J. Account. Public Policy 29 (2010) 439–458

Contents lists available at ScienceDirect

J. Account. Public Policy

journal homepage: www.elsevier.com/locate/jaccpubpol

Exploring Sarbanes–Oxley's effect on attitudes, perceptions of norms, and intentions to commit financial statement fraud from a general deterrence perspective

Joseph C. Ugrin [a,*], Marcus D. Odom [b,1]

[a] College of Business Administration, Kansas State University, Manhattan, KS 66506, USA
[b] College of Business, School of Accountancy, Southern Illinois University Carbondale, Carbondale, IL 62901, USA

A B S T R A C T

This paper uses an experiment to examine how deterrence mechanisms within the Sarbanes–Oxley Act's (SOX) Sections 404 and 906 influence the fraudulent financial reporting behavior of individuals. The results indicate that the threat of potential jail time can be an effective mechanism for reducing financial statement fraud, but its effectiveness is limited and influenced by a wide range of social, environmental, and demographic factors. The findings show that the incremental increase in potential jail time imposed by SOX creates little deterrence beyond mechanisms that were in place pre-SOX. The findings also reveal that the effect of jail time is primarily a function of economic consequences, such as lost career opportunities that are created from serving just a minimal amount of time in jail. The results should be of interest to regulators and practitioners wanting to understand how SOX-based deterrence mechanisms can influence individual behavior. The results contribute to the general deterrence theory literature by showing how the effect of deterrence mechanisms on illicit behavior can be influenced by social, environmental, and demographic factors.

1. Introduction

Financial statement fraud has received considerable attention from the popular press (Black, 2007), the corporate and financial community, and regulators, due in large part to the collapse of Enron and

* Corresponding author. Tel.: +1 785 532 5897; fax: +1 785 532 5959.
E-mail addresses: jugrin@ksu.edu (J.C. Ugrin), modom@cba.siu.edu (M.D. Odom).
[1] Tel.: +1 618 453 1408; fax: 1 618 453 1411.

0278-4254/$ - see front matter
doi:10.1016/j.jaccpubpol.2010.06.006

the fraudulent activities at other public companies such as Adelphia, Worldcom, and Tyco. These cases alone have resulted in nearly $500 billion in losses to investors. Annually, financial statement fraud costs organizations and investors nearly 6% of revenues. (Association of Certified Fraud Examiners, 2006; Rezaee, 2003). In addition to the cost, financial statement fraud is difficult to control since it is typically a crime committed by managers and executives (Singleton et al., 2003).

The Sarbanes–Oxley Act (SOX) was passed into law on July 30, 2002, in response to public pressure over acts of corporate malfeasance. At its core, SOX aims to restore investor confidence in US capital markets by improving corporate governance, the quality of audits, and the strength of internal controls in part by increasing the consequences management can encounter if they are caught committing financial statement fraud. SOX Section 906 increases the severity of sanctions that can potentially be leveled against management for inaccurate financial reporting, and Section 404 imposes regulations that require increased assessments of internal controls by auditors. However, SOX has not come without debate. Researchers have suggested that sanctions and prosecutions may not significantly reduce financial statement fraud enough, considering SOX is costly to implement and maintain (Ronen, 2002; Nyberg, 2003; Engle et al., 2004).

Due to the high costs associated with both financial statement fraud and SOX, it is important to develop a better understanding about why fraud is committed and critically evaluate SOX's effectiveness at reducing it. A wide array of research has examined fraud at the organizational (Skousen and Wright, 2008; Persons, 1995; Kaminski et al., 2004; Cullinan et al., 2006) and individual levels (Johnson et al., 2006; Healy, 1985; Dechow et al., 1996; Bebchuk and Fried, 2003; Goldman and Slezak, 2006; Carpenter and Reimers, 2005), yet only recently has research started to address the effect of SOX on financial statement fraud and the role that management, audit committees, and auditors have in the financial reporting process. For example, audit committee members feel they have more power in the post-SOX era (DeZoort et al., 2008), yet they still take a passive role in resolving financial reporting disputes between management and auditors, and management is still the driving force behind auditor appointments and terminations (Cohen et al., 2008). This suggests that management still directs financial reporting decisions even though audit committees are more active and possess greater expertise in the post-SOX era (Cohen et al., 2008). Thus, it is important to understand how SOX influences management specifically.

Little research on management influences exists except for McEnroe's (2006) survey that found that financial executives do not perceive that SOX will reduce earnings management practices. McEnroe's (2006) study gives some insight into perceptions about the effectiveness of SOX on various financial reporting issues (including the deferral of expenses which is used in our experiment), but it does not examine "why" SOX may or may not influence financial reporting. We assert that an explanation can be found in the criminal justice literature on deterring illicit behavior.

Several components of SOX may function as deterrence mechanisms as defined by general deterrence theory (GDT), a widely used utility based criminological theory. This theory states that punishment can deter illicit behavior to the extent that punishment is likely to be enforced. GDT ties closely with SOX since deterrence mechanisms imposed by SOX increase potential sanctions (jail time) and strengthen mechanisms that can catch fraudulent activity (internal controls) making potential sanctions more likely. However, it is unclear if these mechanisms will achieve their desired effect of deterring fraudulent financial reporting either in general or beyond existing mechanisms. For instance, prior to SOX, the Securities and Exchange Act of 1934 (1934 Act) threatened jail time for fraudulent financial reporting, albeit less than that imposed by SOX. Increasing potential jail time for illicit activities has had mixed results in the criminal justice literature due to several factors, including the disutility of each additional year of jail time. In addition, the effectiveness of jail time is influenced by general perceptions about the likelihood that it will be imposed, whether or not the time is served under severe conditions, and other ramifications that arise from spending time in jail, like lost future opportunities that result from being a felon.

The motivation to investigate whether the SOX-based deterrence mechanisms mentioned affect the attitudes and intentions of managers and executives to fraudulently report financial data is grounded in this criminal justice literature. In addition, the study examines whether or not outcomes are influenced by social, environmental, and situational factors such as perceptions about the general effectiveness of internal controls, the severity of sanctions, awareness of recent prosecutions for