Family Business and Firm Value: Evidence from Stakeholder Relations with Employees

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This version: May 2015

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Abstract

We examine employee-oriented policies as an important channel through which family firms create value. Using employee relations ratings as the measure of employee-oriented policies, we find that compared with nonfamily firms, family firms treat their employees better and this better treatment is associated with higher firm value. The positive relation between employee treatment and firm value for family firms is robust to controlling for endogeneity bias, and also to using firms' inclusion in *Fortune*'s "100 Best Companies to Work For" list to identify employee-friendly treatment. These findings suggest that employee-friendly policies help family firms create value.

***Keywords*:** Family Firm, Employee Treatment, Stakeholder Relation, Nexus of Contract, Firm Value, Endogeneity

JEL Classification: G32, G34, M51, M5

Family firms are the most prevalent organizational form around the world (La Porta, Lopez-De-Silanes, and Shleifer, 1999; Claessens, Djankov, and Lang, 2000). For example, founders and their heirs are the most common types of large, undiversified shareholders in the U.S., controlling about one-third of Fortune 500 and S&P 500 industrial firms (Anderson and Reeb, 2003). Previous studies on U.S. family firms focus on the impact of agency problems inherent in family ownership on firm value. They show that, on average, family firms in the U.S. outperform nonfamily firms, largely due to low shareholder-manager conflicts and active monitoring by controlling owners (Demsetz and Lehn, 1985; Anderson and Reeb, 2003; Fahlenbrach, 2009; Li and Srinivasan, 2011). However, while these studies shed light on the source of value gains in family firms from the perspective of agency problems, there is little evidence on other potential sources through which family firms create value. For instance, we know little about whether family firms differ from nonfamily firms in their management of stakeholder relationships, and whether such relationships are an important channel through which family firms create value. In this paper we address these questions by focusing on employee relations as a key source of value creation for family firms. Specifically, we compare investment in employee relations between family and nonfamily firms[1] and examine whether differences in such investment explain superior family firm performance documented in prior literature.[2]

Contract theory and the theory of the firm view a firm as a nexus of explicit and implicit contracts between shareholders and other stakeholders whereby stakeholders supply the firm with capital and other resources in exchange for claims on firm value (Coase, 1937; Alchian

[1] We use the terms "employee treatment," "investment in employee relations," "employee benefits," and "employee-friendly policies" interchangeably throughout this paper.

[2] Only a few papers focus on stakeholder relations in examining family firm performance. Anderson, Mansi, and Reeb (2003) investigate how stakeholder relations with creditors differ between family and nonfamily firms. They show that shareholder-creditor conflicts are less likely in family firms than in nonfamily firms, and that stable stakeholder relations based on the favorable perception of creditors help reduce the cost of public debt for family firms.

and Demsetz, 1972; Jensen and Meckling, 1976; Cornell and Shapiro, 1987). Among various stakeholder relations, employee relations can be particularly important for a firm's success because employees significantly contribute to production (Agle, Mitchell, and Sonnenfeld, 1999), and human capital is one of the most important factors affecting a firm's competitiveness (Pfeffer, 1996).

Several studies suggest that better employee treatment leads to higher productivity and firm value. For example, March and Simon (1958) argue that employees are likely to deliver higher productivity when they feel more valued and respected. Similarly, Robinson (1996) argues that a breach (or even perceived breach) in contract negatively affects employees' trust in their employers and in turn their performance, and La Porta et al. (1997) suggest that a firm's reputation for honoring its implicit commitments significantly influences its ability to obtain employee support. More recently, Edmans (2011) argues that employee satisfaction improves a firm's ability to recruit, retain, and motivate its employees, which leads to improved performance.

The importance of employee relations in the workplace and their impact on firm value and performance are expected to be greater in family firms than in nonfamily firms. First, family firms in which family owners have large equity claims on firm value and a strong interest in the firm as a going concern (due, for example, to bequest motives) tend to have a relatively longer-term horizon than nonfamily firms (Anderson, Mansi, and Reeb, 2003; Mueller and Philippon, 2011). A longer-term horizon reduces managerial myopia, allowing family firms to focus on value-increasing long-term investments, such as investments in employee relations. Family owners' commitments to investing in durable employee relations reinforce employee incentives to contribute to long-term profitability (La Porta et al., 1997), resulting in an increase in firm

value.[3] Prior studies provide supporting evidence on the view that family owners' longer-term horizon and their commitments to maintaining durable employee relations are important channels through which family firms maximize benefits from long-term investments. Bertrand and Schoar (2006), for instance, argue that family owners' strong intent on intergenerational transfers of control provide managers of family firms with "patient capital" that enables them to pursue investment opportunities that maximize long-run returns. Block (2010) shows that family firms tend to avoid downsizing in response to a decline in profitability because this act could result in hostile employee relations that would tarnish their reputation.[4]

Second, owner-managers of family firms who frequently serve on the management team or the board typically have better knowledge of their firm than managers of nonfamily firms (Chan, Chen, and Hilary, 2010; Anderson, Reeb, and Zhao, 2012).[5] This information advantage allows family firms to accurately assess the value of intangible investments and to avoid underinvestment problems in employee relations documented by Edmans (2011). Edmans (2011) finds that managers tend to underinvest in employee relations because outside investors do not fully value investments in intangible assets and underestimate the long-term benefits of such investments.

[3] Several factors enable family firms to create higher value from their investments in employee relations than nonfamily firms. First, family firms have a culture of trust and friendliness that is an important source of employee performance. For example, PwC Family Business Survey report (2012) cites the longer business horizons and unique business cultures of family firms based on trust as important sources of competitive advantage. KPMG (2011) report identifies family firms' unique corporate culture that treats employees like extended family as a significant competitive advantage of family businesses. Recent studies provide supporting evidence that this distinctive corporate culture may help family firms garner employee support and improve efficiencies in implementing employee friendly policies. Guiso, Sapienza, and Zingales (2014) find that employees' positive perception of the top managers leads to higher productivity and profitability and Popadak (2013) shows that the results-oriented corporate culture has a negative effect on the value of a firm's intangible assets although it helps increase short-term financial benefits. Second, family owners' bequest motives may make proxy battles by hedge funds and other activist investors more costly and difficult in family firms than in nonfamily firms. This lower likelihood of proxy battles makes employees in family firms feel more secure about their jobs than those in nonfamily firms, motivating them to contribute more resources and effort to the firms.

[4] Mueller and Philippon (2011) also show that family firms are more prevalent in countries where labor relations are problematic because family owners with long-term investment horizons have comparative advantages in honoring implicit labor contracts.

[5] Anderson and Reeb (2003) argue that family members have information advantages because of their senior management positions. In our sample, family members account for 19.42% of the top five executive positions and 17.46% of directorships in their firms.

Third, a low agency conflict between shareholders and managers in family firms reduces managerial incentives to make suboptimal investment decisions in employee relations documented in prior literature. Several studies find that large employee benefits do not necessarily increase shareholder wealth (Bertrand and Mullainathan, 2003; Cronqvist et al., 2009; Kim and Ouimet, 2014). For example, Kim and Ouimet (2014) show that employee share ownership plans are often implemented for nonincentive purposes such as forming a worker-management alliance to fend off hostile takeovers. However, managers in family firms come under the tight scrutiny of family owners. Moreover, the concentrated equity ownership by family owners tends to insulate managers from takeover threats. Therefore, compared with managers in nonfamily firms, those in family firms are expected to have weaker incentives to overinvest in employee relations to obtain private benefits or reduce takeover threats.

Overall, the arguments above suggest that family firms have a comparative advantage in investing in long-term employee relations relative to nonfamily firms and their investments in such relations add more value than those by nonfamily firms. Thus, the "value creation hypothesis" predicts that compared with nonfamily firms, family firms invest more in employee relations, and such investment leads to higher firm value for family firms.

To test these predictions of the value creation hypothesis, we employ a large sample of 11,696 firm-year observations in the U.S. for the period 1996 to 2010. To capture a firm's treatment of employees, we construct the variable *Employee Treatment Index* using employee relations ratings assigned to firms by KLD Research & Analytics, Inc. (hereafter, KLD). We use buy-and-hold returns during the financial crisis and Tobin's *q* to examine the valuation effect of employee relations.

Consistent with the value creation hypothesis, our multivariate analyses (ordinary least squares (OLS) and Fama Macbeth (1973) regressions) show that family firms invest more in

employee relations (i.e., have a higher *Employee Treatment Index*) than nonfamily firms, particularly in union relations and employee involvement. Two additional tests that mitigate the possibility that a firm's organizational form and its decision to adopt employee-friendly policies are simultaneously determined by unobservable omitted variables further support the value creation hypothesis. As a first test, we examine a subsample of 111 family firms that become nonfamily firms during our sample period. We focus on firms that experience a complete change in ownership and control. Specifically, we consider only cases in which after the transition, family members own no equity and do not serve as an executive or a board of director. Because these transitions are not results of a small change in family ownership, say from the 5% threshold to 4.8%, our focus on such a sample allows us to tease out the effect of a firm's organizational type on its employee policies. Using firm fixed effects regressions, we find that a change in a firm's organizational type from family firm to nonfamily firm status leads to a shift away from employee-friendly policies, suggesting that family firms treat their employees better than nonfamily firms. As a second test, we use the 2008 to 2009 financial crisis as a natural experiment. Using a panel regression that controls for firm-fixed effects and industry-year fixed effects, we find that relative to nonfamily firms, family firms invest more in employee relations and do not actively engage in workforce reductions during the crisis. These results suggest that family firms are committed to maintaining their implicit contracts with employees, supporting the value creation hypothesis.

We further find that family firms with a high pre-crisis investment level in employee relations (i.e., positive *Employee Treatment Index*) post about 7% to 10% higher buy-and-hold crisis returns than other firms with non-positive *Employee Treatment Index*. In contrast, crisis returns for nonfamily firms with positive *Employee Treatment Index* are significantly lower than or statistically indistinguishable from those for other firms with non-positive *Employee Treatment Index*. Given that the average buy-and-hold crisis return for the full sample is –

37.34%, the valuation effects of employee-friendly policies for family firms is economically large and significant. The findings are consistent with the value creation hypothesis that investment in employee relations has a greater positive valuation effect for family firms than for nonfamily firms.

We then decompose the *Employee Treatment Index* into sub-indices to examine which dimension of employee relations has a dominant valuation effect and whether its effect on firm value is different between family and nonfamily firms. To closely follow the previous studies that examine the effects of various dimensions of employee relations on firm value,[6] we classify components of the *Employee Treatment index* into three subgroups: 1) union relations and employee involvements (Lee and Mas, 2009; Matsa, 2010), 2) employee compensation including cash profit sharing and retirement benefits (Bertrand and Mullainathan, 2003; Kim and Ouimet, 2014), and 3) health and safety (Bernstein and Sheen, 2013; Cohn and Wardlaw, 2014). By summing up the strength and concern indicators for the employee relations dimension in each subgroup, we then construct the corresponding employee treatment sub-index.

Although the sub-indices constructed using the above approach are not directly comparable to the measures used in prior studies, we find that family firms with a high pre-crisis level of investment in union relations and employee involvement suffer the least during the crisis while nonfamily firms with a high pre-crisis level of investment in cash profit sharing and retirement benefits suffer the most during the same period. Thus, the negative effects of union power and excess employee compensation on firm value documented in prior literature (Bertrand and

[6] For example, Lee and Mas (2009) and Matsa (2010) find a negative effect of union power on firm performance. Bertrand and Mullainathan (2003) and Kim and Ouimet (2014) show that excessive worker pay is a manifestation of managerial agency problems, which has an adverse effect on firm value. Finally, Cohn and Wardlaw (2014) investigate how employee health and safety conditions affect firms' profitability and show that firm value decreases substantially with injury rates.

Mullainathan, 2003; Lee and Mas, 2009; Matsa, 2010; Kim and Ouimet, 2014) appear to be largely concentrated in nonfamily firms.

To further examine whether family firms treat their employees better than nonfamily firms and whether this employee-friendly policy is an important channel through which family firms create value, we use firms named to *Fortune*'s "100 Best Companies to Work For" (hereafter "the Best Companies list") as an alternative measure of employee treatment. In line with the results we obtain using *Employee Treatment Index*, we find that family firms are more likely to be included on the Best Companies list. We further find that conditional on a firm's inclusion on the Best Companies list, a family firm is less likely to be dropped out of the list. Therefore, the larger representation of family firms on the list is not likely to be driven by the fact that family firms are more likely to participate in the *Fortune*'s annual survey than nonfamily firms in the first place. In addition, we find that family firms included on the Best Companies list post higher Tobin's *q* than other types of firms. The market also reacts more positively when family firms are included on the Best Companies list for the first time than when nonfamily firms are included on the list for the first time. To the extent that an inclusion on the Best Companies list is largely unanticipated (Faleye and Trahan, 2011), this result mitigates the reverse causality concern: to the extent that family firms perform better than nonfamily firms, they have more resources to invest in employee relations, in which case a firm's performance influences its ability to treat its employees well, rather than the other way around. Thus, the results using the Best Companies list lend additional support to the value creation hypothesis.

To check the robustness of our key results, we perform several additional tests. First, we use sudden deaths of top executives as a natural experiment and examine whether the valuation effect of sudden deaths of nonfamily member executives is different between family and nonfamily firms. Consistent with the value creation hypothesis, we find that the market reaction is more negative in response to sudden deaths of nonfamily top executives in family firms than

those of top executives in nonfamily firms. To the extent that nonfamily top executives in family firms possess greater firm-specific knowledge as a result of greater investment in human capital, the potential loss of market value due to their sudden deaths is expected to be greater for family firms than for nonfamily firms. Moreover, we find that the value loss in family firms is greater when a firm's investment in employee relations is higher, or when the contribution of deceased executives to firm value, as measured by the ratio of their pay to the aggregate compensation of the top five executives, is greater.

Second, we examine how the importance of human capital in family firms influences their CEO succession decisions. We find that compared with nonfamily firms, family firms are more likely to follow a succession plan in which nonfamily internal executives are promoted to CEO. To the extent that internal candidates possess a high level of firm-specific knowledge and the appointment of these candidates to the position of CEO signals a firm's commitment to maintaining the current employee policies, the results further support the value creation hypothesis.

Finally, we examine whether the level of investment in employee relations varies across family firms, and whether these differences affect firm value. Following previous literature on the unique role of the founder (Fahlenbrach, 2009), we classify family firms into three groups: family firms led by a founder CEO, family firms led by a non-CEO founder (i.e., family firms in which a founder sits on the board or holds a non-CEO management position), and family firms led by a descendant.[7] In analysis using a subsample of family firms, we find that our main results are not driven by a particular type of family firms.

Our study contributes to the literature in three ways. First, our research extends prior studies on the impact of family ownership on firm value. Prior literature shows that

[7] Previous studies focus on founders' monitoring and advising roles in examining family firm value (Villalonga and Amit, 2006; Li and Srinivasan, 2011).

concentrated family ownership mitigates agency problems between managers and shareholders (Fama and Jensen, 1983; Villalonga and Amit, 2006; Ali, Chen, and Radhakrishnan, 2007) and between debtholders and shareholders (Anderson, Mansi, and Reeb, 2003), resulting in an increase in firm value. Our study shows that family owner-managers' longer-term horizon, information advantage, and lower agency conflicts help family firms make value-increasing investment in employee relations, which we identify as an important value creation channel for family firms.

Second, our study contributes to the literature on the effects of stakeholder relationships on firm value. Prior research finds mixed evidence on the impact of stakeholder-oriented policies on firm value. Although several studies show that stakeholder-friendly policies help increase the long-term profitability of firms (Jawahar and McLaughlin, 2001; Jensen, 2001; Freeman, Wicks, and Parmar, 2004; Edmans, 2012; Deng, Kang, and Low, 2013), others find that managers invest in stakeholder-friendly policies to advance their careers, entrench themselves, or obtain other private benefits (Friedman, 1998; Bertrand and Mullainathan 2003; Pagano and Volpin, 2005; Cespa and Cestone, 2007; Cronqvist et al., 2009). Our study shows that family firms have a better ability to sustain a durable relationship with stakeholders than nonfamily firms. It also shows that overinvestment in employee relations and its negative effect on firm value documented in prior literature are concentrated in nonfamily firms, suggesting that a firm's organization form is an important consideration when examining the valuation effects of stakeholder-friendly policies.

Third, the use of KLD data on employee relations and careful accounting of the variation in this data allow us to synthesize two broad literatures that often grow in disparate ways - ownership structure and labor economics - and improve our understanding on key economic mechanisms driving superior family firm performance. By decomposing investment in employee relations into three subgroups, we find that the negative effects of union power and

excess employee compensation on shareholder value documented in prior literature (Bertrand and Mullainathan 2003; Lee and Mas, 2009; Matsa, 2010; Kim and Ouimet, 2014) are not universal across firms: such effects are largely concentrated in nonfamily firms. In contrast, we find that family firms on average benefit from investment that promotes labor union and employee involvements.

The paper is organized as follows. In Section 1 we describe the data and provide summary statistics. In Section 2 we examine whether family firms treat their employees better than nonfamily firms. In Section 3 we investigate how the adoption of employee-friendly policies affects a family firm's value. In Section 4 we present results of tests using a firm's inclusion on the Best Companies list as an alternative measure of employee-friendly treatment. Section 5 reports results of an additional test that addresses potential endogeneity. It also presents results of tests on the likelihood of selecting a CEO from the internal talent pool and the differential impact of employee-friendly policies among subgroups of family firms. We summarize and conclude in Section 6.

1. Data and Summary Statistics

1.1 Sample selection and measure of employee treatment

To construct our sample, we start with the universe of firms over the period 1996 to 2010 in RiskMetrics (formerly IRRC director database), which provides detailed information on all directors of S&P 1500 firms. We first omit firms for which employee relations ratings are not available in the KLD database. As we discuss below, we use these ratings to measure a firm's employee treatment. Next, we delete firms with missing stock return data in the Center for Research in Security Prices (CRSP) or firms with missing financial data in Compustat. We also exclude firms in regulated industries (SIC codes between 4900 and 4999 and between 6000 and

6999), firms not headquartered in the U.S., and firms in which the number of employees is missing or fewer than 100. Our final sample comprises 11,696 firm-year observations for 1,763 unique firms in the U.S. over the 1996 to 2010 period.[8]

A number of prior studies measure firms' treatment of employees using KLD employee relations ratings (Cronqvist, Low, and Nilsson, 2009; Landier, Nair, and Wulf, 2009; Verwijmeren and Derwall, 2010; Bae, Kang, and Wang, 2011). KLD assigns ratings (0/1) for each of the following employee relation categories: six strengths (i.e., union relations, employee involvements, cash profit sharing, retirement benefit strengths, health and safety strengths, and other strengths) and five concerns (i.e., union relations, workforce reductions, retirement benefits concerns, health and safety concerns, and other concerns).[9] In this paper, we sum the ratings for the six strengths and four of the five concerns pertaining to employee relations to create *Employee Treatment Index*.[10] A higher index score indicates greater investment in employee relations.

[8] As Bae, Kang, and Wang (2011) note, coverage of the KLD database before 2003 is largely limited to S&P 500 firms. Since 2003, the KLD database has expanded its coverage to include firms in the Russell 3000. In untabulated tests, we rerun all analyses in the paper using only S&P 1500 firms (covered by the KLD database between 2003 and 2010) and S&P 500 firms (covered by the KLD database over our sample period 1996 to 2010). We find that our results remain qualitatively similar.

[9] We questioned KLD about how the presence of a union affects its assessment of a firm's *union relations*. According to KLD, it assesses a firm's strength score on the basis of the firm's union density. Therefore, the firm is required to have a labor union to receive a strength score for *union relations*. However, KLD's assessment of a firm's concern score for *union relations* is based on the firm's union organizing efforts, as well as criticisms from nongovernmental organizations and third-party observers. Therefore, the nonexistence of a labor union is not a necessary condition for the firm to receive a concern score for *union relations*. We thank an anonymous staff member at KLD for a discussion on the issue related to *union relations*.

[10] We exclude *workforce reductions* from the analysis because we find significantly negative correlations between the indicator for *workforce reductions* and other concern categories, whereas the correlations among the indicators for the other concern categories are all positive. Furthermore, the indicator for *workforce reductions* is significantly positively correlated with the overall strength score, particularly with the *cash profit sharing* and *employee involvement* strength indicators, suggesting that *workforce reductions* does not serve as a suitable measure for poor employee treatment. Verwijmeren and Derwall (2010), who study the relation between employee relations and firm leverage, also exclude *workforce reductions* from their employee well-being index. Several studies only use strengths to measure employee relations (Cronqvist, Low, and Nilsson, 2009; Landier, Nair, and Wulf, 2009; Bae, Kang, and Wang, 2011), possibly due to the potential problems related to *workforce reductions*. Our main results for the effects of employee-friendly policies on firm value do not change when we use only strengths ratings to measure a firm's employee treatment.

1.2 Definition of family firms

Following previous studies on family firms (Anderson and Reeb, 2003; Villalonga and Amit, 2006; Li and Srinivasan, 2011), we identify family firms using two criteria: the fractional equity ownership of a founding family and the presence of family members on the management team or the board. We define family firms as those in which founding family members, either individually or as a group, have equity ownership exceeding 5%, or at least one founding family member sits on the board or is in the top management.[11] We identify family firms by searching sections in firms' proxy statements that contain biographies of their directors, the list of family firms in the November 10, 2003 issue of *Business Week* magazine, the Board Analyst database, and various internet sources including companies' websites.

1.3 Summary statistics

Table 1 reports the distribution of family and nonfamily firms in our sample by industry. Of 11,696 firm-year observations, 4,952 (42.34%) are classified as family firms. This number is comparable to those in previous studies that use firms in the S&P 500 Index to identify family and nonfamily firms (e.g., Anderson and Reeb, 2003). Family firms are the most prevalent in the wholesale and retail trade industries, followed by the services and transportation and communications industries.

Table 2 provides summary characteristics for the sample firms. All continuous variables are winsorized at the 1% level in both tails to mitigate the effects of potential outliers. We find that compared with nonfamily firms, family firms are smaller, younger, riskier (higher stock return

[11] Family firms can be defined in various ways. See Villalonga and Amit (2010) for a detailed discussion on various definitions of family firms. In untabulated tests, we redefine family firms as those in which founding family members have equity ownership exceeding 5%, regardless of the presence of family members on the management team or the board (Chen et al., 2010). Our inferences do not change when we use this alternative definition of family firms in our analyses.

volatility), and they have lower leverage.[12] Family firms also have higher capital expenditures (capital expenditures scaled by total assets), higher firm value (Tobin's *q*), higher stock performance, and lower institutional ownership. We further find that compared with nonfamily firms, boards of family firms are smaller and less independent. The proportion of family firms in which family members serve as CEO is approximately 53%. In nearly 95% and 68% of family firms, at least one family member sits on the board and is in the top management, respectively. In about 66% of family firms, family members hold equity ownership of 5% or higher. The Appendix provides detailed descriptions of the variables used in Table 2.

2. Do Family Firms Implement More Employee-Friendly Policies than Nonfamily Firms?

In this section we investigate whether family firms treat their employees better than nonfamily firms after controlling for various firm and industry characteristics.

2.1 OLS and Fama-MacBeth regressions

To examine whether family firms invest more in employee relations than nonfamily firms, we estimate OLS regressions in which the dependent variable is *Employee Treatment Index*. Our key independent variable of interest is the indicator *Family firm*, which takes the value of one for a family firm, and zero for a nonfamily firm. The regressions control for several firm characteristics that are identified as important determinants of employee policies in prior literature (Jiao, 2010; Bae, Kang, and Wang, 2011), as well as other variables listed in Table 2. We also include year fixed effects to control for potential time trends and industry fixed effects (at the three-digit SIC code level) to control for industry effects. The results are reported in first

[12] In untabulated tests, we measure firm age as the number of years since the founding of the firm or the oldest of its predecessor companies (Villalonga and Amit, 2006) and use this alternative measure of firm age in all analyses. Our results do not change.

three columns of Panel A of Table 3. In column (1), we include only *Family firm* as an explanatory variable, controlling for industry and year fixed effects. We find that the coefficient on *Family firm* is positive and significant at the 5% level. In column (2), we add the natural log of assets, the natural log of firm age, leverage, R&D intensity (R&D divided by sales), and ROA as additional control variables and find that the coefficient on *Family firm* remains significantly positive at the 5% level. In column (3), we add the full set of control variables and obtain similar results. Turning to the control variables, we find that firms treat employees better when they are larger and more profitable and invest more in R&D activities. However, firms with higher leverage and those with higher institutional ownership invest less in employee-friendly policies.

In column (4), we estimate the regressions using the Fama-MacBeth (1973) approach to alleviate the concern that within-firm autocorrelations bias the standard errors. Our results remain qualitatively similar.

We next decompose *Employee Treatment Index* into three sub-indices to examine whether a particular type of investment in employee relations drives the difference in employee treatments between family and nonfamily firms. We closely follow the prior literature to classify components of the *Employee Treatment index* into three subgroups: 1) union relations and employee involvements[13] (Lee and Mas, 2009; Matsa, 2010), 2) employee compensation (cash profit sharing and retirement benefits) (Bertrand and Mullainathan, 2003; Kim and Ouimet, 2014), and 3) health and safety (Bernstein and Sheen, 2013; Cohn and Wardlaw, 2014).

The results are reported in Panel B of Table 3. In column (1), we use as the dependent variable *sub-index 1,* which is measured by summing up the strength and concern ratings on

[13] KLD's evaluation of strength scores in employee involvements is based on whether a firm has plans to encourage worker involvement and ownership (e.g., sharing of financial information and having stock options available to a majority of its employees).

union relations and employee involvements. We find that the coefficient on *Family firm* is positive and significant at the 10% level, suggesting that family firms invest more in union relations and employee involvements than nonfamily firms. In columns (2) and (3), we replace *sub-index 1* with *sub-index 2* and *sub-index 3*, respectively, which are measured by summing up the strength and concern ratings on cash profit sharing and retirement benefits and those on health and safety. We find that the coefficients on *Family firm* are not significant in both regressions. Using a Fama-Macbeth (1973) procedure does not change the results (columns (4)-(6)). Overall, these results suggest that among various components of the *Employee Treatment Index*, family firms particularly invest more in union relations and employee involvements.

In the next subsections we perform two additional tests to mitigate endogeneity concerns that unobservable omitted firm characteristics simultaneously affect both family firm status and investment in employee relations and to make causal inference about the relation between the two variables.

2.2 Change in employee treatment around a change in family firm status

In this subsection we focus on the subsample of family firms that became nonfamily firms to control for the possibility that time-invariant characteristics jointly affect family firm status and a firm's ability to implement employee-friendly policies. For example, it is possible that family firms invest more in employee relations due to unobservable, time-invariant firm characteristics that are related to their tendency to focus on long-term policy orientation. Although a firm's decision to change organizational form is endogenously determined, it can nevertheless serve as a setting to test the prediction that a change in organizational form affects a firm's level of investment in employee relations. Moreover, examining transitions from family firm to nonfamily firm status allows us to exploit within-firm variation in firm status

after controlling for unobservable, time-invariant firm characteristics that might affect the employee-friendly policies of firms.

To minimize the concern that a firm's decision to change its organizational form is endogenously determined, we focus on firms that experience a complete change in control and ownership in the analysis. Specifically, we consider only cases in which after the transition, family members own no equity, do not serve on the board, and are not in the management team. We define the transition year as a last year in which all founding family members resign or retire from a firm, and they do not own any equity in the firm.

We initially identify 130 unique such family firms that became nonfamily firms during our sample period. When we restrict the sample to firms for which KLD ratings are available for at least one year in the pre- and post-transition periods, we end up with 111 unique firms (565 firm-year observations).

Columns (1)-(4) of Table 4 reports results of regressions in which the dependent variable is *Employee Treatment Index* and the key independent variable of interest is the indicator *Family firm status change,* which takes the value of one for a firm in the post-transition period, and zero otherwise. We examine changes in *Employee Treatment Index* three years before (i.e., year –4, year –3, and year –2) and three years after (i.e., year 2, year 3, and year 4) the transition year (year 0),[14] but do not include the transition period (i.e., year –1, year 0, and year 1) to avoid potential biases arising from the transition. All control variables are measured as of the first quarter-end of the calendar year. In column (1), we find that the coefficient on *Family firm status change* is negative and significant at the 5% level, after controlling for firm-level characteristics and year and industry fixed effects. In column (2), we find that the coefficient on *Family firm status change* remains negative and significant at the 5% level after controlling for additional firm characteristics.

[14] The results are similar when we use as the transition window the two years before and the two years after the transition year.

In columns (3) and (4), we replace industry fixed effects with firm fixed effects and find that the coefficient on *Family firm status change* is negative and significant at the 1% level. These results underscore our earlier finding that a firm's investment in employee relations is determined by its organizational form.

In columns (5) and (6), we reestimate the previous regressions using a linear probability model (LPM) in which the dependent variable is *Positive Employee Treatment Index*. *Positive Employee Treatment Index* is an indicator that takes the value of one if a firm's *Employee Treatment Index* is positive, and zero otherwise. The results echo those in columns (1)-(4): the coefficient on *Family firm status change* is negative and significant at the 5% level in both regressions.

To further minimize the concern that our results for decreases in employee benefits that occur after transitions from family firm to nonfamily firm status are due to the diminishing ability of family firms to treat their employees well prior to status change, which prompts family owners to relinquish their holdings, we compare changes in *Employee Treatment Index* between family firms that become nonfamily firms and the remainder of family firms with the same three-digit SIC codes during the pre-transition periods. In untabulated tests, we find that differences in *Employee Treatment Index* around year –1 to year –2, year –1 to year –3, and year –1 to year –5 are statistically insignificant. Thus, a family firm's diminishing ability to treat its employees well is unlikely to be the main cause of post-change decreases in a firm's investment in employee benefits.

2.3 Using the 2008 to 2009 financial crisis as a natural experiment

To provide additional support for our finding that family firms treat their employees better than nonfamily firms, in this subsection we use the 2008 to 2009 financial crisis as a natural experiment (Lins, Volpin, and Wagner, 2013) and perform difference-in-differences tests. As

Lins, Volpin, and Wagner (2013) argue, the 2008 to 2009 financial crisis was a largely unanticipated and exogenous liquidity shock, during which family firm status remained largely constant. Thus, using the crisis period enables us to minimize endogeneity concerns that make it difficult to identify whether family firm status impacts firms' investment in employee relations.

As a first test, using the subsample period 2006 to 2009, we estimate regressions in which the dependent variable is *Employee Treatment Index*. Panel A of Table 5 reports the results. In columns (1) and (2), our key independent variables of interest are the indicator *Crisis*, which takes the value of one for 2008 and 2009, and zero for 2006 and 2007, and its interaction with *Family firm*. The value creation hypothesis predicts that the coefficient on the interaction term is positive and significant as family firms that are committed to maintaining implicit contracts with employees are unlikely to reduce employee benefits in response to a crisis. Consistent with this prediction, we find that the coefficients on the interaction term are positive and significant.

In columns (3) and (4), we exclude *Crisis* and *Family firm* from the regressions and use their interaction term as our key independent variable. As in Lins, Volpin, and Wagner (2013), we add firm fixed effects and industry-year fixed effects in the regressions to control for omitted variable bias. We find that the coefficients on the interaction term are again positive and significant, suggesting that family firms invest more in employee benefits than nonfamily firms during the crisis.

In Panel B of Table 5, we use as the dependent variables three sub-indices used in the earlier analysis to investigate whether the results in Panel A are driven by a particular component of *Employee Treatment Index*. In column (1), we use *sub-index 1* as the dependent variable. We find that the coefficients on *Family firm*, *Crisis*, and their interaction terms are not significant. In column (2), we use *sub-index 2* as the dependent variable and find that the

coefficient on *Crisis* is positive and significant at the 1% level, suggesting that nonfamily firms on average invest more in cash profit sharing and retirement benefit programs during the crisis than the pre-crisis period. We also find that the coefficient on the interaction term between *Family firm* and *Crisis* is positive and significant at the 5% level, suggesting that during the crisis, family firms invest more in cash profit sharing and retirement benefit than nonfamily firms. In untabulated tests, we further divide *sub-index 2* into two individual subcomponents (i.e., cash profit sharing and retirement benefits) and find that the results in column (2) are entirely driven by retirement benefits. Given that firms actively engage in workforce reductions during the crisis, the results suggest that firms, particularly family firms, increased investment in retirement benefits during such a period to cope with an increase in voluntary and involuntary layoffs. In column (3), we use *sub-index 3* as the dependent variable. We find that that the coefficient on *Crisis* (–0.061) is negative and significant at the 5% level, suggesting that nonfamily firms on average scale back investment in health and safety programs during the crisis. In contrast, we find that the coefficient on the interaction term between *Family firm* and *Crisis* (0.090) is positive and significant at the 1% level, indicating that unlike nonfamily firms, family firms did not cut back their investment in health and safety programs.

In columns (4) through (6), we exclude *Crisis* and *Family firm* from the regressions and use their interaction term and other control variables as independent variables. We also add firm fixed effects and industry-year fixed effects in the regressions to control for omitted variable bias. Consistent with the results in columns (2) and (3), we find that the coefficients on the interaction terms in columns (5) and (6) are positive and significant. Thus, family firms invest more in employee compensation and health and safety programs than nonfamily firms during the crisis, supporting the value creation hypothesis.

To further examine the value creation hypothesis, we examine the change in the number of employees during the crisis. The value creation hypothesis predicts that family firms that are

committed to maintaining implicit contracts with employees are less likely to reduce the number of employees than nonfamily firms in response to a crisis. Panel C of Table 5 reports the results. In columns (1) and (2), the dependent variable is the natural log of the number of employees. Our key independent variables of interest are *Crisis* and its interaction with *Family firm*. In column (1), we find that the coefficient on *Crisis* is negative and significant at the 1% level, indicating that nonfamily firms actively restructure their labor force during the recent financial crisis. We also find that the coefficient on *Family firm* is negative and insignificant while its interaction with *Crisis* is positive and significant at the 10% level, suggesting that family firms do not engage in workforce reductions during the crisis.[15] When we add more control variables in column (2), the coefficient on the interaction term is positive and significant at the 5% level.[16]

In columns (3) and (4), we exclude *Crisis* and *Family firm* from the regressions and add firm fixed effects and industry-year fixed effects in the regressions. Consistent with the finding in columns (1) and (2), we find that the coefficients on the interaction term between *Crisis* and *Family firm* are positive and significant. Thus, compared with nonfamily firms, family firms did not reduce their labor force during the crisis.

In columns (5) and (6), we focus on the 2008-2009 crisis period only. The dependent variable is the ratio of the change in the number of employees from 2008 to 2009 to the number of employees in 2008 and all explanatory variables are measured as of 2007. Consistent with the findings in columns (1) through (4), we find that family firms are less likely to reduce their labor force than nonfamily firms during the crisis.

In untabulated tests, we also regress the change in the number of employees from 2006 to 2008 (2006 to 2009 and 2007 to 2009), on *Family firm*, industry fixed effects, year fixed effects,

[15] Our result is consistent with Block (2010), who finds that family firms concerned about their reputation are less likely to downsize their workforce in response to falling profitability.
[16] The results do not change when we remove firms engaging in mergers and acquisitions during the crisis period.

and the changes in the other control variables during the same periods. We find that the coefficients on *Family firm* are positive and significant.[17]

Overall, the results in this section support the value creation hypothesis that compared with nonfamily firms, family firms invest more in employee relations. In particular, we find that unlike nonfamily firms, during the crisis, family firms increase employee benefits in certain areas such as retirement benefits and health and safety programs and they do not actively engage in workforce reductions.

3. Employee-Friendly Policies and Firm Value

In this section we examine whether the impact of employee-friendly policies on firm value differs between family and nonfamily firms using the 2008 to 2009 financial crisis as an exogenous shock. Since the financial crisis directly affects firm value but it is unlikely to be caused by family firm status or a firm's ability to invest in employee relations, it allows us to examine how outside investors change their valuation of firms with a different organizational form and a different level of investment in employee relations, thus serving as a valid setting for the natural experiment.

To examine whether employee-friendly policies are an important channel through which firm value is created, and the extent to which family and nonfamily firms benefit from these policies, we estimate the following regression:

$$\textit{Buy-and-hold return}_{it} = \textit{Constant}_{it} + \alpha_{it} + \beta_i + \gamma \textit{Family firm with positive Employee Treatment Index} \text{ (indicator)}_{it} \times \textit{Crisis}_t \text{ (indicator)} + \mu \textit{Nonfamily firm with positive Employee Treatment}$$

[17] We compare changes in the number of employees during the pre-crisis period between family and nonfamily firms to examine whether differences exist in pre-crisis employee policies. We find no evidence of statistically significant differences during year –1 to year 0 (year 0 is the crisis year, 2008), year –3 to year –1, and year –5 to year –1.

$$Index\ (\text{indicator})_{it} \times Crisis_t\ (\text{indicator}) + \psi X_{it} + \varepsilon_{it}, \quad (1)$$

where *i* denotes firms and *t* denotes years. The dependent variable is a daily buy-and-hold return during the crisis (pre-crisis) period. α_{it} and β_i denote industry-year fixed effects and firm fixed effects, respectively. Family firms are those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm or at least one founding family member sits on the board or is in the top management. *Positive Employee Treatment Index* is an indicator that takes the value of one if a firm's *Employee Treatment Index* is positive, and zero otherwise. *Crisis* is an indicator that takes the value of one for a crisis period, and zero for a pre-crisis period. The definition of pre-crisis and crisis periods varies as discussed below. X_{it} is a vector of firm characteristics and ε_{it} is an error term. The control variables used in the regression closely follow those used in prior studies (e.g., Villalonga and Amit (2006)). The value creation hypothesis predicts the coefficient on the interaction term (γ) between *Family firm with positive Employee Treatment Index* and *Crisis* to be significantly positive.

Panel A of Table 6 reports the results. We divide our sample firms into three groups: family firms with positive *Employee Treatment Index*, nonfamily firms with positive *Employee Treatment Index*, and all other firms with non-positive *Employee Treatment Index*. We omit an indicator for all other firms with non-positive *Employee Treatment Index* from the regression and use these firms as a reference group. The first three columns report estimates of panel data regressions for the period 2006 to 2009 (columns (1) and (3)) and for the period 2005 to 2008 (column (2)). In column (1), crisis period returns are calculated using returns from August 1, 2008 to March 31, 2009 (Lins, Volpin, and Wagner, 2013), and pre-crisis period returns in 2006 and 2007 are calculated using returns from January 1, 2006 to December 31, 2006 and from January 1, 2007 to December 31, 2007, respectively. In column (2), crisis returns are calculated using returns from July 1, 2007 to December 31, 2008 (Fahlenbrach and Stulz, 2011),

and pre-crisis period returns in 2005, 2006, and 2007 are calculated using returns from January 1, 2005 to December 31, 2005, from January 1, 2006 to December 31, 2006, and from January 1, 2007 to June 30, 2007, respectively. Finally, in column (3), we define a crisis period as a period from January 1, 2008 to December 31, 2009 and a pre-crisis period as a period from January 1, 2006 to December 31, 2007. We then calculate a buy-and-hold return each year using each calendar year's daily stock returns from January 1 to December 31. The regressions include both industry-year fixed effects and firm fixed effects.

We find that the coefficient on the interaction term between *Family firm with positive Employee Treatment Index* and *Crisis* is positive and significant in all three regressions while the coefficients on the interaction term between *Nonfamily firm with positive Employee Treatment Index* and *Crisis* are negative and insignificant. The differences in coefficients on these two interactions terms in columns (1)-(3) are all statistically significant. These results suggest that investment in employee relations does not necessarily increase the market value of all firms: its value-increasing impact is restricted to family firms. Given that the mean (median) crisis period return is –37.34% (–37.64%) for our full sample, the positive effects of employee treatment on the value of family firm are also economically large and significant. For example, in column (3), the coefficient estimate of 0.087 on the interaction term between *Family firm with positive Employee Treatment Index* and *Crisis* suggests that during the crisis, family firms with a high pre-crisis level of investment in employee benefits post a 8.7% higher stock return than family and nonfamily firms with a low pre-crisis level of investment.

In column (4), we focus on the 2008-2009 crisis period only. The dependent variable is a crisis period return from August 1, 2008 to March 31, 2009. We regress the crisis return on firm characteristics measured as of the fiscal-year end 2007 and industry fixed effects. We find that the coefficient on *Family firm with positive Employee Treatment Index* is positive and significant (0.058) and the coefficient on *Nonfamily firm with positive Employee Treatment*

Index is negative and significant (–0.050). These findings suggest that during the crisis, family (nonfamily) firms with a high pre-crisis level of investment in employee relations post a 5.8% higher (5% lower) stock returns than other firms with a low pre-crisis level of investment. The difference in coefficients on these two indicators is significant at the 1% level. Thus, the value-increasing effect of employee friendly policies is evident only for family firms, supporting the value creation hypothesis.[18]

In Panel B of Table 6, we reestimate regressions (1)-(4) in Panel A separately by decomposing *Positive Employee Treatment Index* into three sub-indices: *sub-index 1*, *sub-index 2*, and *sub-index 3*. We find that the value-increasing effect of employee friendly policies for family firms documented in Panel A is mainly driven by investment in union relations and employee involvements: the coefficients on *Family firm with positive sub-index 1* (indicator for family firms with a positive score on the sum of the ratings on union relations and employee involvements) and its interaction with *Crisis* are positive and significant in all regressions. However, the coefficient on the interaction term between *Nonfamily firm with positive sub-index 1* and *Crisis* is is insignificant in regressions using panel data (columns (1), (4), (7)) and the coefficient on *Nonfamily firm with positive sub-index 1* is negative and significant in column (10) that uses a crisis period of 2008-2009 as a sample. Thus, the negative effects of union power on firm value documented in prior literature (Lee and Mas, 2009; Matsa, 2010) are not universal across firms.

We also find that while the coefficient on *Family firm with positive sub-index 2* (indicator for family firms with a positive score on the sum of the ratings on cash profit sharing and

[18] In untabulated tests, we divide our sample firms into two subgroups, family and nonfamily firms, and then reestimate regressions using the interaction term between *Positive Employee Treatment Index* and *Crisis* as our key independent variable of interest. We find that the coefficients on the interaction term are positive and significant in two out of four specifications when using a subgroup of family firms. In contrast, the coefficients on the interaction term are negative and significant in two out of four specifications when using a subgroup of nonfamily firms. These results further suggest that unlike family firms, nonfamily firms tend to overinvest in employee-friendly policies and this overinvestment is associated with lower firm value for nonfamily firms during the crisis.

retirement benefits) is insignificantly positive in all regressions, the corresponding coefficient for nonfamily firms is negative and significant in columns (5) and (11). Thus, the negative effects of excessive employee compensation on firm value shown in previous studies (Bertrand and Mullainathan, 2003; Kim and Ouimet, 2014) appear to be concentrated in nonfamily firms. The coefficients on the variables including *Family firm with positive sub-index 3* (indicator for family firms with a positive score on the sum of the ratings on health and safety) and those on the variables including *Nonfamily firm with positive sub-index 3* are insignificant across all specifications.

Then, why do we observe non-positive valuation effect of employee-friendly policies for nonfamily firms? Previous studies show that managers tend to overinvest in employee relations for their own private benefits (e.g. job security concerns). For example, Bertrand and Mullainathan (2003) find that managers insulated from hostile takeover threats pay higher wages and avoid decisions that may cause conflicts with employees.[19] To the extent that this overinvestment is associated with lax supervision of employees, it results in decreases in operational efficiency and employee productivity, thus lowering firm value. However, such a managerial agency problem is less likely to arise in family firms since large controlling family ownership reduces takeover vulnerability. The active monitoring by founding family members also helps reduce managers' incentives to overinvest in employee benefits. Our results in Table 6 support the view that the overinvestment in employee relations is more evident for nonfamily firms than for family firms.

4. Alternative Measure of Employee-Friendly Policies: Inclusion on *Fortune*'s Best Companies List

[19] Cronqvist et al. (2009) also find that entrenched CEOs pay higher wages in exchange for nonpecuniary private benefits (e.g., reduced effort in wage bargaining).

To test the robustness of our main results using *Employment Treatment Index*, we use a firm's inclusion on the Best Companies list as an alternative measure of employee-friendly policies (Bae, Kang, and Wang, 2011; Edmans, 2011; Faleye and Trahan, 2011). We obtain data on the Best Companies list for the period between 1998, when *Fortune* first published this list, and 2010. We then combine the Best Companies list for year *t* with our sample from RiskMetrics for year *t*–1. Our final Best Companies sample includes 414 firm-year observations after excluding private firms, nonprofit organizations, and cooperatives.

4.1 Likelihood of inclusion on *Fortune*'s Best Companies list

To the extent that an inclusion on the Best Companies list reflects a firm's ability to implement employee-friendly policies, the value creation hypothesis predicts that family firms are more likely to be included on the list than nonfamily firms. To test this prediction, we estimate logit regressions in which the dependent variable is an indicator that takes the value of one if a firm is included on the Best Companies list, and zero otherwise.

The results are reported in Table 7. The coefficients reported are estimates of the marginal effect on the probability. We find that the coefficient on *Family firm* is positive and significant in columns (1) and (2), confirming our results using *Employment Treatment Index* in Table 3. The coefficient of 0.01 in column (2) suggests that the probability of a family firm being named in the Best Companies list is a one percentage point higher than that of a nonfamily firm being included on the list. Given that the unconditional probability of a firm being included on the Best Companies list is 2.9%, this number is economically and statistically significant.

To be included on the Best Companies list, firms are required to participate in *Fortune*'s annual survey conducted for a random sample of their employees. It is possible that owner-managers of family firms have stronger incentives to participate in the survey due to their greater concern for reputation than managers of nonfamily firms. To address this selection bias

issue, we examine the likelihood of a firm being dropped out of the Best Companies list conditional on its inclusion on the list. If the Best Companies list includes more family firms simply because a large number of family firms, especially those that are incapable of maintaining employee-friendly policies, participate in the survey, we should observe a higher probability of family firms being dropped out of the list. In untabulated tests, we find that family firms are less likely to be dropped out of the list than nonfamily firms.[20] Thus, the results in Table 7 are unlikely to be driven by sample selection bias.

4.2 Difference in firm value between family firms on *Fortune*'s Best Companies list and other firms: OLS regression analysis

To examine whether a firm's inclusion on the Best Companies list has a differential valuation effect between family and nonfamily firms, we replace *Employee Treatment Index* in equation (1) with *Best companies* that takes the value of one if a firm is included on the Best Companies list for a given year, and zero otherwise and intercat it with *Family firm*.

Table 8 presents estimates of OLS regressions. The sample comprises 15,143 firm-year observations covered in RiskMetrics during the 1998 to 2010 period. The dependent variables are Tobin's *q* and industry-adjusted Tobin's *q*, respectively. Industry-adjusted Tobin's *q* is computed by subtracting the median Tobin's *q* for a firm's three-digit SIC code from the firm's raw Tobin's *q*. We find that both coefficients on *Family firm* and *Best Companies* are positive and significant. More importantly, we find that the coefficient on the interaction term between these two variables is positive and significant at the 10% level, suggesting that the effect of

[20] Specifically, using a sample of firms that are included on the Best Companies list, we estimate a logit regression in which the dependent variable is an indicator that takes the value of one if a firm appears on the list this year but disappears next year, and zero otherwise. The key independent variable of interest is *Family firm*. We find that the probability of family firms being dropped out of the Best Companies list is about 10.3 percentage points lower than that of nonfamily firms being dropped out of the list (*p*-value for the coefficient on *Family firm* = 0.02) in a regression that controls for firm characteristics and year fixed effects. When we further control for industry fixed effects, the corresponding probability is still 6.1 percentage points lower but the coefficient on *Family firm* loses its statistical significance.

inclusion on the Best Companies list on firm value is significantly higher for family firms than for nonfamily firms. Thus, the effect of employee-friendly policies on firm value is stronger for family firms than for nonfamily firms, further supporting the value creation hypothesis. We find that the coefficient on the interaction term is positive and significant at the 5% level when we use industry-adjusted Tobin's *q* as the dependent variable (column (2)).[21]

4.3 Announcement returns around inclusion on *Fortune*'s Best Companies list

To further examine whether the impact of employee-friendly policies on firm value differs between family and nonfamily firms, we compare stock market responses when family and nonfamily firms are included on the Best Companies list for the first time. Following Faleye and Trahan (2011), we assume that only a firm's first appearance on the list provides new information to the market.[22] To the extent that a firm's first-time inclusion is a largely unanticipated event, using announcement returns around such inclusion in the analysis can potentially mitigate the reverse causality problem that the causation runs from firm performance to employee-friendly policies. Faleye and Trahan (2011) note that the annual publication of the Best Companies list provides an identifiable event date, which allows us to examine investor reactions to the release of the list. The value creation hypothesis posits that family firms are more effective at implementing employee-friendly policies than nonfamily firms because of their comparative advantage in investing in human capital, suggesting that

[21] In untabulated tests, we use propensity score matching approaches to examine whether employee-friendly policies have a different effect on firm value between family and nonfamily firms. We match each family firm on the list with a nonfamily firm (family firms) not included on the Best Companies list. We calculate a propensity score by employing a probit model that uses as matching criteria the natural log of total assets, the natural log of firm age, stock performance, capital expenditure divided by assets, return volatility, institutional ownership, board size, the proportion of independent directors, year dummies, and industry dummies (three-digit SIC code). We use bootstrapped standard errors based on 50 replications with replacement and report bias-corrected 95% confidence intervals. We find that Tobin's *q* for family firms on the list are on average 1.168 to 1.204 (0.903 to 0.949) percentage points higher than those for matching nonfamily firms (matching family firms). Using industry-adjusted Tobin's *q* does not change the results. Due to a small sample size, we do not perform the comparison between family firms on the list and matching nonfamily firms on the list.

[22] Of the 463 firm-year observations used in the previous tests, 101 represent first-time inclusion on the Best Companies list with available information for event studies.

incremental gains from the same amount of investment in employee relations are greater for family firms than for nonfamily firms. Therefore, we expect that the market's positive reaction is more pronounced when family firms are included on the list than when nonfamily firms are included.

Table 9 reports the results of regressions in which the dependent variable is the cumulative abnormal return (CAR) from one day before to one day after the release of the Best Companies list. To calculate abnormal returns, we estimate a market model using days −280 to −61 relative to the news announcement. We use the equally-weighted CRSP index return as the market portfolio return. In column (1), we find that the coefficient on *Family firm* is positive and significant at the 5% level, indicating that the market reacts more positively when family firms are included on the Best Companies list relative to nonfamily firms. In column (2), we find that the coefficient on *Family firm* remains positive and significant after controlling for firm-specific characteristics. The coefficient of 0.017 suggests that a firm's first appearance on the Best Companies list leads to a 1.7% higher CAR (−1, 1) for family firms than for nonfamily firms. With a mean market value of about $8.86 billion for our sample firms, this translates into an average value added of almost $151 million for family firms. In column (3), we interact *Family firm* with R&D intensity. Because R&D-intensive firms tend to rely on employees' efforts and skills to gain technological advantages, R&D intensity can measure the importance of human capital in a firm's operation. We find that the coefficient on the interaction term is positive and significant at the 5% level, suggesting that the market response is more favorable when family firms that depend more on firm-specific human capital are included on the Best Companies list.

5. Additional Tests

In this section we perform several additional tests to provide further evidence on the value creation hypothesis.

5.1 Market valuation around sudden deaths of executive employees

As an additional test to examine the relation between investment in employee relations and firm value, and to further control for the potential reverse causality bias, we conduct an event study using the sudden deaths of nonfamily top executives of family and nonfamily firms as natural experiments. The value creation hypothesis predicts that human capital is highly valued in family firms than in nonfamily firms; therefore, the market reaction to the sudden death of a nonfamily executive employee should be more negative for family firms than for nonfamily firms. This prediction is consistent with Johnson et al. (1985), who argue that the negative market reaction to the sudden death of a top executive reflects the loss of firm-specific human capital that the deceased executive acquired.

To examine market reactions to sudden deaths of senior executives, we search various sources, including newspaper articles and the Corporate Library database for executive death events. Following the definition of sudden death used in Nguyen and Nielsen (2010), we identify 86 deaths (45 family firm executives and 41 nonfamily firm executives) that were unexpected by the market over the period of 1984 to 2012.[23]

Table 10 reports the results. The dependent variable is the CAR from one day before to one day after the date of death. We control for firm characteristics, executive-specific

[23] We expand our search of sudden deaths of executives beyond our sample period and beyond the firms covered in RiskMetrics because such events are extremely rare. We identify 65 sudden deaths during our 1996 to 2010 sample period. Using these 65 sudden deaths in the analysis does not change the results. Nguyen and Nielsen (2010) provide detailed definitions of sudden deaths based on the medical literature. To limit attention to deaths that were sudden and not expected by the stock market, they exclude deaths attributed to cancer, complications from illness, past strokes, and surgery. Suicides are also excluded from the sample because these events might be related to a firm's business conditions, which may already affect the firm's stock price.

characteristics, and industry fixed effects using the Fama-French five industry classification.[24] We also include the indicator *Takeover interest*, which takes the value of one if rumors exist that the firm will be taken over after the death of the executive, and zero otherwise. Finally, following Johnson et al. (1985), we measure the relative importance of the deceased executive's role in a firm using the proportion of his compensation to that of the top five executives for the full fiscal year before the time of death.[25]

In column (1), our key explanatory variable of interest is the indicator *Family firm executive*, which takes the value of one if the executive who suddenly died worked for a family firm, and zero otherwise. We find that the coefficient on *Family firm executive* is negative and significant at the 10% level. This finding suggests that the costs incurred by the loss of key talent are higher for family firms than for nonfamily firms.[26]

In column (2), we include the interaction term between *Family firm executive* and the ratio of a deceased executive's compensation to that of the top five executives and find that the coefficient on the interaction term is negative and significant at the 1% level. This result supports the value creation hypothesis, which predicts that executive employees who play an influential role in strategic decision-making significantly contribute to family firm value.

[24] Following Nguyen and Nielsen (2010), we use the Fama-French five industry classification to avoid the loss of too many degrees of freedom in estimating OLS regressions with a small sample size. The Fama-French five industry classifications are available on Ken French's website (http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/).

[25] Johnson et al. (1985) find that the market reaction to the death of an executive is negatively associated with this variable.

[26] In untabulated tests, we divide deaths of family firm executives into deaths of founder executives (*Founder executive*) and deaths of nonfounder family firm executives (*Nonfounder family firm executive*) and find that the coefficient on *Founder executive* is insignificant while that on *Nonfounder family firm executive* is negative and significant at the 5% level. Despite extensive discussion on the positive role of founders who are known to provide invaluable firm-specific expertise, our finding that the deaths of founders have little impact on the stock market reaction is not surprising, as can be seen from the mixed results on market reactions to deaths of founders documented in prior studies. For example, in a study of 53 announcements of sudden deaths of executives, Johnson et el. (1985) find a positive stock market reaction to the deaths of founders and a negative stock market reaction to the deaths of professional CEOs. In contrast, Salas (2010) finds that the stock price reaction is insignificant for deaths of founders but positive and significant for deaths of entrenched founders (i.e., founders that served at the firm for at least 10 years).

In column (3), we include the interaction term between *Family firm executive* and *Employee Treatment Index*[27] and find that the coefficient on the interaction term is negative and significant at the 5% level. This result suggests that the negative market reaction to the death of key talent in a family firm is more pronounced when family firms invest more in human capital.

In column (4), we separate the indicator for *Family firm executive* into indicators for *Family member executive* and *Nonfamily member executive*. There are 28 sudden deaths of family member executives and 17 sudden deaths of nonfamily member executives. We find that the coefficient on *Family member executive* is negative but insignificant while that on *Nonfamily member executive* is negative and significant at the 5% level, suggesting that the negative market reaction concentrates around the deaths of nonfamily executives. The coefficient of −0.041 for *Nonfamily member executive* suggests that a sudden death of nonfamily member executives in family firms results in a 4.1% lower CAR (−1, 1) than that of executives in nonfamily firms. With a mean market value of approximately $8.86 billion for our sample firms, this translates into an average additional value loss of more than $360 million for family firms.

In columns (5) and (6), we find that the negative and significant coefficients on the interaction terms between *Family firm executive* and the ratio of a deceased executive's compensation to that of the top five executives and between *Family firm executive* and *Employee Treatment Index* in columns (2) and (3) are limited to the sudden deaths of nonfamily member executives.

Overall, consistent with the value creation hypothesis, the results in this subsection show that the loss of shareholder wealth around deaths of nonfamily executive employees is greater

[27] We use *Employee Treatment Index* for the calendar year that immediately precedes the year in which the executive died. When this value is not available, we use the next available index within the three years before the announcement of the death.

in family firms than in nonfamily firms. Deaths of nonfamily employees incur greater costs for family firms because it is too costly to replace the deceased nonfamily executive who possessed highly valuable firm-specific knowledge.[28]

5.2 Survivorship bias

We thus far assume that the probability of firms' financial distress is similar between family and nonfamily firms. However, if the probability of financial distress is lower in family firms than in nonfamily firms, then our results would be subject to a survivorship bias. For example, if nonfamily firms do not have sufficient financial resources to allocate to employee relations due to poor performance and thus they are more likely to be delisted from the stock exchanges than family firms, our results showing the greater investment in employee relations of family firms may capture this survivorship effect. To address this concern, we first identify firms that are delisted from the stock exchanges due to poor performance (CRSP delisting codes 500 and 520-584) before the end of our sample period. We then run logit models that estimate the probability of a firm's delisting as a function of family firm status and the other control variables used in our earlier analyses. Each firm is included once in the estimation and the covariates are measured in the first year a firm appears in the sample. In untabulated tests, we find that the coefficient on *Family firm* is negative and insignificant. This result is

[28] In our sample, the mean value of the median firm-age-adjusted tenure of the top five nonfamily non-CEO executives is higher in family firms (1.20) than in nonfamily firms (–0.81). To the extent that executives who serve longer at a firm possess more firm-specific knowledge, this result is consistent with the view that the loss of firm value around deaths of nonfamily executive employees is greater in family firms than in nonfamily firms. Following Chemmanur, Paeglis, and Simonyan (2009), we use the residual from the regression of the median tenure on the log of firm age as firm-age- adjusted median tenure. We also find that family firms provide nonfamily non-CEO executives with greater power relative to CEOs when engaging in major corporate decision-making, which helps nonfamily executives gain access to firm-specific information. To measure the degree of nonfamily executives' decision-making power, we follow Bebchuk, Cremers, and Peyer (2011) and use CEO pay slice to measure their relative power. Specifically, using ExecuComp, we construct CEO pay slice as the ratio of CEO compensation to the average compensation of nonfamily non-CEO executives. We find that family firms have a lower CEO pay slice than nonfamily firms (2.75 compared with 2.96), suggesting that family firms' nonfamily non-CEO executives have more decision-making power than nonfamily firms' counterparts. The difference is statistically significant at the 1% level.

inconsistent with the view that the difference in survival likelihood between family and nonfamily firms drives our main findings.

5.3 CEO succession

Our results thus far suggest that compared with nonfamily firms, family firms invest more in human capital, and that greater investment in human capital leads to higher firm value. In this subsection we examine how the importance of human capital in family firms influences CEO succession decisions. Shleifer and Summers (1988) note that stakeholder loyalty cannot be obtained without managers that stakeholders trust. They suggest that the appointment of a founding family member or a long-serving internal candidate to CEO signals the firm's commitment to fulfilling its implicit contracts with employees because such appointments indicate a continuation of the firm's current stakeholder policies; the arrival of outsiders would signal a policy shift and thus increase uncertainty for stakeholders. In line with this view, prior studies show that long-serving executives are more able to implement the stakeholder-oriented policies of their firm. For example, Parrino (1997) argues that internal CEO candidates who have spent a large amount of their careers at the firm possess more firm-specific human capital, and thus are more likely to maintain the firm's current policies when taking office than external candidates would. Naveen (2006) argues that compared with a CEO hired from outside the firm, a CEO promoted from inside the firm through its relay succession plan is better informed about the firm's products, customers, competitors, and employees. Thus, the value creation hypothesis predicts that compared with nonfamily firms, family firms are more likely to use a relay succession plan that promotes internal candidates to the position of CEO.[29]

[29] Thomas Oland, former CEO and President of Techne Corp., who played a pivotal role in the transformation of this company, resigned in November 2012 to protest the firm's plan to replace him with an outsider. In an e-mail he sent to the board, he wrote: "To fill the CEO position with someone who has no detailed knowledge of our culture, management, or operations, and with whom you have not had a working relationship, will put at risk all

Table 11 reports results from logit regressions in which the dependent variable is an indicator that takes the value of one if a firm has a relay succession plan, and zero otherwise. The coefficients reported are estimates of the marginal effect on the probability. Following Naveen (2006), a firm is classified as having a relay succession plan in a given year if it has a president or chief operating officer (COO) that is distinct from the CEO or chairman and is not older than the CEO or chairman. We use the same set of control variables used in Naveen (2006). In column (1), we find that the coefficient on *Family firm* is positive and significant at the 1% level. The coefficient of 0.064 suggests that the probability of promoting internal executives to CEO is 6.4 percentage points higher in family firms than in nonfamily firms. Given that the unconditional probability of adopting a relay succession plan is 14.31%, this number is economically and statistically significant. To alleviate the concern that the prevalence of relay successions among family firms is driven by family member successions, in column (2) we exclude 272 observations in which the heir apparent is a family member from the 2,074 firm-year observations with a relay succession plan. Our results do not change.[30]

5.4 Differential impact of employee relations among family firms

The value creation hypothesis posits that family firms are more effective at implementing employee-friendly policies than nonfamily firms because of their stronger incentives for long-term value maximization and their comparative advantage in investing in employee relations. However, the valuation effects of employee-friendly policies for family firm may differ depending on whether firms are led by founders or descendants who are likely to have different

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that we and our employees have built over the past 30 years." ("Techne CEO resigns early in protest over succession plan," TwinCities Business, November 5, 2012.)

[30] Our results that family firms prefer to promote internal nonfamily candidates to CEOs are consistent with an alternative argument that family owners have strong incentives to appoint entrenched internal CEOs since such an appointment allows them to extract greater rents. To shed light on this alternative argument, we examine whether relay successions are prevalent in family firms with dual-class shares. DeAngelo and DeAngelo (2000) and Cronqvist and Nilsson (2003) show that family firms with dual-class shares enjoy greater private benefits of control. Our results hold irrespective of whether firms with dual-class shares are included or not.

incentives and abilities to invest in employee relations. To test this conjecture, in untabulated tests, we classify family firms into three subgroups: family firms led by a non-CEO founder (i.e., family firms in which a founder sits on the board or holds a non-CEO management position), family firms led by a founder CEO (i.e., family firms in which a founder serves as CEO), and family firms led by a descendant (i.e., family firms in which a founder does not hold any position or own equity in the firm). We then reestimate the regressions in Tables 3 by replacing *Family firm* with indicators for the first two subgroups of family firms (i.e., omit the indicator for family firms led by a descendant as a reference group).[31] Thus, we compare whether the levels of investment in employee relations are different between family firms led by a non-CEO founder and family firms led by a descendant and between family firms led by a founder CEO and family firms led by a descendant. Since we use only a subsample of family firms in the analysis, we include firm fixed effects in the regression to control for omitted variable bias. In untabulated tests, we find that the coefficients on both indicators are insignificant and their magnitudes are similar. These results suggest that family firms' incentives to invest in employee relations are similar irrespective of whether they are led by founders or descendants.

Next, to examine whether the valuation effects of employee friendly policies are different among different types of family firms, we use the crisis period as the sample and regress crisis period returns from August 1, 2008 to March 31, 2009 on the indicators for three types of family firms that have positive *Employee Treatment Index* in 2007. The reference group for comparison is family firms that do not adopt strong employee-friendly policies (i.e., zero or

[31] Previous studies show that the extent of a founder's involvement in the management affects family firm performance. For example, Fahlenbrach (2009) finds that founder CEO firms make value-increasing investment decisions and deliver superior stock market performance than other firms, and argues that founder CEOs' organization-specific expertise is the source of such outperformance. However, Li and Srinivasan (2011) divide founder family firms according to whether the founder serves as CEO or a board member and find that founder value premium is limited to only the cases in which the founder serves as the board of director without having a CEO position.

negative *Employee Treatment Index*). We find that the differences among the coefficients on these indicators are not significant, suggesting that the valuation effects of employee-friendly policies in family firms are not concentrated in a particular group of family firms.

6. Summary and Conclusion

Prior literature on the impact of family control on firm value focuses on the agency problems inherent in family firms. In this paper we extend this literature by examining employee relations as an important channel through which family firms increase their value. We propose that family firms invest more in employee relations than nonfamily firms because of their comparative advantage in honoring implicit labor contracts, and that their commitment to employee-friendly policies contributes to higher firm value (the "value creation hypothesis").

Our results support the value creation hypothesis. We find that compared with nonfamily firms, family firms treat their employees better (i.e., have a higher *Employee Treatment Index*). We also find that using firm fixed effects, firms are less likely to maintain their level of investment in employee-friendly policies after transitioning to nonfamily firm status. In addition, using the 2008 to 2009 financial crisis as a natural experiment, we find that unlike nonfamily firms, family firms reduce neither employee benefits nor their workforce in response to a crisis. These results mitigate concerns that a firm's organizational form and its decision to adopt employee-friendly policies are simultaneously determined by unobservable omitted variables.

We also find that a family firm's implementation of employee-friendlier policies leads to greater firm value: family firms with a high level of investment in employee relations pre-crisis perform relatively well during the crisis. However, we do not find such evidence for nonfamily firms that invest more in employee relations pre-crisis. These results suggest that

overinvestment in employee relations and its negative effect on firm value documented in prior literature are concentrated in nonfamily firms. Further analysis shows that the positive valuation effects of employee friendly policies for family firms are mainly driven by investments in union relations and employee involvements.

As a robustness check, we use a firm's inclusion in *Fortune*'s "100 Best Companies to Work For" list as an alternative measure of employee-friendly policies: family firms are more likely to be included on the Best Companies list, and the value of family firms included on this list is higher than other types of firms. We also find that the market reacts more positively when family firms are included on the list than when nonfamily firms are.

We conduct several additional tests to further support the value creation hypothesis. First, we perform an event study using sudden deaths of nonfamily top executives of family and nonfamily firms as natural experiments. We find that the market reaction to the death of a nonfamily member executive is more negative for family firms than for nonfamily firms, suggesting that the costs incurred by the loss of key talent are greater for family firms than for nonfamily firms. Second, we examine whether the probability of firms' financial distress is different between family and nonfamily firms and find no significance difference in the probability, suggesting that our main results are unlikely to be driven by survivorship bias. Third, we examine whether family firms' employee-oriented policies influence their decisions when choosing CEOs. We find that family firms are more likely to promote internal candidates to CEO who tend to possess a higher level of firm-specific human capital than outside candidates, further supporting the value creation hypothesis. Finally, we examine whether the incremental benefits of investing in employee relations vary among family firms. In analysis using a subgroup of family firms that controls for firm-fixed effects, we find that the presence of the founder and the extent of the founder's role do not affect the tendency to adopt

employee-friendly policies. We also find that the value-increasing effect of employee-friendly policies in family business is not driven by a particular group of family firms.

In sum, our results show that employee-oriented policies are an important source of value creation in family firms. The results also suggest that family owner-managers who pursue long-term value maximization can use stakeholder-friendly policies to align their interests with those of other stakeholders, which helps increase firm value.

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Appendix

The Appendix provides detailed descriptions of all the variables used in the tables.

Variables	Description	Source
Best companies (indicator)	One if a firm is included on *Fortune*'s "100 Best Companies to Work For" list for a given year, and zero otherwise.	*Fortune* Magazine's website
Board size	Number of directors on the board.	RiskMetrics
Capital expenditure / assets	Capital expenditures / total assets	Compustat
Crisis (indicator)	One for 2008 and 2009, and zero for 2006 and 2007 (Lins, Volpin, and Wagner, 2013).	
Employee Treatment Index	Index is computed by summing up the six strength indicators for the employee relations dimension (i.e., employee involvement, health and safety strength, retirement benefit strength, cash profit sharing, union relations, and other strengths) and the four concern indicators for the employee relations dimension (i.e., health and safety concern, retirement benefits concern, union relations, and other concerns).	KLD database
Executive age	Age of the deceased executive officer	News articles
Executive is CEO (indicator)	One if the deceased executive was CEO, and zero otherwise.	News articles
Family firm (indicator)	One if founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board, or is in the top management, and zero otherwise.	Various sources
Family firm executive (indicator)	One if the executive who suddenly died worked for a family firm, and zero otherwise.	Various sources
Family firm led by descendant (indicator)	One for a family firm with an inactive founder in which at least one of the founder's descendants holds a management position or sits on the board, and zero otherwise.	Various sources
Family firm led by founder CEO (indicator)	One for a family firm in which a founder serves as CEO, and zero otherwise.	Various sources
Family firm led by non-CEO founder (indicator)	One for a family firm in which a founder holds a non-CEO management position or sits on the board, and zero otherwise.	Various sources
Family firm status change (indicator)	One for a firm in the post-transition period, and zero for the pre-transition period.	Various sources
Family firm with positive Employee Treatment Index (indicator)	One for a family firm that has a positive Employee Treatment Index in a given year, and zero otherwise.	KLD database
Family member executive (indicator)	One if the family firm executive who suddenly died is a founder or a founding family member, and zero otherwise.	Various sources
Institutional ownership (%)	Number of shares held by institutional shareholders that own more than 5% of a firm's equity divided by total shares outstanding.	Thompson13F
Leverage	(Long-term debt + debt in current liabilities) / total assets	Compustat
Log (assets): billions US$	Natural log of total assets	Compustat
Log (Firm age)	Natural log of firm age. Firm age is Max (years in CRSP, years in Compustat)	Compustat, CRSP

Nonfamily firm with positive Employee Treatment Index (indicator)	One for a nonfamily firm that has a positive Employee Treatment Index in a given year, and zero otherwise.	KLD database
Nonfamily member executive (indicator)	One if the family firm executive who suddenly died is not a member of the founding family, and zero otherwise.	Various sources
Positive Employee Treatment Index (indicator)	One if a firm's Employee Treatment Index is positive, and zero otherwise.	KLD database
Positive sub-index 1 (indicator)	One if the sum of the strength and concern ratings on union relations and employee involvement is positive, and zero otherwise.	KLD database
Positive sub-index 2 (indicator)	One if the sum of the strength and concern ratings on cash profit sharing and retirement benefits is positive, and zero otherwise.	KLD database
Positive sub-index 3 (indicator)	One if the sum of the strength and concern ratings on health and safety is positive, and zero otherwise.	KLD database
Proportion of independent directors	Ratio of the number of nonfamily independent directors to the total number of directors on the board.	RiskMetrics
R&D / sales	Max (0, R&D expenditures) / total sales	Compustat
Ratio of a deceased executive's pay to the aggregate compensation of top 5 executives	Ratio of a deceased executive's total compensation relative to the sum of the top five executive officers' total compensation. Total compensation is data item TDC1 from ExecuComp.	ExecuComp
Relay succession (indicator)	One for a firm that has relay succession, and zero otherwise. A firm is classified as having a relay succession plan in a given year if it has a president or chief operating officer (COO) that is distinct from the CEO or chairman, and is not older than the CEO or chairman, and zero otherwise (Naveen, 2006)	RiskMetrics
Return volatility	Standard deviation of a firm's daily stock returns during a fiscal year.	CRSP
ROA	Operating income before depreciation / book value of total assets.	Compustat
Stock performance	Buy-and-hold stock returns net of buy-and-hold CRSP value-weighted market returns.	CRSP
Sudden deaths	Sudden death is defined as "an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state" (Nguyen and Nielsen, 2010). To include deaths that are sudden and not expected by the stock market, Nguyen and Nielsen (2010) exclude deaths attributed to cancer, complications from illness, past strokes, and surgery.	News articles
Takeover interest (indicator)	One if rumors exist that the firm will be taken over after the death of the executive, and zero otherwise.	News articles
Tobin's *q*	(Total assets - book equity + market value of equity) / total assets at the fiscal-year end	Compustat

Table 1
Sample distribution of family and nonfamily firms by industry

The table presents the distribution of family and nonfamily firms in our sample by industry. The sample comprises 11,696 firm-year observations covered in RiskMetrics during the 1996 to 2010 period. We omit firms for which employee relations ratings are not available in the KLD database. Next, we delete firms with missing stock return data in the CRSP or with missing financial data in Compustat. We also exclude firms in regulated industries (SIC codes between 4900 and 4999 and between 6000 and 6999), firms not headquarterd in the U.S., and firms in which the number of employees is missing or fewer than 100. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the construction of the variables.

Industries	Full sample	Family firms		Nonfamily firms	
	Sample size	Sample size	%	Sample size	%
Agriculture, forestry, and fishing (01-09)	23	10	43.48	13	56.52
Mining and construction (10-17)	714	270	37.82	444	62.18
Manufacturing (20-39)	6,624	2,664	40.22	3,960	59.78
Transportation and communications (40-48)	669	302	45.14	367	54.86
Wholesale and retail trade (50-59)	1,767	839	47.48	928	52.52
Services (70-89)	1,861	867	45.66	994	52.34
Total	11,696	4,952	42.34	6,734	57.58

Table 2
Summary statistics

The table presents summary characteristics for the sample firms. The sample comprises 11,696 firm-year observations covered in RiskMetrics during the 1996 to 2010 period. We omit firms for which employee relations ratings are not available in the KLD database. Next, we delete firms with missing stock return data in the CRSP or missing financial data in Compustat. We also exclude firms in regulated industries (SIC codes between 4900 and 4999 and between 6000 and 6999), firms not headquarterd in the U.S., and firms in which the number of employees is missing or fewer than 100. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. ***, **, and * indicate that the mean differences between columns (1) and (3) and the median differences between columns (2) and (4) are significant at the 1%, 5%, and 10% levels, respectively.

	Family firms (A)		Nonfamily firms (B)			
	Mean	Median	Mean	Median	Test of difference:	
	(1)	(2)	(3)	(4)	(1)-(3)	(2)-(4)
Firm Characteristics						
Total assets (billions US$)	4.982	1.578	7.419	2.131	-2.437***	-0.553***
Firm age	24.061	19.000	31.613	28.000	-7.552***	-9.000***
Leverage	0.187	0.168	0.221	0.218	-0.034***	-0.050***
R&D / sales	0.043	0.000	0.042	0.009	0.001	-0.009***
ROA	0.154	0.149	0.153	0.145	0.001	0.004
Stock performance	0.081	0.012	0.064	0.012	0.017**	0.000
Capital expenditure / assets	0.058	0.041	0.053	0.039	0.005***	0.002**
Return volatility	0.028	0.025	0.027	0.024	0.001***	0.001***
Institutional ownership (%)	13.791	10.932	15.206	13.132	-1.415***	-2.200***
Board size	9.260	9.000	9.433	9.000	-0.173***	0.000***
Proportion of independent directors	0.640	0.667	0.760	0.778	-0.120***	-0.111***
Tobin's *q*	2.247	1.769	2.049	1.650	0.198***	0.119***
Family Firm Characteristics						
Family firm (indicator)	1.000	1.000	-	-	-	-
Percentage of family firms in which a family member (a founder or a descendant) is CEO	0.528	1.000	-	-	-	-
Percentage of family firms in which at least one family member is a board member	0.942	1.000	-	-	-	-
Percentage of family firms in which at least one family member is a non-CEO top executive	0.684	0.000	-	-	-	-
Percentage of family firms in which family members hold at least 5% of equity ownership in the firm	0.656	1.000	-	-	-	-

Table 3
Difference in employee-friendly policies between family and nonfamily firms

The table presents estimates of OLS and Fama-Macbeth regressions in which the dependent variable is *Employee Treatment Index* in Panel A and sub-indices measured by summing up the ratings on subcomponents of KLD employee relations ratings in Panel B. *Employee Treatment Index* is measured by summing up the six strength indicators for the employee relations dimension (i.e., employee involvement, health and safety strength, retirement benefit strength, cash profit sharing, union relations, and other strengths) and the four concern indicators for the employee relations dimension (i.e., health and safety concern, retirement benefits concern, union relations, and other concerns). *Sub-index 1*, *sub-index 2*, and *sub-index 3* are measured by summing up the strength and concern ratings on union relations and employee involvements, on cash profit sharing and retirement benefits, and on health and safety, respectively. The sample comprises 11,063 firm-year observations covered in RiskMetrics during the 1996 to 2010 period. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. The *p*-values in parentheses are based on standard errors adjusted for heteroskedasticity and allow for clustering within firms. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Using *Employee Treatment Index* as the dependent variable

Independent variables	OLS			Fama-Macbeth
	(1)	(2)	(3)	(4)
Family firm (indicator)	0.091**	0.091**	0.081**	0.060**
	(0.022)	(0.019)	(0.041)	(0.014)
Log (assets)		0.057***	0.050**	0.061***
		(0.005)	(0.018)	(0.000)
Log (firm age)		-0.018	-0.022	0.003
		(0.496)	(0.411)	(0.782)
Leverage		-0.303**	-0.289**	-0.467***
		(0.014)	(0.020)	(0.000)
R&D / sales		2.444***	2.499***	3.180***
		(0.000)	(0.000)	(0.000)
ROA		1.402***	1.331***	1.333***
		(0.000)	(0.000)	(0.000)
Stock performance			-0.046**	-0.010
			(0.014)	(0.779)
Capital expenditure / assets			0.430	0.841*
			(0.263)	(0.091)
Return volatility			-1.822	2.378
			(0.248)	(0.189)
Institutional ownership			-0.003**	-0.001
			(0.014)	(0.204)
Board size			-0.002	-0.013***
			(0.855)	(0.001)
Proportion of independent directors			-0.061	0.286***
			(0.595)	(0.001)
Constant	0.417	-0.459	-0.342	-0.882***
	(0.399)	(0.338)	(0.492)	(0.000)
Year fixed effects	Y	Y	Y	N
Industry fixed effects	Y	Y	Y	N
Number of observations	11,063	11,053	10,994	10,994
Adjusted R^2/ R^2	0.226	0.252	0.254	0.100

Panel B. Using sub-indices measured by summing up the ratings on subcomponents of KLD employee relations ratings as the dependent variables

Independent variables	OLS			Fama-Macbeth		
	Dependent variable = *Sub-index 1*	Dependent variable = *Sub-index 2*	Dependent variable = *Sub-index 3*	Dependent variable = *Sub-index 1*	Dependent variable = *Sub-index 2*	Dependent variable = *Sub-index 3*
	(1)	(2)	(3)	(4)	(5)	(6)
Family firm (indicator)	0.032*	0.011	-0.011	0.028*	0.004	-0.011
	(0.091)	(0.584)	(0.372)	(0.074)	(0.703)	(0.235)
Control variables (same as Panel A of)	Column 1	Column 2	Column 3	Column 1	Column 2	Column 3
Year fixed effects	Y	Y	Y	N	N	N
Industry fixed effects	Y	Y	Y	N	N	N
Number of observations	10,994	10,994	10,994	10,994	10,994	10,994
Adjusted R^2/ R^2	0.200	0.193	0.148	0.085	0.069	0.077

Table 4
Change in employee treatment around a change in family firm status

The table presents estimates from OLS and linear probability model (LPM) regressions in which the dependent variable is *Employment Treatment Index* in columns (1)-(4) and *Positive Employment Treatment Index* in columns (5)-(6). *Positive Employee Treatment Index* is an indicator that takes the value of one if a firm's *Employee Treatment Index* is positive, and zero otherwise. The sample comprises 111 unique family firms that become nonfamily firms (565 firm-year observations). We examine changes in *Employee Treatment Index* three years before (i.e., year -4, year -3, and year -2) and three years after (i.e., year 2, year 3, and year 4) the transition year (year 0), but do not include the transition period (i.e., year -1, year 0, and year 1) to avoid potential biases arising from the transition. All control variables are measured as of the first quarter-end of the calendar year. To be included in the sample, we require that data on *Employee Treatment Index* are available for at least one year in the pre- and post-transition periods. To ensure that firms experienced a complete change in control and ownership, we only include cases in which after the transition, family members own no equity and they do not serve as an executive officer or a director. *Family firm status change* is an indicator that takes the value of one for a firm in the post-transition period, and zero otherwise. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. The *p*-values in parentheses are based on standard errors adjusted for heteroskedasticity and allow for clustering within firms. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Independent variables	OLS				LPM	
	Employee Treatment Index				Positive Employee Treatment Index	
	(1)	(2)	(3)	(4)	(5)	(6)
Family firm status change (indicator)	-0.319**	-0.274**	-0.437***	-0.437***	-0.156**	-0.152**
	(0.013)	(0.032)	(0.007)	(0.007)	(0.023)	(0.028)
Log (assets)	0.323***	0.329***	0.188	0.171	0.047	0.042
	(0.002)	(0.001)	(0.282)	(0.346)	(0.493)	(0.572)
Log (firm age)	0.064	0.062	0.615*	0.623*	0.134	0.128
	(0.744)	(0.763)	(0.060)	(0.054)	(0.350)	(0.359)
Leverage	0.234	0.339	0.744*	0.728*	0.249	0.248
	(0.550)	(0.393)	(0.080)	(0.086)	(0.235)	(0.238)
R&D / sales	2.660**	2.699**	-0.864	-0.818	-0.537	-0.533
	(0.042)	(0.032)	(0.555)	(0.589)	(0.578)	(0.579)
ROA	3.075	2.723	-0.022	-0.516	-0.728	-0.856
	(0.257)	(0.279)	(0.990)	(0.775)	(0.431)	(0.356)
Stock performance		-0.055		0.044		-0.009
		(0.596)		(0.629)		(0.730)
Capital expenditure/assets		3.818		-0.852		0.126
		(0.176)		(0.726)		(0.838)
Return volatility		1.114		-0.314		-0.202
		(0.822)		(0.944)		(0.906)
Institutional ownership		-0.005		-0.002		-0.001
		(0.200)		(0.477)		(0.492)
Constant	-2.502***	-2.805***	-3.050**	-2.864*	-0.435	-0.353
	(0.004)	(0.003)	(0.041)	(0.073)	(0.441)	(0.587)
Industry fixed effects	Y	Y	N	N	N	N
Firm fixed effects	N	N	Y	Y	Y	Y
Number of observations	565	563	565	563	565	563
Adjusted R^2 / Pseudo R^2	0.428	0.431	0.046	0.042	0.040	0.034

Table 5
Family control and change in employee treatment during the crisis

The table presents estimates of regressions in which the dependent variable is *Employee Treatment Index* in Panel A, sub-indices measured by summing up the ratings on subcomponents of KLD employee relations ratings in Panel B, the natural log of the number of employees in columns (1)-(4) of Panel C, and employment growth rates during the crisis in columns (5) and (6) of Panel C. *Employee Treatment Index* is measured by summing up the six strength indicators for the employee relations dimension (i.e., employee involvement, health and safety strength, retirement benefit strength, cash profit sharing, union relations, and other strengths) and the four concern indicators for the employee relations dimension (i.e., health and safety concern, retirement benefits concern, union relations, and other concerns). *Sub-index 1*, *sub-index 2*, and *sub-index 3* are measured by summing up the strength and concern ratings on union relations and employee involvements, on cash profit sharing and retirement benefits, and on health and safety, respectively. In Panels A and B, the sample consists of 3,603 firm-year observations from 2006 to 2009 in which *Employee Treatment Index* is available. In columns (1)-(4) of Panel C, the sample consists of 3,653 firm-year observations from 2006 to 2009 and in columns (5) and (6) of Panel C, the sample consists of 893 firm observations in 2007. *Crisis* is an indicator that takes the value of one for 2008 and 2009, and zero for 2006 and 2007. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. The *p*-values in parentheses in columns (1) and (2) are based on standard errors adjusted for heteroskedasticity and allow for clustering within firms. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Using *Employee Treatment Index* as the dependent variable

Independent variables	(1)	(2)	(3)	(4)
Family firm (indicator): a	-0.001	-0.017		
	(0.991)	(0.813)		
Crisis (indicator): b	0.095**	0.105**		
	(0.032)	(0.045)		
a × b	0.138**	0.134*	0.136*	0.140**
	(0.047)	(0.055)	(0.053)	(0.047)
Log (assets)	0.014	0.034	0.131	0.141*
	(0.579)	(0.218)	(0.105)	(0.080)
Log (firm age)	-0.024	-0.011	0.148	0.139
	(0.419)	(0.709)	(0.564)	(0.591)
Leverage	-0.037	0.022	-0.114	-0.124
	(0.843)	(0.906)	(0.586)	(0.560)
R&D / sales	2.817***	2.594***	-0.219	-0.236
	(0.000)	(0.000)	(0.725)	(0.701)
ROA	1.070***	0.663**	-0.106	-0.200
	(0.000)	(0.032)	(0.733)	(0.518)
Tobin's q		0.073***		0.021
		(0.006)		(0.554)
Stock performance		-0.030		-0.008
		(0.367)		(0.789)
Capital expenditure / assets		-0.393		0.320
		(0.502)		(0.565)
Return volatility		1.065		0.551
		(0.579)		(0.795)
Institutional ownership		-0.001		0.004**
		(0.455)		(0.011)
Board size		-0.021		-0.007
		(0.102)		(0.667)
Proportion of independent directors		-0.179		-0.082
		(0.393)		(0.748)
Constant	0.382	0.383	-1.709*	-1.754*
	(0.139)	(0.272)	(0.096)	(0.092)

Industry-year fixed effects	N	N	Y	Y
Firm fixed effects	N	N	Y	Y
Industry fixed effects	Y	Y	N	N
Number of observations	3,603	3,603	3,603	3,603
Adjusted R^2	0.300	0.304	0.167	0.171

Panel B. Using sub-indices measured by summing up the ratings on subcomponents of KLD employee relations ratings as the dependent variables

Independent variables	Dependent variable = *Sub-index 1*	Dependent variable = *Sub-index 2*	Dependent variable = *Sub-index 3*	Dependent variable = *Sub-index 1*	Dependent variable = *Sub-index 2*	Dependent variable = *Sub-index 3*
	(1)	(2)	(3)	(4)	(5)	(6)
Family firm (indicator): a	0.022	-0.033	-0.079**			
	(0.413)	(0.444)	(0.013)			
Crisis (indicator): b	-0.008	0.112***	-0.061**			
	(0.710)	(0.000)	(0.026)			
a × b	-0.013	0.080**	0.090***	0.010	0.079**	0.070**
	(0.608)	(0.045)	(0.007)	(0.713)	(0.049)	(0.030)
Control variables (same as Panel A of)	Column 2	Column 2	Column 2	Column 4	Column 4	Column 4
Industry-year fixed effects	N	N	N	Y	Y	Y
Firm fixed effects	N	N	N	Y	Y	Y
Industry fixed effects	Y	Y	Y	N	N	N
Number of observations	3,603	3,603	3,603	3,603	3,603	3,603
Adjusted R^2	0.266	0.213	0.324	0.096	0.177	0.160

Panel C. Using the number of employees and employment growth rates during the crisis as the dependent variables

Independent variables	Log (number of employees)				Change in the number of employees from 2008 to 2009 / Number of employees in 2008	
	(1)	(2)	(3)	(4)	(5)	(6)
Family firm (indicator): a	-0.011	0.000			0.033**	0.024*
	(0.803)	(0.992)			(0.017)	(0.096)
Crisis (indicator): b	-0.047***	-0.057*				
	(0.000)	(0.060)				
a × b	0.037*	0.049**	0.019*	0.021**		
	(0.072)	(0.019)	(0.092)	(0.050)		
Control variables (same as Panel A of)	Column 2	Column 2	Column 4	Column 4	Column 2	Column 2
Industry-year fixed effects	N	N	Y	Y	N	N
Firm fixed effects	N	N	Y	Y	N	N
Industry fixed effects	Y	Y	N	N	Y	Y
Number of observations	3,653	3,653	3,653	3,653	893	890
Adjusted R^2	0.880	0.884	0.550	0.557	0.079	0.101

Table 6
Impacts of family control and employee treatment on firm value around the crisis

The table presents estimates of OLS regressions in which the dependent vairiable is a firm's buy-and-hold stock returns calculated using daily returns during the pre-crisis and crisis periods. The sample size differs across regressions depending on the definition of pre-crisis and crisis periods used. In Panel A, *Employee Treatment Index* is measured by summing up the six strength indicators for the employee relations dimension (i.e., employee involvement, health and safety strength, retirement benefit strength, cash profit sharing, union relations, and other strengths) and the four concern indicators for the employee relations dimension (i.e., health and safety concern, retirement benefits concern, union relations, and other concerns). Columns (1)-(3) report estimates of panel regressions from 2006 to 2009 (columns (1) and (3)) and from 2005 to 2008 (column (2)). In column (1), crisis period returns are calculated using returns from August 1, 2008 to March 31, 2009 (Lins, Volpin, and Wagner, 2013) and pre-crisis period returns in 2006 and 2007 are calculated using returns from January 1, 2006 to December 31, 2006 and from January 1, 2007 to December 31, 2007, respectively. In column (2), crisis period returns are calculated using returns from July 1, 2007 to December 31, 2008 (Fahlenbrach and Stulz, 2011), and pre-crisis period returns in 2005, 2006, and 2007 are calculated using returns from January 1, 2005 to December 31, 2005, from January 1, 2006 to December 31, 2006, and from January 1, 2007 to June 30, 2007, respectively. In column (3), we define a crisis period as a period from January 1, 2008 to December 31, 2009 and a pre-crisis period as a period from January 1, 2006 to December 31, 2007. We then calculate a buy-and-hold return each year using each calendar year's daily stock returns from January 1 to December 31. In column (4), we use the 2008-2009 crisis period as the sample and regress crisis period return calculated using returns from August 1, 2008 to March 31, 2009 on firm characteristics measured as of the fiscal-year end 2007. In Panel B, each sub-index is measured by summing up subcomponents of KLD employee relations ratings: sub-index 1, sub-index 2, and sub-index 3 are measured by summing up the strength and concern ratings on union relations and employee involvements, on cash profit sharing and retirement benefits, and on health and safety, respectively. The Appendix provides detailed descriptions of the variables. The *p*-values are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Using *Employee Treatment Index*

Independent variables	(1)	(2)	(3)	(4)
Family firm with positive Employee Treatment Index (indicator) × Crisis (indicator)	0.096**	0.071**	0.087*	
	(0.029)	(0.032)	(0.082)	
Nonfamily firm with positive Employee Treatment Index (indicator) × Crisis (indicator)	-0.001	-0.004	-0.014	
	(0.977)	(0.854)	(0.697)	
Family firm with positive Employee Treatment Index (indicator)				0.058*
				(0.083)
Nonfamily firm with positive Employee Treatment Index (indicator)				-0.050**
				(0.046)
Log (assets)	-0.397***	-0.144***	-0.413***	-0.009
	(0.000)	(0.000)	(0.000)	(0.297)
Log (firm age)	-0.216	-0.072	0.248	-0.018
	(0.278)	(0.410)	(0.131)	(0.154)
Leverage	0.425***	-0.039	-0.556***	-0.126**
	(0.000)	(0.683)	(0.000)	(0.019)
R&D / sales	-0.245	-0.477	11.641***	0.480***
	(0.448)	(0.130)	(0.000)	(0.003)
ROA	0.142	-0.689***	0.335**	0.565***
	(0.823)	(0.000)	(0.030)	(0.000)
Tobin's q	-0.184***	-0.048***	-0.722	-0.012
	(0.000)	(0.008)	(0.211)	(0.246)
Stock performance	-0.211***	0.011	-3.522***	0.021
	(0.000)	(0.636)	(0.000)	(0.458)
Capital expenditure / assets	-1.460***	-0.360	-1.626	-0.017

	(0.000)	(0.107)	(0.171)	(0.931)
Return volatility	-4.572**	-2.568	-0.134***	-6.183***
	(0.026)	(0.102)	(0.000)	(0.000)
Institutional ownership	0.001	0.001	0.002*	-0.000
	(0.189)	(0.269)	(0.059)	(0.381)
Board size	-0.010	-0.008	-0.014	-0.002
	(0.251)	(0.148)	(0.132)	(0.637)
Proportion of independent directors	0.096	0.025	-0.016	0.038
	(0.490)	(0.704)	(0.871)	(0.601)
Constant	4.244***	1.712***	2.890***	-0.171
	(0.000)	(0.000)	(0.000)	(0.479)
Industry-year fixed effects	Y	Y	Y	N
Firm fixed effects	Y	Y	Y	N
Industry fixed effects	N	N	N	Y
Number of observations	2,511	3,018	2,969	818
Adjusted R^2	0.703	0.285	0.636	0.230
Family firm with positive index versus Nonfamily firm with positive index, *F*-statistic	3.90	3.91	3.13	7.89
p-value	0.049	0.048	0.077	0.005

Panel B. Using sub-indices measured by summing up the ratings on subcomponents of KLD employee relations ratings

	Crisis period = August 1, 2008 to March 31, 2009			Crisis period = July 1, 2007 to December 31, 2008			Crisis period = January 1, 2008 to December 31, 2009			Crisis period = August 1, 2008 to March 31, 2009		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Family firm with positive sub-index 1 (indicator) × crisis (indicator)	0.118**			0.077*			0.110*					
	(0.036)			(0.063)			(0.058)					
Nonfamily firm with positive sub-index 1 (indicator) × crisis (indicator)	-0.046			0.031			-0.034					
	(0.263)			(0.224)			(0.482)					
Family firm with positive sub-index 2 (indicator) × crisis (indicator)		0.071			0.034			0.103				
		(0.198)			(0.485)			(0.151)				
Nonfamily firm with positive sub-index 2 (indicator) × crisis (indicator)		0.000			-0.049*			-0.009				
		(0.994)			(0.055)			(0.821)				
Family firm with positive sub-index 3 (indicator) × crisis (indicator)			0.091			0.077			0.110			
			(0.178)			(0.272)			(0.197)			
Nonfamily firm with positive sub-index 3 (indicator) × crisis (indicator)			0.014			0.010			0.041			
			(0.775)			(0.783)			(0.619)			
Family firm with positive sub-index 1 (indicator)										0.110**		
										(0.031)		
Nonfamily firm with positive sub-index 1 (indicator)										-0.053**		
										(0.044)		
Family firm with positive sub-index 2 (indicator)											0.034	
											(0.381)	
Nonfamily firm with positive sub-index 2 (indicator)											-0.046*	
											(0.085)	
Family firm with positive sub-index 3 (indicator)												0.041
												(0.466)
Nonfamily firm with positive sub-index 3 (indicator)												-0.011
												(0.746)
Control variables (same as in Panel A)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Industry-year fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
Firm fixed effects	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N
Industry fixed effects	N	N	N	N	N	N	N	N	N	Y	Y	Y
Number of observations	2,511	2,511	2,511	3,018	3,018	3,018	2,969	2,969	2,969	818	818	818
Adjusted R^2	0.703	0.703	0.702	0.285	0.284	0.283	0.637	0.636	0.636	0.233	0.225	0.222
Family firm with positive index versus Nonfamily firm with positive index, *F*-statistic	6.07	1.39	0.89	0.92	2.37	0.76	3.93	2.08	0.35	9.25	3.19	0.65
p-value	0.014	0.239	0.346	0.338	0.124	0.383	0.048	0.149	0.555	0.002	0.074	0.422

Table 7
Firms' inclusion on *Fortune*'s "100 Best Companies to Work For" list

The table presents marginal effects estimated from logit regressions in which the dependent variable takes the value of one if a firm is included on *Fortune*'s "100 Best Companies to Work For" list, and zero otherwise. We obtain data on the Best Companies list for the period between 1998, when *Fortune* first published this list, and 2010. We then combine the Best Companies list for year *t* with our sample from RiskMetrics for year *t*–1. Our final Best Companies sample includes 464 firm-year observations, after excluding private firms, nonprofit organizations, and cooperatives. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. The *p*-values in parentheses are based on standard errors adjusted for heteroskedasticity and allow for clustering within firms. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Independent variables	Indicator for a firm's inclusion on Best Companies List	
	(1)	(2)
Family firm (indicator)	0.010***	0.010***
	(0.001)	(0.002)
Log (assets)	0.009***	0.008***
	(0.000)	(0.000)
Log (firm age)	-0.004***	-0.005***
	(0.005)	(0.002)
ROA	0.084***	0.075***
	(0.000)	(0.000)
R&D / sales	0.033***	0.035***
	(0.000)	(0.000)
Leverage	-0.027***	-0.028***
	(0.010)	(0.007)
Stock performance		-0.001
		(0.318)
Capital expenditure / assets		0.023
		(0.260)
Return volatility		-0.153
		(0.139)
Institutional ownership		-0.000
		(0.450)
Board size		0.000
		(0.367)
Proportion of independent directors		0.009
		(0.154)
Year fixed effects	Y	Y
Industry fixed effects	Y	Y
Number of observations	14,129	14,026
Pseudo R^2	0.265	0.271

Table 8
Impacts of family control and firms' inclusion on *Fortune*'s "100 Best Companies to Work For" list on firm value (Tobin's *q*)

The table presents estimates of OLS regressions in which the dependent vairiable is Tobin's *q* in column (1) and industry-adjusted Tobin's *q* in column (2). The sample comprises 15,143 firm-year observations covered in RiskMetrics during the 1998 to 2010 period. *Best Companies* is an indicator that takes the value of one if a firm is included on the Best Companies list for a given year, and zero otherwise. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. The *p*-values in parentheses are based on standard errors adjusted for heteroskedasticity and allow for clustering within firms. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Independent variables	Tobin's *q*	Industry-adjusted Tobin's *q*
	(1)	(2)
Family firm (indicator): a	0.103***	0.076**
	(0.003)	(0.022)
Best Companies (indicator): b	0.339***	0.247**
	(0.002)	(0.034)
a × b	0.301*	0.339**
	(0.056)	(0.047)
Log (assets)	0.006	0.029**
	(0.712)	(0.035)
Log (firm age)	-0.052**	-0.046**
	(0.015)	(0.022)
Stock Performance	0.215***	0.167***
	(0.000)	(0.000)
ROA	5.655***	4.472***
	(0.000)	(0.000)
Capital expenditure / assets	0.021	-0.545**
	(0.950)	(0.020)
R&D / sales	3.123***	2.328***
	(0.000)	(0.000)
Leverage	-0.386***	-0.308***
	(0.000)	(0.001)
Return volatility	2.475**	1.551
	(0.032)	(0.170)
Institutional ownership	-0.000	0.000
	(0.808)	(0.756)
Board size	-0.009	-0.008
	(0.274)	(0.294)
Proportion of independent directors	0.162	0.094
	(0.101)	(0.325)
Constant	1.520***	-0.549***
	(0.000)	(0.000)
Year fixed effects	Y	Y
Industry fixed effects	Y	N
Number of observations	15,143	15,143
Adjusted R^2	0.401	0.196

Table 9
OLS regressions of cumulative abnormal returns (–1, 1) around firms' inclusion on *Fortune*'s "100 Best Companies to Work For" list

The table presents estimates of OLS regressions in which the dependent variable is the cumulative abnormal return (CAR) from one day before to one day after the release of *Fortune*'s "100 Best Companies to Work For" list. We obtain the the *Fortune* list for the period between 1998, the year *Fortune* published its first list, and 2010. We next combine the *Fortune* list for year *t* with firms covered in RiskMetrics for year *t*–1. We identify 101 firm-year observations included in the list for the first time after filtering out private firms, nonprofit organizations, and cooperatives. To calculate abnormal returns, we use a market model where we estimate the parameters using days –280 to –61 relative to the announcement date of the list. The equally weighted CRSP returns are used as the market portfolio returns. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. The *p*-values are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Independent variables	(1)	(2)	(3)
Family firm (indicator): a	0.016**	0.017**	-0.001
	(0.035)	(0.039)	(0.903)
R&D / sales: b		0.056	-0.043
		(0.329)	(0.518)
a × b			0.271**
			(0.010)
Log (assets)		0.004	0.004
		(0.171)	(0.126)
Log (firm age)		-0.000	-0.000
		(0.932)	(0.988)
ROA		0.035	0.030
		(0.368)	(0.417)
Leverage		-0.029	-0.036
		(0.266)	(0.152)
Constant	0.000	-0.038	-0.033
	(0.934)	(0.147)	(0.201)
Number of observations	101	101	101
Adjusted R^2	0.035	0.056	0.111

Table 10
OLS regressions of cumulative abnormal returns (–1, 1) around deaths of executives in family and nonfamily firms on explanatory variables

The table presents estimates of OLS regressions in which the dependent variable is the cumulative abnormal return (CAR) from one day before to one day after the death of top executives. The sample consists of 86 sudden deaths of executives for the period 1984 to 2012. To calculate abnormal returns, we use a market model, where we estimate the parameters using days –280 to –61 relative to the date of death. The equally weighted CRSP returns are used as the market portfolio returns. The Appendix provides detailed descriptions of the variables. We control for industry fixed effects using Fama and French's five industry classification. The *p*-values are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Independent variables	(1)	(2)	(3)	(4)	(5)	(6)
Family firm executive (indicator): a	-0.028*	0.015	-0.037**			
	(0.060)	(0.488)	(0.037)			
Family member executive (indicator): b				-0.005	0.030	-0.030
				(0.810)	(0.388)	(0.283)
Nonfamily member executive (indicator): c				-0.041**	0.002	-0.040**
				(0.014)	(0.926)	(0.038)
Ratio of a deceased executive's pay to the	0.009	0.119**	0.134***	0.030	0.132**	0.138**
aggregate compensation of top five executives: d	(0.873)	(0.028)	(0.008)	(0.569)	(0.016)	(0.011)
Employee Treatment Index: e			-0.004			-0.005
			(0.624)			(0.597)
a × d		-0.186***				
		(0.010)				
b × d					-0.170	
					(0.108)	
c × d					-0.181**	
					(0.019)	
a × e			-0.035**			
			(0.028)			
b × e						-0.030
						(0.155)
c × e						-0.039*
						(0.053)
Executive is CEO (indicator)	0.013	0.002	-0.004	0.007	-0.001	-0.006
	(0.449)	(0.884)	(0.814)	(0.677)	(0.945)	(0.769)
Executive age	0.002***	0.001**	0.001	0.001	0.001	0.001
	(0.006)	(0.029)	(0.370)	(0.172)	(0.223)	(0.594)
Log (assets)	-0.002	-0.002	-0.001	-0.001	-0.001	-0.002
	(0.687)	(0.691)	(0.741)	(0.841)	(0.827)	(0.688)
Tobin's *q*	-0.004	-0.006	0.004	-0.003	-0.004	0.004
	(0.344)	(0.101)	(0.229)	(0.429)	(0.269)	(0.314)
ROA	0.028	0.099	0.135	-0.013	0.043	0.124
	(0.758)	(0.306)	(0.328)	(0.888)	(0.627)	(0.438)
R&D / sales	0.273***	0.272***	0.178*	0.226**	0.240**	0.174*
	(0.010)	(0.001)	(0.063)	(0.027)	(0.029)	(0.067)
Takeover interest (indicator)	0.018	0.054**	-0.017	-0.001	0.032	-0.007
	(0.566)	(0.010)	(0.631)	(0.967)	(0.345)	(0.894)
Constant	-0.068	-0.087	-0.077	-0.039	-0.061	-0.056
	(0.296)	(0.182)	(0.205)	(0.619)	(0.433)	(0.490)
Industry fixed effects	Y	Y	Y	Y	Y	Y
Number of observations	86	86	49	86	86	49
Adjusted R^2	0.014	0.101	0.058	0.027	0.050	0.002

Table 11
CEO succession: likelihood of selecting the CEO from the internal talent pool

The table presents marginal effects estimated from logit regressions in which the dependent variable takes the value of one if a firm has a relay succession plan, and zero otherwise. The sample comprises 13,824 firm-years over the 1997 to 2009 period with 1,224 CEO turnovers. Following Naveen (2006), we classify a firm as having a relay succession plan in a given year if it has a president or chief operating officer (COO) that is distinct from the CEO or chairman and is not older than the CEO or chairman. In column (1) we use all relay successions and in column (2) we exclude the family heir apparent from relay successions. Family firms are defined as those in which founding family members, either individually or as a group, have equity ownership exceeding 5% in the firm, or at least one founding family member sits on the board or is in the top management. The Appendix provides detailed descriptions of the variables. The *p*-values in parentheses are based on standard errors adjusted for heteroskedasticity and allow for clustering within firms. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Independent variables	Relay succession (including all heir apparent)	Relay succession (excluding family heir apparent)
	(1)	(2)
Family firm (indicator)	0.064***	0.033***
	(0.000)	(0.000)
Log (assets)	0.011***	0.015***
	(0.000)	(0.000)
Industry-adjusted ROA	0.116***	0.126***
	(0.000)	(0.000)
Stock performance	0.009*	0.010**
	(0.059)	(0.024)
Departing CEO's age is between 64 and 66 (indicator)	0.348***	0.334***
	(0.000)	(0.000)
Year fixed effects	Y	Y
Industry fixed effects	Y	Y
Number of observations	13,824	13,392
Pseudo R^2	0.121	0.114