchman, M.A.

1995 “Managing legitimacy: Strategic and institutional approaches.” Academy of Management Review, 20: 571-610.

Teather, D.

2005 “AIG owns up to 2bn in accounting errors.” http://business.guardian.co.uk/story/0,,1475182,00.html. May 3.

Terlaak, A., and A. King

2002 “Strategic foresight in the adoption process of management standards.” Presented at the Academy of Management Annual Meeting, Denver, CO, August 2002

Tolbert. P.S., and L.G. Zucker

1983 “Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880-1935.” Administrative Science Quarterly, 28: 22-39.

Tuma, N., and M. Hannan

1984 Social Dynamics: Models and Methods. New York: Academic Press.

United States General Accounting Office

2002 Financial Statement Restatements: Trends, Market Impacts, Regulatory Responses, and Remaining Challenges. Washington, DC: United States Printing Office.

Washington, M., and E.J. Zajac

2005 “Status evolution and competition: Theory and evidence.” Academy of Management Journal, 48: 282-296.

Wiseman, R.M. and L.R. Gomez-Mejia

1998 “A behavioral agency model of managerial risk taking.” Academy of Management Review, 23: 133-153.

Wu, M.

2002 “Earnings restatements: A capital markets perspective.” Working paper, Hong Kong University of Science and Technology, Kowloon.

Zhang, X. M., K.M. Bartol, K. G., Smith, M.D. Pfarrer, and D.M. Khanin

2005 “Feathering the nest: CEO stock options, ownership, and duality as predictors of corporate earnings manipulation.” Working Paper, Robert H. Smith School of Business, College Park, MD.

Zucker, L.G.

1987. “Institutional theories of organizations.” Annual Review of Sociology, 113: 443-464.