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Can a Financial Statement Pronouncement Increase State Tax Compliance and Revenues?

Understanding the Effect of FIN 48 on the National Nexus Program

A Dissertation Presented for
the Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Ann Boyd Davis
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DEDICATION

This dissertation is dedicated to my parents, Davis and Lou Ann Watts, my brother, James Watts, and my husband, Wilson Davis. Thank you for giving me strength and encouragement and serving as my light throughout this process.

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ABSTRACT

Since 1982, 40 states and the District of Columbia have offered amnesty programs. In December 1990, the Multistate Tax Commission (MTC) established the National Nexus Program (NNP), a permanent tax amnesty program. Prior literature has focused on amnesty programs and has shown that these programs do little to increase tax revenues and compliance when increased future enforcement is absent. I examine the impact of the NNP on state corporate tax revenues. From 1991 through 2008, state corporate tax revenues are significantly lower than revenues from 1973 through 1990. Further, I find that states joining the NNP have a negative impact on state corporate tax revenues; however, the initial year impacts revenues differently than all other years.

The implementation of Financial Interpretation No. 48 (FIN 48) provides another reason for firms to disclose in the NNP. Specifically, to reduce the FIN 48 liability on financial statements, firms may disclose in the NNP. The primary purpose of FIN 48 is to increase the comparability and transparency of financial reporting of income taxes through requiring consistent recording and disclosure across firms. Although FIN 48 has been replaced with the Accounting Standard Codification 740-10, I continue to refer to FIN 48 because of familiarity. I examine whether FIN 48 resulted in an increased number of firms entering the NNP by state. I also investigate whether FIN 48 impacted the dollar amount of NNP disclosures by state. Using aggregated proprietary data obtained from the NNP and matched with hand-collected data from 1994 through 2008, I find that FIN 48 has a positive effect on the number of NNP disclosures but has no impact on the dollar amount of disclosure. Rather, for states joining the NNP, the dollar amount of disclosure tends to be driven by the states adopting combined reporting requirements. In examining publicly-traded firms on an individual case basis, I find that economic presence and voluntary compliance initiatives predominately have a negative effect on the dollar amount of disclosure while FIN 48 has an insignificant impact.

Keywords: Permanent tax amnesty program, FIN 48, MTC, NNP.

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1. INTRODUCTION

From 1991 through 2008, the ratio of state and local corporate taxes to corporate profits has declined from 7.2 percent to 4.7 percent, representing a dramatic decrease of 34.7 percent.[1] Aggressive and sophisticated tax planning techniques implemented by firms may partially account for this decline (Fox and Luna, 2002; Dubin, 2007).[2] In response to these techniques, states have expanded the nexus threshold, taxed bases other than profits, required addbacks of intercompany expenses, enacted combined reporting, and decoupled from federal tax provisions and incentives (Cronin et al., 2002; Fox et al., 2005). To curtail excessive tax planning and increase compliance, states also have offered tax amnesty programs. An amnesty program provides taxpayers an opportunity to pay prior unpaid taxes without owing penalties and enduring the prosecution that is usually associated with discovery of evasion. Historically, states have focused only on state initiatives as primary mechanisms for increasing tax compliance and revenues and have not considered financial statement pronouncements or other mechanisms outside the state tax arena to encourage tax compliance.

Experimental research on state tax amnesty programs indicates that the average level of tax compliance falls after a one-time tax amnesty (Alm et al., 1990). Other empirical studies investigate the revenue implications of state tax amnesties and find that the amnesty had no long run impact on tax collections (Alm and Beck, 1993; Lopez-

[1] Corporate profits here are collected from National Income and Product Accounts from the Bureau of Economic Analysis (BEA) rather than using calculations appropriate for financial accounting or tax-based approaches due to data limitations. BEA data differs from Compustat data by including both publicly-traded and privately-held firms. Corporate profits are defined as the corporate profits before tax of domestic industries less earnings from Federal Reserve banks.

[2] The decline also may be associated with measurement errors, changes in the federal corporate tax base, and actions of policy makers.

Laborda and Rodrigo, 2003). Contrary to most of the literature that finds tax amnesties to be efficiency decreasing, Andreoni (1991) theoretically examines a permanent tax amnesty and finds that this type of program can actually increase the efficiency and equity of the tax system. A permanent tax amnesty program does not have the traditional beginning and ending dates of a state tax amnesty program.[3] This difference is important because, unlike a traditional state tax amnesty program, a permanent tax amnesty program does not have increased enforcement after establishment and does not have the ability to attract participants with a narrow participation period. While the literature has examined the effects of individual tax amnesties in certain settings, the research has yet to explore the impact of a permanent tax amnesty on corporate tax revenues. An empirical examination of a permanent tax amnesty will give policymakers information to evaluate whether this type of program should be sought in lieu of shorter traditional amnesty programs.[4]

The Multistate Tax Commission (MTC) implemented its own permanent tax amnesty program, the National Nexus Program (NNP), in December 1990. Initially, 20 states plus the District of Columbia participated in the NNP with the level of participation rising to 40 states plus the District of Columbia in 2008. The program allows multistate taxpayers to disclose prior liabilities in several states while only supplying facts and tax

[3] To date, no state tax amnesty programs have been implemented as a permanent amnesty program.
[4] Canada, Germany, the Netherlands, Norway, and Sweden all have characteristics in amnesties that resemble permanent tax amnesty programs. In fact, from 1919 to 1952, the United States had a permanent amnesty program for income taxes (Alm, 1998).

returns to a single commission or organization, the MTC.[5] The NNP database contains proprietary data obtained from firms disclosing prior unpaid tax liabilities.

Issued in July 2006 and effective for publicly-traded firms with fiscal year-ends beginning after December 15, 2006,[6] Financial Interpretation No. 48 (FIN 48), *Accounting for Uncertainty in Income Taxes*[7] requires firms to record a liability for an uncertain tax position and include FIN 48 disclosures in financial statements provided to creditors and shareholders.[8] To avoid recording FIN 48 liabilities in the financial statements, firms may enter into a tax amnesty program with an individual state or the NNP and voluntarily disclose prior tax liabilities.[9] Depending on the extent of the NNP disclosure, firms may reduce or completely eliminate the need for a FIN 48 liability in the

[5] Throughout the dissertation, I refer to disclosure in the National Nexus Program (NNP) as well as Financial Interpretation No. 48 (FIN 48) disclosures. NNP disclosures represent a firm voluntarily disclosing prior unpaid tax liabilities in the NNP. However, FIN 48 disclosures refer to mandatory disclosures in the financial statements through recording a FIN 48 liability. Also, firms may include a vague textual disclosure related to the FIN 48 liability in the financial statements.

[6] Originally Financial Accounting Standards Board (FASB) issued FIN 48 for both publicly-traded and privately-held firms. However, on February 1, 2008, FASB Staff Position (FSP) No. FIN 48-2, deferred the effective date for nonpublic entities to fiscal year-ends beginning after December 15, 2007. Later in 2008, FSP No. FIN 48-3 deferred the effective date of FIN 48 for nonpublic entities further to fiscal year-ends beginning after December 15, 2008.

[7] On June 30, 2009, the FASB issued the final FASB Statement No. 168, *The FASB Accounting Standards Codification (ASC) and the Hierarchy of Generally Accepted Accounting Principles – a replacement of FASB Statement No. 162*, to flatten the U.S. GAAP hierarchy. The FASB codification was effective for interim and annual reporting periods ending after September 15, 2009. As a result of the FASB codification, FIN 48 is now located in ASC 740-10.

[8] An uncertain tax position represents a single filing position taken by a taxpayer where the taxpayer determines based on the technical merits of the filing position that the filing position does not have a greater than 50 percent chance of being sustained under audit. Simply stated, if the taxpayer believes that the taxing jurisdiction has a better position based on the merits, then the filing position represents an uncertain tax position. One of the primary concerns with FIN 48 is the level of quantitative and qualitative disclosure required in the financial statements. Taxpayers are required to disclose the following four items: (1) the amount of unrecognized tax benefits impacting the effective tax rate, if recognized; (2) the amount of related interest and penalties; (3) any significant changes in the amount of unrecognized tax benefits within 12 months of the financial reporting date; and (4) a description of open tax years by jurisdictions.

[9] In the future, firms also may consider Internal Revenue Service (IRS) Announcement 2010-9 when entering the NNP. IRS Announcement 2010-9 indicates that the IRS is considering an attachment to federal tax returns requiring certain taxpayers to report uncertain tax positions.

financial statements. Because only two states had an amnesty during 2007, firms may choose the NNP rather than a state amnesty program.

In this study, I empirically investigate whether the NNP has any long-run effects on per capita state corporate tax revenues using an expanded model of Alm and Beck (1993) [Model 1]. Further, I develop two aggregated state models that measure the impact of FIN 48 on tax compliance and revenues. Model 2 examines the impact of FIN 48 using aggregated state data and tests whether the ratio of the number of firms entering the NNP in a state to gross state product (GSP) is positively associated with the implementation of FIN 48. FIN 48, a financial statement pronouncement, requires publicly-traded firms to increase disclosure and transparency around uncertain tax positions. To the extent that firms' uncertain tax positions result from non-filing of particular state tax returns or tax positions not previously reported on state tax returns, FIN 48 will aid in increasing tax compliance. These findings further shed light on whether FIN 48 is changing the NNP disclosure behavior of firms.

I use Model 3 to test whether the ratio of the state-aggregated dollar amount of NNP disclosure to GSP is significantly impacted by FIN 48. The dollar amount of NNP disclosure may rise after FIN 48 due to firms increase in NNP disclosures and the desire not to record a FIN 48 liability. On the other hand, the dollar amount may fall as firms disclose only small dollar amounts in the NNP to begin the statue of limitations.[10] Of course, other state tax characteristics exist that may drive a firm's decision to disclose in

[10] The statute of limitations is three years, on average, and runs from the later of the date the actual return was filed or the original due date. The statute of limitations represents the time period in which a taxing jurisdiction can audit a firm or assess additional taxes. If no return has been filed, the statute of limitations runs indefinitely. This issue is discussed further below.

the NNP and the dollar amount of disclosure. During this period, firms were struggling with understanding state economic presence requirements for income tax purposes, perhaps resulting in increased disclosure and dollar amount of disclosure as these requirements become more clearly defined. Also, firms might seek other state tax amnesty programs or voluntary compliance initiatives (VCIs) for disclosure. Firms located in states viewed as business-friendly (states without combined reporting requirements, addbacks, and throwbacks) may also have more disclosure resulting from increased opportunities for tax planning. Finally, I develop an individual case-level model using publicly-traded firms to examine the impact of FIN 48 on the dollar amount of disclosure (Model 4).[11] Model 4 differs from Model 3 in that its focus is at the case-level, thereby allowing for both state-level and firm-level controls providing information on whether firm characteristics of size and tax aggressiveness influence the dollar amount of NNP disclosure.

In exploring the effects of the NNP, I find that a break occurred in per capita state corporate tax revenues when comparing 1991 through 2008 to 1973 through 1990. In fact, after controlling for state tax characteristics, I find that corporate tax revenues from 1991 through 2008 are 19.8 percent lower than from 1973 through 1990. As stated earlier, the ratio of state and local corporate taxes to corporate profits has declined 34.7 percent from 1991 through 2008, demonstrating that state corporate taxes are declining. Although the establishment of the NNP began in December 1990, I am not suggesting that the NNP caused this large decline in revenues as I am unable to control for time

[11] Each case in the NNP database is comprised of a unique taxpayer disclosing prior liabilities in a particular state for income taxes.

fixed effects and unobservable shocks. Rather, I focus on the break in the dependent variable indicating that additional investigation is needed to determine the cause of the revenue decline.

In further investigation of the NNP, I find that the NNP has a permanent decreasing effect on per capita state corporate tax revenues. In other words, once a state joins the NNP, the state's corporate tax revenues are, on average, lower than had the state not joined the NNP. Andreoni (1991) theoretically demonstrates that a decrease in revenues after the introduction of a permanent tax amnesty program results when firms view the program as an insurance benefit. Based on my empirical findings and the theoretical findings of Andreoni, I conclude that firms tend to view the NNP as insurance available to the firm for disclosure when facts change or additional information is made available. The benefit of the insurance program assumes that a firm uses the information and discloses prior to a taxing jurisdiction auditing and/or assessing additional liabilities. I also include a transitory effect in the model for the first year of participation in the NNP. In the year a state joins the NNP, the overall effect on tax revenues remains *negative* although the result is not as negative as in future years of participation. According to Andreoni, this finding may indicate that firms enter the program upon a state's initial adoption of the NNP due to elevated levels of cheating that existed prior to a state joining the NNP.

In investigating the impact of FIN 48 on both the number of NNP disclosures and the dollar amount of NNP disclosures from a state aggregated perspective, I find that, conditional on a state joining the NNP, FIN 48 is associated with an increase in the ratio

of the number of NNP disclosures to GSP but had no significant impact on the ratio of the dollar amount of NNP disclosure to GSP. Finally, I investigate the impact of FIN 48 using individual case-level data. While I do not find broad evidence that FIN 48 or the interaction of FIN 48 and firm size or tax aggressiveness impacts the dollar amount of disclosure in the NNP, I do find that economic presence matters.

When investigating publicly-traded firms using data at the individual case level, I find that, conditional on a state joining the NNP and a firm selecting to disclose in the NNP, predominately two state policy control variables, *VCIs and economic presence*, have significant and negative effects on the dollar amount of NNP disclosure. In states with VCIs, firms disclose less in the NNP perhaps because the firm disclosed in the state VCI. Contrary to initial intuitions, firms disclose more dollars in states following the well-established physical presence standard rather than in states seeking a more aggressive form of substantial nexus – economic presence. As firms become explicitly aware of the physical presence standard as established through rules, firms increase the dollar amount of disclosure in the NNP. However, a more principles-based standard, such as economic presence, that is nebulous and open for interpretation results in decreased dollars being disclosed in the NNP. This finding highlights the continued uncertainty around the economic presence standard for substantial nexus and should urge policymakers in the direction of hearing a Supreme Court case on the issue.

The remainder of the dissertation is organized as follows. The second section discusses the background information associated with the MTC, NNP, and FIN 48. The third section provides theory, summarizes prior research, and develops the hypotheses.

The fourth section presents the research design, including the data sources and research method. The fifth section provides descriptive statistics, regression results, and additional analyses. Finally, the sixth section describes the contributions and limitations of the study and suggests areas for future research.

2. BACKGROUND INFORMATION

Multistate Tax Commission

The Multistate Tax Commission (MTC), based in Washington, DC, established and currently administers the National Nexus Program (NNP). The MTC is a commission of state government tax administrators created in 1967. The Multistate Tax Compact, an interstate compact statute enacted by each Compact Member State, formed the MTC as a means to protect state tax authority. In other words, the states wanted their respective legislatures to have the authority to write state tax laws. Therefore, the MTC has remained an integral voice in preserving the rights of states to determine tax policy within the limits of the U.S. Constitution, which is essentially limited only by prohibitions against interfering with interstate commerce (MTC History and Purposes, 2001).

The MTC works on behalf of both states and taxpayers to facilitate discussions about tax laws in an equitable and efficient manner. Because of the benefits gained from interacting with only one organization, taxpayers involved with the MTC tend to be either multistate or multinational firms. The Multistate Tax Compact charges the MTC with the following responsibilities: (1) facilitate the proper determination of state and local tax liability, including any issues with apportionment, (2) promote uniform components of tax systems, (3) facilitate tax convenience and compliance with the filing of tax returns and in the tax administration process, and (4) avoid duplicative taxation (MTC History and Purposes, 2001).

National Nexus Program

The MTC established the NNP in December 1990 for the following purposes: (1) foster increased state tax compliance by businesses; (2) establish national cooperation in the administration of state tax issues arising in the nexus area; (3) facilitate taxpayer compliance through education; and (4) promote fair, even-handed, and consistent state tax enforcement in the nexus area. The NNP provides firms an opportunity to anonymously approach states and voluntarily disclose potential income as well as sales and use tax liabilities resulting from prior activities. Businesses benefit from having potential state tax disputes resolved in advance of any assessments of prior-year taxes, interest, and penalties. Initially, the NNP consisted of 20 participating states and has grown to 40 states in 2008, plus the District of Columbia. The MTC staff performs a significant amount of the work at no cost to the taxpayer; however, states do pay nominal member fees for the services (Sowa-Holmes, 1993).

Although the NNP contains the word "nexus" in the title, firms can disclose prior unpaid state tax liabilities related to issues other than nexus. However, state nexus remains a highly uncertain area and continues to be a common reason for NNP disclosure. Nexus refers to a firm establishing a sufficient connection with a state or taxing jurisdiction allowing that jurisdiction to have taxing authority. Many of the firms list nexus as a reason for NNP disclosure including updating a nexus study or receiving a nexus inquiry from a state other than the state in which the firm is making the NNP disclosure. Appendix A shows examples of these NNP disclosures.

While sales and use tax nexus has relied on a physical presence standard, income tax nexus has varied more widely across state interpretation and historically relied on a substantial nexus standard.[12] Physical presence in a state is established when a firm has a store, office location, employees, etc. located within the state. Substantial nexus does not require an entity to have physical presence in the taxing jurisdiction for income tax purposes. Rather, substantial nexus requires only that an entity exploit the economic market in the taxing jurisdiction. The requirements for substantial nexus for income tax purposes have evolved and are defined through state statutes, revenue rulings, technical assistance advisements, court cases, etc. While some states have specifically stated that physical presence in the state is required for a taxpayer to have met the substantial nexus standard, other states have purposefully left the definition broad.

In recent years, some states have further broadened the definition of substantial nexus to include significant economic presence of a taxpayer in a state. Economic presence in a state occurs when a significant amount of income is derived from sources within the state. Similar to substantial nexus, economic presence connects the taxpayer to the state although the taxpayer has no physical presence, performs no solicitation, or is effectively not "doing business" in the state. Two recent rulings in favor of the economic presence standard were in New Jersey and West Virginia. Even though a trademark holding company had no physical presence in New Jersey and that the only connection was through the receipt of royalty income, the New Jersey Supreme Court ruled that

[12] In *Quill Corporation v. North Dakota* [112 S. Ct. 1904 (1992)], the U.S. Supreme Court held in favor of the taxpayer and upheld a bright-line "physical presence"[12] test it had previously set forth in *National Bellas Hess, Inc. v. Department of Revenue* [386 US 753 (1967)]. The *Quill* ruling specifically applied to the Commerce Clause's physical presence standard needed prior to requiring a seller to collect sales and use taxes.

substantial nexus for income tax purposes existed in *Lanco, Inc. v. Director, Division of Taxation*.[13] Similarly, the West Virginia Supreme Court of Appeals ruled in *West Virginia v. MBNA America Bank*[14] that deriving income from customers in the state resulted in significant economic presence. However, the Tennessee Court of Appeals, Texas Court of Appeals, Michigan Court of Appeals, and Missouri Supreme Court all support a physical presence standard. While these states have litigated the issues of a physical presence versus economic presence for income tax purposes, some states have addressed the issue through legislation, and others have not explicitly weighed-in on the issue.

Although the U.S. Supreme Court has not ruled on nexus requirements for income tax purposes, firms can rely on the guidance found in state statutes and on state income tax forms. Of the 11 states that currently follow economic presence for the substantial nexus standard, seven of the states identify economic presence in the state statute or tax forms. The remaining states have demonstrated a propensity to follow economic presence through tax alert discussions and case law. In states that remain silent in the statutes, taxpayers must rely on the mixed rulings from various state Supreme Courts. Because of uncertainty in substantial nexus standards, a taxpayer may conclude that nexus does not exist and not file a tax return in a state. After additional consideration, the taxpayer may decide that the original conclusion was potentially incorrect and choose a permanent tax amnesty, the NNP, for disclosure.

[13] 908 A.2d 176 (N.J. 2006).
[14] 640 S.E.2d 226 (W.Va. 2006); cert, denied, U.S. Sup. Ct., 061228, June 18, 2007.

After a taxpayer decides to enter the NNP regardless of the reason, the taxpayer contacts the MTC staff anonymously and discloses prior actions. The taxpayer provides a brief business description, the extent of operations in the states in which the taxpayer is seeking disclosure, and the facts and reasons giving rise to the need for disclosure. Again, appendix A gives examples of the reasons for disclosure in the NNP. Using this information, the MTC staff advises the taxpayer of various settlement alternatives likely to be accepted based on their prior working knowledge and history of the states.[15] In any state in which NNP disclosure is being sought, taxpayers must disclose whether the state has contacted them. If the taxpayer has been contacted, selected for audit, or is under investigation, the taxpayer may not enter a NNP disclosure agreement with that state (Baez and Haas, 1998).

Financial Interpretation No. 48

The Financial Accounting Standards Board (FASB) issued the final version of FIN 48 in July 2006 and subsequently codified it as part of Accounting Standards Codification (ASC) 740. For publicly-traded firms, the standard was effective for fiscal years beginning after December 15, 2006. The primary purpose of FIN 48 is to increase the comparability and transparency of financial reporting of income taxes by requiring consistent recording and disclosure across firms. FIN 48 applies to tax positions taken

[15] The settlement options differ based on the experiences of the MTC staff in the different states. Historical knowledge of a state's propensity to settle and the amount for which a state would settle influence these settlement discussions. Unfortunately, I was not privy to these discussions.

and accounted for under Financial Accounting Statement No. 109, *Accounting for Income Taxes* (now ASC 740). Therefore, it is applicable only to income taxes.[16]

To determine the amount of the FIN 48 liability, the standard uses a two-stage approach of recognition and measurement. First, recognition involves evaluating whether the tax position taken is more-likely-than-not to prevail under audit. Here, the term "more-likely-than-not" refers to a greater than 50 percent chance of occurrence. Also, "prevailing under audit" means the business is successful through appeals or litigation on the technical merits of the tax position alone, assuming the examining jurisdiction has full knowledge of all facts and circumstances.[17] When a tax position meets the more-likely-than-not threshold, the firm measures the recognizable tax position as the largest amount of the tax benefit that exceeds the 50 percent likelihood of prevailing under audit and recognizes that tax benefit in the financial statements.[18] Thus, a portion of the tax position may be recognized with the remaining portion of the tax benefit not recognized and disclosed as a FIN 48 liability. For a tax position not meeting the recognition threshold, the full amount of the tax benefit is recorded as a FIN 48 liability. Appendix B provides numerical examples of the FIN 48 liability calculation. Firms also must include interest and penalties in the recorded FIN 48 liability.[19]

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[16] Statement of Financial Accounting Standard No. 5, *Accounting for Contingencies* (FAS 5, now in ASC 450), continues to apply to all other types of taxes including sales and use taxes, property taxes, etc.

[17] By assuming that the taxing jurisdiction has full knowledge of the facts and circumstances, FIN 48 effectively presumes that 100 percent of all tax positions are subject to an audit.

[18] FIN 48 represents a benefit recognition or asset model. Currently, the tax position must meet the more-likely-than-not threshold before the position is recognized in the financial statements. However, prior to FIN 48, FAS 5 represented a liability model meaning a firm accrued a liability when the contingency was probable of occurring and the amount could be reasonably estimated.

[19] Firms accrue penalties only when a tax position does not meet the minimum statutory threshold required to avoid penalties. These minimum statutory penalties refer to accuracy-related penalties described in Internal Revenue Code Section 6662. When accruing penalties, firms may consider the administrative

To provide additional transparency, FIN 48 also focuses on disclosure and presentation. The primary part of the disclosure involves the tabular presentation reconciling the total amounts of the FIN 48 liability or unrecognized tax benefits at the beginning and end of the period. The disclosure also requires a schedule showing the details of any FIN 48 liability that will expire within a one-year period. Finally, FIN 48 requires companies to disclose the policy for classification and the amount of interest and penalties included in the income statement and balance sheet.

While reviewing NNP disclosure applications, I found that several firms linked their facts giving rise to the NNP disclosure to the FIN 48 implementation. For example, one firm's reason for disclosure read as follows:

> Applicant had been advised by outside advisors that no substantial income tax nexus existed with a state unless Applicant had employees resident in that state. With the adoption of FIN 48 reporting requirements, a state income tax review is being conducted of the Applicant's business activities. Based on preliminary results of the FIN 48 state income tax review, potential income tax liability may exist by virtue of holding limited partnership interests in partnerships doing business in a number of states.[20]

After investigating the anecdotal connection with FIN 48 and the NNP disclosures in the applications, I charted in Figure 1 (figures and tables appear in appendix C) the number of income tax NNP disclosures based on the offer date quarterly from 2001 through 2008.[21]

Frischmann et al. (2008) perform a market reaction study based on event dates around FIN 48. Searching *The Wall Street Journal*, *New York Times*, and the FASB

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practices and precedents of a taxing authority. This means that firms may take into account settlement practices and prior experiences with a taxing jurisdiction for accruing penalties. For example, if a firm has prior history with a state that typically waives penalties, then the firm should not accrue penalties based on precedents. Due to settlement practices and precedents, firms rarely accrue penalties in the FIN 48 liability.

[20] Excerpt from a firm's 2007 Disclosure Questionnaire in the NNP.

[21] The offer date refers to the first recorded date of contact between the NNP and the firm.

website for extensive press coverage, they identified three dates receiving the most press coverage and expected to see a negative market reaction with these dates: July 14, 2005, when FASB issued the exposure draft for FIN 48; July 13, 2006, when FASB issued the final standard; and January 17, 2007, when FASB unanimously rejected a one-year delay in the implementation of FIN 48. As the increased press coverage around these dates might result in a negative market reaction, I also would expect to see a spike in the number of NNP disclosures in the quarters in which these dates occur as firms begin to resolve uncertain tax positions to avoid recording a FIN 48 liability. Frischmann et al. find a significant negative market reaction only around July 14, 2005. Figure 1 shows three quarters where the spikes are above 160 agreements; these are the highest three spikes during the seven-year period. The first spike occurs in 2004 Quarter 1 (Point A) and does not contain a date with significant press based on Frischmann et al. Point A does contain March 3, 2004 in which FASB board members met with the SEC and public accounting firms to discuss the differences in practice around accounting for uncertain tax positions.

Two of the quarters with spikes, however, do coincide with the above dates from the Frischmann et al. paper: July 14, 2005 (2005 Quarter 3, Point B) and January 17, 2007 (2007 Quarter 1, Point C). Point B coincides with FASB issuing the FIN 48 exposure draft. Point C occurs during the quarter when FASB rejects a one-year delay of FIN 48. In general, the number of NNP disclosures increase when FASB introduces FIN 48 (2004) through the first year of implementation (2007). I would not expect FIN 48 to

result in substantial increased NNP disclosures after implementation as firms already have entered into the NNP and resolved prior uncertain tax positions.[22]

[22] Initially, NNP disclosure would result for both current and prior years' uncertain tax positions to avoid the recording of a FIN 48 liability. Disclosure after the first year of implementation of FIN 48 would occur for uncertain tax positions entered into during the current year. If firms continually disclose prior years' uncertain tax positions and adjust FIN 48 liabilities, audit firms are likely to require firms disclose to in the financial statements that the tax position represents a prior period adjustment. Based on experience, firms are reluctant to behave in a manner that would result in a prior period adjustment.

3. THEORY, PRIOR RESEARCH, AND HYPOTHESES DEVELOPMENT

Tax Evasion Literature

Because tax amnesty programs assume that taxpayers evade taxes to some degree, one should have a brief understanding of the tax evasion literature. The theoretical development of tax evasion begins with the work of Allingham and Sandmo (1972) and Srinivasan (1973). While the theoretical literature on tax evasion has a long history, the empirical research suffers due to data problems. The theoretical framework of Allingham and Sandmo (1972) analyzes the taxpayer's decision to deliberately underreport income and to what extent to underreport to avoid taxes. These models base the penalty for tax evasion on the income understatement rather than on the tax understatement. Yitzhaki (1974) highlights these differences showing that the tax rate has no effect on the level of tax evasion when the penalty is based on the amount of understated tax. Later, Yitzhaki (1987) introduces a model involving the endogenous probability of detection. Here, the probability of detection is an increasing function of the amount of income evaded.

Much of the above seminal theoretical work uses expected utility theory. However, recent work uses other frameworks to resolve the empirical contradictions to the theoretical literature (Dhami and al-Nowaihi, 2007). One such recent theory is that of cumulative prospect theory. Kahneman and Tversky originally introduce prospect theory in 1979 and later advance it to cumulative prospect theory in 1992. The central idea of cumulative prospect theory is that individuals frame possible outcomes relative to a certain outcome rather than the final outcome. Therefore, individuals have different risk

perspectives about gains and losses and tend to focus more on potential losses rather than potential gains. Dhami and al-Nowaihi (2007) use cumulative prospect theory to show that relative to expected utility theory it provides a better explanation of tax evasion. Specifically, they demonstrate that individuals are loss averse to certain incomes and tend to overweight small probabilities as well as underweight large probabilities.

While the majority of the literature focuses on tax evasion for individuals or the taxpaying population in its entirety, limited research examines tax evasion for small businesses and corporations. Due to the separation of ownership and control for corporations, agency theory incorporates conflicts of interest, incentive problems, and mechanisms for controlling incentive problems in models. Agency theory explores the potential adverse effect that concentration of control in the hands of managers can have. Crocker and Slemrod (2005) and Chen and Chu (2005) both develop a formal model of corporate income tax evasion. Crocker and Slemrod specifically focus on the issues of agency costs and find that tax penalties assessed on the tax officer are more effective against evasion than those penalties assessed on the corporation. Chen and Chu focus on the dual role of the manager's labor contract compensating the agent's effort and compensating for the risk of evasion. Chen and Chu develop the first theoretical model of corporate income tax evasion exploring the links between internal control and external evasion decisions.

Tax Amnesty Literature

Much of the theoretical tax amnesty literature occurs in the early 1990s and examines the economic implications of tax amnesties (Alm and Beck, 1990; Stella, 1991;

Malik and Schwab, 1991). The theoretical models of Alm and Beck (1990) begin with the expected utility theory of Allingham and Sandmo (1972) and progress to prospect theory (Kahneman and Tversky, 1979). Prospect theory provides a better setting for tax compliance issues because it involves low-probability, high-loss events. Alm and Beck (1990) investigate an individual's decision of reporting both the amount of past evasion and current income in an amnesty program. The theoretical models of Alm and Beck (1990) find mixed results indicating that amnesties can have an uncertain impact on tax compliance. If individuals view paying taxes as the norm and expect a future amnesty with tougher enforcement, tax amnesties may increase compliance and tax collections. However, tax compliance may decrease if taxpayers anticipate an amnesty and wait until the amnesty to file. In other words, increased tax amnesty revenues may result in reduced future tax revenues because of decreased regular tax compliance.

Using an overlapping-generations model, Macho-Stadler et al. (1999) demonstrate that, without the presence of increased enforcement accompanying the tax amnesty, the economy will take time to move from one steady state to the other.[23] The authors show theoretically that amnesties are successful only if the parameters involving enforcement or penalties are changed. Also, the authors demonstrate that, without parameter changes following the declaration of an amnesty, the effects are only transitory. Mikesell (1986) supports this theoretical finding with empirical results. During the mid-1980s, states experiencing the most successful amnesties either waived both penalties and part of the

[23] In addition to uncovering past evasion, amnesty programs can change the trajectory of the economy. Generally, this convergence to a new steady state may take time. However, if an amnesty is accompanied by increased enforcement, the convergence is accelerated and may even be instantaneous.

interest or increased enforcement with improved computer capacity. These states experienced higher per capita revenue and revenue collections between 0.5 and 1.5 percent of tax collections in that same year.

Much of the empirical work on state tax amnesties follows the lead of the theoretical work and focuses on individual income taxes and the effects of a single state tax amnesty program (Fisher et al., 1989; Alm et al., 1990). Alm and Beck (1993) examine the 1985 Colorado amnesty using time-series models from 1980 to 1989 and find that the amnesty program had no long-run effect on tax collections. Lopez-Laborda and Rodrigo (2003) also use time-series econometric models from 1979 to 1998 and examine the long-term impact of the Spanish amnesty program on individual income tax compliance. Lopez-Laborda and Rodrigo find that the amnesty had no effect on either short-run or long-run collections. Both of these findings seem to indicate that, in general, policymakers should not view tax amnesty programs as increasing tax revenues over a long-run period.

Two papers provide insight into the characteristics of state tax amnesties by surveying and summarizing the different programs since formal amnesties began in 1982 (Mikesell, 1986; Luna et al., 2006). Consistent across time, the amnesty period lasts, on average, three months. While the early programs typically cover amnesty for most taxes, recent amnesty programs target specific taxes and taxpayers. As shown in the literature, amnesties are more effective when accompanied by increased enforcement. Accordingly, states recently tend to introduce amnesties with either increased penalties or new reporting requirements (Luna et al., 2006). To provide additional insight into the causes

of state tax amnesties, Le Borgne (2006) empirically examines the economic and political determinants. He finds that amnesties are more likely to be introduced during periods of fiscal stress and that political factors affect the timing and introduction of these programs.

Similarities and Differences in Voluntary Disclosure and Short-Term Tax Amnesty

Voluntary disclosure[24] is similar to an amnesty program. Both programs allow taxpayers to receive certain benefits by disclosing tax liabilities associated with prior actions. Policymakers and legislators agree that there are benefits and risks to both voluntary disclosure and amnesty programs. The general argument for the programs is that they will increase tax revenues, clear up delinquent tax rolls, improve the tax department's image as tough but fair, and enhance overall tax compliance (Fisher, 1985; Lerman, 1986; Fisher et al., 1989). However, the argument against these programs is that honest taxpayers view them as unfair because nonfilers and those in noncompliance incur reduced liabilities and/or reduced penalties. Also, these programs may signal that tax departments are becoming complacent in enforcement. Some taxpayers believe that resources could be better spent to improve tax compliance rather than administer these programs (Fisher, 1985; Lerman, 1986; Mikesell, 1986). [25]

While the two programs have similarities, they differ in two fundamental characteristics. First, voluntary disclosure programs usually require the payment of tax

[24] Voluntary disclosure programs are similar to permanent tax amnesty programs (i.e., NNP). Therefore, I use the voluntary disclosure programs discussed in the literature to compare to short-term amnesty programs as a means of comparing the NNP to short-term amnesty programs.

[25] Still another form of state tax programs is the voluntary compliance initiative (VCI). It differs substantially from voluntary disclosure programs and short-term amnesties in that a VCI often is limited to certain types of taxes and targets taxpayers involved in tax shelter transactions, including reportable and listed transactions. VCIs provide a waiver of certain tax penalties and immunity from criminal prosecution. However, firms often must waive their rights to appeal when entering into a VCI.

penalties and interest in addition to the tax liability in return for the taxing jurisdiction granting criminal immunity to the tax evaders. Typically, amnesty programs waive most tax penalties and some or all of the interest. Second, voluntary disclosure programs do not expire, thereby providing taxpayers the opportunity to take the services more than once. On the other hand, amnesty programs operate for a specified limited time with only a single entry into the system allowed (Jackson, 1986). With voluntary disclosure programs being long-term and fully anticipated, administrators typically characterize these programs as permanent forms of tax amnesty. Figure 2 summarizes the differences between the two programs.

As shown in the preceding sub-section, much of the academic literature has focused on amnesty programs rather than voluntary disclosure programs. One key piece of research focuses on the desirability of permanent tax amnesties using a theoretical approach (Andreoni, 1991). Andreoni (1991) finds that a permanent tax amnesty possibly could increase both efficiency and equity of the tax system. The efficiency of the tax system often is determined by whether the tax revenues rise or fall. An increase in tax revenues means that the permanent tax amnesty did not dilute economic efficiency. However, a decrease in tax revenues still may lead to economic efficiency because the permanent tax amnesty is valued as an option or type of insurance benefit among non-compliant taxpayers. The advantage of the insurance benefit from the NNP assumes that a firm uses the information and discloses prior to a taxing jurisdiction auditing and/or assessing additional liabilities.

The equity of the tax system addresses how the benefits of a permanent tax amnesty are distributed across taxpayers. *Ex ante*, taxpayers with a higher risk of bad luck are more likely to disclose in the amnesty than those with little or no risk. *Ex post*, taxpayers with higher realized bad luck will be the ones who disclose in the amnesty. Therefore, a permanent tax amnesty increases equity of the tax system both *ex ante* and *ex post*. Without a permanent tax amnesty program, taxpayers with a bad shock would not have a means for tax forgiveness. Therefore, the overall tax system would be less equitable.

Financial Interpretation No. 48 and Tax Compliance Literature

With FIN 48 being effective only for publicly-traded firms in 2007, the archival research investigating both FIN 48 and tax compliance remains limited (Mills et al., 2009; Gupta et al., 2009a). Using an analytical modeling approach, Mills et al. (2009) investigate the change in the interaction between publicly-traded firms and taxing jurisdictions as a result of FIN 48. They highlight two important findings that are contrary to the general business community's perception about FIN 48. First, the authors demonstrate that firms with strong tax positions experience higher expected payoffs post-FIN 48 resulting from FIN 48 disclosures. Second, they show that the FIN 48 liability on the financial statements is not necessarily an overstatement of the expected cash payment.[26] Gupta et al. (2009a) examine whether state and local tax planning practices

[26] The benefit recognition model of FIN 48 requires taxpayers to use the expected value approach when measuring the uncertain tax position. Under the expected value approach, the benefit is equal to the largest amount of benefit that is greater than 50 percent likely of being realized assuming that the taxing jurisdiction is completely aware of the tax position.

slowed with the implementation of FIN 48 by looking at the trend of state current effective tax rates. Their paper exposes the difficulties of defining state nexus standards for income tax purposes and the role that this uncertainty plays in managerial decisions involving tax compliance. Gupta et al. find that state effective tax rates increase substantially from 2006 through 2008 for tax aggressive firms.

While archival research has been limited, a number of practitioner articles have highlighted FIN 48 and the associated state nexus and tax compliance issues (Ertmer and Sash, 2007; Wells and McFadden-Wade, 2007; Alltizer et al., 2008; Schadewald, 2008). Ertmer and Sash (2007) use an example to highlight complex issues that taxpayers may face when evaluating state tax positions through the FIN 48 lens. One issue discussed is the economic presence approach that states may take to satisfy substantial nexus. Ertmer and Sash (2007) and Schadewald (2008) discuss how income tax nexus standards have remained varied across states, often resulting in uncertainty in the amount of the FIN 48 liability for a taxpayer. Schadewald (2008) also shows how a decision by a taxpayer to not file a state tax return becomes a filing position under FIN 48.[27] When a firm takes a filing position, the firm is required to support the position based on the technical merits at a more-likely-than-not threshold or record a FIN 48 liability for the unrecognized tax benefit. He emphasizes that the statute of limitations does not apply if a return has not been filed. Thus, the firm continues to record a FIN 48 liability for each year the firm

[27] FIN 48 (par. 4) states that the decision not to file a tax return, where a company might have nexus or a permanent establishment, is considered a "tax position." The previous FAS 5 requirements were more lenient than FIN 48 and only required a liability to be accrued when the liability was probable and could be reasonably estimated.

chooses this "tax position."[28] Wells and McFadden-Wade (2007) and Alltizer et al. (2008) echo similar concerns about the interplay between nexus issues and FIN 48.

Hypotheses

Prior literature shows that state tax amnesty programs have little or no impact on long-term tax collections without the presence of increased future enforcement efforts (Mikesell, 1986; Alm and Beck, 1990; Alm et al., 1990; Stella, 1991; Macho-Stadler et al., 1999; Martinez-Vazquez and Rider, 2005). The literature primarily explores these effects using either a theoretical approach or an empirical setting focusing only on a limited set of amnesty programs. As discussed earlier, Andreoni (1991) uses a theoretical model to explore a permanent tax amnesty and finds that a permanent amnesty actually can increase the efficiency and equity in the tax system. He concludes that the effect on tax revenues is ambiguous because it depends critically on the level of cheating in existence prior to the amnesty. If cheating prior to the permanent tax amnesty is large, the amnesty may generate large increases in revenues. However, if revenues decline after the permanent tax amnesty, the amnesty might provide an insurance benefit because only the firms with risky consumption will be affected by the amnesty and will enter into the amnesty if they suffer a bad shock to their consumption.

To empirically test a permanent tax amnesty program, I use the theory of Andreoni (1991) involving the effects of a permanent tax amnesty program on per capita

[28] The FIN 48 liability is recorded only if the tax position represents an uncertain tax position. If it is more-likely-than-not that the tax position would prevail under audit, no FIN 48 liability is recorded, and the entire tax benefit of the tax position is recorded in the financial statements. Once the statute of limitation expires, a FIN 48 liability is removed from the financial statements. However, if no return has been filed, a FIN 48 liability continually accrues for each year the tax position remains an uncertain tax position.

tax revenues and apply the theory to corporations using the NNP as an example of a permanent tax amnesty program. Given that the general public is not privy to firms' tax returns or to the general conversations about cheating or about entering into risky tax positions, I am unaware of the level of pre-existing cheating and the risky consumption that existed prior to the establishment of the NNP. With pre-existing cheating and risky consumption by firms unobservable, I do not predict whether a long-term, fully-anticipated form of a permanent tax amnesty (i.e., MTC's NNP) will have a positive or negative impact on per capita state corporate tax revenues. Stated formally, my hypothesis is as follows:

> *H1A: The establishment of the NNP has a significant effect on per capita state corporate tax revenues.*

In addition to testing whether the broad establishment of the NNP affected per capita state corporate tax revenues, I also investigate whether states choosing to participate in the NNP impacted per capita corporate tax revenues. Given the long time period in which the NNP has existed, I examine the choice of individual state participation in the NNP on per capita corporate tax revenues. Similar to above, I am unable to observe the level of cheating and risky consumption prior to the state choosing to join the NNP; therefore, I do not predict the direction of the effect on per capita tax revenues. Stated formally, my hypothesis is as follows:

> *H1B: States that joined the NNP experience significant per capita state corporate tax revenue effects.*

Prior articles suggest that income tax nexus issues coupled with FIN 48's definition of a "tax position" may cause taxpayers to voluntarily disclose in the NNP when they otherwise would have not disclosed and thereby risked audit detection in a state (Ertmer and Sash, 2007; Wells and McFadden-Wade, 2007; Alltizer et al., 2008; Schadewald, 2008). Although the NNP disclosure may not contain a large dollar amount of liability, firms are disclosing to begin the statute of limitations, which is three years on average. While a firm may have limited exposure in a state for a single year, FIN 48 requires a liability to be disclosed for all open tax years. Without initially filing or disclosing in the NNP, the firm must record a FIN 48 liability each year potentially resulting in a large financial impact over multiple years. In a comment letter to FASB dated January 8, 2007, the Council on State Taxation (COST) stated that "at least one accounting firm has publicly suggested that businesses should consider filing and paying taxes in jurisdictions where they may not have nexus because the alternative under FIN 48 is too large a dollar figure for the financial statement to bear."[29] To further link the nexus issues with FIN 48, COST testified before Congress on June 24, 2008 and stated that the uncertainty resulting from conflicting state interpretations of "substantial nexus" complicated the FIN 48 analysis and could potentially cause a taxpayer to fail the more-likely-than-not threshold, resulting in a FIN 48 liability.[30]

[29] COST is a nonprofit trade association comprised of multistate corporations engaged in interstate and international business.

[30] Council on State Taxation, Hearing on H.R. 5267, the "Business Activity Tax Simplification Act of 2008" before the U.S. House of Representatives, Committee on the Judiciary, Subcommittee on Commercial and Administrative Law, June 24, 2008.

Using current effective tax rates, Gupta et al. (2009a) investigate whether state and local tax planning practices slowed due to the implementation of FIN 48. Their results indicate that aggregate declining trends of state effective tax rates reverse in 2006 through 2008 for tax aggressive firms, while state-level tax collections increased in 2006 and 2007. Controlling for effective tax rate changes, the cash payments of firms still increased from 2005 through 2008. This evidence seems to support the belief that FIN 48 has slowed the ability of firms to use state tax planning techniques.

Based on the literature, comment letters, and testimony, the implementation of FIN 48 likely will cause the ratio of the number of NNP disclosures in a state to GSP to rise. Stated formally, the hypothesis related to the ratio of the number of NNP disclosures at the aggregate state level to GSP is as follows:

> *H2: The ratio of the number of NNP disclosures received by states from firms to GSP increases with the implementation of FIN 48.*

In the NNP disclosure, the dollar amount may be large as firms disclose all uncertain tax positions to avoid recording a FIN 48 liability. On the other hand, firms may disclose a small dollar amount with the NNP to begin the statute of limitations. Given the uncertainty around states' interpretation of nexus, beginning the statute of limitations will limit the number of years that a firm would have to record a FIN 48 liability, making it reasonable that firms would disclose a small dollar amount. However, given the uncertainty around state nexus, it also is possible that firms are determining the dollar amount of NNP disclosure based more on state nexus characteristics or other state tax characteristics than on FIN 48. Based on the above discussion, I do not predict the

direction of the effect that FIN 48 will have on the ratio of the aggregated dollar amount of NNP disclosure in a state to GSP. Stated formally, my hypothesis is as follows:

> *H3: The implementation of FIN 48 has a significant effect on the ratio of the dollar amount of NNP disclosure received by states from firms to GSP.*

With FIN 48 potentially impacting the number of NNP disclosures and the dollar amount of disclosure in the NNP, I empirically examine whether firm characteristics of size and tax aggressiveness impact the dollar amount of NNP disclosure after the implementation of FIN 48. Due to the limited availability of data on privately-held firms, I focus my attention on publicly-traded firms for a case-level analysis.[31] The case-level analysis allows me to control for both firm and state characteristics potentially influencing the dollar amount of NNP disclosure.

Gupta and Mills (2002) find that compliance costs associated with state tax requirements fall disproportionately on smaller firms. This finding indicates that perhaps the costs of complying with FIN 48, investigating tax filings, and understanding states' nexus positions may fall unduly on smaller firms. Therefore, smaller firms may disclose a large dollar amount in the NNP due to a lack of understanding and a desire to avoid recording a FIN 48 liability. On the other hand, larger firms with more resources may have the ability to tax plan and shift income as found by Mills et al. (1998) and Hanlon et al. (2007). Due to sophisticated tax planning abilities, larger firms may have larger potential FIN 48 liabilities resulting in these firms disclosing more dollars in the NNP.

[31] Again, each case consists of a unique taxpayer disclosing prior liabilities in a particular state for income taxes.

Therefore, the predicted direction of the size of the firm influencing the dollar amount of NNP disclosures is ambiguous. Stated formally, the hypothesis related to FIN 48 and firm size is as follows:

> *H4A: Following the implementation of FIN 48, firm size has a significant effect on the dollar amount of NNP disclosure by publicly-traded firms for a particular case.*

Prior literature has shown an increase in state effective tax rates after the implementation of FIN 48 for firms taking aggressive tax positions, leading one to believe that tax planning has been slowed (Gupta et al., 2009a). Therefore, firms that historically pursue aggressive tax positions increase their disclosure in the NNP after the implementation of FIN 48 when these aggressive positions require the accrual of FIN 48 liabilities. Stated formally, the hypothesis related to FIN 48 and firm tax aggressiveness is as follows:

> *H4B: Following the implementation of FIN 48, tax aggressiveness has a positive effect on the dollar amount of NNP disclosure by publicly-traded firms for a particular case.*

4. RESEARCH METHOD

Sample Selection and Data Sources

The primary data source used in this study is the MTC's NNP database. This proprietary database contains information on a case-by-case basis for multistate taxpayers entering voluntary disclosure agreements with states from 1994 through 2008.[32] Each case is comprised of a unique taxpayer disclosing prior liabilities in a particular state for income or sales and use taxes. In this dissertation, I focus on the NNP disclosures made for income tax purposes.

In the corporate state tax revenue model (Model 1), I use data on corporate state tax collections from 1973 through 2008[33] for the 45 states that have a corporate income tax on businesses.[34] Thus, I exclude Nevada, Washington, and Wyoming. I also exclude South Dakota because its corporate tax is limited to financial institutions and Texas because it only imposes a franchise tax on earned surplus.[35] I collect corporate state tax revenue data from the World Tax Database and the U.S. Census Bureau, Government Finance Statistics.[36] I obtain data on when a state joined the NNP from the MTC. I

[32] Although the NNP began in December 1990, detailed data records by taxpayer and type of tax only go back to 1994.
[33] I selected the time period to have a balanced period of 18 years both without (years 1973 through 1990) and with (years 1991 through 2008) the establishment of the NNP.
[34] I rely on the definition of the corporate income tax as used by the Federation of Tax Administrators.
[35] In May 2007, the Texas Legislature passed a law changing the Texas franchise tax from a tax based on net income or taxable capital to a gross margin tax. Because some view the historical Texas franchise tax to be similar to a corporate income tax, I test Models 2, 3, and 4 retaining the Texas observations and find consistent results. I am unable to include Texas in Model 1 because the U.S. Census Bureau does not report the Texas franchise tax revenues separately but rather shows the Texas corporate tax revenues as zero.
[36] The World Tax Database is created and maintain by the University of Michigan, Ross School of Business (http://www.bus.umich.edu/otpr/otpr/introduction.htm). As the U.S. Census Bureau only contains data from 1992 through 2008, the earlier data must be obtained from another source.

collect state tax policy variables from the Federation of Tax Administrators (FTA) and Commerce Clearing House (CCH) State Tax Handbooks. Other state control variables are gathered from the Bureau of Economic Analysis (BEA), Bureau of Labor Statistics (BLS), and U.S. Department of Energy. Table 1 describes the data sources for each variable in the state corporate tax revenue model (Model 1).

In the NNP database, the MTC compile the name of the taxpayer, address, employer identification number (EIN), type of entity form, type of paid preparer, how the taxpayer became aware of the NNP, the reason for disclosure, and the amount of liability paid to a state associated with the NNP disclosure. While the NNP contains unique and proprietary data, the MTC did not collect taxpayer characteristic variables. Therefore, I use various other data sources to verify and enhance the MTC's NNP data. First, I use EIN Finder to verify the exact name and address of a taxpayer from the NNP's listing using the firm's EIN.[37] The verified name and address enables matching with the Corporate Affiliations database available through the University of Tennessee. This process details whether the taxpayer disclosing with the NNP is a common parent or a lower-tiered subsidiary. If the taxpayer is a lower-tiered subsidiary, I obtain the associated common parent, thereby enabling further matching to Compustat data. While this process seems tedious and overly detailed, it is necessary as the disclosing firm might not be the ultimate common parent but rather a subsidiary. Although the firm disclosing with the NNP might be a lower-tiered subsidiary, the decisions for disclosure purposes and tax preparation purposes are likely made at a consolidated or common parent level.

[37] EIN Finder is an online database of U.S. Employer Identification Numbers (EINs) and includes more than six million EINs for all entity forms.

Therefore, it is necessary to collect taxpayer characteristic variables at the common parent level.[38]

To further enhance the research, I use state tax policy variables collected from FTA, CCH State Tax Handbooks, National Association of State Budget Officers, World Tax Database, and BLS for Models 2 and 3 (see Table 2 for a detailed description of the variables and sources). For Model 4 that focuses on case-level NNP disclosures, the Corporate Affiliations database and Compustat provide additional data (Table 3 contains a detailed description of the variables and sources). While I am using various data sources to verify and enhance proprietary data obtained from the MTC, no proprietary data is being compromised or revealed through the process of matching.

Method

State Corporate Tax Revenue Model (Hypotheses 1A and 1B)

In developing a model to examine the long-run effect of a permanent tax amnesty program on per capita state corporate tax revenues, I follow an approach similar to Alm and Beck (1993). Alm and Beck use a time-series approach to analyze the effect of the 1985 Colorado amnesty on individual tax collections.[39] Here, I use a panel-data approach with 45 states over 36 years (1973 through 2008) to evaluate the effect of the NNP on per capita state corporate tax revenues. Due to omitted variables, I expand Alm and Beck's

[38] While data is being collected on the common parent, as this is likely the level where decisions are made, this data is only used for some of the independent or control variables. The data obtained from the MTC represents the subsidiary-level firm and is always used as the dependent variable.

[39] Alm and Beck (1993) use a simple time trend model of $Y_t = b_0 + b_1T_1 + e_t$, where Y_t represents individual income tax collections by month, T_1 is the numeric representation of the month, and e_t represents the error term.

model to investigate the effect of the MTC's NNP on per capita corporate tax revenues. Thus, I will use the following model:[40]

$$\ln(R_{it} / GSP_{it}) = \alpha_0 + \alpha_1 e_t + \alpha_2 n_{it} + \alpha_3 j_{it} + \sum_{k=1}^{k} \beta_k T_{it-1}^{k} + \sum_{l=1}^{l} \delta \ln C_{it-1}^{l} + \sum_{m=1}^{m} \rho_m t_t^m + \theta_i + \varepsilon_{it} \quad (1)$$

where R_{it} is the corporate tax revenues in state *i* at year *t* and GSP_{it} is the GSP in state *i* at year *t* resulting in per capita corporate tax revenues in state *i* at year *t*.[41] In 1991, the first full year of establishment, 20 states, plus the District of Columbia, joined the NNP. The indicator variable, *e*, represents 1991 and afterwards because states could participate in the NNP during this period.[42] I include the *e* variable because effects in revenues may be felt from the establishment of the program prior to a state choosing to participate in the program. The establishment of the NNP could affect corporate tax revenues of a state that has not joined the NNP by impacting tax compliance through disclosure or locational decisions of a firm.[43] Through this variable, I also examine whether a break occurs the in per capita state corporate tax revenues and the direction of the break. I am using this variable in the spirit of a Chow test and recognize that the coefficient on this variable is

[40] With state fixed effects and the time trend included, I will be able to run a one-way fixed-effects ordinary least squares regression model.

[41] The dependent variable (the ratio of state corporate tax revenues to gross state product) and the matrix controlling for state economic activity are in natural logarithm form in the regression analysis. When tax revenues were plotted against the variables in the economic activity control matrix (employment, wages, and energy cost), the data showed that the log-log model was the most appropriate. The transformation also aids in the interpretation of the tax policy control variables with dummy variable specifications.

[42] While the NNP was established in December 1990, no states joined the program until 1991. Therefore, I define the establishment variable as one beginning in 1991 and future years with all prior years defined as zero.

[43] Because e_t and n_{it} are the same for the 21 states that joined the NNP in 1991 and the correlation coefficient for these two variables is 0.726, I re-estimate the model excluding e_t and adding time fixed effects in the additional analysis section for Model 1.

detecting changes due to the establishment of the NNP as well as other changes after 1991 that are not controlled for in the model. This variable allows me to test hypothesis H1A.

The indicator variable, *n*, is defined as one when a state joins the NNP and all subsequent years that the state participated in the NNP. The variable *j* represents the first year the state joins the NNP and is defined as one only in the year the state chooses to participate.[44] The *n* variable allows me to capture the effect on per capita revenues of a state choosing to participate in the NNP and continuing its participation (permanent effects). However, the *j* variable captures the effects on per capita revenue in the first year of participation (transitory effects). To test whether a state's choice of participation in the NNP impacted per capita state corporate tax revenues (hypothesis H1B), I evaluate the significance of *n* and *j*. Similar to the prediction on *e*, these effects on revenues are ambiguous as the level of cheating prior to the establishment of the NNP and the level of risky tax strategies by firms are unobservable. Figure 3 shows the participation of the states in the NNP from 1991 through 2008.

Two control matrices also are included. The matrix T^{k}_{it-1} represents tax policy variable *k* in state *i* at year *t-1*, and the matrix C^{l}_{it-1} represents control variable *l* impacting economic activity in state *i* at year *t-1*. The model also includes an eighth order polynomial time trend (t^{m}_{t}),[45] state fixed effects (θ_i),[46] and an error term (ε_{it}). All variables are defined in Table 1.

[44] For New Hampshire and New Mexico that drop out of the NNP in 2006 and 2002, respectively, and rejoin in 2008, I only code the initial year of joining the NNP as one.

[45] While year fixed effects would allow me to control for unobserved macro / policy shocks in each year, I am unable to use this approach due to the lack of variation across time because of the *e* variable,

First, the tax policy variables control for the historical tax decisions made by policymakers within the state that may impact the level of state corporate tax revenues. These policy variables include state amnesty programs, voluntary compliance initiatives (VCIs), economic presence, combined reporting, interest and royalty addbacks, throwback rules, sales apportionment, personal income tax rates, and corporate income tax rates. Again, state amnesty programs provide taxpayers the ability to pay prior unpaid taxes without owing penalties during a limited window of opportunity. However, VCIs are limited to certain types of taxes and target taxpayers involved in tax shelter transactions, including reportable and listed transactions. While the prior literature investigates the effects of amnesty programs, research has traditionally not used amnesties or VCIs as control variables. I include state amnesty programs and VCIs because they offer firms other opportunities for disclosure outside the NNP potentially impacting per capita tax revenues. State tax amnesty programs and VCIs might increase tax compliance resulting in an associated increase in per capita tax revenues. However, if these programs are introduced without being accompanied by sufficient enforcement, as the literature has shown, amnesties have no impact on long-term per capita revenues (Mikesell, 1986; Alm and Beck, 1990; Macho-Stadler et al., 1999). The literature has yet

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establishment of NNP. The time trend is actually contained within year fixed effects as well as other policy changes occurring in each year. As the state revenue data demonstrates multiple inflection points, I include an ordered polynomial time trend. The order of time trend was determined based on experimentation through successfully adding higher order polynomials ceasing when higher orders were no longer significant. The eighth order was the highest order polynomial still showing significance. As a robustness check, I estimate the model without the time trend and the *e* variable and include fixed effects. These findings are reported in the additional analysis section for Model 1.

[46] I ran a Hausman test to determine whether the model should include state fixed or random effects. The insignificant p-value on the test indicated that fixed or random effects were appropriate. Because fixed effects always result in consistent estimators and are more prevalent in panel data analysis, I chose to include state fixed effects in the model (Wooldridge, 2006).

to empirically examine the impact of VCIs on per capita tax revenues. Therefore, I make no directional prediction on either state tax amnesty programs or VCIs.

Due to the uncertainty in how states define nexus, I include a variable to capture states defining substantial nexus as economic presence rather than physical presence. States may be turning toward economic presence to increase tax revenues through broadening the tax base (Ertmer and Sash, 2007; Schadewald, 2008). Therefore, I predict that economic presence will have a positive impact on per capita tax revenues. I determine this variable through analyzing state statutes and case law on CCH. For states that were silent in either the statues or case law, I examine state revenue department websites seeking information and guidance through tax alerts and forms. Although the variable contains measurement error due to states defining nexus on a continuum, to my knowledge this represents the first attempt to classify states as either economic presence or physical presence states and to use this definition empirically.

In general, combined reporting requires firms to combine profits and losses from all related subsidiaries prior to determining the portion of the profits and/or losses taxable in a particular state.[47] Although the impact of combined reporting on revenues is mixed, I control for the effect of this state tax policy (Pennsylvania Dept. of Revenue, 2005; Bruce et al., 2007; Iowa Dept. of Revenue, 2007; Rhode Island Dept. of Revenue, 2008; Fox et al., 2009). States may require combined reporting as a mechanism for broadening the tax base resulting in higher per capita tax revenues. On the other hand, when

[47] Combined reporting is defined as one for states that require combined reporting. Although some states allow firms to voluntarily combine profits and losses, states that allow the choice may not have the same impact on revenues because firms might naturally chose what is most advantageous for the firm. To not introduce another state choice, I rely on the definition using required combined reporting.

combining profits and losses of a unitary group under combined reporting, decreased per capita tax revenues also may result. Therefore, I make no directional prediction.

States also may adopt interest and royalty addbacks as a means of attempting to close tax loopholes, particularly those related to passive investment companies.[48] Generally, states introduce addbacks to increase tax compliance and broaden the tax base resulting in a positive effect on revenues. Some states impose throwback rules to capture "nowhere" sales. Generally, if a firm has sales that are not taxed by any state due to the lack of nexus, those sales are "thrown back" to the originating state with nexus and included in the sales factor numerator for apportionment purposes. I include a dummy variable to capture states with throwback rules as these rules typically result in positive per capita state corporate tax revenues due to states broadening the tax base (Lightner, 1999; Gupta and Hofmann, 2003; Bruce et al., 2007).

I include three dummy variables to proxy for the weighting of the sales factor in the apportionment calculation.[49,50] Each variable is given a one if the sales factor weight

[48] If a firm were required to file and pay taxes in a separate reporting state, then the firm may choose to place intangible property such as trademarks, patents, and so forth into a holding company incorporated in Delaware or another state that does not impose a tax on income derived from these types of properties. The operating entity located in a non-combined reporting state then deducts these royalty payments resulting in the income generated from the intangible escaping taxation. Both combined reporting and addbacks are enacted by states to try and prevent this type of transaction from occurring.

[49] Traditionally, income taxes are apportioned to states based on the level of property, payroll, and sales in a particular state relative to all other states.

[50] As a robustness check, I tested the model using five dummy variables for sales factor apportionment with one being omitted to avoid perfect collinearity. Each variable is defined as one when the sales factor is less than or equal to 33 percent, 50 percent, greater than or equal to 60 percent and less than or equal to 75 percent, greater than or equal to 80 percent and less than or equal to 95 percent, and 100 percent, respectively. All of the test variables and control variables remain significant with consistent coefficients to the main model. Of the new specifications of the sales factor apportionment dummy variables, only the dummy variable for the factor greater than or equal to 60 percent and less than or equal to 75 percent is insignificant. The other variables are all positive and significant. Similar to the main model, the magnitude of the coefficient on the double-weighted sales variable is larger than the coefficient for the single-weighted sales variable, 0.136 and 0.094, respectively.

falls within the following ranges, respectively, or zero otherwise: 0 to 33, 34 to 66, and 67 to 100.[51] I include variables to control for the weight of the sales factor apportionment as this variable has changed substantially over time and may impact per capita state corporate tax revenues (Lightner, 1999; Goolsbee and Maydew, 2000; Mazerov, 2001; Edmiston, 2002; Edmiston and Arze, 2006). Prior literature (Mazerov, 2001; Edmiston and Arze, 2006) has found that increasing the sales factor weight leads to reduced revenues. Thus, firms tend to reduce in-state sales when a heavy tax burden is placed on these sales indicating a negative response between per capita tax revenues and sales factors used in the apportionment formula.

To control for tax planning, I include personal income tax rates and corporate income tax rates. I control for both personal and corporate income tax rates in the model by including the highest marginal tax rate (Gupta et al., 2009b; Bruce et al., 2007; Wasylenko and McGuire, 1985). The highest marginal personal tax rate is included to control for organizational form tax planning as well as an additional level of income tax burden facing firm owners. Personal income tax rates higher than corporate income tax rates may drive firms to incorporate resulting in higher per capita corporate tax revenues. Also, higher personal income tax rates may result in privately-held firms paying lower wages and increase the corporate income tax base resulting in higher per capita corporate tax revenues. The highest marginal corporate income tax rate is included to control for corporate tax planning occurring as well as firm locational decisions. As the corporate tax rate increases, I would generally expect per capita revenues to increase. To control

[51] To prevent perfect collinearity, I drop the dummy variable with the sales apportionment weight range from 0 to 33. Thus, the other two coefficients are interpreted with respect to this reference category.

for the simultaneity bias inherent in a model examining revenues, I use a one-year lag on the tax policy control variables.

Second, the state characteristic variables control for the general economic activity within a state. These variables include employment, wages, and energy cost. Wasylenko (1997) provides a review of the prior literature on economic development and taxation, which is informative in identifying control variables. Employment, representing the number of non-farm employees in millions, is collected from BLS. Wages, in billions of dollars, are obtained from BEA and are the non-farm wage and salary disbursements. The energy cost is defined as the total energy prices in dollars per million Btu. Again, based on the plotted data and to aid in interpretation, these variables underwent a natural logarithm transformation for the regression analysis. To control for potential issues with endogeneity, I also use a one-year lag on the economic activity variables.

Aggregated State Models for FIN 48 Analysis (Hypotheses 2 and 3)

Number of NNP Disclosures by State (Hypothesis 2)

Previous research has tended to explore the effect of amnesty programs on individual tax collections rather than focus on the number of amnesty disclosures. Here, I examine the effect of FIN 48 on the ratio of the number of NNP disclosures at the aggregate state level to GSP. Firms may be joining the NNP at greater rates suggesting an overall increase in tax compliance. Therefore, I test whether the ratio of the number of NNP disclosures to GSP increase with FIN 48. As firms are reluctant to record a FIN 48 liability on the financial statements and potentially provide information on an uncertain

tax position to both shareholders and taxing jurisdictions, firms may increase disclosure in the NNP resulting in an overall increase in a firm's tax compliance. I use the limited empirical and theoretical research and rely on the descriptive work to develop the following model that examines the impact of FIN 48 on the ratio of the NNP disclosures aggregated to the state level to GSP from 1994 through 2008:[52]

$$F_{it} / GSP_{it} = \alpha_0 + \alpha_1 s_t + \sum_{j=1}^{j} \lambda_j T_{it-1}^{j} + \sum_{k=1}^{k} \psi_k C_{it-1}^{k} + \sum_{n=1}^{n} \rho_n t_t^n + \theta_i + \varepsilon_{it} \quad (2)$$

where F_{it} is the number of firms that disclose with the NNP in state *i* at year *t* and GSP_{it} is the GSP in state *i* at year *t*. The dependent variable is the ratio of aggregated state NNP disclosures to GSP to control for the effect that relative state size has on the number of NNP disclosures.[53] The test variable, *s*, is equal to one when FIN 48 became effective for publicly-traded firms (defined further below). To test H2, I look for positive statistical significance on *s*.[54,55] Two control matrices are included in the model. The matrix T^{j}_{it-1} represents tax policy variable *j* in state *i* at year *t-1*, and the matrix C^{k}_{it-1} represents control variable *k* controlling for the size of state *i* at year *t-1*. To control for the simultaneity bias inherent in a model where firms' actions may be in response to a policy

[52] Although the NNP began in December 1990, the record keeping and data on firms joining the NNP and individual case record data did not become detailed until 1994. Therefore, I use the period from 1994 through the currently available data of 2008.

[53] An ordinary least squares regression is still appropriate as less than eight percent of the observations are truncated at zero.

[54] Due to the potential for firms to act and disclose in anticipation of FIN 48 becoming effective, I will run the model with FIN 48 defined in three different forms as described below.

[55] While FIN 48 represents a financial statement pronouncement that was implemented and discussed within the financial statement arena, it might also have interactive implications with state tax policy issues. Therefore, I re-estimate the Models 2 and 3 including all the interactions with FIN 48 and the state tax policy variables. The interaction variables here are not broadly significant in either model. In fact, in Model 2, the main effect of FIN 48 loses its significance in all the different specifications. Therefore, I conclude that the interaction model is not effective at explaining the impact of FIN 48 on the number of NNP disclosures.

enacted in the prior period, I use a one-year lag on the tax policy and state size control variables. The model also includes a fourth order polynomial time trend (t_t^n),[56] state fixed effects (θ_i),[57] and an error term (ε_{it}). All the variables are defined in Table 2, Panel A.

Without a state joining the NNP, firms cannot participate in the NNP in that state. Therefore, the above ordinary least squares regression must be run conditional on the state choosing to join the NNP. Until a state joins the NNP, the state is not included in the regression. Models 2, 3, and 4 are estimated using a conditional ordinary least squares regression model. In all these models, sample selection exists due to the nonrandom sample of states choosing to participate in the NNP. Although the sample selection may be of concern, I am not generalizing the results to states outside the sample – states not choosing to participate in the NNP (Wooldridge, 2006; Kennedy, 2008). While it may be an interesting research question to investigate the determinants of states choosing to participate in the NNP, developing a first-stage model to allow for generalizability of the results to non-participating states is not necessary to address the research questions being investigated here. The research questions in Models 2, 3, and 4

[56] Because the *FIN48* variable represents a state-invariant variable, I am unable to run a two-way fixed effects model. With the *FIN48* variable and time fixed effects contained in the model, I would have multicollinearity. Therefore, I replace the time fixed effects with the alternative of a fourth order polynomial time trend. The order of time trend was determined based on experimentation through successfully adding higher order polynomials ceasing when higher orders were no longer significant. With the use of the time trend, I am still able to include state fixed effects and run a one-way fixed-effect ordinary least squares regression. As a robustness check, I estimate the model without the time trend and the *s* variable and include fixed effects and find broadly similar results.

[57] The insignificant p-value on the Hausman test indicated that fixed or random effects were appropriate. Because fixed effects always result in consistent estimators and are more prevalent in panel data analysis, I chose to include state fixed effects in the model (Wooldridge, 2006).

focus on the impact that FIN 48 has on firm disclosure in states that have already chosen to join the NNP.

In Model 2, the first matrix of control variables represents tax policy variables including amnesty programs, VCIs, economic presence, combined reporting, interest and royalty addbacks, throwback rules, sales apportionment, audit risk probability, statute of limitations, underpayment interest rate, corporate income tax rate, and streamlined sales tax member. In addition to firms disclosing in the NNP, firms also might chose to participate an amnesty program and/or a VCI. To control for other outlets for disclosure, I include these variables in the model. Because states typically advertise these short-term programs, I expect firms to seek them for disclosure rather than the NNP, resulting in a negative effect on the ratio of the number of NNP disclosures to GSP. The economic presence variable controls for whether a state follows physical presence or economic presence for the substantial nexus standard. For states following economic presence, firms generally have increased uncertainty around the level of presence required to constitute nexus. Therefore, I predict that economic presence will have a positive effect on the ratio of the number of NNP disclosures to GSP.

In addition to the recent trend of economic presence, states have continually sought opportunities to increase tax compliance and broaden the tax base. Examples of these opportunities include combined reporting, addbacks, and throwback rules. One method used by states to close loopholes and generate additional state tax revenues has been to enact combined reporting (Pomp, 1986). In states adopting combined reporting, firms may be slow in changing tax reporting practices leading to incorrect tax filings

resulting in firms disclosing prior unpaid tax liabilities and increasing disclosure in the NNP. With firms relying on passive investment companies and other types of transfer pricing for tax planning opportunities for several years, states are beginning to close these loopholes and require an addback of the interest and royalty expenses (Bruce et al., 2007). Again, in states where addbacks are required firms may be uncertain about the law change or slow in adapting reporting practices resulting in increased NNP disclosure of prior unpaid tax liabilities relative to GSP. Another attempt at capturing corporate profits includes enacting throwback rules. Due to the complexity of multistate taxpayers and software used to calculate throwback sales, firms may again be slow in response to these rule changes resulting in increased NNP disclosure relative to GSP. States also may be changing the sales factor weight in the apportionment formula. If firms are slow in adjusting to these changes in apportionment, these changes may result in increased NNP disclosure relative to GSP. Because states typically increase sales-factor apportionment, I expect a positive relation.[58] In general, these state tax policy variables also proxy for state tax complexity. As complexity increases, I predict an increase in the ratio of NNP disclosure to GSP.

Fisher et al. (1989) describe expected characteristics of an individual amnesty participant including the perception of detection and the feeling of guilt that drives

[58] As a robustness check, I tested Models 2 and 3 using five dummy variables for sales factor apportionment with one being omitted to avoid perfect collinearity. Each variable is defined as one when the sales factor is less than or equal to 33 percent, 50 percent, greater than or equal to 60 percent and less than or equal to 75 percent, greater than or equal to 80 percent and less than or equal to 95 percent, and 100 percent, respectively. In Model 2, the test variable and all of the control variables remain significant with consistent coefficients to the main model. In Model 3, consistent with the main model, combined reporting is the only variable that remains significant. None of the new specifications of the sales factor apportionment dummy variables are significant in either model.

disclosure in an amnesty. Due to data limitations, I am able to proxy for the perception of audit risk only by using the estimated general fund of each state. The higher the perceived audit risk the greater the ratio of the number of NNP disclosures to GSP. The estimated general fund proxies for the perceived audit risk because as a state increases its general fund the state will be able to employ more auditors increasing the risk of audit.

The model includes two tax policy variables that are similar to Dubin (2007). First, I include the number of years in the assessment period of a state. The assessment period refers to the number of tax years open in a state at a particular time. As the assessment period increases, I expect firms to increase NNP disclosure relative to GSP due to the increased risk of audit with additional open periods. On the other hand, additional open tax years may make the disclosure more costly. Second, I want to include the interest rate associated with underpayment of taxes and the penalty rate by state associated with the failure to file. However, no information exists regarding the penalty imposed because the calculation is highly dependent on the facts and circumstances of the firm and the infraction. Therefore, I use the state's interest rate on underpayment of a tax liability to capture the relative additional cost of not disclosing between states. I predict that, as the interest rate increases, firms will enter NNP disclosure at a higher rate.

To proxy for the cost of not disclosing related to the tax liability, I include the highest marginal corporate tax rate. Prior literature typically uses the corporate income tax rate as a control in other settings (Goolsbee and Maydew, 2000; Bruce et al., 2007;

Gupta et al., 2009b). As the corporate income tax rate increases, the potential cost of not disclosing increases resulting in an increase in the ratio of NNP disclosure to GSP.

In the NNP, firms may disclose both prior income tax and sales and use tax liabilities at the same time. Therefore, I include whether a state is a full member of the Streamlined Sales Tax Program to proxy for whether disclosure for both taxes may occur at the same time. I expect this variable to have a positive relation with the ratio of the number of NNP disclosures to GSP.

The second matrix of variables controls for the variation in the size of the states. Corporate tax revenues capture the overall level of corporate profit occurring in the state. This measure controls for the relative size of business within a state. As another means of controlling for the variation in state size influencing the ratio of the aggregated number of NNP disclosures to GSP, I include the number of non-farm employees in a state. As these variables are used as relative size control measures, I do not predict a direction.

Dollar Amount of NNP Disclosure by State (Hypothesis 3)

Similar to the model above, I use the limited empirical literature to develop the following model that investigates the impact of FIN 48 on the ratio of the dollar amount of NNP disclosure at the aggregated state level to GSP:

$$D_{it} / GSP_{it} = \alpha_0 + \alpha_1 s_t + \sum_{j=1}^{j} \lambda_j T_{it-1}^{j} + \sum_{k=1}^{k} \psi_k C_{it-1}^{k} + \sum_{n=1}^{n} \rho_n t_t^n + \theta_i + \varepsilon_{it} \quad (3)$$

where *all* variables are defined the same as in the above Model 2 *except* for the dependent variable, D_{it}, which represents the aggregated dollar amount of NNP disclosure that firms pay to states upon settlement of an agreement in the NNP in state *i* at year *t*, and $GSP_{it,}$

which is the GSP in state *i* at year *t*. Similar to Model 2, the dependent variable is the ratio of aggregated state NNP disclosure dollar amount to GSP to control for the effect that relative state size has on the dollar amount of NNP disclosure.[59] All the variables are defined in Table 2, Panel B. Again, the ordinary least squares regression is run conditional on the state choosing to join the NNP.

The dollar amount of NNP disclosure includes any tax liabilities, penalties, and interest associated with prior tax avoidance or evasion that the firm desires to disclose and reveal to the state. To test H3, I look for statistical significance on *s*.[60] FIN 48 may result in an increased dollar amount of NNP disclosure relative to GSP due to firms increasing their NNP disclosure activity and the corresponding dollar amount as a means to avoid accruing a FIN 48 liability in the financial statements. However, the response may be negative due to firms simply filing NNP disclosure agreements with little or no dollar amount to begin the statute of limitations and being cautious with the uncertainty around states' definitions of nexus. Therefore, I do not look for directional significance but rather whether FIN 48 impacted the dollar amount of NNP disclosure.

Case Model for FIN 48 Analysis (Hypotheses 4A and 4B)

Similar to the aggregated state models, previous literature rarely addresses the characteristics of individuals that enter into amnesty programs, much less corporate taxpayer characteristics. Using only the case-level data on publicly-traded firms from

[59] An ordinary least squares regression is still appropriate as less than eight percent of the observations are truncated at zero.
[60] Due to the potential for firms to act and disclose in the NNP in anticipation of FIN 48 becoming effective, I run sensitivity tests with FIN 48 defined in three different forms as described in a subsequent section.

1994 to 2008,[61] I examine whether the characteristics of firms influencing the dollar amount of NNP disclosure change following the implementation of FIN 48. I use a multivariate analysis with the following model based on the limited theoretical and empirical literature:[62,63]

$$CD_{xit} = \alpha_0 + \alpha_1 s_t + \alpha_2 fs_{xt-1} + \alpha_3 fs_{xt-1} * s_t + \alpha_4 ta_{xt-1} + \alpha_4 ta_{xt-1} * s_t + \sum_{l=1}^{l} \beta_l FC_{xt}^{l} + \sum_{j=1}^{j} \mathrm{K}_j SC_{it-1}^{j} + \sum_{n=1}^{n} \rho_n t_t^n + \theta_i + \varepsilon_{xit} \quad (4)$$

where CD_{xit} is the dollar amount of NNP voluntary disclosure paid by firm x in state i at year t. The indicator variable, s_t, is one when FIN 48 becomes effective for publicly-traded firms.[64,65] The model also includes a fourth order polynomial time trend (t_t^n), state fixed effects (θ_i),[66] and an error term (ε_{xit}). Because the model contains case observations

[61] Again, this time period is used as it reflects the period after the establishment of the NNP when detailed data records on cases were available.

[62] Here, x is defined for each firm, i is defined for each state, and t is defined for the year in which firm x discloses in the NNP. In the preliminary review of the data, less than one percent of the sample discloses with the NNP in more than one year. Therefore, these observations will be eliminated to avoid a lack of independence between the observations. However, as a firm discloses in more than one state, observations are clustered by firm to eliminate independence issues between the observations.

[63] Similar to the aggregated state models, I am unable to run a time fixed-effects model. With the *FIN48* variable and time fixed effects contained in the model, I would have multicollinearity. Therefore, I replace the time fixed effects with a third order polynomial time trend. This order of time trend was determined based on experimentation through successfully adding higher order polynomials ceasing when higher orders were no longer significant. As a robustness check, I estimate the model without the time trend and the *s* variable and include fixed effects finding broadly similar results. Using the ordered polynomial time trend, I run the regression with time trends and include state fixed effects. Therefore, I run a one-way fixed-effect ordinary least squares regression.

[64] FIN 48 is defined and tested using three different definitions as described in the next section.

[65] I examine the impact of the interaction between FIN 48 and the state tax policy variables to determine whether these interactive effects influence the dollar amount of NNP disclosure. The results are generally consistent with the main results for the state tax policy control variables. In four of the interaction models, the interaction between FIN 48 and firm size results in a significant negative response. However, the interaction between FIN 48 and firm tax aggressiveness results in a significant positive response. These findings provide additional support for smaller firms and tax aggressive firms disclosing larger dollar amounts in the NNP after the implementation of FIN 48.

[66] I ran a Hausman test to determine whether the model should include state fixed or random effects. The insignificant p-value on the test indicated that fixed or random effects were appropriate. Because fixed

defined by firm, by state, and by year, I should include three levels of effects for firm, state, and time. Due to the econometric complexities of including three types of effects, I include two types of effects – state fixed effects and polynomial time trends. To control for the firm observations lacking independence as firms disclose in multiple states in a single year, I allow for clustered standard errors. All variables are defined in Table 3.

Based on anecdotal evidence and findings from Gupta and Mills (2002), size may be negatively related to the number of NNP disclosures because the costs of complying with state rules falls disproportionately on smaller firms. However, Mills et al. (1998) and Hanlon et al. (2007) find that larger firms with more sophisticated tax departments and tax advisors shift income and engage in tax planning leading one to believe that size may have a positive relation with the dollar amount of NNP disclosure. Therefore, the directional effect of size on the dollar amount of NNP disclosure is ambiguous. To proxy for the size of a firm, I separately test three definitions of size: sales revenue, total assets, and net income. These variables are described in Table 3, Panel B. To test H4A, I evaluate statistical significance of the interaction of s_t, FIN 48, and fs_{xt-1}, firm size. Firm size is lagged because the size of the firm in the prior year could influence the cost of complying with state rules and tax planning which influence the dollar amount of NNP disclosure.

Gupta et al. (2009a) find that firms with aggressive state tax positions increase their state effective tax rates following the implementation of FIN 48. Also, Alexander et al. (2009) find that aggressive tax positions are positively associated with aggressive tax

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effects always result in consistent estimators and are more prevalent in panel data analysis, I chose to include state fixed effects in the model (Wooldridge, 2006).

reporting. Therefore, more tax aggressive firms, using tax aggressive reporting proxies, will disclose larger dollar amounts in the NNP due to aggressive tax positions, resulting in a positive relation between the dollar amount of NNP disclosure and the interaction of tax aggressiveness with FIN 48. Prior studies use different measures of tax aggressiveness due to the difficulty in measurement. To proxy for tax aggressiveness, I separately test three definitions of tax aggressiveness: effective tax rate, cash effective tax rate, and book-tax differences. Table 3, Panel C describes these variables in more detail. To test H4B, I seek positive statistical significance on the interaction of s_t, FIN 48, and ta_{xt-1}, tax aggressiveness. I lag tax aggressiveness because the level of tax aggressiveness impacting the decision to disclose in the NNP was the prior year level of tax aggressiveness.

A firm's effective tax rate measures corporate tax burden and is widely used in prior studies (Zimmerman, 1983; Gupta and Newberry, 1997). The effective tax rate is defined as the total tax expense divided by pre-tax book income less special items. Dyreng et al. (2008) introduced the cash effective tax rate as a measure of tax aggressiveness. This measure uses cash taxes paid rather than current expense in the numerator and eliminates the bias associated with changes in tax contingencies. A firm's cash effective tax rate is measured as cash taxes paid divided by pre-tax book income less special items. Several studies indicate that book-tax differences can signal tax aggressiveness (Mills, 1998; Wilson, 2009). Book-tax differences are measured using pre-tax book income less taxable income. Taxable income is defined as current federal tax expense divided by the federal statutory tax rate.

The model includes a matrix, FC^{l}_{xt}, of characteristics of firm *x* at year *t*. These control variables include the two-digit industry code, whether the paid preparer of the disclosure in the NNP was a big-four public accounting firm, and the number of entities included in a firm. Using Joulfaian and Rider (1998) and Dubin (2007), I include firm characteristics variables. I include the industry NAICS variable to proxy for the industry in which the disclosing firm is conducting business and the level of risk the firm may take. For more risky or volatile industries (i.e., petroleum or technology firms), I would expect that prior tax evasion has been larger and that, with the implementation of FIN 48, these firms disclose larger amounts in the NNP. The type of public accounting firm aiding in the NNP disclosure may influence the dollar amount. While the tax literature has yet to explore the impact of the type of tax provider on firm decisions, the corporate governance literature uses this measure extensively (Blouin et al., 2007; Fortin and Pittman, 2007; Louis, 2005). Therefore, I explore what, if any, impact the tax provider may have on the dollar amount of NNP disclosure. A big-four public accounting firm may be more stringent in disclosing prior unpaid liabilities and influence a firm to disclose a larger amount. However, a big-four public accounting firm may be the preparer because the big-four firm is more sophisticated at reducing the dollar amount of NNP disclosure. Finally, the number of entities may indicate a level of complexity within the group generating a higher dollar amount of NNP disclosure.

Similar to the aggregated state models, I include a state characteristics control matrix, SC^{j}_{it}. To control for the simultaneity bias inherent in a model where firms' actions of NNP disclosure may be in response to a policy enacted in the prior period, I

use a one-year lag on the tax policy variables. The state tax policy control variables are the same as those used in the aggregated state models. I also include two variables to control for state size. To control for potential issues with endogeneity, I also use a one-year lag on the state size or economic activity variables. All of these variables are defined in the above sections.

Similar to the above aggregated state models, this model is run conditional on a state joining the NNP. Due to data limitations associated with privately-held firms, I include only publicly-traded firms in the case model for FIN 48 analysis. Therefore, this model uses the population of publicly-traded firms that chose to disclose in the NNP from 1994 through 2008.

Defining FIN 48 (Variable Used in Models 2, 3, and 4)

Models 2, 3, and 4 contain the variable s_t taking a value equal to one when FIN 48 was implemented for publicly-traded firms and zero otherwise. I limit my variable definition of FIN 48 to the broad period of implementation due to the short window of requirement after implementation (limited to 2008). Although FIN 48 became effective for calendar year-end firms in 2007, the final standard was issued in 2006 with preliminary discussions of the new standard beginning as early as 2004. Therefore, I define and test Models 2, 3, and 4 using three different definitions of FIN 48.[67] I rely on Frischmann et al. (2008) to aid in the definitions of FIN 48.

[67] The Models 2 and 3 use case-level data aggregated to the state level with Model 4 using individual case-level data. All the data was obtained from the MTC beginning in 1994 as this was when the MTC began collecting and maintaining detailed data records.

With FIN 48, firms are likely to disclose in anticipation of the pronouncement rather than in response. If a firm were to adjust a FIN 48 liability established in a prior period without a change in facts, public accounting firms would classify this change as a prior period adjustment. The possibility of a prior period adjustment coupled with the desire to not record a FIN 48 liability will likely result in firms disclosing prior to or in the year that FIN 48 became effective. As the FIN 48 variable precludes me from using time fixed effects, I exclude the FIN 48 variable from the models and add time fixed effects to determine whether any of the control results are driven by the collinearity with time. Because my FIN 48 variable is a grouping of time periods, I add dummy variables for 2005, 2006, and 2007 together and each separately to evaluate whether these results are consistent with my FIN 48 variable.

First, I test using the variable $s_{t,}$ FIN 48, coded as one for 2007 with all other years coded as zero. I chose this option to define the variable because FIN 48 was effective for fiscal years beginning after December 15, 2006. Therefore, for calendar year-end firms, the first effective year will be 2007. During this first year of implementation, firms needing to accrue additional FIN 48 liabilities recorded these liabilities in retained earnings rather than the income statement. This requirement of FIN 48 and the desire to resolve uncertain tax positions should result in firms disclosing in the NNP in 2007 rather than waiting until 2008.

Second, I code the variable s_t as one for 2006 and 2007 with all other years coded as zero. Because the final FIN 48 standard was issued on July 13, 2006,[68] I include 2006 in the definition under the assumption that firms have entered the NNP disclosure in anticipation of FIN 48 becoming effective. Lastly, relying again on evidence from Frischmann et al. (2008), I define the variable s_t to include 2005 as well as 2006 through 2007. The authors describe market reaction to 11 events associated with FIN 48 and find that only one of the events is significant and negative, specifically July 14, 2005, the date the FASB issued the exposure draft. With increased exposure draft press coverage, firms are made more aware of the restrictive nature of recognizing tax benefits under FIN 48 and the ability of taxing jurisdictions to use this knowledge when auditing taxpayers. Again, firms may act in anticipation of the adoption of the new standard and seek NNP disclosure.

[68] According to Frischmann et al. (2008), this date received significant press coverage from the *Wall Street Journal* and the *New York Times*.

5. RESULTS

Descriptive Information about the National Nexus Program

Throughout the past 18 years, the NNP has been involved with over 700 taxpayers and processed over 9,000 cases. Of these cases, income taxes comprise approximately 37 percent, and sales and use taxes comprise 62 percent. Table 4 illustrates some general descriptive statistics about the NNP. Once a firm enters into the NNP, a case is opened and remains open until it is settled/accepted, rejected, or withdrawn. On average, there are 280 days between when an income tax case is opened and when the decision of the agreement becomes effective.[69]

While the NNP is free to taxpayers, a state pays nominal member fees of, on average, approximately $15,500 per year. Over the 18 years since the NNP has been established, state corporate tax revenues average $715.8 million per state per year. Therefore, a state is paying less than 0.003 percent in corporate tax revenues to participate in the NNP. In contrast to the nominal fee, a state receives, on average, $43,578 per year, or 0.006 percent of tax revenues, in additional tax collections from firms participating in the NNP income tax disclosures. The average tax collections per income tax case are approximately $35,859, or 0.005 percent of tax revenues.

Since its establishment in December 1990, the NNP has drastically increased the number of agreements from over 200 in 1991 to slightly less than 800 in 2008. Figure 4 shows the trend of the number of agreements based on the date a firm enters into the

[69] A settlement becomes effective after the MTC staff prepares the settlement agreement, the company reviews the agreement, and the taxing jurisdiction accepts the finalized agreement with the schedule of potential liabilities.

agreement. Until 2000, the number of agreements remained rather constant (total trend). Beginning in 2000, the total trend increased with the peak around 2003 and 2004 coinciding with more states offering tax amnesty programs. In 2002 and 2003, the number of state tax amnesty programs was at the highest level since 1982. The figure also shows the trend in agreements for both income tax and sales and use tax. For sales and use tax, the number of agreements spike in 2002 coinciding with the approval vote of the Streamlined Sales Tax Project in November 2002 (Hardt et al., 2004). For income tax, the spike in 2006 seems to coincide with the discussion and implementation of FIN 48. This spike also represents the first time that income tax NNP disclosures exceeded than sales and use tax NNP disclosures.

Results for State Corporate Tax Revenue Model (Model 1)

Descriptive Statistics

Table 5 presents descriptive statistics of the Model 1 data. Table 6 shows the correlation coefficients for the variables used in the state corporate tax revenue model. The mean state corporate tax revenues were $133.6 million, $451.5 million, and $1,175.6 million in 1974, 1991, and 2007, respectively. On average, the GSP in all states was $25.7 billion in 1974 increasing drastically to $234.1 billion in 2007. The average ratio of state corporate tax revenues to gross state product was 4.5 in 1974 and 5.2 in 2007.

Of the 45 states in the sample in 2007, 35 participate in the NNP with no state joining the NNP during 2007. In this sample, 18 additional states above the original 18 join the NNP from 1992 through 2008 as shown in Figure 3. Only one state in the sample offered an amnesty program in 2007. States adopting combined reporting almost

doubled from 1974 to 2007 when 18 states, or 40 percent, require combined reporting. Similarly, only one state required addbacks in 1991 with 18 requiring addbacks in 2007. On average, 22 percent of the states, or 10 states, used an economic presence standard rather than a physical presence standard in 2007. In comparison, no states followed an economic presence approach in 1974 or 1991 for income tax purposes. Approximately 51 percent of the states enacted throwback rules in 2007. In 1974, two percent of the states used the double weighted sales apportionment factor; however, in 2007, 50 percent of the states used this sales factor. The average corporate income tax rate is 7.4 percent in 2007 up from 6.7 percent in 1974. The personal income tax rate followed the opposite trend going from 7.4 percent in 1974 to 6.0 percent in 2007.

In 2007, the 45 states in the sample employed 2.697 million non-farm employees earning $124.0 billion in wages. In contrast, the same states in 1974 employed 1.599 million non-farm employees earning $15.5 billion in wages. Energy costs averaged $18.5 per million BTUs in 2007 increasing from $3.0 per million BTUs in 1974.

Regression Results

The results from the regression of the state corporate tax revenue model are presented in Table 7.[70] Of the main test variables, all three are statistically significant. The establishment of the NNP variable, *e*, has a highly significant negative effect on per

[70] The modified Wald statistic used for panel data indicates that there is heteroscedasticity in the model. Therefore, I re-estimate the models to control for heteroscedasticity using robust standard errors. These results are presented in the tables. Again, I perform a natural logarithmic transformation on state corporate tax revenues and the control variables impacting economic activity to increase interpretability of the coefficients and based on plotting the data. The literature has yet to address unspecified autocorrelation issues associated with panel data. Therefore, this model may not perfectly account for any unspecified autocorrelation issues.

capita revenues. Based on the model, per capita state corporate tax revenues declined 19.8 percent in the years of the NNP existence. After controlling for state tax policies and economic activity, per capita state corporate tax revenues are 19.8 percent lower from 1991 through 2008 than during 1973 through 1990. This finding is directionally consistent with the ratio of state and local taxes derived from corporate profits to corporate profits decreasing 34.7 percent from 1991 through 2008. Although the model contains state fixed effects and time trends, I am still unable to control for differences between states that vary across time. Also, while the coefficient on the *e* variable reflects the decline in per capita state corporate tax revenues from 1991 through 2008, I am unable to disentangle the exact magnitude effect of the establishment of the NNP. Despite these limitations, the negative statistical significance on the *e* variable is still in support H1A.

The indicator variable, *n*, capturing the permanent effects of states joining the NNP is highly significant and negative meaning that as a state joins the NNP the state's per capita corporate tax revenues tend to decline by 12.4 percent. In the first year of joining the NNP, the transitory effect, *j*, is significant. Overall, the net effect in the first year remains *negative* with per capita corporate tax revenues falling by a net 3.7 percent. Therefore, the net effect in the first year is less negative than in future years. Based on the theoretical model of Andreoni (1991), the negative permanent NNP effect on per capita revenues indicates that the NNP provides an insurance benefit for firms in the long-run. Again, the insurance benefit refers to a firm's ability to take advantage of the NNP when that firm experiences a bad shock (i.e., the firm discovers nexus exists in a

state in which the firm has never filed an income tax return). However, in the short-run, the less negative per capita revenue effect suggests that cheating prior to the adoption of the NNP in a state may have been relatively high. Again, due to unobservable differences between states that vary across time, I am more focused on the directional finding than the magnitude of the coefficient. These findings support H1B indicating that a state's decision to join the NNP impacts per capita tax revenues in both the year of joining and all future years.

Of the state tax policy control variables, VCIs, combined reporting, throwback rules, sales apportionment, and corporate income tax rate increase per capita state corporate tax revenues when enacted into legislation. However, the personal income tax rate results in decreased per capita state corporate tax revenues. All of these control effects except sales apportionment and personal income tax rate are in the predicted direction.

VCIs result in a 14.6 percent increase in per capita state corporate tax revenues. This variable is similar to a fixed effect for the year in which the VCI is enacted and may also be detecting other significant changes occurring during the year. Here, I find that combined reporting increases per capita tax revenues by 9.5 percent resulting in an overall effect of broadening the tax base. Consistent with Gupta el al. (2009), who find states with throwback rules to have a 16 percent increase in revenues, I find that the use of the throwback rule results in higher per capita tax revenues. In fact, states enacting throwback rules have 11.8 percent higher per capita revenues. Contrary to some prior research (Mazerov, 2001; Edmiston and Arze, 2006; Gupta et al., 2009b) but consistent

with Edmiston (2002), I find that higher weights on the sales factor in the apportionment formula lead to increased per capita state corporate tax revenues. States moving to a sales factor weighted between 34 percent and 66 percent experience a 13.7 percent increase in tax revenue. However, states moving from a sales factor weighted less than 33 percent to a sales factor weighted greater than 67 percent experience only an 11.3 percent increase. Consistent with Mazerov (2001), this finding indicates that, although moving to a more heavily weighted sales factor (34 percent to 66 percent) increases per capita revenues, moving to an even more heavily weighted sales factor apportionment formula (greater than 67 percent) may result in lost per capita revenues. This finding highlights that single-factor apportionment is business friendly only to firms with high property and payroll in a state relative to sales.

The personal income tax rate is statistically significant indicating that as the tax rate increases by one percentage point, (i.e., 6 percent to 7 percent), per capita state corporate tax revenues decrease by 1.4 percent. This finding is contrary to the literature (Bruce et al., 2007) and inconsistent with the prediction. The finding indicates that increased personal income tax rates are not driving firms to incorporate or pay lower wages for privately-held firms. On the other hand, the corporate income tax rate is highly significant and positive. When a state increases the corporate income tax rate by one percentage point, per capita corporate tax revenues increase by 5.6 percent. This finding is broadly consistent with Gupta et al. (2009b) who find an 11 percent effect. The coefficients for employment, wages, and energy costs were all highly significant at $p<0.01$.

Additional Analyses

To test both the specification of variables as well as the general model specification, I run several additional analyses. First, as the variable related to the establishment of the NNP prevents me from being able to run a time fixed-effects model, concerns may exist as to whether the results on the *n* and *j* variables are driven by the time trends included in the main model. Therefore, I drop the *e* variable and include time fixed-effects in the model. These results are included in Table 8. Even with fixed-effects, *n* continues to be significant and negative. However, *j* becomes marginally significant and remains positive. The magnitude of the coefficients is consistent with the main model. In this model, however, the voluntary compliance initiatives and energy costs are no longer significant.

Second, although the analysis above allowed me to use time fixed-effects, the analysis was at the expense of removing the *e* variable. Therefore, I perform two tests to evaluate the robustness of the *e* variable. Here, I test whether the results on the *e* variable are driven by the business cycles and the specification of the *e* variable. To begin, I limit my 36-year time period to test various business cycle periods based on the peaks and troughs described by the National Bureau of Economic Research.[71] Based on these time periods, I run the main model limiting the model to the following four time periods: 1975 through 2007, 1980 through 2007, 1982 through 2007, and 1982 through 2001. The results are broadly consistent. However, after limiting the time period to 1980 and on, a

[71] www.nber.org/cycles.html. I use the website to determine the various business cycles that occurred around the establishment of the NNP and focus on maintaining the same number of peaks as troughs in the model to ensure that neither a peak nor a trough is driving the results in the main model.

state enacting throwback rules no longer has a significant impact on per capita tax revenues. The magnitude of the *e* variable coefficient fluctuates from having a negative 13.3 percent effect on per capita state corporate tax revenues when the time period is defined as 1975 through 2007 to a 19.8 percent effect when the period is 1982 through 2007. Throughout all business cycle specifications, the *e* variable remains statistically significant and negative. As the number of peaks and troughs remain equal, the fluctuation in the coefficient may be detecting the magnitude of recessionary periods.

To investigate the time period being captured by the *e* variable and whether the coefficient is perhaps less negative than it otherwise would have been as a result of the Tax Reform Act of 1986 (TRA86), I define the *e* variable as one for five different time periods. The results of the *e* variable are contained in Table 9. For each of these specifications, I define e_{it} as one for the initial year and all future years with the years prior to the initial year defined as zero. The establishment variable is positive and significant for 1986, 1987, and 1988 perhaps capturing the base-broadening effects of TRA86. When the establishment variable is defined as one for 1990 and future years, the variable is negative and significant. These results along with the main analysis seem to indicate that TRA86 is not impacting the magnitude of the coefficient on the *e* variable in the main analysis. Perhaps the results in the main analysis are partially detecting the recession occurring from July 1990 through March 1991 resulting in lower per capita state corporate tax revenues.

Finally, it may be possible that policy endogeneity exists in the sense that tax revenues might affect state choices to join the NNP. For example, in years when state

corporate tax revenues are lower, states may join the NNP as a means to increase revenues. To at least partially account for policy endogeneity, I include a lag of state corporate tax revenues on the right-hand side of the model. The lagged dependent variable allows me to investigate the effect of NNP participation on this year's revenues while holding last year's revenues constant. After including the lagged variable in the model, the main test variables all remain significant and consistent with the main analysis. The control variables also are broadly consistent. Therefore, I conclude that policy endogeneity is not driving the results.

To control for the endogeneity issues potentially associated between the per capita corporate tax revenues and a state choosing to participate in the NNP, I lag all of the main test variables of *NNP establishment*, *NNP permanent effects*, and *NNP transitory effects*. Here, the *NNP transitory effects* become insignificant. However, the *NNP establishment* and *NNP permanent effects* remain highly significant and negative. Using this specification, the magnitude of the coefficients decreases to 13.6 percent and 10.9 percent, respectively.

Aggregated State Models for FIN 48 Analysis (Models 2 and 3)

Descriptive Statistics

Table 10 presents descriptive statistics of the data used in the two aggregated state models. Table 11 shows the correlation coefficients for the variables used in the aggregated state models. The mean of state income tax NNP disclosures was 2.5, 5.8, and 9.4 in 1995, 2001, and 2007, respectively. The mean ratio of state NNP disclosures to GSP was 0.044, 0.075, and 0.091 in 1995, 2001, and 2007, respectively. The mean

state dollar amount of NNP disclosure was $404,226; $91,038; and $122,065 in 1995, 2001, and 2007, respectively. The mean ratio of state dollar amount of NNP disclosure to GSP was $6,466; $710; and $688 in 1995, 2001, and 2007, respectively.

Of the states in the sample in 2007 or those states choosing to join the NNP, only one state offered an amnesty program. However, in 2001, seven states offered one-time amnesty programs. In 2007, eight states in the sample followed economic presence rather than physical presence for the substantial nexus standard. This increased from one state in 1995 to four states in 2001. Combined reporting remained relatively constant increasing from 13 states in 1995 to 14 states in 2007. From 1995 to 2007, states using addbacks to broaden the tax base increased dramatically from one state to 12 states. States using throwback rules in the sample increased from 16 states in 1995 to 20 in 2001 and then decreased to 17 states in 2007. Fifty percent of the states, or 17 states, in the sample had a sales factor weight ranging between 34 percent and 66 percent; however, slightly less than 12 percent of the states, or four states, had a sales factor apportionment weight greater than 67 percent. For the states in the sample, the average estimated general fund is $680.2 million in 2007. The average statute of limitations is 3.3 years and remains relatively constant over the years. On average, taxpayers incur a 9.9 percent interest rate on the underpayment of taxes in 2007. This rate decreased slightly from 1995 and 2001. The average corporate income tax rate of the states choosing to join the NNP is 7.3 percent in 2007. Of the states in 2007, approximately 38 percent, or 13 states, are full Streamlined Sales Tax members. On average, corporate tax revenues are $1.1

billion for the states in the sample in 2007. The states in the sample employed 2.5 million non-farm employees in 2007.

Regression Results for Model 2

The regression results from the aggregated state model using the ratio of NNP disclosure count to GSP as the dependent measure are presented in Table 12.[72] This table shows the regression results conditional on a state joining the NNP and uses all three definitions of FIN 48. In the model defining FIN 48 as one in 2007, FIN 48 is not significant suggesting that FIN 48 did not prompt firms to disclose in 2007. This finding indicates that firms may already have anticipated FIN 48 and disclosed in prior years. In the other definitions of FIN 48 that include 2006 and 2005, respectively, FIN 48 *does* become significant and positive indicating that FIN 48 may have influenced an increase in the number of NNP disclosures relative to GSP in states joining the NNP prior to implementation of FIN 48. These findings are consistent with the market reaction study done by Frischmann et al. (2008). They identified three dates with extensive press coverage. Two of the dates occurred in 2005 and 2006 coincide with the finding here.[73] However, Frischmann et al. find a significant negative market reaction only around July 14, 2005. The findings in this dissertation indicate that, on average, FIN 48 resulted in one to two additional NNP disclosures in a state depending on the definition of FIN 48.

[72] The modified Wald statistic used for panel data indicates that there is heteroscedasticity in the model. Therefore, I re-estimate the models to control for heteroscedasticity using robust standard errors. These results are presented in the table. Again, the literature has yet to address unspecified autocorrelation issues associated with panel data. Therefore, this model may not perfectly account for any unspecified autocorrelation issues.

[73] July 14, 2005 when FASB issued the exposure draft for FIN 48 and July 13, 2006 when the final standard was issued

These additional NNP disclosures translate into an increase in disclosure between 20 and 30 percent. Therefore, I find moderate support of H2, indicating that the passage of FIN 48 results in an increase in the number of NNP disclosures filed relative to the period prior to the FIN 48 effective date.

In each of these three models, VCIs and addbacks are statistically significant and negative. VCIs are in the predicted direction. As a state adopts a VCI, firms seek the VCI for disclosure rather than the NNP. On the other hand, addbacks are not in the predicted direction. The negative statistical significance here may indicate that in states adopting addbacks firms are increasing tax compliance and disclosing less in the NNP. The underpayment interest rate is statistically significant and positive in all the models, indicating that as the cost of not disclosing and being caught increases so does the ratio of NNP disclosures to GSP. The only state economic activity control variable that is significant is the employment variable that is statistically significant and negative. Throughout all of the models, the fourth order polynomial time trend remains significant.

Additional Analyses for Model 2

I run several tests to examine the robustness of the main model. First, I exclude the FIN 48 variable and run a time fixed-effects model to resolve uncertainty around the effect of the polynomial time trend on the control variables. I also run the model using separate time variables for the years FIN 48 was being implemented (2005, 2006, and 2007) rather than the dummy variables as defined in the previous section. Table 13 summarizes these results. In the full fixed-effects model, the results are consistent with the main models with VCI, addbacks, and state underpayment interest rate all being

statistically significant. In this model, all time fixed-effects variables are highly significant with the exception of the variables for 1996, 2003, 2004, and 2008. As another method to proxy for FIN 48, I run the model controlling only for 2005, 2006, and 2007 together and then each year separately. Even without the time fixed-effects or time trends as controls in the model, the results are broadly consistent. In the model including a dummy variable for 2005, 2006, and 2007, only the control variables amnesty and VCI are significant. However, all three of the time dummy variables are statistically significant and positive. Consistent with the main model results, the time dummy variables are only significant for 2005 and 2006 in the models including a dummy for a specific year. Between these two models, 2006 has the larger magnitude of response with increasing the ratio of NNP disclosures to GSP. This result is consistent with July 13, 2006 being the date when FASB issued the final FIN 48 standard.

Second, although I examined the robustness of the results around the control variables above and included specific year dummy variables for the time period involving the implementation of FIN 48, I was unable to retain the test variable for FIN 48, s_t, in the models. Therefore, I further test whether the results are driven by a time period that does not include an equal number of peaks and troughs. This analysis allows me to retain the FIN 48 test variable. Here, I use the National Bureau of Economic Research to determine the business cycles and restrict the sample to a period when the number of peaks equals the number of troughs.[74] Based on this information, the appropriate time period within my general examination period of 1994 to 2008 to test is 2001 through 2007. These

[74] www.nber.org/cycles.html

results are broadly consistent. FIN 48 is significant only when defined as one for 2006 and 2007. The variable remains positive; however, the coefficient has increased slightly to approximately 0.022. The state tax policy variable amnesty becomes significant and positive in all three definitions of FIN 48. The finding on the control variable is not in the predicted direction and seems to indicate that although states adopt amnesty programs firms still seek to disclose in the NNP.

Third, in using the aggregated state model, the dependent variable that includes the number of NNP disclosures in a given state is perhaps not independent in the sense that the underlying firms making the NNP disclosures choose to disclose in multiple states. Therefore, a state is not independent of another state due to firms multiple state NNP disclosures. As a means to capture and control for the possible lack of independence between states, I count the number of states with underlying related disclosures and include an index variable as a control. In all specifications of FIN 48, the control variables are consistent with the main model. However, the FIN 48 variable becomes insignificant in all models with the newly added control index having a positive and significant effect on the ratio of NNP disclosures to GSP. In future research, I will continue to investigate econometric methods to control for the potential lack of independence between the observations.

Finally, given the limitation in most data to investigate differences between publicly-traded and privately-held firms, I take advantage of the depth of this proprietary data and separate the data into publicly-traded and privately-held firms to determine whether the implementation of FIN 48 and state tax policy variables influence the firms

differently. Again, this is particularly interesting given that during this time period, FIN 48 was only mandatory for publicly-traded firms. Table 14 summarizes the publicly-traded firm models, and table 15 shows the privately-held firm models. Contrary to initial expectations, FIN 48 has a positive and statistically significant influence on NNP disclosure for privately-held firms; however, FIN 48, when defined as one for 2005 through 2007, has a *negative* and highly significant impact on NNP disclosures for publicly-traded firms. On the other hand, when FIN 48 is defined as one for 2006 and 2007 combined and separately for 2007, the impact is statistically significant and positive. The negative coefficient on FIN 48 for publicly-traded firms may be driven by the smaller sample of publicly-traded firms as compared to privately-held firms. Individual firm characteristics also may be driving the results. The results may indicate that publicly-traded firms were slower in response to FIN 48. These firms did not act until it was imminent that FIN 48 would be passed. The finding on publicly-traded firms indicates that understanding the differences between publicly-traded and privately-held firms remains an area for future research using additional data from future years and possibly acquiring data on firms who do not disclose in the NNP.

Regression Results for Model 3

The regression results from the second aggregated state model are presented in Table 16.[75] Here the dependent measure is the ratio of the dollar amount of NNP

[75] The modified Wald statistic used for panel data indicates that there is heteroscedasticity in the model. Therefore, I re-estimate the models to control for heteroscedasticity using robust standard errors. These results are presented in the tables. The literature has yet to address unspecified autocorrelation issues associated with panel data. Therefore, this model may not perfectly account for any unspecified autocorrelation issues.

disclosure to GSP in state *i* for year *t*. These results are consistent across the definitions for s_t. FIN 48 is not driving the dollar amount associated with disclosing in the NNP. Rather, the dollar amount of disclosure is influenced by a state adopting combined reporting. Therefore, I fail to find results for my third hypothesis and reject H3, which states that FIN 48 has a significant impact on the ratio of the state aggregated dollar amount of NNP disclosure to GSP.

Combined reporting is in the predicted direction and is statistically significant and positive. Depending on the definition of FIN 48, a state adopting combined reporting increases the dollar amount of NNP disclosures in a state by a range of approximately $199,000 to $213,000 conditional on the state joining the NNP. The increase in NNP disclosures translates to an average 0.03 percent increase in state corporate tax revenues. Again, the significance on combined reporting may also proxy for state tax complexity that results in larger dollar amounts of NNP disclosure.

In this aggregated state model, none of the other state policy control variables are significant. Also, none of the state size control variables are significant. However, throughout all three of the main models, the fourth order polynomial time trend remains significant.

Additional Analyses for Model 3

In a manner similar to Model 2, I test the overall robustness of the model. I conclude by analyzing the main model separately for publicly-traded and privately-held firms. First, to evaluate the effect on the control variables of using the polynomial time trend, I omit the FIN 48 variable and add time fixed-effects. Table 17 shows the results.

Unlike the main model, the underpayment interest rate is significant and positive indicating that a one percentage point increase in the underpayment interest rate results in an approximately $30,000 increase in the dollar amount of NNP disclosure in a state. The increase in NNP disclosure amount in a state translates to a 0.004 percent increase in state corporate tax revenues. With time fixed effects, a state adopting combined reporting is no longer significant in predicting the ratio of the dollar amount of NNP disclosures to GSP. In this model, only the time fixed effects for 1995 and 1997 are significant. To further test the model, I include only time controls for 2005, 2006, and 2007 all together and each separately. Consistent with the main analysis using the FIN 48 variable, these single year controls are insignificant. Similar with the full fixed-effects model, the underpayment interest rate is positive and significant only when the single time control for 2006 is included. In all these additional specifications controlling for 2005, 2006, and 2007 together and separately, employment is significant and negative. While these last models control for the time period FIN 48 is being implemented, no time trend or time fixed effects are included.

Second, to further investigate the FIN 48 variable, I examine the effects of the business cycle on the results by ensuring that the number of peaks in the model equals the number of troughs. Although the above analysis using time fixed-effects eliminates the uncertainty around the effects of business cycles, it does so at the expense of removing the FIN 48 variable. This analysis allows me to retain the FIN 48 variable for examination. Similar to Model 2, I based this determination on the National Bureau of

Economic Research.[76] The business cycle begins with 2001 and ends with 2007. I find that once again these results are broadly similar with FIN 48 remaining insignificant throughout all three definitions of FIN 48. Contrary to the main model, combined reporting becomes insignificant. Also, the statute of limitations becomes positive and significant indicating that as the number of open tax years increases firms have an increased risk of audit detection resulting in a larger dollar amount of disclosure.

Third, for the aggregated state model, the dependent variable that includes the aggregated dollar amount of NNP disclosure in a given state is perhaps not independent in the sense that the underlying firms making the NNP disclosures choose to disclose in multiple states. By construction of the variable, a state is not independent of another state due to firms making multiple state NNP disclosures. As a means to capture and control for the possible lack of independence between states, I include an index variable that counts the number of states with underlying related disclosures. In all specifications of FIN 48, the only control variable that is significant is combined reporting. Consistent with the main model, the FIN 48 variable remains insignificant in all models. Unlike Model 2, here the index variable remains insignificant in all specifications of FIN 48. Future research will investigate other econometric tools to control for the potential lack of independence between the observations.

Finally, to fully utilize the uniqueness of the data and to provide additional insight into the differences between publicly-traded and privately-held firm, I divide the sample to determine whether the results are consistent across two distinctly different groups of

[76] www.nber.org/cycles.html

firms. Table 18 provides the results for publicly-traded firms, and table 19 shows the results for privately-held firms. Regardless of the definition, FIN 48 is not significant for the publicly-traded firms. Contrary to initial intuition, FIN 48 is positive and highly significant for the privately-held firms. These results may indicate that publicly-traded firms are more responsive to FIN 48 and to the effects of a large FIN 48 liability on the financial statements than originally thought. The finding here is contrary to the intuition that privately-held firms are more concerned with cash payments than financial statements. For both publicly-traded and privately-held firms, none of the control variables are significant.

Case Model for FIN 48 Analysis (Model 4)

Descriptive Statistics

Table 20 presents descriptive statistics for the data used in the case-level model examining the effects of FIN 48 on the dollar amount of NNP disclosure for publicly-traded firms disclosing in the NNP. Table 21 provides the correlation coefficients for the variables used in the case-level model. Due to only knowing the population of the firms who choose to disclose in the NNP, the results must be interpreted conditional on a state joining the NNP and a firms choosing to disclose in the NNP. The mean dollar amount of income tax disclosure by firm choosing to disclose in the NNP was $17,706; $17,943; and $14,699 in 2001, 2004, and 2007, respectively. The average sales increased from $7.4 million in 2001 to $11.7 million in 2004 and then declined to $9.9 million in 2007. On average, the publicly-traded firms disclosing in the NNP had $7.4 million in assets; $13.1 million in assets; and $41.5 million in assets in 2001, 2004, and 2007, respectively.

During this period, average net income for the firms selecting to disclose in the NNP ranged between $1 million and $2 million. Overall, the effective tax rate declined dramatically from 36.4 percent in 2001 to 12.9 percent in 2007 reflecting permanent tax saving resulting from presumably tax planning. The cash effective tax rate for publicly-traded firms was 54.8 percent, 20.0 percent, and 9.2 percent in 2001, 2004, and 2007, respectively. This substantial decline reflects a drop in cash taxes paid. For these firms, book-tax differences varied widely from $568,357 to $85,164 to $246,289.

Approximately, 14 percent of the firms disclosing in the NNP in 2007 used a big-four public accounting firm to aid in the disclosure. However, in 2001 and 2004, this usage was closer to 50 percent. Perhaps the decline provides evidence of publicly-traded firms separating audit and tax services. On average, the firms had 16 entities in their corporate structure in 2007 compared to over 50 entities in 2001 and 2004.

Of the states where firms are choosing to disclose in 2007, 4.8 percent of the states, which is down from over 10 percent in 2001 and 2004, offered amnesty programs. Over 30 percent of the states adopted combined reporting. Approximately, 22.6 percent of the states followed economic presence rather than physical presence for their substantial nexus standard. In 2001 and 2004, only 13 percent of the states followed economic presence. The percentage of states in the sample requiring the throwback of sales dropped from 48.3 percent to 38.7 percent. However, states requiring addbacks increased from 3.4 percent to 35.5 percent. On average, 60 percent of the states in 2007 had a sales factor in the apportionment formula weighted between 34 and 66 percent with less than 15 percent of the states having a sales factor weight greater than 67 percent.

The average estimated general fund, which is used to proxy for audit risk, was $597.7 million in 2007, rising from $151.3 million in 2001. The average statute of limitations remained relative constant around years throughout the sample period. On average, publicly-traded firms disclosing in the NNP incurred a 9.6 percent interest rate on the underpayment of taxes in 2007. This state interest rate on the underpayment of taxes was slightly higher at 10.4 percent in 2001. The average corporate income tax rate for states in which publicly-traded firms were disclosing in the NNP was 7.4 percent in 2007. Again, the corporate income tax rate was higher in 2001 at 7.9 percent. Of the states that publicly-traded firms choose to disclose in, approximately 37 percent are full Streamlined Sales Tax members in 2007.

Regression Results

Tables 22, 23, and 24 present the regression results from the case-level analysis of FIN 48.[77] In this model, three variables are defined using three different definitions (FIN 48, firm size, and firm tax aggressiveness). While defining variables in different manners adds to the complexity of running models and reporting results, it also substantiates the findings across different variable specifications. The results remain highly consistent across the different variable specifications for firm size (assets, sales, and net income). Therefore, these results are not presented in tables. This model varies from the aggregated state model using the dollar amount of NNP disclosure because it allows for

[77] The modified Wald statistic used in panel data indicates that there is heteroscedasticity in the model. Therefore, I re-estimate the models to control for heteroscedasticity using robust standard errors. These results are presented in the tables. The literature has yet to address unspecified autocorrelation issues associated with panel data. Therefore, this model may not perfectly account for any unspecified autocorrelation issues.

firm-level controls in addition to state-level controls providing more insight into the variables impact NNP disclosure for publicly-traded firms.

Table 22 presents the results for firm size defined as assets and tax aggressiveness defined as the effective tax rate. Table 23 presents the results for firm size defined as assets and tax aggressiveness defined as the cash effective tax rate. Table 24 presents the results for firm size defined as assets and tax aggressiveness defined as book-tax differences. Regardless of the definitions used for FIN 48, firm size, or firm tax aggressiveness, neither of the test variables, $fs_{xt-1} * s_t$ or $ta_{xt-1} * s_t$, are significant for publicly-traded firms choosing to disclose in the NNP for states that also chose to join the NNP. Therefore, I reject both H4A and H4B and conclude that firm size and firm tax aggressiveness did not impact the dollar amount of disclosure in the NNP either prior to or after the implementation of FIN 48.

Interestingly, two state policy control variables are consistently significant across all models, *VCIs* and *economic presence*. Consistent with predictions, when a state has a VCI, firms disclose approximately $24,000 to $35,000 less in the NNP. In other words, this decreased disclosure amount in the NNP decreases state corporate tax revenues by 0.004 to 0.006 percent. Contrary to expectations, for states with a physical presence standard, firms disclose from $12,000 to $14,000 more, depending on the definitions of FIN 48, firm size, and firm tax aggressiveness, than in states with an economic presence standard. This translates to 0.002 percent additional state corporate tax revenues for states with a physical presence standard. From this evidence, I conclude that firms may be disclosing more in states following physical presence than those following economic

presence because firms are willing to risk audit detection and litigation in the states with economic presence where the level of activity constituting a substantial nexus standard is less defined. Firms perhaps believe that without a clearer definition of the substantial nexus standard options exist to negotiate any future tax liabilities if faced with audit. In fact, based on this evidence, FIN 48 was not even powerful enough to change behavior.[78] This finding highlights the impact that the definition of substantial nexus has on NNP disclosure further supporting the need for the Supreme Court to hear a case regarding economic presence for income tax purposes.

In the two models using effective tax rates and cash effective tax rates, both addbacks and sales factor apportionment defined as one when the weight is between 34 and 66 were significant. Contrary to expectations, addbacks were significant and negatively associated with the dollar amount of NNP disclosure indicating that this measure of tax complexity reduces the dollar amount of disclosure. While the dollar amount of disclosure decreases, the effect on NNP disclosure behavior is not clear. Therefore, it is difficult to disentangle whether firms are simply disclosing a small amount to begin the statute of limitations. Again, contrary to predictions, sales apportionment was positive and significant. Throughout these models, the fourth order polynomial time trend remains significant.

Additional Analyses

To further test the robustness of this model, I examine time fixed effects and business cycles. First, I eliminate the FIN 48 variable and the time trends. I also exclude

[78] This is tested further when examining the interactions between FIN 48 and state tax policy variables.

firm size, firm tax aggressiveness, and the interaction of these variables with FIN 48 and include time fixed effects in the model to resolve concern about whether the results on the state policy variables are driven by the polynomial time trend. I find results consistent with the main model. Here, VCIs, economic presence, addbacks, and throwback rules are all significant and negatively associated with the dollar amount of NNP disclosure.

Second, I use information from the National Bureau of Economic Research to investigate the number of peaks and troughs contained within the data.[79] I limit the sample to 2001 through 2007 to ensure that the number of peaks equals the number of troughs. The results are broadly consistent with the main result findings with the exception of state throwback rules having a significant and negative relation with the dollar amount of NNP disclosure for publicly-traded firms. This finding is contrary to expectations but again reflects the inability of the model to disentangle whether the firm simply disclosed a smaller dollar amount to begin the statute of limitations.

In addition to state throwback rules becoming significant, two models result in significance in the test variables. The results are limited to FIN 48 being defined as one for 2006 and 2007. In the model using sales and the cash effective tax rate, the interaction of FIN 48 and sales is significant and negative; however, the interaction of FIN 48 and the cash effective tax rate is significant and positive. In the model using assets and the cash effective tax rate, the interaction of FIN 48 and assets is significant and negative. Again, in this model, the interaction of FIN 48 and the cash effective tax

[79] www.nber.org/cycles.html

rate is significant and positive. These findings provide limited support that smaller firms are disclosing a larger dollar amount in the NNP and that more tax aggressive firms are increasing the dollar amount of NNP disclosure.

6. CONTRIBUTIONS, LIMITATIONS, AND FUTURE RESEARCH

The NNP data collected by the MTC has not previously been used for academic research purposes. This data offers the ability to better understand the decisions of multistate taxpayers. Generally, research on multistate taxpayers has been limited due to the lack of data and the fact that no central repository of data on such taxpayers exists. This data offers a unique and significant contribution to the literature in beginning to understand these taxpayers.

Using the concept of a permanent tax amnesty program and the theoretical background provided by Andreoni (1991), I explore the effects of a permanent tax amnesty program on state corporate tax revenues and conclude that tax revenues are lower when comparing 1991 through 2008 to 1973 through 1990. I further investigate the NNP and determine that it had a negative permanent effect on revenues perhaps because firms view the NNP as an insurance benefit available when a bad shock occurs. Although less negative than in future year, the net effect in the first year remains *negative* when considering the permanent and transitory effects in conjunction. This finding indicates that firms may enter the NNP initially because cheating was elevated prior to the adoption of the NNP.

Historically, the United States and other countries have used long-term, fully anticipated, forms of tax amnesties. Therefore, knowledge of the effects could be used by other taxing jurisdictions as well as the MTC to increase the effectiveness of their programs. Overall, policymakers should realize that enacting a permanent tax amnesty program similar to the NNP likely will not result in increased tax revenues. Rather, based on this empirical evidence, taxpayers tend to view a permanent tax amnesty as an insurance benefit and not disclose until encountering a negative experience.

In addition to expanding the literature on the effectiveness of the NNP on per capita state corporate tax revenues, the dissertation also provides insights into the ability of FIN 48 to affect tax compliance and revenues. While states have struggled with this effort over many years, tax compliance may be increased due to the unintended consequences of the issuance of a financial accounting standard. In investigating the impact of FIN 48 on both the ratio of the number of NNP disclosures to GSP and the ratio of the dollar amount of NNP disclosure to GSP from a state aggregated perspective, I find that FIN 48 resulted in increasing the number of disclosures in states that had chosen to join the NNP but had no impact on the dollar amount of disclosure. In fact, in states choosing to join the NNP, only adopting combined reporting had a positive and significant effect on increasing the dollar amount of NNP disclosure relative to GSP.

While at the case-level analysis I do not find broad results that FIN 48 or the interaction of FIN 48 and firm size or tax aggressiveness impacts the dollar amount of disclosure in the NNP, I do find that economic presence impacts the dollar amount of disclosure. When investigating publicly-traded firms using data at the individual case

level, I find that two state policy control variables, *VCIs* and *economic presence*, have significant and negative effects on the dollar amount of NNP disclosure. Although the finding on economic presence is negative, which is contrary to intuition, I suspect that firms may be disclosing larger dollar amounts in states defining the substantial nexus standard as physical presence because firms are willing to risk audit detection and litigation in states defining the standard as economic presence. With the uncertainty around economic presence, firms may simply be disclosing a smaller amount in these states to begin the statute of limitations waiting for more determination on the definition of what constitutes economic presence. This finding provides policymakers with an initial empirical examination of the impact that the uncertainty in the substantial nexus standard, specifically economic presence, may have on state tax compliance and associated tax revenues.

Various groups have testified before Congress stating that the lack of clarity may result in additional FIN 48 liabilities for firms and potentially cause an undue filing burden. Comment letters have been written to FASB linking FIN 48 and the nexus issue as a reason for delaying implementation. While I do not find support for this anecdotal evidence and general conjectures in my interaction models, I do find that the uncertainty around the definition of what constitutes substantial nexus impacts the dollar amount of NNP disclosure for publicly-traded firms when evaluated on an individual case basis. Therefore, this finding highlights the impact that the definition of the substantial nexus standard has on NNP disclosure, providing support for the Supreme Court to hear a case regarding economic presence for income tax purposes.

Although the NNP data are unique, the data also has limitations as no taxpayer characteristic variables are included. This limitation results in having to merge data from multiple sources based on name and address rather than EIN as this information is propriety. Future research should seek to match the MTC data with IRS corporate tax return data to gather more specific matches. Future research should also investigate the determinants of a state choosing to join the NNP.

As discussed earlier, the case-level model results that examine FIN 48 are limited to only firms who select to disclose in the NNP and are not be generalizable to the entire population. One method of overcoming this limitation would be to obtain data from a sampling of states on firms who did not chose to disclose in the NNP allowing the use of a two-stage selection model. I plan to contact several states in an attempt to obtain this data. This case method of investigation may result in future research in this area.

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APPENDIX A: EXAMPLES OF NNP DISCLOSURES

The following are examples of NNP disclosures:

1. The applicant has become aware that the visits of independent contractors can constitute nexus for purposes of sales tax and has reconsidered its sales/use tax compliance in the light of this fact. The applicant has been in compliance with regards to sales/use tax in its home state for as many years as current staff can remember or can document through company records.

2. Acquisition of a potentially non-compliant entity. The taxpayer's acquisition due diligence by outside professional firms did not property disclose possible nexus creating activities which may cause potential past exposure. Any potential failure to register, file or remit was due to reasonable cause in reliance on the information provided by the taxpayer's professional advisors and not due to any negligence or intentional disregard of the law. The taxpayer restructured its business at the beginning of XXXX, and no longer has nexus creating activities in its remote retail sale line of business. However, the taxpayer supports the Streamlined Sales Tax Project and would like to pursue an appropriate remedy through the SSTP for any potential past exposure.

3. It has come to our attention that we have obtained nexus within the state due to demo/evaluation tangible property, salesperson presence, and sales made to the state. Our nexus status within states can change due to the movement of demo and evaluation and leased inventory as well as changes in salespersons employed. We want to be proactive and correct this situation.

4. Based on the growth of the business, XXX was hired to perform a nexus study and determine the taxability of the Company's products/services. From these findings, the Company wishes to enter into a voluntary disclosure and be in compliance with all applicable tax laws on a prospective basis.

5. XXX has recently expanded the business activities to include the coordination of the delivery of equipment to our customers in your state. XXX used to only provide installs or repairs through local independent contractors. Previously, our professional advice and own research on the matter did not indicated sufficient nexus in your state, and therefore were not obligated to register. Due to the expansion, XXX would like to take the position of voluntarily registering.

   XXX has always been registered to do business in state A and has been in compliance with the sales/use tax law. Possibility of nexus resulting in income tax liability arose after state B inquiry into activities within state B. Therefore, XXX is disclosing income tax liabilities in state A.

APPENDIX B: NUMERICAL EXAMPLES OF FIN 48

Example 1: Recognition and Measurement Threshold

Facts

Company A is a manufacturing firm with income tax nexus in Tennessee, Georgia, and Pennsylvania. This manufacturing firm derives a majority of their income from customers located within the state of Missouri. Currently, Company A files income tax returns in Tennessee, Georgia, and Pennsylvania. Although the firm has economic presence in the state of Missouri, Company A has never filed an income tax return in Missouri as it has no physical presence in the state. It is estimated that the tax benefit associated with not filing an income tax return in Missouri is approximately $1.6 million in 2007.

Issue

Does the $1.6 million in non-filing of a Missouri return for Company A represent a FIN 48 liability in 2007? If so, what is the amount of liability following the approach of recognition and measurement?

Conclusion

Under FIN 48, non-filing of a tax return is a decision made by the firm becoming a tax position. Since the definition of nexus varies greatly across states, the determination of whether the tax position of not filing a Missouri income tax return meets the more-likely-than-not recognition threshold is complicated. FIN 48 states that when evaluating the recognition threshold that the taxpayer will litigate to the court of last resort. In the case here, the court of last resort is the U.S. Supreme Court. As the U.S. Supreme Court has never heard a case on nexus, it is difficult to be more than 50 percent certain how an issue will be decided. However, it is possible to rely on widely accepted administrative practices in a state. For Missouri, the Missouri Supreme Court has supported the position of physical presence. Therefore, Company A can be more-likely-than-not to prevail under audit meaning that Company A meets the recognition threshold for the non-filing position of a Missouri income tax return.

After meeting the recognition threshold, Company A must measure the tax position at the largest amount of the tax benefit that is greater than the 50 percent likelihood of prevailing under audit. The firm calculated the following schedule showing the distribution of the potential outcomes:

Potential Benefit	Individual Probability	Cumulative Probability
$1.6 million	25 %	25 %
$1.1 million	30 %	55 %
$0.7 million	35 %	90 %
$0.4 million	10 %	100 %

Therefore, Company A will recognize $1.1 million of tax benefit and $0.5 million of FIN 48 liability. As Company A has never filed in Missouri and no statute of limitations exists, the FIN 48 liability of $0.5 million will remain on the financial statements indefinitely and continue to grow each year when the tax position is reevaluated assuming the facts remain similar.

Example 2: Recognition Threshold Only

Facts
Company A is a manufacturing firm with income tax nexus in Tennessee, Georgia, and Pennsylvania. Currently, Company A files income tax returns in Tennessee, Georgia, and Pennsylvania. Company B, a subsidiary of Company A, manages the royalties of Company A. Company B operates as an intercompany royalty company incorporated in Delaware and does not file any state income tax returns.

As historically Tennessee, Georgia, and Pennsylvania have never required the addback of intercompany royalty payments, Company A has retained the full benefit of the tax planning strategy. When the laws changed in Tennessee, Company A complied with the disclosure of intangible expenses required for years beginning on or after January 1, 2004. However, Company A never incorporated the law change in Georgia that required an addback for intangible expenses and interest related to the use of intangibles for years beginning on or after January 1, 2006. It is estimated that the tax benefit of the intercompany royalty expenses for Company A in Georgia is $1 million for 2007.

Issue
Does the $1 million in royalty expense addback for Company A in Georgia represent a FIN 48 liability in 2007? If so, what is the amount of liability following the approach of recognition and measurement?

Conclusion
Since Company A neglected to follow the law change in Georgia for intercompany addbacks of intangible royalty expenses, it is unlikely that this tax position will prevail under audit. Therefore, this tax position does not meet the recognition threshold of more-likely-than-not.

When a tax position does not meet the recognition threshold, the full amount of the tax benefit is recorded as a FIN 48 liability. Therefore, the amount of the FIN 48 liability for Company A is $1 million.

APPENDIX C: FIGURES AND TABLES

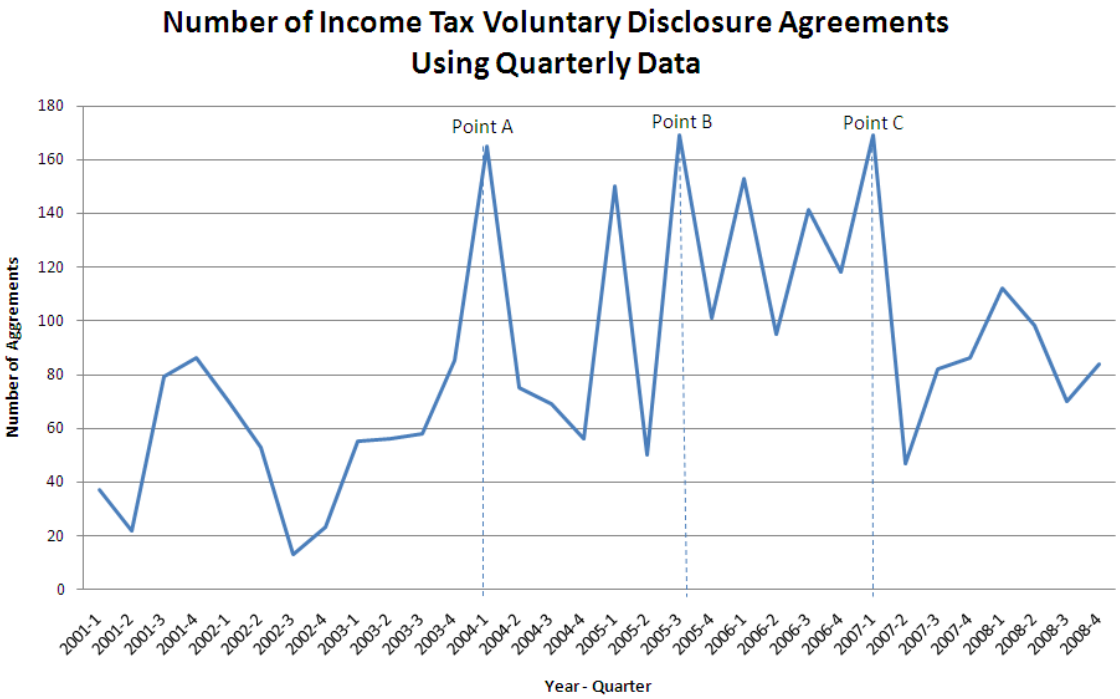

Figure 1: Number of Income Tax Voluntary Disclosure Agreements Using Quarterly Data

Source: Multistate Tax Commission from National Nexus Program

	Type of Tax Program[80]	
	Voluntary Disclosure Program[81]	**Short-Term Tax Amnesty**
Type of Payment	Tax Liability Interest Penalties	Tax Liability Interest
Duration	Permanent	3 months, on average

Figure 2: Summary of Differences between Voluntary Disclosure and Short-Term Tax Amnesty

Source: Jackson, Ira A. 1986. Amnesty and Creative Tax Administration. *National Tax Journal* 39 (3):317-323.

[80] Voluntary compliance initiatives (VCI) differ from both voluntary disclosure programs and short-term amnesties. A VCI is often limited in scope to certain types of taxes and targets taxpayers involved in tax shelter transactions, including reportable and listed transactions.

[81] Voluntary disclosure programs are highly similar to permanent tax amnesty programs (i.e., NNP). In general, the literature describing the types of tax programs uses the terminology of voluntary disclosure programs.

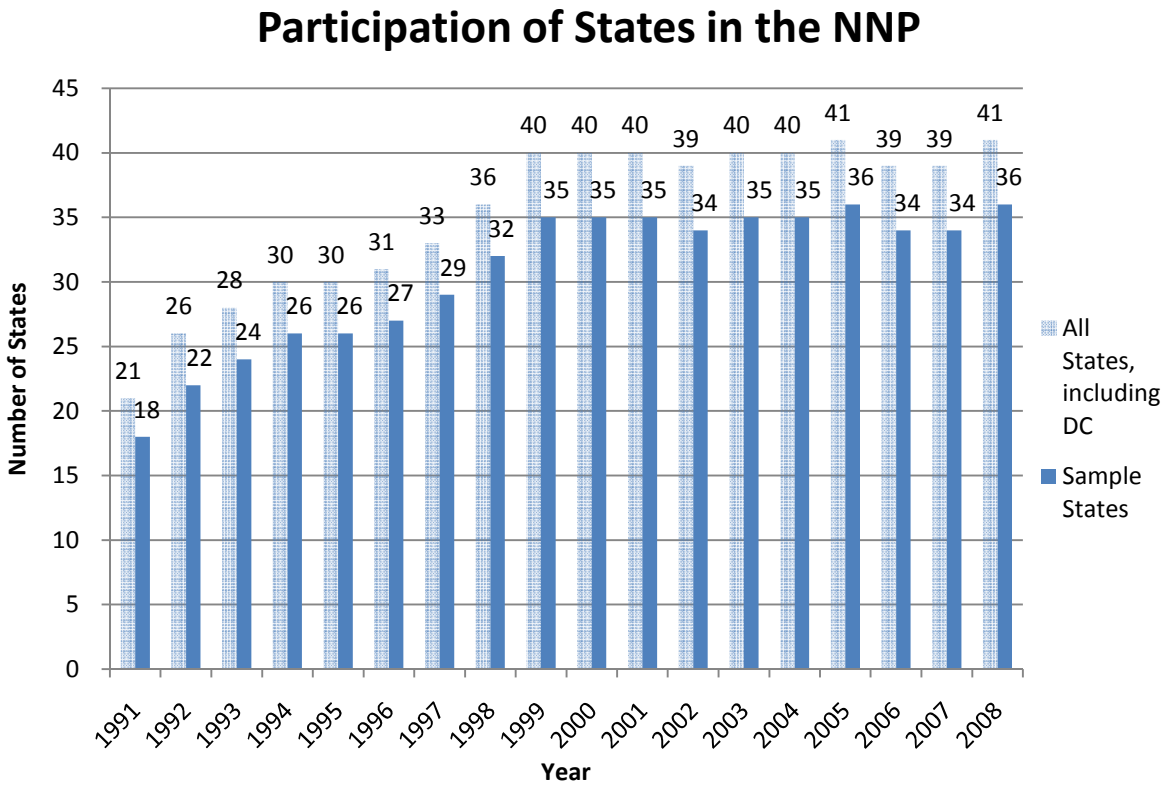

Figure 3: Participation of States in the NNP[82]

Source: Multistate Tax Commission from National Nexus Program

[82] The total number of states participating in the NNP is higher than the number of states in my sample as I exclude the District of Columbia, Nevada, South Dakota, Texas, Washington, and Wyoming. Initially, the District of Columbia, Texas, and Washington join the NNP. Also, New Hampshire and New Mexico drop out of the NNP in 2006 and 2002, respectively. Both of these states join the NNP again in 2008. Maine drops out of the NNP in 2006 and never rejoins during my sample period. All of the remaining states join and participate throughout my sample period.

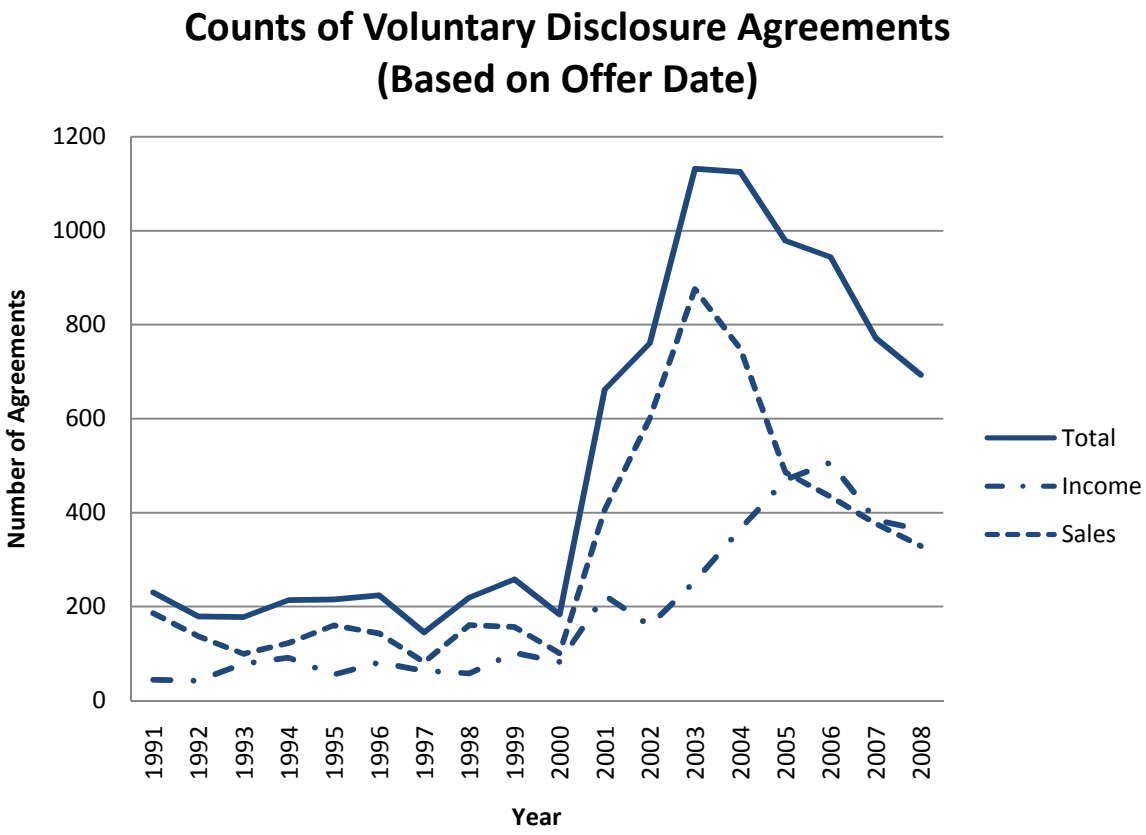

Figure 4: Counts of Voluntary Disclosure Agreements (Based on Offer Date)

Source: Multistate Tax Commission from National Nexus Program

Table 1: Variable Definitions for State Corporate Tax Revenue Model (Model 1)

Model 1: $$\ln(R_{it}/GSP_{it}) = \alpha_0 + \alpha_1 e_t + \alpha_2 n_{it} + \alpha_3 j_{it} + \sum_{k=1}^{k} \beta_k T_{it-1}^{k} + \sum_{l=1}^{l} \delta_l \ln C_{it-1}^{l} + \sum_{m=1}^{m} \rho_m t_t^m + \theta_i + \varepsilon_{it}$$

Years: 1973 - 2008

Variable		Definition	Source
R_{it} / GSP_{it}	*Tax Revenues / GSP*	the corporate tax revenues (in millions) divided by the total gross state product less gross state product from the government sector (in billions) in state i for year t.	World Tax Database U.S. Census Bureau Bureau of Economic Analysis
e_t	*Establish of NNP*	indicator variable, 1=for 1991 and years after in year t.	
n_{it}	*NNP - Permanent*	indicator variable, 1=state joined NNP and/or participated in program for state *i* in year *t*.	Multistate Tax Commission
j_{it}	*NNP - Transitory*	indicator variable, 1=state initially joined NNP for state *i* in year *t*.	Multistate Tax Commission
T^{k}_{it-1}	*Amnesty*	indicator variable, 1=state *i* had an amnesty program in year *t-1*.	Federation of Tax Administrators
	VCI	indicator variable, 1=state *i* had a voluntary compliance initiative in year *t-1*.	CCH Tax Research Network
	Nexus	indicator variable, 1=significant economic presence standard followed for nexus in state *i* for year *t-1*.	State Codes / State Case Law
	CombReport	indicator variable, 1=combined reporting required for state *i* in year *t-1*.	CCH State Tax Handbooks

Table 1: Continued

Variable		Definition	Source
	Addbacks	indicator variable, 1=state *i* has an addback provision for related party interest and/or royalty expenses for year *t-1*.	CCH State Tax Handbooks
	Throwback	indicator variable, 1=state *i* has a throwback rule for year *t-1*.	CCH State Tax Handbooks
	SalesApport1	indicator variable, 1=state *i* has a sales factor weight between 0 and 33 for year *t-1*.	CCH State Tax Handbooks
	SalesApport2	indicator variable, 1=state *i* has a sales factor weight between 34 and 66 for year *t-1*.	CCH State Tax Handbooks
	SalesApport3	indicator variable, 1=state *i* has a sales factor weight between 67 and 100 for year *t-1*.	CCH State Tax Handbooks
	PIT Rate	highest marginal personal tax rate for state *i* in year *t-1*.	CCH State Tax Handbooks
	CIT Rate	highest marginal corporate tax rate for state *i* in year *t-1*.	CCH State Tax Handbooks
C^{l}_{it-1}	*Employment*	the number of non-farm employees (in millions) in state *i* in year *t-1*.	Bureau of Labor Statistics
	Wages	non-farm wage and salary disbursements (in billions) in state *i* in year *t-1*.	Bureau of Economic Analysis
	Energy	total energy prices in dollars per million Btu in state *i* in year *t-1*.	U.S. Department of Energy
t_t^m		the linear and non-linear numeric representation of year *t* from 1 to eight.	
θ_i		state fixed effects.	

Table 2: Variable Definitions for Aggregated State NNP Disclosure and Dollar Amount Models (Models 2 and 3)

Panel A:

Model 2: $$F_{it} / GSP_{it} = \alpha_0 + \alpha_1 s_t + \sum_{j=1}^{j} \lambda_j T_{it-1}^{j} + \sum_{k=1}^{k} \psi_k C_{it-1}^{k} + \sum_{n=1}^{n} \rho_n t_t^n + \theta_i + \varepsilon_{it}$$

Years: 1994 - 2008

Variable		Definition	Source
F_{it} / GSP_{it}	*NNPNum / GSP*	the number of firms that disclose with the NNP divided by the total gross state product less gross state product from the government sector (in billions) in state *i* for year *t*.	Multistate Tax Commission Bureau of Economic Analysis
s_t	*FIN 48*	indicator variable, 1=standard (FIN 48) required for year *t*.	See Defining FIN 48 Section.
T^j_{it-1}	*Amnesty*	indicator variable, 1=state *i* had an amnesty program in year *t-1*.	Federation of Tax Administrators
	VCI	indicator variable, 1=state *i* had a voluntary compliance initiative in year *t-1*.	CCH Tax Research Network
	Nexus	indicator variable, 1=significant economic presence standard followed for nexus in state *i* for year *t-1*.	State Codes / State Case Law
	CombReport	indicator variable, 1=combined reporting required for state *i* in year *t-1*.	CCH State Tax Handbooks
	Addbacks	indicator variable, 1=state *i* has an addback provision for related party interest and/or royalty expenses for year *t-1*.	CCH State Tax Handbooks
	Throwback	indicator variable, 1=state *i* has a throwback rule for year *t-1*.	CCH State Tax Handbooks

Table 2: Continued

Variable		Definition	Source
	SalesApport1	indicator variable, 1=state *i* has a sales factor weight between 0 and 33 for year *t-1*.	CCH State Tax Handbooks
	SalesApport2	indicator variable, 1=state *i* has a sales factor weight between 34 and 66 for year *t-1*.	CCH State Tax Handbooks
	SalesApport3	indicator variable, 1=state *i* has a sales factor weight between 67 and 100 for year *t-1*.	CCH State Tax Handbooks
	AuditProb	the estimated general fund (in millions) in state *i* for year *t-1*.	National Association of State Budget Officers
	SOL	the assessment period in years in state *i* for year *t-1*.	CCH State Tax Handbooks
	UnderpmtIntRate	the underpayment interest rate in state *i* for year *t-1*.	CCH State Tax Handbooks
	CIT Rate	highest marginal corporate tax rate for state *i* in year *t-1*.	CCH State Tax Handbooks
	SSTM	indicator variable, 1=state *i* is a full member for year *t-1*.	Streamlined Sales Tax Governing Board, Inc.
C^{k}_{it-1}	*CorpRev*	the corporate tax revenues (in millions) in state *i* for year *t-1*.	World Tax Database and U.S. Census Bureau
	Employment	the number of non-farm employees (in millions) in state *i* in year *t-1*.	Bureau of Labor Statistics
t_t^n		the linear and non-linear numeric representation of year *t* from 1 to four.	
θ_i		state fixed effects.	

Table 2: Continued

Panel B:

Model 3: $$D_{it} / GSP_{it} = \alpha_0 + \alpha_1 s_t + \sum_{j=1}^{j} \lambda_j T_{it-1}^{j} + \sum_{k=1}^{k} \psi_k C_{it-1}^{k} + \sum_{n=1}^{n} \rho_n t_t^n + \theta_i + \varepsilon_{it}$$

Years: 1994 - 2008

Variable		Definition	Source
D_{it} / GSP_{it}	*NNPDol / GSP*	the aggregated dollar amount (in millions) of voluntary disclosure that firms pay when entering the NNP divided by the total gross state product less gross state product from the government sector (in billions) in state i for year t.	Multistate Tax Commission Bureau of Economic Analysis
s_t	*FIN 48*	indicator variable, 1=standard (FIN 48) required for year *t*.	See Defining FIN 48 Section.
		all other variables are as previous defined in Model 2 above.	

Table 3: Variable Definitions for NNP Dollar Amount Model using NNP Cases of Publicly-Traded Firms (Model 4)

Panel A: General Model

Model 4: $$CD_{xit} = \alpha_0 + \alpha_1 s_t + \alpha_2 fs_{xt-1} + \alpha_3 fs_{xt-1} * s_t + \alpha_4 ta_{xt-1} + \alpha_4 ta_{xt-1} * s_t + \sum_{l=1}^{l} \beta_l FC_{xt}^{l} + \sum_{j=1}^{j} \mathrm{K}_j SC_{it-1}^{j} + \sum_{n=1}^{n} \rho_n t_t^n + \theta_i + \varepsilon_{xit}$$

Years: 1994 - 2008

Variable		Definition	Source
CD_{xit}	*NNPCase*	the dollar amount of voluntary disclosure paid when entering the NNP for firm *i* in state *x* during year *t*.	Multistate Tax Commission
s_t	*FIN 48*	indicator variable, 1=standard (FIN 48) required for year *t*.	See Defining FIN 48 Section.
fs_{xt-1}	*Size*	the size of firm *i* in year *t-1*. See details in Panel B.	Compustat
$fs_{xt-1}*s_t$	*FIN 48*Size*	the size of firm *i* in year *t-1* given that FIN 48 is required.	Compustat
ta_{xt-1}	*TaxAgg*	the level of tax aggressiveness of firm *i* in year *t-1*. See details in Panel C.	Compustat
$ta_{xt-1}*s_t$	*FIN 48*TaxAgg*	the level of tax aggressiveness of firm *i* in year *t-1* given that FIN 48 is required.	Compustat
FC^{l}_{xt}	*NAICS*	variable controlling for the industry for firm *i* in year *t* using the first two-digits of the NAICS code.	Corporate Affiliations
	Big Four	indicator variable, 1=Big-four public accounting firm is the paid preparer of the NNP disclosure for firm *i* in year *t*.	Multistate Tax Commission
	NumofEnt	the number of entities for firm *i* in year *t*.	Corporate Affiliations

Table 3: Continued

Variable		Definition	Source
SC^{j}_{it-1}	*Amnesty*	indicator variable, 1=state *x* had an amnesty program in year *t-1*.	Federation of Tax Administrators
	VCI	indicator variable, 1=state *x* had a voluntary compliance initiative in year *t-1*.	CCH Tax Research Network
	Nexus	indicator variable, 1=significant economic presence standard followed for nexus in state *x* for year *t-1*.	State Codes / State Case Law
	CombReport	indicator variable, 1=combined reporting required for state *x* in year *t-1*.	CCH State Tax Handbooks
	Addbacks	indicator variable, 1=state *x* has an addback provision for related party interest and/or royalty expenses for year *t-1*.	CCH State Tax Handbooks
	Throwback	indicator variable, 1=state *x* has a throwback rule for year *t-1*.	CCH State Tax Handbooks
	SalesApport1	indicator variable, 1=state *i* has a sales factor weight between 0 and 33 for year *t-1*.	CCH State Tax Handbooks
	SalesApport2	indicator variable, 1=state *i* has a sales factor weight between 34 and 66 for year *t-1*.	CCH State Tax Handbooks
	SalesApport3	indicator variable, 1=state *i* has a sales factor weight between 67 and 100 for year *t-1*.	CCH State Tax Handbooks
	AuditProb	the estimated general fund (in millions) in state *x* for year *t-1*.	National Association of State Budget Officers
	SOL	the assessment period in years in state *x* for year *t-1*.	CCH State Tax Handbooks
	UnderpmtIntRate	the underpayment interest rate in state x for year t-1.	CCH State Tax Handbooks

Table 3: Continued

Variable		Definition	Source
	CIT Rate	highest marginal corporate tax rate for state *x* in year *t-1*.	CCH State Tax Handbooks
	SSTM	indicator variable, 1=state *x* is a full member for year *t-1*.	Streamlined Sales Tax Governing Board, Inc.
	CorpRev	the corporate tax revenues (in millions) in state i for year t-1.	World Tax Database and U.S. Census Bureau.
	Employment	the number of non-farm employees (in millions) in state i in year t-1.	Bureau of Labor Statistics
t_t^n		the linear and non-linear numeric representation of year *t* from 1 to four.	
θ_i		state fixed effects.	

Panel B: Definitions for Firm Size used in Sensitivity Tests

Variable		Definition	Source
fs_{xt-1}	*Sales*	the amount of sales revenue (in thousands) for firm *i* in year *t-1*.	Compustat
	Assets	the amount of total assets for firm (in thousands) *i* in year *t-1*.	Compustat
	NI	the amount of net income for firm (in thousands)*i* in year *t-1*.	Compustat

Table 3: Continued

Panel C: Definitions for Tax Aggressiveness used in Sensitivity Tests

Variable		Definition	Source
ta_{xt-1}	*ETR*	the effective tax rate (total tax expense divided by pre-tax book income less special items) for firm *i* in year *t-1*.	Compustat
	CETR	the cash effective tax rate (cash taxes paid divided by pre-tax book income less special items) for firm *i* in year *t-1*.	Compustat
	BTD	the book-tax differences (pre-tax book income less taxable income – taxable income is current federal tax expense divided by the federal statutory tax rate) for firm *i* in year *t-1*.	Compustat

Table 4: General Statistics about the NNP[83]

Types of Taxes Involved in Disclosure:[84]	**Firms**	**Percentage**	**Cases**	**Percentage**
Income Tax	398	42.89%	3,339	37.19%
Sales & Use Tax	508	54.74%	5,538	61.68%
Other Taxes	22	2.37%	102	1.14%
Total	928	100.00%	8,979	100.00%

Of the Agreements with No Effective Date:	**Income Tax**		**Sales & Use Tax**	
	Cases	**Percentage**	**Cases**	**Percentage**
Withdrawn / By Default	523	26.20%	846	23.86%
Pending	629	31.51%	695	19.60%
Stale	145	7.26%	366	10.32%
Rejected	46	2.30%	85	2.40%
Total	1,343	67.28%	1,992	56.18%

Of the Effective Agreements:[85]	**Income Tax**		**Sales & Use Tax**	
	Cases	**Percentage**	**Cases**	**Percentage**
Accepted	1,937	97.04%	3,399	95.85%
Rejected	35	1.75%	83	2.34%
Stale	19	0.95%	59	1.66%
Withdrawn / By Default / Pending	5	0.25%	5	0.14%
Total	1,996	100.00%	3,546	100.00%

[83] Data is based on a case. A case is comprised of a unique taxpayer disclosing prior liabilities in a particular state for income, sales and use, or other taxes. These calculations are based on the 18 year history of the NNP beginning in 1991 through 2008.
[84] Cases for which no offer date is established are dropped (243 observations).
[85] For the cases that do not become accepted, no taxpayer identity is revealed to the MTC.

Table 4: Continued

Average Data Across All Types of Taxes (Effective Agreements Only):

	Income Tax	Sales & Use Tax
Days between Offer Date and Effective Date	281.23	266.75
Number of States per Firm	6.86 states	9.74 states
Tax Collections by State by Year	$ 43,578.11	$ 161,347.70
Tax Collections by Case	$ 35,858.97	$ 98,410.19
Tax Collections by Year	$ 45,707.64	$ 111,140.40
Member Fee by State by Year across both taxes	$15,529.84	

Analysis of Income Tax Disclosures:

	Firms	Cases
Income Tax Firms	398	3,339
Duplicate Firms	(4)	(31)
Firms with no EIN from MTC	(108)	(713)
Firms with no match in EINFinder or CorpAffil	(79)	(234)
Total Firms	207	2,361
Internationally-Traded Firms	26	738
Publicly-Traded Firms	48	456
Privately-Held Firms	133	1167
Total Firms	207	2,361

Table 5: Descriptive Statistics for State Corporate Tax Revenue Model

Variable		Panel A: 1974 (n=45 states) Mean	Standard Deviation	Min	Max	Panel B: 1991 (n=45 states) Mean	Standard Deviation	Min	Max
R_{it}	*Tax Revenues*	133.627	208.563	8.024	1,046.031	451.518	732.180	27.387	4,440.479
GSP_{it}	*GSP*	25.676	29.699	2.252	137.378	100.930	125.276	9.502	701.882
R_{it} / GSP_{it}	*Tax Revenues / GSP*	4.528	1.842	0.477	8.289	4.288	2.175	1.733	14.348
e_t	*Establish of NNP*	0.000	0.000	0.000	0.000	1.000	0.000	1.000	1.000
n_{it}	*NNP - Permanent*	0.000	0.000	0.000	0.000	0.422	0.499	0.000	1.000
j_{it}	*NNP - Transitory*	0.000	0.000	0.000	0.000	0.422	0.499	0.000	1.000
T^k_{it-1}	*Amnesty*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	VCI	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Nexus	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	CombReport	0.222	0.420	0.000	1.000	0.289	0.458	0.000	1.000
	Addbacks	0.000	0.000	0.000	0.000	0.022	0.149	0.000	1.000
	Throwback	0.489	0.506	0.000	1.000	0.533	0.505	0.000	1.000
	SalesApport1	0.978	0.149	0.000	1.000	0.622	0.490	0.000	1.000
	SalesApport2	0.022	0.149	0.000	1.000	0.289	0.458	0.000	1.000
	SalesApport3	0.000	0.000	0.000	0.000	0.089	0.288	0.000	1.000
	PIT Rate	7.436	4.531	0.000	19.800	6.296	2.941	0.000	12.000
	CIT Rate	6.650	1.831	2.750	12.000	7.629	1.875	2.350	12.250
C^l_{it-1}	*Employment*	1.599	1.710	0.128	7.210	2.161	2.282	0.243	12.400
	Wages	15.500	18.200	1.340	83.300	55.800	67.500	5.120	370.000
	Energy	2.978	0.542	1.753	4.110	8.446	1.393	5.583	11.509

Table 5: Continued

Variable		Panel C: 2007 (n=45 states) Mean	Standard Deviation	Min	Max
R_{it}	*Tax Revenues*	1,175.577	1,818.044	83.362	11,157.900
GSP_{it}	*GSP*	234.093	282.884	21.249	1,596.044
R_{it} / GSP_{it}	*Tax Revenues / GSP*	5.181	3.236	1.944	22.045
e_t	*Establish of NNP*	1.000	0.000	1.000	1.000
n_{it}	*NNP - Permanent*	0.756	0.435	0.000	1.000
j_{it}	*NNP - Transitory*	0.000	0.000	0.000	0.000
T^k_{it-1}	*Amnesty*	0.022	0.149	0.000	1.000
	VCI	0.000	0.000	0.000	0.000
	Nexus	0.222	0.420	0.000	1.000
	CombReport	0.400	0.495	0.000	1.000
	Addbacks	0.400	0.495	0.000	1.000
	Throwback	0.511	0.506	0.000	1.000
	SalesApport1	0.356	0.484	0.000	1.000
	SalesApport2	0.511	0.506	0.000	1.000
	SalesApport3	0.133	0.344	0.000	1.000
	PIT Rate	6.003	2.663	0.000	12.000
	CIT Rate	7.375	1.733	1.900	12.000
C^l_{it-1}	*Employment*	2.697	2.751	0.308	15.200
	Wages	124.000	148.000	11.700	821.000
	Energy	18.465	2.831	13.216	25.195

Table 6: Correlation Matrix for State Corporate Tax Revenue Model[86]

Variable	*lnTaxRev / GSP*	*Establish of NNP*	*NNP - Permanent*	*NNP - Transitory*	*Amnesty*	*VCI*	*Nexus*	*Comb Report*	*Add-backs*
lnTaxRev / GSP	1.000								
Establish of NNP	-0.171	1.000							
NNP - Permanent	-0.180	0.726	1.000						
NNP - Transitory	-0.013	0.157	0.216	1.000					
Amnesty	-0.074	0.040	0.046	-0.035	1.000				
VCI	-0.012	0.102	0.086	-0.015	0.037	1.000			
Nexus	-0.006	0.205	0.257	-0.031	-0.002	0.056	1.000		
CombReport	0.073	0.099	0.196	0.026	-0.027	0.021	0.132	1.000	
Addbacks	-0.080	0.262	0.232	-0.020	0.052	0.141	0.045	-0.146	1.000
Throwback	0.035	0.019	0.052	0.014	-0.030	-0.050	-0.008	0.396	-0.112
SalesApport1	-0.028	-0.502	-0.402	-0.039	-0.088	-0.109	-0.121	0.038	-0.294
SalesApport2	-0.032	0.380	0.260	0.026	0.101	0.071	-0.043	-0.108	0.286
SalesApport3	0.045	0.255	0.275	0.025	-0.010	0.084	0.273	0.127	0.048
PIT Rate	-0.016	-0.146	-0.055	-0.001	0.000	0.002	0.047	0.132	-0.042
CIT Rate	-0.028	0.002	-0.048	0.026	0.040	0.022	0.002	0.086	-0.046
lnEmployment	-0.095	0.144	0.061	-0.008	0.057	0.106	-0.062	-0.084	0.156
lnWages	0.262	0.336	0.208	-0.003	0.083	0.181	0.000	-0.009	0.266
lnEnergy	-0.049	0.610	0.507	0.012	0.086	0.181	0.223	0.085	0.384

[86] Correlation matrix includes 1,620 observations for 45 states over 36 years (1973-2008).

Table 6: Continued

Variable	*Throw back*	*Sales Apport1*	*Sales Apport2*	*Sales Apport3*	*PIT Rate*	*CIT Rate*	*lnEmploy-ment*	*lnWages*	*lnEnergy*
Throwback	1.000								
SalesApport1	0.163	1.000							
SalesApport2	-0.108	-0.817	1.000						
SalesApport3	-0.120	-0.415	-0.185	1.000					
PIT Rate	0.111	0.144	-0.082	-0.115	1.000				
CIT Rate	-0.138	-0.076	0.235	-0.241	0.303	1.000			
lnEmployment	-0.158	-0.336	0.329	0.053	-0.119	0.060	1.000		
lnWages	-0.113	-0.429	0.375	0.140	-0.124	0.014	0.899	1.000	
lnEnergy	-0.015	-0.471	0.308	0.317	-0.223	-0.102	0.195	0.407	1.000

Table 7: State Corporate Tax Revenue Model

Variable		Coefficient	Robust Standard Error	t-stat	p-value	
e_{it}	*Establish of NNP*	-0.198	0.047	-4.240	0.000	***
n_{it}	*NNP - Permanent*	-0.124	0.025	-4.950	0.000	***
j_{it}	*NNP - Transitory*	0.087	0.038	2.310	0.021	**
T^{j}_{it-1}	*Amnesty*	-0.012	0.028	-0.420	0.672	
	VCI	0.146	0.066	2.230	0.026	**
	Nexus	-0.046	0.057	-0.810	0.417	
	CombReport	0.095	0.055	1.740	0.082	*
	Addbacks	0.005	0.037	0.130	0.897	
	Throwback	0.118	0.034	3.520	0.000	***
	SalesApport2	0.137	0.024	5.630	0.000	***
	SalesApport3	0.113	0.037	3.020	0.003	***
	PIT Rate	-0.014	0.005	-2.590	0.010	**
	CIT Rate	0.056	0.012	4.870	0.000	***
$ln\ C^{l}_{it-1}$	*ln Employment*	1.586	0.180	8.810	0.000	***
	ln Wages	-1.509	0.167	-9.050	0.000	***
	ln Energy	-0.247	0.092	-2.690	0.007	***
Intercept		5.534	2.314	2.390	0.017	**
Rho		0.726				
R^2		0.360				
n		1,620				

Regression contains state fixed effects and an eighth order polynomial time trend.

Dependent variable is the natural log of the ratio corporate tax revenues to gross state product.

Regression uses 45 states over 36 years (1973-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 8: State Corporate Tax Revenue Model, Time Fixed Effects

Variable		Coefficient	Robust Standard Error	t-stat	p-value	
n_{it}	*NNP - Permanent*	-0.122	0.025	-4.960	0.000	***
j_{it}	*NNP - Transitory*	0.067	0.037	1.790	0.073	*
T^{j}_{it-1}	*Amnesty*	0.017	0.027	0.640	0.523	
	VCI	0.088	0.071	1.240	0.214	
	Nexus	-0.052	0.053	-0.970	0.330	
	CombReport	0.116	0.053	2.200	0.028	**
	Addbacks	0.019	0.037	0.510	0.607	
	Throwback	0.124	0.033	3.700	0.000	***
	SalesApport2	0.140	0.024	5.820	0.000	***
	SalesApport3	0.117	0.036	3.260	0.001	***
	PIT Rate	-0.014	0.005	-2.640	0.008	***
	CIT Rate	0.061	0.011	5.460	0.000	***
ln C^{l}_{it-1}	*ln Employment*	1.528	0.184	8.300	0.000	***
	ln Wages	-1.498	0.167	-8.980	0.000	***
	ln Energy	-0.161	0.119	-1.350	0.177	
Intercept		7.230	2.280	3.170	0.002	***
Rho		0.732				
R^2		0.400				
n		1,620				

Regression contains fixed effects for states and years.

Dependent variable is the natural log of the ratio of corporate tax revenues to gross state product.

Regression uses 45 states over 36 years (1973-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 9: State Corporate Tax Revenue Model, Establishment Variable Analysis

Variable		Initial Year	Coefficient	Robust Standard Error	t-stat	p-value	
Main Model Analysis:							
e_{it}	*Establish of NNP*	*1991*	-0.198	0.047	-4.240	0.000	***
Additional Analyses:							
e_{it}	*Establish of NNP*	*1990*	-0.222	0.044	-5.070	0.000	***
e_{it}	*Establish of NNP*	*1989*	0.026	0.043	0.610	0.542	
e_{it}	*Establish of NNP*	*1988*	0.085	0.041	2.100	0.036	**
e_{it}	*Establish of NNP*	*1987*	0.105	0.041	2.590	0.010	**
e_{it}	*Establish of NNP*	*1986*	0.152	0.040	3.750	0.000	***

Regressions all contain fixed effects for states and an eighth order polynomial time trend.

Initial year refers to the year in which the establishment variable begins being defined as one.

Dependent variable is the natural log of the ratio of corporate tax revenues to gross state product.

Regressions use 45 states over 36 years (1973-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 10: Descriptive Statistics for Aggregated State Models for FIN 48 Analysis

Variable		Panel A: 1995 (n=26 states) Mean	Standard Deviation	Min	Max
F_{it}	*NNPNum*	2.500	1.100	1.000	5.000
D_{it}	*NNPDol*	404,226	571,891	525	2,127,200
GSP_{it}	*GSP*	118.851	159.372	11.995	798.832
F_{it} / GSP_{it}	*NNPNum / GSP*	0.044	0.029	0.007	0.128
D_{it} / GSP_{it}	*NNPDol / GSP*	6,465.947	7,783.350	4.785	24,938.600
s_t	*Fin 48 - 1*	0.000	0.000	0.000	0.000
	Fin 48 - 2	0.000	0.000	0.000	0.000
	Fin 48 - 3	0.000	0.000	0.000	0.000
T^{j}_{it-1}	*Amnesty*	0.077	0.272	0.000	1.000
	VCI	0.000	0.000	0.000	0.000
	Nexus	0.038	0.196	0.000	1.000
	CombReport	0.500	0.510	0.000	1.000
	Addbacks	0.038	0.196	0.000	1.000
	Throwback	0.615	0.496	0.000	1.000
	SalesApport1	0.385	0.496	0.000	1.000
	SalesApport2	0.462	0.508	0.000	1.000
	SalesApport3	0.154	0.368	0.000	1.000
	AuditProb	188.385	245.212	-3.000	898.000
	SOL	3.519	0.700	3.000	5.000
	UnderpmtIntRate	10.000	2.093	7.000	15.000
	CIT Rate	7.390	2.000	2.300	10.500
	SSTM	0.000	0.000	0.000	0.000
C^{k}_{it-1}	*CorpRev*	606.000	1,140.000	47.300	5,750.000
	Employment	2.217	2.553	0.302	12.400

Table 10: Continued

Variable		Panel B: 2001 (n=35 states) Mean	Standard Deviation	Min	Max
F_{it}	*NNPNum*	5.829	2.514	2.000	11.000
D_{it}	*NNPDol*	91,038	99,942	0.000	338,058
GSP_{it}	*GSP*	153.816	203.028	15.567	1,155.223
F_{it} / GSP_{it}	*NNPNum / GSP*	0.075	0.051	0.003	0.225
D_{it} / GSP_{it}	*NNPDol / GSP*	710.061	605.990	0.000	2,389.412
s_t	*Fin 48 - 1*	0.000	0.000	0.000	0.000
	Fin 48 - 2	0.000	0.000	0.000	0.000
	Fin 48 - 3	0.000	0.000	0.000	0.000
T^{j}_{it-1}	*Amnesty*	0.200	0.406	0.000	1.000
	VCI	0.000	0.000	0.000	0.000
	Nexus	0.114	0.323	0.000	1.000
	CombReport	0.429	0.502	0.000	1.000
	Addbacks	0.143	0.355	0.000	1.000
	Throwback	0.571	0.502	0.000	1.000
	SalesApport1	0.371	0.490	0.000	1.000
	SalesApport2	0.514	0.507	0.000	1.000
	SalesApport3	0.114	0.323	0.000	1.000
	AuditProb	348.400	1,104.866	0.000	6,557.000
	SOL	3.243	0.427	3.000	4.000
	UnderpmtIntRate	10.289	2.243	7.000	15.000
	CIT Rate	7.511	1.876	2.000	12.000
	SSTM	0.000	0.000	0.000	0.000
C^{k}_{it-1}	*CorpRev*	624.000	1,180.000	60.500	6,900.000
	Employment	2.338	2.644	0.289	14.600

Table 10: Continued

Variable		Panel C: 2007 (n=34 states) Mean	Standard Deviation	Min	Max
F_{it}	*NNPNum*	9.412	3.183	2.000	16.000
D_{it}	*NNPDol*	122,065	142,285	1,039	597,125
GSP_{it}	*GSP*	215.840	280.262	21.249	1,596.044
F_{it} / GSP_{it}	*NNPNum / GSP*	0.091	0.083	0.006	0.380
D_{it} / GSP_{it}	*NNPDol / GSP*	688.485	511.215	27.178	2,035.296
s_t	*Fin 48 - 1*	1.000	0.000	1.000	1.000
	Fin 48 - 2	1.000	0.000	1.000	1.000
	Fin 48 - 3	1.000	0.000	1.000	1.000
T^j_{it-1}	*Amnesty*	0.029	0.171	0.000	1.000
	VCI	0.000	0.000	0.000	0.000
	Nexus	0.235	0.431	0.000	1.000
	CombReport	0.412	0.500	0.000	1.000
	Addbacks	0.353	0.485	0.000	1.000
	Throwback	0.500	0.508	0.000	1.000
	SalesApport1	0.382	0.493	0.000	1.000
	SalesApport2	0.500	0.508	0.000	1.000
	SalesApport3	0.118	0.327	0.000	1.000
	AuditProb	680.206	844.645	0.000	3,198.000
	SOL	3.309	0.522	3.000	5.000
	UnderpmtIntRate	9.916	2.567	7.000	18.000
	CIT Rate	7.290	1.817	1.900	12.000
	SSTM	0.382	0.493	0.000	1.000
C^k_{it-1}	*CorpRev*	1,100.000	1,900.000	83.400	11,200.000
	Employment	2.537	2.767	0.308	15.200

Table 11: Correlation Matrix for Aggregated State Models[87]

Variable	*NNPNum / GSP*	*NNPDol / GSP*	*Fin 48 - 1*	*Fin 48 - 2*	*Fin 48 - 3*	*Amnesty*	*VCI*	*Nexus*	*Comb Report*	*Add-backs*
NNPNum / GSP	1.000									
NNPDol / GSP	0.180	1.000								
Fin 48 – 1	0.074	-0.034	1.000							
Fin 48 – 2	0.248	0.023	0.683	1.000						
Fin 48 – 3	0.319	-0.005	0.538	0.787	1.000					
Amnesty	-0.013	-0.002	-0.044	-0.030	-0.024	1.000				
VCI	0.028	0.009	-0.040	0.059	0.176	0.040	1.000			
Nexus	0.232	0.038	0.121	0.148	0.150	-0.022	0.032	1.000		
CombReport	0.273	0.100	0.024	0.026	0.022	-0.050	0.014	0.167	1.000	
Addbacks	-0.116	-0.036	0.205	0.276	0.309	0.050	0.116	-0.018	-0.269	1.000
Throwback	0.214	0.029	-0.011	-0.016	-0.021	-0.047	-0.080	-0.018	0.470	-0.181
SalesApport1	0.220	0.037	-0.011	-0.025	-0.028	-0.062	-0.083	-0.011	0.058	-0.237
SalesApport2	-0.150	-0.010	0.029	0.034	0.046	0.092	0.034	-0.178	-0.162	0.236
SalesApport3	-0.072	-0.032	-0.024	-0.013	-0.026	-0.042	0.074	0.251	0.165	-0.005
AuditProb	-0.182	-0.058	0.153	0.221	0.194	0.008	0.078	0.062	0.042	0.110
SOL	-0.243	-0.006	-0.012	-0.017	-0.022	0.025	0.002	0.084	-0.017	0.060
UnderpmtIntRate	0.043	0.072	0.050	0.026	-0.046	0.016	-0.122	0.077	-0.180	-0.119
CIT Rate	0.106	0.067	0.040	0.063	0.081	0.056	0.020	0.012	0.074	-0.128
SSTM	0.236	-0.040	0.235	0.312	0.382	-0.008	0.181	0.286	-0.008	0.165
CorpRev	-0.293	-0.077	0.092	0.115	0.112	0.033	0.128	-0.056	0.040	0.117
Employment	-0.438	-0.097	0.018	0.025	0.028	0.063	0.125	-0.132	-0.095	0.158

[87] Correlation matrix includes 455 observations conditional on states joining the NNP over 15 years (1994-2008).

Table 11: Continued

Variable	*Throw-back*	*Sales Apport1*	*Sales Apport2*	*Sales Apport3*	*Audit Prob*	*SOL*	*Underpmt IntRate*	*CIT Rate*	*SSTM*	*Corp Rev*	*Employ-ment*
Throwback	1.000										
SalesApport1	0.284	1.000									
SalesApport2	-0.181	-0.711	1.000								
SalesApport3	-0.154	-0.349	-0.411	1.000							
AuditProb	-0.094	-0.163	0.070	0.118	1.000						
SOL	-0.173	-0.231	0.094	0.174	0.052	1.000					
UnderpmtIntRate	0.014	0.187	-0.056	-0.168	-0.034	-0.160	1.000				
CIT Rate	-0.079	0.035	0.279	-0.417	-0.025	0.009	0.025	1.000			
SSTM	-0.093	-0.098	-0.087	0.243	0.027	0.068	-0.054	-0.157	1.000		
CorpRev	-0.042	-0.289	0.216	0.087	0.481	0.244	-0.213	-0.003	0.013	1.000	
Employment	-0.186	-0.349	0.314	0.033	0.420	0.300	-0.275	-0.018	-0.052	0.888	1.000

Table 12: Aggregated State Model, NNP Disclosure Count

Variable		Fin 48 - 1 / 2007 Coefficient	Robust Std. Error		Fin 48 - 2 / 2006-2007 Coefficient	Robust Std. Error		Fin 48 - 3 / 2005-2007 Coefficient	Robust Std. Error	
s_t	*Fin 48*	-0.014	0.010		0.014	0.008	*	0.022	0.007	***
T^j_{it-1}	*Amnesty*	0.007	0.006		0.008	0.006		0.009	0.006	
	VCI	-0.026	0.008	***	-0.028	0.010	***	-0.032	0.010	***
	Nexus	0.002	0.009		0.004	0.009		0.003	0.009	
	CombReport	0.006	0.046		0.004	0.047		0.007	0.046	
	Addbacks	-0.017	0.006	**	-0.016	0.007	**	-0.016	0.007	**
	Throwback	-0.003	0.007		-0.003	0.007		-0.003	0.007	
	SalesApport2	-0.007	0.008		-0.005	0.009		-0.005	0.009	
	SalesApport3	-0.012	0.015		-0.019	0.015		-0.018	0.015	
	AuditProb	0.000	0.000	**	0.000	0.000		0.000	0.000	
	SOL	-0.006	0.009		-0.007	0.009		-0.007	0.009	
	UnderpmtIntRate	0.003	0.002	**	0.003	0.001	*	0.003	0.001	**
	CIT Rate	-0.003	0.002	*	-0.002	0.002		-0.002	0.002	
	SSTM	0.014	0.014		0.008	0.014		0.011	0.014	
C^k_{it-1}	*CorpRev*	0.000	0.000		0.000	0.000		0.000	0.000	
	Employment	-0.028	0.013	**	-0.026	0.013	*	-0.025	0.013	*
Intercept		31.410	8.050	***	-22.241	7.145	***	-14.004	7.929	*
Rho		0.757			0.741			0.736		
R^2		0.366			0.367			0.372		
n		455			455			455		

Regressions contain state fixed effects and a fourth order polynomial time trend.
Dependent variable is the number of NNP disclosures divided by gross state product by state by year.
Regression uses states conditional on joining the NNP over 15 years (1994-2008).
***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 13: Aggregated State Model, NNP Disclosure Count with Time Fixed Effects

Variable		Time Fixed Effects Coefficient	Time Fixed Effects Robust Std. Error		Years 2007-2005 Control Coefficient	Years 2007-2005 Control Robust Std. Error	
T^{j}_{it-1}	*Amnesty*	0.015	0.006	**	0.019	0.007	***
	VCI	-0.031	0.010	***	-0.035	0.010	***
	Nexus	0.002	0.009		0.015	0.009	
	CombReport	0.018	0.046		0.015	0.043	
	Addbacks	-0.014	0.006	**	-0.001	0.006	
	Throwback	-0.003	0.006		-0.007	0.007	
	SalesApport2	-0.007	0.009		-0.010	0.008	
	SalesApport3	-0.015	0.015		-0.021	0.016	
	AuditProb	0.000	0.000	*	0.000	0.000	
	SOL	-0.009	0.008		-0.013	0.009	
	UnderpmtIntRate	0.003	0.001	**	-0.001	0.001	
	CIT Rate	-0.001	0.002		-0.001	0.001	
	SSTM	0.007	0.013		0.006	0.012	
C^{k}_{it-1}	*CorpRev*	0.000	0.000		0.000	0.000	
	Employment	-0.028	0.014	**	-0.001	0.008	
Time Controls	*Time Fixed Effects*	Included in Model					
	year2007				0.032	0.009	***
	year2006				0.075	0.013	***
	year2005				0.050	0.007	***
Intercept		0.129	0.053	**	0.127	0.048	***
Rho		0.785			0.640		
R^2		0.433			0.468		
n		455			455		

Regressions contain fixed effects for states and time.

Dependent variable is the number of NNP disclosures divided by gross state product by state by year.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 13: Continued

Variable		Year 2007 Control Coef.	Robust Std. Error		Year 2006 Control Coef.	Robust Std. Error		Year 2005 Control Coef.	Robust Std. Error	
T^{j}_{it-1}	*Amnesty*	0.016	0.008	**	0.019	0.008	**	0.016	0.007	**
	VCI	-0.007	0.010		-0.015	0.012		-0.015	0.010	
	Nexus	0.020	0.010	**	0.020	0.009	**	0.016	0.010	
	CombReport	-0.008	0.056		0.010	0.050		-0.001	0.052	
	Addbacks	0.009	0.006		0.007	0.006		0.008	0.006	
	Throwback	-0.008	0.008		-0.009	0.007		-0.007	0.008	
	SalesApport2	-0.014	0.009		-0.012	0.008		-0.014	0.009	
	SalesApport3	-0.010	0.017		-0.011	0.015		-0.006	0.017	
	AuditProb	0.000	0.000		0.000	0.000		0.000	0.000	
	SOL	-0.018	0.010	*	-0.016	0.009	*	-0.018	0.010	*
	UnderpmtIntRate	-0.005	0.001	***	-0.003	0.001	***	-0.003	0.001	**
	CIT Rate	-0.001	0.002		-0.001	0.002		-0.001	0.002	
	SSTM	0.020	0.016		0.008	0.011		0.029	0.015	*
C^{k}_{it-1}	*CorpRev*	-0.001	0.000	*	-0.001	0.001		0.000	0.000	
	Employment	6.471	1.088	*	6.105	1.108		0.009	0.007	
Time Controls	*year2007*	0.009	0.010							
	year2006				0.058	0.013	***			
	year2005							0.033	0.007	***
Intercept		0.168	0.056	***	0.145	0.051	***	0.152	0.055	***
Rho		0.765			0.723			0.734		
R^2		0.156			0.224			0.156		
n		455			455			455		

Regressions contain fixed effects for states and time.
Dependent variable is the number of NNP disclosures divided by gross state product by state by year.
Regression uses states conditional on joining the NNP over 15 years (1994-2008).
***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 14: Aggregated State Model, NNP Disclosure Count, Publicly-Traded Firms

Variable		Fin 48 - 1 / 2007 Coefficient	Robust Std. Error		Fin 48 - 2 / 2006-2007 Coefficient	Robust Std. Error		Fin 48 - 3 / 2005-2007 Coefficient	Robust Std. Error	
s_t	*Fin 48*	0.011	0.005	**	0.015	0.006	**	-0.030	0.008	***
T^i_{it-1}	*Amnesty*	0.008	0.006		0.009	0.006		0.010	0.005	*
	VCI	-0.011	0.004	**	-0.006	0.005		-0.002	0.006	
	Nexus	0.001	0.008		0.002	0.009		0.004	0.009	
	CombReport	0.027	0.019		0.032	0.020		0.027	0.019	
	Addbacks	0.002	0.004		0.004	0.005		0.004	0.004	
	Throwback	0.001	0.006		-0.001	0.006		0.007	0.007	
	SalesApport2	0.006	0.007		0.005	0.007		0.007	0.006	
	SalesApport3	0.006	0.008		0.009	0.007		0.008	0.006	
	AuditProb	0.000	0.000		0.000	0.000		0.000	0.000	
	SOL	0.011	0.009		0.013	0.011		0.015	0.008	*
	UnderpmtIntRate	-0.001	0.001		-0.001	0.001		0.000	0.001	
	CIT Rate	0.010	0.008		0.010	0.008		0.009	0.007	
	SSTM	-0.004	0.005		-0.006	0.005		-0.007	0.005	
C^k_{it-1}	*CorpRev*	0.000	0.000		0.000	0.000		0.000	0.000	
	Employment	0.019	0.018		0.022	0.019		0.025	0.020	
Intercept		142.188	61.941	**	218.210	90.586	**	-125.905	54.099	**
Rho		0.923			0.936			0.953		
R^2		0.302			0.305			0.401		
n		143			143			143		

Regressions contain state fixed effects and a fourth order polynomial time trend.

Dependent variable is the number of NNP disclosures divided by gross state product by state by year for publicly-traded firms.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 15: Aggregated State Model, NNP Disclosure Count, Privately-Held Firms

Variable		Fin 48 - 1 / 2007 Coefficient	Robust Std. Error		Fin 48 - 2 / 2006-2007 Coefficient	Robust Std. Error		Fin 48 - 3 / 2005-2007 Coefficient	Robust Std. Error	
s_t	*Fin 48*	-0.004	0.004		0.010	0.003	***	0.009	0.004	**
T^j_{it-1}	*Amnesty*	-0.005	0.003	*	-0.004	0.002	**	-0.004	0.002	*
	VCI	-0.007	0.005		-0.007	0.006		-0.009	0.005	*
	Nexus	0.001	0.003		0.002	0.004		0.001	0.004	
	CombReport	0.032	0.020		0.033	0.014	**	0.030	0.016	*
	Addbacks	0.000	0.003		0.000	0.003		0.000	0.003	
	Throwback	0.002	0.005		0.001	0.005		0.001	0.005	
	SalesApport2	-0.002	0.003		-0.001	0.003		-0.002	0.003	
	SalesApport3	-0.009	0.007		-0.014	0.005	***	-0.013	0.006	**
	AuditProb	0.000	0.000	*	0.000	0.000		0.000	0.000	
	SOL	0.003	0.004		0.002	0.004		0.001	0.004	
	UnderpmtIntRate	0.000	0.001		0.000	0.001		0.000	0.001	
	CIT Rate	-0.001	0.001		-0.001	0.001		-0.001	0.001	
	SSTM	0.007	0.005		0.003	0.005		0.006	0.005	
C^k_{it-1}	*CorpRev*	0.000	0.000		0.000	0.000		0.000	0.000	
	Employment	0.007	0.007		0.002	0.007		0.003	0.007	
Intercept		-5.641	4.188		2.857	3.531		3.175	4.440	
Rho		0.809			0.649			0.674		
R^2		0.131			0.156			0.141		
n		318			318			318		

Regressions contain state fixed effects and a fourth order polynomial time trend.

Dependent variable is the number of NNP disclosures divided by gross state product by state by year for privately-held firms.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 16: Aggregated State Model, NNP Disclosure Amount

Variable		Fin 48 - 1 / 2007 Coefficient	Robust Std. Error		Fin 48 - 2 / 2006-2007 Coefficient	Robust Std. Error		Fin 48 - 3 / 2005-2007 Coefficient	Robust Std. Error	
s_t	*Fin 48*	-508.474	574.270		465.696	801.954		-154.362	544.556	
T^j_{it-1}	*Amnesty*	-249.306	225.828		-215.221	225.216		-264.735	219.504	
	VCI	-511.150	413.499		-581.897	442.663		-503.076	471.417	
	Nexus	230.048	849.650		296.190	892.106		254.226	863.116	
	CombReport	2,107.956	1,022.850	**	2,026.273	959.999	**	1,981.005	974.416	**
	Addbacks	387.339	497.437		396.957	491.083		384.363	489.354	
	Throwback	-449.625	538.751		-456.138	544.476		-448.391	537.926	
	SalesApport2	-667.343	1073.277		-626.909	1,090.583		-660.816	1,080.730	
	SalesApport3	-1272.124	968.201		-1,511.906	1,017.251		-1,385.839	984.141	
	AuditProb	-0.056	0.098		-0.100	0.096		-0.071	0.094	
	SOL	-493.237	726.892		-504.962	735.732		-495.333	741.614	
	UnderpmtIntRate	301.854	194.133		279.226	179.828		291.959	184.783	
	CIT Rate	70.774	68.704		78.771	65.547		69.911	67.156	
	SSTM	158.093	405.589		-31.138	616.542		129.805	448.889	
C^k_{it-1}	*CorpRev*	0.068	0.183		0.023	0.193		0.054	0.182	
	Employment	-216.603	1,126.168		-149.157	1,076.907		-184.767	1085.204	
Intercept		-649,520.000	825,141.200		-341,985.200	638,426.200		-667,873.200	754,637.900	
Rho		0.166			0.151			0.154		
R^2		0.167			0.167			0.164		
n		455			455			455		

Regressions contain state fixed effects and a fourth order polynomial time trend.

Dependent variable is the dollar amount of NNP disclosures divided by gross state product by state by year.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 17: Aggregated State Model, NNP Disclosure Amount with Time Fixed Effects

Variable		Time Fixed Effects Coefficient	Time Fixed Effects Robust Std. Error		Years 2007-2005 Control Coefficient	Years 2007-2005 Control Robust Std. Error	
T^{j}_{it-1}	*Amnesty*	-107.652	231.829		-96.934	241.756	
	VCI	-417.800	576.748		-314.154	613.976	
	Nexus	225.293	821.956		-222.561	1,026.424	
	CombReport	1,159.934	778.553		1,598.474	1,031.183	
	Addbacks	274.735	458.695		347.567	369.214	
	Throwback	-391.716	411.017		-513.945	523.690	
	SalesApport2	136.574	932.563		-1,067.659	1,061.756	
	SalesApport3	-531.540	838.447		-1,401.277	1,007.234	
	AuditProb	-0.050	0.087		-0.053	0.097	
	SOL	-713.666	806.254		-733.753	700.966	
	UnderpmtIntRate	293.131	162.235	*	258.026	159.210	
	CIT Rate	90.343	64.404		82.704	66.469	
	SSTM	-195.378	727.611		-437.882	593.695	
C^{k}_{it-1}	*CorpRev*	0.096	0.236		0.235	0.247	
	Employment	-886.940	1,091.521		-1,791.141	745.922	**
Time Controls	*Time Fixed Effects*	Included in Model					
	year2007				263.385	387.664	
	year2006				1,749.137	1,648.680	
	year2005				376.372	597.798	
Intercept		1,995.462	4,044.584		1,082,950.000	697,757.000	
Rho		0.413			0.677		
R^2		0.188			0.130		
n		455			455		

Regressions contain fixed effects for states and time.

Dependent variable is the dollar amount of NNP disclosures divided by gross state product by state by year.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 17: Continued

Variable		Year 2007 Control Coef.	Year 2007 Control Robust Std. Error		Year 2006 Control Coef.	Year 2006 Control Robust Std. Error		Year 2005 Control Coef.	Year 2005 Control Robust Std. Error	
T^{j}_{it-1}	*Amnesty*	-175.582	212.027		-97.810	236.637		-176.232	213.787	
	VCI	136.701	396.811		-157.646	540.758		100.818	434.283	
	Nexus	-158.844	1,062.081		-172.596	1,046.621		-166.680	1,062.733	
	CombReport	1,156.182	1,013.226		1,562.298	1,031.184		1,109.256	985.666	
	Addbacks	511.838	362.533		412.698	372.392		483.787	335.469	
	Throwback	-515.751	512.175		-527.743	521.066		-510.966	512.445	
	SalesApport2	-1,145.313	1,023.668		-1,087.400	1,042.506		-1,133.883	1,022.382	
	SalesApport3	-1,141.538	1,053.770		-1,319.873	1,014.025		-1,216.560	1,065.410	
	AuditProb	0.037	0.077		-0.033	0.085		0.026	0.071	
	SOL	-807.190	771.445		-745.741	707.386		-807.742	774.274	
	UnderpmtIntRate	191.549	125.023		237.161	142.387	*	191.862	133.109	
	CIT Rate	88.336	67.985		86.535	67.428		86.681	67.036	
	SSTM	39.455	284.673		-420.659	548.717		-4.688	305.171	
C^{k}_{it-1}	*CorpRev*	0.187	0.250		0.224	0.257		0.177	0.238	
	Employment	-1,601.136	671.039	**	-1,726.980	728.304	**	-1,612.573	662.121	**
Time Controls	*year2007*	-223.241	277.766							
	year2006				1,612.246	1,530.867				
	year2005							32.826	540.342	
Intercept		5,294.430	3,960.273		4,727.790	3,625.888		5,356.408	4,070.542	
Rho		0.618			0.660			0.623		
R^2		0.121			0.130			0.120		
n		455			455			455		

Regressions contain fixed effects for states and time.
Dependent variable is the number of NNP disclosures divided by gross state product by state by year.
Regression uses states conditional on joining the NNP over 15 years (1994-2008).
***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 18: Aggregated State Model, NNP Disclosure Amount, Publicly-Traded Firms

Variable		Fin 48 - 1 / 2007		Fin 48 - 2 / 2006-2007		Fin 48 - 3 / 2005-2007	
		Coefficient	Robust Std. Error	Coefficient	Robust Std. Error	Coefficient	Robust Std. Error
s_t	*Fin 48*	-3,000.223	2,872.477	3,072.225	2,708.780	-1,745.364	2,062.881
T^j_{it-1}	*Amnesty*	-52.749	418.426	-95.754	362.148	-71.781	354.731
	VCI	-212.635	597.778	-100.791	761.643	-384.382	783.059
	Nexus	-963.511	1,289.894	-521.462	1,009.147	-561.894	866.684
	CombReport	1,649.704	1,831.136	172.756	1,204.498	-71.837	902.133
	Addbacks	-201.424	872.087	-247.269	823.144	-425.980	892.138
	Throwback	-867.993	564.473	-278.604	663.949	133.949	931.906
	SalesApport2	-100.342	592.554	39.136	547.495	198.760	500.231
	SalesApport3	-745.742	1,573.702	-1,990.408	1,232.168	-1,913.141	1,282.515
	AuditProb	0.492	0.516	0.016	0.294	0.349	0.385
	SOL	-1,439.193	2,039.017	-358.526	1,055.063	-737.865	1,483.576
	UnderpmtIntRate	41.076	208.427	-105.666	191.338	-22.630	167.271
	CIT Rate	31.864	267.934	-79.321	186.355	-68.754	188.021
	SSTM	-139.828	882.049	-829.915	1,215.387	-514.088	994.476
C^k_{it-1}	*CorpRev*	-0.344	0.947	-0.319	0.962	-0.443	0.918
	Employment	-3,133.770	3,512.797	931.826	2,440.927	-301.520	2,579.707
Intercept		-37,100,000	30,000,000	14,900,000	20,500,000	-26,500,000	23,600,000
Rho		0.661		0.328		0.231	
R^2		0.065		0.053		0.025	
n		143		143		143	

Regressions contain state fixed effects and a fourth order polynomial time trend.
Dependent variable is the dollar amount of NNP disclosures divided by gross state product by state by year for publicly-traded firms.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 19: Aggregated State Model, NNP Disclosure Amount, Privately-Held Firms

Variable		Fin 48 - 1 / 2007 Coefficient	Fin 48 - 1 / 2007 Robust Std. Error		Fin 48 - 2 / 2006-2007 Coefficient	Fin 48 - 2 / 2006-2007 Robust Std. Error		Fin 48 - 3 / 2005-2007 Coefficient	Fin 48 - 3 / 2005-2007 Robust Std. Error	
s_t	*Fin 48*	177.973	63.259	***	112.240	49.903	**	176.952	61.754	***
T^j_{it-1}	*Amnesty*	61.941	55.545		71.481	55.348		85.981	55.197	
	VCI	-8.247	52.578		-3.456	59.540		-33.638	57.541	
	Nexus	173.132	142.648		175.029	146.688		162.715	147.442	
	CombReport	203.974	278.387		336.201	272.017		309.640	280.808	
	Addbacks	87.159	62.276		88.700	66.521		93.106	66.383	
	Throwback	7.797	59.434		4.833	62.507		0.469	64.970	
	SalesApport2	-275.138	254.944		-278.748	251.215		-282.951	252.742	
	SalesApport3	-805.353	502.622		-768.890	497.998		-773.187	496.704	
	AuditProb	-0.019	0.028		-0.015	0.027		-0.022	0.028	
	SOL	-61.043	77.485		-61.594	78.579		-77.248	80.925	
	UnderpmtIntRate	6.555	11.620		7.697	11.782		9.588	11.822	
	CIT Rate	5.413	6.442		6.589	6.503		7.578	6.685	
	SSTM	16.775	96.500		-11.415	97.708		10.618	97.695	
C^k_{it-1}	*CorpRev*	0.075	0.077		0.081	0.077		0.098	0.075	
	Employment	-117.525	284.924		-134.490	284.406		-162.988	280.924	
Intercept		246,591.700	57,993.180	***	276,312.000	62,623.960	***	354,605.700	71,440.700	***
Rho		0.749			0.784			0.809		
R^2		0.195			0.179			0.187		
n		318			318			318		

Regressions contain state fixed effects and a fourth order polynomial time trend.
Dependent variable is the dollar amount of NNP disclosures divided by gross state product by state by year for privately-held firms.
Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 20: Descriptive Statistics for Case Model for FIN 48 Analysis

Variable		*Panel A: 2001 (n=29 cases)* Mean	Standard Deviation	Min	Max
CD_{ixt}	*Amount*	17,705.520	27,633.220	0.000	104,231.000
s_t	*Fin 48 - 1*	0.000	0.000	0.000	0.000
	Fin 48 - 2	0.000	0.000	0.000	0.000
	Fin 48 - 3	0.000	0.000	0.000	0.000
fs_{it-1}	*Sales*	7,785.771	7,044.389	65.736	23,454.000
	Assets	7,366.368	5,214.801	336.666	12,486.000
	NI	1,326.949	1,045.040	15.852	2,224.000
ta_{it-1}	*ETR*	36.372	1.846	34.742	38.499
	CETR	54.790	36.432	26.087	104.116
	BTD	568.357	-525.463	25.143	1,033.714
FC^{l}_{it}	*NAICS*	53.103	1.012	52.000	54.000
	Big Four	0.552	0.506	0.000	1.000
	Number of Entities	54.483	39.540	1.000	84.000
SC^{j}_{xt-1}	*Amnesty*	0.138	0.351	0.000	1.000
	VCI	0.000	0.000	0.000	0.000
	Nexus	0.138	0.351	0.000	1.000
	CombReport	0.517	0.509	0.000	1.000
	Addbacks	0.034	0.186	0.000	1.000
	Throwback	0.483	0.509	0.000	1.000
	SalesApport1	0.448	0.506	0.000	1.000
	SalesApport2	0.379	0.494	0.000	1.000
	SalesApport3	0.172	0.384	0.000	1.000
	AuditProb	151.345	223.840	0.000	1,108.000
	SOL	3.086	0.270	3.000	4.000
	UnderpmtIntRate	10.414	2.571	7.000	15.000
	CIT Rate	7.929	1.533	5.000	12.000
	SSTM	0.000	0.000	0.000	0.000
	CorpRev	260.452	250.358	60.499	1,211.584
	Employment	1.246	0.909	0.289	3.894

Table 20: Continued

Variable		Panel B: 2004 (n=82 cases) Mean	Standard Deviation	Min	Max
CD_{ixt}	*Amount*	17,942.870	59,806.650	0.000	401,663.000
s_t	*Fin 48 - 1*	0.000	0.000	0.000	0.000
	Fin 48 - 2	0.000	0.000	0.000	0.000
	Fin 48 - 3	0.000	0.000	0.000	0.000
fs_{it-1}	*Sales*	11,652.410	19,735.300	59.989	47,348.000
	Assets	13,143.250	22,220.490	20.906	53,317.000
	NI	2,039.111	3,576.369	2.243	8,509.000
ta_{it-1}	*ETR*	28.552	5.529	23.549	38.514
	CETR	19.979	6.535	9.920	31.208
	BTD	85.164	127.949	1.828	611.157
FC^{l}_{it}	*NAICS*	41.427	13.639	32.000	72.000
	Big Four	0.488	0.503	0.000	1.000
	Number of Entities	58.098	87.975	1.000	217.000
SC^{j}_{xt-1}	*Amnesty*	0.110	0.315	0.000	1.000
	VCI	0.098	0.299	0.000	1.000
	Nexus	0.134	0.343	0.000	1.000
	CombReport	0.366	0.485	0.000	1.000
	Addbacks	0.256	0.439	0.000	1.000
	Throwback	0.476	0.502	0.000	1.000
	SalesApport1	0.378	0.488	0.000	1.000
	SalesApport2	0.500	0.503	0.000	1.000
	SalesApport3	0.122	0.329	0.000	1.000
	AuditProb	229.427	406.522	-270.000	1,638.000
	SOL	3.274	0.498	3.000	5.000
	UnderpmtIntRate	7.524	3.398	3.000	15.000
	CIT Rate	7.252	1.721	1.900	12.000
	SSTM	0.000	0.000	0.000	0.000
	CorpRev	565.773	852.399	49.807	6,925.916
	Employment	2.433	2.165	0.304	14.533

Table 20: Continued

Variable		Panel C: 2007 (n=62 cases) Mean	Standard Deviation	Min	Max
CD_{ixt}	*Amount*	14,699.000	20,699.750	0.000	86,970.000
s_t	*Fin 48 - 1*	1.000	0.000	1.000	1.000
	Fin 48 - 2	1.000	0.000	1.000	1.000
	Fin 48 - 3	1.000	0.000	1.000	1.000
fs_{it-1}	*Sales*	9,947.957	13,519.200	19.005	31,634.000
	Assets	41,488.730	67,135.090	12.622	149,830.000
	NI	1,082.467	1,815.607	-72.112	4,012.000
ta_{it-1}	*ETR*	12.926	-21.633	10.684	38.433
	CETR	9.194	-17.167	5.754	32.451
	BTD	256.289	-444.291	56.288	971.714
FC^{l}_{it}	*NAICS*	46.968	7.568	31.000	55.000
	Big Four	0.145	0.355	0.000	1.000
	Number of Entities	15.597	9.446	2.000	29.000
SC^{j}_{xt-1}	*Amnesty*	0.048	0.216	0.000	1.000
	VCI	0.000	0.000	0.000	0.000
	Nexus	0.226	0.422	0.000	1.000
	CombReport	0.306	0.465	0.000	1.000
	Addbacks	0.355	0.482	0.000	1.000
	Throwback	0.387	0.491	0.000	1.000
	SalesApport1	0.258	0.441	0.000	1.000
	SalesApport2	0.597	0.495	0.000	1.000
	SalesApport3	0.145	0.355	0.000	1.000
	AuditProb	597.726	696.454	0.000	2,742.000
	SOL	3.379	0.577	3.000	5.000
	UnderpmtIntRate	9.565	2.519	7.000	18.000
	CIT Rate	7.393	1.637	4.630	12.000
	SSTM	0.371	0.487	0.000	1.000
	CorpRev	876.584	675.074	83.362	2,876.591
	Employment	2.508	1.647	0.308	8.018

Table 21: Correlation Matrix for the Case-Level Model[88]

Variable	*Amount*	*Fin 48 - 1*	*Fin 48 - 2*	*Fin 48 - 3*	*Sales*	*Assets*	*NI*	*ETR*	*CETR*	*BTD*	*NAICS*	*Big Four*
Amount	1.000											
Fin 48 - 1	-0.109	1.000										
Fin 48 - 2	-0.003	0.850	1.000									
Fin 48 - 3	-0.045	0.745	0.876	1.000								
Sales	-0.012	0.031	-0.054	0.224	1.000							
Assets	0.032	0.332	0.248	0.257	0.633	1.000						
NI	0.040	-0.005	-0.089	0.018	0.888	0.668	1.000					
ETR	0.106	-0.211	-0.076	-0.157	-0.028	0.005	0.048	1.000				
CETR	0.087	-0.115	0.307	0.258	-0.094	-0.069	-0.088	0.423	1.000			
BTD	-0.030	0.246	0.150	0.156	0.863	0.696	0.951	0.059	-0.071	1.000		
NAICS	-0.034	0.383	0.370	0.418	0.168	0.199	0.032	0.091	0.010	0.502	1.000	
Big Four	0.135	-0.247	-0.141	-0.230	0.097	0.008	0.281	0.065	0.246	0.307	-0.210	1.000
Number of Entities	0.049	-0.106	-0.143	-0.121	0.728	0.413	0.920	0.066	-0.015	0.832	-0.051	0.450
Amnesty	0.077	-0.132	-0.159	-0.182	-0.068	-0.060	-0.037	0.037	-0.041	-0.052	-0.136	0.073
VCI	-0.059	-0.097	-0.049	-0.041	0.074	0.005	0.102	0.056	0.089	0.001	-0.002	0.134
Nexus	0.105	0.078	0.118	0.132	0.067	0.063	0.053	-0.005	0.126	0.004	0.024	0.037
CombReport	0.075	-0.045	0.037	0.018	0.028	0.005	0.052	0.134	0.118	-0.011	-0.021	0.102

[88] Correlation matrix includes 345 cases over 15 years (1994-2008).

Table 21: Continued

Variable	*Amount*	*Fin 48 - 1*	*Fin 48 - 2*	*Fin 48 - 3*	*Sales*	*Assets*	*NI*	*ETR*	*CETR*	*BTD*	*NAICS*	*Big Four*
Addbacks	-0.071	0.174	0.152	0.151	0.006	0.068	-0.010	-0.183	-0.064	-0.010	0.060	-0.107
Throwback	0.017	-0.060	-0.027	-0.007	0.063	0.021	0.058	0.106	0.089	-0.031	-0.035	0.022
SalesApport1	0.044	-0.254	-0.205	-0.165	0.017	-0.031	0.009	0.046	0.051	-0.077	-0.131	0.038
SalesApport2	0.003	-0.086	-0.104	-0.099	-0.059	-0.001	-0.045	-0.277	-0.080	-0.098	-0.099	-0.013
SalesApport3	-0.053	0.393	0.360	0.308	0.052	0.036	0.044	0.279	0.037	0.197	0.268	-0.027
AuditProb	-0.061	0.258	0.259	0.246	-0.024	0.027	-0.043	-0.221	-0.074	0.015	0.111	-0.110
SOL	-0.035	0.029	0.019	-0.004	-0.067	-0.020	-0.054	-0.059	-0.060	-0.054	-0.015	-0.045
UnderpmtIntRate	0.054	0.039	0.072	0.092	-0.006	0.006	-0.036	0.035	0.097	0.042	0.050	-0.064
CIT Rate	0.053	-0.436	-0.367	-0.289	-0.019	-0.024	-0.015	-0.297	0.031	-0.182	-0.296	0.040
SSTM	-0.034	0.389	0.433	0.475	0.094	0.237	0.020	-0.047	0.143	0.098	0.184	-0.131
CorpRev	-0.071	0.223	0.188	0.163	-0.077	-0.012	-0.095	-0.171	-0.122	-0.039	0.100	-0.107
Employment	-0.070	0.135	0.063	0.006	-0.114	-0.054	-0.099	-0.165	-0.219	-0.068	0.063	-0.111

Table 21: Continued

Variable	*Number of Entities*	*Amnesty*	*VCI*	*Nexus*	*Comb Report*	*Add backs*	*Throw back*	*Sales Apport1*	*Sales Apport2*	*Sales Apport3*	*Audit Prob*
Number of Entities	1.000										
Amnesty	-0.006	1.000									
VCI	0.115	-0.070	1.000								
Nexus	0.041	0.046	-0.073	1.000							
CombReport	0.065	0.002	-0.073	0.113	1.000						
Addbacks	-0.037	-0.097	0.064	-0.070	-0.385	1.000					
Throwback	0.047	0.052	-0.088	-0.029	0.438	-0.155	1.000				
SalesApport1	-0.001	0.036	-0.016	0.040	0.178	-0.330	0.427	1.000			
SalesApport2	-0.054	-0.014	0.031	-0.146	-0.326	0.335	-0.282	-0.638	1.000		
SalesApport3	0.067	-0.023	-0.023	0.131	0.233	-0.025	-0.199	-0.373	-0.476	1.000	
AuditProb	-0.075	-0.150	-0.026	0.161	-0.019	0.153	-0.088	-0.170	0.095	0.080	1.000
SOL	-0.063	-0.009	-0.036	0.168	-0.073	0.029	-0.220	-0.227	0.142	0.087	0.014
UnderpmtIntRate	-0.061	0.124	-0.127	0.211	-0.156	-0.129	-0.024	0.109	0.008	-0.134	0.012
CIT Rate	-0.028	0.082	-0.045	0.193	-0.025	-0.082	-0.100	0.052	0.352	-0.483	-0.017
SSTM	-0.079	0.001	0.027	0.237	-0.023	0.062	-0.120	-0.144	-0.049	0.223	0.067
CorpRev	-0.109	-0.141	0.163	-0.041	-0.155	0.329	-0.153	-0.281	0.177	0.108	0.517
Employment	-0.093	-0.122	0.159	-0.158	-0.290	0.298	-0.247	-0.322	0.260	0.055	0.488

Table 21: Continued

Variable	*SOL*	*Underpmt IntRate*	*CIT Rate*	*SSTM*	*Corp Rev*	*Employment*
SOL	1.000					
UnderpmtIntRate	-0.139	1.000				
CIT Rate	0.113	0.079	1.000			
SSTM	0.069	0.022	-0.027	1.000		
CorpRev	0.242	-0.136	-0.103	0.040	1.000	
Employment	0.311	-0.206	-0.158	-0.086	0.827	1.000

Table 22: Case-Level Model using Assets and ETR

Variable		Fin 48 - 1 / 2007			Fin 48 - 2 / 2006-2007			Fin 48 - 3 / 2005-2007		
		Coefficient	Robust Std. Error		Coefficient	Robust Std. Error		Coefficient	Robust Std. Error	
s_t	*Fin 48*	-44,975.460	70,056.930		238,455.300	193,903.800		72,391.330	123,923.000	
fs_{it-1}	*Assets*	-0.573	5.107		4.322	4.631		9.905	7.473	
$fs_{it-1}*s_t$	*FIN 48*Assets*	-0.024	4.700		-4.852	4.782		-10.051	7.682	
ta_{it-1}	*ETR*	153,565.400	133,161.900		-87,201.040	146,721.600		-27,620.540	135,259.100	
$ta_{it-1}*s_t$	*FIN 48*ETR*	-169,630.100	143,436.100		62,651.290	134,872.000		11,219.110	133,016.300	
FC^l_{it}	*NAICS*	5,030.302	5,087.151		5,930.380	5,180.485		6,894.868	6,204.394	
	Big Four	-739.368	41,164.650		525.248	43,094.060		20,042.070	43,339.680	
	NumofEnt	-73.417	1,048.362		-787.211	983.474		-1,920.822	1,591.338	
SC^j_{xt-1}	*Amnesty*	1,598.019	4,822.010		1,746.280	4,756.190		1,234.761	4,783.595	
	VCI	-33,224.830	13,629.520	**	-35,408.810	14,320.700	**	-30,551.850	12,185.820	**
	Nexus	-12,117.120	6,851.507	*	-12,358.610	6,608.589	*	-12,717.190	6,507.068	*
	CombReport	-2,697.488	7,753.994		-3,144.593	7,834.756		-1,951.846	7,735.849	
	Addbacks	-10,732.070	5,439.161	**	-10,690.950	5,426.963	**	-10,828.360	5,488.341	**
	Throwback	-6,040.921	4,200.691		-6,001.612	4,217.566		-6,363.034	4,173.493	
	SalesApport2	7,209.668	4,260.399	*	6,864.628	4,253.722		7,036.408	4,250.490	*
	SalesApport3	9,634.229	7,819.165		9,148.015	7,880.597		9,224.954	7,830.347	
	AuditProb	3.753	2.357		3.804	2.366		3.724	2.349	
	SOL	-1,541.060	3,798.250		-1,675.264	3,858.906		-1,253.915	3,735.433	

Table 22: Continued

Variable	Fin 48 - 1 / 2007 Coefficient	Fin 48 - 1 / 2007 Robust Std. Error	Fin 48 - 2 / 2006-2007 Coefficient	Fin 48 - 2 / 2006-2007 Robust Std. Error	Fin 48 - 3 / 2005-2007 Coefficient	Fin 48 - 3 / 2005-2007 Robust Std. Error
UnderpmtIntRate	225.371	1,063.869	213.378	1,066.207	259.626	1,061.811
CIT Rate	-704.352	1,566.664	-630.021	1,544.057	-713.625	1,566.569
SSTM	13,015.690	9,080.994	12,672.370	9,190.673	12,429.070	9,336.878
CorpRev	-3.825	3.898	-3.695	3.918	-4.191	3.942
Employment	2,657.140	2,528.964	2,663.531	2,532.472	2,771.582	2,527.908
Intercept	53,300,000	41,400,000	34,700,000	29,000,000	38,300,000	33,300,000
Rho	0.855		0.848		0.858	
R^2	0.198		0.266		0.194	
n	345		345		345	

Regressions contain state fixed effects and a fourth order polynomial time trend.

Dependent variable is the dollar amount of NNP disclosures by firm by state by year.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 23: Case-Level Model using Assets and CETR

Variable		Fin 48 - 1 / 2007			Fin 48 - 2 / 2006-2007			Fin 48 - 3 / 2005-2007		
		Coefficient	Robust Std. Error		Coefficient	Robust Std. Error		Coefficient	Robust Std. Error	
s_t	*Fin 48*	-65,165.470	79,033.340		176,853.700	156,377.600		86,491.170	126,824.400	
fs_{it-1}	*Assets*	-3.860	7.000		10.058	9.584		24.260	16.690	
$fs_{it-1}*s_t$	*FIN 48*Assets*	-0.128	3.604		-7.434	6.849		-17.808	12.509	
ta_{it-1}	*CETR*	12,948.300	25,041.620		-3,301.475	10,998.960		-4,020.360	11,306.820	
$ta_{it-1}*s_t$	*FIN 48*CETR*	-106,408.900	88,917.040		95,672.860	97,732.280		136,437.900	116,445.900	
FC^l_{it}	*NAICS*	5,774.531	5,841.586		4,718.062	4,754.798		5,711.288	5,437.122	
	Big Four	-18,325.570	47,025.950		35,365.520	47,963.850		57,821.850	60,673.940	
	NumofEnt	829.771	1,577.116		-2,291.620	2,141.121		-5,139.750	3,615.931	
SC^j_{xt-1}	*Amnesty*	1,294.985	5,215.850		1,662.534	5,219.412		1,439.665	5,197.291	
	VCI	-33,409.980	18,108.280	*	-34,079.790	17,517.130	*	-30,380.200	15,536.960	*
	Nexus	-13,308.600	6,611.834	**	-12,771.010	6,848.766	*	-13,585.160	6,408.725	**
	CombReport	-2,042.997	8,276.798		-2,686.321	8,299.351		-2,172.568	8,234.563	
	Addbacks	-11,419.230	5,404.688	**	-11,399.580	5,376.645	**	-11,558.910	5,400.757	**
	Throwback	-5,575.418	4,389.460		-5,268.543	4,407.242		-5,594.107	4,378.328	
	SalesApport2	7,325.978	4,298.911	*	7,657.603	4,302.100	*	7,637.409	4,280.544	*
	SalesApport3	11,499.940	8,131.403		12,007.660	8,121.527		11,954.800	8,112.180	
	AuditProb	2.755	2.238		2.769	2.296		2.747	2.277	
	SOL	-1,774.137	3,714.388		-2,000.215	3,776.509		-1,667.068	3,681.303	

Table 23: Continued

Variable	Fin 48 - 1 / 2007 Coefficient	Robust Std. Error		Fin 48 - 2 / 2006-2007 Coefficient	Robust Std. Error		Fin 48 - 3 / 2005-2007 Coefficient	Robust Std. Error	
UnderpmtIntRate	350.938	1,175.885		277.413	1,178.357		298.508	1,174.418	
CIT Rate	-817.912	1,632.311		-806.781	1,620.708		-809.982	1,623.572	
SSTM	16,758.140	9,902.564	*	17,094.830	9,963.921	*	17,230.630	10,046.830	*
CorpRev	-3.908	4.280		-3.593	4.267		-3.853	4.262	
Employment	2,386.645	2,637.301		2,242.593	2,634.794		2,296.994	2,616.229	
Intercept	38,200,000	32,000,000		24,400,000	23,600,000		16,200,000	28,600,000	
Rho	0.893			0.890			0.906		
R^2	0.207			0.251			0.247		
n	327			327			327		

Regressions contain state fixed effects and a fourth order polynomial time trend.

Dependent variable is the dollar amount of NNP disclosures by firm by state by year.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

Table 24: Case-Level Model using Assets and BTD

Variable		Fin 48 - 1 / 2007			Fin 48 - 2 / 2006-2007			Fin 48 – 3 / 2005-2007		
		Coefficient	Robust Std. Error		Coefficient	Robust Std. Error		Coefficient	Robust Std. Error	
s_t	*Fin 48*	-39,052.900	54,143.200		191,235.600	213,495.300		-1,999.976	150,696.400	
fs_{it-1}	*Assets*	16.070	10.437		17.868	14.399		20.775	13.970	
$fs_{it-1}*s_t$	*FIN 48*Assets*	-70.148	47.133		1.275	19.435		-18.105	13.645	
ta_{it-1}	*BTD*	-7.365	49.475		-86.649	103.646		-69.911	73.505	
$ta_{it-1}*s_t$	*FIN 48*BTD*	3,581.826	2,619.391		-1,167.752	1,242.285		-97.046	397.795	
FC^l_{it}	*NAICS*	7,790.145	7,035.291		8,194.478	6,932.509		8,389.100	7,474.817	
	Big Four	4,753.596	45,918.640		72,167.120	76,274.340		54,825.950	51,800.740	
	NumofEnt	-2,511.395	1,770.209		-2,593.680	2,030.158		-2,729.300	1,940.500	
SC^j_{xt-1}	*Amnesty*	-2,561.153	5,497.118		-2,641.701	5,494.124		-2,595.655	5,492.587	
	VCI	-26,826.200	11,699.310	**	-23,691.200	9,096.159	***	-24,555.130	10,278.060	**
	Nexus	-13,658.170	5,445.107	**	-14,018.340	5,225.845	***	-14,053.060	5,321.771	***
	CombReport	7,021.759	5,504.758		7,042.560	5,492.455		7,086.889	5,469.258	
	Addbacks	-3,758.591	3,144.114		-3,542.748	3,130.267		-3,600.070	3,159.984	
	Throwback	-1,537.510	3,107.658		-1,513.587	3,104.702		-1,512.127	3,093.509	
	SalesApport2	2100.3 3	581.065		2,085.477	3,582.344		2,116.770	3,581.299	
	SalesApport3	15,811.530	9,814.559		15,751.220	9,778.138		15,900.770	9,787.005	
	AuditProb	2.421	2.366		2.418	2.369		2.409	2.365	
	SOL	2,570.032	2,097.794		2,840.294	2,010.101		2,810.847	2,038.699	

Table 24: Continued

Variable	Fin 48 - 1 / 2007 Coefficient	Fin 48 - 1 / 2007 Robust Std. Error		Fin 48 - 2 / 2006-2007 Coefficient	Fin 48 - 2 / 2006-2007 Robust Std. Error		Fin 48 - 3 / 2005-2007 Coefficient	Fin 48 - 3 / 2005-2007 Robust Std. Error	
UnderpmtIntRate	-546.930	431.996		-566.103	427.811		-552.230	427.834	
CIT Rate	580.259	1,655.378		595.111	1,648.830		581.938	1,652.428	
SSTM	9,506.547	9,043.214		9,084.889	9,078.823		9,343.975	9,103.275	
CorpRev	-5.333	3.452		-5.302	3.458		-5.341	3.444	
Employment	3,760.865	2,244.346	*	3,731.218	2,240.962	*	3,737.839	2,233.365	*
Intercept	75,100,000	49,400,000		32,600,000	34,600,000		57,900,000	44,300,000	
Rho	0.938			0.943			0.948		
R^2	0.257			0.254			0.220		
n	279			279			279		

Regressions contain state fixed effects and a fourth order polynomial time trend.

Dependent variable is the dollar amount of NNP disclosures by firm by state by year.

Regression uses states conditional on joining the NNP over 15 years (1994-2008).

***, **, * represent statistical significance at p<0.01, p<0.05, and p<0.10, respectively.

VITA

Ann Boyd Watts was born in Cookeville, Tennessee, on December 23, 1977. She grew up in Cookeville and graduated from Cookeville High School in 1996. In 2000, she completed two Bachelor of Science Business Administration degrees with one in Accounting and the other Finance from Tennessee Technological University. She graduated in 2001 with her Master of Accountancy degree with a concentration in taxation from the University of Tennessee and began her career in public accounting with Arthur Andersen. She joined Ernst and Young in 2002. After five years of experience in public accounting, she left Ernst and Young as a Manager in the Federal Tax practice to return to school. Ann is a Certified Public Accountant in Tennessee.

While in the Ph.D. program at the University of Tennessee, Ann has taught the Foundation of Accounting class and served as a research assistant to the Center for Business and Economic Research (CBER), a research unit in the College of Business Administration. Ann's research interests include the effects that federal tax legislation has on state tax policies, revenues, and economic climates. In 2009, Ann received the University of Tennessee Chancellor's Honors Award of Extraordinary Professional Promise. She also attended the AAA/Deloitte/J. Michael Cook Doctoral Consortium.

During the Ph.D. program, Ann met her husband, Wilson Glen Davis. Wilson and Ann were married on July 11, 2009. Ann will complete her Ph.D. in May of 2010. She is starting her career as an Assistant Professor of Accounting at Clemson University.