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As a result of numerous financial scandals at the turn of the 21st century, Congress passed the Sarbanes-Oxley (SOX) Act of 2002, requiring all publicly-listed companies to comply with regulations aimed at reducing the amount of material misstatements in the financial statements, both frauds and errors. Although the costs of SOX compliance are substantial and have caused controversy among the business community, investors and managers can also see significant benefits. A review of published articles related to the impacts of Sarbanes-Oxley on U.S. businesses was performed and a framework created that evaluates the “winners” and “losers” of each SOX impact: the organizational characteristics that benefit the most and the least from each impact. Results from research conclude that although SOX provides benefits for all types of organizational characteristics, the firms that benefit the most from SOX are those that rely the most on external financing.

Key words: Sarbanes-Oxley, fraud, investor, confidence, benefits, costs, compliance

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The Winners and Losers of Sarbanes-Oxley

by

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I understand that my project will become part of the permanent collection of Oregon State University, University Honors College. My signature below authorizes release of my project to any reader upon request.

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TABLE OF CONTENTS

Page

Introduction……………………………………………………………………………………1

Background……………………………………………………………………………………5

Part A: What is the Purpose of Accounting?...5

Part B: How SOX came into being……………………………………………………………6

Part C: What is the SOX Act?…………………………………………………………..10

Part D: What and Why Have There Been Changes in Accounting Standards?...............13

SOX Effects on Businesses:……………………………………………………………………..15

Chapter 1: Investor Confidence…………………………………………………………15

Chapter 2: Earnings Management………………………………………………………….19

Chapter 3: Financial Restatements……………………………………………………...24

Chapter 4: Audit Fees……………………………………………………………………...28

Chapter 5: Credit Ratings……………………………………………………………….33

Chapter 6: Fraud Lawsuits……………………………………………………………….37

Chapter 7: Compliance Costs……………………………………………………………...40

Chapter 8: Innovation…………………………………………………………………...45

Chapter 9: Explanation of Thesis Survey……………………………………………….49

Conclusions……………………………………………………………………………………..53

Works Cited…………………………………………………………………………………….57

Appendices……………………………………...……………………………………………….64

List of Figures

Exhibits: Page

1. Schedule of S&P 500 Audit Fees 29

2. Schedule of S&P 500 Total Audit Fees 30

List of Appendices:

Appendices:	Page
1. Survey	64
2. Framework for SOX Effects by Organization Characteristics	67

INTRODUCTION

Controversy:

Since its inception in 2002, the Sarbanes-Oxley Act (SOX) has caused immense controversy within the United State business community. With its intent of decreasing material misstatements in public company financial statements (namely fraud and errors), the financial and non-financial costs of compliance have sparked an emotional outcry from businesses everywhere. In 2004, the criticism against SOX was so prevalent that Congress eventually amended the Act in an attempt to appease businesses.

Expectations:

Nonetheless, because SOX compliance is required for publicly-traded companies, the costs have caused hesitations for private businesses contemplating incorporation. Therefore, understanding the various SOX effects on businesses and measuring the extent of each impact for the different organizational characteristics of a business is vital to firms contemplating incorporation. *Because SOX still remains after almost an entire decade, one can expect that it provides a multitude of benefits to all types of firms. However, one can expect that SOX benefits large firms the most because of their better ability to afford the costs of compliance.* In general, there are “winners” and “losers” of each SOX impact: the “winners” are the firms that benefit the most from each impact while the “losers” are those that benefit the least. I will attempt to determine the winners and losers based on a combination of collected evidence and logical argument.

Importance of Exploring SOX Impacts:

Exploring the extent of SOX impacts on different organizational characteristics is critical. Private firms contemplating on incorporation need to be able to estimate the general extent of benefits from the costs that they will be faced with. Clearly, because of differing revenue capacities and differing growth strategies, some firms will benefit from SOX more than others. However, if there are no substantial benefits for certain organizational characteristics, those firms may need to consider alternative options to listing as a publicly-listed company.

Key Issues:

In order to examine the extent that different organizational characteristics will benefit from SOX, this thesis explores the correlations of SOX compliance with the eight potential impacts that one might expect compliance to cause:

1. An increase in investor confidence

2. A decrease in earnings management

3. A decrease in financial restatements

4. An increase in audit fees

5. An increase in credit ratings

6. A decrease in the likelihood of a fraud lawsuit

7. An increase in compliance costs

8. A decrease in innovation

Different organizations should expect to see different results. This thesis considers the following organizational characteristics that affect the impact of SOX:

1. Size of the company (small to large)

2. Age of the company (young to old)

3. Business strategy of the company (cost leadership to focused differentiation)

4. Competitive focus of the company (high-growth to value)

Key Questions:

In order to understand SOX's impact on businesses, the following questions are vital to explore:

1. What are the different SOX effects on businesses?

2. How does SOX impact different organizational characteristics?

3. Do all firms benefit from SOX?

4. Which firms benefit the most from each SOX impact?

5. Which firms benefit the least from each SOX impact?

Agenda:

To answer the above questions, I set out a series of steps:

- Explore the principal objectives of financial accounting and identify how SOX aims to push the business community to reach those objectives

- Determine the actual requirements of SOX, the accounting frauds that shaped the law, and the amendments that have been made
- Explore any correlations between SOX and a list of identified impacts on businesses
- Analyze which organizational characteristics of firms "win" the most or "lose" the most from each SOX impact
- Summarize the conclusions of any findings, including a general framework of SOX impacts that are based on organizational characteristics

BACKGROUND

Part A: *What is the purpose of accounting?*

According to FASB, the objectives of financial reporting are to provide information that is:

1) Useful to those making investment and credit decisions

2) Helpful to present and potential investors, creditors, and other users in assessing the amounts, timing, and uncertainty of future cash flows

3) About economic resources, the claims to those resources, and the changes in them (Kieso 4)

Therefore, in order to meet these three basic objectives, a corporation's financial statements should be as transparent, accurate, and true to the firm's economic reality as possible.

There are two ways in which a company's financial statements may be materially misstated. The first way arises from errors. Accounting errors are unintentional and occur from human error or computer error. According to Consuelo Herrera, CFE, of BellaOnline, the most common errors in financial statements are:

"1. Estimates based on unreasonable assumptions. For example, in a manufacturing company, the cost of goods sold is based on unrealistic rates very different from those used in the same industry

2. Recording erroneous amounts for assets and equities. If incorrect, the footing of inventory totals would cause inventory to be misstated in the balance sheet

3. Failure to record prepaid and accrued expenses. For instance, a company pays its six-month

insurance on January 1st, then that amount should be allocated among six months rather than charging the total to the month of January

4. Improper classification of assets as expenses and vice versa. Patty's Inc. purchased a new machine for its facility and recorded it as an expense rather than as a fixed asset" (Herrera)

The second way a material misstatement can occur arises from fraud. Fraud consists of "…knowingly making material misrepresentations of fact, with the intent of inducing someone to believe the falsehood and act on it and, thus, suffer a loss or damage" (Louwers 73). While errors are unintentional, fraud is intentional and has much more serious repercussions.

Therefore, as a result of the numerous frauds committed in the early 2000s, Sarbanes-Oxley was created with the ultimate purpose to "make sure that the information given by [a] company is reliable, truthful, honest, and justified by the company" (Alkhafaji 6). With more stringent regulations, the Sarbanes-Oxley Act exists to fight against frauds and material errors.

Part B: *How SOX came into being*

Before the Sarbanes-Oxley Act (SOX) was created in 2002, there were a lack of guidelines and regulations that were focused on minimizing financial statement errors and fraud. As a result of two enormous financial statement frauds, Sarbanes-Oxley quickly came into being. These two frauds were those of Enron and WorldCom in 2001 and 2002, respectively.

WorldCom

In the largest financial scandal in world history, WorldCom Company deceived its investors and creditors through an estimated fraud of $15 billion. With its high primary costs and pressures to keep up a high stock value, WorldCom decided not to follow FASB's guidelines of

expensing period expenses as incurred (Jonesington). These “line costs,” the costs of carrying a phone call from its starting point to its ending point, should have comprised approximately half of WorldCom’s total expenses from 1999-2001. However, the corporation underreported these costs in the Income Statement by simply not including them. Instead, WorldCom “capitalized” these costs and reported them only in the Balance Sheet as an asset account. During 2001 and the first quarter of 2002, WorldCom later revealed that it had actually capitalized $6.412 billion worth of costs that should have been expensed. An enormous issue of the WorldCom fraud was that this huge corporation’s capitalization of these costs went largely unnoticed by the public, giving off the impression to investors and shareholders that WorldCom had high net income and high profit margins (Beresford).

The company was also able to inflate reported revenues in its financials. From 1999 to 2002, WorldCom reported over $958 million in revenues by creating bogus entries that credited an unknown equity account titled “Corporate Unallocated Revenue” at the quarter-ends when the actual revenues from operations were low (Beresford).

Enron

Although not the largest financial scandal in history, Enron’s fraud of $10 billion involved the most complex schemes. It was in fact the sneaky methods in these schemes that provided Congress with ideas on its corporate governance regulation requirements for Sarbanes-Oxley. The really unique scheme in this scandal was Enron’s manipulation of Special Purpose Entities, or SPEs. According to FASB, an SPE is a separate entity “…in which the investor holds a controlling interest which is not based on the majority of voting rights” (FASB). Since SPEs can be relatively small and can have little debt, companies create SPEs generally to achieve low-

cost financing of their capital asset purchases. However, Enron created and manipulated SPEs in order to hide its debt (Krantz). To hide its enormous mass of debt, Enron formed over 100 SPEs in its company's history. In one infamous example, Enron and the California State Pension Fund (CalPERS) joined forces in 1993 to create a 50/50 joint venture called the "Joint Energy Development Investment," or JEDI (Krantz). After Enron asked CalPERS to join it in a separate venture, JEDI 2, a crisis emerged when CalPERS agreed to join only if it could first get out of its stake in the original JEDI. If no partner purchased at least a 3% stake in JEDI, Enron would be legally forced to consolidate JEDI's enormous debts into its own financial statements. So, instead, Enron created an SPE called "Chewco Investments" to purchase the other half of JEDI. Chewco ended up purchasing a stake in JEDI through a huge debt, which Enron was supposed to cover through a formal contract between Chewco and Enron. However, Enron did not put this debt in its financials. As a result, Enron was able to continue hiding its debt in this joint venture. According to SEC filings, "…Chewco was, in effect, financed by Enron, so JEDI didn't meet the 3% rule." Simply by not consolidating either JEDI or Chewco, Enron was able to hide $628 million of debt (Bratton 31).

A second scheme of Enron was its abuse of its legal ability to use "mark-to-market" accounting. With this accounting procedure, once a company signs a contract for an investment, it is legally able to report the present value of the net future cash flows as income. However, the same company cannot include additional income from that contract after that point. Enron, unable to make real profits from these ventures, therefore entered into frequent long-term contracts in order to consistently report high earnings. For example, in 2000, Enron signed a twenty-year investment contract with Blockbuster. Enron estimated $110 million in future cash flows and thus reported this amount as part of its Net Income in 2000. Yet, when Blockbuster

pulled out of the contract less than a year later, resulting in an economic loss for Enron, the latter continued to report "future" profits (Healy 10). These continued "earnings" after Blockbuster's departure went unnoticed by Enron's public auditors.

Third, Enron was also able to hyper-inflate its reported revenues through its own stock trading business. Instead of simply reporting the brokerage fees as revenue, as dictated by the financials industry, Enron reported the entire trade values of its clients as its own revenues (Dharan).

Enron's external auditors, Arthur Anderson, also played an enormous role in the fraud. With news of the SEC investigation of Enron, Arthur Anderson auditors shredded tons of supporting documents and deleted almost 30,000 emails and computer files to avoid charges of negligence. However, the largest issue with Arthur Andersen in this scandal was the conflict-of-interest it had with Enron. Since the bogus SPEs never made any income and simply made charges, FASB should have required Enron to write-off the investment in the SPE from its own Balance Sheet and report it as a loss. However, by simply threatening to hire Ernst & Young or Pricewaterhouse Coopers to replace Arthur Andersen, Enron was able to pressure Arthur Anderson auditors to defer recognizing charges in the SPEs so that its own credit risk did not look high enough to warrant a write-off (Healy 15).

How these frauds shaped SOX:

Although these two frauds directly forced Congress to create the Sarbanes-Oxley Act, they also provide us direction on creating accounting rules that will prevent some of the most complex embezzling methods from going unnoticed.

For example, as a result of Enron's officers encouraging the reporting of false financial information, Sarbanes-Oxley includes regulations that force the company CEO to take personal liability if the financial statements are found to be materially falsified.

As a result of Arthur Anderson's severe conflict-of-interest with Enron, such as the accounting firm's lengthy presence as Enron's external auditors, Sarbanes-Oxley includes a section that requires more stringent auditor independence requirements.

On a side note, the inner workings of Enron's schemes also affected the creation of more corporate governance acts than just Sarbanes-Oxley. For example, Enron's manipulation of SPEs for the purpose of hiding its debt caused the creation of FASB Interpretation 46(R) that now require SPEs to be consolidated if there's "control," regardless of majority ownership in stock (Soroosh).

Part C: *What is the SOX Act of 2002?*

Although the Sarbanes-Oxley Act of 2002 is an enormous law, most of the important information can be gleaned from the following five sections: 302, 401, 404, 409, and 802 ("Sarbanes").

Section 302

This section involves a "corporate responsibility" aspect. In detail, the financial statements must certify that:

1) The signing officers have reviewed the report

2) The report doesn’t contain any false, misleading, or omitted material

3) The statements present the financial condition and results of the company

4) The signing officers are responsible for internal controls, have evaluated these internal controls, and reported:

i) A list of all deficiencies in internal controls and information on any fraud that has happened

ii) Any significant changes in internal controls that could have a negative impact on the reliability of the financial statements (“Sarbanes”)

Because of Enron and WorldCom’s heavy management involvement in the scandals, this section is meant to deter high-level employees from committing fraud or not taking the appropriate actions to ensure the prevention of material errors in the financials by threatening heavy fines and imprisonment.

Section 401

This section examines financial statement disclosures. In detail, the financial statements must include all material off-balance sheet liabilities, obligations, or transactions (“Sarbanes”). The off-balance sheet liabilities emphasis arises from the lack of SPEs listed by Enron in its financials.

Section 404

This is perhaps the most controversial part of the entire law, especially since it has gained a reputation for being a burdensome and expensive piece of legislation (Wutkowsi). This section

of SOX involves the disclosure of the “scope” and “adequacy” of the internal control structure and procedures for financial reporting. In detail, the financial statements must include an internal control report, called the Internal Control over Financial Reporting Report, that:

1) Lists the responsibilities of management for maintaining a good internal control structure and procedures for financial reporting

2) Contains an assessment of how effective the internal controls and procedures are

Lastly, the external auditors must also assess and report the effectiveness of the company’s internal control structure (“Sarbanes”).

The whole purpose of this section is to assess the effectiveness of the company’s internal controls and procedures, which in theory should give all the users of the financial statements a reasonable assurance that the financials are free from material misstatements, whether error or fraud (Louwers 160). An example of assessing the effectiveness of the internal controls and procedures would be a firm examining the extent of a typical manager’s “access to timely, relevant, and reliable information” (Louwers 175). One can expect that an assessment of ineffective internal controls will impel a company to correct its structure to ensure a better public image as well as reasonable assurance that no material misstatements exist. While Section 404 is the centerpiece of the Sarbanes-Oxley law, it also fits the main purpose of Sarbanes-Oxley, which is to ensure that the “information given by [a] company is reliable, truthful, honest, and justified by the company” (Alkhafaji 6).

Internal controls have three large impacts on a company. First, they improve the efficiency and effectiveness of business operations. Second, they also improve compliance with

laws and regulations. Lastly, effective internal controls help reduce the risk of material misstatement (Louwers 163).

Section 409

This section deals with "real time" issuer disclosures ("Sarbanes"). In detail:

1) The financial statements must disclose material changes in the financial conditions and operations of the company

2) All disclosures must be presented in easy-to-understand terms.

Section 802: This section details the criminal penalties of SOX violations. This part stipulates that anyone caught destroying or mutilating records with the intent to influence a legal investigation can be imprisoned for up to 20 years. Additionally, anyone caught knowingly destroying any audit and review papers within five years of their creation can be subject to heavy fines and imprisonment of up to ten years ("Sarbanes").

Part D: What and why have there been changes in the SOX standards?

Auditing Standard 5:

This standard was issued in 2007, after many complaints from the business community. The main reasons why the PCAOB issued this standard to replace the expensive Auditing Standard 2 include:

1) The law needed to be more scalable for smaller public companies

2) The text of the law needed to be easier to understand

3) The benefits of SOX had come at a significant cost. The efforts had appeared greater than necessary to conduct an effective audit of internal control (Public 4).

Changes to SOX Section 404:

According to SEC Chairman Christopher Cox, Section 404 has "…probably posed the single biggest challenge to issuers under the entire SOX Act and has 'without question' imposed the greatest cost" (Aguilar). Many critics labeled Section 404 the "burdensome and costly provision" of the entire SOX law because the costs far exceeded the benefits.

Initially, smaller companies were spending a greater percentage of their revenues than the percentages large companies spent to make up the fixed costs for internal control testing. Therefore, in May 2007, the loud outcry of heavy costs from small businesses peaked when U.S. Senator Jim DeMint offered an amendment to Section 404 that would exempt small companies with total market value of less than $700 million (Tucci). Unfortunately for small businesses, the amendment did not pass and the only material change was an extension of the compliance deadline. By 2007, these smaller companies, as well as their external auditors, were still required to follow the most expensive requirements of Section 404: assessing the company's internal controls over financial reporting.

However, the new amendments to Section 404 now allow managers to identify the controls related to the *highest* risks in their books (rather than an entire list of every single control), which follows the "top-down" risk-based approach when assessing a company's internal controls (Pitt).

EFFECTS OF SOX ON BUSINESSES

Chapter 1: SOX Effect #1: Increased Investor Confidence

1.1: The importance of investor confidence

With regulations requiring companies to develop and report effective internal controls, one would expect Sarbanes-Oxley to increase investor and creditor confidence in the accuracy and predictability of a company's financial statements. This investor confidence is critical to the availability and cost of external funding because investors and creditors are more likely to invest in a company's common stock and bonds if they are more confident in the accuracy and integrity of the company's financials. For example, banks are less likely to provide long-term loans to a company if its financials do not disclose other long-term liabilities or the company simply does not have sufficient internal controls to ensure the cash flow statement is free of error and fraud; banks must feel confident that they will get their money back. Thus, an increase in investor and creditor confidence allows a company to obtain the necessary funding for expansion or better quality products and services at a lower cost. In many respects, investor confidence is important because it assures the people who are financing a company that a return of their money will not be in jeopardy, as in the case of Enron or WorldCom.

1.2 – How SOX can increase investor confidence:

One would expect Sarbanes-Oxley to increase investor confidence because it includes stringent corporate governance regulations that require managerial responsibility and the implementation of effective internal controls. Section 302 of SOX requires company CEOs to attest to the accuracy of their company's financial statements and holds CEOs personally liable for any discoveries of material fraud or error. Since this section includes personal liability, such

as ten to twenty years in prison, one might expect upper management to take additional precautionary steps that would prevent any possible material error or fraud from inconspicuously finding its way to the financials. For example, in order to avoid heavy fines and prison, CEOs might take additional steps like creating a whole new department simply dedicated to preventing financial misstatements, such as a business controls department, all for the purpose of ensuring the presence of effective internal controls and accurate financials. However, the most influential requirement of SOX that one would expect to increase investor confidence is also the most expensive requirement to implement – Section 404 of SOX. By forcing publicly-traded companies to issue an audited Internal Control over Financial Reporting report, the SEC expects companies to implement strong-quality internal controls, which should decrease the likelihood of material misstatement of the financials, whether from error or fraud. Another area of Section 404 that influences investor confidence is the PCAOB's heavy recommendation for companies to follow the COSO Model of Internal Controls, which is a popular and comprehensive framework for implementing and sustaining effective internal controls. When investors see a company implementing quality controls to the financial reporting system and the CEO attesting to his or her financials with the risk of prison, one would expect investors to have additional confidence in the financial statements, whether SOX is effective or not at preventing material misstatements in the financials.

1.3: Evidence of increased investor confidence:

Evidence exists that supports the theory of SOX causing an increase in investor confidence. One important indicator of investor confidence is the bid-ask spread. The market's "money makers" are the investors who aim to profit off the bid-ask spreads by constantly buying and quickly re-selling securities, with the effect of providing liquidity in the markets

(Dolgopolov 89). However, “money makers” do not always profit off these spreads when there is low investor confidence. Take the example of insider trading, one source of low investor confidence. According to the Adverse Selection Model, these money makers are “always ‘losing’ on trades with better-informed counterparties [and must] charge everyone a higher bid-ask spread to compensate for their losses” (Dolgopolov 89). Therefore, spreads that are widening reflect decreasing investor confidence (Coates 107). John Coates, the Law and Economics Research Director at Harvard Law School, believes that the widening bid-ask spread of the pre-SOX economy began “…to tighten and rise again in both the month and in the nine months after passage of [SOX]” (Coates 107).

1.4: <u>Winners of SOX Effect #1 – Increased Investor Confidence:</u>

With evidence that Sarbanes-Oxley increases investor and creditor confidence in company financials, we can see that the primary winners of this SOX benefit are high-growth companies and young companies. Since the success of high-growth firms depends on raising capital for expansion, increased investor confidence allows them to choose from a wider availability of capital and at a cheaper cost. Likewise, increased investor confidence gives young firms the opportunity to build a reputation for financial credibility – an aspect that lacks as a result of no credit history. Compared to another young firm operating without SOX compliance and lower investor confidence, these firms have a wider availability of capital and are able to obtain it at a much cheaper cost.

1.5: <u>Losers of SOX Effect #1: Increased Investor Confidence:</u>

On the other hand, the companies least likely to reap the benefits of SOX’s increased investor confidence are firms that do not have a benign profitability outlook in the future. One

would expect many of these firms to currently exclude on their financials any off-balance-sheet liabilities or transactions that may substantially decrease the net profit or net assets on a company's financial statements. As a result of compliance with SOX's full disclosure requirement, these companies with discouraging financial conditions could potentially lose their existing availability of capital and experience increased costs of capital.

1.6: Summary:

In summary, although this evidence is based off the patterns of large-sized public companies, one can expect SOX's stringent regulations to cause an increase in investor confidence with a company's financials. Because investors and creditors are more confident in the predictability of a company's future cash flows and profits, this side benefit of SOX is especially beneficial for high-growth companies and young companies because of the vital need to obtain external funding. On the other hand, this effect is costly for companies with unfavorable financial data since existing creditors may therefore become discouraged from investing in that company.

Chapter 2: SOX Effect #2: Decreased Earnings Management

2.1: What is earnings management?:

As a side effect of the Agency Theory, managers of public companies have an enormous incentive to take advantage of the information "asymmetry" between management and investors. In other words, managers can manipulate the accounting information that the investors will not see in the financials (Depken 1). As defined by University of Texas Economics professor Craig Depken, earnings management is "…a strategy used by a firm's management to deliberately manipulate a company's earnings so that the earnings match a pre-determined target" (Depken 3). Therefore, managers may "selectively disclose" information or "opportunistically manage" accounting information to maximize their own utility or wealth (Depken 3). Incentives for earnings management include "…meeting or beating last year's earnings, meeting or beating the consensus analysts' forecasts, and avoiding reporting losses" (Cohen 4). Generally, earnings management tends to result in "smoothing out" fluctuations in earnings each year, causing the net income each fiscal year to appear similar.

2.2: Importance of decreased earnings management:

Because SOX personally punishes CEOs for material misstatements and aims to enhance company internal controls, one might expect Sarbanes-Oxley to decrease the extent of earnings management activities performed by the managers of a company. This decrease in earnings management may be critical for companies wishing to gain credibility in the financial markets. A decrease in earnings management is beneficial to the investors and creditors of a company because the reported amounts in the financial statements are more accurate to the true economic

reality of the company. In the longer run, because these accurate numbers provide investors and creditors with greater confidence in the validity of the firm's financials, one might expect additional creditor and investor involvement in the firm, even if it may only result in additions to the firm's low-risk bonds.

2.3: How SOX might decrease earnings management:

One might expect SOX to cause a decrease in earnings management activity by threatening CEOs with personal liability punishments and aiming to build quality internal controls within corporations. Because SOX Section 302 punishes specifically CEOs for material financial misstatements, CEOs might be expected to limit their earnings management activities. Second, CEOs might be expected to change their internal environments by decreasing the pressures of different departments to report profitable numbers, which would most likely result in a decrease of earnings management from the lower management levels. Third, there might be less earnings management activity as a result of more effective internal controls, a requirement of SOX Section 404. With quality internal controls, external auditors might be more likely to detect and report any materially unreasonable subjective estimates, such as the estimates made to determine the Allowance for Uncollectible Accounts balance or the depreciation rates. If SOX requirements were in effect back in the 1990s, one can expect that the penalties of Section 302 would have compelled the managers of WorldCom to report their phone line costs as expenses and saved everyone from its global financial fraud.

2.4: Evidence that SOX may decrease earnings management:

There is not sufficient evidence to point to a decrease in overall earnings management as a result of Sarbanes-Oxley. In a 2007 study headed by New York University, Accounting

Professor Daniel Cohen selected a random sample of nonfinancial firms in existence from 1987 to the present and measured their activity in terms of accrual-based or "actual" earnings management and non-accrual or "real" earnings management. "Actual" earnings management refers to the act of changing the timing of when a transaction is reported, such as overstating revenues or understating assets (Cohen 14). On the other hand, real earnings management refers to intentionally manipulating the actual operations of a company, often as a detriment to the company, to achieve a reported number that appears favorable (Cohen 14). Cohen examines three methods of "real" earnings management:

"1. Acceleration of the timing of sales through increased price discounts or more lenient credit terms

2. Reporting of lower cost of goods sold through increased production

3. Decreases in discretionary expenses which include advertising expense, research and development, and SG&A expenses" (Cohen 14)

After studying 8,157 firms and their activities that occurred during 1987-2007, Cohen and his team found two important results. According to Cohen, the pre-SOX period "…was characterized by increasing accrual-based earnings management…but declining real earnings management" (Cohen 4). Finally, following the passage of SOX, "…accrual-based earnings management declined significantly, while real earnings management increased significantly" (Cohen 4). Cohen reasons that real earnings management increased after SOX because those techniques, "…while costly, are harder to detect" (Cohen 4).

2.5: Winners of SOX Effect #2: Decreased Earnings Management:

Even though there does not exist any conclusive evidence that SOX causes a decrease in the level of overall earnings management, the primary winners of decreased earnings management would be high-growth companies. Because these firms grow exponentially from momentum in their individual reputations, they are the least likely to be subject to fluctuations in the demand market. Therefore, one might expect high-growth firms to have the least to lose when forced to report exact earnings and consequent susceptibility to earnings fluctuations.

2.6: Losers of SOX Effect #2: Decreased Earnings Management:

On the other hand, since earnings management causes annual fluctuations in earnings to become more visible, value firms would hurt the most from this potential SOX effect. Contrary to high-growth firms, value firms are generally much more susceptible to risk in the market and therefore might be expected to have the heaviest earnings fluctuations when forced to limit earnings management activities. On a side note, earnings management tends to smooth earnings throughout the years, potentially giving investors better predictability in the future profits of the firm. Thus, value firms reporting these large fluctuations might intimidate their investors and creditors from remaining involved in the financial funding of the company.

2.7: Summary:

A decrease in earnings management might be expected to provide investors with better confidence in the accuracy of a company's financials. Even though one might expect the stringent CEO attestation and effective control requirements of SOX to decrease the level of earnings management, there is no conclusive evidence that exists to support that theory. In fact, there is evidence that more managers are now manipulating actual operating activities, simply

because it is harder to detect (Cohen 4). Unfortunately, reporting these favorable financials generally come at the detriment of the company. If SOX was proven to cause a decrease in earnings management, however, the primary winners of this SOX effect would be high-growth firms because of their lack of exposure to broad market risk and thus reported earnings fluctuations. Consequently, the losers of this SOX effect would be value firms because of their heavy exposure to market risk and thus wide reported earnings fluctuations.

Although earnings management does provide investors with better predictability of future profitability, according to Depken, “opportunistically manipulated earnings information leads to malfunctions of the capital market, allocation inefficiency of scarce economic resources, and loss of investors’ confidence” (Depken 6). If SOX is able to decrease this allocation inefficiency, it has emphasized its objective of gaining investor confidence (Depken 6).

Chapter 3: SOX Effect #3: Decreased Financial Restatements

3.1: Importance of decreased financial restatements:

With stringent internal control requirements, one would expect that Sarbanes-Oxley substantially reduces the need to restate the financial statements of a company. This is critical to companies considering whether or not to become public because restating the financials is extremely serious and done only with caution (Dohoney). When a company makes a financial restatement, it is going back into an earlier statement and correcting misleading information. Restatements can cause downgrades in credit ratings, decreases in stockholder value, difficulty in accessing capital markets, shareholder lawsuits, investigations by the S.E.C., and enormous expenses (Dohoney). Therefore, a decrease in the likelihood of having to restate the financial statements is beneficial to a company because it can avoid additional accounting labor expenses and SEC probes that damage the company's credibility, and can instead keep intact the confidence and trust of its investors and creditors.

3.2: How SOX might decrease financial restatements:

One would expect that SOX lessens the need to restate a company's financials by issuing regulations that aim to prevent the likelihood of material misstatements, whether from errors or fraud. Section 404 of Sarbanes-Oxley requires companies to create effective preventative, detective, and corrective internal controls that limit the likelihood of material errors and fraud making their way into the financials. According to Lynn Turner of the New York State Society of CPAs, "…companies' ability to produce accurate financial statements depends on the soundness of their internal controls over financial reporting" (Turner). In theory, the more internal controls, the less inaccurate information that will be reported in the financial statements,

and the fewer financial restatements needed. With a low probability of material misstatements, one would expect that the need for financial restatement is substantially reduced. Second, because SOX Section 302 threatens to personally punish CEOs who have material misstatements, one would expect that the fear of personal punishment would discourage management to intentionally report misleading data and instead encourage them to build a more ethical internal environment that works to decrease the likelihood of fraud. Because of a fear of personal liability, one might expect that Section 302 limits management from providing unreasonable account estimates and misleading account classifications. For example, if SOX existed in the 1990s, the fear of Section 302 might have prevented the management of WorldCom to capitalize billions of dollars of costs that legally should have been expensed.

3.3: <u>Evidence that SOX decreases financial restatements:</u>

There is a mix of evidence that supports the idea that SOX causes a substantial decline in the need for financial restatements. According to a study done by the University of Kansas Accounting professor Susan Scholz in 2008, the "…portion of restatements associated with fraud and revenue [errors] declined after 2001 [a year before SOX was enacted]" (Younglai). The study found that, although financial restatements jumped from 90 in 1997 to 1,577 in 2006, fraud was only a factor in 2% of the 2006 restatements, compared to 29% in all 1997 restatements (Younglai). Fraud and material revenue errors are the major causes of financial restatements (Younglai). Since there was a substantial drop in the portion of financial restatements due to fraud and revenue error in the years following SOX, one might expect that SOX tends to decrease the likelihood of a financial restatement. However, this evidence is inconclusive because there actually appears to be an increase in total financial restatements in the years following Sarbanes-Oxley. Scholz explains that the increase in restatements generally comes

from small businesses (Younglai). This increase might be a result of heightened monitoring by external auditors and the PCAOB, as well as the discovery of prior errors and frauds due to a previously poor-quality internal control structure.

3.4: Winners of SOX Effect #3: Decreased Financial Restatements:

Although there is only inconclusive evidence to support the theory that Sarbanes-Oxley decreases the likelihood of a financial restatement, the primary winners of having decreased financial restatements would be large firms because they have the biggest reputations to lose from a financial restatement. Second, large firms have a much better ability to afford the upfront internal control implementations of SOX. Lastly, one might expect large firms to already have sufficient internal control structures set in place before compliance with SOX. Therefore, the money and time needed to spend on creating effective internal control structures may not be quite as burdensome as for small companies.

3.5: Losers of SOX Effect #3: Decreased Financial Restatements:

If Sarbanes-Oxley was proven to decrease the likelihood of a financial restatement, the primary losers of having less restatements would be small firms and young firms. Small firms are losers of this SOX effect because they tend to be the least able to afford Section 404 internal control implementation costs. Because of their limited market cap, one might also expect small firms to be losers due to a lower number of investors. A tinier magnitude of investor involvement means these firms benefit the least from less financial restatements. Likewise, younger firms are also losers if this side-effect of SOX were true because one might expect that young firms have one of the smallest abilities to pay for quality internal controls.

3.6: Summary:

Although one might expect SOX's requirement of effective internal controls to decrease the likelihood of a financial restatement, the evidence is inconclusive. While there is a substantially smaller portion of restatements resulting from fraud or revenue error in the years following SOX, there is also an increase in total financial restatements in the years after SOX. However, if SOX was proven to decrease the risk of a financial restatement, the primary winners of this side-effect would be large firms because of their large reputations better protected and their ability to afford better internal controls. The primary losers of this side-effect of SOX would consequently be young firms and small firms because they are least likely to be able to afford Section 404 implementation costs and the most likely to need the most internal control designs created.

Chapter 4: SOX Effect #4: Increased Audit Fees

4.1: Importance of increased audit fees:

Because of the increased external auditor work required to help a company implement Section 404 costs, one would expect that Sarbanes-Oxley causes an increase in annual external audit fees. Understanding the extent of this detrimental effect to businesses is very important to companies considering going public because heavy audit fees could end up outweighing the benefits of SOX and going public. However, one might expect an increase in audit fees resulting from SOX section 404 to convey to investors and creditors that the company's financial data now has increased credibility, causing investors to place greater confidence in the accuracy of the company's financial statements.

4.2: How SOX might increase audit fees:

Since Sarbanes-Oxley causes a substantial increase in the extent of external auditors' work, one would expect that SOX causes a substantial increase in their audit fees. Possible increases in the external auditors' work may result specifically from Section 404's massive requirement of the external auditor assessment of the client's "internal controls over financial reporting." Second, as a result of the penalties listed in Section 302, managers heavily concerned about the possibility of having material errors or fraud in their statements might be expected to require the most effective, yet expensive, external auditors and consequently request them to perform additional in-depth substantive procedures in order to ensure accuracy.

4.3: Evidence that SOX increases audit fees:

There is only inconclusive evidence to support the theory that SOX causes a substantial increase in audit fees.

The increased regulation of SOX requires more verification and work from external auditors who charge the firms increased audit fees. According to the New York State Society of CPAs, audit fees between 2001 and 2004 increased on average by 103% for 496 of the S&P 500 companies. Even so, smaller companies had the largest percentage change in audit fees during this time period (Ciesielski).

Total S&P 500 Audit Fees, Including Audit-Related Fees							
($ in millions)	**2001**	**2002**		**2003**		**2004**	
Arthur Andersen	$ 247.8	–	NA	–	NA	–	NA
Deloitte & Touche	$ 392.3	$ 565.7	44%	$ 652.8	15%	$ 928.6	42%
Ernst & Young	$ 434.9	$ 575.3	32%	$ 652.5	13%	$ 878.4	35%
KPMG	$ 204.6	$ 340.6	66%	$ 445.6	31%	$ 656.2	47%
PricewaterhouseCoopers	$ 700.7	$ 865.4	24%	$1,044.2	21%	$1,500.1	44%
Other	$ 10.2	$ 117.7	1,054%	$ 66.5	–44%	$ 65.7	–1%
Total	**$1,990.5**	**$2,464.7**	**24%**	**$2,861.6**	**16%**	**$4,029.0**	**41%**

Exhibit 1: Schedule of S&P 500 audit fees shows a 103% increase from 2001 to 2004

(Source: New York State Society of CPAs)

As depicted above in Exhibit 1, the largest increase in annual audit fees occurred in 2004, the first year large companies were required to comply with SOX Section 404. In 2004 alone, audit fees increased on average by 41% (Ciesielski).

Audit Fee Reports:

At first glance, this reported increase of 103% in audit fees should convince Congress to repeal Sarbanes-Oxley. However, according to the New York State Society of CPAs, these statistics are actually misleading because the current audit fee reports required in the financial

statements are not comparable with the typical pre-SOX fee reports. One inconsistency is the possible understatement of 2001 audit fees. For example, many service fees that were closely related to audits were included in the "all other fees" category in the 2001 financials. However, in the 2004 financials, these fees were simply reclassified into the newly-created "audit-related fees" category (Ciesielski).

As shown below in Exhibit 2, the combined *total* service fees of 2004 were approximately equivalent to those of 2001, with only a mere one percent increase.

Total Fees Paid to Auditors							
($ in millions)	**2001**	**2002**		**2003**		**2004**	
AA	$ 575.2	$ 0.0	NA	$ 0.0	NA	$ 0.0	NA
D&T	$ 876.8	$ 927.7	5.8%	$ 920.8	–0.7%	$1,130.0	22.7%
E&Y	$ 754.2	$ 912.5	21.0%	$ 899.5	–1.4%	$1,077.0	19.7%
KPMG	$ 444.1	$ 520.2	17.1%	$ 584.0	12.3%	$ 754.5	29.2%
PWC	$2,175.2	$1,727.8	–20.6%	$1,468.9	–15.0%	$1,842.7	25.4%
Other	$ 18.6	$ 168.2	804.3%	$ 143.8	–14.5%	$ 97.1	–32.5%
Total	**$4,844.1**	**$4,256.4**	**–12.1%**	**$4,017.0**	**-5.6%**	**$4,901.3**	**22.0%**

Exhibit 2: Schedule of S&P 500 total audit fees shows a 1% increase in TOTAL audit fees from 2001 to 2004 (Source: New York State Society of CPAs)

According to the New York State Society of CPAs, this equivalence in total fees is mainly due to SOX's stringent auditor independence requirements, which may have caused external auditors to be concerned about possible conflicts-of-interest when providing complementary services such as system design (Ciesielski). One can expect that the diminished offerings of complementary services ensured that an external auditor's *total* audit fees remained at the same level (Ciesielski).

Company's Financials:

Evidence points to a lack of impact even in the company financials. Looking at Earnings per Share as a measurement of the audit fees' impact on the S&P 500 companies in 2004, the costs amounted to only an average of $0.03 per-share effect (Ciesielski).

Future Predictions:

Lastly, future compliance costs are expected to decrease. In a 2005 CRA International Study, Section 404 costs were actually expected to decrease an average of 39% for small companies and 42% for large companies (Ciesielski). So while there might possibly be an increase in audit fees as a result of SOX, the total magnitude of this initial increase is extremely overestimated, and is continually decreasing as effective internal controls are becoming a norm for firms (Ciesielski).

4.4: The Winners of SOX Effect #4: Increased Audit Fees:

Although there is no conclusive evidence that total audit fees actually increase as a result of SOX, one might expect that large companies lose the least if SOX really did increase total audit fees. Large companies are "winners" because their capacity to obtain higher revenues makes them more likely to have a better internal control structure set in place prior to SOX. Therefore, one might expect that large firms are better able to afford an increase in audit fees and have the least impact in internal control changes.

4.5: The Losers of SOX Effect #4: Increased Audit Fees:

Small companies, on the other hand, are the "losers" of increased audit fees for two possible reasons. First, one might expect that small companies have less experience with external

auditors before going public, thereby making the impact of any audit fee substantial on the company's profits. Second, small companies have a much more limited revenue-generating capacity, making an increase in audit fees even more impactful to their bottom line.

4.6: Summary:

An increase in audit fees can make the costs of Sarbanes-Oxley outweigh the benefits. Even though there is no conclusive evidence that points to an increase in total audit fees as a result of SOX, any increased expenditures are still beneficial to companies because they receive stronger quality internal control assessments and recommendations. Because more effective internal control systems are put into place and consequently less time and labor are needed for external auditors to assess these structures, one might also expect audit fees to decrease in the years following SOX 404 implementation. Unfortunately, good advice still comes at a price.

If there is any evidence that points to an increase in audit fees as a result of SOX, one might expect that the companies who gain the most from this effect are large firms because of their better capacity to afford fee increases and the smaller impact of audit work as a result of more effective internal control systems already set in place. On the other hand, because of their more limited capacity to afford audit fees and their pre-SOX greater lack of experience with external auditors, one might therefore expect smaller companies to gain the least from increased audit fees.

Chapter 5: SOX Effect #5: Increased Credit Ratings

5.1: Importance of Increased Credit Ratings:

Because Sarbanes-Oxley forces public companies to improve their internal control structures, one would expect that SOX improves a company's credit ratings and consequently decreases that company's cost of capital. An increase in credit ratings is critical for companies aiming to obtain external funding, mainly from their corporate bonds. If a credit rating agency improves the rating of a firm, they make the implication that there is a lower risk of the company defaulting on its loan. This lower risk then leads to greater availability of capital from investors and a smaller required rate of return, making the costs of debt financing much cheaper for companies. Lower costs of capital are beneficial for any firm because it allows them to expand with much more ease.

5.2: How SOX might increase credit ratings:

One might expect SOX to cause an increase in a firm's credit ratings because of the increased transparency in its financials and the implementation of more effective internal controls. First, creditors can see that SOX's harsh penalties for SOX violations will naturally push CEOs to limit their earnings management activities and provide estimates and accounting methods that are much more accurate to the company's economic reality. Section 401, by requiring the disclosure of any material off-Balance-Sheet transactions, attempts to enhance the transparency of the firm's financials and thus the predictability of incoming cash flows. Second, Section 404 of SOX drives companies to develop effective internal control structures. In the larger picture, one might expect better controls to provide credibility to the accuracy of its

financials. This better credibility results to a higher credit rating because the firm now provides better confidence to its creditors that it will repay its outstanding loans.

5.3: Evidence that SOX increases credit ratings:

There is evidence that average credit ratings did in fact rise after SOX was passed in 2002. One indicator is the credit spread, a measure of "the difference in yield between different securities, due to different credit quality. This reflects the additional net yield an investor can earn from a security with more credit risk relative to one with less credit risk" (Prentice 12). Since a higher yield-to-maturity is partly a function of default risk, a higher credit spread can be analogous to a lower credit rating, making the costs of capital for companies more expensive. In the wake of the 2001 Enron collapse, credit spreads were an average of 2.5% higher than U.S. Treasury-Bond rates. However, in 2006, that same spread had shrunk to 0.85%. According to the managing director of Moody's Investor Services, not all of the shrinkage can be "attribute[d] to 404, but if only 10 percent of that reduction is due to 404, put those numbers in your calculator and you get a benefit that is absolutely enormous" (Prentice 12).

The evidence also points out another effect of SOX on a firm's credit rating: firms with the worst internal control structures tend to benefit the most. According to a 2009 study undertaken by Oklahoma University finance professors, "low grade firms (with a BB or lower rated) gained almost 76 basis points in credit spread from SOX as opposed to high grade firms which only benefited 26 basis points in spread" (Nejadmalayeri 25). Firms with previously low credit ratings might have benefited the most because the stringent internal control requirements of SOX 404 put these firms' internal control structures at an equal footing with those of other firms. Because internal controls help improve operating efficiency, SOX Section 404 might have

provided these firms with better strategies and practices of managing money and repaying debt. Therefore, this exponentially lower default risk might be a possible explanation for low grade firms' major increase in credit ratings.

5.4: The Winners of SOX Effect #5: Increased Credit Ratings:

Since there is evidence that supports the theory that Sarbanes-Oxley increases a firm's credit ratings and decreases the firm's costs of capital, the primary winners of this effect are important to note. The winners of having an increased credit rating are primarily high-growth companies, small companies, and young companies. Since expansion is vital to the success of a high-growth company, increased credit ratings and consequently a lower default risk allow these firms to choose from a wider availability of capital sources and allow them to obtain external funding at a cheaper cost. Small companies also benefit the most from the SOX effect of increased credit ratings. As we can see from the evidence, the firms with the worst internal control structures benefited the most from SOX. Since small companies are the least likely to have the best internal control structures set in place before SOX, compliance with Section 404 of SOX might expect to provide small companies with large increases in credit ratings and thus cheaper sources of external debt financing. Lastly, young companies reap immense benefits from increased credit ratings because young companies are the least likely to have a solid credible reputation built. Therefore, an increase in credit ratings gives these firms a needed credible reputation that allows them to obtain funds at a cheaper cost and expand their businesses.

5.5: The Losers of SOX Effect #5: Increased Credit Ratings:

Although all firms benefit from having increased credit ratings, one might expect the losers to be older firms because they benefit the least from this SOX impact. Since many older

firms are in the stage of a business cycle where business expansion and external funding is not critical and because many of these firms have a long-standing credible reputation, a positive change in credibility might be the most difficult to make happen. Therefore, looking at the costs that old companies pay to implement Section 404, one can expect that older firms are the losers because they reap the least benefits of having an increased credit rating.

5.6: Summary:

There appears to be evidence that supports the theory that Section 404 of Sarbanes-Oxley increases the credit ratings of firms. From this evidence, one might expect that the firms that benefit the most from the Sarbanes-Oxley effect of increased credit ratings are small firms, young firms, and high-growth firms. Small firms are winners because one might expect new internal control structures to exponentially increase their credit ratings. Young firms are winners because they have an opportunity to build a much-needed credible reputation. Lastly, high-growth firms are winners because they can use increased credit ratings to obtain more funding at a lower cost.

Although all firms benefit from having increased credit ratings, one might expect the losers of this SOX side-effect to be older firms because of their tendency to sustain profits without taking out loans and expanding business.

Because internal controls are a critical factor that determine a firm's credit rating, one can expect that firms going public will be forced to create effective internal controls that will result in higher credit ratings and cheaper costs of capital, a benefit that all firms can reap.

Chapter 6: SOX Effect #6: Decreased Number of Fraud Lawsuits

6.1: Importance of decreased number of fraud lawsuits:

With better internal controls, one might expect Sarbanes-Oxley to decrease the number of fraud lawsuits filed against a company. This decline is important because fraud lawsuits, whether the company is in the plaintiff position or in the defense position and whether there is actual fraud or just an appearance of fraud, cost companies a considerable amount of money to settle. Because of Enron's and WorldCom's dissolution, a decrease in the possibility of a fraud lawsuit is especially beneficial for the long-run survival of a company because the heavy fixed legal fees could potentially wipe out even some of a company's profits.

6.2: How SOX might decrease likelihood of fraud lawsuits:

One would expect that SOX lessens the likelihood of fraud lawsuits because of Section 302 and Section 404. Because of the personal penalties outlined in Section 302, one might expect upper management to be pressured to limit its earnings management activities and encouraged to avoid unethical decisions, such as Enron's manipulation of Special Purpose Entities or WorldCom's capitalization of billions of dollars in costs that should have been. Second, as a result of Section 404, companies now have higher-quality internal control structures set in place, which better prevent and detect white-collar fraud. For example, a new control resulting from Section 404 can require a certified manager to call all suppliers on the invoices each month and confirm the types of products and services they had sold during the recent month. As a result, an employee attempting to create fake invoices from bogus suppliers now has a higher chance of being detected. Better internal controls might also expect to better prevent and detect unintentional errors that have the appearance of fraud. Since fraud lawsuits can be filed on the

suspicion of fraud, preventing these unintentional material errors can potentially save companies thousands of dollars in legal expenses.

6.3: Evidence that SOX decreases the likelihood of fraud lawsuits:

Class action securities filings have actually declined since SOX was passed. According to Robert Prentice of Cordozo Law Review, "there were fewer [law]suits in 2005 than in 2004, and from mid-2005 through 2006, filings dropped 40% below the prevailing 10-year average" (Prentice 21). He continues to point out that "the filings in 2006 were the lowest in more than a decade, and claimed only $198 billion in shareholder losses, as compared with an annual average over the previous ten years of $683 billion" (Prentice 21). Although there exists other factors that could have caused the decrease in the number of lawsuits filed, there definitely exists a correlation between implementation of SOX and reduction of lawsuits.

6.4: The Winners of SOX Effect #6: Decreased likelihood of fraud lawsuits:

With evidence that Sarbanes-Oxley might cause a decrease in the likelihood of fraud lawsuits, the primary winners of this SOX effect are small companies. Because small companies usually generate the least amount of revenue, one might expect the heavy legal expenses of a fraud lawsuit to wipe out their limited amount of profits. One might also expect small companies to be more susceptible to errors or fraud as a result of poorer internal controls. Therefore, these companies have the most to gain with the ability to prevent fraud lawsuits.

6.5: The Losers of SOX Effect #6: Decreased likelihood of fraud lawsuits:

Although all firms benefit from a decrease in the likelihood of fraud lawsuits, old firms are the losers because they benefit the least from this potential SOX effect. One might expect

that a key driver in their continual success at their phase in the business life cycle relies more on a long-standing reputation and customer loyalty than new and innovative products. Therefore, they are losers because if faced with a fraud lawsuit, one might expect them to have enough credible history and customer loyalty from a long-standing reputation to sustain them throughout a lawsuit.

6.6: Summary:

A fraud lawsuit has the potential to destroy a company's profitability and long-run survival. With a substantial decrease of fraud lawsuits filed by companies in the years following Sarbanes-Oxley, one might expect the stringent internal control requirements of SOX Section 404 to substantially decrease the likelihood of a fraud lawsuit. While every firm clearly benefits from the effect of fewer lawsuits, some firms benefit more than others. In this case, smaller firms are the winners because the prevention of a fraud lawsuit can signify the prevention of legal expenses that could wipe out their entire annual revenues. With stronger internal controls, small companies obtain an ability to prevent material fraud or errors, which thus saves them from court. On the other hand, the companies that benefit the least from fewer fraud lawsuits are older companies because customer loyalty and their long-standing credible reputation are more likely to sustain their earnings throughout any fraud lawsuits.

Chapter 7: SOX Effect #7: Increased Compliance Costs

7.1: Importance of increased compliance costs:

Because Sarbanes-Oxley requires a substantial amount of time setting up better internal controls for Section 404, one would expect that SOX increases a company's legal compliance costs. According to the New Zealand Ministry of Economic Development, businesses must face three types of compliance costs ("Business Compliance"):

1) Tax regulations (i.e. income tax)

2) Disclosure of records regulations (i.e. financial reporting)

3) Protective obligations on businesses (i.e. consumer rights, anti-discrimination)

The second compliance cost, disclosure of records regulations, is where Sarbanes-Oxley fits into place. This increase in total compliance costs can be a significant issue to companies that do not receive enough benefits from SOX compliance to outweigh the extra expenses.

7.2: How SOX might increase compliance costs:

Implementing the internal control requirements of Sarbanes-Oxley Section 404 can involve hiring outside consultants, establishing a new controls department, and paying a larger audit fee to external auditors for providing their assessments and opinions on the quality of the control structure. Therefore, one might expect these extra stringent requirements of SOX 404 to cause enormous upfront costs. However, because implementing Section 404 into a company is not repetitive or annual, one might also expect compliance costs to quickly decrease in the years following implementation of SOX.

7.3: Evidence that SOX increases compliance costs:

Just by examining the large emotional outcry from companies of all sizes at Sarbanes-Oxley Section 404, as well as examining the passage of amendments to Section 404 in 2005, one might expect that SOX's compliance costs are financially burdensome and cause quite a controversy in the business community.

The average cost for Sarbanes-Oxley compliance alone is expensive. According to 2005 HR Magazine article titled "Sarbanes-Oxley Compliance Costs Rising," through a survey, an organization called "Directorship/RHR International" discovered that the average cost for an organization to comply with the stringent requirements of SOX is about $16 million (Gurchiek 1).

However, although there is definitely an upfront increase in compliance costs as a result of Section 404, there is also evidence that points to a substantial drop in the large upfront costs after a few years of initial compliance with SOX. According to a 2006 study done by RHR International, there was a 44% drop in total compliance costs for large companies and a 30% drop for smaller companies (Prentice 26).

First, evidence indicates that experience and technology efficiency drives down costs. The RHR International study also finds that there are two possible reasons for the subsequent decline in costs:

1) Software improvements force the internal control process to become more efficient in time and money (Prentice 26)

2) Firms are acquiring more experience with SOX and therefore becoming more relaxed about compliance spending. Many CEOs and CFOs are not as concerned about corporate lawsuits as they initially were immediately after 2002 (Prentice 26)

Second, evidence points to a drop in compliance costs as a result of more automated controls. In a 2007 survey, Financial Executives International found that the "cost of compliance with Section 404 of the Sarbanes-Oxley Act (SOX) declined by 23% in fiscal 2006" (McGillicuddy 1). What are the reasons for this decline? Sanjay Anand, chairperson of the Sarbanes-Oxley Institute, states that "technology has a lot to do with cost reduction" (McGillicuddy 1). He believes that about 20%-40% of the cost reduction is "actually coming from automated controls rather than manual controls" (McGillicuddy 1). Logically, if a company implements more effective internal controls through automated technology, it can avoid high labor costs of performing manual controls. So, although a firm may be paying enormous implementation fees upfront, that subsequent drop in the need to spend for manual controls compensates for the high upfront costs.

Third, evidence also points to a decline in costs resulting from the consolidation of IT systems. The FEI survey pointed out that companies with "centralized operations, presumably with consolidated IT systems, reported costs of $1.67 million in 2006" as compared to the companies with decentralized and multiple IT systems with an average of $4.86 million in costs (McGillicuddy 1). Therefore, as a result of Sarbanes-Oxley, IT has become even more "integral to the business" (McGillicuddy 1).

7.4: <u>The Winners of SOX Effect #7: Increased Compliance Costs:</u>

With evidence that the upfront stringent requirements of Sarbanes-Oxley increases a company's compliance costs, there are certain types of companies that gain the most and lose the least from these increased costs. One might expect that older companies and companies that have a cost leadership strategy to derive the most benefits from these increased compliance costs. First, one might expect the improved technology from SOX Section 404 to increase their playing field with younger competitors. For example, an older company forced to consolidate its IT system makes costs and operations more efficient and puts them at an equal footing with younger competitors that likely have modern technology. Second, companies with a low cost leadership strategy are also winners because operating efficiency is vital to their success and profitability. Rather than reliance on high-end and unique products, these companies succeed by mass-producing identical products and selling them at a cheap price. Therefore, the benefits of spending on internal control efficiency and operating efficiency are clearly enormous for them.

7.5: <u>The Losers of SOX Effect #7: Increased Compliance Costs:</u>

Because costs to implement SOX Section 404 are so massive, there are clearly firms that derive the least benefits out of these increased compliance costs. As seen from the attempts to create an amendment for Section 404 that reduces the stringent requirements for smaller-sized businesses, one might expect that the "losers" of this SOX effect are smaller companies. While increased operating efficiency and better technology are clearly beneficial, the enormous average upfront SOX compliance cost of $16 million is more burdensome for smaller companies because of their more limited amount of revenue.

7.6: <u>Summary:</u>

Evidence points to an upfront increase in compliance costs when initially implementing Sarbanes-Oxley. Although compliance costs are enormous upfront, the side-effects of SOX's better internal control structure results in better operating efficiency. This occurs through consolidations of IT systems, more experience with SOX, and more automated controls. Therefore, one might expect these lower operating costs subsequent to SOX implementation to compensate for the large upfront costs.

Because heavy compliance costs impact the long-run survival of a business, there are firms who gain the most from these costs, and firms that gain the least. The winners of this SOX effect are older companies because of their opportunity to modernize, as well as companies with a cost leadership strategy because of the improved operating efficiency that provides a vital role to their profitability. However, the losers of this SOX effect are smaller companies because of their limited amount of revenue to pay for the enormous upfront costs.

Chapter 8: SOX Effect #8: Decreased Innovation

8.1: Importance of decreased innovation:

Because of the increased amount of time implementing the required internal controls of SOX Section 404, as well as the rigidity of the regulations, one might expect that Sarbanes-Oxley decreases a firm's time spent on innovation. In a concise definition, organizational flexibility is the "ability of the firm to quickly and efficiently respond to market changes and to rapidly bring new products and services to the market place" (Muehlen). Innovation is critical to firms because it is the key ingredient that gives a business its competitive advantage over other firms in terms of new products and expanding operations. Reason magazine article writer Brian Doherty believes that the costs of the Sarbanes Oxley Act will "siphon revenues toward legal and accounting work" (Doherty). The rigidity of SOX also appears to impact the vital growth of companies. Rich Karlgaard from Forbes Magazine believes that "although this will prevent the next Enron, it will also crib-kill the next Starbucks and Microsoft" by leaving less capital to expand and make investments (Doherty).A hindrance to innovation is clearly not beneficial to firms, especially small firms, because a firm cannot be expected to grow or differentiate itself from its competitors without new ideas and creativity.

8.2: How SOX might decrease innovation:

Because Sarbanes-Oxley Section 404 compliance can take on a heavy financial burden and increased amounts of labor, one might expect companies to replace time spent working on value-added activity with time complying with SOX. For example, management may be spending $2 million on designing more effective internal controls to better comply with SOX –

money that could be invested elsewhere, such as in new projects or labor hours for employees to focus on creating product concepts.

Although a low budget after SOX implementation may be a reason companies have less innovation, one might also expect the rigidity of SOX to be a reason why companies avoid investing in new complex projects. Stephen Stanton, a SOX compliance consultant, dislikes SOX mainly because of its requirement that any changes must be fully documented was stifling innovation (Doherty). He believes that "all of a sudden, change is the enemy; creative destruction is a bad thing…so it really stifles innovation, stifles growth" (Doherty). Jim Carroll of the Canadian Society of Association Executives believes that "without risk, there's no innovation. Without the ability to make mistakes, and be rewarded for failure, no one will try anything new. And it seems to some that the intense focus on governance will result in just such cultural destruction" (Carroll 2). For example, a public home construction company might avoid involving itself in the acquisition of a smaller home construction company simply because it is concerned that the likelihood of having material errors when reporting the subsidiary will be very high. Because the large home construction company is worried that these material errors may lead to intense SEC investigations and harsh penalties, the company decides not to get involved in new expansions and thus any innovative ideas. Lastly, one might expect a decrease in innovation because changes in processes tend to disrupt existing controls. For example, managers may decide not to implement lean process improvements simply because the costs to create new controls under SOX Section 404 would be too excessive.

8.3: Evidence that SOX decreases innovation:

There is not enough evidence to conclude that SOX drives down a company's ability to innovate. In a 2008 research publication entitled "The Non-Pecuniary Costs of Sarbanes Oxley," researcher Nicholas Vakkur hypothesizes that Sarbanes Oxley will reduce the average firm's innovation because of increased rigidity in regulations, its diversion of capital from R&D to compliance, and the overall less entrepreneurial role and more regulatory role of the CEO (Vakkur 6). However, after sampling 206 of the Fortune 500 companies, there was not enough evidence to support his hypothesis, which suggests that, according to Vakkur, large firms are "relatively resource intensive" (Vakkur 15). However, he warns a weakness of his study is that "innovation benefits become less apparent as innovation is reduced, making it more difficult to perceive the hypothesized effect" (Vakkur 15).

8.4: The Winners of SOX Effect #8: Decreased Innovation:

Although there is no evidence that point to a decrease in innovation as a result of Sarbanes-Oxley compliance, one might expect the winners of decreased innovation to be the firms that lose the least when faced with less innovation: firms with a cost leadership strategy, large firms, and old firms. Because firms with a cost leadership strategy drive their success on operating efficiency of identical, mass-produced products, product differentiation and innovation is least important to these firms. They therefore have the most to benefit when it comes to a loss of innovation. Second, large firms are also winners because they have much more money and labor to ensure the innovative functions of the company are utilized at normal capacity. For example, a company may have more of the accounting department working on SOX compliance, while still having enough money to afford time and labor in the R&D department to continue working on designing new products. Third, old firms are also winners because one might expect

their success to rely more on customer loyalty and long-standing reputations rather than designing new innovation products. Therefore, these companies have the least to lose.

8.5: The Losers of SOX Effect #8: Decreased Innovation:

The losers, the companies most harmed by a decrease in innovation, are high-growth firms, small firms, young firms, and firms with a differentiation business strategy. First, high-growth firms are losers because their growth success depends on innovation and continually setting themselves apart from competitors. Any lack of innovation caused by an increase in compliance labor may cause damage to the overall growth of the company. Second, small firms are losers because they are the firms most likely to have insufficient personnel numbers to work on R&D and other innovative activities. Third, young firms are losers because the need for building a good reputation is critical to the future of their operations. Without these necessary innovative activities, these firms cannot build the reputation needed to gain customer loyalty and long-term profitability. Lastly, firms with a differentiation business strategy are the absolute biggest losers because their success and product sales depend on innovation, creativity, and uniqueness in products. With less time devoted to creativity, competitors gain advantages in sales.

8.6: Summary:

Innovation is critical to the long-run survival and profitability of a company. However, there is no conclusive evidence that SOX detriments innovation. In reflection, there might not be a large loss of innovation in companies due to the fact that compliance costs are still such a tiny percentage of a company's total expenses, and the possibility that many companies have a shrinking fear of SOX's penalties and reprimands as years of SOX compliance experience have

passed and the initial scare of SOX has died down. Second, many firms might have separate departments that specifically focus on company innovation. If these special departments never deal with SOX compliance in the first place, the company has not lost time away from innovation. Lastly, as we have seen above, compliance costs tend to shrink exponentially after the first few years of implementing Section 404 internal controls. Therefore, a lack of compliance costs would not divert attention away from the innovation process. If there really was evidence of a loss in innovation due to SOX, we might expect the winners of this effect to be old firms because of their basis of customer loyalty and credible reputation driving sales, rather than new technology products. Also, low cost leadership firms are winners because of their reliance on selling identically similar products. Lastly, the losers of this SOX effect would be high-end differentiators, young firms, small firms, and high-growth firm because of their dependence on uniqueness and innovation to set themselves apart from competition.

Chapter 9: Explanation of Thesis Survey (Exhibit 1.1):

In addition to a literature review of published articles and extrapolations from the published findings, I created a survey to collect more evidence of SOX's impact on a firm's innovation, compliance costs, and earnings management activity. While I expected survey results to be similar to the findings in the published literature, I hoped to investigate any responses that departed from the findings of the previous chapters.

This survey is intended to be completed by external auditors in public accounting firms because they tend to have more experience with SOX compliance, and therefore more knowledgeable about the impacts of SOX on businesses. External auditors were chosen also because the Oregon State University Accounting Department has excellent networking ties with them. However, a major limitation of this survey is a positive bias towards the benefits of SOX, such as the potential tendency to downplay compliance costs, such as loss of innovation. This bias results from the expectation that SOX creates work for external auditors because of the additional compliance requirements they must now cover for clients.

Unfortunately, a limit of time and resources prevented the survey from being sent out. However, through a review of published articles related to the impacts of Sarbanes-Oxley, the expected results of this survey can be deduced.

Innovation Section:

From the findings that there is no correlation between SOX and decreased innovation, one can expect the reactions to the statements that SOX causes a loss of innovation to be mostly disagreements. Specifically, the first and third questions that ask if the financial costs of Sarbanes-Oxley restrict a corporation's innovation and free thought will most likely be "strongly

disagree." In the set of assertions in the second question which provide various scenarios of restricting innovation, such as less R&D spending, one can also expect to see disagreeing results. However, there are two limitations to this section alone. First, survey responses on the SOX effect of innovation might be different than responses had the survey been disbursed when SOX first came into effect in 2004, simply because compliance costs (as we have seen) have substantially decreased since SOX's first implementation in 2004. Second, external auditors are more than likely audit only medium-sized and large-sized public companies, which tend to have sufficiently more money to afford new investments and innovative projects. Large companies do not lose as much as small companies from SOX impacts because they have greater revenue capacities to sustain themselves through the costs of SOX.

Compliance Costs Section:

In the compliance costs section, one might expect external auditor responses to be in disagreement with the statements that clients now spend more time on Section 404 compliance than before passage of Sarbanes-Oxley. Specifically, one can expect responses on the first question to state that their clients spend "less" time and money on Section 404 compliance than they spent five years ago. Furthermore, one can expect the auditors to circle all of the listed reasons for less Section 404 compliance, such as increased efficiency and automated duties (all findings that were discovered in this paper). Lastly, there would have also been a substantial "strongly disagree" result to the third question that asks whether accountants have replaced their non-404 duties with compliance duties. As discovered in the findings, there would be disagreements for the reasons of increased experience, decreased compliance spending, and lack of a correlation between innovation and SOX.

Earnings Management Question:

Lastly, for the earnings management question, there are no certain expectations about the responses to the question that a decrease in earnings management is due to either better controls or a fear of SOX's punishments. On one hand, as discovered in the findings, some responses might be "agree" because there is evidence that accrual-based earnings management has switched to non-accrual-based earnings management as a result of its difficulty of detection. Some responses might be "disagree" because one might expect the punishments of Section 302 CEO responsibility violations to intimidate management from manipulating earnings. Lastly, some responses might be "neutral" simply from the findings that there is no evidence that earnings management decreases as a result of SOX.

Summary:

One would expect to find a majority of responses that imply SOX has no effect on a firm's innovation, that SOX compliance costs decrease over time as a result of better internal controls and operating efficiency. However, there are no expectations for a consensus over the reason that earnings management might decrease.

Conclusions

My initial expectations about the financial and non-financial SOX effects on businesses were very pessimistic. At first sight, because of the multitude of complaints about the expenses of SOX, the benefits do not appear to outweigh the costs. It is easy to assume businesses are wasting their money and serving an unjust punishment for the wrong-doings of Enron or WorldCom.

However, this research has discovered that SOX actually provides many benefits for all types of firms.

<u>Highlights of each SOX impact on businesses:</u>

Each of the following impacts on businesses was researched to find any possible correlations with SOX. Each impact is then broken down into the types of firms that benefit the most from it (the “winners”) and the types of firms that benefit the least from it (the “losers”):

1. **Investor Confidence**: There is evidence of an increase in investor confidence after the passage of SOX. One can expect that a boost in investor confidence is vital to companies seeking external funding.

- *Winners:* High-growth firms, young firms
- *Losers*: Firms with unfavorable numbers

2. **Earnings Management**: There is not enough evidence to prove that SOX causes a decrease in earnings management activities. Although accrual-based earnings management has decreased since SOX, there is also evidence that non-accrual-based earnings management has significantly increased since SOX. Earnings management can be beneficial by smoothing annual reported

income and lessening the wide volatility of earnings. Earnings management is also detrimental because it loses investor confidence in the accuracy of the company's financials.

- *Winners*: High-growth firms
- *Losers*: Value firms

3. **Financial Restatements**: There is not enough evidence to prove that SOX causes a decrease in financial restatements. However, as expected from the harsh penalties of Section 302's CEO attestation requirement, there is evidence that there is a smaller percentage of fraud linked to financial restatements made after passage of SOX.

- *Winners:* Large firms
- *Losers:* Small firms, young firms

4. **Audit Fees**: There is not enough evidence to prove that SOX causes an increase in audit fees. Although there are technically increases in the audit fee reports of external auditors, these increases are found to be misleading because of the format changes in audit fee reports after the passage of SOX.

- *Winners*: Large firms
- *Losers:* Small firms

5. **Credit Ratings**: There is evidence that average credit ratings rose in the years following the passage of SOX. Higher credit ratings are extremely useful for obtaining additional external funding and at a cheaper cost. There is also evidence that credit rating increases were more substantial for companies with poor internal controls prior to SOX compliance.

- *Winners*: High-growth firms, small firms, young firms
- *Losers:* Old firms

6. **Fraud Lawsuits**: There is evidence that the number of fraud lawsuits has decreased in the years following the passage of SOX. Prevention of fraud lawsuits is most important to firms that cannot afford the settlement expenses.

- *Winners*: Small firms

- *Losers:* Old firms

7. **Compliance Costs**: There is evidence that compliance costs have increased in the years following the passage of SOX. However, there is also evidence that points to major decreases in SOX-related compliance costs in the years following implementation, mainly because of better operating efficiency and experience with SOX compliance.

- *Winners*: Old firms, Cost Leadership Strategy firms
- *Losers:* Small firms

8. **Innovation**: There is not enough evidence to prove that SOX causes a loss of innovation. If there was a correlation, this impact of SOX would be most detrimental to firms whose growth and success depend on uniqueness in products and company image.

- *Winners:* Cost-leadership strategy firms, large firms, old firms
- *Losers:* Small firms, young firms, high-growth firms, differentiation strategy firms

Highlights of SOX Effects on Organization Characteristics:

As expected, small companies appear to gain the least amount of benefits and suffer most from the costs when in compliance with Sarbanes-Oxley. They tend to spend higher percentages of their revenues towards SOX compliance than those of other types of firms.

High-growth firms especially benefit from SOX compliance. Since high-growth firms rely heavily on external funding to expand their businesses, the more effective internal control implementations of SOX allow these firms to obtain additional capital and at a cheaper cost.

Young companies tend to really benefit from SOX compliance because the internal control requirements provide these firms an opportunity to build credibility within the financial markets, as well as access to cheaper funding for the purpose of expanding and growing the business.

Final Thoughts:

Although some firms clearly gain more benefits from SOX compliance more than others, the final conclusion is that all firms tremendously benefit from SOX in the long-run. True, there are many small and young firms who have trouble spending immense amounts of upfront money to implement the controls of Section 404, but even these firms gain the long-run benefits of operating efficiency, better preventive measures against fraud and material errors, and cheaper costs of capital.

Since there is no evidence that SOX causes a loss of innovation and increased audit fees, as well as the multitude of long-run benefits that arise from implementing SOX, private companies should not let the large upfront costs of Sarbanes-Oxley intimidate them from going public. Sarbanes-Oxley consists of regulations not intended to punish public businesses from the wrong-doings of Enron or WorldCom, but intended to protect investors and creditors. It just so happens that other benefits arise from SOX, such as cheaper capital and better operating efficiency. Therefore, the costs of SOX are simply not able to outweigh its benefits. Even though Sarbanes-Oxley was not created by accountants and business owners, its ability to lower the chance of a material misstatement gives it a valid reason to exist. After all, the U.S. Congress could do worse.

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APPENDICES

Appendix 1:

Oregon State University Honors College SOX Survey

Dear Participant,

Thank you for agreeing to participate in my questionnaire regarding the effects of the 2002 Sarbanes-Oxley Act (SOX) on publicly-traded businesses. The survey is part of my Honors thesis at Oregon State University. Your help in this is extremely valuable to my thesis – a project in which I have become extremely devoted to in the last twelve months.

I am interested in learning whether SOX affects firms that are considering going public. This survey has three parts: the effects of SOX on innovation, compliance, and management.

The first part considers whether you consider if SOX has affected innovation by diverting available funds to SOX compliance. The second part considers whether you consider costs associated with SOX compliance have been mitigated over time. The third part addresses incidental effects of SOX compliance including whether the SOX compliance has affected management's behavior related to earnings management and strategic decision-making.

Again, thank you for filling this out. I am deeply grateful for your time!

Sincerely,

Derek Bailey

OSU Honors College

OSU College of Business

Please circle how much you agree with each statement.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Innovation:

1. The financial costs of Sarbanes-Oxley are substantially reducing public corporations' innovation.	1	2	3	4	5
2. Section 404 ***costs*** limit a corporation's willingness to:					
Introduce additional lines of business.	1	2	3	4	5
Expand into additional markets	1	2	3	4	5
Invest more money in new equipment, securities, or property.	1	2	3	4	5
Spend additional money on Research & Development.	1	2	3	4	5
3. The ***rigidity*** of Section 404 restricts a corporation's innovation and free thought.	1	2	3	4	5

Compliance Costs:

1. My clients spend (circle one)_____ time and money on   Less   The Same

More

Section 404 compliance than they spent five years ago.

2. If you answered less, the reason for less costs on 404 compliance is: (circle all that apply)

Increased efficiency in compliance

Automated duties

Management's attitude change about governance

Other reason

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3. The accountants in my client's firm have replaced their normal non-404 duties with 404 compliance duties.	1	2	3	4	5

Management:

1. A decrease in earnings management is more likely due to an effective internal control structure than fear of punishment by the Sarbanes-Oxley law.	1	2	3	4	5

Appendix 2: Framework for SOX Effects by Organization Characteristics

Small Companies	• CON: Too costly to afford the prevention of financial restatements (SOX impact not proven) • CON: Too costly to afford increasing audit fees (SOX impact not proven) • PRO: Higher credit ratings allow growth through cheaper external financing • PRO: Prevention of fraud lawsuits can save company from bankruptcy • CON: Loss of innovation can damage long-run profitability (SOX impact not proven)
Large Companies	• PRO: Larger revenues able to cover increasing audit fees (SOX impact not proven) • PRO: Enough employees to keep value-adding activities in motion (SOX impact not proven) • PRO: Existing control structure needs less improvement • PRO: Prevention of financial restatements protects reputation (SOX impact not proven)
Old Companies	• PRO: Prevention of lawsuits maintains reputation • PRO: Compliance costs create modern technology that matches the technology of competitors • PRO: Long-standing reputation sustains company throughout periods of less innovation (SOX impact not proven)
Young Companies	• PRO: Investor confidence builds a credible reputation in the financial market • CON: Too costly to afford prevention of financial restatements (SOX impact not proven) • PRO: Effective controls better prevent material misstatements that result from a lack of experience with financial reporting (SOX impact not proven) • PRO: Increased credit ratings allow for easier expansion of business • CON: Lack of innovation damages fresh reputation (SOX impact not proven)
Companies with Differentiation Strategy	• CON: Loss of innovation damages product uniqueness and revenue capacity (SOX impact not proven)
Companies with Cost Leadership Strategy	• PRO: Better internal controls increase operating efficiency • PRO: Lack of dependence on uniqueness sustains company through losses of innovation (SOX impact not proven)
High-Growth Companies	• PRO: Growth and expansion is made possible by increased investor confidence • PRO: Protection from market risk decreases exposure to market fluctuations resulting from decreased earnings management (SOX impact not proven) • PRO: Increased credit ratings allow for ease of growth and expansion • CON: Loss of innovation hinders growth success (SOX impact not proven)
Value Companies	• CON: Decreased earnings management makes fluctuations in the financials more sensitive to risk (SOX impact not proven)

The extrapolations from the literature review discovered that there were certain firms who were "winners" and firms who were "losers" for each SOX impact. In the table above, the winners and losers of each SOX impact are grouped together by organizational characteristic. The "pros" are the SOX impacts that the organizational characteristics benefited the most from. Consequently, the "cons" are the SOX impacts that the organizational characteristics benefited

the least from. For four of the eight possible impacts researched, there was not enough evidence to prove a correlation between SOX and the impact. However, the winners and losers of all eight possible impacts are included in the framework to give firms an idea about even potential minor impacts that may result from SOX.