# **Corruption Culture and Corporate Misconduct**

Xiaoding Liu
Assistant Professor of Finance
University of Oregon

December 26, 2014

#### **Abstract**

Using cultural background information on key insiders, I construct a measure of corporate culture, termed as corporate corruption culture, capturing a firm's general attitude toward opportunistic behavior. Firms with high corruption culture are more likely to engage in earnings management, accounting fraud, option backdating, and opportunistic insider trading. I further explore how corruption culture impacts corporate misconduct and find evidence that it works by both acting as a selection mechanism and by having a direct influence on individual behavior. I also study the dynamics of corruption culture and find that it arises from the attraction, selection, and attribution process and that founders and new CEOs play an important role in the formation and evolution of corruption culture.

## I. Introduction

A defining feature of the modern corporation is the separation of ownership and control. This organizational structure allows corporations to pool capital from many dispersed individuals, but it also gives rise to conflicts of interest between agents and principals. The key research question in the corporate governance literature is how to devise governance mechanisms to optimally control these agency problems. While traditional governance mechanisms have been studied extensively, relatively little is known about the role of corporate culture in influencing opportunistic behavior.

Corporate culture is defined as the shared values and beliefs of a firm's employees (Donaldson and Lorsch, 1983; Schein, 1985; Kotter and Heskett, 1992). These shared values and beliefs can influence decision-making in the firm through both the internal norms of individual decision-makers and group norms (Hackman, 1992; Gintis, 2003). While the importance of corporate culture has long been recognized in the literature, empirical research on this topic is limited due to measurement difficulties. In this paper, I study corporate corruption culture and examine whether it can play an important role in determining corporate misconduct. This measure does not necessarily pick up all aspects of corporate culture, but rather, captures a general attitude toward opportunistic behavior.

Corruption is commonly defined as "the abuse of entrusted power for private gains".<sup>2</sup> It is similar to corporate misconduct in nature, which also involves individuals with entrusted power (i.e., officers and directors) accruing private benefits through means that are unlawful or in violation of their fiduciary duty to shareholders. Thus, the main testable hypothesis is that firms with high corruption culture, which tend to be more tolerant toward corrupt behavior, are more likely to engage in corporate misconduct.

<sup>&</sup>lt;sup>1</sup> The theoretical literature on corporate culture is still at an early stage. See Hermalin (2001) for a review. Some notable papers include Kreps (1990), Crémer (1993), Lazear (1995), and Van de Steen (2010).

<sup>&</sup>lt;sup>2</sup> This is the definition used by Transparency International, a leading anti-corruption organization.

In contrast to most empirical studies of corporate culture that rely on small sample surveys and field cases, I use a firm-specific measure of corporate corruption culture for a sample of over 8,000 publicly traded firms in the U.S. from 1988 to 2006. Corporate corruption culture is measured as the average corruption attitudes of officers and directors of a company.<sup>3</sup> I focus on these insiders since the culture literature has emphasized the role of leaders and key decision makers in the formation and propagation of corporate culture (Donaldson and Lorsch, 1983; Schein, 1985; Kotter and Heskett, 1992).

To measure corruption attitudes, I employ the epidemiological approach from the economics literature, which uses relevant economic outcomes in the country of ancestry as proxies of culture for immigrants and their descendants (Fernández, 2011). Here, I use corruption in the insider's country of ancestry, measured as the Transparency International's Corruption Perception Index, to capture corruption culture for company insiders in the U.S. While corruption in the country of ancestry is determined by a host of legal, economic, and cultural factors, only the cultural component of corruption is relevant for immigrants and their descendants in the U.S. because beliefs and attitudes, unlike institutions and markets, are geographically mobile and can be passed down through generations. The country of ancestry is identified as the country origin of insiders' surnames based on census records following prior studies (e.g., Lauderdale and Kestenbaum, 2000). The list of officers and directors come from Compact Disclosure, which is available from 1988 to 2006.

I use four different measures of opportunistic behavior to test the main hypothesis: earnings management, accounting fraud, option backdating, and opportunistic insider trading. In addition to time-varying industry and market misconduct rates, I also control for time-varying local misconduct rates based on the finding by Parsons, Sulaeman, and Titman (2014) that a firm's likelihood of engaging in misconduct is related to the misconduct rates of firms in the same locale through peer spillover effects. Across all four measures, I consistently find that

<sup>&</sup>lt;sup>3</sup> I also use alternative weighting schemes such as giving a higher weight to CEOs, which yield similar results.

firms with high corruption culture are significantly more likely to engage in corporate misbehavior. These effects are also economically important: a one standard deviation increase in a firm's corruption culture increases the incidence of earnings management, accounting fraud, option backdating, and opportunistic insider trading by 1.9%, 5.5%, 4.6%, and 7.0%, respectively. These effects are comparable to other studies examining various predictors of corporate misconduct such as board independence and local religiosity.

Next, I investigate the mechanisms through which corruption culture influences corporate misconduct. In particular, I exploit data on the entry and exit of corporate insiders to shed light on whether the effect arises through a selection effect whereby individuals with similar attitudes are attracted to the organization or a direct effect on individuals that goes beyond their own personal attitudes.

First, I examine corruption culture as a potential selection mechanism. I find evidence that new insiders with high corruption attitudes are more likely to join firms with high corruption culture. Moreover, an insider is more likely to leave the firm within one year if there is a larger difference between his corruption attitudes and the firm's existing corruption culture. This is consistent with corporate culture arising from the attraction-selection-attrition (ASA) process (Schneider, 1987), where "attraction to an organization, selection by it, and attrition from it yield particular kinds of persons in an organization. These people determine organizational behavior."

I further explore the selection channel by focusing on two points in a firm's life when important selection decisions are made: at the start of the firm when corporate culture is created and around new CEO appointments when corporate culture evolves. Consistent with the formation of corporate culture, I find that founders and early leaders select subsequent employees with corruption attitudes that are similar to their own. I also analyze the role of new CEOs. In line with the theoretical literature (e.g., Van den Steen, 2010) highlighting the importance of new CEOs in realigning corporate culture, I find that insider turnover significantly increases around the time of CEO turnover. Specifically, insiders that have different corruption

attitudes from the new CEO are more likely to leave the firm within one year and new insiders with high corruption attitudes are more likely to join firms led by new CEOs with high corruption attitudes.

Second, I assess the possibility that corporate culture is not merely a selection mechanism, but can also have a direct effect on individuals beyond their personal attitudes. I focus on the sample of insiders that have moved across firms and control for person fixed effects, which removes the effect of internal norms. Holding the individual constant, results show that when the same individual joins a firm with high corruption culture, his likelihood of engaging in corporate misconduct increases compared to when he was at a firm with low corruption culture. Thus, the evidence suggests that corruption culture has a direct influence on individual behaviors in addition to acting as a selection mechanism.

The positive relation between corruption culture and corporate misconduct, however, may be driven by omitted variables that are correlated with both corruption culture and the firm's tendency to engage in corporate misbehavior. To examine this concern, I control for another firm-specific culture measure, corporate philanthropy, proposed by Bereskin, Campbell, and Kedia (2014). Additionally, I also control for measures of corporate governance such as board size, the percentage of insider directors, the fraction of shares held by institutional investors, and an index measuring a firm's vulnerability to hostile takeovers. The main results remain economically and statistically significant after controlling for these variables.

To further address the omitted variable concern, I pursue an instrumental variable approach using a firm-specific instrument based on the theoretical literature on corporate culture: the corruption attitudes of founders and early leaders who have left the firm. While these founders and early leaders do not directly influence corporate decision-making since they are no longer in the corporation, their corruption attitudes can still influence the content of a firm's culture as shown theoretically by Van den Steen (2010). Thus, it is possible that these founders and early leaders' corruption attitudes only affect corporate misconduct through their influence

on the firm's corruption culture. The IV estimates are similar to those in the baseline models, supporting the causal interpretation that a firm's corruption culture increases the likelihood of corporate misconduct.

I conduct a variety of checks on my main measure to test its internal consistency and external validity. In particular, the validity of the firm corruption culture measure relies on the assumption that corruption in the country of ancestry captures the individual's corruption beliefs. Consistent with this assumption, I use data from the U.S. General Social Survey and find that individuals from high corruption ancestry countries express a higher tolerance for questionable conduct such as cheating on income taxes and lying to the government. I also conduct an external validation test using crime as an example of questionable behavior outside the corporate context and find that counties with higher corruption culture have more criminal activities.

A potential drawback of the corruption culture measure is that it may have low power since the impact of ancestry country culture tends to attenuate overtime with increasing number of generations. Although this possibility likely creates a bias against finding culture to be significant, I also examine this issue empirically by collecting insiders' birth location information from *Marquis Who's Who* biographies to identify those who are first generation immigrants. Consistent with the main results, I find that insiders born in high corruption countries are more likely to engage in corporate misconduct. Thus, similar results are observed for both first generation immigrants and higher generation immigrants, providing additional support for the main culture measure.

Taken together, the paper shows that a firm's corruption culture is an important determinant of corporate misconduct and it works by both acting as a selection mechanism and by having a direct influence on individual behavior. The finding is also robust to instrumental variable analysis and consistent with evidence based on individual surveys and non-corporate outcomes.

The paper contributes to the economic and finance literature in several ways. Foremost, the paper belongs to a growing finance literature examining the effect of corporate culture. The main challenge in this literature is to quantify and measure corporate culture. Since it is difficult to measure attitudes and values directly at the firm level, prior studies have used local culture measures such as religiosity around a firm's headquarters as a proxy for corporate culture (e.g., Hilary and Hui, 2009; Grullon, Kanatas, Weston, 2010; McGuire, Omer, and Sharp, 2012). While these measures can capture the culture of lower level employees residing around the firm's headquarters, they are not good proxies for culture at the top management level since the insiders are typically not local. Moreover, the local measure may be correlated with non-cultural factors such as local economic conditions that can have a direct influence on corporate behavior.

In contrast to prior studies, I construct a firm-specific measure of corporate culture, reflecting the concept that corporate culture is a phenomenon unique to each firm. The study by Bereskin, Campbell, and Kedia (2014) also proposes a firm-specific culture measure based on corporate philanthropic activities. Different from this study, I do not rely on observed corporate actions to infer a firm's underlying culture. Instead, I measure insiders' corruption attitudes directly, which is closer in line with the definition of corporate culture.

Another challenge in the corporate culture literature is to understand the mechanisms through which corporate culture influences corporate behavior. To fill this void, I provide novel evidence on how corporate culture matters by measuring corruption attitudes at the individual insider level and track insiders within and across firms. Moreover, I exploit data on the entry and exit of corporate insiders to shed light on the inner workings of corporate culture. In particular, I find evidence that corporate culture arises from the ASA process consistent with the conceptual framework of Schneider (1987). I also document the importance of founders and new CEOs in the formation and evolution of corporate culture.

While studies in the management literature have examined corporate culture, they have relied mostly on firm surveys and field cases (Scandura and Williams, 2000; Hermalin, 2001).

This paper adds to a small number of studies (e.g., Cronqvist, Low, and Nilsson, 2009) that examine corporate culture in a larger, and more representative set of firms. The paper also outlines a general methodology that can be used to measure corporate culture and potentially analyze a set of new inquiries that can enrich our understanding of corporate decision-making.

More broadly, the paper belongs to a growing economics literature documenting the importance of culture in determining economic outcomes. Traditionally, studies in this literature (e.g., Fisman and Miguel, 2007; DeBacker, Heim, and Tran, 2014) analyze culture by examining the behaviors of foreign nationals. However, due to direct economic and political ties to their native countries, it is difficult to attribute differences in behaviors of foreign nationals to culture. To address this issue, a new approach is developed to better isolate cultural from non-cultural factors by focusing on immigrants and their descendants (Guiso, Sapienza, and Zingales, 2006; Fernández, 2011). This approach has been used to study the effect of culture on many individual outcomes such as labor choices (Fernández and Fogli, 2009) and the use of financial contracts (Guiso, Sapienza, and Zingales, 2004). I add to these studies by showing that inherited cultural attitudes not only affect individual behavior, but they can also permeate through the organization and influence corporate outcomes.

The paper proceeds as follows. Section II constructs the corporate corruption culture measure. Section III describes the data and the corporate misconduct measures. Section IV presents the main results. Section V investigates how corruption culture influences corporate misconduct. Section VI analyzes issues of endogeneity. Section VII examines the robustness and the validity of the main measure. Section VIII concludes.

<sup>&</sup>lt;sup>4</sup> Two recent related studies are Fisman and Miguel (2007) and DeBacker, Heim, and Tran (2014), where the former studies parking violations accumulated by United Nations diplomats in NYC and the latter studies tax evasion activities of foreign owners in corporations with operations in the U.S. The UN diplomats in Fisman and Miguel (2007) can have different incentives since they encounter different punishment when they return to their native countries. The foreign owners in DeBacker, Heim, and Tran (2014) still reside in their native countries, thus may face different economic and legal environment that influences their behavior.

## **II.** Measuring Corporate Corruption Culture

Corporate culture is defined as the shared values and beliefs of a firm's employees. For several reasons, I focus on company insiders and measure corporate corruption culture as the average corruption attitudes of officers and directors of a company. First, not all employees contribute equally to corporate culture. In particular, the culture literature has emphasized the role of leaders and key decision makers in the formation and propagation of corporate culture (Donaldson and Lorsch, 1983; Schein, 1985; Kotter and Heskett, 1992). The leaders also determine whether behavior adheres to the organization's cultural norms and set sanctions on those who violate these norms (Hermalin, 2012). Second, since leaders create and disseminate culture within the organization by hiring and attracting employees with similar beliefs (Van den Steen, 2010), it is reasonable to assume that lower level employees have similar values as their leaders. Third, the key insiders are mainly responsible for the corporate misconduct decisions examined in the paper, thus their cultural attitudes should be more relevant and important than those of lower level employees.

To measure corruption attitudes of insiders, I use a recently developed methodology from the economics literature that is generally described as the epidemiological approach (Fernández, 2011). It is based on the key idea that environmental factors such as economic and institutional settings are geographically immobile, while cultural factors are geographically mobile. In other words, when individuals emigrate from their native country to a new country, their cultural beliefs and values travel with them, but their external environment is left behind. Moreover,

<sup>&</sup>lt;sup>5</sup> Although lower level employees are deemed as less important in the formation and dissemination of corporate culture, it may also be interesting to examine their culture. However, unlike officers and directors, it is not possible to identify a firm's lower level employees individually. Although local culture around a firm's headquarters may be used as a proxy for culture at the lower employee level, this measure suffers from the problem that it may be correlated with non-cultural factors such as local economic conditions and local peer spillovers.

<sup>&</sup>lt;sup>6</sup> Besides officers, directors also play a significant role in forming corporate culture since they make key hiring and firing decisions. For robustness, I exclude directors and only focus on officers, the results are similar.

these immigrants not only bring their beliefs and values to the new country, they also pass down these beliefs to their descendants.<sup>7</sup>

To apply this approach, relevant economic outcomes at the country of ancestry are used as proxies of culture for immigrants and their descendants. In the economics literature, this approach has been used to study the effect of culture on many outcomes such as labor choices (Fernández and Fogli, 2009), family living arrangements (Giuliano, 2007), savings behavior (Carroll, Rhee and Rhee, 1994), the propensity to shirk at work (Ichino and Maggi, 2000), and the use of financial contracts (Guiso, Sapienza, and Zingales, 2004). In this case, I use corruption in the country of ancestry to capture corruption beliefs for people in the U.S. While corruption in the country of ancestry is determined by a host of legal, economic, and cultural factors, only the cultural component of corruption is relevant for immigrants and their descendants in the U.S. because beliefs and attitudes, unlike institutions and markets, are geographically mobile and can be passed down through generations.

Specifically, I link an insider's country of ancestry to the corruption index value in that country. Since insiders' country of ancestry is rarely, if at all, disclosed in any public source, I use the country origin of their surnames as a proxy for the country of ancestry. While the use of names to classify populations into different ethnic groups has been around since the early 1900s (Rossiter, 1909), most recent efforts have been concentrated in the public health and population genetics literature (Mateos, 2007). Several recent studies (Kerr and Lincoln, 2010; Bengtsson and Hsu, 2013; Hegde and Tumlinson, 2013; Gompers, Mukharlyamov and Xuan, 2014) in the entrepreneurial finance literature also use surnames to identify the ethnic origin of inventors, venture capitalists, and entrepreneurial founders.

Following the methodology of Lauderdale and Kestenbaum (2000), I use 26 million U.S. Census records from 1850 to 1930 to identify the country of origin of surnames in a systematic

<sup>&</sup>lt;sup>7</sup> See the survey by Bisin and Verdier (2011) for evidence on intergenerational transmission of cultural beliefs. In particular, Simpser (2013) provides empirical evidence on the intergenerational transmission of attitudes toward corruption.

way. These records represent the complete set of Census records available to the public in which the respondents' names are disclosed since they are no longer subject to the 72-year confidentiality rule. To identify the country of origin of surnames, I restrict the dataset to first and second generation immigrants whose country of birth or father's country of birth is outside of the United States. I then link each unique surname from the Census records to its most frequently associated country of birth or father's country of birth. For instance, the surname "Wong" is linked to China because 97.2% of immigrants with the same surname are from China. To ensure reliability, I only keep surnames for which the associated country of birth appears in more than 75% of the cases. This restriction limits the database to surnames that are mostly associated with a single country of origin and eliminates surnames that are frequently associated with more than one country. For the 3000 most frequently used surnames in the sample, I hand-check their country of origin using sources such as ancestry.com, which provides a distribution of U.S. immigrants based on port entry records. The procedure generates a list of over 900,000 surnames and their associated country of origin.

I then merge the surname data with the list of officers and directors from Compact Disclosure from 1988 to 2006, which covers a much more comprehensive set of firms than the Execucomp dataset. Of the 1.8 million firm-year-insider observations, close to 80% are matched to a country of origin. Finally, I link the surname's country of origin to its corresponding corruption index value, which is the average Transparency International's Corruption Perception Index value from 1980 to 2009 constructed based on surveys of journalists, analysts, and consultants, where higher index values denote more corruption. The corruption index ranges from 0.6 (Denmark) to 8.6 (Somalia), where U.S. has an index value of 2.4. These corruption indices have been used by many papers including Mauro (1995), Ades and Di Tella (1999), Fisman and Miguel (2007), and DeBacker, Heim, and Tran (2012).

<sup>&</sup>lt;sup>8</sup> For robustness, I also use a commercial dataset to match names to their countries of origin in Section VII.

<sup>&</sup>lt;sup>9</sup> For robustness, I also use corruption indices from different years including the earliest year (1980), which yield results that are qualitatively similar. Also note that the corruption index is based on survey responses from third parties, not self-reported survey responses from the potentially corrupt officials themselves.

For each firm-year, the corruption culture measure is calculated as the mean corruption index value for all insiders including officers and directors. The firm-year level summary statistics for the corruption culture measure are reported in Table 1. It has a mean of 2.3 and a standard deviation of 0.705. The (unreported) minimum and maximum of the corruption culture measure are 1.6 and 8.1, respectively.

## III. Data and Measures of Corporate Misconduct

### A. Main Sample

To construct the main dataset used in the empirical analysis, I start with the entire Compustat sample from 1988 to 2006. The sample period is based on the availability of the Compact Disclosure data, which I use to identify officers and directors. I exclude ADRs, closedend funds, special purpose acquisition companies (SPACs), REITs, stocks with CRSP share codes other than 10 or 11, and firms incorporated or headquartered outside of the U.S. In other words, I restrict the sample to publicly traded operating firms in the U.S. Accounting data are from Compustat, and stock data are from the Center for Research in Security Prices (CRSP).

### **B.** Description of the Dependent Variables

To examine whether a firm's corruption culture can impact the likelihood of corporate misconduct, I examine four types of corporate misbehaviors that can be measured systematically and have been previously studied.

### B.1. Earnings Management

While managing earnings does not constitute fraudulent behavior per se, managed earnings have the potential to mislead investors and can lead to earnings restatements, shareholder lawsuits, and SEC enforcement actions resulting in significant losses for shareholders. As evidence of the impact of financial misrepresentations on shareholder value, Karpoff, Lee, and Martin (2008) report that firms on average lose 41% of their market values upon the discovery of such misconduct.

To measure the extent of earnings management, I use the absolute value of abnormal discretionary accruals following the literature. Since earnings cannot be consistently managed in a single direction and negative abnormal accruals can reflect the unwinding of prior upward managing activity, the unsigned accruals are used to capture the general propensity to manage earnings.

To obtain the normal level of accruals, I use the modified Jones (1991) model, as implemented by Dechow, Sloan, and Sweeney (1995). Kothari, Leone, and Wasley (2005) suggest that the accrual model can be improved by controlling for firm performance. Thus, I also include return on assets from the prior year,  $\frac{IBC_{i,j,t-1}}{AT_{i,j,t-1}}$ , in the model. For each industry-year (j, t) group of more than eight firms, I run the following cross-sectional regression:

$$\frac{TAC_{i,j,t}}{AT_{i,j,t-1}} = \alpha_{0,j,t} + \alpha_{1,j,t} \left(\frac{1}{AT_{i,j,t-1}}\right) + \beta_{j,t} \left(\frac{\Delta SALE_{i,j,t}}{AT_{i,j,t-1}}\right) + \gamma_{j,t} \left(\frac{PPEGT_{i,j,t}}{AT_{i,j,t-1}}\right) + \delta_{j,t} \left(\frac{IBC_{i,j,t-1}}{AT_{i,j,t-1}}\right) + \epsilon_{i,j,t}, \quad (1)$$

where industry j is defined at the two-digit SIC level, i indexes firms, and t indexes time. Total accruals, TAC, is defined as the difference between income before extraordinary items (IBC) and operating activities net cash flow (OANCF).  $^{11}$   $\Delta$  denotes the change from year t-I to year t. Other variables in equation (2) are directly obtained from Compustat, where AT is total assets, SALE is net sales, and PPEGT is the gross value of property, plant, and equipment. TAC/AT is truncated at the 99th percentile of its absolute value and all other variables are winsorized at the 1st and 99th percentiles before estimation.

The coefficients from equation (1) are used to calculate the normal accruals, *NAC*, for each firm as

$$NAC_{i,j,t} = \hat{\alpha}_{0,j,t} + \hat{\alpha}_{1,j,t} \left( \frac{1}{AT_{i,j,t-1}} \right) + \hat{\beta}_{j,t} \left( \frac{\Delta SALE_{i,j,t} - \Delta RECT_{i,j,t}}{AT_{i,j,t-1}} \right) + \hat{\gamma}_{j,t} \left( \frac{PPEGT_{i,j,t}}{AT_{i,j,t-1}} \right) + \hat{\delta}_{j,t} \left( \frac{IBC_{i,j,t-1}}{AT_{i,j,t-1}} \right), \quad (2)$$

<sup>&</sup>lt;sup>10</sup> Many other studies measure earnings management as the absolute value of abnormal discretionary accrual. Some examples are Dechow and Dichev (2002), Klein (2002), Cohen, Dey, and Lys (2008), Yu (2008), and Hazarika, Karpoff, and Nahata (2012).

<sup>&</sup>lt;sup>11</sup> If *OANCF* is missing, then it is constructed from the balance sheet as  $IB - [(\Delta ACT - \Delta LCT - \Delta CHE + \Delta DLC) - DP]$ , where IB is income before extraordinary items from the income statement, ACT is current assets, LCT is current liabilities, CHE is cash and short-term investments, DLC is debt in current liabilities, and DP is depreciation and amortization.

where  $\Delta RECT_{i,j,t}$  is the change in receivables from year t-1 to year t. Thus, the abnormal discretionary accruals, AAC, is calculated as

$$AAC_{i,j,t} = \frac{{}^{TAC_{i,j,t}}}{{}^{AT_{i,j,t-1}}} - NAC_{i,j,t}. \tag{3}$$

The earnings management measure is the absolute value of the abnormal discretionary accruals, *AAC*, estimated from equation (3). The final earnings management regression sample consists of 57,933 firm-years for 8,038 firms during 1988-2006. The summary statistics for the main variables used in the empirical analysis are presented in Table 1. The earnings management measure has a mean and a standard deviation of 0.088 and 0.052, respectively, which are similar to the ones reported in Hazarika, Karpoff, and Nahata (2012).

### B.2. Accounting Frauds

I construct an accounting fraud dummy that equals one (zero otherwise) if the firm has experienced one of following three events.

First, the firm-year is within a class action lawsuit period, which refers to the period when the alleged misconduct is occurring. Lawsuits data come from the Stanford Securities Class Action Clearinghouse database, which provides a list of federal securities class action lawsuits filed under the Securities Act of 1933 and the Securities Exchange Act of 1934 beginning in 1996, following the passage of the Private Securities Litigation Reform Act in 1995. Cases involving IPO underwriters, analysts, or mutual funds rather than firm management are excluded from the sample. The remaining cases typically involve financial misrepresentation, accounting manipulations and insider trading. Following Dyck, Morse, and Zingales (2010), I also exclude cases that are subsequently dismissed and those with a settlement amount of less than \$3 million, to avoid cases that are settled due to negative publicity alone.

Second, earnings are misstated in that firm-year according to the SEC's Accounting and Auditing Enforcement Releases (AAER), which are issued for violations of SEC Rule 10b-5. AAER data come from Dechow, Ge, Larson, and Sloan (2011).

Third, the firm announced an earnings restatement in that year according to the database compiled by the General Accounting Office (GAO) in 2003 and 2006 and the restatement is classified as an irregularity. In order to distinguish irregularities (intentional restatements) from errors (unintentional restatements), I use the data from Hennes, Leone, and Miller (2008), which identifies irregularities based on whether the words "fraud" or "irregularity" are used in the restatement disclosures or whether the restatement leads to an investigation by the SEC, the Attorney General's Office, or the company's board. From 1988 to 2006, 3.0% of the firm-year observations have a fraud dummy of one.

### *B.3. Option Backdating*

Insiders may have a desire to extract more private benefits by raising the level of compensation, but overt increases anger shareholders. Options backdating provides a way for company insiders to obtain more attractive compensation packages without having to report higher expenses to their shareholders. This type of insider opportunistic behavior came to the public's attention following research by Lie (2005). The option backdating revelations led to a wave of SEC investigations and lawsuits.

To identify potential backdated options, I follow the procedure in Bebchuk, Grinstein, and Peyer (2010) and use data from Thomson Financial's insider trading database. The dependent variable is an insider backdating dummy, which equals one (zero otherwise) if the strike price of at least one insider's option grant in a given year is the lowest price of the month. Insiders include all officers and directors. The final sample consists of 32,542 firm-year observations for 6,738 firms in 1996-2006, where 20.6% of the observations have a backdating dummy of one.

### *B.4. Opportunistic Insider Trading*

Insiders have access to non-public information, and this advantage can be used to accrue personal benefits. A particular way for insiders to enrich themselves is to engage in opportunistic insider trading, that is, trading in their own company stock based on non-public information.

Such actions benefit insiders, while imposing potential costs on other shareholders. From a legal perspective, insider trading based on non-public information is prohibited by SEC Rule 10b5-1.

Empirically, it is difficult to distinguish opportunistic trades from legal trades. I use the measure developed by Rozanov (2008) to identify the insider trades that are more likely to be based on non-public information. The key measure is a price pattern ratio, which is computed as the ratio of the market-adjusted gross return over the 20 trading days following the insider transaction to the market-adjusted gross return over the 20 trading days preceding the insider transaction. I average the price pattern ratios across trading days in a given year into a single measure for each firm-year observation. Based on the idea that the profitability of an insider trade reflects the extent of the insider's informational advantage, the price pattern measure should be higher for more favorable insider buys and lower for more favorable insider sells. Rozanov (2008) shows in a series of validity tests that the price pattern measure is positively related to favorable earnings guidance and the probability of subsequent class action lawsuits, which provide additional support for the notion that this measure is reflective of information-based trades.

I use insider-trading data from Thomson Financial, with cleansing code of either H or R. Rather than analyzing all transactions, like Rozanov (2008), I focus on insider (all officers and directors) purchase transactions (excluding option exercises) as a cleaner sample. Prior studies (e.g., Ravina and Sapienza, 2009) find that executives do not earn positive abnormal returns on sales, but they do on purchases. The final regression sample consists of 37,163 firm-years for 7,265 firms during 1988-2006.

## IV. Main Analysis

### A. Model Specifications

 $<sup>^{12}</sup>$  I also calculate the price pattern ratio based on raw profits without market adjustments and the results are similar.

To estimate the relationship between corporate corruption culture and the incidence of corporate misconduct, I use the following models:

$$Y_{ijkt} = Y_{kt,-i} + Y_{jt,-i} + Y_{t,-k,-j} + \beta Corruption Culture_{it} + \gamma' X_{ijt} + \epsilon_{ijt}, \tag{4}$$

$$Prob(Y_{ijkt}=1) = F(Y_{kt,-i} + Y_{jt,-i} + Y_{t,-k,-j} + \beta Corruption Culture_{it} + \gamma' X_{ijt} + \epsilon_{ijt}),$$
 (5)

where i indexes firms, k indexes counties, j indexes (49 Fama-French (1997)) industries, and t indexes time. Parsons, Sulaeman, and Titman (2014) show that a firm's likelihood of engaging in misconduct is related to the misconduct rates of firms in the same locale and the relation is likely driven by social interactions among neighboring firms. In addition, other local factors such as local economic conditions and political environment may also impact the incidence of corporate misconduct. To account for this local effect, I control for time-varying local misconduct rates in addition to time-varying industry and market misconduct rates.  $Y_{kt,-i}$  is the average misconduct rate for firms located in the same county k and in the same year t excluding firm i.  $Y_{jt,-i}$  is the average misconduct rate for firms in the same industry j and in the same year t excluding firm i.  $Y_{t,-k,-j}$  is the average misconduct rate for all firms in the same year excluding those in county k and industry j.

Corruption culture is the average corruption attitudes for the firm's insiders as a group and the measure varies by firm and year.  $X_{ijt}$  is a vector of firm level controls, which include size, age, market-to-book, leverage, profitability, stock volatility, capital intensity, intangible intensity, and a high-tech dummy in all regressions. For the earnings management and accounting fraud regressions, I follow the prior literature (e.g., Hribar and Nichols, 2007) and control for operating cycle, loss percentage, sales growth, sales volatility, and cash flow volatility. I control for the number of stock options granted in the option backdating regression and the number of shares traded in the opportunistic insider trading regression.

 $Y_{ijkt}$  denotes the absolute abnormal discretionary accruals in the earnings management regression, the fraud dummy in the fraud regression, the insider backdating dummy in the insider backdating regression, and the price pattern ratio in the opportunistic insider trading regression.

Earnings management and opportunistic insider trading regressions use OLS estimation as in model (4), whereas accounting fraud and insider backdating regressions uses probit estimation as in model (5). If firms with high corruption culture are more tolerant toward corporate misconduct, then I expect a positive relation between corruption culture and measures of corporate misconduct.

### **B.** Main Results

The main regression results for earnings management, accounting fraud, option backdating, and opportunistic insider trading are presented in Tables 2A to 2D. Since the key variable of interest, Corruption Culture, varies by firm and year, I cluster the standard errors by firm to account for potential within-firm correlation of the residuals.

In Table 2A, the dependent variable is earnings management, calculated as the absolute value of abnormal discretionary accruals scaled by total assets. In column (1), the coefficient on corruption culture is 0.309 (t=2.63) without accounting for local, industry and market effects. The earnings management measure is averaged across each county-year pair and added as an additional control in column (2). The county-year mean of the earnings management measure is positively related to the firm's earnings management level, consistent with the local effect documented in Parsons, Sulaeman, and Titman (2014). In the same column, the coefficient on corruption culture is 0.264 (t=2.23), which is smaller than the one from the previous column, suggesting that part of the original effect is captured by local factors.

When local, industry, and market factors are all controlled for in column (4), the coefficient on corruption culture is 0.240 (t=2.04), which is consistent with the main prediction that firms with high corruption culture are more likely to engage in earnings management. In terms of economic effects, a one standard deviation (0.705) increase in the firm's corruption culture increases earnings management by 0.169%, which is 1.9% of the mean absolute abnormal accruals of 8.8%. This is similar to the effect of local religiosity, measured as the number of adherents divided by county population, which reduces earnings management by

2.3% for a one standard deviation increase in religiosity based on the estimates reported by Dyreng, Mayew, and Williams (2010). Also in column (4), the county-year mean has a coefficient of 0.044 (t=5.23), suggesting that a standard deviation (0.068) increase in this mean increases earnings management by 3.4%, further highlighting the importance of controlling for local effects.

Table 2B examines the relation between corruption culture and accounting fraud, which is a dummy that equals one (zero otherwise) if the firm-year is within a class action lawsuit period or has misstated earnings according to AAER or GAO. In column (1), the coefficient on corruption culture is 0.490 (t=3.92). The estimates for corruption culture become smaller moving from column (1) to column (4) as more controls are added to the regressions, suggesting that part of the effect in column (1) is due to local, industry, and market factors. In all four columns, the coefficients on corruption culture are positive and statistically significant, consistent with the main prediction. The estimate of 0.232 (t=2.20) in column (4) indicates that a one standard deviation (0.705) increase in the firm's corruption culture increases the incidence of accounting fraud by 0.164%, which is 5.5% of the mean accounting fraud rate of 3.0%. This effect is notable since Larcker, Richardson, and Tuna (2007) show that typical measures of corporate governance have little relation to the incidence of accounting fraud.

In Table 2C, the estimated marginal effects for option backdating are reported, where the backdating dummy equals one (zero otherwise) if the strike price of at least one insider's option grant is at the lowest price of the month. The coefficients on corruption culture are all positive and statistically significant at the 1% level. A coefficient of 1.351 (t=3.46) on corruption culture suggests that a 4.6% increase in the probability of insider backdating for a one standard deviation (0.705) increase in the firm's corruption culture, measured at the mean insider backdating of 20.6%. This effect is comparable to other governance-related characteristics such as board independence, measured as the percentage of insider directors, which increases the probability of

backdating by 1.5% for one standard deviation increase in the measure based on estimates from Collins, Gong, and Li (2009).

In Table 2D, results for the opportunistic insider trading regressions are presented. In column (4), the coefficient on corruption culture is 0.973 (t=2.25). The estimate indicates that increasing the firm's corruption culture by one standard deviation increases the price pattern measure by 0.7%. The average price pattern is 1.1, meaning that the twenty trading day post-transaction abnormal return is 1.1 times the twenty trading day pre-transaction abnormal return for a typical insider purchase. Thus, a reduction of 0.7% brings the price pattern measure 7.0% closer to one, which may signify non-opportunistic trades.

Overall, the results from Tables 2A to 2D are consistent with the main prediction that firms with high corruption culture are more likely to engage in corporate misconduct. In other words, firms where the decision makers are more tolerant toward corrupt behavior are more likely to engage in corporate misconduct. Conversely, the results also suggest that firms with low corruption culture are less likely to engage in corporate misconduct, which is indicative of low corruption culture acting as an internal disciplinary mechanism.

## V. How Does Corruption Culture Impact Corporate Misconduct?

Does corporate culture work by attracting similar people to the organization, or does corporate culture have a direct effect on people beyond their own beliefs and attitudes? In this section, I examine whether corporate culture is merely a selection mechanism or it can influence individual behavior directly.

### A. Corporate Culture as a Selection Mechanism

#### A.1. The Attraction-Selection-Attrition Process

The key attribute of corporate culture is that it arises from the attraction-selection-attrition (ASA) process (Schneider, 1987), where "attraction to an organization, selection by it, and attrition from it yield particular kinds of persons in an organization. These people determine

organizational behavior." Consistent with this notion of corporate culture as a selection mechanism, empirical evidence shows that individuals are more likely to join firms with cultures that are similar to their own and are less likely to be satisfied if their values are incongruent with the firm's culture (Meglino, Ravlin, and Adkins, 1989; Chatman, 1991; O'Reilly, Chatman, and Caldwell, 1991).

In Table 3, I test the concept that corruption culture works by attracting similar people to the organization in three ways. First, in column (1), I restrict the Compact Disclosure sample to only new insiders (i.e., the first time an insider appears in a firm) and examine whether new insiders with high corruption attitudes are more likely to join firms with high corruption culture. The test is conducted at the insider level, where the new insider enters the firm in year t and corruption culture is measured at year t-1. Controlling for other firm characteristics, industry, and year fixed effects, the coefficient on the lagged corruption culture is positive and significant. This finding is consistent with the selection and attraction parts of the ASA process that people are attracted to organizations that share similar values and beliefs, and organizations select people who they think are compatible with their corporate culture.

Second, I examine the attrition, or the reverse selection, part of the ASA process that individuals who are not compatible with a firm's corporate culture tend to leave the organization. To test this prediction, I use the entire sample of insiders in the Compact Disclosure database. In column (2), the dependent variable, insider exit, equals one (zero otherwise) if the insider leaves the firm in the following year. The key explanatory variable is the absolute difference between the insider's corruption value and the firm's corruption culture (excluding the insider in question). Since this variable varies by insiders rather than by firms, I can also control for firm fixed effects and hence compare insiders within the same firm. The coefficient on the key explanatory variable is positive and significant, consistent with the attrition prediction that an insider is more likely to leave the firm if there is a larger difference between his corruption attitudes and the firm's corruption culture.

Third, I look outside the firm and examine the relation between a firm's corruption culture and the culture of its environment. An extension of the ASA process also suggests that firms are more likely to locate in places with cultures that are similar to their own. Part of the rationale is that the firm selects many of its employees from the local area. This prediction is tested in column (3), where the dependent variable is local corruption culture. Local is defined as the county of a firm's headquarters and local corruption is measured based on the ancestral background of the county residents, which is calculated as

Local Corruption Culture = 
$$\sum_{i=1}^{N} w_i \cdot corruption \ index_i$$
, (6)

where  $w_i$  is the percentage of county residents belonging to ancestry country i and corruption  $index_i$  is the corruption index value for ancestry country i. County level ancestry data come from the 1990 U.S. Census. The corruption index is the average Transparency International's Corruption Perception Index value from 1980 to 2009, where a higher index value denotes more corruption. In column (3), the coefficient on corruption culture is positive and significant, suggesting that firms with high corruption cultures are more likely to locate in areas with high corruption cultures, further consistent with predictions based on the ASA process.

Thus, the findings are consistent with corporate culture acting as a selection mechanism, where insiders are attracted to firms that share their values and are more likely to stay at these firms.

### A.2. The Role of Founders and Early Leaders in Creating Corporate Culture

The previous results demonstrate how corporate culture can be sustained through selection once it is created. Another way to test the selection mechanism is to examine the origination of corporate culture, which is when selection first occurs. Many studies of corporate culture (e.g., Donaldson and Lorsch, 1983; Schein, 1985; Kotter and Heskett, 1992; Van den Steen, 2010) have emphasized the role of the founder or early leader in the formation of an organization's culture. In particular, corporate culture originates in founders and early leaders when they select or attract subsequent employees with values that are similar to their own.

In columns (1) to (4) of Table 4, I examine the role of founders in the formation of corporate culture. Insider information comes from Compact Disclosure. Founder information is collected from several sources including the *Marquis Who's Who* biographies, Boardex, Wikipedia, and Google searches. Using these sources, I identify founders for close to 4,000 firms in the sample. Founder corruption is measured as the average corruption values for all founders of a given firm.

The regressions test whether subsequent insiders are similar to the founders in terms of corruption attitudes. In column (1), the sample includes only insiders (excluding founders) from the first year a firm is in the Compact Disclosure sample, which may proxy for the first group of insiders entering the firm subsequent to the founders. The sample in column (2) includes the first time insiders appear in the Compact Disclosure database. The estimates on founder corruption are all positive and significant, suggesting that founders with high corruption attitudes are more likely to select or attract subsequent insiders with high corruption attitudes.

To identify a firm's early leaders who are not necessarily founders, I use Kenney and Patton's (2014) management and director database of initial public offerings (IPOs), which gathers IPO prospectus information on the management team and the board of directors. Since an IPO marks the start of a firm's public life, hiring and firing philosophy established by the leaders at the time of IPO is important for the subsequent propagation of corporate culture.

The relevant tests are carried out in columns (3) and (4), where early leader corruption is measured as the average corruption values for all members of the management team and directors at the time of IPO. For these tests, I also check the timing of insider entries to make sure that the insiders are hired after the IPO date. The key estimates indicate that subsequent insiders with high corruption attitudes are more likely to join firms where early leaders also have high corruption attitudes, consistent with early leaders selecting and attracting subsequent employees with values that are similar to their own.

### A.3. The Role of CEOs in Changing Corporate Culture

The above evidence suggests that founders and early leaders play an important role in forming corporate culture by selecting and attracting employees with similar values at the start of the firm. Another point at which important selection decisions are made is when a new CEO is appointed. Van den Steen (2010) suggests that the appointment of a new CEO will lead to turnover through both selection and self-sorting. Thus, changing the CEO is a way for firms to change their corporate culture.

In Table 5, I analyze the role of new CEOs in the evolution of corporate culture by examining insider turnovers. I calculate the number of insiders exiting and entering the firm every year. In columns (1) and (2), controlling for the average turnover rate through firm fixed effects, I find that there is a significant increase in the number of insiders exiting and entering in the year following the appointment of a new CEO. This result is also consistent with the study by Hayes, Oyer, and Schaefer (2006) showing that the likelihood of top management turnover increases markedly around times of CEO turnover.

I then examine which insiders are more likely to exit and which ones are more likely to enter in the next two columns. In column (3), the key explanatory variable is the absolute difference between the insider's corruption value and the new CEO's corruption value. The coefficient on this variable is 0.513 (t=5.50), suggesting that insiders are more likely to leave the firm in the year following the appointment of a new CEO when they have corruption attitudes that are different from the new CEO. In the last column, the sample only includes new insiders and the key estimates suggest that insiders with high corruption attitudes are more likely to join firms where the new CEO also has high corruption attitudes.

Together, the findings in this section are consistent with corporate culture acting as a selection mechanism: insiders are attracted to firms that share their values and are more likely to stay at these firms. Selection also plays a significant role in the creation and evolution of corporate culture. In particular, corporate culture originates in founders and early leaders when

they select subsequent employees with similar values and the new alignment of corporate culture occurs when a new CEO takes office.

### B. The Effect of Corporate Culture on Individuals

Thus far, the evidence is consistent with corporate culture working by attracting or selecting similar people to the organization. In other words, corporate culture acts as a selection mechanism and mainly works through the internal norms of individuals. An internal norm refers to a pattern of behavior guided by one's value system that is enforced by feelings of shame, guilt, or loss of self-esteem, as opposed to purely external sanctions such as material rewards and punishments (Gintis, 2003). In this way, company decision-makers with high corruption beliefs are more tolerant toward acts of corruption, thus are more inclined to engage in corporate misconduct.

In this section, I examine the possibility that corporate culture is not merely a selection mechanism, but can have a direct effect on individual behavior beyond internal norms. Conceptually, corporate culture can also affect decision making in the firm through group norms. In contrast to internal norms, group norms are enforced by members of the group through rewards and punishment (Hackman, 1992). In a corporate context, the prevailing group norm is corporate culture. To punish a deviating employee, people may distance themselves socially from the employee, withhold key information that would help to advance the employee's career, and refrain from helping when solicited. Thus, even if an individual does not share corruption beliefs with other employees, he may nevertheless behave in ways consistent with the prevailing group norm due to fear of punishment by the group.

I test this possibility in Table 6. To examine the effect of internal norms versus group norms, I decompose the corruption culture measure into two components: insider i's corruption attitudes and corruption culture (measured without insider i). Thus, the insider corruption component represents internal norms and the corruption culture component represents group

norms. Since option backdating and opportunistic insider trading activities can be linked to the specific responsible individual, I focus on these two types of misconduct in this test.

In Table 6, the regressions are conducted at the insider level rather than at the firm level. In column (1), insider i's corruption has a coefficient of 0.120 (t=2.19) and the corruption culture has a coefficient of 1.091 (t=3.54). In terms of economic magnitude, a one standard deviation (1.424) increase in insider i's corruption measure increases the probability of backdating by 1.8%, whereas a one standard deviation (0.586) increase in the corruption culture measure increases the probability of backdating by 6.7%, measured at the mean insider backdating of 9.6%. These estimates suggest that group norms are 3.7 times as important as internal norms in determining the likelihood of option backdating, consistent with the notion that corporate culture has a direct effect on individual behavior beyond individual personal attitudes.

Similarly, the key coefficients in column (4) also indicate that both internal norms and group norms matter. A one standard deviation (1.360) reduction in insider i's corruption measure brings the price pattern measure 4.0% closer to one, whereas a one standard deviation (0.627) reduction in the corruption culture measure brings the price pattern measure 6.4% closer to one, which may signify non-opportunistic trades. Again, the estimates suggest that group norms are more important than internal norms in influencing individual behavior.

To further test the possibility that corporate culture can have a direct effect on individual behavior through group norms, I focus on the sample of insiders that have moved across firms. For this sample, I can control for person fixed effects, which removes the effect of internal norms. The sample in columns (2) and (5) uses the moved insiders and the sample in columns (3) and (6) uses only the moved officers. Holding the individual constant, corruption culture continues to have a positive and significant impact on the individual insider's likelihood of engaging in option backdating and opportunistic insider trading. In terms of economic effects, a one standard deviation increase in the corruption culture measure increases the likelihood of option backdating and opportunistic insider trading by 6.5% and 18.2%, respectively, based on

the estimates in columns (2) and (5). These effects indicate that an individual working in a firm with higher corruption culture is more likely to commit corporate misconduct than the same individual working in a firm with lower corruption culture, consistent with group norms having a significant impact on the incidence of corporate misconduct.

Overall, I find evidence that corruption culture influences corporate misconduct through both internal norms and group norms, suggesting that it works by both acting as a selection mechanism and by having a direct influence on individual behavior.

## VI. Issues of Endogeneity

Section IV documents a positive correlation between a firm's corruption culture and the incidence of corporate misconduct. A potential concern is that the relation may be driven by omitted variables that are correlated with both corruption culture and the firm's tendency to engage in questionable corporate behavior. This concern is partly alleviated by the analysis in section V, which provides evidence on the mechanisms through which corruption culture influences corporate misconduct. The evidence is consistent with predictions based on corporate culture theories, providing further support for corporate culture as the main driver of the documented relations. Finally, if the relations are driven by some omitted variables, they must be able to explain not only the positive relation between corruption culture and corporate misbehavior, but also the documented mechanisms.

In this section, I further examine concerns of endogeneity in two ways. First, I control for potential omitted variables such as corporate philanthropy and measures of corporate governance. Second, I conduct an instrumental variable analysis using an instrument based on theoretical models of corporate culture.

### A. Controlling for Potential Omitted Variables

Previous studies have used local culture measures such as religiosity in the county of a firm's headquarters to capture corporate culture. Since these local culture measures are already

controlled for through the local effects, I do not examine them in this section. In contrast to prior studies, Bereskin, Campbell, and Kedia (2014) propose a firm-specific measure of prosocial culture using corporate philanthropy and find evidence that firms that participate in more philanthropic activities are less likely to engage in corporate misbehavior. To examine whether the documented relations in Section IV are driven by corporate philanthropy, I control for it here.

To measure corporate philanthropy, I obtain the charitable giving data from Petrovits (2006), which provide a list of 539 firms that have made charitable donations through direct giving or foundation giving in the 1989 to 2000 period. I create a philanthropy dummy, which equals one for the 539 firms with charitable donations and zero otherwise. The correlation between the corruption culture measure and the philanthropy dummy is -0.06 (p=0.000), which is consistent with the two measures capturing opposing values. However, due to the low correlation, it is unlikely that corporate philanthropy is the main driver behind the documented relations.

In addition to controlling for corporate philanthropy, I also control for several measures of corporate governance. First, I control for board characteristics such as board size and the percentage of insider directors. Jensen (1993) suggests that large boards are more prone to free-riding problems, and thus are less effective than small boards. Since outside directors are considered to be better monitors, boards occupied by more insiders signify weaker governance (Weisbach, 1988; Hermalin and Weisbach, 1998). Following Linck, Netter, and Yang (2007), Coles, Daniel, and Naveen (2008), and others, I obtain board information from Compact Disclosure, which has much better coverage than RiskMetrics, which is only available from 1996 on and only covers firms in the S&P 1500 index. Since Compact Disclosure only identifies whether the director is an employee of the firm, the fraction of insider directors is calculated as the number of executive directors divided by the board size.

Second, I control for the presence of institutional investors, where institutional holdings is calculated as the fraction of shares held by 13F institutional investors using data from

Thomson Reuters. According to Shleifer and Vishny (1986), institutional investors may have more incentives to act as effective monitors.

Third, I control for the threat of hostile takeovers since it has been documented as one of the most important mechanisms through which shareholders exercise their power (Jensen, 1988). I measure the threat of hostile takeovers with the takeover index developed by Cain, McKeon, and Solomon (2014). The coverage of this takeover index (i.e., 14,441 firms from 1965 to 2011) is much better than the G-index from Gompers, Ishii, and Metrick (2003), which covers mostly firms in the S&P 500 index. The G-index is also subject to potential endogeneity concerns. Thus, recent studies (Bertrand and Mullainathan, 2003) have used largely exogenous measures such as the passage of Business Combination laws to measure the governance environment. The takeover index is constructed based on the passage of 12 different types of state anti-takeover laws, one federal statue and three state standards of review, where higher values indicate higher hostile takeover hazard. Thus, while similar in nature to the Business Combination laws, the takeover index is richer and more comprehensive than the BC laws alone. The correlations between corruption culture and these governance measures are low, ranging from -0.09 to 0.06, making it unlikely that the governance measures can fully explain the main findings.

The results are reported in Table 7, where the five additional controls are added to the baseline regressions in Table 2. Since the additional variables are not available for all observations, the sample size is smaller in this table. The results for corporate philanthropy is somewhat mixed. Of the four types of corporate misconduct examined in Table 7, the only overlap with Bereskin, Campbell, and Kedia (2014) is accounting fraud, which is negatively related to philanthropy in line with their study, although the effect is not statistically significant. I

<sup>&</sup>lt;sup>13</sup> The 12 state takeover laws include first generation statues, business combination, fair price, control share acquisition, control share cash-out, poison pill, expanded constituency, disgorgement, anti-greenmail, golden parachute restriction, tin parachute blessing, and assumption of labor contracts laws. The state laws are matched to the firms based on their state of incorporation. The federal statue is the Williams Act in 1968, which regulates tender offers requiring SEC filings, disclosure, and waiting periods for all firms. The three standards of review are based on court decisions including Revlon, Inc. v. MacAndrews & Forbes Holdings, Unocal v. Mesa Petroleum, and Blasius Industries v. Atlas Corp.

also find that philanthropy is negatively related to opportunistic insider trading, consistent with the notion that philanthropic activities are likely to create a prosocial culture that discourages corporate misconduct. In contrast, there is a positive relation between philanthropy and earnings management. Although not supporting the idea that philanthropy captures ethical culture, this finding is consistent with Petrovits (2006), which shows that firms manage their earnings through strategic timing of their charitable contributions.

In terms of the relation between corporate governance measures and corporate misconduct, the results are in line with prior studies. The positively relation between the fraction of insider directors and option backdating is similar to the finding of Collins, Gong, and Li (2009). Board size is negatively related to earnings management, which is inconsistent with the prediction that smaller boards are more effective monitors, but is consistent with findings from other studies such as Larcker, Richardson, and Tuna (2007). The takeover index is positively related to the incidence of three types of corporate misconduct. Similarly, Gao and Mahmudi (2011) also find that firms with better governance in the form of fewer takeover defenses are more likely to engage in option backdating using the G-index to measure the strength of takeover defenses.

Overall, none of the coefficients on the additional controls have consistent signs and are statistically significant across all four types of corporate misbehavior, further alleviating omitted variable concerns. More importantly, the coefficients on corruption culture remain positive and statistically significant in all four regressions, suggesting that the documented effects in Tables 2A to 2D are unlikely to be driven by a firm's governance structure or its engagement in corporate philanthropy. In terms of economic effects, a one standard deviation (0.705) increase in a firm's corruption culture leads to a 2.2%, 4.9%, 5.3%, and 7.6% increase in the probability of engaging in earnings management, accounting fraud, option backdating, and opportunistic insider trading, respectively.

### **B.** Instrumental Variable Regressions

I also use an instrumental variable approach to address omitted variable concerns. The instrument should be related to a firm's likelihood of engaging in corporate misconduct only through corruption culture.

Van den Steen (2010) develops a theoretical model of corporate culture and shows that the content of a firm's culture is influenced by the beliefs and values of the founder and early leader since they select insiders that are similar to their own, who subsequently hire other employees with similar beliefs. This theoretical prediction is tested in Section V, which shows that founders and early leaders with high corruption attitudes are more likely to select or attract subsequent insiders with high corruption attitudes.

Building on this finding, I use the corruption attitudes of founders and early leaders to instrument for a firm's corruption culture. The data are described in Section V.A.2. To ensure that the instrument does not have a direct influence on corporate misconduct, I exclude all founders and early leaders that have worked for the firm at any point during the entire sample period of 1988 to 2006. Thus, I only use the corruption attitudes of no longer present (NLP) founders and early leaders as an instrument. While these founders and early leaders do not directly influence corporate decision-making since they are no longer in the organization, their corruption attitudes can still influence the firm's corruption culture. Thus, it is reasonable to assume that these founders and early leaders' corruption attitudes only affect corporate misconduct through their influence on the firm's corruption culture.

Section V describes the data on founders, which are available for around 4,000 firms in the sample. I then use officers and directors information from Compact Disclosure to identify founders that still work in the firm at some point during the sample period of 1988 to 2006. After excluding these founders, I am left with around 1,300 firms that have at least one founder who no longer works in the firm, or at least not as a top-level officer or a member of the board.

To identify a firm's early leaders, I use Kenney and Patton's (2014) management and director database of IPOs and exclude insiders who have worked for the firm at any point during

the sample period of 1988 to 2006. Adding this list of early leaders to the list of founders, I obtain a sample of around 1,900 firms that have at least one founder or early leader that no longer work in the corporation.

Finally, I use the surname database to match surnames of founders and early leaders to their countries of origin and link the surname's country of origin to its corresponding corruption index value using the average Transparency International's Corruption Perception Index value from 1980 to 2009. If a firm has more than one NLP founder or early leader, their corruption index values are averaged. The correlation between the firm-level NLP founder/leader corruption measure and the corruption culture measure is 0.14 (p=0.000).

The instrumental variable regressions are presented in Table 8. In the first stage, I regress the full set of controls from Table 8 and the instrument, NLP founder/leader corruption, on the firm's corruption culture measure. <sup>14</sup> The coefficient on the instrument is positive and statistically significant at the 1% level, consistent with the prediction that corruption culture is influenced by the corruption attitudes of founders and early leaders. This finding is also in line with Baron, Burton, and Hannan (1999) that founders still influence corporate culture even after they have left the firm. The F-statistics of the excluded instrument is 327.94 (p=0.000), further confirming that the instrument is not weak.

In the second stage, the same full set of controls is included and the key variable of interest is the predicted corruption culture measure from the first stage. The coefficients on the instrumented corruption culture measure are all positive and statistically significant in columns (2) to (5). Although the coefficients are larger than the ones from the baseline regressions in Table 2, the standard deviation of the instrumented firm corruption culture is smaller. In terms of economic effects, a one standard deviation (0.34) increase in the instrumented firm corruption culture leads to a 3.3%, 19.5%, 5.0%, and 6.7% increase in the probability of engaging in earnings management, accounting fraud, option backdating, and opportunistic insider trading,

<sup>&</sup>lt;sup>14</sup> I only report the first stage regression for the earnings management regression for the sake of brevity. The other three first stage regressions are very similar.

respectively, compared to the dependent variable means in the sample.<sup>15</sup> These magnitudes are comparable to the ones based on Table 2.

Together, the evidence in Sections V and VI suggests that the documented relations are unlikely driven by omitted variables and provides support for the causal interpretation that corporate corruption culture increases the firm's likelihood of engaging in corporate misconduct.

## VII. Measurement Robustness and Validity

In this section, I conduct a variety of checks on my main measure. First, I use an alternative matching source to map insiders' surnames to their countries of origin. Second, I test the main hypothesis using a sample of first generation immigrants. Third, I examine the internal consistency and external validity of the main culture measure.

### A. Measurement Robustness

I test the robustness of the corporate corruption culture measure using an alternative matching source. Instead of using Census records to map insiders' surnames to countries of origin, Origins Info Ltd., a well-known commercial vendor of name classification services, processed the list of surnames using their proprietary database constructed based on sources such as the American Dictionary of Family names and international telephone directories. The accuracy of Origins Info's matching has been validated in prior studies (Webber, 2007).

I construct a new measure of corruption culture based on the matched list from Origins Info and examine its relation to corporate misconduct in Table 9. Consistent with the main prediction, the coefficients on the new corruption culture measure are all positive and statistically significant with magnitudes similar to the baseline results in Tables 2A to 2D. These findings suggest that the main measure is robust to alternative matching procedures and provide more

<sup>&</sup>lt;sup>15</sup> The means in the sample for earnings management, fraud, insider backdating, and price pattern measures are 0.11, 0.04, 0.23, and 1.17, respectively.

confidence in the accuracy of the matching between surnames and countries of origin used in the baseline case.

### **B.** First Generation Immigrants

It is worth noting that the corruption culture measure has potential drawbacks. For instance, the measure may have low power since the impact of ancestry country culture tends to attenuate over time as the number of generations increases. While it is difficult to examine this issue directly without generational information on the insiders, there are several reasons to believe that this issue is unlikely to introduce significant biases that would alter the main results. First, the possibility that ancestry country culture attenuating over time likely creates a bias against finding culture to be significant. Second, many studies in the economics literature (e.g., Giuliano, 2007; Fernández and Fogli, 2009) use similar culture measures and document a significant impact of culture on individual behavior and economic outcomes. Third, the corruption culture measure is significantly related to measures of corporate misconduct and there are no obvious alternate interpretations for the documented relations.

To further investigate this issue empirically, I collect birth location information from *Marquis Who's Who* biographies to identify a sample of insiders who are first generation immigrants. I run the corporate misconduct regressions on this sample of foreign-born insiders. For this analysis, the corruption measure is the average Transparency International's corruption index value from 1980 to 2009 in the insider's country of birth, where higher index values indicate more corruption. Unlike the main analysis, the corruption measure can only be constructed at the individual insider level rather than the firm level.

For option backdating and opportunistic insider trading, it is possible to link each event to a specific insider. Thus, these analyses are conducted at the firm-year-insider level. However, it is not possible to identify the specific individuals responsible for earnings management and accounting fraud. Thus, I run these regressions at the firm-year level using the sample of foreignborn CEOs and CFOs.

The results are presented in Table 10. Consistent with the main results, I find that insiders born in high corruption countries are more likely to commit corporate misconduct. Thus, similar results are observed for both first generation and higher generation immigrants, providing additional support for the main culture measure.

### C. Measurement Validity

The underlying assumption of the firm corruption culture measure is that corruption in an individual's country of ancestry captures the individual's corruption beliefs. To directly test the relation between corruption in the country of ancestry and corruption beliefs, I examine individual responses to the relevant survey questions from the 1972 to 2008 sample of the U.S. General Social Survey, which is frequently used in the economics literature.

The survey asks respondents in the U.S. their background information and their opinions on a wide array of topics. To identify ancestry background, I use responses to the question: "from what countries or part of the world did your ancestors come?" Based on these responses, I construct an individual-level corruption measure analogous to the main corruption measure used in the empirical analysis, which is equal to the corruption index value in the respondent's reported country of ancestry.

As presented in Panel A of Table 11, I select six survey questions to capture corruption beliefs. The first three questions measure individuals' sense of right vs. wrong and the last three questions measure individuals' view regarding the importance of money. The idea is that individuals with a weaker sense of right vs. wrong and who view money as more important are more likely to abuse entrusted power for monetary gains and are more tolerant toward corrupt behavior.

<sup>&</sup>lt;sup>16</sup> Possible answers to this question include Africa, America, Arab, Austria, Belgium, Canada, China, Czechoslovakia, Denmark, England and Wales, Finland, France, Germany, Greece, Hungary, India, Ireland, Italy, Japan, Lithuania, Mexico, Netherlands, Norway, Philippines, Poland, Portugal, Puerto Rico, Romania, Russia, Scotland, Spain, Sweden, Switzerland, West Indies, and Yugoslavia. Respondents who choose "America" as their ancestry country are excluded from the analysis.

In Panel B, I exclude foreign-born respondents from the sample to assure that results are not merely driven by first-generation immigrants. Roughly 13% of the remaining respondents are second generation immigrants and 87% are third or higher generation immigrants based on birth location information of respondents' parents. Controlling for other characteristics, I find that compared to individuals from low corruption ancestry countries, individuals from high corruption ancestry countries put more emphasis on monetary gains and express a higher tolerance for questionable conduct such as providing false information to obtain government benefits and underreporting income to reduce tax payments. The effects are also economically important. For instance, holding other controls at their means, Yugoslavian immigrants are 21% more likely than Danish immigrants to agree with the statement that "to make money, there are no right and wrong ways any more, only easy and hard ways".

Thus, the General Social Survey results suggest that in a sample of mostly third or higher generation immigrants, corruption in the country of ancestry is significantly related to attitudes toward opportunistic behavior. The advantage of surveys is that attitudes and beliefs can be directly measured. However, there is a potential concern that self-reported responses from surveys may not reflect actions. To address this concern, I conduct another test in Table 12, which examines the relation between corruption culture and crime as a more extreme type of misconduct that constitutes a breach of laws. This test also serves as an external validation test since it examines a questionable behavior outside the corporate context.

Since data are not available to conduct this test on the individual-level, I use the local corruption culture measure based on the ancestral background of the county residents as in equation (6). County level crime data come from the Department of Justice and Federal Bureau of Investigation for the 1990 to 2010 period. Controlling for other determinants of crime, I find that the local corruption culture measure is significantly positively correlated with crime at the county level, measured as the total number of arrests or the total number of offenses, normalized by the county population. Thus, both the General Social Survey results and the crime results are

consistent with the assumption that corruption in the country of ancestry is linked to corruptionrelated attitudes.

#### VII. Conclusion

While traditional governance mechanisms have been studied extensively, relatively little is known about the role of corporate culture in corporate governance. In this paper, I examine whether a firm's corruption culture matters for corporate misbehavior using recently developed measurement methodologies.

I measure a firm's corruption culture as the average corruption attitudes of officers and directors of a company using their cultural background information. The main finding of the paper is that corporate corruption culture has a significant positive effect on corporate misconduct such as earnings management, accounting fraud, option backdating, and opportunistic insider trading. The effects are also economically significant: a one standard deviation increase in a firm's corruption culture increases the likelihood of corporate misconduct by about 2% to 7%.

Moreover, I investigate how corruption culture influences corporate misconduct. Specifically, does corruption culture work by attracting similar people to the organization, or does corruption culture have a direct effect on people beyond their own beliefs and attitudes? I explore this question and find empirical support for both channels. Finally, I study the dynamics of corruption culture and find evidence that it arises from the attraction, selection, and attribution process. In particular, founders and new CEOs play a key role in the formation and evolution of corporate culture.

Together, the study shows that corporate corruption culture is important in determining the incidence of corporate misconduct. While the study focuses on a firm's corruption culture, many other interesting aspects of the firm's social and cultural dynamics and their impact on corporate behavior remain largely unexplored.

#### References

- Ades, Alberto, and Rafael Di Tella, 1999, Rents, competition, and corruption, *American Economic Review* 89, 982-993.
- Baron, James, Diane M. Burton, Michael T. Hannan, 1999, Engineering bureaucracy: the genesis of formal policies, positions, and structures in high-technology firms, *Journal of Law, Economics, & Organization* 15, 1-41.
- Bebchuk, Lucian A., Yaniv Grinstein, and Urs C. Peyer, 2010, Lucky CEOs and lucky directors, *Journal of Finance* 65, 2363-2401.
- Bengtsson, Ola, and David H. Hsu, 2013, Ethnic matching in the U.S. venture capital market, Working Paper.
- Bereskin, Frederick, Terry Campbell, and Simi Kedia, 2014, Philanthropy, corporate culture and misconduct, Working Paper.
- Bertrand, Marianne, and Sendhil Mullainathan, 2003, Enjoying the quiet life? Corporate governance and managerial preferences, *Journal of Political Economy* 111, 1043-1075.
- Bisin, Alberto, and Thierry Verdier, 2011, The economics of cultural transmission and socialization, in J. Benhabib, A. Bisin, and M. O. Jackson, eds., *Handbook of Social Economics*, Vol. 1A, North-Holland, 339-416.
- Cain, Matthew, Stephen McKeon, Steven Davidoff Solomon, 2014, Do takeover laws matter? Evidence from 5 decades of hostile takeovers, Working Paper.
- Carroll, Christopher D., Ryung-kun Rhee, and Changyong Rhee, 1994, Are there cultural effects on saving? Some cross-sectional evidence, *Quarterly Journal of Economics* 109, 685-699.
- Chatman, Jennifer A., 1991, Matching people and organizations: Selection and socialization in public accounting firms. *Administrative Science Quarterly* 36: 459-484.
- Cohen, Daniel A., Aiyesha Dey, and Thomas Z. Lys, 2008, Real and Accrual-Based Earnings Management in the Pre- and Post-Sarbanes-Oxley Periods, *Accounting Review* 83, 757-787.
- Coles, Jeffrey, Naveen D. Daniel, and Lalitha Naveen, 2008, Boards: does one size fit all?, *Journal of Financial Economics* 87, 329-356.
- Collins, Daniel W., Guojin Gong, and Haidan Li, 2009, Corporate governance and backdating of executive stock options, *Contemporary Accounting Research* 26, 403-445.
- Crémer, Jacques, 1993, Corporate culture and shared knowledge, *Industrial and Corporate Change* 2, 351–386.
- Cronqvist, Henrik, Angie Low, and Mattias Nilsson, 2009, Persistence in firm policies, firm origin, and corporate culture: evidence from corporate spin-offs, Claremont McKenna College working paper.
- DeBacker, Heim, and Tran, 2014, Importing corruption culture from overseas: evidence from corporate tax evasion in the United States, *Journal of Financial Economics* forthcoming.
- Dechow, Patricia M., and Ilia D. Dichev. 2002, The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors, *Accounting Review* 77, 35–59.
- Dechow, Patricia M., Weili Ge, Chad R. Larson, and Richard G. Sloan, 2011, Predicting material accounting misstatements, *Contemporary Accounting Research* 28, 17-82.
- Dechow, Patricia M., Richard G. Sloan, and Amy P. Sweeney, 1995, Detecting Earnings Management, *Accounting Review* 70, 193-225.
- Donaldson, Gordon, Jay W. Lorsch, 1983, *Decision Making at the Top: The Shaping of Strategic Direction*, Basic Books, New York.
- Dyck, Alexander, Adair Morse, and Luigi Zingales, 2010, Who Blows the Whistle on Corporate Fraud?, *Journal of Finance* 65, 2213-2253.
- Dyreng, Scott D., William J. Mayew, and Christopher D. Williams, 2012, Religious social norms and corporate financial reporting, *Journal of Business Finance and Accounting 39*, 845-875.
- Fama, Eugene F., and Kenneth R. French, 1997, Industry cost of equity, *Journal of Financial Economics* 43, 153-193.

- Fernández, Raquel, 2011, Does culture matter?, in J. Benhabib, M. O. Jackson and A. Bisen, eds., *Handbook of Social Economics*, Vol. 1A, North-Holland.
- Fernández, Raquel, and Alessandra Fogli, 2009, Culture: an empirical investigation of beliefs, work, and fertility, *American Economic Journal: Macroeconomics* 1, 146-177.
- Fisman, Raymond, and Edward Miguel, 2007, Corruption, norms, and legal enforcement: evidence from diplomatic parking tickets, *Journal of Political Economy* 115, 1020-1048.
- Gao, Huasheng, and Hamed Mahmudi, 2011, Backdating executive stock option grants: is it all agency?, Nanyang Business School and the University of Toronto working paper.
- Gintis, Herbert, 2003, The hitchhiker's guide to altruism: gene-culture coevolution, and the internalization of norms, *Journal of Theoretical Biology* 220, 407-418.
- Giuliano, Paola, 2007, On the determinants of living arrangements in western Europe: does cultural origin matter?, *Journal of the European Economic Association* 5, 927-952.
- Gompers, Paul, Joy Ishii, Andrew Metrick, 2003, Corporate governance and equity prices, *Quarterly Journal of Economics* 118, 107-155.
- Gompers, Paul, Vladimir Mukharlyamov, and Yuhai Xuan, 2014, The cost of friendship, *Journal of Financial Economics* forthcoming.
- Grullon, Gustavo, George Kanatas, and James Weston, 2010, Religion and corporate (mis)behavior, Rice University working paper.
- Guiso, Luigi, Paola Sapienza, and Luigi Zingales, 2004, The role of social capital in financial development, *American Economic Review* 94, 526-556.
- Guiso, Luigi, Paola Sapienza, and Luigi Zingales, 2006, Does culture affect economic outcomes?, *Journal of Economic Perspectives* 20, 23-48.
- Hackman, Richard J., 1992, Group influences on individuals in organizations, *Handbook of Industrial and Organizational Psychology*, 2<sup>nd</sup> ed., vol. 3, Palo Alto, CA: Consulting Psychologists Press.
- Hayes, Rachel M., Paul Oyer, and Scott Schaefer, 2006, Coworker complementarity and the stability of top-management teams, *Journal of Law, Economics, & Organization* 22, 184-212.
- Hazarika, Sonali, Jonathan M. Karpoff, and Rajarishi Nahata, 2012, Internal Corporate Governance, CEO Turnover, and Earnings Management, *Journal of Financial Economics* 104, 44-69.
- Hegde, Deepak, and Justin Tumlinson, 2013, Can birds of a feather fly together? The payoffs of ethnic proximity in US venture capital, Working Paper.
- Hennes, Karen M., Andrew J. Leone, and Brian P. Miller, 2008, The Importance of Distinguishing Errors from Irregularities in Restatement Research: The Case of Restatements and CEO/CFO Turnover, *Accounting Review* 83, 1487-1519.
- Hermalin, Benjamin E., 2001, Economics and corporate culture, C. L.Cooper, S. Cartwright, P. C. Earley, eds. *The International Handbook of Organizational Culture and Climate*, Chap. 10. John Wiley & Sons, Chichester, UK, 217–261.
- Hermalin, Benjamin E., 2012, Leadership and corporate culture, R. Gibbons and J. Roberts, eds. *The Handbook of Organizational* Economics, Chap. 11. Princeton University Press, 432-478.
- Hermalin, Benjamin E., and Michael S. Weisbach, 1998, Endogenously chosen boards of directors and their monitoring of the CEO, *American Economic Review* 88, 96-118.
- Hilary, Gilles, and Kai Wai Hui, 2009, Does religion matter in corporate decision making in America?, *Journal of Financial Economics* 93, 455-473.
- Hribar, Paul, and Craig Nichols, 2007, The use of unsigned earnings quality measures in tests of earnings management, *Journal of Accounting Research* 45, 1017-1053.
- Ichino, Andrea, and Giovanni Maggi, 2000, Work environment and individual background: explaining regional shirking differentials in a large Italian firm, *Quarterly Journal of Economics* 115, 1057-1090.
- Jensen, Michael C., 1988, Takeovers: their causes and consequences, *Journal of Economic Perspectives* 2, 21-48.

- Jensen, Michael C., 1993, The modern industrial revolution, exit, and the failure of internal control systems, *Journal of Finance* 48, 831-880.
- Jones, Jennifer J., 1991, Earnings management during import relief investigations, *Journal of Accounting Research* 29, 193-228.
- Karpoff, Jonathan M., D. Scott Lee, and Gerald S. Martin, 2008, The cost to firms of cooking the books, *Journal of Financial and Quantitative Analysis* 43, 581-611.
- Kenney, Martin, and Donald Patton, 2014, The Management and director database of emerging growth initial public offerings (IPOs) from 1990 through 2010.
- Kerr, William, and William F. Lincoln, 2010, The supply side of innovation: H-1B visa reforms and U.S. ethnic invention, *Journal of Labor Economics* 28, 473-508.
- Klein, April, 2002, Audit committee, board of director characteristics, and earnings management, *Journal of Accounting and Economics* 33, 375-400.
- Kothari, S. P., Andrew J. Leone, and Charles E. Wasley, 2005, Performance-matched discretionary accrual measures, *Journal of Accounting and Economics* 39, 163–197.
- Kotter, John P., James L. Heskett, 1992, Corporate Culture and Performance, Free Press, New York.
- Kreps, David M., 1990, Corporate culture and economic theory, in J. E. Alt and K. A. Shepsle, eds., *Perspectives on Positive Political Economy, Cambridge*, England: Cambridge University Press.
- Larcker, David F., Scott A. Richardson, and Irem Tuna, 2007, Corporate governance, accounting outcomes, and organizational performance, *Accounting Review* 82, 963-1008.
- Lauderdale, Diane, and Kestenbaum, Bert, 2000, Asian American ethnic identification by surname, *Population Research and Policy Review* 19, 283-300.
- Lazear, Edward P., 1995, Corporate culture and the diffusion of values, in Horst Siebert, ed., *Trends in Business Organization*, Tübingen, Germany: J.C.B. Mohr (Paul Siebeck).
- Lie, Erik, 2005, On the timing of CEO stock option awards, Management Science 51, 802-812.
- Linck, James, Jeffry Netter, and Tina Yang, 2007, The determinants of board structure, *Journal of Financial Economics* 87, 308–28.
- Loughran, Tim, and Jay R. Ritter, 2004, Why has IPO underpricing changed over time? *Financial Management* 33(3), 5–37.
- Mauro, Paolo, 1995, Corruption and growth, Quarterly Journal of Economics 110, 681-712.
- Mateos, Pablo, 2007, A review of name-based ethnicity classification methods and their potential in population studies, *Population Space and Place* 13, 243-263.
- McGuire, Sean T., Thomas C. Omer, and Nathan Y. Sharp, 2012, The impact of religion on financial reporting irregularities, *The Accounting Review* 87, 645-673.
- Meglino, Bruce M., Elizabeth C. Ravlin, Cheryl L. Adkins, 1989, A work values approach to corporate culture: A field test of the value congruence process and its relationship to individual outcomes. *Journal of Applied Psychology* 74, 424-432.
- O'Reilly, Charles A., Jennifer Chatman, David F. Caldwell, 1991, People and organizational culture: a profile comparison approach to assessing person-organization fit, *Academy of Management Journal* 34, 487-516.
- Parsons, Christopher A., Johan Sulaeman, and Sheridan Titman, 2014, Peer effects and corporate corruption, Working Paper.
- Petrovits, Christine, 2006, Corporate-sponsored foundations and earnings management, *Journal of Accounting and Economics* 41, 335-362.
- Ravina, Enrichetta, and Paola Sapienza, 2010, What do independent directors know? Evidence from their trading, *Review of Financial Studies* 23, 962-1003.
- Rossiter, W. S., 1909, A Century of Population Growth, from the First Census of the United States to the Twelfth, 1790-1900.
- Rozanov, Konstantin A., 2008, Corporate governance and insider trading, Harvard University, dissertation.

- Scandura, Terri A. and Ethlyn A. Williams, 2000, Research methodology in management: current practices, trends, and implications for future research, *Academy of Management Journal* 43, 1248-1264.
- Schein, Edgar. H, 1985, Organizational Culture and Leadership. Jossey-Bass, San Francisco.
- Schneider, Benjamin, 1987, The people make the place, Personnel Psychology 40, 437–453.
- Shleifer, Andrei, and Robert Vishny, 1986, Large shareholders and corporate control, *Journal of Political Economy* 94, 461-488.
- Simpser, Alberto, 2013, The intergenerational transmission of attitudes toward corruption, Working Paper.
- Van de Steen, Eric, 2010, On the origin of shared beliefs (and corporate culture), *Rand Journal of Economics* 41, 617-648.
- Weisbach, Michael S., 1988, Outside directors and CEO turnover, *Journal of Financial Economics* 20, 431-460.
- Webber, Richard, 2007, Using names to segment customers by cultural, ethnic, or religious origin, *Direct, Data and Digital Marketing Practice* 8(3), 226-242.
- Yu, Frank, 2008, Analyst coverage and earnings management, Journal of Financial Economics 88, 245-271.

**Table 1: Summary Statistics** 

This table presents summary statistics for the main variables used in the empirical analysis. See Appendix A for variable definitions.

	Mean	Med.	Stdev	P25	P75
Corruption Culture	2.332	2.101	0.705	1.856	2.557
Corruption Culture Origins Info	2.527	2.367	0.759	2.003	2.860
Earnings Management	0.088	0.052	0.129	0.022	0.107
Fraud	0.030	0.000	0.170	0.000	0.000
Backdating	0.206	0.000	0.404	0.000	0.000
Price Pattern	1.105	1.052	0.277	0.978	1.169
Ln(Assets)	5.409	5.247	2.116	3.856	6.812
Ln(1+Age)	2.624	2.565	0.770	2.079	3.296
Market-to-book	1.711	1.119	1.928	0.793	1.876
Leverage	0.237	0.209	0.214	0.052	0.362
Stock Volatility	0.611	0.523	0.372	0.340	0.777
ROA	0.074	0.113	0.215	0.044	0.170
Capital Intensity	0.287	0.228	0.225	0.109	0.412
R&D	0.043	0.000	0.087	0.000	0.052
High Tech	0.235	0.000	0.424	0.000	0.000
Ln(Operating Cycle)	4.154	4.306	1.090	3.602	4.826
Loss Percentage	0.281	0.000	0.429	0.000	0.900
Sales Growth	0.226	0.097	0.676	-0.009	0.264
Sales Volatility	0.510	0.268	0.636	0.123	0.634
Cash Flow Volatility	0.412	0.086	0.588	0.041	0.613
Ln(N. of Options)	0.667	0.693	0.620	0.000	1.099
Shares Traded	0.002	0.000	0.007	0.000	0.000
Philanthropy	0.098	0.000	0.297	0.000	0.000
Board Size	7.809	7.000	2.998	6.000	9.000
Insider Directors	0.295	0.250	0.190	0.167	0.400
Intuitional Holdings	0.452	0.404	0.348	0.141	0.715
Takeover Index	0.089	0.058	0.094	0.030	0.113

# Table 2A: Corruption Culture and Earnings Management

Results from earnings management regressions are reported. The sample consists of firm-year observations from 1988 to 2006. The dependent variable is earnings management, calculated as the absolute value of abnormal discretionary accruals scaled by total assets. Corruption Culture is the average corruption values for all insiders including both officers and directors. The control variables are defined in Appendix A. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	Earnings Management			
	(1)	(2)	(3)	(4)
Corruption Culture	0.309***	0.264**	0.240**	0.240**
•	(2.63)	(2.23)	(2.05)	(2.04)
County-Year Mean	, ,	0.059***	0.044***	0.044***
•		(6.91)	(5.30)	(5.23)
Industry-Year Mean		, ,	0.256***	0.256***
•			(17.20)	(17.14)
Market Mean			, ,	0.006
				(0.19)
Ln(Assets)	-0.734***	-0.739***	-0.745***	-0.747***
	(-18.43)	(-18.58)	(-19.01)	(-18.95)
Ln(1+Age)	-0.237**	-0.215*	-0.056	-0.057
( 8.7)	(-2.06)	(-1.87)	(-0.50)	(-0.50)
Market-to-book	0.873***	0.860***	0.772***	0.772***
	(11.59)	(11.43)	(10.19)	(10.18)
Leverage	2.300***	2.338***	2.343***	2.347***
	(5.47)	(5.56)	(5.64)	(5.63)
Stock Volatility	2.194***	2.089***	1.599***	1.593***
	(8.83)	(8.42)	(6.44)	(6.43)
ROA	-9.318***	-9.332***	-10.012***	-10.009***
	(-10.63)	(-10.65)	(-11.44)	(-11.42)
Capital Intensity	-2.913***	-2.852***	-1.502***	-1.499***
<del></del>	(-8.78)	(-8.61)	(-4.48)	(-4.46)
R&D	-3.605**	-3.785**	-6.178***	-6.173***
	(-1.96)	(-2.06)	(-3.33)	(-3.33)
High Tech	0.251	0.207	-0.384*	-0.382*
ing. i ton	(1.28)	(1.06)	(-1.95)	(-1.94)
Operating Cycle	0.296***	0.297***	0.397***	0.398***
operating eyere	(3.91)	(3.93)	(5.25)	(5.25)
Loss Percentage	0.417**	0.405**	0.242	0.242
2000 Tereeninge	(2.25)	(2.19)	(1.31)	(1.31)
Sales Growth	0.624***	0.616***	0.586***	0.586***
Sales Growan	(4.24)	(4.20)	(3.99)	(3.99)
Sales Volatility	1.868***	1.854***	1.836***	1.836***
Sales Volumity	(10.51)	(10.43)	(10.43)	(10.43)
Cash Flow Volatility	-0.513***	-0.478***	-0.317*	-0.317*
Cash I low volumity	(-2.98)	(-2.77)	(-1.84)	(-1.84)
Observations	57,933	57,933	57,933	57,933
N. of Firms	8,038	8,038	8,038	8,038
R-squared	0.146	0.147	0.155	0.155
r-squareu	0.140	0.147	0.133	0.133

## **Table 2B: Corruption Culture and Accounting Fraud**

Results from accounting fraud regressions are reported. The sample consists of firm-year observations from 1988 to 2006. The dependent variable is a fraud dummy, which equals one (zero otherwise) if the firm-year is within a class action lawsuit period or has misstated earnings according to AAER or GAO. Corruption Culture is the average corruption values for all insiders including both officers and directors. The control variables are defined in Appendix A. Estimation uses probit, where z-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

		F <sub>1</sub>	aud	
	(1)	(2)	(3)	(4)
Corruption Culture	0.490***	0.465***	0.334***	0.232**
	(3.92)	(3.76)	(2.90)	(2.20)
County-Year Mean		0.111***	0.038***	-0.032**
		(10.22)	(4.25)	(-2.52)
Industry-Year Mean			0.425***	0.208***
			(27.45)	(12.48)
Market Mean				0.794***
				(17.13)
Ln(Assets)	0.832***	0.793***	0.642***	0.498***
	(15.58)	(15.05)	(13.28)	(11.25)
Ln(1+Age)	-0.150	-0.141	-0.152	-0.104
	(-1.01)	(-0.96)	(-1.14)	(-0.87)
Market-to-book	0.222***	0.212***	0.162***	0.133***
	(6.94)	(6.71)	(5.48)	(4.93)
Leverage	1.254***	1.313***	1.575***	1.473***
	(3.32)	(3.55)	(4.82)	(5.04)
Stock Volatility	1.571***	1.470***	0.957***	0.636***
•	(7.25)	(6.85)	(4.74)	(3.43)
ROA	0.494	0.548	0.00354	0.554
	(1.17)	(1.32)	(0.94)	(1.57)
Capital Intensity	-1.604***	-1.499***	-0.01195***	-0.619*
	(-3.50)	(-3.31)	(-2.85)	(-1.65)
R&D	-1.287	-1.166	-0.00788	-0.902
	(-1.05)	(-0.97)	(-0.73)	(-0.91)
High Tech	0.705**	0.714***	0.00594**	0.595**
e	(2.52)	(2.58)	(2.35)	(2.53)
Operating Cycle	-0.122	-0.103	0.00055	0.038
	(-1.49)	(-1.28)	(0.73)	(0.57)
Loss Percentage	0.281	0.246	0.00052	-0.040
	(1.44)	(1.28)	(0.29)	(-0.25)
Sales Growth	0.262***	0.266***	0.00313***	0.305***
	(3.21)	(3.32)	(4.32)	(4.60)
Sales Volatility	0.725***	0.708***	0.00542***	0.564***
	(4.73)	(4.69)	(3.81)	(4.42)
Cash Flow Volatility	-0.641***	-0.574***	-0.00295*	-0.042
	(-3.43)	(-3.13)	(-1.77)	(-0.27)
Observations	63,838	63,838	63,838	63,838
N. of Firms	8,765	8,765	8,765	8,765
R-squared	0.051	0.058	0.107	0.130

# **Table 2C: Corruption Culture and Option Backdating**

Results from option backdating regressions are reported. The sample consists of firm-year observations from 1996 to 2006. The dependent variable is an insider backdating dummy, which equals one (zero otherwise) if the strike price of at least one insider's option grant is at the lowest price of the month. Corruption Culture is the average corruption values for all insiders including both officers and directors. The control variables are defined in Appendix A. Estimation uses probit, where z-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	Backdating			
	(1)	(2)	(3)	(4)
Corruption Culture	1.179***	1.155***	1.137***	1.351***
	(2.99)	(2.93)	(2.89)	(3.46)
County-Year Mean		0.035**	0.016	-0.013
		(2.14)	(0.99)	(-0.74)
Industry-Year Mean			0.344***	0.164***
			(8.87)	(3.86)
Market Mean				1.005***
				(11.69)
Ln(Assets)	-1.195***	-1.199***	-1.166***	-1.303***
	(-7.43)	(-7.46)	(-7.28)	(-8.14)
Ln(1+Age)	-2.332***	-2.296***	-1.945***	-1.505***
	(-6.27)	(-6.17)	(-5.22)	(-4.05)
Market-to-book	0.066	0.060	-0.013	-0.047
	(0.62)	(0.56)	(-0.12)	(-0.44)
Leverage	2.292*	2.312*	2.266*	1.948
	(1.92)	(1.94)	(1.90)	(1.64)
Stock Volatility	4.099***	3.982***	2.669***	1.455*
•	(5.15)	(4.99)	(3.28)	(1.77)
ROA	-0.741	-0.806	-1.726	-2.074*
	(-0.60)	(-0.65)	(-1.41)	(-1.71)
Capital Intensity	0.794	0.770	0.687	-0.250
	(0.65)	(0.63)	(0.56)	(-0.20)
R&D	-11.947***	-12.032***	-12.283***	-10.949***
	(-4.21)	(-4.25)	(-4.35)	(-3.90)
High Tech	0.419	0.391	-0.945	0.576
	(0.69)	(0.65)	(-1.56)	(0.91)
Ln(N. of Options)	15.641***	15.648***	15.655***	16.083***
	(41.78)	(41.81)	(41.80)	(42.65)
Observations	32,542	32,542	32,542	32,542
N. of Firms	6,738	6,738	6,738	6,738
R-squared	0.068	0.069	0.071	0.075

## **Table 2D: Corruption Culture and Insider Trading**

Results from opportunistic insider trading regressions are reported. The sample consists of firm-year observations from 1988 to 2006. The dependent variable is the price pattern ratio, computed as the ratio of the market-adjusted gross return over the 20 trading days following the insider purchase transaction to the market-adjusted gross return over the 20 trading days preceding the insider purchase transaction, averaged across all insider purchase transactions in the same firm and year. Corruption Culture is the average corruption values for all insiders including both officers and directors. The control variables are defined in Appendix A. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	Price Pattern			
	(1)	(2)	(3)	(4)
Corruption Culture	1.187***	1.100**	0.980**	0.973**
•	(2.73)	(2.54)	(2.27)	(2.25)
County-Year Mean		0.128***	0.079***	0.056***
•		(8.26)	(5.33)	(3.78)
Industry-Year Mean			0.412***	0.343***
•			(13.68)	(10.61)
Market Mean			` '	0.300***
				(6.38)
Ln(Assets)	0.317***	0.276**	0.316***	0.213*
,	(2.77)	(2.43)	(2.77)	(1.86)
Ln(1+Age)	-2.095***	-2.051***	-2.193***	-2.107***
	(-9.73)	(-9.56)	(-10.20)	(-9.81)
Market-to-book	1.325***	1.287***	1.034***	1.052***
	(8.94)	(8.71)	(6.96)	(7.07)
Leverage	3.247***	3.168***	2.673***	2.651***
C	(3.58)	(3.49)	(2.98)	(2.96)
Stock Volatility	9.584***	9.032***	6.957***	6.723***
,	(11.75)	(11.15)	(8.38)	(8.10)
ROA	0.307	0.228	-0.964	-0.452
	(0.22)	(0.16)	(-0.68)	(-0.32)
Capital Intensity	0.025	0.182	0.147	0.575
1	(0.04)	(0.27)	(0.22)	(0.84)
R&D	10.799***	10.036***	5.490*	7.194**
	(3.40)	(3.17)	(1.75)	(2.27)
High Tech	3.444***	3.223***	1.201**	1.693***
6	(6.30)	(5.92)	(2.21)	(3.13)
Shares Traded	58.528**	56.182**	55.034**	49.823**
	(2.52)	(2.41)	(2.38)	(2.15)
Observations	37,163	37,163	37,163	37,163
N. of Firms	7,265	7,265	7,265	7,265
R-squared	0.048	0.050	0.058	0.059

## **Table 3: The Attraction, Selection and Attrition Process**

This table examines the attraction, selection, and attribution process of corporate culture. The sample in column (1) consists of new insider-year observations from 1988 to 2006. The sample in column (3) consists of firm-year observations from 1988 to 2006. The sample in column (3) consists of firm-year observations from 1988 to 2006. The dependent variable in column (1) is new insider corruption, which is the corruption index value of the new insider's country of ancestry, where new insiders are officers and directors that appear for the first time in the sample. The dependent variable in column (2) is insider exit, which is a dummy that equals one (zero otherwise) if the insider leaves the firm in the following year. The dependent variable in column (3) is local corruption culture, calculated as  $\sum_{s=1}^{50} p_s \cdot \sum_{n=1}^{N} w_i \cdot corruption index_i$ , where  $p_s$  is state S's share of the total number of state mentions,  $w_i$  is the percentage of state residents belonging to ancestry country i and  $corruption index_i$  is the corruption index value for ancestry country i. Lagged Corruption Culture is the average corruption values for all insiders including both officers and directors, measured in year t-1. [Insider i Corruption-Corruption Culture.] is the absolute difference between insider i's corruption value and the firm's corruption culture measured without insider i. Insider Age is the insider's age in years. Director is a dummy that equals one (zero otherwise) if the insider is a director. The control variables are defined in Appendix A. Firm, industry (49 Fama-French), and year fixed effects are included as specified. The regression in column (2) is estimated using probit. t-statistics or z-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	New Insider Corruption	Insider Exit	Local Corruption Culture
	(1)	(2)	(3)
Lagged Corruption Culture	0.204***		
	(17.56)		
Insider i Corruption-Corruption Culture <sub>-i</sub>		0.002***	
		(5.95)	
Corruption Culture			0.214***
			(14.64)
Insider Age	-0.006***	0.001***	
	(-10.57)	(3.29)	
Director	0.055***	-0.027***	
	(5.54)	(-11.90)	
Ln(Assets)	-0.004	-0.003***	0.073***
	(-1.16)	(-3.23)	(11.22)
Ln(1+Age)	0.008	0.036***	0.009
	(0.97)	(12.96)	(0.63)
Market-to-book	0.003	-0.004***	0.011***
	(1.11)	(-10.41)	(3.40)
Leverage	0.018	0.025***	-0.047
	(0.71)	(5.91)	(-1.20)
Stock Volatility	0.042**	0.027***	0.158***
	(2.10)	(11.51)	(7.61)
ROA	-0.073**	-0.041***	-0.211***
	(-2.27)	(-9.61)	(-6.96)
Firm FE		Yes	
Industry FE	Yes		Yes
Year FE	Yes	Yes	Yes
Observations	95,981	1,064,964	87,310
N. of Firms	9,296	11,470	11,483
R-squared	0.016	0.043	0.067
Sample	New Insiders	All Insiders	All Firms

## **Table 4: Corruption Culture and the Role of Founders and Early Leaders**

This table examines the role of founders and early leaders in the formation of corporate culture. The sample in columns (1) and (3) consists of insider-year observations from 1988 to 2006, which includes the first group of insiders for a given firm that appears in the sample, where there is one group of insiders per firm. The sample in columns (2) and (4) consists of insider-year observations from 1988 to 2006, which includes the first time an insider appears in the sample. Founder Corruption is the average corruption values for all founders of a given firm. Early Leader Corruption is the average corruption values for all members of the management team and directors at the time of IPO. Insider Age is the insider's age in years. Director is a dummy that equals one (zero otherwise) if the insider is a director. The control variables are defined in Appendix A. Industry (49 Fame-French), and year fixed effects are included as specified. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

		Insider Corruption				
	(1)	(2)	(3)	(4)		
Founder Corruption	0.067***	0.055***				
•	(7.52)	(9.52)				
Early Leader Corruption			0.066***	0.065***		
			(3.46)	(4.87)		
Insider Age	-0.007***	-0.008***	-0.004*	-0.005***		
_	(-6.53)	(-10.58)	(-1.65)	(-2.98)		
Director	0.017	0.047***	-0.016	0.032		
	(0.98)	(3.95)	(-0.39)	(1.17)		
Ln(Assets)	-0.009	-0.000	0.041	0.010		
	(-1.06)	(-0.05)	(1.36)	(0.65)		
Ln(1+Age)	-0.004	0.001	0.063	0.085*		
, ,	(-0.20)	(0.07)	(0.68)	(1.79)		
Market-to-book	0.001	0.002	-0.001	-0.001		
	(0.34)	(0.56)	(-0.08)	(-0.09)		
Leverage	-0.074	-0.021	-0.199	-0.084		
	(-1.27)	(-0.61)	(-1.30)	(-1.03)		
Stock Volatility	0.013	0.010	0.024	0.048		
•	(0.30)	(0.37)	(0.27)	(0.92)		
ROA	-0.093*	-0.155***	-0.135	-0.140*		
	(-1.87)	(-3.79)	(-1.43)	(-1.83)		
Industry FE	Yes	Yes	Yes	Yes		
Year FE	Yes	Yes	Yes	Yes		
Observations	26,887	68,003	5,873	14,191		
N. of Firms	3,035	3,501	847	980		
R-squared	0.021	0.014	0.022	0.015		
Sample	First Group of	First Instance of	First Group of	First Instance of		
-	Insiders	Insiders	Insiders	Insiders		

## **Table 5: Corruption Culture and the Role of New CEOs**

This table examines the role of new CEOs in the evolution of corporate culture. The sample in columns (1) and (2) consists of firm-year observations from 1988 to 2006. The sample in column (3) consists of insider-year observations from 1988 to 2006. The sample in column (4) consists of new insider-year observations from 1988 to 2006. The dependent variable in column (1) is the number of insiders that exit a given firm in the following year. The dependent variable in column (2) is the number of insiders that enter a given firm in the following year. The dependent variable in column (3) is insider exit, which is a dummy that equals one (zero otherwise) if the insider leaves the firm in the following year. The dependent variable in column (4) is new insider corruption, which is the corruption index value in the new insider's country of ancestry, where new insiders are officers and directors that appear the first time in the sample. New CEO is a dummy that equals one (zero otherwise) if a new CEO enters a firm in a given year. New CEO Corruption is the corruption index value in the new CEO's country of ancestry. |Insider i Corruption-New CEO Corruption| is the absolute difference between insider i's corruption value and the new CEO's corruption value. Insider Age is the insider's age in years. Director is a dummy that equals one (zero otherwise) if the insider is a director. The control variables are defined in Appendix A. Firm, industry (49 Fame-French), and year fixed effects are included as specified. The regression in column (3) is estimated using probit. t-statistics or z-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	Number of	Number of	Insider	New Insider
	Insiders Exiting	Insiders Entering	Exit	Corruption
	(1)	(2)	(3)	(4)
New CEO	0.297***	0.185***		
	(9.77)	(4.92)		
Insider i Corruption-New CEO Corruption			0.513***	
			(5.50)	
New CEO Corruption				12.464***
				(6.28)
Insider Age			0.224***	-0.596***
			(14.64)	(-3.32)
Director			-3.788***	5.940**
			(-16.52)	(2.02)
Ln(Assets)	0.052***	0.270***	1.065*	-0.645
	(3.00)	(11.87)	(1.82)	(-0.63)
Ln(1+Age)	0.814***	0.377***	-4.048*	0.035
	(32.16)	(10.86)	(-1.88)	(0.01)
Market-to-book	-0.040***	-0.025***	-0.046	1.167
	(-8.86)	(-3.91)	(-0.23)	(1.26)
Leverage	0.348***	0.114	-1.866	0.307
-	(5.51)	(1.36)	(-0.93)	(0.05)
Stock Volatility	0.357***	0.471***	5.089***	-0.210
	(11.67)	(11.80)	(3.74)	(-0.04)
ROA	-0.615***	-0.473***	-5.151***	-12.404
	(-11.02)	(-6.72)	(-2.85)	(-1.36)
Firm FE	Yes	Yes	Yes	
Industry FE				Yes
Year FE	Yes	Yes	Yes	Yes
Observations	78,770	78,770	96,710	11,649
N. of Firms	11,540	11,540	4,192	2,955
R-squared	0.239	0.226	0.115	0.021
Sample	All Firms	All Firms	All Insiders	New Insiders

### **Table 6: Individual vs. Corporate Culture Effects**

This table examines the individual vs. corporate culture effects. The sample in columns (1) to (3) consists of insider-grant date observations from 1996 to 2006. The sample in columns (4) to (6) consists of insider-purchase date observations from 1988 to 2006. All insiders are included in columns (1) and (4), only insiders that moved between firms are included in columns (2) and (5), and only officers that moved between firms are included in columns (3) and (6). The dependent variable in columns (1) to (3) is an insider backdating dummy, which equals one (zero otherwise) if the strike price of the insider's option grant is at the lowest price of the month. The dependent variable in columns (4) to (6) is the price pattern ratio, computed as the ratio of the market-adjusted gross return over the 20 trading days following the insider purchase transaction to the market-adjusted gross return over the 20 trading days preceding the insider purchase transaction. Insider i Corruption is the corruption index value in insider i's country of ancestry. Corruption Culture, is the average corruption values for all insiders excluding insider i. Insider Age is the insider's age in years. Director is a dummy that equals one (zero otherwise) if the insider is a director. The control variables are defined in Appendix A. Person fixed effects are included as specified. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

-	Backdating	Backdating	Backdating	Price Pattern	Price Pattern	Price Pattern
	(1)	(2)	(3)	(4)	(5)	(6)
Insider i Corruption	0.120**			0.293*		
	(2.19)			(1.92)		
Corruption Culture-i	1.091***	1.068**	2.066*	1.020**	2.898**	6.326**
	(3.54)	(2.47)	(1.75)	(1.98)	(1.98)	(2.37)
Insider Age	-0.051***	-0.007	0.015	-0.048**	0.063	-0.122
	(-4.35)	(-0.18)	(0.29)	(-2.44)	(0.86)	(-0.84)
Director	-1.754***	-1.542***		-0.307	-0.025	
	(-6.38)	(-3.02)		(-0.79)	(-0.02)	
County-Year Mean	-0.024*	-0.063***	-0.083**	0.045*	0.021	0.026
•	(-1.87)	(-3.40)	(-2.24)	(1.84)	(0.46)	(0.26)
Industry-Year	0.099***	-0.168***	-0.184*	0.470***	0.185*	0.022
•	(3.19)	(-3.18)	(-1.95)	(8.79)	(1.86)	(0.08)
Market Mean	0.533***	-9.053***	-10.955***	0.128**	0.552***	0.923***
	(8.09)	(-6.86)	(-4.12)	(2.04)	(4.12)	(2.67)
Ln(Assets)	-1.268***	-1.019***	-1.102*	0.717***	0.653*	0.807
	(-9.04)	(-5.07)	(-1.86)	(4.02)	(1.93)	(0.65)
Ln(1+Age)	-0.915***	-0.587	-2.162*	-1.586***	-1.614**	-0.713
· · · · · · · · · · · · · · · · · · ·	(-2.91)	(-1.46)	(-1.82)	(-4.37)	(-2.27)	(-0.32)
Market-to-book	-0.127	-0.278*	-0.418	2.198***	0.742	0.095
	(-1.03)	(-1.72)	(-1.11)	(7.62)	(1.28)	(0.07)
Leverage	3.160***	3.175**	-0.452	2.746	0.412	-0.902
	(2.88)	(2.18)	(-0.12)	(1.63)	(0.17)	(-0.17)
Stock Volatility	-3.352***	-4.496***	-3.921	4.767***	2.808	-1.576
~	(-3.06)	(-3.04)	(-1.47)	(3.53)	(1.19)	(-0.30)
ROA	-3.549*	-2.981	-5.034	-5.268*	-5.076	-9.772
	(-1.83)	(-1.26)	(-0.76)	(-1.65)	(-1.01)	(-0.85)
Capital Intensity	-1.665*	1.808	-3.214	2.609**	2.937	-5.565
cupital intensity	(-1.88)	(1.10)	(-0.63)	(2.08)	(1.30)	(-0.63)
R&D	-1.983	4.932	-2.334	2.223	0.817	8.810
RCD	(-0.78)	(1.58)	(-0.32)	(0.45)	(0.09)	(0.35)
High Tech	1.118**	0.158	0.849	2.268**	2.433	7.611
riigii reen	(2.03)	(0.12)	(0.20)	(2.17)	(1.30)	(1.13)
Ln(N. of Options)	0.000	0.000*	0.000	(2.17)	(1.50)	(1.13)
Lii(14. of Options)	(1.29)					
Shares Traded	(1.29)	(1.75)	(1.18)	745.913***	635.448***	824.808*
Shares Traueu				,,		
				(5.86)	(3.68)	(1.80)
Person FE		Yes	Yes		Yes	Yes
Observations	205,442	76,718	27,127	121,083	24,462	6,605
N. of Firms	6,613	5,214	3,311	6,828	4,583	2,256
N. of Persons	52,217	11,461	6,291	27,843	6,840	2,753
R-squared	0.015	0.233	0.370	0.040	0.393	0.548
Sample	All Insiders	Moved	Moved	All Insiders	Moved	Moved
Sample	An insiders			An insiders		
		Insiders	Officers		Insiders	Officers

#### **Table 7: Potential Omitted Variables**

Potential omitted variables are included in corporate misconduct regressions. The sample in columns (1) and (2) consists of firmyear observations from 1988 to 2006. The sample in column (3) consists of firm-year observations from 1996 to 2006. The sample in column (4) consists of firm-year observations from 1988 to 2006. The dependent variable in column (1) is earnings management, calculated as the absolute value of abnormal discretionary accruals scaled by total assets. The dependent variable in column (2) is a fraud dummy, which equals one (zero otherwise) if the firm-year is within a class action lawsuit period or has misstated earnings according to AAER or GAO. The dependent variable in column (3) is an insider backdating dummy, which equals one (zero otherwise) if the strike price of at least one insider's option grant is at the lowest price of the month. The dependent variable in column (4) is the price pattern ratio, computed as the ratio of the market-adjusted gross return over the 20 trading days following the insider purchase transaction to the market-adjusted gross return over the 20 trading days preceding the insider purchase transaction, averaged across all insider purchase transactions in the same firm and year. Corruption Culture is the average corruption values for all insiders including both officers and directors. Philanthropy is a dummy that equals one (zero otherwise) if the firm have made charitable donations through direct giving or foundation giving during the 1989 to 2000 period. Board Size is the number of directors on board. Insider Directors is the fraction of directors who are also officers of the company. Institutional Holdings is the fraction of shares held by 13F institutional investors. Takeover Index is an index developed by Cain, McKeon, and Solomon (2014) constructed based on the passage of 12 different types of state takeover laws, one federal statue and three state standards of review, where higher values indicate higher hostile takeover hazard. The control variables are defined in Appendix A. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	Earnings Management	Fraud	Backdating	Price Pattern
	(1)	(2)	(3)	(4)
Corruption Culture	0.278**	0.209*	1.563***	1.073**
	(2.26)	(1.70)	(3.51)	(2.01)
Philanthropy	0.705***	-0.154	1.530	-2.805***
	(3.77)	(-0.52)	(1.21)	(-6.36)
Board Size	-0.074***	-0.017	-0.253**	-0.225***
	(-2.87)	(-0.45)	(-2.00)	(-2.75)
Insider Directors	-0.132	0.519	5.280***	-0.785
	(-0.35)	(1.19)	(3.33)	(-0.63)
nstitutional Holdings	-0.338	0.441	0.390	3.405***
_	(-1.41)	(1.56)	(0.44)	(4.83)
Takeover Index	4.224***	2.902***	12.605***	-2.191
	(5.92)	(2.86)	(2.63)	(-1.18)
County-Year Mean	0.038***	-0.039**	0.001	0.046**
•	(3.84)	(-2.35)	(0.03)	(2.49)
ndustry-Year Mean	0.245***	0.187***	0.156***	0.213***
•	(13.95)	(10.47)	(3.20)	(5.61)
Market Mean	0.122***	0.889***	1.001***	0.507***
	(3.19)	(15.69)	(9.69)	(7.41)
Ln(Assets)	-0.858***	0.533***	-1.438***	0.533***
	(-14.88)	(7.74)	(-6.05)	(2.90)
Ln(1+Age)	-0.386***	-0.731***	-2.489***	-2.479***
, ,	(-2.71)	(-4.09)	(-4.83)	(-8.42)
Market-to-book	0.765***	0.090***	-0.097	0.808***
	(9.09)	(2.85)	(-0.86)	(5.20)
Leverage	1.941***	0.934***	1.304	1.818*
	(4.11)	(2.78)	(0.98)	(1.76)
Stock Volatility	1.514***	0.330	1.131	6.348***
Š	(5.41)	(1.53)	(1.23)	(6.50)
ROA	-9.671***	-0.337	-2.396*	-4.249***
	(-10.14)	(-0.86)	(-1.80)	(-2.62)
Capital Intensity	-1.098***	-1.594***	-0.323	-1.933**
	(-2.65)	(-3.29)	(-0.22)	(-2.07)
R&D	-4.244**	-2.089*	-10.083***	5.892*
	(-2.13)	(-1.82)	(-3.37)	(1.74)
High Tech	-0.299	0.384	0.047	1.436***
	(-1.42)	(1.60)	(0.07)	(2.59)

Operating Cycle	0.216***	0.069		
	(2.78)	(0.82)		
Loss Percentage	0.221	-0.148		
	(1.06)	(-0.83)		
Sales Growth	0.434***	0.227***		
	(2.67)	(2.90)		
Sales Volatility	1.862***	0.393***		
	(8.78)	(2.62)		
Cash Flow Volatility	-0.550***	-0.452**		
	(-2.64)	(-2.42)		
N. of Options			16.740***	
			(39.64)	
Shares Traded				64.745**
				(2.13)
Observations	43,374	50,647	26,775	28,267
N. of Firms	5,798	6,192	5,257	5,497
R-squared	0.141	0.1353	0.0751	0.055

## **Table 8: Instrumental Variable Regressions**

The table reports results from instrumental variable regressions. The instrument is NLP (no longer present) Founder/Leader Corruption, which is the average corruption value for founders and early leaders (i.e., management team at the time of IPO) who are no longer present in the firm during the period of 1988 to 2006. The first stage results are reported in column (1), where the full set of controls and the instrument are regressed on corruption culture, which is the average corruption value for all insiders including both officers and directors. The F-statistic of the excluded instrument is reported. The second stage results are reported in columns (2) to (5), where the same full set of controls and the predicted corruption culture measure from the first stage, Instrumented Corruption Culture, are regressed on measures of corporate misconduct. All variables are defined in Appendix A. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	Corruption	F : M	г 1	D. 11.7	D: D#
-	Culture (1)	Earnings Management (2)	Fraud (3)	Backdating (4)	Price Pattern (5)
NLP Founder/Leader Corruption	0.483***	(2)	(3)	(4)	(3)
NEI Tounder/Leader Corruption	(18.11)				
Instrumented Corruption Culture	(10.11)	1.056*	2.471**	3.398**	3.356*
1		(1.73)	(1.99)	(2.02)	(1.85)
Philanthropy	-0.076	-0.442	2.134	1.681	-2.248***
13	(-0.67)	(-0.43)	(0.77)	(1.12)	(-3.22)
Board Size	-0.008*	-0.283***	-0.172	-0.426***	-0.094
	(-1.66)	(-2.91)	(-1.04)	(-2.75)	(-0.74)
Insider Directors	-0.020	-0.703	1.241	4.321**	0.089
	(-0.31)	(-0.70)	(0.72)	(1.97)	(0.04)
Institutional Investors	-0.033	-1.036	1.601	0.295	5.007***
	(-0.86)	(-1.55)	(1.33)	(0.26)	(4.49)
Takeover Index	0.412	20.511***	17.901	12.339*	-0.187
	(0.87)	(2.81)	(1.22)	(1.95)	(-0.07)
County-Year Mean	0.001	0.047**	-0.060	-0.008	0.039
	(1.38)	(1.98)	(-0.86)	(-0.30)	(1.38)
Industry-Year Mean	0.001	0.133***	0.939***	0.094	0.257***
	(0.39)	(3.26)	(6.16)	(1.48)	(4.28)
Market Mean	-0.005	0.079	0.559**	1.113***	0.553***
	(-0.95)	(0.54)	(2.20)	(8.28)	(4.91)
Ln(Assets)	-0.008	-0.773***	0.900**	-1.003***	0.596**
	(-0.74)	(-2.81)	(2.38)	(-3.19)	(2.11)
Ln(1+Age)	0.076	-1.038	-3.364***	-2.300***	-3.633***
	(1.62)	(-1.40)	(-3.26)	(-3.15)	(-7.74)
Market-to-book	0.001	1.065***	0.135	-0.084	0.928***
	(0.32)	(5.28)	(0.92)	(-0.57)	(4.13)
Leverage	0.048	5.360***	-1.110	0.306	0.753
	(0.98)	(3.76)	(-0.72)	(0.17)	(0.46)
Stock Volatility	0.022	2.009***	0.380	2.248*	5.413***
70.	(0.83)	(2.64)	(0.47)	(1.70)	(3.21)
ROA	0.040	-10.715***	-0.560	-1.836	-4.928**
	(0.88)	(-4.99)	(-0.59)	(-0.99)	(-1.98)
Capital Intensity	0.062	0.591	0.149	-0.042	-0.299
D 0 D	(0.91)	(0.50)	(0.07)	(-0.02)	(-0.19)
R&D	0.002	3.987	-1.659	-6.657*	6.746
II. 1 T. 1	(0.02)	(0.96)	(-0.66)	(-1.69)	(1.47)
High Tech	0.051	-0.502	-0.528	-0.649	1.718**
On anting Coult	(1.63)	(-0.98) 0.587***	(-0.74)	(-0.74)	(2.01)
Operating Cycle	0.001		0.016		
I Damantana	(0.06)	(3.06)	(0.06)		
Loss Percentage	0.020	-0.567	0.251		
Sales Growth	(0.93) 0.012	(-0.97)	(0.39) 0.102		
Sales Glowin		0.255			
	(1.56)	(0.79)	(0.40)		

Sales Volatility	0.038** (2.43)	2.678*** (7.63)	0.034 (0.08)		
Cash Flow Volatility	-0.017 (-0.87)	-1.464*** (-3.36)	-1.179** (-2.11)		
N. of Options	,	. ,	, ,	17.546*** (31.86)	
Shares Traded				(31.80)	123.950** (2.07)
Observations	8,747	8,747	9,218	8,735	6,469
N. of Firms	1,541	1,541	1.638	1,840	1,775
R-squared	0.322	0.128	0.031	0.080	0.038
F-test Statistic (p-value)	327.94 (0.000)				

#### **Table 9: Measurement Robustness**

Results from corporate misconduct regressions are reported. The sample in columns (1) and (2) consists of firm-year observations from 1988 to 2006. The sample in column (3) consists of firm-year observations from 1996 to 2006. The sample in column (4) consists of firm-year observations from 1988 to 2006. The dependent variable in column (1) is earnings management, calculated as the absolute value of abnormal discretionary accruals scaled by total assets. The dependent variable in column (2) is a fraud dummy, which equals one (zero otherwise) if the firm-year is within a class action lawsuit period or has misstated earnings according to AAER or GAO. The dependent variable in column (3) is an insider backdating dummy, which equals one (zero otherwise) if the strike price of at least one insider's option grant is at the lowest price of the month. The dependent variable in column (4) is the price pattern ratio, computed as the ratio of the market-adjusted gross return over the 20 trading days preceding the insider purchase transaction to the market-adjusted gross return over the 20 trading days preceding the insider purchase transaction, averaged across all insider purchase transactions in the same firm and year. Corruption Culture <sub>Origins Info</sub> is the average of corruption index values in the insiders' countries of ancestry identified using surname matching from Origins Info Ltd. The control variables are defined in Appendix A. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	Earnings Management	Fraud	Backdating	Price Pattern
	(1)	(2)	(3)	(4)
Corruption Culture origin info	0.211*	0.220**	0.977**	0.898**
	(1.96)	(2.07)	(2.49)	(2.12)
County-Year Mean	0.044***	-0.032**	-0.012	0.056***
	(5.25)	(-2.52)	(-0.69)	(3.79)
Industry-Year Mean	0.256***	0.208***	0.165***	0.343***
	(17.11)	(12.47)	(3.89)	(10.61)
Market Mean	0.00007	0.795***	1.005***	0.299***
	(0.20)	(17.14)	(11.66)	(6.38)
Ln(Assets)	-0.746***	0.498***	-1.312***	0.211*
,	(-18.96)	(11.24)	(-8.18)	(1.84)
Ln(1+Age)	-0.00056	-0.104	-1.498***	-2.106***
(6-)	(-0.49)	(-0.87)	(-4.03)	(-9.81)
Market-to-book	0.771***	0.133***	-0.043	1.052***
White to book	(10.17)	(4.93)	(-0.41)	(7.08)
Leverage	2.349***	1.478***	1.926	2.653***
Leverage	(5.63)	(5.05)	(1.61)	(2.96)
Stock Volatility	1.591***	0.639***	1.450*	6.726***
Stock Volatility	(6.41)	(3.44)	(1.77)	(8.11)
ROA	-10.011***	0.551	-2.184*	-0.444
KOA	(-11.42)	(1.56)	(-1.80)	(-0.31)
Capital Intensity	-1.488***	-0.624*	-0.307	0.550
Capital Intensity		(-1.66)	(-0.25)	(0.81)
D & D	(-4.42)	` '	` '	` '
R&D	-6.160***	-0.900	-11.247***	7.199**
II: -1- T1-	(-3.32)	(-0.90)	(-4.01)	(2.27)
High Tech	-0.375*	0.596**	0.526	1.695***
	(-1.91)	(2.53)	(0.83)	(3.13)
Operating Cycle	0.397***	0.038		
	(5.25)	(0.58)		
Loss Percentage	0.245	-0.040		
	(1.33)	(-0.25)		
Sales Growth	0.586***	0.306***		
	(3.99)	(4.61)		
Sales Volatility	-0.314*	-0.042		
	(-1.82)	(-0.27)		
Cash Flow Volatility	1.836***	0.565***		
	(10.43)	(4.44)		
Ln(N. of Options)			16.091***	
			(42.66)	
Shares Traded				49.811**
				(2.15)
Observations	57,922	63,838	32,542	37,163
N. of Firms	8,033	8,765	6,738	7,265
R-squared	0.155	0.1296	0.0752	0.059

### **Table 10: First Generation Immigrants**

Results from corporate misconduct regressions are reported, where the sample of foreign-born insiders is used. The sample in columns (1) and (2) consists of firm-year observations from 1988 to 2006. The sample in column (3) consists of insider-grant date observations from 1996 to 2006. The sample in columns (4) consists of insider-purchase date observations from 1988 to 2006. Only foreign-born CEOs and CFOs are included in columns (1) and (2), whereas all foreign-born insiders are included in columns (3) and (4). The dependent variable in column (1) is earnings management, calculated as the absolute value of abnormal discretionary accruals scaled by total assets. The dependent variable in column (2) is a fraud dummy, which equals one (zero otherwise) if the firm-year is within a class action lawsuit period or has misstated earnings according to AAER or GAO. The dependent variable in column (3) is an insider backdating dummy, which equals one (zero otherwise) if the strike price of the insider's option grant is at the lowest price of the month. The dependent variable in column (4) is the price pattern ratio, computed as the ratio of the market-adjusted gross return over the 20 trading days following the insider purchase transaction to the market-adjusted gross return over the 20 trading days following the insider purchase transaction. Corruption is the average Transparency International's corruption index value from 1980 to 2009 in the insider's country of birth, where higher index values indicate more corruption. The firm controls are defined in Appendix A. t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the firm level. All coefficients are multiplied by 100 for ease of exposition. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

100 for ease of exposition.	Earnings Management	Fraud	Backdating	Price Pattern	
	(1)	(2)	(3)	(4)	
Corruption	0.174*	0.116**	0.359**	12.138***	
•	(1.71)	(2.46)	(1.96)	(3.21)	
County-Year Mean	-0.019	0.029	-0.019	0.182	
•	(-1.01)	(1.41)	(-0.52)	(0.55)	
Industry-Year Mean	0.305***	-0.091	0.088	-1.527	
	(4.56)	(-1.41)	(1.21)	(-1.55)	
Market Mean	0.220	0.271	0.234	-1.066	
	(1.25)	(1.34)	(1.30)	(-0.69)	
Ln(Assets)	-0.079	0.204	-0.104	3.701	
211(135005)	(-0.20)	(1.54)	(-0.35)	(1.04)	
Ln(1+Age)	-0.942	0.378	-2.159***	-19.854***	
Zii(1+11ge)	(-1.38)	(1.02)	(-3.05)	(-2.78)	
Market-to-book	0.304	-0.108	-1.016**	5.371*	
Warket-to-book	(0.85)	(-0.59)	(-2.99)	(1.91)	
Leverage	-2.519	1.378	-3.882*	0.544	
Leverage					
Canala Valetilita	(-0.85)	(1.38)	(-1.78)	(0.03)	
Stock Volatility	4.930*	2.331**	-0.213	-24.654	
DO 4	(1.68)	(2.01)	(-0.08)	(-1.58)	
ROA	-1.470	0.011	3.919	-204.509***	
	(-0.34)	(0.01)	(0.81)	(-2.76)	
Capital Intensity	-1.993	-3.245***	1.163	70.037**	
	(-1.24)	(-2.68)	(0.43)	(2.34)	
R&D	-15.795	1.127	11.885	-118.438**	
	(-1.25)	(0.33)	(1.64)	(-1.98)	
High Tech	0.342	-0.260	0.208	51.635***	
	(0.46)	(-0.55)	(0.17)	(2.69)	
Operating Cycle	-0.042	-0.238	-	-	
	(-0.14)	(-1.64)			
Loss Percentage	2.743	-1.196	-	-	
	(1.48)	(-1.46)			
Sales Growth	6.559	-0.136	-	-	
	(1.14)	(-0.28)			
Sales Volatility	0.538	-0.745	-	-	
	(0.45)	(-1.14)			
Cash Flow Volatility	-1.543	0.978	-	-	
•	(-0.87)	(1.35)			
Ln(N. of Options)	-	-	-0.470	-	
•			(-0.86)		
Shares Traded	-	_	-	1141.949	
				(1.16)	
Observations	2,881	2,741	4,188	2,757	
N. of Firms	479	487	629	273	
R-squared	17.5%	12.6%	2.1%	48.7%	
Sample					
Sample	roreign-born CEC	Foreign-born CEOs and CFOs		All Foreign-born Insiders	

### **Table 11: Internal Measurement Validation using Surveys**

Panel A describes the survey questions from the 1972 to 2008 sample of the General Social Survey (GSS). Variable names as defined in GSS are reported in column 1. Survey questions and possible responses are described in columns 2 and 3. Other responses ("can't choose", "no answer", "not applicable", "don't know") are set to missing. Summary statistics (mean and standard deviation) for each survey question are reported in column 4. Panel B reports the individual level regressions, where the number of observations is the number of respondents for each survey question. All regressions exclude respondents whose place of birth is outside of the United States. Corruption is the average Transparency International's Corruption Perception Index value from 1980 to 2009 in the respondent's reported country of ancestry, where higher index value denotes more corruption. Male is a dummy that equals one (zero otherwise) if the respondent is male. Age is the respondent's age at the time of the interview. Education is the number of years of formal education the respondent has completed. Income is the respondent's family income divided by 10,000 and converted to 1986 dollars. Married is a dummy that equals one (zero otherwise) if the respondent is married at the time of the interview. White and Black are indicators for the respondent holds a full-time job. Intercepts are included and not reported. Estimation uses ordered probit, where z-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors.

Panel A: General Social Survey Questions

GSS Variable	Survey Question	Response	Mean [Sd]
GOVCHEAT	A person gives the government incorrect information about	1 (not wrong) to	3.445
	himself to get government benefits that he is not entitled to.	4 (seriously wrong)	[0.655]
TAXCHEAT	A taxpayer does not report all of his income in order to pay	1 (not wrong) to	3.113
	less income taxes.	4 (seriously wrong)	[0.759]
ANOMIA3	To make money, there are no right and wrong ways any	1 (agree) to	1.753
	more, only easy and hard ways	2 (disagree)	[0.431]
ANOMIA1	Next to health, money is the most important thing in life.	1 (agree) to	1.681
		2 (disagree)	[0.466]
WRKEARN	A job is just a way of earning money – no more.	1 (strongly agree) to	3.461
		5 (strongly disagree)	[1.178]
HIINC	How important you personally consider high income is in a	1 (very important) to	1.983
	job.	5 (not important at all)	[0.790]

		Panel B: Individual-Level R Right or Wrong			Importance of Money		
	GOVCHEAT	TAXCHEAT	ANOMIA3	ANOMIA1	WRKEARN	HIINC	
_	(1)	(2)	(3)	(4)	(5)	(6)	
Predicted Signs	-	-	-	-	-	-	
Corruption	-0.040**	-0.046***	-0.090***	-0.079***	-0.065***	-0.066***	
	(2.49)	(2.99)	(6.39)	(5.74)	(5.10)	(5.04)	
Male	-0.167***	-0.169***	-0.087	-0.0004	-0.128***	-0.024	
	(-3.04)	(-3.27)	(-1.59)	(-0.01)	(-3.33)	(-0.61)	
Age	0.0003	0.004***	0.004**	-0.011***	0.001	0.003**	
8.	(0.16)	(2.81)	(2.44)	(-7.20)	(0.73)	(2.14)	
Education	0.052***	0.037***	0.077***	0.080***	0.101***	0.056***	
	(5.00)	(3.80)	(8.15)	(8.75)	(13.70)	(7.44)	
Income	0.011	-0.006	0.058***	0.042***	0.028***	-0.010	
	(0.90)	(-0.54)	(4.32)	(3.37)	(3.81)	(-1.34)	
Married	0.120**	0.154***	0.050	-0.032	0.007	0.023	
	(2.14)	(2.90)	(0.88)	(-0.59)	(0.17)	(0.57)	
White	0.104	-0.053	0.192	0.743***	0.073	0.194*	
	(0.54)	(-0.27)	(0.60)	(2.68)	(0.75)	(1.91)	
Black	-0.180	-0.140	0.458	0.499*	-0.113	-0.042	
	(-0.87)	(-0.67)	(1.39)	(1.73)	(-1.13)	(-0.39)	
Employed	0.052	-0.101*	0.019	-0.001	0.053	-0.036	
1 3	(0.88)	(-1.79)	(0.33)	(-0.02)	(1.32)	(-0.83)	
Observations	2,021	1,981	3,159	3,222	3,336	3,324	
R <sup>2</sup> <sub>pseudo</sub>	2.7%	1.8%	5.9%	9.6%	4.7%	2.7%	

### **Table 12: External Measurement Validation using Crime**

The sample in columns (1) and (2) consists of county-year observations from 1990 to 2010. The sample in columns (3) and (4) consists of county observations from 1990 to 2010, where all variables are averaged at the county level. The dependent variable in columns (1) and (3) is the natural logarithm of the total number of arrests in a county divided by the county population. The dependent variable in columns (2) and (4) is the natural logarithm of the total number of offenses in a county divided by the county population. Crime data come from FBI's Uniform Crime Report. County Corruption is the county-level corruption measure, calculated as  $\sum_{i=1}^{N} w_i \cdot corruption \ index_i$ , where  $w_i$  is the percentage of county residents belonging to ancestry country i and corruption index; is the corruption index value for ancestry country i. Ln(population) is the natural logarithm of the county population. Ln(population density) is the natural logarithm of the county population in thousands divided by the county area in square miles. Male-Female Ratio is the total number of male county residents divided by the total number of female county residents. Age is the average age of the county residents. Education is the county level percentage of people with a college degree. Income per Capita is the inflation-adjusted county level household income per capita in thousands of dollars. Married is the fraction of county residents that are currently married. White is the fraction of county residents that reported white as their race. Black is the fraction of county residents that reported black as their race. Unemployment rate is the percentage of county residents in the labor force that are unemployed. Year fixed effects are included as specified. Intercepts are included, but not reported. In columns (1) and (2), t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors that are corrected for clustering at the county level. In columns (3) and (4), t-statistics (in parentheses) are computed using heteroskedasticity-consistent standard errors. \*, \*\*, and \*\*\* denotes significance at the 10%, 5%, and 1% levels, respectively.

	County-Year Sample		County Sample		
	$ln(\frac{Arrests}{Population})$	$ln(\frac{Offenses}{Population})$	$ln(\frac{Arrests}{Population})$	$ln(\frac{Offenses}{Population})$	
	(1)	(2)	(3)	(4)	
County Corruption	0.067***	0.055***	0.082***	0.072***	
	(4.37)	(3.10)	(4.77)	(3.90)	
Ln(Population)	0.193***	0.397***	0.207***	0.406***	
	(12.27)	(21.29)	(12.62)	(21.67)	
Ln(Pop. Density)	-0.018	-0.093***	-0.015	-0.090***	
	(-1.46)	(-6.36)	(-1.12)	(-5.81)	
Male-Female Ratio	-0.270**	-0.178	-0.242**	-0.188	
	(-2.40)	(-1.04)	(-2.04)	(-1.03)	
Age	-0.098***	-0.054***	-0.089***	-0.057***	
C	(-14.70)	(-7.15)	(-13.15)	(-7.16)	
Education	-0.072	0.811***	-0.051	0.760***	
	(-0.38)	(3.92)	(-0.27)	(3.52)	
Income per Capita	-0.009***	-0.007*	-0.010***	-0.003	
	(-2.59)	(-1.82)	(-2.71)	(-0.87)	
Married	1.116***	3.179***	2.002***	4.086***	
	(2.73)	(6.39)	(4.51)	(7.42)	
White	-0.101	-0.166	-0.253	-0.224	
	(-0.53)	(-0.68)	(-1.13)	(-0.83)	
Black	-0.081	0.360*	-0.220	0.188	
	(-0.50)	(1.71)	(-1.20)	(0.81)	
Unemployment Rate	0.018***	0.010	0.021***	0.006	
1 2	(3.25)	(1.32)	(3.63)	(0.75)	
Year FE	Yes	Yes	No	No	
Observations	55,097	55,097	3009	3009	
$R^2_{adj}$	18.7%	30.6%	29.5%	41.2%	

# Appendix A Variable Definitions

This table provides definitions for the main variables used in the empirical analysis. Accounting data are from Compustat, where the Compustat variable names are in italics. Stock return data are from CRSP. Other sources are specified in variable definitions. All dollar values are in dollars of 2008 purchasing power using the Consumer Price Index. All accounting variables are winsorized at the 1<sup>st</sup> and 99<sup>th</sup> percentiles of their empirical distribution.

Variable	Definition
Key variables	
Corruption Culture	The average corruption values for all insiders including both officers and directors. The corruption values are based on the corruption index in the insiders' country of ancestry, which is identified based on their surnames using U.S. Census data. The corruption index is the average Transparency International's Corruption Perception Index value from 1980 to 2009, where a higher index value denotes more corruption.
Corruption Culture Origins Info	The average corruption values for all insiders including both officers and directors. The corruption values are based on the corruption index in the insiders' country of ancestry, which is identified based on surname matching from Origins Info Ltd. The corruption index is the average Transparency International's Corruption Perception Index value from 1980 to 2009, where a higher index value denotes more corruption.
Local Corruption Culture	Calculated as $\sum_{i=1}^{N} w_i \cdot corruption \ index_i$ , where $w_i$ is the percentage of county residents belonging to ancestry country i and $corruption \ index_i$ is the corruption index value for ancestry country i, where higher index values indicate higher corruption. County level ancestry data come from the 1990 U.S. Census. The corruption index is the average Transparency International's Corruption Perception Index value from 1980 to 2009, where a higher index value denotes more corruption.
Key dependent variables	
Earnings Management	Earnings management for each firm $i$ at year $t$ is measured as the absolute value of abnormal discretionary accruals. The abnormal discretionary accruals $AAC_{i,j,t} = \frac{TAC_{i,j,t}}{AT_{i,j,t-1}} - NAC_{i,j,t}$ and $NAC_{i,j,t} = \hat{\alpha}_{0,j,t} + \hat{\alpha}_{1,j,t} \left(\frac{1}{AT_{i,j,t-1}}\right) + \hat{\beta}_{j,t} \left(\frac{\Delta SALE_{i,j,t} - \Delta RECT_{i,j,t}}{AT_{i,j,t-1}}\right) + \hat{\gamma}_{j,t} \left(\frac{PPEGT_{i,j,t}}{AT_{i,j,t-1}}\right) + \hat{\delta}_{j,t} \left(\frac{IBC_{i,j,t-1}}{AT_{i,j,t-1}}\right). \hat{\alpha}, \hat{\beta}, \hat{\gamma}, \text{ and } \hat{\delta} \text{ are coefficients from estimating firm-level regressions specified as } \frac{TAC_{i,j,t}}{AT_{i,j,t-1}} = \alpha_{0,j,t} + \alpha_{1,j,t} \left(\frac{1}{AT_{i,j,t-1}}\right) + \beta_{j,t} \left(\frac{\Delta SALE_{i,j,t}}{AT_{i,j,t-1}}\right) + \hat{\gamma}_{j,t} \left(\frac{PPEGT_{i,j,t}}{AT_{i,j,t-1}}\right) + \delta_{j,t} \left(\frac{IBC_{i,j,t-1}}{AT_{i,j,t-1}}\right) + \epsilon_{i,j,t} \text{ for each industry-year } (j,t) \text{ group with more than 8 firms, where industry is defined at the two-digit SIC level. } TAC = IBC - OANCF \text{ (if } OANCF \text{ is missing, then } OANCF = IB - [(\Delta ACT - \Delta LCT - \Delta CHE + \Delta DLC) - DP]). TAC/AT \text{ is truncated at } 99^{\text{th}} \text{ percentile of its absolute value and all other variables are winsorized at the } 1^{\text{st}} \text{ and } 99^{\text{th}} \text{ percentiles before estimation.}$
Fraud	1 (0 otherwise) if any of the following events happened in a given firm-year. First, the firm-year is within a class action lawsuit period based on Dyck, Morse, and Zingales (DMZ) (2010) and hand-collected data from the Stanford Securities Class Action Clearinghouse. Second, if earnings are misstated in that firm-year according to the SEC's Accounting and Auditing Enforcement Releases from the UC Berkeley Center for Financial Reporting Management. Third, if an earnings restatement is announced in that year according to GAO (2003, 2006) and is classified as an irregularity by Hennes, Leone, and Miller (2008).
Backdating	1 (0 otherwise) if the strike price of the insider option grant is at the lowest price of the month in a given firm-year. Source: Thomson Financial's Insider Trading database.

Price Pattern The ratio of the market-adjusted gross return over the 20 trading days following the

insider buy transaction to the market-adjusted gross return over the 20 trading days preceding the insider buy transaction. The ratio is averaged across all insider transactions in a given firm-year. Market returns are CRSP value-weighted returns.

Source of insider trades: Thomson Financial's Insider Trading database.

Control variables

County-Year Mean The average misconduct rate for firms located in the same county and in the same year

excluding firm i.

Industry-Year Mean The average misconduct rate for firms in the same (49 Fama-French) industry and in

the same year excluding firm i.

Market Mean The average misconduct measure for all firms in the same year excluding those in same

county or industry as firm i.

Ln(Assets) Natural logarithm of total assets (AT).

Ln(1+Age) Natural logarithm of one plus the number of years the firm has been in Compustat.

Market-to-book Market value of assets over book value of assets

 $(CSHO \times PRCC\_F + PSTK + DLTT + DLC)/AT).$ 

Leverage Debt over book value of assets ((*DLTT+DLC*)/*AT*). Stock Volatility Annualized standard deviation of daily returns.

ROA Operating income before depreciation (OIBDP) divided by total assets (AT).

Capital Intensity Ratio of property, plant and equipment (*PPENT*) to total assets (*AT*).

R&D Ratio of research and development expenses (*XRD*) to total assets (*AT*).

High Tech Equals one (zero otherwise) if the firm is in the technology business as defined in

Appendix D of Loughran and Ritter (2004).

Ln(Operating Cycle) Natural logarithm of the firm's operating cycle, calculated as

 $ln((360/(SALE_{i,t}/((RECT_{i,t}-RECT_{i,t-1})/2))) + (360/(COGS_{i,t}/((INVT_{i,t}+INVT_{i,t-1})/2)))).$ 

Loss Percentage Percentage of annual losses reported over the prior 10 years.

Sales Growth Annual rate of change in sales (SALE).

Sales Volatility Standard deviation of sales (SALE) deflated by the lagged total assets (AT) over the

prior five years.

Cash Flow Volatility Standard deviation of cashflows from operations (*OANCF-XIDOC*) deflated by the

lagged total assets (AT) over the prior five years.

Ln(N. of Options) Natural logarithm of the number of options granted to insiders in a given year. Source:

Execucomp.

Shares Traded The number of shares traded by insiders (executives and directors) in a given year,

normalized by the total number of shares outstanding. Source: Thomson Financial's

Insider Trading database.

Other variables

Philanthropy A dummy that equals one (zero otherwise) if the firm has made charitable donations

through direct giving or through a foundation during the 1989 to 2000 period. Source:

Petrovits (2006).

Board Size Number of directors on the board. Source: Compact Disclosure.

Insider Directors The fraction of directors who are also officers of the firm. Source: Compact Disclosure.

Institutional Holdings The fraction of shares held by 13F institutional investors. Source: Thomson Reuters

Institutional (13F) Holdings.

Takeover Index The firm-level takeover index developed by Cain, McKeon, and Solomon (2014),

which is constructed based on the passage of 12 different types of state takeover laws, one federal statue, and three state standards of review, where higher values indicate

higher hostile takeover hazard. (Source: Steve McKeon's website).