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*ESSAYS ON LEGAL ORIGIN AND CORPORATE GOVERNANCE:
EVIDENCE FROM LOUISIANA AND QUEBEC*

by

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A thesis submitted to the
Faculty of the Graduate School of the
University of Colorado in partial fulfillment
of the requirement for the degree of
Doctor of Philosophy
Department of Finance
2011

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Essays on Legal Origin and Corporate Governance: Evidence from Louisiana and Quebec
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Essays on Legal Origin and Corporate Governance: Evidence from Louisiana and Quebec

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This dissertation consists of two essays.

Chapter 1:

La Porta, Lopez-de-Silanes, and Shleifer (2008) summarize the extensive literature which investigates the effect of countries legal origin on a variety of corporate governance outcomes at the country level. Recent papers find statistically significant differences in the ownership dispersion by comparing Quebec-based firms to non-Quebec Canadian firms. This paper takes a similar approach and exploits intra-country variation in the United States, based on the observation that all US states have common law, except Louisiana which has civil law. To compare dispersion in ownership within the US, I identify matched pairs for each publicly traded company in Louisiana. Contrary to prior research on Canadian firms, I find no evidence that companies' dispersion of ownership differs significantly between Louisiana and the remaining US states. This challenges the interpretation of prior studies.

Chapter 2 (co-authored with Brian M. Burnett and Bjorn N. Jorgensen):

This essay provides evidence on the link between legal origin and earnings attributes often associated with earnings quality. Prior studies perform country-level analyses and find evidence that earnings quality is higher in counties with common law (English legal origin) than in countries with civil law (which includes French legal origin). This paper takes a different approach and exploits within-country variation in Canada. Specifically our research is motivated by the observation that all Canadian provinces have common law with the exception of Quebec which has civil law. We investigate whether common earnings attributes typically associated with earnings quality vary at the firm-level. We find that earnings attributes do vary with legal origin. Further, we analyze Canadian firms' decision regarding where to incorporate at either the Federal or province level. Our evidence suggests that Quebec firms' incorporation decision at either the Federal (common law) or province (civil law) leads to some differences in earnings quality, after controlling for differences in accounting standards hypothesized by Ball, Kothari and Robin (2000).

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To my parents and family –

Thank you for everything.

To my wife, Kristen and sons, Jon and Andrew –

Thank you also for your patience and support.

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ACKNOWLEDGEMENTS

I would like to thank my advisors Sanjai Bhagat and Bjorn Jorgensen. I could not have done this without your support and guidance. I owe a debt of gratitude to my committee members as well – Garland Durham, Nathalie Moyen, and Mattias Nilsson. The entire faculty and staff of the Department of Economics and School of Business at Colorado University also played an enormous role in my development.

I would also like to thank seminar participants at University of Colorado at Boulder, the 2010 International Accounting Section doctoral consortium, the 2011 Financial Accounting Research Section Meeting and Michael Wolfe (discussant), and Nancy Smith for helpful comments.

To my co-author and colleague, Brian Burnett, what can I say, thank you, thank you, thank you!

Finally, to my family in the Department of Management at our Air Force Academy, your support and encouragement got me through – thank you!

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Ownership and Legal Origin: Evidence from Louisiana**Introduction**

In a sequence of influential papers, LaPorta, Lopez-de-Silanes, Shleifer and Vishny (1998) (LLSV) study the intersection between law and finance using country-level data. Specifically, they document that corporate governance varies with a country's legal system or legal origin. Legal scholars classify the countries legal systems into either common law or civil law (Flores and Reynolds). Civil law is further classified into French, German, and Scandinavian legal origin. Common law is also referred to as English legal origin (with the exception Egypt) and both US and Canada are classified as such. Prior research in “law and finance” documents lower concentrated ownership for firms located and incorporated in countries with common law relative to civil law countries (for a recent survey, see La Porta, Lopez-de-Silanes, and Shleifer, 2008).

Recent papers by Attig (2005) and Bozec, Rousseau, and Laurin (2008) take a different approach and exploit variation within Canada by comparing Quebec with civil law to non-Quebec provinces with common law. These papers find statistically significant differences between ownership concentrations for Quebec-based firms relative to other Canadian firms. My research design is motivated by the parallel observation that all US states have origins in common law except Louisiana which originates from civil law. In matter of point, Louisiana had its first securities laws formed prior to the formation of the SEC as one of the states with Blue Sky laws. Although, over time, Louisiana has integrated much of the common law structure, differences still remain (as evidenced by its statutes and the case *Yuspeh v. Koch*). Contrary to studies using within Canada variation, I find some evidence of different concentration of

ownership for Louisiana-based firms relative to other US firms which are similar in size and industry.

A common criticism of the LLSV findings is that other factors might be causing this difference in ownership. Religion, culture, language, and other factors are offered as alternative explanations for differences in ownership concentration. Examining ownership concentration in Louisiana provides a novel setting where religion, culture and language vary little when compared to other U.S. states. By comparing the concentration of ownership of firms in Louisiana, I am able to control for important confounding factors and further the literature on the effects of legal origin by potentially ruling out these alternative explanations.

Another potential concern about cross-country studies is raised by Holderness (2009) who shows that concentration of ownership is inversely related to firm size. He comments that most country-level studies do not account for this reality. Specifically, since firm size can vary significantly across countries, cross-country studies comparing the largest firms may be, in fact, revealing ownership differences due to size. This paper therefore controls for size using a matched-pair design and using firm-level data. Since prior Canadian studies comparing Quebec firms to non-Quebec firms do not control for size, their finding of significant differences in ownership concentration might be driven by size.

Finally, firms' mandatory reporting requirements may vary across countries. This means that differential data availability could mechanically induce heterogeneity in the calculated ownership measures between countries. In contrast, my study exclusively employs data from within the US. As a consequence, my measures of dispersion of ownership should not be subject to this concern.

The cross country literature argues that differences in concentration of ownership are due to weaker minority shareholder rights in civil law countries. Minority shareholders demand higher expected returns anticipating expropriation by majority shareholders. This should result in a higher concentration of ownership. My review of Louisiana law indicates that minority shareholder rights are arguably weaker when compared to other U.S. states. Federal regulators might therefore be concerned whether Louisiana minority shareholders receive the same protection afforded in the other U.S. states, even though this does not manifest itself in statistically significant differences in ownership concentration.

The paper proceeds as follows. Section 1 summarizes the history of Louisiana with a focus on securities laws and how they differ relative to other US states. Section 2 provides a summary of the most relevant literature. Section 3 describes the data with emphasis on the data collection method employed. Section 4 describes the empirical findings. Section 5 performs robustness checks. Section 6 concludes the paper with a summary, caveats, and suggestions for possible future research.

1. History and Differences of Louisiana

Louisiana has a distinct mixed culture owed to its various controlling sovereignties before becoming a U.S. state. After several millennia of habitation by Native Americans, what is now Louisiana was first discovered by Spanish explorers in the 1500s. The mouth of the Mississippi River was first settled by the Spanish in 1528. Although several expeditions of this area were completed, no claims were made. In the late 1600s, several French expeditions were accomplished in the pursuit of sovereign, religious and commercial claims. Robert Cavalier de La Salle designated the area drained by the Mississippi “La Louisiane”, meaning “Land of

Louis”, for France in honor of then King Louis XIV. The area extended from the Gulf of Mexico north to the French territories in Canada. Several French settlements were established to trade with the Spanish in what is now Texas and to deter encroachment by the Spaniards. The port city of New Orleans was founded by Jean Baptiste Le Moyne in 1718 and named after the Duke of Orleans, Phillippe II. Recognizing its geographical importance of the mouth of the Mississippi River, New Orleans was designated the seat of civilian and military authority in 1722. Louisiana officially became a French crown colony in 1731. Adding to Louisiana’s diversity, Germans immigrated to a region along the Mississippi that is still referred to as the German Coast in the 1720s.

As a result of the French and Indian Wars, France relinquished its claims to Louisiana. In 1763, areas west of the Mississippi were ceded to Spain, and a year later the territories east of the river went to Great Britain. This, however, did not end French influence in the region. In 1765, French settlers migrated from Canadian territories that were lost to Britain in the Seven Years’ War. These mostly Catholic French Acadians were welcomed by the Spanish rulers and are known today as Cajuns. Louisiana remained in Spanish control until 1800 when the secret Treaty of San Ildefonso acquiesced control to Napoleon Bonaparte, and the French re-established their presence in the area. By 1802, the newly formed United States was wary of having a European power on its western border and was aware of the trade significance of the port of New Orleans. U.S. President Thomas Jefferson attempted to buy New Orleans from Bonaparte for \$2 million. Hearing this news, the Spanish, still in control of the city and much of Louisiana, shut down the port to all U.S. commerce. Jefferson sent an envoy to France, offering \$10 million for the city. Bonaparte, in desperate need of money to continue his war with England, sold the entire area to the U.S. for \$15 million in what is known as the Louisiana Purchase. The geographical

size of the U.S. doubled overnight. In late 1803, Louisiana was officially transferred first to the French for a day and then to the U.S. The lower region of Louisiana, known as the territory of Orleans, became the 18th U.S. state in 1812. Louisiana's various controlling sovereignties played an important role in the development of its distinctive legal system.

“Every student of the common law learns early on that Louisiana is unique in the United States in being a civil law jurisdiction...an island of Roman law in the midst of a common law ocean” (Richards 2004). Because of its colonial history of alternating governance from France and Spain, it is not surprising that Louisiana's legal origins are quite different from other English settled states. The first official law of the land in Louisiana was the Customs of Paris. King Louis XIV declared these rules to be in effect when he granted the area royal charter in 1712. When the Spanish took control of the area in the late 1760's, Spanish Governor Don Alexander O'Reilly established a court system and a set of instructions known as O'Reilly's code. French colonists in the New Orleans area, though, still tended to resolve disputes themselves via French law. Because of this, when the French briefly and secretly regained control of the region, O'Reilly's code remained the official law of the land even though French law was mostly enforced. When the US purchased the area through the Louisiana Purchase, the French and Spanish colonists, now called Creoles, resisted the Anglo-American law suggested by the Territory of Orleans' first governor, W.C.C. Claiborne. However, in 1804, the Legislative Council imposed common law for the areas of criminal law and procedure. However, in 1806 the legislature recommended that Spanish civil law be adopted, and a civil code for the territory was drafted. Carefully authored to resolve conflicts between Spanish and French civil law and somewhat modeled from France's 1804 Code Napoleon, The 1808 Code was adopted. Unfortunately it was not clear whether this code was to supplant all previous laws, so in 1825

this code was revised further and specified that all previous laws were repealed. French and English versions regrettably cause some confusion, so in 1870 an English-only version of The Code was adopted and remains in use today. Louisiana's Code has several distinctions from the other 49 states laws.

The Code is not the only unique part of Louisiana's law. Like several other states Louisiana enacted Blue Sky Laws in the early 1900s for the purpose of regulating securities transactions. The first state to have such laws in place was Kansas in 1911. Louisiana followed and adopted its Blue Sky Laws in 1912. In an attempt to standardize these laws, the US Securities and Exchange Act of 1933 was created to regulate the offering, trading and disclosures of public securities at the federal level. It is important to note that the state's Blue Sky Laws remain in effect. Also, the 49 non-Louisiana states are affected by the large body of case law previously ruled by judges. Astarita notes under "Common Law and the Securities Markets":

In addition to the varied securities rules and regulations enacted by statute, there is a large body of case law, decisions by judges, which impact severely on the securities industry. Briefly there is the concept of common law fraud, and in theory, if perchance a particular act did not fall within the scope of the federal securities laws, the actor may still be subject to a fraud claim under common law...common law notions of contract and negligence also find their way into securities law.¹

Comparisons between Louisiana's Code and other states' laws can be difficult to enumerate. There are two factors that make delineating the distinction difficult. First, The Code is not meant to be a straight jacket but more of a set of safeguards (Moreteau 2008). It might be more appropriate to compare The Code to The Constitution in this respect, particularly The Bill of Rights. For instance, The Code specifies, "Everyone has the right to respect for his private life" and "Everyone has the right to respect of the presumption of innocence." Second,

¹ "Introduction to the Securities Laws", <http://www.seclaw.com/seclaw.htm>

Louisiana is a state in the US and, therefore, is subject to the US Constitution and other federal laws. Even though Louisiana law is melding closely with other state laws, there still remain non-trivial variations that could potentially effect investor protections.

In addition to major differences of legal terms and organizational structure, The Code varies from common law on the role of judges. Civil law systems are designed to restrain the power of judges. Common law judges rely on precedence set by previous cases, whereas, in a civil system judges rely solely on applying the circumstances of the case before them to the applicable laws. The lower courts of Louisiana do, though, tend to follow interpretations of The Code made by higher courts. Obviously, a judge's role in civil suits could have a substantial impact on the outcome.

Inheritance law is quite different as well. Forced heirship is used in Louisiana's inheritance laws. Property law tends to differ in the way property is transferred, but neither is more restrictive than the other. Under civil law marital property is considered communal as opposed to separate under common law.

The three items that might most affect Louisiana firms' behavior differently than any other states consists of contract law, mediation, and the adoption of the Uniform Commercial Code. The common law states use "consideration" in determining whether a contract is enforceable or not. That is, something of value must be given by both parties for a contract to be enforceable. In Louisiana, contracts are considered enforceable depending on their legal "cause" and form. If a contract is in written form, it may be enforceable even if it has been made for a gratuitous cause (Richards, 2004). The role of the notary is far more important in civil law. A civil law notary acts as a mediator between those with differing interests. Finally, Louisiana is the only state that has not fully adopted the Uniform Commercial Code. It incrementally adopted

the U.C.C. In 1990, it adopted all Chapters except for Articles 2 and 2A which encompasses the sale of goods and leases, respectively. This part of the U.C.C. is in conflict with some areas of Louisiana's Code and remains separate Louisiana law.

Today, Louisiana is a decidedly mixed jurisdiction based on civil and common law in which “civil law and common law meet, merge and interact at the level of legal rules, institutions and reasoning methods.” (Palmer 1999). Though mixed with common law, the civil code of Louisiana is still functioning. It utilizes legal precepts unknown in common law jurisdictions such as naked owners, usufructs, virile portions, vulgar substitutions, synallagmatic contracts, mystic testaments, antichresis, whimsical conditions, or lesion beyond moiety, amicable compounder, jactitation, mutuum, and commodatum (Kinsella 1994). Cases that might have one outcome in a common law state will have a different outcome under Louisiana civil law, as with cases related to the civil law compromise article and its common law cousin, the doctrine of accord and satisfaction; (Richardson 2008); cases related to promissory estoppel – a common law doctrine that exists in a unique civil law form in Louisiana (Palmer1999); and testate cases related to Louisiana's unique civil law forced heirship requirements for the maintenance of children under 24 (Palmer 1999).

And far from dying out, the Louisiana civil code has been undergoing a complete (if not painfully slow) reform since 1960s and 40% of the code as already been revised and renewed to reflect current needs (Palmer 2005). As Louisiana Judge Dennis wrote in 2003, “our Civil Code endures and generally governs the all important area of Louisiana's private law, including the law of persons, family, property, successions, obligations, offenses and quasi-offenses, matrimonial regimes, leases, sales, privileges, mortgages, and prescription. The 1870 Civil Code has now been revised with the hope that it will be an authoritative statement of the civilian tradition of the

state within the scheme of a modern, scientific, comprehensive organization. Thus, the tradition of codified laws is firmly established in Louisiana.” (Dennis 2003). In last third of twentieth century there was a revival movement of civil law in Louisiana, particularly in the area of tort law. While the trend has slowed, LA courts continue to re-infuse tort law in LA with civil law influences in resistance to the prevalent influences of common law in tort. (Palmer 2005).

In terms of the role of judges, because it is mixed jurisdiction the role of judges in Louisiana is unique – judges take a much more active role in the shaping of the law than in French civil law; but like French judges, they are expected to primarily interpret the code when it applies. (Dennis 2003).

An example of how investor protections, specifically minority shareholder rights, may differ under the Louisiana Civil Code can be found in the case *Yuseph v. Koch*. In this case, Koch, a majority shareholder of Certified Security Systems, attempted to gain full control of the company via a freeze-out merger with a set cash price to buy out minority shareholders. Yuseph and minority shareholders sued for what they deemed to be an inadequate stock price. Further the minority shareholders had not been informed of Koch’s increased ownership of the company which was through unissued stock purchases via a loan restructuring agreement and, therefore, sued for fraud and breach of fiduciary duty. Koch filed an exception of no right of action arguing that Louisiana Revised Statute section 12:131 (from Louisiana’s Civil Code) was the sole remedy for obtaining the fair value for their shares. This would have required Yuseph to have used an injunction to slow the merger process and receive fair value for their shares. The Fifth Circuit Court of Appeals ruled that the Louisiana statute is not the exclusive remedy because it does not address fraud or breach of fiduciary responsibility. Although the court ruled that no fraud was committed, it ruled there was a breach of fiduciary responsibility by not

informing shareholders of the additional stock purchase. This breach was a direct cause for the plaintiffs not being able to utilize the statute to obtain fair value for their positions. Although the ruling helped align Louisiana's protection of minority shareholder's rights in this case (specifically similar to Delaware's Weinberger v. UOP, Inc. decision), calls for a statute to better identify these protections remain. "A new Louisiana appraisal rights statute should include a requirement that a minority shareholder be given proper shareholder notice before and after the merger vote to provide him with greater knowledge of his rights and responsibilities."²

2. Literature Review

In an oft cited paper, Law and Finance, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (LLSV) examine legal protection of investors across countries with differing legal origins (common law, and French, German, and Scandinavian civil law). In doing so they find that concentration of ownership differs across these legal origins. Concentration of ownership is found by finding the ownership of the 3 largest shareholders in the 10 largest privately owned domestic firms. Countries with French civil law origin have a significantly higher average (54%) than the other 3 origins. Common law has a concentration of 43% ownership. In this paper we intend to see if this result holds for a within country comparison.

As evidence of the impact of the "law and finance" literature on legal studies, Coffee (2007) summarizes what he labels the principal objections leveled against the LLSV point of view. First, French civil law seems to have performed well for France. France has had greater economic growth than the UK over most of the time since 1820. Second, the classification of

² Aiken (2004)

Latin American countries as civil law entities is debatable. The failure of many of these countries appears to drive the conclusion that civil law countries economically underperform. Third, LLSV's coding method is questionable, creating indices that are later used as proxies that are disputed. Fourth, there is a plethora of civil law and common law countries that have performed well or poorly, respectively. For instance, several Asian countries with civil law origins have prospered while many sub-Saharan African countries with common law background remain largely undeveloped. Fifth, legal origins are shown to be confounded with other structural factors that would influence growth. For instance, civil law tended to be adopted in tropical environments, whereas common laws were adopted in healthier, more temperate areas. None of these five objections apply to my investigation of the effect of civil law on dispersion of ownership.

In two influential papers, Demsetz (1983) and Demsetz and Lehn (1985) argue and provide empirical evidence that firms' size and industry are key determinants of concentration of ownership within the US. LLSV argue that legal variables (civil vs. common law as well as legal origin) are main determinants of variation in ownership structure around the world. As mentioned above, Holderness (2009) worries that the largest firms of each country, included in LLSV, vary greatly in size. Further, he argues that the firms in the main common law countries (Australia, Canada, India, New Zealand, UK, and US) are larger in size than the firms in civil law countries. Put differently, he argues that LLSV is incorrectly attributing cross-country variation in ownership to legal origin when it is truly attributable to variation in firm size. My study addresses this concern by employing a matched pair design within the US.

This paper investigates whether there is any evidence of an effect of heterogeneity in legal systems persists within the US simply because Louisiana has French legal origin.³ Specifically, I hypothesize and test whether firms "based" in Louisiana have higher concentrated ownership. Such heterogeneity in legal origin also arises, arguably to a larger extent, within Canada because Quebec's French legal origin. Indeed, Attig and Gadhoun (2003) and Bozec, Rousseau, and Laurin (2008) find evidence that Quebec firms have more concentrated ownership. These findings from Canada, however, do not easily allow trivial extrapolation into a US setting. The reason is that Canada has regulators at the province level. In contrast, the U.S. Securities and Exchange Commission is the leading U.S. regulator. Such differences in enforcement and regulation between Canada and US imply that statistically significant differences in concentration of ownership are a priori less likely to have remained within the US. Documenting any such differences should be of interest to federal regulators since they should be concerned about whether unequal enforcement in the state of Louisiana is the source of these differences. The only existing evidence to this effect is a recent paper by Kedia and Rajgopal (2010) who document that the proximity of a firm's headquarters to the nearest SEC office is a determinant of the likelihood of an SEC investigation.

A host of literature investigates the relations between legal origin, ownership concentration, investor and property rights, private benefits of control, firm value and profitability, external financing, cost of capital, and transparency. Dyck and Zingales (2004) estimate the private benefits of control across 39 countries. They note that private benefits of control are difficult to measure and verify – otherwise non-controlling members would be able to

³ I do not claim to be the first to exploit intra-country variation. For example, Jayaratne and Strahan (1996) document the effect of removing banking restrictions on state-level economic growth within the US.

prevent such actions. By following Barclay and Holderness (1989) and examining controlling block sales, specifically the difference between the acquiring and market prices, the private benefit accruing to the controlling shareholder is determined. A total of 393 transactions across 39 countries in the 1990s are used. On average corporate control is found to be worth 14 percent of the equity value of the firm (ranging from -4% to 65%). They also note that in countries with less investor protections, the premium paid for control is higher. This is due to the buyers being able to more easily extract private benefits in such an environment. Pertinent to this paper Dyck and Zingales investigate the dispersion of ownership across these countries. They show that the percentage of widely held companies is smaller in countries with higher private benefits of control. This is due to existing owners wanting to keep control in such an environment. In fact a one standard deviation increase in the size of private benefits results in an 11% increase in ownership by the three largest shareholders.

By comparing Non-U.S. firms that cross-list on U.S. exchanges with those that do not, Dojidge (2004) finds evidence in support of the bonding hypothesis. That is that firms also listed on U.S. exchanges benefit from the better protection on minority shareholders resulting in a decrease to the private benefits of controlling shareholders. A total of 745 non-U.s. firms that have dual-class shares from 1994-2001 are included in the data. Those firms that also cross-list on U.S. exchanges have voting premiums that are 43 percent lower than the firms that do not cross-list. This premium increases for firms in countries that are determined to have lower protections for minority shareholders. Upon announcement of the cross-listing, all classes of shareholders benefit – regardless of their voting rights. Considering the 11 days surrounding the cross-listing announcement, the high-voting shares gain 0.57% while the low-voting shares gain 1.12%. This holds true even though the low-class shares are usually the only shares cross-listed.

Further, the firms in countries with lower investor protections tend to have higher announcement returns than those with great shareholder protections. All of these findings support the bonding hypothesis.

Himmelberg, Hubbard, and Love (2004) examine the effects of legal origin on the cost of capital. In an effort to mitigate the principal-agent problem, insiders maintain a larger share of their firms than in an optimal risk diversification strategy. Their model has two predictions. First, weaker investor protection should result in higher concentration of inside ownership. This conforms to LLSV (1997). Second, a higher the concentration of inside ownership should result in a higher implied cost of capital. These predictions are shown to empirically hold true using firm-level data from 6000 firms across 38 countries from 1988-1998. Specifically, the resulting premium due to the exposure to higher idiosyncratic risk by insiders is found to be between zero and six percent. As outside investor protection increases, this premium decreases.

Classens, Djankov, Fan, and Lang (1999) examine the relationship between firm value and ownership concentration across nine countries in East Asia. Unlike most developed countries, they conclude that the most important agency issue for East Asian countries is limiting the expropriation of minority shareholders by controlling shareholders, as opposed to the owner-manager principal-agent problem. Higher cash flow rights are linked with higher market valuations. However, higher voting control results in negligible or even negative firm value. Specifically, firm value is shown to decrease 3 percent for a 10 percent increase in the separation between cash-flow and voting rights. The method of separation between cash flow and voting rights (pyramiding, cross-holdings, and dual class shares) is not important. All methods result in a decrease in firm value. This might suggest that once large owners control a firm, expropriation of minority shareholders becomes more significant than creating firm value.

Bushman, Piotroski, and Smith (2003) document a link between governance transparency and legal origin. Corporate transparency, defined as “the availability of firm-specific information to those outside publicly traded firms.” This is further divided into financial transparency and governance transparency. The latter is defined as “the intensity of governance disclosures used by outside investors to hold officers and directors accountable.” Countries with common law legal origin are found to have a higher governance transparency.

Durnev and Kim (2005) examine firm-level governance and disclosure practices across 27 countries. Countries with lower investor protections tend to have a more variation in these measures. They look at three firm attributes (investment opportunities, external financing, and ownership structure), and form a model that predicts that firms with higher measures of these attributes will have better governance, be more highly valued, and that these relations are stronger when investor protections are weaker. These predictions are tested across 859 firms and are found to hold true. Specifically a one standard deviation increase in governance score results in a 9% higher market valuation. In weaker investor protected environments, such as Mexico, a one standard deviation increase in governance score is associated with a 13.2% increase in market value while in more strongly investor protected Hong Kong, the deviation only creates a 4.6% increase. Good corporate governance is given a premium in settings where investor protections are weak.

Acemoglu and Johnson (2005) examine the significance of protections for citizens from expropriation by the government or privileged and the role of contracting between citizens. They conclude that protection from expropriation is more pertinent to economic growth, investment, and financial development than contracting rights. Using a multiple instrument variable strategy, countries with greater investor protections are found to have higher income per

capita, greater investment rates, more credit to the private sector relative to GDP, and more developed stock markets. They note that this is consistent with Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2002). Private contracting between citizens is not able to overcome the iniquity created by poor investor protections. This results in lower overall economic development.

Johnson, McMillan, and Woodruff (2002) also confirm the importance of investor protections for economic development. They use 1997 survey data from small manufacturing firms in five Eastern European developing countries. This environment was chosen specifically to disentangle the effects of external financing available and property rights. These two items are highly positively correlated across countries. However, all of these countries have weak institutional environments for external financing, while the extent to which property rights are protected is variable. They found that where property rights are strong, firms tend to reinvest their profits more so than when property rights are weak. Specifically, entrepreneurs in countries with the highest rights reinvest 56% of their profits as opposed to just 32% of profits for the countries with lowest rights. This is the case even when controlling for access to bank credit. The result is that property rights are therefore sufficient for investment.

Finally Bhagat and Bolton (2009) use a system of equations model to investigate the interdependencies of firm performance, governance, ownership, and leverage. They find that stock ownership of directors is positively and significantly related to firm performance. Since other measures of governance yield inconsistent results, they suggest that corporate governance studies should use stock ownership as the most reliable measure for governance.

Another strand of literature that is applicable to this paper is the home bias literature. International investment portfolios tend to overweight domestic securities. Coval and

Moskowitz (1999) also show that U.S. investment managers have a preference for locally headquartered firms. This is especially true for smaller, highly levered firms that produce non-traded goods. A state with a lower level of income per capita (and possibly more concentration of income), might affect ownership concentration for firms headquartered in that state. I include income per capita in the regressions to control for this possibility.

Another confounding factor in this study is the fact that firms are able to choose the state in which they incorporate. Further, the state of incorporation determines which corporate laws the firm is then subject to. Bebchuk and Cohen (2003) identify many factors that determine the incorporation choice. Their main finding is that location has a substantial influence on the incorporation decision. That is, firms tend to incorporate in the state in which they are located. This home bias is weaker for both larger companies and for companies that have incorporated more recently. Several other factors are offered as possible determinants of the incorporation choice, which I use in the first stage of my Heckman regression analysis.

These findings are similar to Dammann and Schundeln (2009). They, too, find that a majority of corporations incorporate in their primary place of business. However, firms with more than 1,000 employees incorporate in their home state about half the time and usually incorporate in Delaware when not incorporating in the home state. They also find that corporations are more likely to migrate away from states that offer higher minority shareholder protection. I use this information throughout the Heckman regressions.

3. Data

I first use annual data from the Compustat Xpressfeed North America database for fiscal years ending from January 1950 to December 2008 to identify my matched sample of firms. I

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identify my sample firms by selecting all firms incorporated and/or headquartered in Louisiana and retain the final year they are in Compustat. This results in a sample of 101 firms with fiscal years ranging from 1987 to 2008. The 101 firms are further reduced to 88 by deleting those that are wholly owned subsidiaries of one another (9), not truly incorporated in Louisiana (2), duplicated listing (1) and not publically traded (1). Our population of available control firms is all other US firms neither incorporated nor located in Louisiana. I matched our sample of Louisiana firms with a control firm in the same 3-digit SIC code and same fiscal year based on total assets (data item AT). In Table 1, a t-test of differences of the means of total assets between the two samples confirms quality matches (p-value < .01).

Ownership data was collected from various SEC filings (10-K, Proxy Statements, etc.) via the SEC's website (EDGAR), Lexis Nexis Classic, and from microfiche in the LEEDS Library. Since I am examining concentration of ownership as a quality of corporate governance, I chose to look at percentage of voting control. For companies with only one class of common stock with 1 share = 1 vote the collection was straight-forward. For companies with different stock classes with different amounts of voting rights, ownership percentages were re-calculated to reflect percent of voting power. All footnotes were reviewed to avoid double counting between family members and/or shares held in trusts. This methodology closely follows Holderness (2009).

Table 1. Descriptive Statistics

Panel A presents descriptive statistics for the 88 firms either incorporated or located in Louisiana and their Non-Louisiana matches. Matching is based on the same 3 digit SIC code and then closest in total assets. Panel B provides an Industry breakdown for the sample. Data is from Compustat. Total Assets, Market Value, and Sales are in \$ millions. Leverage is debt (short term + long term) / total assets. Panels C & D only include the 47 firms incorporated in Louisiana while Panels E & F only include the 41 firms located in Louisiana. ***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: All Louisiana Firms

Variables	Louisiana (N = 88 firms)			Non-Louisiana (N = 88 firms)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
Total Assets	1,752.56	304.22	4,924.28	1,826.70	323.69	4,889.89
Market Value	695.51	87.72	1,837.88	814.15	140.33	1,998.46
Leverage	0.40	0.29	0.46	0.29	** 0.24	+ 0.23
Sales	580.63	184.80	1,414.37	718.15	** 166.63	1,866.27

Panel B: Industry Distribution – Full Sample

Industry (Two-digit SIC Codes)	Number of Firms	Percentage
Construction (15-17)	2	2%
Finance, Insurance, and Real Estate (60-67)	20	23%
Manufacturing (20-39)	15	17%
Mining (10-14)	19	22%
Public Administration (91-99)	2	2%
Retail Trade (52-59)	6	7%
Services (70-89)	12	14%
Transportation, Communications, Electric, Gas, and Sanitary Services (40-49)	9	10%
Wholesale Trade (50-51)	3	3%
	88	100%

Table 1. Descriptive Statistics (continued)**Panel C: Firms Incorporated in Louisiana**

Variables	Louisiana (N = 47 firms)			Non-Louisiana (N = 47 firms)			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	
Total Assets	1,861.50	265.87	4,076.19	2,097.15	*	394.92	4,507.77
Market Value	502.63	84.38	962.86	751.55	*	145.89	+ 1,760.62
Leverage	0.37	0.23	0.48	0.31		0.26	0.26
Sales	489.77	123.08	1,125.23	707.10	*	172.27	1,748.88

Panel D: Industry Distribution – Incorporated in Louisiana

Industry (Two-digit SIC Codes)	Number of Firms	Percentage
Finance, Insurance, and Real Estate (60-67)	18	38%
Manufacturing (20-39)	6	13%
Mining (10-14)	5	11%
Public Administration (91-99)	1	2%
Retail Trade (52-59)	5	11%
Services (70-89)	6	13%
Transportation, Communications, Electric, Gas, and Sanitary Services (40-49)	6	13%
	47	100%

Table 1. Descriptive Statistics (continued)**Panel E: Firms Located in Louisiana**

Variables	Louisiana (N = 41 firms)			Non-Louisiana (N = 41 firms)			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	
Total Assets	1,627.6						
Market Value	8	306.23	5,796.81	1,516.67	299.18	+	5,334.24
Leverage	907.20	267.58	2,463.78	885.91	106.32		2,260.97
Sales	0.43	0.34	0.44	0.26	0.24	++	0.20
	684.79	238.08	1,695.30	730.81	163.24		2,014.40

Panel F: Industry Distribution – Located in Louisiana

Industry (Two-digit SIC Codes)	Number of Firms	Percentage
Construction (15-17)	2	5%
Finance, Insurance, and Real Estate (60-67)	2	5%
Manufacturing (20-39)	9	22%
Mining (10-14)	14	34%
Public Administration (91-99)	1	2%
Retail Trade (52-59)	1	2%
Services (70-89)	6	15%
Transportation, Communications, Electric, Gas, and Sanitary Services (40-49)	3	7%
Wholesale Trade (50-51)	3	7%
	41	100%

In order to determine the concentration of ownership in all the firms, I collected 9 variables of interest. Blockholders are shareholders with greater than 5% ownership:

- 1-3. % ownership of 1st, 2nd and 3rd largest blockholders
4. Cumulative % ownership of all blockholders
5. Number of blockholders
6. Cumulative % ownership of all directors and officers
7. Number of directors and officers (hand-counted if not listed)
8. % ownership of CEO if a blockholder
9. % ownership of Chairman of the Board if a blockholder

Table 1 offers descriptive statistics for both samples comparing total assets, market value, leverage, and sales. The table well matched samples as well as an even distribution throughout 2 digit SIC industries. Table 2 gives the mean, median and standard deviation for the 9 variables collected for both the Louisiana and the (averaged) non-Louisiana samples. A comparison of the number of times the CEO or Chairman of the Board was also the largest blockholder are included.

Table 2. Comparison of Concentration of Ownership

This table shows mean, median, and standard deviation comparisons between Louisiana and Non-Louisiana firms for the 9 hand-collected ownership concentration variables from SEC filings. Panel A shows the full sample, while Panels B & C break down the sample into incorporated and located in Louisiana respectively. Blockholders are shareholders controlling greater than 5% voting rights. Largest shareholder is contingent on controlling greater than 5%, otherwise 0% is used.

Panel A: All Louisiana Firms

Variable	Louisiana (N = 88 firms)				Non-Louisiana (N = 88 firms)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	82	25.69	15.40	22.46	84	18.73	14.90	13.28
Second largest blockholder	65	10.56	8.70	6.43	72	11.48	9.33	6.96
Third largest blockholder	44	7.70	7.50	2.36	48	9.26	8.65	4.04
All Blockholders (%)	81	42.13	38.10	26.03	83	39.54	36.46	24.93
All Blockholders (#)	88	2.76	2.50	1.60	88	3.01	3.00	1.84
All Officers and Directors (%)	88	22.97	15.70	24.59	88	18.65	11.00	19.47
All Officers and Directors (#)	88	12.70	11.00	6.97	88	11.91	11.00	6.08
CEO Blockholders (%)	30	26.36	13.85	25.76	26	19.23	12.45	13.98
Chair Blockholders (%)	35	28.91	16.37	25.06	29	20.27	20.50	14.01
CEO = Largest blockholder	14				26			
Chair = Largest blockholder	23				29			

Table 2. Comparison of Concentration of Ownership (continued)
Panel B: Firms Incorporated in Louisiana

Variable	Louisiana (N = 47 firms)				Non-Louisiana (N = 47 firms)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	43	25.02	12.60	23.35	46	15.51	12.50	10.68
Second largest blockholder	32	10.18	9.12	5.35	36	11.16	8.77	7.17
Third largest blockholder	21	7.29	7.00	2.05	21	9.46	8.70	3.69
All Blockholders (%)	43	40.13	33.80	26.50	46	32.15	27.10	23.58
All Blockholders (#)	47	2.57	2.00	1.58	47	2.64	2.00	1.72
All Officers and Directors (%)	47	26.51	18.17	26.74	47	17.08	8.84	16.89
All Officers and Directors (#)	47	13.32	11.00	8.48	47	12.60	12.00	6.77
CEO Blockholders (%)	13	29.18	10.45	30.06	10	16.37	11.66	10.00
Chair Blockholders (%)	17	32.62	30.50	28.04	14	17.59	11.66	12.51
CEO = Largest blockholder	6				10			
Chair = Largest blockholder	13				14			

Table 2. Comparison of Concentration of Ownership (continued)
Panel C: Firms Located in Louisiana

Variable	Louisiana (N = 41 firms)				Non-Louisiana (N = 41 firms)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	39	26.42	16.37	21.71	38	22.62	15.95	15.13
Second largest blockholder	33	10.93	8.54	7.39	36	11.79	9.56	6.83
Third largest blockholder	23	8.08	7.60	2.60	27	9.11	7.90	4.37
All Blockholders (%)	38	44.40	41.37	25.65	37	48.73	47.70	23.76
All Blockholders (#)	41	2.98	3.00	1.62	41	3.46	3.00	1.90
All Officers and Directors (%)	41	18.92	11.90	21.48	41	20.50	11.09	22.19
All Officers and Directors (#)	41	12.00	11.00	4.70	41	11.10	10.50	5.12
CEO Blockholders (%)	17	24.21	14.70	22.66	16	21.01	14.20	16.02
Chair Blockholders (%)	18	25.41	15.65	22.12	15	22.76	22.00	15.28
CEO = Largest blockholder	8				16			
Chair = Largest blockholder	10				15			

4. Results

Table 3 displays the results of univariate tests comparing concentration of ownership variables of interest. These include largest blockholder, cumulative percent owned and number of all blockholders, and cumulative percent owned and number of all directors and officers as a group. The table is separated into 3 panels: firms incorporated or located in Louisiana; firms incorporated in Louisiana; and firms headquartered, but not incorporated in, Louisiana. A t-test, non-parametric medians test and Wilcoxon test is performed to check for differences in the means and medians. Although marginally significant, I do find some differences in ownership concentration. Louisiana firms are shown to have a higher percentage of ownership for both the largest blockholder as well as the cumulative percent ownership by all officers and directors as a group. As expected this is most significant for in the Louisiana incorporated subset (Panel B). For firms incorporated in Louisiana, the largest blockholder owns 25.0% versus 15.5% for non-Louisiana firms. All officers and directors as a group own 26.5% for Louisiana incorporated firms versus 17.1% for non-Louisiana firms. This is consistent with both the LLSV and Canadian findings. Civil law Louisiana firms have a higher concentration of ownership than the other common law states.

Table 3. Univariate Tests

This table displays the results of univariate tests comparing concentration of ownership variables of interest. Panel A shows the full sample, while Panels B & C break down the sample into incorporated and located in Louisiana respectively. A t-test, non-parametric medians test and Wilcoxon test is performed to check for differences in the means and medians. ***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). +++, ++, + indicates non-parametric medians test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). P-values are in (parenthesis).

Panel A: All Louisiana Firms

Variables	Louisiana (N = 88 firms)			Non-Louisiana (N = 88 firms)			Differences			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	t-test	non-parametric medians test	Wilcoxon test
Largest blockholder	25.69	15.40	22.46	18.73	14.90	13.28	4.64	*		
								(0.062)	(0.224)	(0.301)
All Blockholders (%)	42.13	38.10	26.03	39.54	36.46	24.93	0.91			
								(0.775)	(0.942)	(0.547)
All Blockholders (#)	2.76	2.50	1.60	3.01	3.00	1.84	-0.27			
								(0.206)	(0.198)	(0.488)
All Officers and Directors (%)	22.97	15.70	24.59	18.65	11.00	19.47	4.58			
								(0.122)	(0.671)	(0.336)
All Officers and Directors (#)	12.70	11.00	6.97	11.91	11.00	6.08	0.78			
								(0.283)	(0.234)	(0.603)

Table 3. Univariate Tests (continued)
Panel B: Firms Incorporated in Louisiana

<i>Variables</i>	<i>Louisiana (N = 47 firms)</i>			<i>Non-Louisiana (N = 47 firms)</i>			<i>Differences</i>			
	<i>Mean</i>	<i>Median</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Median</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>t-test</i>	<i>non-parametric medians test</i>	<i>Wilcoxon test</i>
Largest blockholder	25.02	12.60	23.35	15.51	12.50	10.68	6.75	*	(0.2037)	(0.2766)
All Blockholders (%)	40.13	33.80	26.50	32.15	27.10	23.58	4.32		(0.3386)	(0.1373)
All Blockholders (#)	2.57	2.00	1.58	2.64	2.00	1.72	-0.06		(0.5914)	(0.8893)
All Officers and Directors (%)	26.51	18.17	26.74	17.08	8.84	16.89	9.43	**	(0.1584)	#
All Officers and Directors (#)	13.32	11.00	8.48	12.60	12.00	6.77	0.72		(0.6196)	(0.8543)

*Table 3. Univariate Tests (continued)
Panel C: Firms Located in Louisiana*

<i>Variables</i>	<i>Louisiana (N = 41 firms)</i>			<i>Non-Louisiana (N = 41 firms)</i>			<i>Differences</i>			
	<i>Mean</i>	<i>Median</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Median</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>t-test</i>	<i>non-parametric medians test</i>	<i>Wilcoxon test</i>
Largest blockholder	26.42	16.37	21.71	22.62	15.95	15.13	2.17			
								(0.5134)	(0.7003)	(0.8745)
All Blockholders (%)	44.40	41.37	25.65	48.73	47.70	23.76	-3.30			
								(0.4239)	(0.2804)	(0.4455)
All Blockholders (#)	2.98	3.00	1.62	3.46	3.00	1.90	-0.51			
								(0.1266)	(0.1721)	(0.2792)
All Officers and Directors (%)	18.92	11.90	21.48	20.50	11.09	22.19	-1.11			
								(0.7529)	(0.2641)	(0.7769)
All Officers and Directors (#)	12.00	11.00	4.70	11.10	10.50	5.12	0.85			
								(0.3063)	(0.2495)	(0.4315)

Table 4 performs regression analysis using the 5 ownership concentration variables identified above as the dependent variables. Size, leverage, and state-level income per capita are used as explanatory variables.

$$\begin{aligned} \text{Ownership Concentration}_i = & \beta_0 + \beta_1 \text{LA Dummy}_i + \beta_2 \text{Size}_i + \beta_3 \text{Leverage}_i \\ & + \beta_4 \text{Income/Capita}_i + \varepsilon_i \end{aligned}$$

where LA Dummy is whether a firm is a Louisiana firm or not, Size is the log of total assets, and Leverage is debt (short term + long term) / total assets, and Income/Capita is the state-level income per capita. Size and Leverage both come from Compustat. The income per capita comes from the Bureau of Economic Analysis. Size is found to be inversely related to ownership concentration as in Holderness (2009). The state-level income per capita is used in an effort to control for the home bias complication discussed previously. Size is found to be a statistically significant determinant of most all ownership concentration measures. Again, this is most true for the subset of Louisiana incorporated firms (Panel B). This lends support to the argument that firm size should be controlled for when analyzing ownership concentration. As in the univariate analysis, the LA Dummy variable (1 if in Louisiana) is significant in determining largest blockholder percent ownership as well as all directors and officers as a group percent ownership. Being incorporated in Louisiana increases the percent ownership of both of these variables by almost 9%.

Table 4. Ownership Concentration Regression

This table shows the results from OLS regressions. The 5 different dependent variables are the ownership concentration variables of interest. LA Dummy is 1 for Louisiana firms, 0 otherwise. Size is log of total assets and Leverage is debt (short term + long term) / total assets – both from Compustat. Income/Capita is the state-level income per capita from the Bureau of Economic Analysis. Panel A shows the full sample, while Panels B & C break down the sample into incorporated and located in Louisiana respectively. Robust standard errors are shown in parentheses. ***, **, * indicates statistical significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: All Louisiana Firms

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	6.280** (2.658)	1.807 (3.562)	-0.280 (0.265)	4.852 (2.944)	0.786 (0.820)
Size	-1.925*** (0.661)	-3.110*** (0.945)	-0.054 (0.058)	-4.049*** (0.812)	1.720*** (0.186)
Leverage	8.429 (5.230)	15.065** (7.238)	0.157 (0.453)	-4.264 (5.909)	-0.963 (1.270)
Income/Capita	-0.308 (0.202)	-0.226 (0.263)	0.037** (0.018)	-0.109 (0.186)	-0.071 (0.061)
Constant	35.748*** (5.145)	58.697*** (7.863)	2.227*** (0.545)	45.303*** (6.150)	4.832*** (1.724)
Observations	176	176	176	176	176
R-squared	0.176	0.175	0.035	0.202	0.405

Table 4. Ownership Concentration Regression (continued)

Panel B: Firms Incorporated in Louisiana

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	8.720** (3.609)	6.832 (4.894)	-0.065 (0.340)	8.991** (4.345)	1.183 (1.319)
Size	-1.424* (0.739)	-2.581** (1.145)	-0.065 (0.070)	-2.305** (0.961)	1.815*** (0.286)
Leverage	17.519*** (6.331)	23.528*** (8.726)	-0.188 (0.573)	-0.532 (8.733)	-1.362 (2.207)
Income/Capita	-0.181 (0.200)	-0.131 (0.294)	0.035 (0.022)	-0.376 (0.241)	-0.047 (0.088)
Constant	23.500*** (6.930)	43.475*** (11.462)	2.061*** (0.713)	41.250*** (9.195)	3.958 (2.971)
Observations	94	94	94	94	94
R-squared	0.219	0.197	0.034	0.134	0.363

Table 4. Ownership Concentration Regression (continued)

Panel C: Firms Located in Louisiana

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	4.127 (4.000)	-3.961 (5.040)	-0.637 (0.428)	1.220 (3.798)	0.266 (0.779)
Size	-1.843 (1.294)	-2.700* (1.560)	-0.017 (0.094)	-7.041*** (1.164)	1.588*** (0.194)
Leverage	0.604 (6.369)	8.456 (10.052)	0.721 (0.532)	-5.493 (6.246)	-0.135 (0.722)
Income/Capita	-0.577 (0.452)	-0.519 (0.501)	0.037 (0.032)	0.637** (0.251)	-0.084 (0.066)
Constant	48.850*** (8.981)	75.435*** (11.261)	2.392*** (0.830)	40.181*** (6.608)	5.398*** (1.590)
Observations	82	82	82	82	82
R-squared	0.194	0.199	0.063	0.446	0.542

5. Robustness Checks

Tables 5-8 are identical to Tables 1-4 except for the control group matches. In these tables, for the control group, 2 matches for each sample firm was obtained – one smaller and one larger than the sample total assets. Each data point in the two matches was averaged together to obtain the hybrid firm (non-Louisiana) set. No meaningful differences are found.⁴

Many companies choose to incorporate in Delaware. The reasons for this decision and its effects are investigated in a wide range of literature (Bebchuk, Cohen, and Ferrell, 2002, Subramanian, 2002, Greenfield, 2004, and Dammann and Schundeln, 2008). Tables 9-12 account for this incorporation choice by matching firms that are incorporated in Louisiana specifically to firms that are incorporated in Delaware (Panel A's) and matching to firms not incorporated in Delaware (Panel B's). Tables 9-12 are otherwise similar to Tables 1-4. Most results are not meaningfully different. However, the largest blockholder percent holdings and all officers and directors as a group holdings becomes less pronounced and significant for the Delaware matches. The difference for these items is remains significant for the non-Delaware matches. This holds true for both the univariate (Table 11) and multivariate (Table 12) analysis.

⁴ Results using only the second closest match are similar.

Table 5. Descriptive Statistics – Hybrid Firm Matches

Panel A presents descriptive statistics for the 88 firms either incorporated or located in Louisiana and their Non-Louisiana matches. Matching is based on the same 3 digit SIC code and the next two closest in total assets are averaged to form a hybrid firm. Panel B provides an Industry breakdown for the sample. Data is from Compustat. Total Assets, Market Value, and Sales are in \$ millions. Leverage is debt (short term + long term) / total assets. Panels C & D only include the 47 firms incorporated in Louisiana while Panels E & F only include the 41 firms located in Louisiana. ***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: All Louisiana Firms

Variables	Louisiana (N = 88 firms)			Non-Louisiana (N = 88 hybrids)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
Total Assets	1,752.56	304.22	4,924.28	1,836.47	335.73	4,987.65
Market Value	695.51	87.72	1,837.88	772.71	194.99 +	1,713.70
Leverage	0.40	0.29	0.46	0.29 *	0.23	0.26
Sales	580.63	184.80	1,414.37	723.21	175.47	1,644.99

Panel B: Industry Distribution – Full Sample

Industry (Two-digit SIC Codes)	Number of Firms	Percentage
Construction (15-17)	2	2%
Finance, Insurance, and Real Estate (60-67)	20	23%
Manufacturing (20-39)	15	17%
Mining (10-14)	19	22%
Public Administration (91-99)	2	2%
Retail Trade (52-59)	6	7%
Services (70-89)	12	14%
Transportation, Communications, Electric, Gas, and Sanitary Services (40-49)	9	10%
Wholesale Trade (50-51)	3	3%
	88	100%

Table 5. Descriptive Statistics – Hybrid Firm Matches (continued)
Panel C: Firms Incorporated in Louisiana

Variables	Louisiana (N = 47 firms)			Non-Louisiana (N = 47 hybrids)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
Total Assets	1,861.50	265.87	4,076.19	1,914.64	331.94	4,125.38
Market Value	502.63	84.38	962.86	648.18	175.59	1,389.51
Leverage	0.37	0.23	0.48	0.34	0.23	0.33
Sales	489.77	123.08	1,125.23	546.41	140.63	1,148.22

Panel D: Industry Distribution – Incorporated in Louisiana

Industry (Two-digit SIC Codes)	Number of	
	Firms	Percentage
Finance, Insurance, and Real Estate (60-67)	18	38%
Manufacturing (20-39)	6	13%
Mining (10-14)	5	11%
Public Administration (91-99)	1	2%
Retail Trade (52-59)	5	11%
Services (70-89)	6	13%
Transportation, Communications, Electric, Gas, and Sanitary Services (40-49)	6	13%
	47	100%

Table 5. Descriptive Statistics – Hybrid Firms Matches (continued)**Panel E: Firms Located in Louisiana**

Variables	Louisiana (N = 41 firms)			Non-Louisiana (N = 41 hybrids)			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	
Total Assets	1,627.68	306.23	5,796.81	1,746.85	394.91	5,875.35	
Market Value	907.20	267.58	2,463.78	915.46	392.47	2,031.76	
Leverage	0.43	0.34	0.44	0.24	** 0.23	0.14	##
Sales	684.79	238.08	1,695.30	926.54	250.56	2,072.95	

Panel F: Industry Distribution – Located in Louisiana

Industry (Two-digit SIC Codes)	Number of Firms	Percentage
Construction (15-17)	2	5%
Finance, Insurance, and Real Estate (60-67)	2	5%
Manufacturing (20-39)	9	22%
Mining (10-14)	14	34%
Public Administration (91-99)	1	2%
Retail Trade (52-59)	1	2%
Services (70-89)	6	15%
Transportation, Communications, Electric, Gas, and Sanitary Services (40-49)	3	7%
Wholesale Trade (50-51)	3	7%
	41	100%

Table 6. Comparison of Concentration of Ownership – Hybrid Firm Matches

This table shows mean, median, and standard deviation comparisons between Louisiana and Non-Louisiana hybrid firms for the 9 hand-collected ownership concentration variables from SEC filings. Panel A shows the full sample, while Panels B & C break down the sample into incorporated and located in Louisiana respectively. Blockholders are shareholders controlling greater than 5% voting rights. Largest shareholder is contingent on controlling greater than 5%, otherwise 0% is used.

Panel A: All Louisiana Firms

Variable	Louisiana (N = 88 firms)				Non-Louisiana (N = 88 hybrids)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	82	25.69	15.40	22.46	87	22.53	18.50	12.89
Second largest blockholder	65	10.56	8.70	6.43	83	11.42	9.60	5.83
Third largest blockholder	44	7.70	7.50	2.36	71	9.11	8.00	3.72
All blockholders (%)	81	42.13	38.10	26.03	87	41.93	40.19	18.47
All blockholders (#)	88	2.76	2.50	1.60	87	3.69	2.50	6.47
All Officers and Directors (%)	88	22.97	15.70	24.59	88	21.13	18.18	17.31
All Officers and Directors (#)	88	12.70	11.00	6.97	88	12.31	11.25	5.45
CEO blockholders (%)	30	26.36	13.85	25.76	46	25.73	18.34	20.18
Chair blockholders (%)	35	28.91	16.37	25.06	51	25.96	19.95	19.39
CEO = Largest blockholder	14				18			
Chair = Largest blockholder	23				22			

Table 6. Comparison of Concentration of Ownership – Hybrid Firm Matches (continued)
Panel B: Firms Incorporated in Louisiana

Variable	Louisiana (N = 47 firms)				Non-Louisiana (N = 47 hybrids)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	43	25.02	12.60	23.35	47	19.85	16.65	10.31
Second largest blockholder	32	10.18	9.12	5.35	43	11.30	9.70	5.76
Third largest blockholder	21	7.29	7.00	2.05	35	9.33	8.60	3.07
All Blockholders (%)	43	40.13	33.80	26.50	47	35.74	38.35	16.47
All Blockholders (#)	47	2.57	2.00	1.58	47	2.81	2.50	1.34
All Officers and Directors (%)	47	26.51	18.17	26.74	47	18.65	16.61	13.85
All Officers and Directors (#)	47	13.32	11.00	8.48	47	12.57	12.00	6.12
CEO Blockholders (%)	13	29.18	10.45	30.06	22	19.79	16.15	14.50
Chair Blockholders (%)	17	32.62	30.50	28.04	24	20.45	16.43	14.29
CEO = Largest blockholder	6				8			
Chair = Largest blockholder	13				11			

Table 6. Comparison of Concentration of Ownership – Hybrid Firm Matches (continued)
Panel C: Firms Located in Louisiana

Variable	Louisiana (N = 41 firms)				Non-Louisiana (N = 41 hybrids)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	39	26.42	16.37	21.71	40	25.69	20.38	14.91
Second largest blockholder	33	10.93	8.54	7.39	40	11.54	9.45	5.98
Third largest blockholder	23	8.08	7.60	2.60	36	8.91	7.48	4.29
All Blockholders (%)	38	44.40	41.37	25.65	40	49.20	50.85	18.22
All Blockholders (#)	41	2.98	3.00	1.62	40	4.72	3.00	9.39
All Officers and Directors (%)	41	18.92	11.90	21.48	41	23.98	20.40	20.39
All Officers and Directors (#)	41	12.00	11.00	4.70	41	12.01	11.00	4.63
CEO Blockholders (%)	17	24.21	14.70	22.66	24	31.17	26.32	23.25
Chair Blockholders (%)	18	25.41	15.65	22.12	27	30.87	24.78	22.13
CEO = Largest blockholder	8				10			
Chair = Largest blockholder	10				11			

Table 7. Univariate Tests – Hybrid Firm Matches

This table displays the results of univariate tests comparing concentration of ownership variables of interest. Panel A shows the full sample, while Panels B & C break down the sample into incorporated and located in Louisiana respectively. A t-test, non-parametric medians test and Wilcoxon test is performed to check for differences in the means and medians. ***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). +++, ++, + indicates non-parametric medians test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: All Louisiana Firms

Variables	Louisiana (N = 88 firms)			Non-Louisiana (N = 88 firms)			Differences			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	t-test	non-parametric medians test	Wilcoxon test
Largest blockholder	25.69	15.40	22.46	22.53	18.50	12.89	2.86	(0.299)	(0.911)	(0.355)
All Blockholders (%)	42.13	38.10	26.03	41.93	40.19	18.47	0.58	(0.839)	(0.761)	(0.636)
All Blockholders (#)	2.76	2.50	1.60	3.69	2.50	6.47	-0.95	(0.184)	(0.154)	(0.232)
All Officers and Directors (%)	22.97	15.70	24.59	21.13	18.18	17.31	1.84	(0.506)	(0.843)	(0.489)
All Officers and Directors (#)	12.70	11.00	6.97	12.31	11.25	5.45	0.39	(0.582)	(0.928)	(0.875)

Table 7. Univariate Tests – Hybrid Firm Matches (continued)
Panel B: Firms Incorporated in Louisiana

Variables	Louisiana (N = 47 firms)			Non-Louisiana (N = 47 firms)			Differences			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	t-test	non-parametric medians test	Wilcoxon test
Largest blockholder	25.02	12.60	23.35	19.85	16.65	10.31	4.66			
								(0.231)	(0.552)	(0.502)
All Blockholders (%)	40.13	33.80	26.50	35.74	38.35	16.47	4.06			
								(0.335)	(0.584)	(0.890)
All Blockholders (#)	2.57	2.00	1.58	2.81	2.50	1.34	-0.24			
								(0.530)	(0.876)	(0.406)
All Officers and Directors (%)	26.51	18.17	26.74	18.65	16.61	13.85	7.86	**		
								(0.049)	(0.140)	(0.451)
All Officers and Directors (#)	13.32	11.00	8.48	12.57	12.00	6.12	0.74			
								(0.530)	(0.876)	(0.918)

Table 7. Univariate Tests – Hybrid Firm Matches (continued)
Panel C: Firms Located in Louisiana

Variables	Louisiana (N = 41 firms)			Non-Louisiana (N = 41 firms)			Differences			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	t-test	non-parametric medians test	Wilcoxon test
Largest blockholder	26.42	16.37	21.71	25.69	20.38	14.91	0.82			
								(0.835)	(0.489)	(0.441)
All Blockholders (%)	44.40	41.37	25.65	49.20	50.85	18.22	-3.47			
								(0.360)	(0.329)	(0.360)
All Blockholders (#)	2.98	3.00	1.62	4.72	3.00	9.39	-1.80			
								(0.244)	(0.282)	(0.348)
All Officers and Directors (%)	18.92	11.90	21.48	23.98	20.40	20.39	-5.06		+	*
								(0.175)	(0.054)	(0.084)
All Officers and Directors (#)	12.00	11.00	4.70	12.01	11.00	4.63	-0.01			
								(0.986)	(0.807)	(0.896)

Table 8. Ownership Concentration Regression on Hybrid Matches

This table shows the results from OLS regressions. The 5 different dependent variables are the ownership concentration variables of interest. LA Dummy is 1 for Louisiana firms, 0 otherwise. Size is log of total assets and Leverage is debt (short term + long term) / total assets – both from Compustat. Income/Capita is the state-level income per capita from the Bureau of Economic Analysis. Panel A shows the full sample, while Panels B & C break down the sample into incorporated and located in Louisiana respectively. Robust standard errors are shown in parentheses. ***, **, * indicates statistical significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: All Louisiana Firms

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	1.742 (2.487)	-1.537 (3.152)	-1.215 (1.039)	1.328 (2.804)	0.320 (0.708)
Size	-2.389*** (0.648)	-2.853*** (0.799)	0.187 (0.178)	-3.901*** (0.809)	1.680*** (0.172)
Leverage	4.319 (4.713)	8.405 (6.126)	0.675 (0.675)	-4.482 (5.421)	-0.755 (1.129)
Income/Capita	-0.206 (0.180)	-0.299 (0.215)	-0.064 (0.087)	-0.075 (0.169)	-0.090 (0.055)
Constant	41.450*** (5.769)	65.262*** (7.427)	4.539* (2.363)	47.154*** (5.986)	5.960*** (1.785)
Observations	176	176	176	176	176
R-squared	0.140	0.154	0.026	0.180	0.402

Table 8. Ownership Concentration Regression on Hybrid Matches (continued)

Panel B: Firms Incorporated in Louisiana

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	4.712 (3.510)	3.415 (4.372)	-0.176 (0.304)	6.527 (3.996)	0.962 (1.117)
Size	-1.565** (0.769)	-2.062** (1.017)	0.025 (0.068)	-2.442*** (0.894)	1.748*** (0.272)
Leverage	9.842 (6.388)	13.219 (8.237)	0.008 (0.456)	-1.100 (7.535)	-0.857 (1.772)
Income/Capita	-0.048 (0.216)	-0.166 (0.268)	0.015 (0.019)	-0.228 (0.221)	-0.049 (0.078)
Constant	27.100*** (7.856)	48.529*** (10.053)	2.183*** (0.656)	40.448*** (8.176)	4.415 (3.033)
Observations	94	94	94	94	94
R-squared	0.116	0.128	0.017	0.119	0.352

Table 8. Ownership Concentration Regression (continued)

Panel C: Firms Located in Louisiana

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	-0.716 (3.730)	-6.719 (4.192)	-2.707 (2.376)	-4.337 (4.118)	-0.480 (0.709)
Size	-2.880*** (1.016)	-3.209*** (1.011)	0.566 (0.559)	-6.037*** (1.225)	1.644*** (0.174)
Leverage	-1.389 (6.919)	5.229 (9.350)	1.667 (1.382)	-3.625 (7.066)	-0.411 (0.711)
Income/Capita	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)	-0.000** (0.000)
Constant	55.458*** (9.038)	80.691*** (9.885)	7.766 (5.533)	47.522*** (8.323)	7.615*** (1.678)
Observations	82	82	82	82	82
R-squared	0.221	0.238	0.075	0.379	0.587

Table 9. Descriptive Statistics – Delaware and Non-Delaware Matches

Panel A presents descriptive statistics for the 47 firms incorporated in Louisiana and their incorporated in Delaware matches. Matching is based on the same 3 digit SIC code and then closest in total assets. Panel B presents descriptive statistics for matches not incorporated in Delaware (or Louisiana). Data is from Compustat. Total Assets, Market Value, and Sales are in \$ millions. Leverage is debt (short term + long term) / total assets. ***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: Firms Incorporated in Louisiana Matched to Firms Incorporated in Delaware

Variables	Louisiana (N = 47 firms)			Delaware (N = 47 firms)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
Total Assets	1,861.50	265.87	4,076.19	1,752.96	321.39	3,705.71
Market Value	502.63	84.38	962.86	491.00	102.88	988.21
Leverage	0.37	0.23	0.48	0.31	0.24	0.25
Sales	489.77	123.08	1,125.23	433.85	121.53	964.15

Panel B: Firms Incorporated in Louisiana Matched to Firms Not Incorporated in Delaware

Variables	Louisiana (N = 47 firms)			Non-Delaware (N = 47 firms)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
Total Assets	1,861.50	265.87	4,076.19	1,948.65	250.50	4,470.24
Market Value	502.63	84.38	962.86	693.46	92.87	1,679.05
Leverage	0.37	0.23	0.48	0.37	0.27	0.57
Sales	489.77	123.08	1,125.23	562.33	78.01	1,577.93

Table 10. Comparison of Concentration of Ownership – Delaware and Non-Delaware Matches

This table shows mean, median, and standard deviation comparisons between Louisiana and Delaware (Panel A) and Louisiana and Non-Delaware (Panel B) firms for the 9 hand-collected ownership concentration variables from SEC filings. Blockholders are shareholders controlling greater than 5% voting rights. Largest shareholder is contingent on controlling greater than 5%, otherwise 0% is used.

Panel A: Firms Incorporated in Louisiana Matched to Firms Incorporated in Delaware

Variable	Louisiana (N = 47 firms)				Delaware (N = 47 firms)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	43	25.02	12.60	23.35	46	18.45	14.13	14.74
Second largest blockholder	32	10.18	9.12	5.35	34	11.12	9.20	7.01
Third largest blockholder	21	7.29	7.00	2.05	21	9.43	9.02	2.91
All Blockholders (%)	43	40.13	33.80	26.50	46	34.76	34.59	24.75
All Blockholders (#)	47	2.57	2.00	1.58	47	2.67	2.00	1.86
All Officers and Directors (%)	47	26.51	18.17	26.74	47	18.88	12.55	18.49
All Officers and Directors (#)	47	13.32	11.00	8.48	47	12.30	11.00	6.08
CEO Blockholders (%)	13	29.18	10.45	30.06	11	20.81	17.00	13.69
Chair Blockholders (%)	17	32.62	30.50	28.04	13	23.02	19.75	14.19
CEO = Largest blockholder	6				11			
Chair = Largest blockholder	13				13			

Panel B: Firms Incorporated in Louisiana Matched to Firms Not Incorporated in Delaware

Variable	Louisiana (N = 47 firms)				Non-Delaware (N = 47 firms)			
	N	Mean	Median	Standard Deviation	N	Mean	Median	Standard Deviation
Largest blockholder	43	25.02	12.60	23.35	44	15.37	11.25	11.72
Second largest blockholder	32	10.18	9.12	5.35	30	11.72	9.30	6.31
Third largest blockholder	21	7.29	7.00	2.05	17	10.18	8.70	4.82
All Blockholders (%)	43	40.13	33.80	26.50	44	31.11	21.50	25.42
All Blockholders (#)	47	2.57	2.00	1.58	47	2.43	2.00	1.76
All Officers and Directors (%)	47	26.51	18.17	26.74	47	18.91	12.52	17.61
All Officers and Directors (#)	47	13.32	11.00	8.48	47	12.30	11.50	6.76
CEO Blockholders (%)	13	29.18	10.45	30.06	14	18.77	10.40	16.04
Chair Blockholders (%)	17	32.62	30.50	28.04	16	18.70	12.05	15.26
CEO = Largest blockholder	6				14			
Chair = Largest blockholder	13				16			

Table 11. Univariate Tests – Delaware and Non-Delaware Matches

This table displays the results of univariate tests comparing concentration of ownership variables of interest. Panel A shows the Delaware matches, while Panels B shows the non-Delaware matches. A t-test, non-parametric medians test and Wilcoxon test is performed to check for differences in the means and medians. ***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). +++, ++, + indicates non-parametric medians test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: Firms Incorporated in Louisiana Matched with Firms Incorporated in Delaware

Variables	Louisiana (N = 47 firms)			Non-Louisiana (N = 47 firms)			Differences			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	t-test	non-parametric medians test	Wilcoxon test
Largest blockholder	25.02	12.60	23.35	18.45	14.13	14.74	6.57			
								(0.135)	(0.143)	(0.613)
All Blockholders (%)	40.13	33.80	26.50	34.76	34.59	24.75	5.38			
								(0.243)	(0.247)	(0.401)
All Blockholders (#)	2.57	2.00	1.58	2.67	2.00	1.86	-0.09			
								(0.799)	(0.885)	(0.990)
All Officers and Directors (%)	26.51	18.17	26.74	18.88	12.55	18.49	7.08	*	+	
								(0.098)	(0.118)	(0.249)
All Officers and Directors (#)	13.32	11.00	8.48	12.30	11.00	6.08	1.07			
								(0.343)	(0.331)	(0.745)

Table 11. Univariate Tests – Delaware and Non-Delaware Matches (continued)
Panel B: Firms Incorporated in Louisiana Matched with Firms Not Incorporated in Delaware

Variables	Louisiana (N = 47 firms)			Non-Louisiana (N = 47 firms)			Differences			
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	t-test	non-parametric medians test	Wilcoxon test
Largest blockholder	25.02	12.60	23.35	15.37	11.25	11.72	7.51	**	+	
								(0.022)	(0.048)	(0.139)
All Blockholders (%)	40.13	33.80	26.50	31.11	21.50	25.42	6.41			#
								(0.188)	(0.205)	(0.065)
All Blockholders (#)	2.57	2.00	1.58	2.43	2.00	1.76	0.13			
								(0.671)	(0.898)	(0.568)
All Officers and Directors (%)	26.51	18.17	26.74	18.91	12.52	17.61	8.10	*		
								(0.060)	(0.173)	(0.183)
All Officers and Directors (#)	13.32	11.00	8.48	12.30	11.50	6.76	0.93			
								(0.439)	(0.518)	(0.689)

Table 12. Ownership Concentration Regression

This table shows the results from OLS regressions. The 5 different dependent variables are the ownership concentration variables of interest. LA Dummy is 1 for Louisiana firms, 0 otherwise. Size is log of total assets and Leverage is debt (short term + long term) / total assets – both from Compustat. Income/Capita is the state-level income per capita from the Bureau of Economic Analysis. Panel A shows the Delaware matches, while Panels B shows the non-Delaware matches. Robust standard errors are shown in parentheses. ***, **, * indicates statistical significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: LA – Delaware Matches

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	6.848* (3.633)	5.193 (5.004)	0.039 (0.351)	7.217 (4.565)	0.587 (1.111)
Size	-1.853** (0.737)	-3.207*** (1.152)	-0.131* (0.078)	-3.106*** (0.832)	1.998*** (0.257)
Leverage	16.902** (6.463)	26.103*** (9.547)	-0.006*** (0.001)	-0.080*** (0.015)	0.015*** (0.004)
Income/Capita	0.173 (0.226)	0.183 (0.263)	0.012 (0.019)	-0.138 (0.227)	-0.096 (0.082)
Constant	17.935** (8.562)	38.759*** (11.581)	3.028*** (0.713)	41.247*** (8.927)	4.170 (2.758)
Observations	94	94	94	94	94
R-squared	0.155	0.201	0.054	0.123	0.359

Table 12. Ownership Concentration Regression (continued)

Panel B: LA – Non-Delaware Matches

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	9.793*** (3.574)	9.616* (5.356)	0.371 (0.353)	9.001** (4.299)	0.451 (1.198)
Size	-2.139** (0.834)	-3.857*** (1.269)	-0.152** (0.065)	-3.834*** (0.951)	1.981*** (0.287)
Leverage	2.893 (5.149)	2.442 (7.468)	-0.006*** (0.001)	-0.092*** (0.016)	0.015*** (0.004)
Income/Capita	-0.101 (0.241)	-0.037 (0.321)	0.034* (0.020)	-0.141 (0.226)	-0.076 (0.084)
Constant	29.355*** (8.289)	52.462*** (13.215)	2.145*** (0.748)	44.426*** (8.918)	3.875 (2.846)
Observations	94	94	94	94	94
R-squared	0.151	0.152	0.095	0.189	0.358

Since the tests reported in the previous section examine ownership concentration for Louisiana and non-Louisiana firms without conditioning on the incorporation decision: I next model firms' incorporation decision. Firms are able to endogenously determine where to incorporate. The concern is this incorporation choice is non-random and correlated with location of headquarters, size, and how recent the firm's initial public offering is. Firms may choose their state of incorporation based on many factors, including the fact that the chosen state of incorporation determines what legal structure the firm is subject to. Failing to account for this self-selection can result in potentially biased estimates of coefficients and standard errors.

To mitigate this potential self-selection bias, I follow a variant of Heckman's (1979) two-stage model. As noted above, Bebchuk and Cohen (2003) find that location has a substantial influence on the incorporation decision, commonly referred to as home bias. This home bias is weaker for both larger companies and for companies that have incorporated more recently. Several other factors are offered as possible determinants of the incorporation choice, which I use in the first stage of my Heckman regression analysis. In the first stage, I estimate a probit regression using the factors identified in Bebchuk and Cohen (2003) for determining whether a firm incorporates in their home state. The model is:

$$LA\ Incorp = \delta_0 + \delta_1 Z + v_1$$

where LA Incorp is a dummy variable equal to one if a firm incorporates in Louisiana, and zero otherwise, and Z is a vector of covariates representing factors hypothesized to explain the incorporation decision. These factors are a dummy variable equal to 1 if a firm is located in Louisiana, log of sales, Tobin's Q, return on assets, number of employees, total equity, and a dummy variable equal to 1 if the IPO occurs after 1990.

In the second stage, I estimate my main regressions but include the inverse Mill's ratio (IMR) constructed from the first stage regression. The IMR is the probability that a firm incorporates in the state that it is headquartered. In the second stage of the procedure I use ordinary least squares to estimate the following augmented ownership regression:

$$\begin{aligned} \text{Ownership Concentration}_i = & \beta_0 + \beta_1 \text{LA Dummy}_i + \beta_2 \text{Size}_i + \beta_3 \text{Leverage}_i \\ & + \beta_4 \text{Income/Capita}_i + \beta_5 \text{IMR}_i + \varepsilon_i \end{aligned}$$

where variables are as previously defined and IMR is the inverse Mill's ratio calculated from the first stage.

The results of the first stage probit regression (untabulated) indicate that the model has a pseudo R squared of 26%. The regression also confirms a significant a positive coefficient for home bias – i.e. firms located in Louisiana tend to incorporate there. Also firms that have their initial public offering after 1990 are much less likely to incorporate in Louisiana.

The results for the second stage regression are in Table 13. For this Heckman model firm size is the only significant variable for determining ownership concentration. It appears that the results in the previous section might be sensitive to controlling for self selection.

Table 13. Ownership Concentration Heckman Regression

This table shows the results from the Heckman regressions that adjust for self-selection bias due to firms' incorporation decisions. The 5 different dependent variables are the ownership concentration variables of interest. LA Dummy is 1 for Louisiana firms, 0 otherwise. Size is log of total assets and Leverage is debt (short term + long term) / total assets – both from Compustat. Income/Capita is the state-level income per capita from the Bureau of Economic Analysis. IMR is the inverse Mill's ratio calculated from a first-stage probit regression that predicts whether firms incorporate in Louisiana based on whether firms are located in Louisiana, log of sales, Tobin's Q, return on assets, the number of employees, total equity, and whether firms' went public after 1990. Panel A shows the full sample, while Panels B & C break down the sample into incorporated and located in Louisiana respectively. Robust standard errors are shown in parentheses. ***, **, * indicates statistical significance at the 1%, 5%, and 10% level, respectively (two-tailed).

Panel A: All Louisiana Firms

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	3.619 (6.095)	-5.381 (7.664)	-0.585 (0.462)	5.753 (7.447)	-2.795** (1.292)
Size	-2.075*** (0.630)	-3.617*** (0.971)	-0.089 (0.057)	-4.817*** (0.814)	1.768*** (0.184)
Leverage	6.616 (4.888)	16.690** (8.247)	1.017** (0.441)	5.150 (7.514)	-1.353 (1.099)
Income/Capita	-0.161 (0.197)	0.088 (0.262)	0.051*** (0.016)	0.136 (0.194)	-0.031 (0.049)
IMR	-0.258 (4.807)	-4.872 (6.144)	-0.494 (0.316)	1.340 (6.145)	-2.616*** (0.918)
Constant	34.087*** (10.718)	62.018*** (14.220)	2.602*** (0.852)	36.926*** (12.451)	9.074*** (2.134)
Observations	156	156	156	156	156
R-squared	0.142	0.187	0.095	0.293	0.522

Table 13. Ownership Concentration Heckman Regression (continued)

Panel B: Firms Incorporated in Louisiana

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	10.888 (8.669)	5.762 (9.846)	-0.233 (0.523)	9.942 (9.978)	-3.396* (1.824)
Size	-1.282* (0.740)	-2.822** (1.210)	-0.122* (0.068)	-3.244*** (0.949)	1.915*** (0.270)
Leverage	15.974** (7.841)	26.235** (10.309)	0.908 (0.641)	15.289* (8.008)	-3.282* (1.779)
Income/Capita	-0.067 (0.186)	0.158 (0.275)	0.046** (0.020)	-0.033 (0.231)	-0.007 (0.062)
IMR	3.921 (6.054)	0.549 (7.281)	-0.391 (0.324)	2.911 (7.290)	-2.963** (1.177)
Constant	11.745 (15.768)	33.889 (20.582)	2.374** (1.108)	26.253 (19.427)	9.315*** (3.397)
Observations	82	82	82	82	82
R-squared	0.166	0.184	0.108	0.231	0.540

Table 13. Ownership Concentration Heckman Regression (continued)

Panel C: Firms Located in Louisiana

VARIABLES	(1) Largest Blockholder	(2) All Blockholders (%)	(3) All Blockholders (#)	(4) All Officers and Directors (%)	(5) All Officers and Directors (#)
LA Dummy	-2.123 (6.794)	-13.057 (11.134)	-0.823 (0.936)	3.247 (10.031)	-1.887 (1.855)
Size	-2.413** (1.181)	-3.590** (1.598)	-0.015 (0.097)	-7.228*** (1.244)	1.567*** (0.188)
Leverage	0.684 (4.731)	11.097 (10.468)	1.186* (0.655)	-2.124 (9.431)	-0.058 (0.812)
Income/Capita	-0.225 (0.431)	-0.048 (0.549)	0.047 (0.034)	0.730** (0.316)	-0.056 (0.070)
IMR	-4.261 (6.066)	-7.394 (9.557)	-0.383 (0.759)	-0.959 (9.098)	-1.847 (1.569)
Constant	50.602*** (16.190)	80.656*** (20.544)	2.553* (1.489)	37.308** (14.599)	8.494*** (2.628)
Observations	74	74	74	74	74
R-squared	0.181	0.231	0.090	0.470	0.533

6. Conclusion

In summary, I find statistically significant differences in concentration of ownership when comparing Louisiana-based firms to similar US firms from outside Louisiana. As expected this is stronger when comparing only the Louisiana incorporated firms to non-Louisiana incorporated firms. Additionally, if the non-Louisiana firms are limited to non-Delaware firms the significance of my result is strengthened further. These findings are in line with previous studies in the Canadian environment, most notably Attig (2005) and Bozec, Rousseau, and Laurin (2008), do find statistically significant differences in concentration of ownership when comparing Quebec-based firms to similar Canadian firms from outside Quebec. Using the matching firm methodology I am able to control for size, a common criticism of LLSV. Language, culture, and religious differences are also posited as omitted variable in other studies. Since Louisiana is similar to all the other states in these areas, my result cannot be attributed to these factors. Further, the attribution of the findings in cross-country studies, like LLSV, is criticized because the countries fall under different regulators. Since the SEC regulates all the U.S. the attribution of my results do not suffer this concern. My results strengthen the position that firms operating in a civil law origin legal environment, where investor protections are weaker, compensate with a higher concentration of ownership.

To reiterate, the results in this literature is subject to common caveats. First, “law and finance” papers attribute the source of identified differences to legal origin, which precedes other subsequent corporate governance choices. However, one cannot rule out that legal origin also affects other corporate governance choices that are codetermined with ownership structure. This is similar in spirit to having omitted correlated variables. For example, in prior studies using

Quebec as a setting – including Attig (2005) and Bozec, Rousseau, and Laurin (2008) – both language and legal origin vary simultaneously. Even though all public Canadian firms are required to provide their financial statement information in both French and English, it is possible that Quebec investors are more comfortable with Quebec based firms. Since I document the same variation in Louisiana, my study would suggest that differences in dispersion of ownership are not exclusively due to language barriers. Nevertheless, I cannot rule out that differences in say religious background between LA and the rest of the US could explain my results.

There are natural extensions of the research presented in this dissertation. First, as argued in the Appendix, Puerto Rico might be an alternative region within the US with civil law origin. In addition, other countries offer variation in legal origin. For example, Switzerland has four different languages across its cantons: French, German, Italian and Romansh. While all of Switzerland has civil law, the German speaking cantons have closer ties with German legal origin than the remaining cantons which are more like French in their legal origin. Similarly, Belgium is a country with French legal origin where half speaks Dutch and the other half speaks French. Similar to Quebec within Canada, in both these settings, any investigation of differences, if any, due to legal origin are inseparable from differences in language which can render clean inferences and attribution difficult. Nevertheless, if language is associated with transaction costs or, more generally, overall culture we might expect to observe different corporate governance outcomes within these countries.

CHAPTER 2**Earnings Quality and Legal Origin: Evidence from Quebec****Introduction**

A number of papers document a link between a country's legal environment and firms' financial reporting outcomes. For example, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) document country-level association between countries' legal origin and the firms' average disclosures.⁵ This line of research designates France as a civil law country while both the United States and Canada are common law countries. While common law prevails at the federal level, one US state has French legal origin, Louisiana. Similarly, while common law prevails at the country level, one Canadian province has French legal origin, Quebec. The U.S. Securities and Exchange Commission requires what firms must register their securities.⁶ While securities regulation also arises in parallel at the state level, this is largely viewed as coordinated and subsumed by federal regulation. U.S. companies incorporate in a state and the majority chooses Delaware. While Canada has securities regulation at the country level, each province has its own securities regulator that maintains a larger degree of autonomy. Canadian companies face a choice in that they can either incorporate under the country-level Canada Business Corporations Act (CBCA) or at the province level under the Quebec Companies Act (QCA). One possible benefit of the Canadian regulatory system is that competition among standard setters can be beneficial and may lead to innovation in the legal environment and enforcement. However, one potential cost arises from differential enforcement across provinces or different

⁵ See also La Porta, Lopez-de-Silanes, and Shleifer (2008), Ball, Kothari and Robin (2000), Bushman and Smith (2001), Hope (2003), Leuz, Nanda and Wysocky (2003).

⁶ Under U.S. Securities and Exchange Acts of 1933 and 1934.

financial reporting incentives leads to heterogeneity and non-comparability in the reported Canadian GAAP numbers.

This paper exploits the unique aspects of Canadian incorporation and securities regulation to investigate the effect of incorporation and legal origin on financial reporting outcomes. First, we provide preliminary evidence on the firm characteristics that lead to incorporation decisions. Specifically, we investigate whether firms headquartered in the French legal origin province Quebec incorporate under CBCA or QCA. In a similar vein, we investigate whether firms based in a common law province CBCA or the securities act of its province. Since the interpretation and enforcement of CBCA may differ across provinces, we also test for the effect of incorporation comparing Quebec to non-Quebec based firms.

Second, we investigate whether Canadian firms' earnings quality varies with legal origin or with level of incorporation. To proxy for earnings quality, we use the earnings attributes that are common in the accounting literature. Overall, our evidence suggests that earnings attributes do vary with legal origin (civil vs. common law).

Currently, Canadian firms report under either Canadian GAAP, IFRS, or US GAAP. First, the majority of publicly traded firms currently prepare audited financial statements under Canadian GAAP. Second, Canadian standard setters have announced a commitment to switch to IFRS effective for fiscal years or quarters starting after January 1, 2012. Early adoption is permitted and encouraged, yet only a handful of firms have exercised that option. Further, since Canadian GAAP and US GAAP are perceived as very similar accounting standards, Canadian firms are permitted to report using US GAAP. In fact, the US SEC does not require reconciliation from Canadian GAAP to US GAAP under the Multi-Jurisdictional Disclosure System. This exemption from reconciliation will continue once Canadian firms adopt IFRS,

since IFRS filers from other countries are also exempt from reconciliation to US GAAP. Nevertheless, some Canadian firms voluntarily provide reconciliation.

All firms included in this study disclose using Canadian GAAP. Hence, any differences that we find in earnings attributes are not attributable to accounting standards. Instead such differences are likely attributable to differences in financial reporting incentives faced by financial statement preparers and users. For example, audit quality may be lower for Quebec firms relative to non-Quebec firms.

The variation in earnings attributes that we document is of interest to financial statement users. Further, our results are also of interest to regulators who require or permit different levels of registration. Allowing heterogeneous incorporation procedures, as does Canada, need not be detrimental to investors. The reason is that it is possible that incorporation is a signaling mechanism through which firm managers communicate information.

The paper proceeds as follows. Section 1 gives the institutional background on Canada. Section 2 offers a literature review. Section 3 describes the common earnings attributes used in the accounting literature. Section 4 describes the data collection. Section 5 summarizes our findings for Canada regarding the choice of where to incorporate. Section 6 analyzes the earnings attributes for Canadian firms. Section 7 concludes and offers suggestions for future research. The (now untabulated) appendix analyzes earnings attributes for US firms comparing those based in Louisiana to similar firms based outside Louisiana.

1. Background on Canadian Securities Legislation

Like the other provinces in Canada, two corporate statutes coexist in Quebec, one federal and one provincial: the CBCA enacted by the federal Parliament, and the QCA enacted by the

National Assembly of Quebec. Unlike the other provinces in Canada where the provincial statutes closely mirror the CBCA, the differences between the CBCA and the QCA are significant along a number of important dimensions (Daniels, 1991; Bozec, Rousseau, and Laurin, 2008).⁷ The primary differences between the QCA and CBCA pertain to minority shareholder rights, director and officer liability, and mergers. Significant differences in minority shareholder rights between the QCA and the CBCA include: the lack of an oppression remedy in the QCA, which under the CBCA allows security holders, creditors, directors or officers the right to apply to the court when the business or the affairs of the corporation are conducted or the directors' powers are being exercised in a manner that is oppressive or unfairly prejudicial; lesser rights with respect to shareholder meetings and voting under the QCA, particularly when enacting fundamental changes to the business; and the right of dissent where under the CBCA a shareholder may compel the corporation to buy her shares at fair value in the case of a fundamental change. The QCA also differs from the CBCA with respect to the duties and liabilities of directors. The QCA does not specifically require directors to act in the best interest of the corporation or to disclose special interests. Directors are not formally allowed the defenses of reasonable prudence and diligence (though Quebec jurisprudence recognizes this to a certain extent) and must cover their own expenses in any investigative proceeding against them.⁸ One last major difference between the QCA and CBCA is that the QCA allows mergers only between companies governed by certain sections of the QCA, whereas, the CBCA is much more flexible with respect to mergers and the incorporation statutes of the amalgamating companies.

⁷ We note that although the provincial corporate statutes in the rest of Canada are similar to the CBCA, the level and quality of enforcement of these statutes may differ from the enforcement of the CBCA. Thus, in our research design we do not treat the rest of Canada uniformly; we distinguish between firms incorporated at the province level and federal level for the rest of Canada as well as in Quebec.

⁸ See Core (1997) for an analysis of the determinants of Canadian firms' decision to offer and purchase directors and officers insurance from a third party.

In an effort to improve the competitiveness of Quebec corporations and facilitate economic development in 2009 the Parliament of Quebec passed Bill 63, “Business Corporations Act” (Technical Paper 2009), which will replace the QCA in 2011. Bill 63 represents the first substantial reform of Quebec corporate law in nearly thirty years and aims to modernize Quebec corporate law. The Bill was developed in response to a general consensus that the QCA inadequately addresses the needs of businesses and fails to provide an efficient operating framework for business. A substantial number of Quebec companies were choosing to incorporate under the CBCA, a fact that the Quebec Minister of Finance cites as a primary motivation for the Bill. Essentially, the Bill harmonizes Quebec’s corporate laws with the other provinces and the CBCA. Significant changes in the Bill include: increased minority shareholder rights including an oppression remedy and right of dissent; indemnification of directors; directors’ duty to disclose conflicts of interest; and relaxation of the restrictive requirements governing mergers.

2. Literature Review

In an influential paper, La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) argue that a country’s legal origin affects various accounting, finance and corporate governance outcomes for firms in that country. They document cross-country variation in firms’ average disclosures with the legal origin.⁹ Specifically, they find that firms in countries with a civil law legal origin provide less disclosure.

Ball, Kothari and Robin (2000) further the examination of a country’s legal origin and accounting outcomes. They note that the origins and focus of common law is fundamentally

⁹ See also Bushman and Smith (2001), Hope (2003), Leuz, Nanda and Wysocky (2003), and La Porta, Lopez-de-Silanes, and Shleifer (2008).

different from civil law. Common law develops from individual action in the private sector and stresses legal procedure over rules where private enforcement plays a prominent role in resolving disputes between parties. Thus, the evolution of common law has focused on meeting the demands of contracting in markets. Ball et al. (2000) argue that accounting standards, like common law, arose from demands of contracting in markets rather than the government. They note that the dominant form of corporate governance is the 'shareholder' model in common law countries, where only shareholders elect board members. In contrast, the 'stakeholder' model is the dominant form of corporate governance in civil law countries where primary contracting parties (e.g., lenders and employees) typically have board representation. As such, Ball et al. (2000) argue that timely accounting income plays a greater role in resolving information asymmetry between contracting parties in common law countries than civil law countries because these parties operate at greater 'arm's length' from the firm.

Ball et al. (2000) note that civil law arises from collective planning in the public sector. Governmental bodies, not an accounting market, establish accounting standards and are responsible for enforcing these standards. As noted above, the 'stakeholder' model is the common form of corporate governance in civil law countries. For example, in Germany employees elect 50% of the supervisory board in German stock corporations. Banks exert significant control by voting on behalf of non-voting individual investors whose shares are deposited with the banks. In these countries, firms maintain close relations with their primary contracting parties (i.e., debt holders, employees, customers and suppliers). Ball et al. (2000) argue that a natural consequence of this is that financial reporting plays less of a role in resolving information asymmetry between managers and financial statement users. They contend that the

primary demand from the stakeholder model is for smooth income so as to reduce volatility of payouts to the various stakeholders of the firm.

Empirically, Ball et al. (2000) study four common law countries – Australia, Canada, the UK, and the US – and three code law countries – France, Germany, and Japan – and find that accounting income incorporates economic income in a more timely manner in common law countries than in civil law countries. Following Basu (1997), their evidence is based on the R^2 from cross-sectional pooled regressions of earnings on returns, a dummy for negative returns and the interaction of these two variables. Related work by Guenther and Young (2000) provides similar evidence via a different empirical specification. Guenther and Young find that aggregate earnings are more highly correlated with real economic activity (such as, GDP) in common law countries (the UK and US) than in civil law countries (France, Germany, and Japan).

The subsequent literature on earnings attributes and legal origin expands the list of earnings attributes and institutional features studied. Leuz, Nanda, and Wysocki (2003) classify 31 countries via cluster analysis and find three distinct clusters: (1) outsider economies with large stock markets, dispersed ownership, strong investor rights, and strong legal enforcement; (2) insider economies with less-developed stock markets, concentrated ownership, but strong legal enforcement; and, (3) insider economies with weak legal enforcement. They observe that these clusters closely reflect the partition achieved using common law (1) and civil law (2,3). They argue that the private benefits of managing earnings are greater in countries with weaker outside investor rights and weaker legal enforcement. Using an aggregate measure of four proxies for earnings management, they find evidence consistent with their prediction.

Bushman and Piotroski (2006) examine the institutional structure of countries in detail to understand how they shape the demand for accounting conservatism. Specifically, they examine

the following institutions: legal/judicial systems, the securities laws focusing on private versus public enforcement of these laws, the level of state involvement in the economy, and tax regimes. They find that these institutions shape managers' incentives to provide conservative accounting.

Recent work by Barton, Hansen and Pownall (2010) examines eight attributes commonly used to assess earnings quality in a cross-country study to determine which performance measures (i.e., sales, earnings, comprehensive income, and operating cash flows) investors appear to value most in each country. They find that performance measures towards the middle of the income statement (such as operating income) are more value relevant, but that this is less prevalent for firms in common law countries. In terms of attributes, performance measures that are smoother, more predictable and persistent, and less conservative reduce the value relevance of the performance measure and are less useful for valuation. In contrast, performance measures that are closer to current period cash flows, better predict next period's cash flows, and the timeliness in capturing bad news are more value relevant. These rankings are similar across common and civil law countries.

3. Earnings Attributes

Francis, LaFond, Olsson and Schipper (2004), henceforth FLOS, note the absence of one universally recognized measure of earnings quality and therefore employ multiple earnings attributes as constructs that are commonly argued in prior literature to represent earnings quality. They classify their earnings attributes into two categories, intrinsic and extrinsic, where the former (latter) measures earnings attributes without (with) reference to stock market reaction. We compare firms' earnings quality for each of these earnings attributes as defined below.

3.1 Intrinsic Earnings Attributes

FLOS identify four intrinsic earnings attributes, Accrual Quality, Earnings Persistence, Earnings Predictability, and Earnings Smoothness.

Accrual Quality

While Richardson, Sloan, Soliman, and Tuna (2005) present evidence that less reliable accruals are associated with lower earnings persistence, FLOS provide evidence that firms' costs of debt and equity vary with accrual quality. Following FLOS, we use the Dechow and Dichev (2002) measure of accrual quality. Dechow and Dichev begin with the observation that accruals shift the recognition of cash flows over time so that the adjusted numbers (earnings) better measure firm performance than cash flows. The inherent trade-off in the use of accruals is the use of assumptions and estimates that when wrong, must be adjusted in future accruals and earnings. These estimation errors and their subsequent corrections are noise that reduces the value of accruals. Thus, Dechow and Dichev argue that the quality of accruals and earnings is decreasing in the magnitude of accrual estimation errors. Operationally, the rationale behind this measure is that non-discretionary current accruals in a period are expected to relate to cash receipts and disbursements from the previous, current and subsequent reporting period. The discretionary part of current accruals is therefore estimated as the residual (ϵ) from the following regression:

$$\frac{TCA_{j,t}}{Assets_{j,t}} = \delta_{0,j} + \delta_{1,j} \frac{CFO_{j,t-1}}{Assets_{j,t}} + \delta_{2,j} \frac{CFO_{j,t}}{Assets_{j,t}} + \delta_{3,j} \frac{CFO_{j,t+1}}{Assets_{j,t}} + \epsilon_{j,t} \quad (1)$$

where TCA is the firm's total current accruals measured as $(\Delta CA - \Delta CL - \Delta Cash + \Delta STDEBT)$, CA is current assets, CL is current liabilities and STDEBT is debt in current liabilities, CFO is cash flow from operations from the statement of cash flows, and Assets is the firm's total assets at the end of the annual period. The standard deviation of the residuals (ϵ) from equation (1) is

the Dechow and Dichev (2002) measure of Accrual Quality. Large (small) values of Accrual Quality relate to poor (good) quality.

Earnings Persistence

The Hicksian income concept suggests that earnings should measure permanent income. From that perspective, prior research argued that earnings with large transitory components are likely to exhibit lower persistence and, hence, also be of lower quality. As is standard, we measure persistence as the slope coefficient in the regression of current earnings on lagged earnings, that is,

$$X_{j,t} = \phi_{0,j} + \phi_{1,j} X_{j,t-1} + \varepsilon_{j,t} \quad (2)$$

where $X_{j,t}$ is firm j 's annual split-adjusted earnings per share for period t (measured as firm j 's net income before extraordinary items divided by the weighted average number of outstanding shares) and the coefficient $\phi_{1,j}$ is the measure of Persistence. Larger values of $\phi_{1,j}$ indicate more permanent earnings while lower values of $\phi_{1,j}$ indicate more transitory earnings.

Earnings Predictability

Following Lipe (1990), among others, earnings predictability is the ability to predict earnings based on its past value. Predictability is valued by security analysts and useful in security valuation (e.g., AIMR 1993; Lee 1999). Further, standard setters list predictability as one of three primary elements underlying relevance (FASB 1980). Following Lipe (1990) and Francis et al. (2004), we therefore measure Predictability as the standard deviation of the residuals in equation (2). Larger (smaller) values of Predictability relate to less (more) predictable earnings.

Earnings Smoothness

Several prior papers suggest that smoothness in earnings is a desirable quality. Trueman and Titman (1988) propose that by smoothing income managers might be able to affect investors' perceptions about the volatility of the underlying earnings process, thereby decreasing the firm's cost of borrowing and improving its terms of trade with other parties. Goel and Thakor (2003) model a setting where smoothing encourages entry by uninformed investors, who would otherwise stay out of the market. Tucker and Zarowin (2006) find that smoothing increases the informativeness of earnings. Subramanyam (1996) suggests that smoothing improves the persistence and predictability of reported earnings. Similar to Leuz, Nanda, and Wysocki (2003) and Francis et al. (2004), we measure smoothness of earnings relative to that of cash flow from operations. Smoothness is defined as the ratio of the standard deviation of income before extraordinary items to the standard deviation of cash flows from operations. Larger values of Smoothness indicate less smooth earnings.

3.2 Extrinsic Earnings Attributes

Value Relevance of Earnings

As in FLOS, value relevance measures the statistical association between accounting information and long-window returns. This view of value relevance allows for the possibility that earnings is not the source of information used by market participants, but is only correlated with information used by investors. Viewed this way, value relevance measures the ability of earnings to capture or summarize information that affects stock returns. Empirically, we measure value relevance as the ability of levels and changes in earnings to explain returns over the 12-month period beginning three months after the start of the annual period and ending three

months after the end of the annual period. Specifically we use the R^2 from the following regression for each firm and each annual period as our measure of value relevance, Relevance.

$$RET_{j,t} = \gamma_{0,j} + \gamma_{1,j}EARN_{j,t} + \gamma_{2,j}\Delta EARN_{j,t} + \varepsilon_{j,t} \quad (4)$$

where $RET_{j,t}$ is firm j 's 12-month return beginning three months after the start of fiscal period t and ending three months after the end of fiscal period t as firms are required to file their annual report with SEDAR within three months of year-end, $EARN_{j,t}$ is firm j 's income before extraordinary items in year t , scaled by market value at end of annual period $t-1$, and $\Delta EARN_{j,t}$ is change in firm j 's income before extraordinary items in annual period t , scaled by market value at end of annual period $t-1$. Larger values of Relevance indicate more value relevant earnings.

Timeliness of Earnings

Following Ball, Kothari and Robin (2000), Bushman, Chen, Engel, and Smith (2004) and Francis et al. (2004) our measure of timeliness of earnings is the R^2 from the reverse regression of earnings on returns which was first used in Basu (1997). The R^2 from the reverse regression is intended to capture how timely earnings are in reporting concurrently available good and bad news. The regression is as follows:

$$EARN_{j,t} = \alpha_{0,j} + \alpha_{1,j}NEG_{j,t} + \beta_{1,j}RET_{j,t} + \beta_{2,j}NEG_{j,t} \cdot RET_{j,t} + \varepsilon_{j,t} \quad (5)$$

where $NEG_{j,t} = 1$ if $RET_{j,t} < 0$ and 0 otherwise and other variables are as defined previously. Larger values of Timeliness imply that earnings concurrently report available good and bad news.

Earnings Conservatism

Watts (2003a, 2003b) argues that conservatism in earnings is a desirable property. Kim and Kross (2005) suggest that increasing accounting conservatism plays a role in the greater

ability of earnings to predict future cash flows in recent years. Chen, Hemmer, and Zhang (2007) argue that conservative accounting may curbs earnings management because under conservative accounting lower earnings are less likely due to subpar economic performance and more likely due to conservative accounting rules hence lowering managers incentives to increase income through earnings management. We measure Conservatism based on the coefficient on the interaction term in equation (5), $\beta_{2,j}$.¹⁰ Larger values of $\beta_{2,j}$ imply greater conservatism.

4. Data

To identify our sample, we first identified Canadian firms with at least one fiscal year ending between January 1997 and November 2009 on the Compustat Xpressfeed North America database. For these firms, we obtain all necessary financial statement information for all available firm-years (i.e., we include firm-years prior to 1997). We require a firm to have at least one fiscal year ending in January 1997 or later to ensure that we can obtain incorporation information from SEDAR, which provides Canadian public filings back to January 1997.¹¹ For each firm in our sample, we collect its incorporation history from the Annual Information Form filed on SEDAR, or the other appropriate filing in the event a company is exempt from filing an Annual Information Form. To construct annual returns, we obtain monthly returns data from the monthly security file on Compustat. We exclude firms in the financial or utilities industries

¹⁰ We note that US studies (e.g., Basu 1997, Pope and Walker 1999, Givoly and Hayn 2000 and Francis et al. 2004) typically measure conservatism as the ratio of bad news to good news with $(\beta_{1,j} + \beta_{2,j})/\beta_{1,j}$. However, as with cross-country studies examining Canada (e.g., Ball, Kothari and Robin 2000, Bushman and Piotroski, 2006) $\beta_{1,j}$ is very small and negative, making interpreting the ratio of good news to bad news unreliable. As such, we focus on $\beta_{2,j}$ as our measure of conservatism. We note that this measure of conservatism has been criticized in some recent papers including Dietrich, Muller and Riedl (2007), Givoly, Hayn and Natarajan (2007), and Patatoukas and Thomas (2010) as not always capturing conservatism.

¹¹ SEDAR in Canada is analogous to EDGAR in the US and is available at: www.sedar.com.

(two-digit NAICS codes 52 and 22, respectively). The number of firms meeting these requirements is 1,397.

For our analysis of earnings attributes, we require that data on all seven attributes are available for each firm-year to mitigate concerns that differences in sample composition affect comparisons across attributes. We also exclude firms filing with the SEC or using US GAAP. US GAAP and Canadian GAAP are viewed as similar by regulators, as evidenced by the absence of a mandatory disclosure requirement of reconciliation of accounting differences under the Multi-jurisdictional Disclosure System (MJDS). Foreign private issuers in the US, that is non-US-based firms, that report under the accounting standards of their home country were required to explain to investors what their accounting income and shareholders' equity would have been under US GAAP. Since US GAAP and Canadian GAAP are similar, MJDS specifically exempted Canadian firms that report under Canadian GAAP and list in the US from having to do this reconciliation. This means that Canadian firms are permitted to report under either US GAAP or Canadian GAAP (some Canadian firms voluntarily report under both). Recently, the U.S. Securities and Exchange Commission exempted non-US-based firms that report under IFRS from reconciliation. As Canadian firms switch to IFRS, they will maintain the exemption from reconciliation requirements.

Notwithstanding the previous arguments, some differences in accounting rules between US GAAP and Canadian GAAP persisted during our sample period. Bandyopadhyay, Hanna, and Richardson (1994) investigate a sample of firms that were listed both on Toronto and a U.S. stock exchange between 1983 and 1989. Overall, they find that earnings scaled by market capitalization are 2% lower under US GAAP than Canadian GAAP. Some of the main source of differences in accounting rules pertain to foreign exchange gains or losses on foreign long-term

debt, early extinguishment of debt, extraordinary items, and interest capitalization of self-constructed assets [see Table 1 on page 265]. In our analyses below, we exclude US GAAP reporting Canadian firms and compare only firms that report audited Canadian GAAP statements. To the extent that differences in accounting standards are industry specific, our matching on industry mitigates this concern. After matching based on the procedures described below, our sample of Quebec firms comprises 738 firm-year observations for 167 firms (102 firms incorporate under the CBCA and 65 firms incorporate under the QCA).

Following prior research, we employ a matched sample to examine earnings attributes (Lang, Raedy, and Yetman, 2003; Lang, Raedy, and Wilson, 2006; Barth, Landsman, and Lang, 2008). Specifically, we match Quebec firms with non-Quebec firms on the level of incorporation (federal or provincial), size, and industry. First, matching on level of incorporation allows us to compare firms that made similar decisions regarding where to incorporate. Differences in earnings attributes among firms that incorporate under CBCA but are located in different provinces may persist, however, due to differences in enforcement between securities regulators in different provinces. Second, matching on size is intended to control for size-related differences such as the information environment. Third, matching on industry is intended to control for differences in earnings attributes that vary by industry.

We match the final year of each Quebec firm with a non-Quebec firm in the same year, same industry, and closest in market value without replacement. If a match is not found for a firm, we try to match prior years of the Quebec firm with a non-Quebec firm in the same year, same industry and closest in size. We then retain all overlapping firm years for the Quebec firms and their matched non-Quebec firms. For example, if a Quebec firm has data from 1998 through

2007 and its matched non-Quebec firm has data from 2000 through 2008, we retain only data from 2000 through 2007 for both the Quebec firm and its matched non-Quebec firm.

5. Choice Between Federal and Provincial Incorporation

We formally examine firms' decisions to incorporate at the federal or provincial level to understand the decision and ensure our research design analyzing earnings attributes controls for any systematic differences across provinces. Since the incorporation decision is a relatively permanent decision, we retain only the final firm-year for each firm in our sample and examine whether the choice is associated with several important firm characteristics.^{12,13} Our final sample consists of 1,397 firms. Panel A in table 1 indicates that a vast majority (96%) of firms are located in four provinces: Ontario (34%), Alberta (27%), British Columbia (19%), and Quebec (16%). It is also clear that a much larger proportion of Quebec firms incorporate under the CBCA relative to other provinces consistent with the Quebec Minister of Finance's concerns about the competitiveness of the QCA. Panel B in table 1 shows significant industry concentration in the Mining, Quarrying, and Oil and Gas Extraction industry (35%) as well as industry concentration in the Manufacturing industry (31%). Based on panels A and B, we focus our analysis on these four provinces and include industry fixed effects in our analysis.

We performed a thorough review of reasons cited for incorporating either at the federal or provincial to examine in our analysis. The only consistent reason given is that firms operating across Canada or internationally are more likely to incorporate at the federal level (Carnaghan and Gunz, 2007). Accordingly, we include size in our analysis. We also note that in Quebec mergers are supposedly easier to complete under the CBCA than under the QCA (Cloutier,

¹² Approximately 5% of firms in our sample switch from provincial to federal incorporation and less than 0.01% switch from federal to provincial incorporation.

¹³ Using the first firm-year for each firm year yields similar results. The first firm-year may better capture firm characteristics at the time the firm made its decision regarding where to incorporate.

2009). We include intangible assets to capture a firm's tendency to engage in mergers as accounting rules only allow purchased intangibles to be recorded and mergers are typically when most intangibles are recorded. In addition to size and intangible assets, we also examine whether leverage, growth, filing status with the SEC, and auditor are associated with firms' decisions to incorporate at the federal or provincial level.¹⁴ Panel C provides descriptive statistics for these variables and indicates that Quebec and non-Quebec firms are relatively similar in terms of size and leverage. Many more Quebec firms file under the CBCA than non-Quebec firms, while more non-Quebec firms file with the SEC and employ BigN auditors.

We employ the following logistic regression to analyze the decision:

$$CBCA_{it} = \alpha_0 + \alpha_1 Size_{it} + \alpha_2 Leverage_{it} + \alpha_3 Growth_{it} + \alpha_4 Intangibles_{it} \\ + \alpha_5 SEC\ Filer_{it} + \alpha_6 Auditor_{it} + Industry\ Effects + \varepsilon_{it}$$

¹⁴ In untabulated results, we proxy for growth opportunities by including the book-to-market ratio which is not statistically significantly related to firms' incorporation decisions.

Table 1: Descriptive Statistics for Incorporation Decision

The sample for the analysis of firms' incorporation decisions consists of the last year each firm in our sample reports to System for Electronic Document Analysis and Retrieval (SEDAR) between January 1, 1997 and November 30, 2009. SEDAR data is not available prior to January 1, 1997 and Compustat data was not available after November 30, 2009 at the time we began our study. This results in a final sample of 1,397 firms.

Panel A: Province Breakdown

Province	Number of Firms	Percentage of Firms	Number of CBCA Firms	Percentage CBCA Firms
Alberta	382	27%	52	14%
British Columbia	267	19%	66	25%
Ontario	473	34%	171	36%
Quebec	226	16%	147	65%
Other Provinces	49	4%	25	51%
Total	1,397	100%	461	

A firm's province is determined by the location of its headquarters. Other Provinces includes Manitoba, New Brunswick, Newfoundland, Nova Scotia, Prince Edward Island, and Saskatchewan. CBCA represents firms that incorporated under the Canadian Business Corporations Act, the federal incorporation statute in Canada.

Panel B: Industry Breakdown

NAICS Industry Classification (Two-Digit)	Number of Firms	Percentage of Firms	Number of CBCA Firms	Percentage CBCA Firms
Information	154	11%	65	42%
Manufacturing	443	31%	193	44%
Mining, Quarrying, and Oil and Gas Extraction	487	35%	88	18%
Professional, Scientific, and Technical Services	67	5%	24	36%
Real Estate and Rental and Leasing	42	3%	10	24%
Retail Trade	41	3%	20	49%
Wholesale Trade	36	3%	16	44%
Other Industries	127	9%	45	35%
Total	1,397	100%	461	

Other Industries consists of industries individually representing less than 3% of the sample.

Table 1: Descriptive Statistics for Incorporation Decision (continued)
Panel C: Variables Used in Analysis of Incorporation Decision

Variables	Quebec (N = 226)			Non-Quebec (N = 1,171)			All Firms (N = 1,397)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
Size	4.92	4.78	2.22	4.62*	4.65	2.24	4.67	4.66	2.24
Leverage	0.28	0.21	0.42	0.55	0.18	5.29	0.51	0.19	4.84
Growth	0.57	0.04	6.63	0.80	0.11##	6.46	0.77	0.08	6.49
Intangibles	0.16	0.05	0.21	0.08**	0.00##	0.15	0.09	0.00	0.16
SEC Filer	0.09	0.00	0.28	0.19**	0.00##	0.39	0.17	0.00	0.38
Auditor	0.62	1.00	0.49	0.75**	1.00##	0.43	0.73	1.00	0.45
CBCA	0.65	1.00	0.48	0.27**	0.00##	0.44	0.33	0.00	0.47

***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Size is the log of total assets (AT). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentage change in sales (SALE). Intangibles is intangible assets (INTAN) scaled by total assets. SEC Filer is equal to one if the firm files with the U.S. Securities Exchange Commission, and zero otherwise. Auditor is equal to one if the firm uses a BigN auditor, and zero otherwise. CBCA is equal to one if the firm is incorporated under the Canadian Business Corporations Act, and zero otherwise.

Table 1: Descriptive Statistics for Incorporation Decision (continued)**Panel D: Pearson Correlation Table**

Variables	Size	Leverage	Growth	Intangibles	SEC Filer	Auditor	CBCA
Size	1.000	-0.144	0.021	0.120	0.109	0.366	0.195
		0.000	0.437	0.000	0.000	0.000	0.000
Leverage		1.000	-0.013	0.009	0.031	-0.073	0.001
			0.634	0.727	0.254	0.007	0.966
Growth			1.000	0.016	0.025	0.013	-0.036
				0.545	0.347	0.618	0.177
Intangibles				1.000	0.042	-0.017	0.160
					0.121	0.531	0.000
SEC Filer					1.000	-0.009	0.038
						0.739	0.152
Auditor						1.000	0.040
							0.134
CBCA							1.000

p-values in italics.

Size is the log of total assets (AT). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentage change in sales (SALE). Intangibles is intangible assets (INTAN) scaled by total assets. SEC Filer is equal to one if the firm files with the U.S. Securities Exchange Commission, and zero otherwise. Auditor is equal to one if the firm uses a BigN auditor, and zero otherwise. CBCA is equal to one if the firm is incorporated under the Canadian Business Corporations Act, and zero otherwise.

Table 1: Descriptive Statistics for Incorporation Decision (continued)
Panel E: Incorporation Decision Conditional on Province

Province	Incorporation						Total
	ABCA	BCBCA	OBCA	QCA	OTHER	CBCA	
Alberta	308	8	9	0	5	52	382
1	22.05	0.57	0.64	0.00	0.36	3.72	27.34
2	80.63	2.09	2.36	0.00	1.31	13.61	
3	89.80	3.96	3.19	0.00	14.71	11.28	
British Columbia	14	173	8	0	6	66	267
1	1.00	12.38	0.57	0.00	0.43	4.72	19.11
2	5.24	64.79	3.00	0.00	2.25	24.72	
3	4.08	85.64	2.84	0.00	17.65	14.32	
Ontario	12	17	260	3	10	171	473
1	0.86	1.22	18.61	0.21	0.72	12.24	33.86
2	2.54	3.59	54.97	0.63	2.11	36.15	
3	3.50	8.42	92.20	4.00	29.41	37.09	
Quebec	2	2	4	71	0	147	226
1	0.14	0.14	0.29	5.08	0	10.52	16.18
2	0.88	0.88	1.77	31.42	0	65.04	
3	0.58	0.99	1.42	94.67	0.00	31.89	
Other Provinces	7	2	1	1	13	25	49
1	0.5	0.14	0.07	0.07	0.93	1.79	3.51
2	14.29	4.08	2.04	2.04	26.53	51.02	
3	2.04	0.99	0.35	1.33	38.24	5.42	
Total	343	202	282	75	34	461	1,397
	24.55	14.46	20.19	5.37	2.43	33.00	100.00

1 is the percentage of the sample. 2 is the row percentage. 3 is the column percentage.

Other Provinces includes Manitoba, New Brunswick, Newfoundland, Nova Scotia, Prince Edward Island, and Saskatchewan. ABCA is the Alberta Business Corporations Act. BCBCA is the British Columbia Business Corporations Act. OBCA is the Ontario Business Corporations Act. QCA is the Quebec Companies Act. OTHER consists of the following provincial incorporation acts: Manitoba Corporations Act, New Brunswick Business Corporations Act, Newfoundland Corporations Act, Nova Scotia Companies Act, Saskatchewan Companies Act, and the Yukon Business Corporations Act. CBCA represents firms that incorporated under the Canadian Business Corporations Act, the federal incorporation statute in Canada.

Table 1: Descriptive Statistics for Incorporation Decision (continued)
Panel F: Accounting Standard Conditional on Province

Province	Accounting Standard		Total
	Canadian GAAP	US GAAP	
Alberta	378	4	382
1	27.06	0.29	27.34
2	98.95	1.05	
3	27.81	10.53	
British Columbia	257	10	267
1	18.40	0.72	19.11
2	96.25	3.75	
3	18.91	26.32	
Ontario	451	22	473
1	32.28	1.57	33.86
2	95.35	4.65	
3	33.19	57.89	
Quebec	224	2	226
1	16.03	0.14	16.18
2	99.12	0.88	
3	16.48	5.26	
Other Provinces	49	0	49
1	3.51	0.00	3.51
2	100.00	0.00	
3	3.61	0.00	
Total	1,359	38	1,397
	97.28	2.72	100.00

1 is the percentage of the sample. 2 is the row percentage. 3 is the column percentage.

Canadian firms are permitted to report under either Canadian Generally Accepted Accounting Principles (GAAP) or under US GAAP. Other Provinces includes Manitoba, New Brunswick, Newfoundland, Nova Scotia, Prince Edward Island, and Saskatchewan.

Table 2 presents our analysis of firms' incorporation decisions. The positive and significant coefficient on size for most models indicates that larger firms are more likely to incorporate at the federal level. For brevity, we do not present industry effects, but note that various industries are associated both positively and negatively with incorporating at the federal level. This finding is consistent with our discussions with Canadian regulators who suggested that provincial incorporation is common in certain industries (i.e., mining and oil and gas). In our province of primary interest, Quebec, only industry effects are associated with the decision to incorporate under the CBCA. This analysis suggests that controlling for size and industry are important in our analysis of earnings attributes, which we address by matching on size and industry.

Table 2: Logistic Regression of Firm Incorporation Decision

The sample for the analysis of firms' incorporation decisions consists of the last year each firm in our sample reports to System for Electronic Document Analysis and Retrieval (SEDAR) between January 1, 1997 and November 30, 2009. SEDAR data is not available prior to January 1, 1997 and Compustat data was not available after November 30, 2009 at the time we began our study. This results in a final sample of 1,397 firms.

Panel A: Pooled Analysis

Variables	All Provinces	All Provinces	All Provinces	All Provinces
Intercept	-1.767*** (0.174)	-1.680* (0.893)	-0.533** (0.218)	-0.653 (0.954)
Size	0.199*** (0.031)	0.219*** (0.033)	0.195*** (0.033)	0.210*** (0.035)
Leverage	0.120 (0.158)	0.060 (0.171)	0.076 (0.164)	0.060 (0.173)
Growth	-0.054 (0.036)	-0.025 (0.034)	-0.022 (0.034)	-0.012 (0.034)
Intangibles	1.760*** (0.352)	0.797** (0.397)	0.730* (0.383)	0.420 (0.420)
SEC Filer	0.043 (0.157)	0.046 (0.165)	0.170 (0.170)	0.167 (0.175)
Auditor	-0.119 (0.145)	-0.118 (0.149)	0.144 (0.156)	0.117 (0.158)
Alberta			-2.510*** (0.216)	-2.230*** (0.234)
British Columbia			-1.591*** (0.214)	-1.449*** (0.221)
Ontario			-1.226*** (0.177)	-1.167*** (0.183)
Other Provinces			-0.714** (0.329)	-0.640* (0.336)
Industry Fixed Effects	No	Yes	No	Yes
Observations	1,397	1,397	1,397	1,397
Log Likelihood	843.660***	797.933***	761.235***	744.777***
Pseudo R-squared	0.048	0.099	0.141	0.159

***, **, * indicates two-tailed statistical significance at the 1%, 5%, and 10% levels, respectively. Standard errors are in parentheses.

CBCA is equal to one if a firm is incorporated under the Canadian Business Corporations Act, and zero otherwise. Size is the log of total assets (AT). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentages changes in sales (SALE). Intangibles is intangible assets (INTAN) scaled by total assets. SEC Filer is equal to one if the firm files with the U.S. Securities Exchange Commission, and zero otherwise. Auditor is equal to one if the firm uses a BigN auditor, and zero otherwise. Alberta is equal to one if the firm is headquartered in Alberta, and zero otherwise. British Columbia is equal to one if the firm is headquartered in British Columbia, and zero otherwise. Ontario is equal to one if the firm is headquartered in Ontario, and zero otherwise. Quebec is equal to one if the firm is headquartered in Quebec, and zero otherwise. Other Provinces includes Manitoba, New Brunswick, Newfoundland, Nova Scotia, Prince Edward Island, and Saskatchewan.

Table 2: Logistic Regression of Firm Incorporation Decision (continued)
Panel B: By Province Analysis with Industry Fixed Effects

Variables	Alberta	British Columbia	Ontario	Quebec	Other Provinces
Intercept	-3.585*** (0.907)	-2.100*** (0.665)	-2.683*** (0.731)	1.473* (0.862)	1.603 (1.956)
Size	0.265*** (0.095)	0.251*** (0.080)	0.174*** (0.057)	0.075 (0.078)	0.040 (0.216)
Leverage	0.641 (0.861)	-0.001 (0.039)	-0.023 (0.128)	0.354 (0.387)	-1.487 (1.210)
Growth	-0.409* (0.247)	-0.013 (0.030)	-0.006 (0.025)	0.209 (0.193)	-0.666 (0.473)
Intangibles	1.142 (1.370)	1.485 (1.073)	-0.076 (0.654)	0.185 (0.794)	3.725 (2.696)
SEC Filer	0.805 (0.505)	0.067 (0.344)	0.308 (0.269)	0.032 (0.553)	-0.400 (1.269)
Auditor	-0.329 (0.435)	0.312 (0.423)	0.377 (0.257)	0.056 (0.327)	-0.106 (0.943)
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	382	267	473	226	49
Log Likelihood	134.471***	126.005***	292.950**	131.198**	26.592
Pseudo R-squared	0.115	0.152	0.053	0.104	0.218

***, **, * indicates two-tailed statistical significance at the 1%, 5%, and 10% levels, respectively. Standard errors are in parentheses.

CBCA is equal to one if a firm is incorporated under the Canadian Business Corporations Act, and zero otherwise. Size is the log of total assets (AT). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentage change in sales (SALE). Intangibles is intangible assets (INTAN) scaled by total assets. SEC Filer is equal to one if the firm files with the U.S. Securities Exchange Commission, and zero otherwise. Auditor is equal to one if the firm uses a BigN auditor, and zero otherwise.

Table 2: Logistic Regression of Firm Incorporation Decision (continued)
Panel C: By Province Analysis without Industry Fixed Effects

Variables	Alberta	British Columbia	Ontario	Quebec	Other Provinces
Intercept	-3.049*** (0.565)	-2.398*** (0.392)	-1.637*** (0.305)	-0.304 (0.391)	-0.329 (1.064)
Size	0.245*** (0.091)	0.237*** (0.074)	0.169*** (0.054)	0.115 (0.072)	0.128 (0.176)
Leverage	0.395 (0.806)	0.037 (0.307)	-0.142 (0.299)	0.618 (0.431)	-0.732 (0.790)
Growth	-0.377 (0.232)	-0.031 (0.065)	0.019 (0.049)	0.139 (0.155)	-0.335 (0.380)
Intangibles	1.516 (1.216)	2.455** (0.975)	-0.189 (0.598)	0.857 (0.757)	1.898 (1.956)
SEC Filer	1.013** (0.459)	-0.215 (0.321)	0.281 (0.261)	-0.167 (0.510)	-0.542 (1.046)
Auditor	-0.296 (0.428)	0.297 (0.397)	0.310 (0.251)	0.119 (0.305)	-0.108 (0.733)
Industry Fixed Effects	No	No	No	No	No
Observations	382	267	473	226	49
Log Likelihood	137.623***	135.410***	299.418**	142.005	30.788
Pseudo R- squared	0.0945	0.0931	0.0325	0.0291	0.0932

***, **, * indicates two-tailed statistical significance at the 1%, 5%, and 10% levels, respectively. Standard errors are in parentheses.

CBCA is equal to one if a firm is incorporated under the Canadian Business Corporations Act, and zero otherwise. Size is the log of total assets (AT). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentage change in sales (SALE). Intangibles is intangible assets (INTAN) scaled by total assets. SEC Filer is equal to one if the firm files with the U.S. Securities Exchange Commission, and zero otherwise. Auditor is equal to one if the firm uses a BigN auditor, and zero otherwise.

Table 3: Descriptive Statistics for Matched-Pairs

The sample consists of all firms-years for the matched sample and consists of 167 unique Quebec firms and their matched pairs. Quebec firms are matched to non-Quebec firms on incorporation level, industry and market value and all overlapping firm-years are retained resulting in 738 firm-years.

Panel A: All Matched-Pairs

Variables	Quebec (N = 738 firm-years)			Non-Quebec (N = 738 firm-years)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
<u>Firm Characteristics:</u>						
Size	5.389	5.516	1.871	5.297	5.463	2.242
MV	5.091	5.224	1.808	5.242	5.230	1.888
Sales	1,023	283	2,346	1,564 ***	239	3,857
Growth	0.188	0.071	0.686	0.224	0.073	0.763
Leverage	0.246	0.224	0.241	0.262	0.221	0.486
<u>Variables to Construct Earnings Attributes:</u>						
TCA _t	-0.001	0.002	0.082	0.005	0.004	0.107
CFO _{t-1}	0.013	0.064	0.245	-0.060 ***	0.050 ###	0.380
CFO _t	0.023	0.075	0.230	-0.052 ***	0.057 ###	0.364
CFO _{t+1}	0.032	0.084	0.260	-0.067 ***	0.057 ###	0.458
X _{t-1}	0.237	0.260	1.268	0.172	0.184	2.108
X _t	0.245	0.260	1.255	0.228	0.184	2.054
NIBE _t	-0.030	0.037	0.276	-0.124 ***	0.036	0.504
CFOS _t	0.018	0.078	0.299	-0.086 ***	0.059 ###	0.532
RET _t	0.139	0.015	0.659	0.179	0.060	0.753
EARN _t	0.002	0.052	0.238	-0.031 **	0.040 ###	0.273
ΔEARN _t	0.038	0.006	0.366	0.030	0.006	0.330
NEG _t	0.483	0.000	0.500	0.445	0.000	0.497

***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Size is the log of total assets (AT). MV is the log of market value (CSHO*PRCC_F). Sales is the firm's sales (SALE). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentage change in sales (SALE). TCA_t is total current accruals scaled by average total assets. CFO_t is the cash flow from operations in year t calculated as income before extraordinary items (IB) less total accruals scaled by average total assets. X_t is the split-adjusted earnings per share calculated as income before extraordinary items in year t divided by the weighted average number of outstanding shares during year t. NIBE_t is net income before extraordinary items scaled by beginning total assets. CFOS_t is CFO_t scaled by beginning total assets. RET_t is the 12-month return ending three months after the end of fiscal year t. EARN_t is income before extraordinary items scaled by market value at the end of year t-1. ΔEARN_t is the change in income before extraordinary items in year t scaled by market value at the end of year t-1. NEG_t is equal to one if RET_t < 0, and zero otherwise. All continuous variables are winsorized at the extreme percentiles.

Table 3: Descriptive Statistics for Matched-Pairs (continued)

The sample consists of all firms-years for the Quebec QCA matched sample and consists of 65 unique Quebec QCA firms and their matched pairs. Quebec QCA firms are matched to non-Quebec firms on incorporation level, industry and market value and all overlapping firm-years are retained resulting in 338 firm-years.

Panel B: Quebec QCA firms to Non-Quebec Provincial firms

Variables	Quebec (N = 338 firm-years)			Non-Quebec (N = 338 firm-years)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
<u>Firm Characteristics:</u>						
Size	5.061	5.247	2.092	4.656 **	4.657 ##	2.373
MV	4.789	4.989	1.873	4.777	4.846	1.942
Sales	1040	213	2334	838	113 ##	2012
Growth	0.222	0.082	0.762	0.264	0.079	0.808
Leverage	0.272	0.240	0.290	0.284	0.214 ##	0.679
<u>Variables to Construct Earnings Attributes:</u>						
TCA _t	0.000	0.003	0.083	0.007	0.006	0.006
CFO _{t-1}	-0.024	0.052	0.303	-0.129 ***	0.031 ##	0.031
CFO _t	-0.018	0.059	0.288	-0.121 ***	0.044 ##	0.044
CFO _{t+1}	0.006	0.065	0.284	-0.134 ***	0.046 ##	0.046
X _{t-1}	0.253	0.200	1.195	0.139	0.054	0.054
X _t	0.249	0.167	1.233	0.166	0.068 #	0.068
NIBE _t	-0.071	0.028	0.360	-0.206 ***	0.022	0.022
CFOS _t	-0.033	0.061	0.401	-0.174 ***	0.046 #	0.046
RET _t	0.117	-0.016	0.704	0.200	0.041	0.041
EARN _t	-0.019	0.050	0.275	-0.050	0.022 ###	0.022
ΔEARN _t	0.040	0.005	0.381	0.047	0.000	0.000
NEG _t	0.509	1.000	0.501	0.462	0.000	0.000

***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

The sample consists of all firms-years for Quebec QCA firms are matched to non-Quebec firms incorporated at the provincial level on industry and market value. Size is the log of total assets (AT). MV is the log of market value (CSHO*PRCC_F). Sales is the firm's sales (SALE). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentages changes in sales (SALE). TCA_t is total current accruals scaled by average total assets. CFO_t is the cash flow from operations in year t calculated as income before extraordinary items (IB) less total accruals scaled by average total assets. X_t is the split-adjusted earnings per share calculated as income before extraordinary items in year t divided by the weighted average number of outstanding shares during year t. NIBE_t is net income before extraordinary items scaled by beginning total assets. CFOS_t is CFO_t scaled by beginning total assets. RET_t is the 12-month return ending three months after the end of fiscal year t. EARN_t is income before extraordinary items scaled by market value at the end of year t-1. ΔEARN_t is the change in income before extraordinary items in year t scaled by market value at the end of year t-1. NEG_t is equal to one if RET_t < 0, and zero otherwise. All continuous variables are winsorized at the extreme percentiles.

Table 3: Descriptive Statistics for Matched-Pairs (continued)

The sample consists of all firms-years for the Quebec CBCA matched sample and consists of 102 unique Quebec CBCA firms and their matched pairs. Quebec CBCA firms are matched to non-Quebec firms on incorporation level, industry and market value and all overlapping firm-years are retained resulting in 405 firm-years.

Panel C: Quebec CBCA firms to Non-Quebec CBCA firms

Variables	Quebec (N = 405 firm-years)			Non-Quebec (N = 405 firm-years)		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
<u>Firm Characteristics:</u>						
Size	5.663	5.650	1.618	5.831	5.919 #	1.975
MV	5.342	5.388	1.714	5.630 **	5.420 ###	1.752
Sales	1,010	349	2,359	2,169 ***	435	4,811
Growth	0.161	0.065	0.620	0.193	0.070	0.727
Leverage	0.225	0.207	0.187	0.244	0.230	0.223
<u>Variables to Construct Earnings Attributes:</u>						
TCA _t	-0.002	0.001	0.080	0.004	0.003	0.089
CFO _{t-1}	0.044	0.077	0.178	-0.002 ***	0.061 ##	0.278
CFO _t	0.057	0.084	0.160	0.006 ***	0.068 ###	0.243
CFO _{t+1}	0.054	0.091	0.237	-0.011 ***	0.068 ###	0.325
X _t	0.241	0.300	1.275	0.280	0.341	2.286
X _{t-1}	0.224	0.290	1.327	0.199	0.340	2.352
NIBE _t	0.004	0.044	0.173	-0.056 ***	0.039 #	0.337
CFOS _t	0.060	0.087	0.162	-0.013 ***	0.070 ###	0.356
RET _t	0.157	0.035	0.618	0.161	0.067	0.676
EARN _t	0.019	0.054	0.201	-0.016 **	0.053	0.261
ΔEARN _t	0.037	0.006	0.353	0.017	0.008	0.259
NEG _t	0.462	0.000	0.499	0.432	0.000	0.496

***, **, * indicates t-test of means statistically different at the 1%, 5%, and 10% level, respectively (two-tailed). ###, ##, # indicates Wilcoxon test statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

The sample consists of all firms-years for Quebec CBCA firms are matched to non-Quebec CBCA firms on industry and market value. Size is the log of total assets (AT). MV is the log of market value (CSHO*PRCC_F). Sales is the firm's sales (SALE). Leverage is long-term debt (DLC+DLTT) divided by total assets. Growth is the annual percentages changes in sales (SALE). TCA_t is total current accruals scaled by average total assets. CFO_t is the cash flow from operations in year t calculated as income before extraordinary items (IB) less total accruals scaled by average total assets. X_t is the split-adjusted earnings per share calculated as income before extraordinary items in year t divided by the weighted average number of outstanding shares during year t. NIBE_t is net income before extraordinary items scaled by beginning total assets. CFOS_t is CFO_t scaled by beginning total assets. RET_t is the 12-month return ending three months after the end of fiscal year t. EARN_t is income before extraordinary items scaled by market value at the end of year t-1. ΔEARN_t is the change in income before extraordinary items in year t scaled by market value at the end of year t-1. NEG_t is equal to one if RET_t < 0, and zero otherwise. All continuous variables are winsorized at the extreme percentiles.

Table 3: Descriptive Statistics for Matched-Pairs (continued)
Panel D: Pearson Correlation Table for Variables Used to Construct Earnings Attributes

Variable	TCA _t	CFO _{t-1}	CFO _t	CFO _{t+1}	X _t	X _{t-1}	NIBE _t	CFOS _t	RET _t	EARN _t	ΔEARN _t	NEG _t
TCA _t	1.000	0.050	-0.180	0.068	0.115	0.033	0.090	-0.162	0.087	0.153	0.049	-0.082
		0.051	<.0001	0.008	<.0001	0.196	0.001	<.0001	0.001	<.0001	0.055	0.001
CFO _{t-1}		1.000	0.678	0.573	0.164	0.290	0.616	0.579	0.019	0.369	-0.250	-0.105
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.464	<.0001	<.0001	<.0001
CFO _t			1.000	0.721	0.294	0.206	0.871	0.903	0.049	0.602	0.137	-0.127
				<.0001	<.0001	<.0001	<.0001	<.0001	0.055	<.0001	<.0001	<.0001
CFO _{t+1}				1.000	0.176	0.154	0.723	0.704	-0.003	0.399	0.052	-0.103
					<.0001	<.0001	<.0001	<.0001	0.896	<.0001	0.041	<.0001
X _t					1.000	0.596	0.289	0.251	0.124	0.516	0.172	-0.184
						<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
X _{t-1}						1.000	0.188	0.167	-0.014	0.306	-0.308	-0.070
							<.0001	<.0001	0.585	<.0001	<.0001	0.007
NIBE _t							1.000	0.948	0.043	0.639	0.177	-0.116
								<.0001	0.096	<.0001	<.0001	<.0001
CFOS _t								1.000	0.006	0.590	0.164	-0.078
									0.820	<.0001	<.0001	0.003
RET _t									1.000	0.115	0.178	-0.601
										<.0001	<.0001	<.0001
EARN _t										1.000	0.236	-0.183
											<.0001	<.0001
ΔEARN _t											1.000	-0.107
												<.0001
NEG _t												1.000

p-values in italics.

We pool Quebec and Non-Quebec firms for this analysis.

6. Analysis of Earnings Attributes

Following prior research, including Lang, Raedy, and Yetman (2003), Leuz (2003), Lang, Raedy, and Wilson (2006), Barth, Landsman, and Lang (2008), we construct our earnings attributes based on cross-sectional data.¹⁵ To construct statistical tests of difference, we employ bootstrap-based tests, which use the sample data to generate a distribution for the test statistic. We follow the procedure outlined by Noreen (1989) referred to as “approximate randomization.”¹⁶ Dichev and Tang (2009) and Minnis (2010) use this procedure to test differences in R^2 . A key advantage of this approach is that it does not require assumptions about the distribution of each earnings attribute. Our null hypothesis that there is no difference between Quebec and non-Quebec firms and approximate randomization examines how frequently the observed differences in earnings attributes would occur randomly. Specifically, we randomly assign firms as Quebec and non-Quebec firms. Then we calculate each earnings attribute for ‘pseudo’ Quebec and non-Quebec firms and record the difference in earnings attributes between the two groups. We then note if the differences in earnings attributes from the randomly generated sample is greater than the actual observed differences. We repeat these steps 10,000 and the p-value is the number of times the randomly generated difference in an earnings attribute is greater than the actual difference.

Table 4 reports the results from comparing the earnings attributes for 738 matched pairs of firm years. Recall that for each matched pair, one firm is located in Quebec, while the other firm is located in a province other than Quebec. Ball, Kothari and Robin (2000) hypothesize that financial reporting incentives shape the standards and provide evidence that accounting standards

¹⁵ An alternative approach would be to estimate firm-specific earnings attributes using a time series of firm-specific data. We do not use this approach because it would severely limit our sample size due the length of the time series required to estimate the earnings attributes.

¹⁶ We also perform bootstrap tests following Barth, Landsman, and Lang (2008) and find similar results.

differ between common law countries and civil law countries. To control for differences in accounting standards, we omit those Canadian firms that report under US GAAP, such that both Quebec and non-Quebec firms in our matched pairs report under Canadian GAAP. As a consequence, any differences in earnings attributes for our matched pairs, which we report below, are not due to accounting standards per se, but rather due to the underlying financial reporting incentives.

Panel A of Table 4 reports the tests for differences between Quebec and non-Quebec firms with regards to accounting-based earnings attributes. First, we find that Accrual Quality is statistically significantly higher for Quebec firms at the 1 percent significance level (as evidenced by the lower standard deviation of residuals from the accrual regression specified in equation (1)). Second, we find that Persistence is statistically significantly higher for non-Quebec firms at the 4 percent significance level. Third, we find that Predictability is statistically significantly for non-Quebec at the 2 percent level (as evidenced by the lower standard deviation). In summary, these three intrinsic accounting-based earnings attributes differ for similar Canadian firms located inside and outside Quebec.

Similarly, Panel B of Table 4 reports our tests for differences in market-based earnings attributes. We only find statistically significant differences with regards to Timeliness, which is statistically significantly higher for Quebec firms. Since Ball, Kothari, and Robin (2000) find that Timeliness is higher for common law countries, one would have expected the reverse result based on their hypothesized differences in accounting standards. As a consequence, our finding suggests the importance of controlling for differences in accounting standards when investigating the pure direct effect of financial reporting incentives on Timeliness.

Table 4: Comparison of Earnings Attributes Between Quebec and Matched Non-Quebec Firms

This table compares earnings attributes from Quebec firms to their non-Quebec matched pairs. The sample consists of all firms-years for the matched sample and consists of 167 unique Quebec firms and their matched pairs. Quebec firms are matched to non-Quebec firms on incorporation level, industry and market value and all overlapping firm-years are retained resulting in 738 firm-years. The statistical tests of differences are based on bootstrap-based tests (see Section 6 for details).

Panel A: Accounting-Based Earnings Attributes

Earnings Attributes	(1) Quebec	(2) Non-Quebec	(1) - (2) Difference	p-value	
Accrual Quality	0.076	0.095	-0.019	<0.01	***
Persistence	0.436	0.648	-0.212	0.04	**
Predictability	1.127	1.534	-0.407	0.02	**
Smoothness	0.924	0.948	-0.024	0.27	

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Accrual Quality is the standard deviation of the residuals from the regression of accruals on future year, current year, and previous year's cash flows from operations. Persistence is the estimated slope coefficient from an AR1 model of annual earnings. Predictability is the standard deviation of the residual from the Persistence regression. Smoothness is the ratio of the standard deviation of earnings before extraordinary items (scaled by assets) to the standard deviation of cash flows from operations (scaled by assets).

Table 4: Comparison of Earnings Attributes Between Quebec and Matched Non-Quebec Firms (continued)

Panel B: Market-Based Earnings Attributes

Earnings Attributes	(1) Quebec	(2) Non-Quebec	(1) - (2) Difference	p-value
Relevance	0.031	0.061	-0.029	0.21
Timeliness	0.115	0.070	0.044	0.09 *
Conservatism	0.431	0.424	0.007	0.46

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Relevance is the adjusted R^2 from a regression of annual returns on the level and change in annual earnings (before extraordinary items). Timeliness is the adjusted R^2 from a regression of annual earnings (before extraordinary items) on an indicator variable equaling one if the company's annual return is negative and zero otherwise, the company's annual return, and the interaction of the annual return and the indicator variable. Conservatism is the estimated coefficient on the interaction variable from the Timeliness regression.

Given the self-selection issue raised in Table 2, with regards to managers' decision about where to incorporate, we also repeated our analysis after controlling for whether firms incorporated under either Federal statute (CBCA) or provincial statutes of incorporation. These results are reported in Table 5. Panel A of Table 5 makes pairwise comparisons of accounting-based earnings attributes for firms that incorporated under Federal and provincial statutes, respectively. First, we find that the differences reported in Panel A of Table 4 in Accrual Quality and Persistence are driven by matched pairs of firms that reported under provincial statute. Since our selection model for managers' incorporation decision outside Quebec – as reported in Table 2 – is driven by the two variables that we use for matching in this analysis, Size and Industry, we have no reason to believe that differences across non-Quebec provincial statutes constrain firm managers' subsequent financial reporting incentives. However, our model for managers' incorporation decision also reveals that Quebec firms' incorporation decision differs from that of non-Quebec firms. As a consequence, differences might persist when comparing provincial statutes simply due to unmodeled differences in the incorporation decision. Again, these differences could be explained by the fact that QCA lends lower degree of protection of minority shareholder rights than other non-Quebec provincial statutes.

Panel A of Table 5 also reports statistically significant differences in Predictability and Smoothness. These latter differences, however, are driven by matched pairs of firms that reported under the same Federal statute. As a consequence, these differences are not likely subject to the concern that incorporation decision differences fully explain the difference in subsequent financial reporting incentives. Panel B of Table 5 reports that our differences in Timeliness reported in Panel B of Table 4 appear to be driven by differences among matched pairs of firms which incorporated under the provincial statute.

Table 5: Pairwise Comparisons

This table compares earnings attributes from Quebec firms to their non-Quebec matched pairs partitioned on the level of incorporation. The sample consists of all firms-years for the matched sample and consists of 167 unique Quebec firms (65 QCA and 102 CBCA firms) and their matched pairs. Quebec firms are matched to non-Quebec firms on incorporation level, industry and market value and all overlapping firm-years are retained resulting in 738 firm-years (338 firm-years for QCA firms and 405 firm-years for CBCA firms). The statistical tests of differences are based on bootstrap-based tests (see Section 6 for details).

Panel A: Accounting-Based Earnings Attributes

Incorporation	Location		(1) - (2) Difference	p-value	
	(1) Quebec	(2) Non-Quebec			
Accrual Quality					
CBCA	0.072	0.078	-0.006	0.22	
Provincial	0.079	0.112	-0.033	<0.01	***
Persistence					
CBCA	0.484	0.638	-0.155	0.16	
Provincial	0.365	0.667	-0.301	0.07	*
Predictability					
CBCA	1.102	1.724	-0.622	0.02	**
Provincial	1.153	1.271	-0.119	0.33	
Smoothness					
CBCA	1.070	0.945	0.124	0.09	*
Provincial	0.896	0.949	-0.053	0.12	

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Accrual Quality is the standard deviation of the residuals from the regression of accruals on future year, current year, and previous year's cash flows from operations. Persistence is the estimated slope coefficient from an AR1 model of annual earnings. Predictability is the standard deviation of the residual from the Persistence regression. Smoothness is the ratio of the standard deviation of earnings before extraordinary items (scaled by assets) to the standard deviation of cash flows from operations (scaled by assets).

Table 5: Pairwise Comparisons (continued)

Panel B: Market-Based Earnings Attributes

Location	Incorporation		(1) - (2) Difference	p-value
	(1) Quebec	(2) Non-Quebec		
	Relevance			
CBCA	0.052	0.111	-0.059	0.14
Provincial	0.022	0.033	-0.011	0.39
	Timeliness			
CBCA	0.121	0.109	0.012	0.42
Provincial	0.110	0.037	0.074	0.06 *
	Conservatism			
CBCA	0.316	0.469	-0.153	0.11
Provincial	0.551	0.382	0.169	0.14

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Relevance is the adjusted R^2 from a regression of annual returns on the level and change in annual earnings (before extraordinary items). Timeliness is the adjusted R^2 from a regression of annual earnings (before extraordinary items) on an indicator variable equaling one if the company's annual return is negative and zero otherwise, the company's annual return, and the interaction of the annual return and the indicator variable. Conservatism is the estimated coefficient on the interaction variable from the Timeliness regression.

In summary, we find that differences in earnings attributes persist after controlling for the accounting standards. Our results also point to the importance of controlling for the incorporation decision. After controlling for both accounting standards and for the incorporation decision, we still find differences in earnings attributes.

7. Conclusion and Future Work

This paper investigates whether intra-country variation in legal origin manifests itself in variation in earnings attributes. Specifically, this paper documents variation among Canadian firms' earnings attributes along two dimensions: the location of firms' headquarters (inside or outside Quebec) and the incorporation either at the federal level (CBCA) or at the provincial level. Overall, our results suggest that managers' financial reporting incentives – perhaps driven by financial statement users' differential demand for earnings quality – may differ between civil law and common law regions of a country. On the one hand, Kedia and Rajgopal (2010) offer evidence consistent with geographical variation in financial reporting incentives within the US as they document that SEC enforcement varies with distance of firms' headquarters from the nearest SEC regional office. On the other hand, Bozec, Rousseau, and Laurin (2008) and Merrell (2010) document intra-country variation in ownership structure for Canada and US. Their findings could suggest that legal origin, ownership structure, and firms' incorporation decisions are codetermined and may jointly affect financial reporting incentives.

Kedia and Rajgopal (2009) document variation in the usage of stock options within the US. Future research might investigate whether executive compensation practices vary within Canada between Quebec and non-Quebec companies. While such variation in compensation practices could be attributable to legal origin, this variation might also arise due to partially segmented labor markets due to language barriers. A French speaking executive in Quebec

might be more likely to be hired by a company based in France than a company based in the US or the rest of Canada. Similarly, an English speaking Canadian executive working outside Quebec might be less likely to be hired by a Quebec-based firm where French is the working language than a US-based firm where English is the working language. Since Europe, in general, has lower pay than North America, we would expect lower labor mobility from Canada to France than to the US. Such differences in getting hired might arise from the demand or supply side of the labor market. The demand for executives are likely driven by the language and overall culture a firm and its board members. The supply of executives willing to move are likely guided by the immediate family's functional language and proximity to other family members. Of course, the research setting for such an experiment is not exclusive to Canada, since Belgium is a civil law country which has a similar partition with the north and south being culturally and language-wise closer to The Netherlands and France, respectively. Further, this experiment is more difficult because executive compensation has not traditionally been disclosed in a transparent and consistent manner across Europe. In summary, this paper suggests future research that may further develop and address intra-country variation in corporate governance outcomes.

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Prior research on intra-country variation in legal origin concentrated on the area where differences are likely most pronounced, namely Quebec. Even Wikipedia acknowledges its unique status within Canada:

“Quebec law is unique in Canada because Quebec is the only province in Canada to have a bijuridical legal system under which civil matters are regulated by French-heritage civil law and criminal law operates according to Canadian common law.”

This chapter introduced a second experimental setting where differences, albeit likely less pronounced, might also arise.¹⁷ Again Wikipedia would suggest this to be the case:

“Law in the State of Louisiana is based in part on civil law. Louisiana is unique among the 50 U.S. states in having a legal system partially based on French and Spanish codes and ultimately Roman law, as opposed to English common law.[1] Louisiana thus follows the system of most non-Anglophone countries in the world.”

Another US state that has unique institutional features is Hawaii. Although it had some adaptations from its kingdom past, it does not seem as distinct from English common law as Louisiana.

Among the US territories some are unincorporated organized territories: Guam, Northern Mariana Islands (commonwealth), Puerto Rico (commonwealth), and the United States Virgin

¹⁷ A good summary with other references can be found at:
http://en.wikipedia.org/wiki/Quebec_law
and
http://en.wikipedia.org/wiki/Louisiana_law.

Islands.¹⁸ Among these, Puerto Rico might allow a feasible experimental setting for further investigating the effect of legal origin. Wikipedia also acknowledges this:

“The legal system of Puerto Rico is a mix of the civil law and the common law systems... The Puerto Rico Code (Leyes de Puerto Rico) is modeled on the Spanish Civil Code, which is part of the Law of Spain.”

“Puerto Rico is an "unincorporated territory" of the United States which according to the U.S. Supreme Court's Insular Cases is "a territory appurtenant and belonging to the United States, but not a part of the United States." [50] Puerto Rico is subject to the Congress' plenary powers under the territorial clause of Article IV, sec. 3, of the U.S. Constitution. [51] U.S. federal law applies to Puerto Rico, even though Puerto Rico is not a state of the American Union and has no voting representative in the U.S. Congress. Because of the establishment of the Federal Relations Act of 1950, all federal laws that are "not locally inapplicable" are automatically the law of the land in Puerto Rico.”

But for Puerto Rico, the remaining unincorporated territories of the U.S. seem to rely almost entirely on tourism and therefore do not provide a representative set of industries.

¹⁸ US also includes islands in the South Pacific that are unincorporated, unorganized territories: self-governing American Samoa and Wake Island, which is inhabited only by US military and civilian contractors. Neither has sufficient business to allow an empirical study.

Chapter 2 Appendix A

Appendix A: Provincial and Federal Corporate Acts and Regulators

<i>Province</i>	<i>Corporate Law</i>	<i>Regulator</i>
<i>Alberta</i>	<i>Alberta Business Corporations Act</i>	<i>Alberta Securities Commission</i>
<i>British Columbia</i>	<i>British Columbia Business Corporations Act</i>	<i>British Columbia Securities Commission</i>
<i>Manitoba</i>	<i>Manitoba Corporations Act</i>	<i>Manitoba Securities Commission</i>
<i>New Brunswick</i>	<i>New Brunswick Business Corporations Act</i>	<i>New Brunswick Securities Commission</i>
<i>Newfoundland and Labrador</i>	<i>Newfoundland Corporations Act</i>	<i>Newfoundland and Labrador, Securities Division</i>
<i>Nova Scotia</i>	<i>Nova Scotia Companies Act</i>	<i>Nova Scotia Securities Commission</i>
<i>Ontario</i>	<i>Ontario Business Corporations Act</i>	<i>Ontario Securities Commission</i>
<i>Prince Edward Island</i>	<i>Prince Edward Island Companies Act</i>	
<i>Quebec</i>	<i>Quebec Companies Act</i>	<i>Autorité des Marchés Financiers</i>
<i>Saskatchewan</i>	<i>Saskatchewan Companies Act</i>	<i>Saskatchewan Securities Commission</i>
<i>Yukon Territory</i>	<i>Yukon Business Corporations Act</i>	<i>Registrar of Securities, Yukon Territory</i>
<i>Federal</i>	<i>Canadian Business Corporate Act</i>	

In the US, common law prevails at the federal level and at the state level, except for one state which has a French legal origin, Louisiana. The U.S. Securities and Exchange Commission requires what firms must register their securities.¹⁹ While securities regulation also arises in parallel at the state level, this is largely viewed as coordinated and subsumed by federal regulation. In contrast to Canada, no incorporation statute, which affects corporate governance and shareholder rights, exists at the federal level. U.S. companies must incorporate in a state and the majority chooses Delaware. We note that some companies elect to incorporate in Louisiana. While Louisiana corporate law has integrated much of the common law structure, differences still remain (Merrell 2011).

A common criticism of La Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998) (and other across country studies) is that other factors might be causing the differences in the corporate governance outcomes that they document. Religion, culture, language, and other factors are offered as alternative explanations for differences in ownership concentration. Examining ownership concentration in Louisiana provides a novel setting where religion, culture and language vary little when compared to other U.S. states. By comparing the earnings attributes of firms in Louisiana, we are able to control for important confounding factors and further the literature on the effects of legal origin by potentially ruling out these alternative explanations.

¹⁹ Under the U.S. Securities and Exchange Acts of 1933 and 1934.

Background on Louisiana Law

Comparisons between Louisiana's Code and other states' laws can be difficult to enumerate. There are two factors that make delineating the distinction difficult. First, The Code is not meant to be a straight jacket but more of a set of safeguards (Moreteau 2008). It might be more appropriate to compare The Code to The Constitution in this respect, particularly The Bill of Rights. For instance, The Code specifies, "Everyone has the right to respect for his private life" and "Everyone has the right to respect of the presumption of innocence." Second, Louisiana is a state in the US and, therefore, is subject to the US Constitution and other federal laws. Even though Louisiana law is melding closely with other state laws, there still remain non-trivial variations that could potentially effect investor protections.

Today, Louisiana is a decidedly mixed jurisdiction based on civil and common law in which "civil law and common law meet, merge and interact at the level of legal rules, institutions and reasoning methods" (Palmer 1999). Though mixed with common law, the civil code of Louisiana is still functioning. As Louisiana Judge Dennis wrote in 2003, "[O]ur Civil Code endures and generally governs the all important area of Louisiana's private law" (Dennis 2003).

An example of how investor protections, specifically minority shareholder rights, may differ under the Louisiana Civil Code can be found in the case *Yuseph v. Koch*. In this case, Koch, a majority shareholder of Certified Security Systems, attempted to gain full control of the company via a freeze-out merger with a set cash price to buy out minority shareholders. Yuseph and minority shareholders sued for what they deemed to be an inadequate stock price. Further the minority shareholders had not been informed of Koch's increased ownership of the company which was through unissued stock purchases via a loan restructuring agreement and, therefore, sued for fraud and breach of fiduciary duty. Koch filed an exception of no right of action

arguing that Louisiana Revised Statute section 12:131 (from Louisiana's Civil Code) was the sole remedy for obtaining the fair value for their shares. This would have required Yuspeh to have used an injunction to slow the merger process and receive fair value for their shares. The Fifth Circuit Court of Appeals ruled that the Louisiana statute is not the exclusive remedy because it does not address fraud or breach of fiduciary responsibility. Although the court ruled that no fraud was committed, it ruled there was a breach of fiduciary responsibility by not informing shareholders of the additional stock purchase. This breach was a direct cause for the plaintiffs not being able to utilize the statute to obtain fair value for their positions. Although the ruling helped align Louisiana's protection of minority shareholder's rights in this case (specifically similar to Delaware's *Weinberger v. UOP, Inc.* decision), calls for a statute to better identify these protections remain. "A new Louisiana appraisal rights statute should include a requirement that a minority shareholder be given proper shareholder notice before and after the merger vote to provide him with greater knowledge of his rights and responsibilities" (Aiken 2004).

Data

To identify our sample, we first identified firms incorporated or located in Louisiana on the Compustat Xpressfeed North America database from 1970 to 2009. We retain all firms with necessary financial statement information to construct all seven attributes are available for each firm-year to mitigate concerns that differences in sample composition affect comparisons across attributes. To construct annual returns, we obtain monthly returns data from CRSP. We exclude firms in the financial and utilities industries. The number of firms meeting these requirements is 51.

We follow the same matching procedure as in the Quebec portion of our study, except that we match Louisiana firms with non-Louisiana firms (firms that are neither located or incorporated in Louisiana) on size and industry. We do not match on the level of incorporation because unlike the Quebec portion of our study, no federal incorporation statute exists in the US. Following this procedure, we obtain a sample of 51 Louisiana firms (22 firms incorporated in Louisiana and 29 firms located but not incorporated in Louisiana) with 475 firm-year observations. Untabulated results confirm an effective match on size.

Earnings Attributes

Table B1 compares all Louisiana firms, whether incorporated or located in Louisiana, to their non-Louisiana matched pairs. We find that Conservatism is higher in firms with a French legal origin than a common law legal origin, consistent with our Quebec findings, and inconsistent with the hypothesis from Ball, Kothari and Robin (2000). In general, however, we fail to document significant differences across the various earnings attributes. This may be due to low statistical from our small sample size. Alternatively, the presence of a strong federal regulator, the SEC, and federal securities regulation in the US may lead to comparable earnings quality across firms from common and civil law states.

Further, the inclusion of firms located, but not incorporated in Louisiana, may add noise to our tests if only incorporation law, and not other aspects of Louisiana law, affects earnings quality. In this case, comparing firms incorporated in Louisiana to their non-Louisiana matched pairs should provide the most powerful test for differences in earnings quality across civil and common law states. Table B2 presents the earnings attributes for firms incorporated in Louisiana and their non-Louisiana matched pairs. We find that Relevance is higher for the

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Louisiana firms than for non-Louisiana firms. However, in general we fail to find significant difference across the various earnings attributes. As before, the lack of results may be attributable to the small sample size, or may be due to the strong federal regulatory environment in the US that results in similar earnings quality across common and civil law states.

Table B1: Comparison of Earnings Attributes Between Louisiana and Matched Non-Louisiana Firms

This table compares earnings attributes from Louisiana firms to their non-Louisiana matched pairs. The sample consists of all firms-years for the matched sample and consists of 51 unique Louisiana firms and their matched pairs. Louisiana firms are matched to non-Louisiana firms on industry and market value and all overlapping firm-years are retained resulting in 475 firm-years. The statistical tests of differences are based on bootstrap-based tests (see Section 6 for details).

Panel A: Accounting-Based Earnings Attributes

Earnings Attributes	(1) Louisiana	(2) Non-Louisiana	(1) - (2) Difference	p-value
Accrual Quality	0.070	0.063	0.007	0.15
Persistence	0.555	0.797	-0.242	0.18
Predictability	7.580	6.277	1.303	0.26
Smoothness	1.265	1.181	0.084	0.36

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Accrual Quality is the standard deviation of the residuals from the regression of accruals on future year, current year, and previous year's cash flows from operations. Persistence is the estimated slope coefficient from an AR1 model of annual earnings. Predictability is the standard deviation of the residual from the Persistence regression. Smoothness is the ratio of the standard deviation of earnings before extraordinary items (scaled by assets) to the standard deviation of cash flows from operations (scaled by assets).

Table B1: Comparison of Earnings Attributes Between Louisiana and Matched Non-Louisiana Firms (continued)

Panel B: Market-Based Earnings Attributes

Earnings Attributes	(1) Louisiana	(2) Non-Louisiana	(1) - (2) Difference	p-value
Relevance	0.104	0.047	0.057	0.19
Timeliness	0.087	0.093	-0.006	0.43
Conservatism	0.695	0.282	0.413	0.04 **

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Relevance is the adjusted R^2 from a regression of annual returns on the level and change in annual earnings (before extraordinary items). Timeliness is the adjusted R^2 from a regression of annual earnings (before extraordinary items) on an indicator variable equaling one if the company's annual return is negative and zero otherwise, the company's annual return, and the interaction of the annual return and the indicator variable. Conservatism is the estimated coefficient on the interaction variable from the Timeliness regression.

Table B2: Comparison of Earnings Attributes Between Louisiana and Matched Non-Louisiana Firms – Firms Incorporated in Louisiana

This table compares earnings attributes from Louisiana firms that are incorporated in Louisiana to their non-Louisiana matched pairs. The sample consists of all firms-years for the matched sample and consists of 22 unique Louisiana firms and their matched pairs. Louisiana firms are matched to non-Louisiana firms on industry and market value and all overlapping firm-years are retained resulting in 209 firm-years. The statistical tests of differences are based on bootstrap-based tests (see Section 6 for details).

Panel A: Accounting-Based Earnings Attributes

<u>Earnings Attributes</u>	<u>(1) Louisiana</u>	<u>(2) Non-Louisiana</u>	<u>(1) - (2) Difference</u>	<u>p-value</u>
Accrual Quality	0.066	0.077	-0.011	0.13
Persistence	0.555	0.801	-0.246	0.19
Predictability	10.552	8.944	1.607	0.31
Smoothness	1.546	1.254	0.292	0.14

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Accrual Quality is the standard deviation of the residuals from the regression of accruals on future year, current year, and previous year's cash flows from operations. Persistence is the estimated slope coefficient from an AR1 model of annual earnings. Predictability is the standard deviation of the residual from the Persistence regression. Smoothness is the ratio of the standard deviation of earnings before extraordinary items (scaled by assets) to the standard deviation of cash flows from operations (scaled by assets).

Table B2: Comparison of Earnings Attributes Between Louisiana and Matched Non-Louisiana Firms – Firms Incorporated in Louisiana (continued)

Panel B: Market-Based Earnings Attributes

<u>Earnings Attributes</u>	<u>(1) Louisiana</u>	<u>(2) Non-Louisiana</u>	<u>(1) - (2) Difference</u>	<u>p-value</u>
Relevance	0.051	0.027	0.024	0.01 ***
Timeliness	0.073	0.050	0.023	0.32
Conservatism	0.518	0.243	0.275	0.16

***, **, * indicates statistically different at the 1%, 5%, and 10% level, respectively (two-tailed).

Relevance is the adjusted R^2 from a regression of annual returns on the level and change in annual earnings (before extraordinary items). Timeliness is the adjusted R^2 from a regression of annual earnings (before extraordinary items) on an indicator variable equaling one if the company's annual return is negative and zero otherwise, the company's annual return, and the interaction of the annual return and the indicator variable. Conservatism is the estimated coefficient on the interaction variable from the Timeliness regression.