Ownership Structure and Employee Effort: Evidence from Family Firms *

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Abstract

We analyze the role of ownership structure on worker effort. We measure effort by using a novel data set for employee absenteeism in a sample of 2,600 private Danish firms. We find that employee workplace absenteeism in family firms is 14% lower compared to non-family firms. We confirm the lower absence of family firm employees even when we condition on identical health shocks. Furthermore, exploiting employees that switch firms, we decompose the variation in absence into an individual employee effect and a firm effect. We find that the firm specific component accounts for 72% of the difference in absenteeism. Finally, we explore potential mechanisms behind these results.

Keywords: family firms; organizational structure; employee effort

JEL Classification:

1 Introduction

Eliciting effort from employees is of utmost importance for increasing firm productivity. Several mechanism help firms achieve this goal. Workers effort provision is affected when their compensation is tied to their own output (Lazear (1986); Lazear (2000)), when they compete with peers for a promotion (Lazear & Rosen (1981)), when they work in the presence of people they are socially tied to (Bandiera et al. (2010)), among others.

At the same time, a large body of academic and anecdotal evidence suggest that employee behavior is shaped by the ownership structure of the firm, specifically whether the firm is owned and controlled by a family ("family firm"). The direction of the effect is, however, ambigous. On the one hand, employees of family firms might exert less effort. Family firms might have a more difficult time motivating non-family employees as these workers might be concerned that nepotism, rather than meritocracy, would determine promotions. Non-family employees might also be discouraged if they end up having to spend time embroiled in family conflicts (Poza (2013)). On the other hand, family firm status could boost employee motivation. It is possible that family owners, due to their long-term horizons, have a comparative advantage at sustaining implicit labor contracts, which might be reciprocated by workers with cooperative behavior (Sraer & Thesmar (2007), Ellul et al. (2014)). It could also be that their large ownership stakes motivates family owners to monitor more or be tougher with labor (Mueller & Philippon (2011)), leading to higher effort provision.

Despite the importance of employee effort for organizations and the ubiquitousness of family firms, there is scant systematic evidence on the role of family firm status on employee behavior.[1] In this paper we study this question using a panel of all employees in 2,600 private Danish firms. Our main measure of employee effort is the number of absent days that the firm report are due to exmployee sickness. Absenteeism has been previously used as measure of effort (Ichino & Maggi (2000*a*)) and has also been found to strongly affect productivity in other settings (Herrmann & Rockoff (2010)).

We have three main findings:

First, in our benchmark analysis we show that compared to non-family firms, workplace absenteeism in family firms is 14% lower. The difference remains when we add firm level controls and a host of individual characteristics (e.g., age, gender, family composition). The result is also robust to inclusion of measures related to the position of the employee in the firm hierarchy.

1. The one exception is Bandiera et al. (2013) that studies differences in the behavior of CEOs in family and non-family firms using detailed data on CEO activities. Bandiera et al. (2013) focus on CEOs whereas we study all employees.

Since our outcome variable is absenteeism due to employee sickness, it is crucial that we control for health shocks. We do this in a flexible way by estimating our models on subsamples of individuals with identical health shocks. These empirical specifications guarantee that our results are not driven by differences in the incidence and severity of health shocks in employees of firms with different ownership types. We continue to find that lower employee absenteeism in family firms in these specifications.

It is important for the interpretation of our results that part of the variation in absteeism be discretionary, that is, not entirely driven by health shocks. We provide several tests. First, we show that conditional on health shock, employees higher up in the organization return to work faster. We also show employees of non-family firms not only have more absences on average but also have more absence spells that start on Monday or Friday or around 2 days of a national holiday.

Our result that employee absences are lower in family firms could be driven by two types of explanations. The first type are are explanations related to characteristics of the individuals that choose to work for family firms. For example, it is posible that more motivated or loyal individuals are more likely to apply and get selected to work for these firms. The second set of explanations relate to firm specific attributes. Even if employees in family and non-family firms are similar, it could be that family firms monitor employees more or impose more drastic consequences for shirking. It is also possible that family firms have a different corporate culture that values employee loyalty.

Hence, our second set of results decompose absence across firms of different ownership structures into an individual worker effect and a firm effect following the methodology of Abowd et al. (1999) (henceforth AKM). This methodology identifies the individual and firm component using movers to identify an employee and a firm fixed effect. Imagine an employee who moves from a firm with high average absence to a firm with low absence. If the main driver of the absence difference is firm specific (e.g. culture, monitoring, incentives), we would expect the mover's absence to drop immediately to a level close to that of the employees of the destination firm. If, on the contrary, the absence differential is driven mainly by individual characteristics (e.g., employee loyalty or work ethic), we would expect the mover's absence to remain constant after the move. We find strong evidence suggesting that firm specific component is an important determinant of absences. Indeed, we estimate that the firm component accounts for 72% of the difference in absences between family and non-family firms.

Finally, we explore potential mechanisms that contribute to the lower absences in family firms. We present evidence that there are harsher consequences for shirking in family firms. Although we find that absences reduce the probablity of a wage increase in all firms, this relation is stronger in

family firms. Thus explicit incentives contribute to explain the lower absences in family firms. We find that within family firms, employees who are related to the controlling family have lower absenteeism compared to unrelated employees. This could be driven by loyalty (although it could also be that these employees have more skin in the game).

The paper relates to several strands of literature. First, we relate to literature that examines factors that affect effort provision in firms (i.e. Lazear (1986); Lazear (2000); Lazear & Rosen (1981);Bandiera et al. (2010). We provide evidence that firm ownership is another potential factor. Second, we contribute to a better understanding of the drivers of the performance differentials between family and non family firms (Perez-Gonzalez (2006); Bennedsen et al (2007); and Villalonga and Amit (2006)). Third, the paper contributes to a recent literature that explores the role of labor in family firms (Sraer & Thesmar (2007); Mueller & Philippon (2011); Ellul et al. (2014)). We contribute to this literature by showing the positive impact on family ownership on employee effort provision. Finally the paper contributes both to the academic literature and policy debate on how to reduce absenteeism in the workplace. Absenteeism is an economically important factor on its own. The European Commission estimated in 2011 that work related ill health can cost EU member states anything from 2.6% to 3.8% of their GDP (European Commission (2011)). This has lead to a large research on how to reduce absenteeism in firms where the focus to a large extent has been on incentives and specifically how to design and distribute the burden of sick leave pays on employees, employers and governments (see e.g. Scheil-Adlung & Sandner (2010)). There has also been intensive research into how to structure workplaces and empower managers to reduce absenteeism in firms (see Porter & Steers (1973) and Nicholson & Johns (1985)).

2 Data Sources, Family Firm Identifier and Absence Regulation

2.1 Data sources

Employee absence data. Our main data source is the employee absence dataset collected by Statistics Denmark. Statistics Denmark collects absence data for all employees in the central government, local government, and for a selected sample of private firms. The survey of private firms includes only firms with more than 10 employees: a sample of firms with 10 to 250 employees depending on size and industry, and all firms with more than 250 employees.

The data covers 2,600 unique firms from 2007 to 2012 (not all firms are included in every year). For each firm, the data reports each spell of absence for each employee in the sample firm. A spell of absence is recorded with social security number (CPR number), firm identifier, workplace identifier, start day, end day, and absence category. There are four abscence categories: "Own Sickness", "Child Sickness", "Work Accident" and "Maternity/Paternity related absence". In the analysis below we focus on the category "Own Sickness" since the reporting of other categories is rare.[2]

Using the social security number of the absent employee we can link to other administrative registers at Statistic Denmark to add socio economic data for each individual. Critically for our purposes, the absence dataset includes the unique firm-level identifier (CVR number), issued by the Danish Commerce and Companies Agency, which serves as firm identifier in all interactions with the Danish authorities. The CVR numbers allow us to match the absence data with other data sources.

Firm employee data. We also use the macthed employer-employee dataset from the "Integrated Database for Labour Market Research" (denoted IDA database) at Statistics Denmark. For each employee, this dataset contains employer information, a number of demographic variables and the position in the organization. Demographic variables include age and gender. The position in the firm is based on the Danish occupational code DISCO Occupations that are defined based on the international standard classification of occupations (ISCO). We are able to measure promotions using this variable. Also this dataset allows us to observe the entire job history of each employee. This is important to identify movers.

Family trees of manangers and board members. We use family connections among managers and board members to identify family firms (see below). The data on family trees comes from three sources: (a) *Experian*, (b) Erhvervs- og Selskabsstyrelsen (ES), a dataset assembled by the Danish Commerce and Companies Agency, (C) the CPR-register at the Ministry of Interior in Denmark. The CPR register contains the family trees of all individuals in Denmark. *Experian* reports the names of top executives and board members but does not contain the individual identifiers that would allow us to merge it with the CPR register. To do this, we use ES, which contains the Danish Personal Identification number (CPR) for all managers and board members of limited liability firms. Under Danish corporate law, firms are required to file with ES any change in CEO positions within two weeks of its occurrence.

Hospitalization data. Data on hospitalizations are from the National Patient Registry (NPR),

2. Our results do not change when we include the other absence categories as well.

at Statistics Denmark. NPR registers all public hospital interactions in the country and contains individual CPR identifiers, the duration of each hospital stay, and the primary medical diagnosis of patients based on the classification of diseases of the World Health Organization[3].

Firm financial information. Financial data are from *Experian*, which is a private data provider in Denmark. *Experian* provides us with a dataset that covers financial statements for all firms that are incorporated in Denmark. The data set includes all information that every limited (and public traded) firm is required to file to the Ministry of Economics and Business Affairs. Firms are required to disclose the value of total assets, as well as the value of their operating and net income. While most of the firms in *Experian* are privately held, external accountants audit firm financials in compliance with Danish corporate law. The *Experian* dataset includes the CVR number of each firm, which is the key we use to link the Absence data with the *Experian* data.

2.2 Classification of firms into family controlled and non-family controlled

Using the information on family trees of managers and board members, we indetify family ties among them. Using these ties, we define firms as family controlled if 1) two board members are related with the CEO by blood or marriage or 2) any three board members are related (even if none of them is a CEO). Furthermore in robustness tests we show that our results are robust to alternative definitions of family controlled firm.

2.3 Absences in Denmark

According to the Danish law, employees in Danish firms are entitled to sickness benefits if they have been actively working (in any firm) the last 13 weeks before the start of the absence period and during this time has been employed at least 120 hours or if the employee is entitled to receive unemployment benefits. For the first 30 days of a normal sickness, the employer pays the sickness benefit. After 30 days the government pays the benefit typically as a reimbursement to the firm.

During the absence spell, both the employer and the employee has a number of responsibilities:

1) The employee has to tell the firm that he/she is sick.

2) Before 4 weeks after the first day of absence, the employer shall have an official meeting with the employee to discuss a) The length of the absence; b) What can be done to bring the employee back to work; and, c) what can be done for the employee during the absence spell.

3. http://www.who.int/classifications/icd/

3) If the absence is expected to last more than 8 weeks, the employer and or the employee can request a "**Retention Plan**" for the employee, which is a formalized plan for keeping the employee in the firms.

4) The employer can at any time require a Note from a Physician describing the illness of the employee and his/her ability to work.

5) The employer can also ask the employee to get an "opportunity" declaration from a physician, which is a more elaborate documentation where the physician judges how the future relationship between worker and employer will be.

6) For most employees the employer can terminate their contract (fire them) after 120 days of absence. However, extended protection is given to women under maternity periods, union and environmental representatives and for handicapped employees.

In general, if the employer do not do the above, it will be more costly / harder to fire an employee, and reversely, if the employee does not show up for the meetings, or do not provide the declarations it is easier to fire him or her.

2.4 Descriptive Firm and Employee Statistics

Table 1 Columns 1-3 present summary statistics for the universe of Danish firms and Columns 4-6 report information for firms in our sample classified into family and non-family firms. Columns 7-9 present differences between our sample and the population of firms in Denmark, between family and non family firms in the population of firms, and between family and non-family firms in our sample.

To assess firm performance in the absence of stock price information, we use operating return on assets (OROA). Operating return on assets (OROA) is measured as the ratio of earnings before interest and taxes (EBIT) to the book value of total assets. OROA is a natural proxy for performance, as it compares the cash flows from operations to the value of assets, and is not distorted by capital structure decisions. The average OROA of limited liability firms in Denmark for the years 2007-2012 is 7.6%. It is slightly higher for family firms (8.3%) than for non-family firms (6.9%) and the difference is significant at any conventional level. Firms in our absence sample have lower OROA than those in the population. Interestingly, the average family firm in the absence sample has an OROA of 7.5% , which much higher than the average non-family firm in the sample. The difference is not only very large in

economically terms, it is also strongly significant in statistically terms. We find a similar pattern when we study Net Income/Assets as reported in the second row of Table 1.

Row 3 reports firm size measured by asset size. First, this row shows that both in the population and in the absence sample, family firms are smaller than non-family firms. Second (due to the survey selection criteria), the absence sample consists of larger firms. The significant size differences are confirmed in Row 4, which reports the natural logarithm of asset size, and in Row 5, which report the average number of employees.

Row 6 reports the mean age of firms. For the population of firms, the average age is almost 23 years. Family firms are on average approximately 1 years older than non-family firms, a difference that is statistical significant at conventional level. Firms in the absence sample are 13 years older than the average private company in Denmark and this difference is very significant. Family firms in the absence data are on average 1.6 years younger than non-family firms; however, this difference is not significant.

In sum, Table 1 confirms that the absence sample consists of larger and older firms than the average firm in Denmark. It also highlights that family firms are smaller but have superior performance relative to non-family firms.

Table 2 presents summary statistics for the employees in all Danish firms (Columns 1-3) as well as for firms in our sample (Columns 4-6) classified into family and non-family firms. Columns 7-9 present differences between our sample and the population of firms in Denmark, between family and non family firms in the population of firms, and between family and non-family firms in our sample. Again we report the average over the sample years from 2007 to 2012.

Row 1 in Table 2 reports the wage level. The average wage level for all employees is 306,750 Danish Kroner which is approximately 41,229 EUR [4]. The average wage level in family firms is 59,418 kroner lower than in non-family firms, a difference that is both economically large and statistically significant. For the absence sample firms the average wage level is 425,184 DKR or 57,148 EUR. Thus the larger firms in the absence sample firms pay on average 147,087 DKR more per employee. Similar to the population, family firms in the absence sample do pay lower wages. The difference of 62,375 DKR is large and statistically different at any conventional level. Thus, we notice that the larger firms in our absence sample on average pay higher salaries and that family firms in general pay lower salaries than non-family firms.

4. The average exchange rate in the period 2007 to 2012 was aproximately 7.44 Danish Kroner to one Euro.

The second row in Table 2 reports average employee age which for the population of firms is 38.52 years. There is little difference in average age between family and non-family firms. Workers in the absence sample is on average 41.3 years and the difference of 3.3 years is statistically significant on a 5% level. The difference between average age in family firms and non family firms of 2.5 years.

The third row reports gender composition of the workforce. On average almost 2/3 of the employees are males. There are 5% more males in family firms than in non-family firms. There are 5% more females in the absence sample. Within the absence sample there is no difference in males between family and non-family firms.

The fourth row reports average hospitalization days for employees per year. Since most employees have zero hospitalization days, the average is low (0.25) in the population and in the absence sample (0.20). It is interesting to notice that the average hospitalization days is almost 5.2% lower in the absence sample than in the population a difference that is statistically significant. In the population there is only small and marginal significant differences in hospitalization days for employees in family versus non-family firms. In the absence sample there is no difference.

The last row reports average number of absence per year due to "Own Sickness" as reported in the absence data. The average employee is absent 7.6 days a year. It is interesting to notice that there is a lower absence in family firms than in non-family firms. The difference in means of 0.98 day is statistically significant. The difference in absence behavior across firm organization is the main topic of the rest of the paper.

2.5 Employee Absence

To the best of our knowledge, this is the first paper that uses the absence variable obtained from the surveys conducted by Statistics Denmark. For this reason, in this section we offer evidence suggesting that the behavior of this variable is as expected. Table 3 presents average absence days for different groups of employees. Panel A, columns 1-3, presents the average absence days for employees who spend 0-1, 2-3 and 5-9 days in the hospital that year. We observe that employees that experience a more negative health shock (longer hospitalization), take more sickness absence days. Employees who spend 0-1 days in the hospital have 6.7 absence days that year, while employees with 5-9 hospitalization days have 40.4 absence days. We further explore this relationship in Figure 1a.

Table 3 Panel B, Columns 1-2, shows the average absence for young (20 to 45 years old) and old (45 to 65 years old) employees. Figure 1b further explores the relationship between absence and age, but it

also conditions on similar severity of a health shock. Figure 1b shows that throughout the distribution of hospitalization days, older employees have higher absence relative to younger employees.[5]

Table 3 Panel C Columns 1-3 explores how absence varies with the employee's position in the organization. Managers and high level employees take on average 4.75 absence days per year, while intermediate employees take 6.56. Employees lower in the hierarchy take 9.6 absence days on average. Figure 1c compares the absence of high level versus low level employees, conditioning on hospitalization lenght and shows a similar pattern. Throughout the distribution of hospitalization days, employees with high position in the organization have lower absences than employees in lower positions, but the difference disappears in large hospitalization days where we only have limited sample and furthermore incentives might not play a role in absence decisions for employees who are heavily sick.

Overall, Table 3 and Figures 1a - 1c, show that, as expected, sickness absence is correlated with health status and age. In addition the results on position in the organization suggest that even incentives play a large role in the number of sick days employees take.

2.6 Employee absence and firm performance

Before starting the analysis of the role of family firm status on employee absence, we present suggestive evidence that absences matter for the firm. While some studies take this as a given, (Flabbi & Ichino (2001) state "workers who are more often and for longer periods absent are less productive for the firm..."), this is not necessarily the case. Although absences reduce contemporaneous labor provision, it is possible that employees compensate for the lost time by working more efficiently or by working overtime when they return to the workplace. Ideally, one would like to know the causal effect of absences on firm outcomes. Since this is not the focus of this paper, we simply present some suggestive evidence to that effect. In a different setting, Herrmann and Rockoff (2010) find large causal effect of teacher absence on productivity.

To perform the analysis we estimate the following model:

$$OROA_{jt} = \gamma_j + \mu_t + \eta absence_{jt} + x_{it}\theta + \zeta_{jt}\delta + e_{ijt} \ , \tag{1}$$

where $OROA_{jt}$ is each firm-year observation of operating return on assets. γ_j is firm fixed effect,

5. The lines converge for very large hospitalization days. The number of employees that experience hospitalization more than 28 days is very small and these are individuals with extremely poor health where incentives might not play a role in absence decisions.

μ_t is year fixed effect, and ζ_{jt} are firm controls. $\text{absence}_{\text{jt}}$, is the mean absence days at the firm-year level. We estimate η_j the correlation between firm i performance and its employee average yearly absence. The results are presented in Table A1. Columns 1, 2 and 3 presents results for firms with less than 100 employees, more than 100 employees, and above 300 employees, respectively. All Columns include firm controls and firm fixed effects. In Columns 2 and 3, the coefficient η_j of absence shows that the average absence days of firm employees are negatively correlated with firm performance. We do not find a correlation for firms with less than 100 firms. Smaller firms though have noisier data on performance.

Overall the results in Table A1 shows that employee absence matter for the firm. Later in the paper (Table 9) we show evidence that absence also affects employee outcomes such as promotions, separations and salary increases.

3 Main results

3.1 Absence and Family Control

In this section, we study the relationship between family control and employee absence. To perform the analysis we estimate the following model:

$$absence_{ijt} = \tau_i + \iota_j + \mu_t + \beta Family_{jt} + x_{it}\theta + \zeta_{jt}\delta + e_{ijt} \ , \tag{2}$$

where $absence_{ijt}$ is the number of absent days for person i, in firm j, at time t, τ_i is task fixed effect, ι_j is industry fixed effect, μ_t is year fixed effect, x_{it} are controls for personal characteristics and ζ_{jt} are firm controls. The main variable of interest is $\text{Family}_{\text{jt}}$, which takes the value 1 if a firm is a family firm and 0 otherwise.

Table 4 presents the results. In Column (1) the coefficient on Family shows that employees of family firms have 0.96 days fewer absences relative to employees of non-family firms. Given that the average absence for employees of non-family firms is 7.66 days, this shows that family firm employees have 13% fewer absence days. In Column (2) we add industry fixed affects to address any concerns that family firms are prevalent in some industries, as well as year fixed effects to address any aggregate trends. The result is robust. In Column (3) we additionally control for gender, age, number of children and

whether the employee has completed college. These controls are necessary since, as Table 2 shows, the types of employees that family firms attract is different from those non-family firms hire. Our results continues to hold. In addition, and consistent with previous literature, we find that men have lower absences (Paringer (1983), Bridges & Mumford (2001), Bonato & Lusinyan (2004)). We also find that employees with a college degree and younger employees have fewer absences.

While the coefficient on Family is negative and significant, it could be that this coeffcient captures a feature that is common to family firms. For example, as Table 1 shows, family firms are smaller, and more profitable. To rule out these explanations, in Column (4) we additionally control for size, profitability, firm age, short term and long term debt. Our result that employees of family firms have fewer absences continues to hold. In addition, we observe that consistent with the disciplinary role of debt (e.g. Jensen & Meckling (1976) and Jensen (1986)), in firms with higher short term debt, employees have fewer absences.

Even after controlling for a rich set of employee and firm characteristics, one potential concern is the possibiliy that family firms organize their work differently and have different composition of tasks within the firm. To rule out this explanation, in column (5) we add task fixed effects based on the ISCO codes. Finally in column (6), we instead control for the wage level as an alternative proxy for the position of the employee in the organization. We observe that high wage employees have lower absence. More importantly, the coefficient on *Family* remains both statistically and economically significant throughout columns (1)-(6).[6]

We perform several robustness of our main result. In Table 5 we repeat the main specification (Equation (2)) using as dependent variables the number of absence spells per year. The results are robust to this alternative specification. Furthermore in Table 6 we repeat the analysis using as dependent variable the number of absence spells that start on Monday or Friday (Columns(1)-(4)) and the number of absence spells that start within two days days around a national holiday (Columns(5)-(8)). The goal of Table 6 is to capture absences that are more likely to be discretionary. Column (1) shows that on average employees have 1 absence spell per year that starts on a Monday or Friday and family firm employees have 6.7% fewer absence spells starting on a Monday or Friday. The results remain when we add industry, year and task fixed effects. Column (5) shows that on average employees have 0.44 absence spells starting around a holiday. Moreover family employees have 7.6% fewer of their absences starting around a holiday. Thus the results remain both statistically and economically

6. As an additional robustness test Table A2 shows that the result remains unchanged when exclude employees who are members of the controlling family.

significant when we use alternative definitions of our dependent variable.

3.2 Conditioning on Common Health Shocks

Our measure of absences is the reported number of sick days. While in the analysis presented in Table 4, we control for age and gender, these variables might not properly control for differential health shocks of employees in family and non-family firm. To address this potential concern, in Table 7 we control for the number of days the person stays at the hospital in a very flexible way. We run similar specifications to those in Table 4 but in subsamples of employees with similar health shocks as measured by the number of days they stay at the hospital. In Columns (1)-(2) we repeat the main specification for employees who spend one day in the hospital. Employees of family firms report 2.27 days fewer absences even though they are subject to a similar personal shock. In Columns (3)-(4) and (5)-(6) we repeat the analysis for hospital stays of 2-5 days and 6-10 days, respectively, and we also find that employees of family firms have fewer absence days.

4 Decomposition of Absence Variation

In Section 3 we show that employees of family firms have fewer absence days. The result is robust to controls for a host of employee individual characteristics and to flexible controls for health shocks. Yet, the coeffcient on $Family$ is still difficult to interpret since we cannot guarantee that we have control for all individual characteristics. It is possible that the coefficient on $Family$ does not capture a feature of family firms, but rather some unobserved differences in employee characteristics (e.g. motivation or loyalty to the employer).

In this section we exploit employee migration to separate variation in absence due to employee characteristics such as loyalty or work ethic from variation due to firm specific variables such as incentives or monitoring.

The basic model for isolating firm and individual effects is:

$$y_{ijt} = \alpha_i + \gamma_j + \mu_t + e_{ijt}, \tag{3}$$

where each observation is a person i employed by firm j in year t. y is annual number of absent days. α_i is person fixed effect, γ_j is firm fixed effect, and μ_t is the year fixed effect.

We decompose the difference in absent days into a component attributable to firm and a component

attributable to employees and our goal is to isolate the part of the difference due to the firm component. The method we use to estimate this three-way fixed effect model is from Abowd et al. (1999) (AKM), which allows to identify three-way fixed effects of high dimension. One of the advantages of the AKM method is that it estimates Equation (3) using both movers and stayers. This is important when there is the potential for movers and stayers to be different on both observables and unobservables.[7][8]

After we estimate each of the firm fixed effects, we obtain the average firm fixed effect for family and non-family firms as follows:

$$\begin{aligned} \bar{\gamma}_{fam} &= \frac{1}{f_f} \sum_{j \in F_f} \hat{\gamma}_j, \text{ and} \\ \bar{\gamma}_{nonfam} &= \frac{1}{f_n} \sum_{j \in F_n} \hat{\gamma}_j, \end{aligned} \tag{4}$$

where F_f (f_f) is the set (number) of all family firms and F_n (f_n) is the set (number) of all non-family firms.

Column (1) of Table 8 presents the Welch's t-test comparison from the basic model and shows that firm-specific factors contributes to explain a difference of 0.9694 days of absence between family and non-family firms.[9]

In the model above, the firm fixed effects capture all firm-specific factors that contribute to explain employee absences. Since family and non-family firms differ on a number of observable characteristics, we augment the model further and include time varying firm controls including firm size, OROA, and firm age. Furthermore, to also capture time-varying employee characteristics such as age and health status, we augment the model as follows:

$$y_{ijt} = \alpha_i + \gamma_j + \mu_t + x_{it}\beta + \zeta_{jt}\delta + e_{ijt}, \tag{5}$$

where x_{it} represents time-varying employee characteristics, including age and hospitalization length

7. Graham et al. (2012) and Ewens & Rhodes-Kropf (2015) offer more detail on the methodology, its strengths and its limitations

8. One potential concern in the decomposition is whether employees migrate in anticipation of a change in their absenteeism i.e. employees move to a family firm when they anticipate to have lower absences or more generally employees who expect to use less absence days in the future, move to firms with low absenteeism, while employees who expect an increase in their absenteeism move to a high absence firm. Following Finkelstein et al. (2014), we use the event study method to address this concern. Appendix C explains the method and Figure **??** visualizes the event study. In the years before the move we do not observe employee absence becoming more similar to the absence of the destination firm, which largely mitigates the concern.

9. The absolute values of family and non-family average firm fixed effect are more difficult to interpret since the firm fixed effect can differ by a constant according to the model setting.

(gender is subsumed in the individual fixed effect) and and ζ_{jt} are firm controls for firm size, OROA, and firm age. Column 2 of Table 8 shows that, even after we add employee and firm controls, we find a similar difference in the average firm fixed effect for family and non-family firms.

The firm fixed effects in this specification only capture the contribution of firm-specific factors on absences beyond those we specifically control for. The result in Column (2) of Table 8 is similar to the former comparison. Non-family firms have a robustly higher absence level than family firms. These comparison results illustrate that beyond the influence of employee observable and time-invariant unobservable characteristics, and firm factors related to size, performance and age, there is a firm specific component that reduces absences in family firms.

Furthermore, following Finkelstein et al. (2014) we calculate what share of the difference in absence days between family and non-family firms that is attributable to the firm component. The estimators of average absent days for each firm in each year is

$$\bar{y}_{jt} = \frac{1}{p_{jt}} \sum_{i \in P_{jt}} \hat{y}_{ijt} = \frac{1}{p_{jt}} \sum_{i \in P_{jt}} (\hat{\alpha}_i + x_{it}\hat{\beta}) + \hat{\gamma}_j + \hat{\mu}_t, \tag{6}$$

where P_{jt} (p_{jt}) is the set (number) of workers employed by firm j in year t.

Next, we compute the average number of absent days in firm j over time, $\bar{y}_j$ by taking a simple average of $\bar{y}_{jt}$ across years. Finally, we aggregate into family and non-family firms:

$$\begin{aligned} \bar{y}_{fam} &= \frac{1}{f_f} \sum_{j \in F_f} \bar{y}_j \\ \bar{y}_{nonfam} &= \frac{1}{f_n} \sum_{j \in F_n} \bar{y}_j \end{aligned} \tag{7}$$

The share of difference in absence between family and non-family firms attributable to firm effect is

$$S_\gamma = \frac{\bar{\gamma}_{fam} - \bar{\gamma}_{nonfam}}{\bar{y}_{fam} - \bar{y}_{nonfam}} \tag{8}$$

We find that the firm share is 0.72 (Standard Error of 0.28), so indeed firm component explains an important part of the difference between family and non-family firms.

5 Exploring Potential Channels

The results of the main analysis show that family firm employees have less absences and that a large part of the difference is due to firm specific effect. In this section, we examine potential mechanisms that can contribute to the lower absences in family firms.

Table 9 his table presents the effect of employee absenteeism on employee promotions, separations, and salary increases, and whether there is differential effect for family versus non family firms. In Columns (1)-(3) the dependent variable is the indicator variable promotion that takes the value 1 if the employee received a promotion and 0 otherwise. In Columns (4)-(6) the dependent variable is the indicator variable separation that takes the value 1 if the employee left the company and 0 otherwise. In Columns (7)-(9) the dependent variable is an indicator that takes the value 1 when the employee receive a wage increase. In Column 1 the coefficient of *Absence* shows that absenteeism is negatively related to promotion, which further supports that our measure of sickness absence is a meaningful measure. In terms of economic magnitude one additional day of absence decreases the probability of promotion by 0.01% (the average annual probability of promotion in the sample is 7%). Nevertheless we do not find any difference between family and non-family firms in the effect of absenteeism on promotion.

Regarding separation, the coefficient of *Absence* in Columns (4) shows that absenteeism is positively related to employee separation from the firm.[10] Furthermore, in Column (5) the coefficient of the interaction $FamilyXAbsence$ shows that in family firms the effect of absence on separations is even larger. In Column (6) we add employee fixed effects and although the economic magnitude of the interaction coefficient remains similar, it is not statistically significant.

Another mechanism to reward employees is through salary increases. The coefficient of *Absence* in Column (7) shows that one additional day of absence decreases the probability of receiving a wage increase by 0.06% (the average annual probability of wage increase in the sample is 6%). Moreover in Column (8) the coefficient of the interaction $FamilyXAbsence$ shows that in family firms the effect of absence on salary increases is higher. The coefficient of the interaction remains the same when we add employee fixed effects in Column (9). This result further supports that there are harsher employee consequences of absenteeism in family firms relative to non family firms. Thus difference in incentives might be one potential mechanism that contributes to the lower absences in family firms.

10. The data do not allow to distinguish voluntary versus involuntary separations.

6 Discussion

6.1 Employee relatives in family firms

One group that is of interest in family firms, are employees related to the controlling families. On the one hand these employees might be more motivated since they might have higher stakes in the long term success and survival of the firm. On the other hand, these employees might be subject to less monitoring, abuse their relationship to the controlling family and slack more. In Table 10 we focus the analysis within family firms and we compare absence for employees that are related the controlling family to employees that are not related. We construct the variable $RelativeofControllingFamily$ by identifying family ties bewteen each employee and the controlling family.

Table 10 shows that relatives of the controlling family have less absence days relative to non-family employees. The coefficients of column (1) show that family employees have 4.6 fewer absence days relative to non-family employees that have an average of 6.7 days. The result is robust to including industry and year fixed effects, firm controls, personal characteristics controls as well as task fixed effects.

6.2 Absences along the hierarchy

Table A3 examines the relation between family firm status and absences as a function of the employee position in the organization. Column (1) studies managers and high level employees, Column (2) refers to intermediate levels employees and Column (3) to lower level employees. Interestingly, in Column (1), the coefficient on $Family$ is not statistically significant and shows that there is no difference in absence between managers in family firms and managers of non-family firms. Columns (2) and (3) show that our result is driven by intermediate and lower level employees.

In a recent paper Bandiera et al. (2013) study differences in CEO behavior in family and non-family firms and find that family CEOs record 8% fewer working hours relative to professional CEOs. Table A3 shows that our results are not inconsitent with theirs since the difference is absences we uncover is driven by low and intermediate level employees.

We find that, on average, employees of family frims exert more effort. This result appears at odds with the commonly held belief that incentives in family firms are muted due to the reduced probability of promotion for non-family employees ("tournament effect"). However, as we mention in the introduction, it is possible that other factors (more monitoring, harsher consequences for absenteeism,

employee loyalty) outweight the tournament effect.

In Table 11 we provide evidence for the tournament effect. The key insight is that since members of the controlling family usually end up obtaining positions higher up in the firm, this reduction in incentives for non-family employees should be stronger as non-family employees move up in the organization.

To test this idea, we use a difference-in-difference methodology. The first difference is between family and non-family firm employees at different levels of the organization. This difference controls for all factors that affect effort at a given seniority level. The second difference is between senior and non-senior employees. This difference controls for the average effect of the ownership form on effort. The positive coefficient on the interaction terms indicates that, in family firms, incentives to exert effort are reduced as employees move up (relative to employees of non-family firms).

7 Conclusion

This paper uses variation in employee absence in private firms to investigate how organizational structures affect worker effort. Using a novel data set for absenteeism in a sample of 2,600 private Danish firms we derive a number of contributions. First, we show that employees in family firms are less absent. The difference remains when we add firm level controls for industry, size, profitability and firm age. The result is robust when in addition we control for the type of task the employee performs as well as worker individual characteristics such as age, gender, education and number of children. Second, we confirm the result using hospitalization as an exogenous shock to absenteeism. Third we investigate if differences in work effort (absenteeism) are due to employee selection or firm culture and find that the majority of the effect is a firm culture effect.

References

Abowd, J. M., Kramarz, F. & Margolis, D. N. (1999), 'High wage workers and high wage firms', *Econometrica* **67**(2), 251–333.

Allen, S. G. (1983), 'How much does absenteeism cost?', *Journal of Human Resources* pp. 379–393.

Bandiera, O., Barankay, I. & Rasul, I. (2010), 'Social incentives in the workplace', *The Review of Economic Studies* **77**(2), 417–458.

Bandiera, O., Prat, A. & Sadun, R. (2013), Managing the family firm: Evidence from ceos at work, Technical report, National Bureau of Economic Research.

Barmby, T. A., Orme, C. D. & Treble, J. G. (1991), 'Worker absenteeism: An analysis using microdata', *The Economic Journal* **101**(405), 214–229.

Barney, J. B. (1986), 'Organizational culture: can it be a source of sustained competitive advantage?', *Academy of management review* **11**(3), 656–665.

Bertera, R. L. (1990), 'The effects of workplace health promotion on absenteeism and employment costs in a large industrial population.', *American journal of public health* **80**(9), 1101–1105.

Bertrand, M. & Schoar, A. (2002), 'Managing with style: The effect of managers on firm policies'.

Bonato, M. L. & Lusinyan, L. (2004), *Work absence in Europe*, number 4-193, International Monetary Fund.

Bonnier, K.-A. & Bruner, R. F. (1989), 'An analysis of stock price reaction to management change in distressed firms', *Journal of Accounting and Economics* **11**(1), 95–106.

Bridges, S. & Mumford, K. (2001), 'Absenteeism in the uk: a comparison across genders', *The Manchester School* **69**(3), 276–284.

De Boer, E. M., Bakker, A. B., Syroit, J. E. & Schaufeli, W. B. (2002), 'Unfairness at work as a predictor of absenteeism', *Journal of Organizational Behavior* **23**(2), 181–197.

Ellul, A., Pagano, M. & Schivardi, F. (2014), 'Employment and wage insurance within firms: Worldwide evidence', *Kelley School of Business Research Paper* (2014-23).

Ewens, M. & Rhodes-Kropf, M. (2015), 'Is a vc partnership greater than the sum of its partners?', *The Journal of Finance* **70**(3), 1081–1113.

Finkelstein, A., Gentzkow, M. & Williams, H. (2014), Sources of geographic variation in health care: Evidence from patient migration, Technical report, National Bureau of Economic Research.

Flabbi, L. & Ichino, A. (2001), 'Productivity, seniority and wages: new evidence from personnel data', *Labour Economics* **8**(3), 359–387.

Frankel, E. (1921), 'Labor absenteeism', *The Journal of Political Economy* pp. 487–499.

Gellatly, I. R. (1995), 'Individual and group determinants of employee absenteeism: Test of a causal model', *Journal of organizational behavior* **16**(5), 469–485.

Graham, J. R., Li, S. & Qiu, J. (2012), 'Managerial attributes and executive compensation', *Review of Financial Studies* **25**(1), 144–186.

Herrmann, M. A. & Rockoff, J. E. (2010), Worker absence and productivity: Evidence from teaching, Technical report, National Bureau of Economic Research.

Ichino, A. & Maggi, G. (2000*a*), 'Work environment and individual background: Explaining regional shirking differentials in a large italian firm.', *Quarterly Journal of Economics* **115**(3).

Ichino, A. & Maggi, G. (2000*b*), 'Work environment and individual background: Explaining regional shirking differentials in a large italian firm', *The Quarterly Journal of Economics* **115**(3), 1057–1090.

Jensen, M. C. (1986), 'Agency cost of free cash flow, corporate finance, and takeovers', *Corporate Finance, and Takeovers. American Economic Review* **76**(2).

Jensen, M. C. & Meckling, W. H. (1976), 'Theory of the firm: Managerial behavior, agency costs and ownership structure', *Journal of financial economics* **3**(4), 305–360.

Johansson, P. & Palme, M. (1996), 'Do economic incentives affect work absence? empirical evidence using swedish micro data', *Journal of Public Economics* **59**(2), 195–218.

Johansson, P. & Palme, M. (2002), 'Assessing the effect of public policy on worker absenteeism', *Journal of Human Resources* pp. 381–409.

Johnson, W. B., Magee, R. P., Nagarajan, N. J. & Newman, H. A. (1985), 'An analysis of the stock price reaction to sudden executive deaths: Implications for the managerial labor market', *Journal of Accounting and Economics* **7**(1-3), 151–174.

Khanna, N. & Poulsen, A. B. (1995), 'Managers of financially distressed firms: Villains or scapegoats?', *The Journal of Finance* **50**(3), 919–940.

Lazear, E. P. (1986), 'Salaries and piece rates', *Journal of business* pp. 405–431.

Lazear, E. P. (2000), 'The power of incentives', *The American Economic Review* **90**(2), 410–414.

Lazear, E. P. & Rosen, S. (1981), 'Rank-order tournaments as optimum labor contracts', *The Journal of Political Economy* **89**(5), 841–864.

Mueller, H. M. & Philippon, T. (2011), 'Family firms and labor relations', *American Economic Journal: Macroeconomics* **3**(2), 218–245.

Nicholson, N. & Johns, G. (1985), 'The absence culture and psychological contract—who's in control of absence?', *Academy of Management Review* **10**(3), 397–407.

Paringer, L. (1983), 'Women and absenteeism: health or economics?', *The American economic review* **73**(2), 123–127.

Porter, L. W. & Steers, R. M. (1973), 'Organizational, work, and personal factors in employee turnover and absenteeism.', *Psychological bulletin* **80**(2), 151.

Poza, E. J. (2013), *Family business*, Cengage Learning.

Reinganum, M. R. (1985), 'The effect of executive succession on stockholder wealth', *Administrative Science Quarterly* pp. 46–60.

Scheil-Adlung, X. & Sandner, L. (2010), 'Wage continuation during sickness: Observations on paid sick leave provisions in times of crises', *Working Paper, International Labour Organisation* .

Sraer, D. & Thesmar, D. (2007), 'Performance and behavior of family firms: Evidence from the french stock market', *Journal of the European economic Association* **5**(4), 709–751.

Warner, J. B., Watts, R. L. & Wruck, K. H. (1988), 'Stock prices and top management changes', *Journal of financial Economics* **20**, 461–492.

Weisbach, M. S. (1988), 'Outside directors and ceo turnover', *Journal of financial Economics* **20**, 431–460.

Figure 1a: Hospitalization and Absence Days

This figure presents the average absence days per year for different days of hospitalization that year.

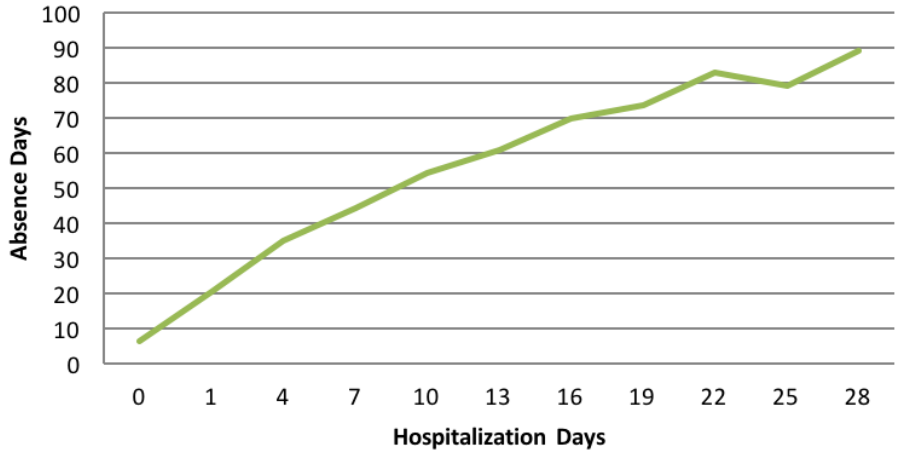

Figure 1b: Hospitalization and Absence Days by Age Groups

This figure presents the average absence days per year for different days of hospitalization that year for employees 20 to 45 years old (full line)and employees 45 to 65 years old (dashed line).

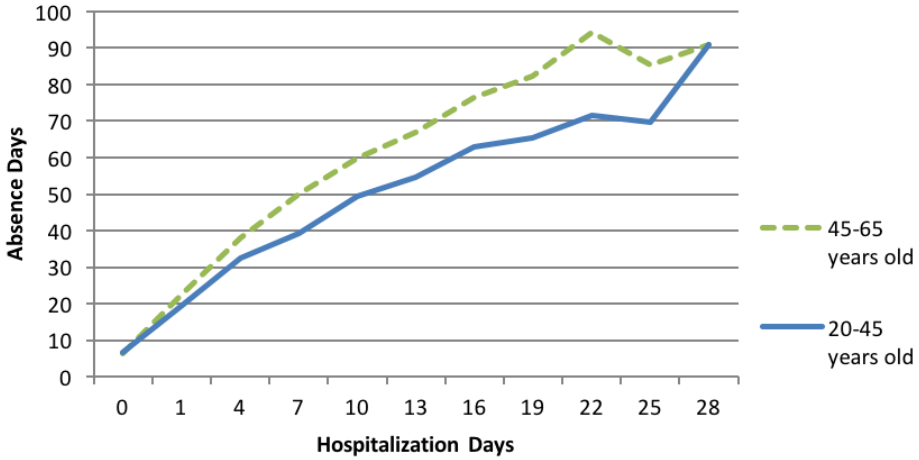

FIGURE 1c: HOSPITALIZATION AND ABSENCE DAYS BY POSITION IN ORGANIZATION

This figure presents the average absence days per year for different days of hospitalization that year for employees with high position in the organization (dashed line) and intermediate and low position in the organization (full line).

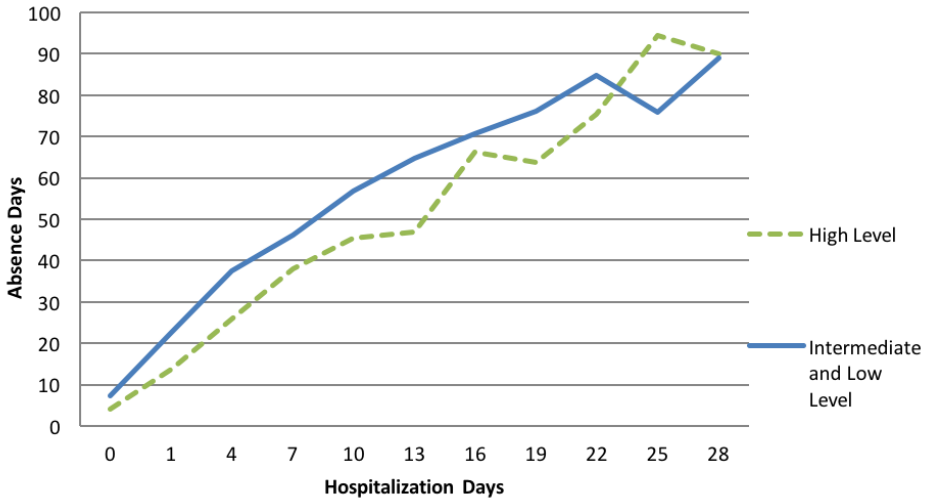

FIGURE 2: EVENT STUDY

Figure shows the coefficient $\hat{\lambda}_{r(i,t)}$ estimated from Equation (13) in Appendix C. The dashed lines are upper and lower bounds at the 95% confidence interval. Appendix C contains details on the graph construction.

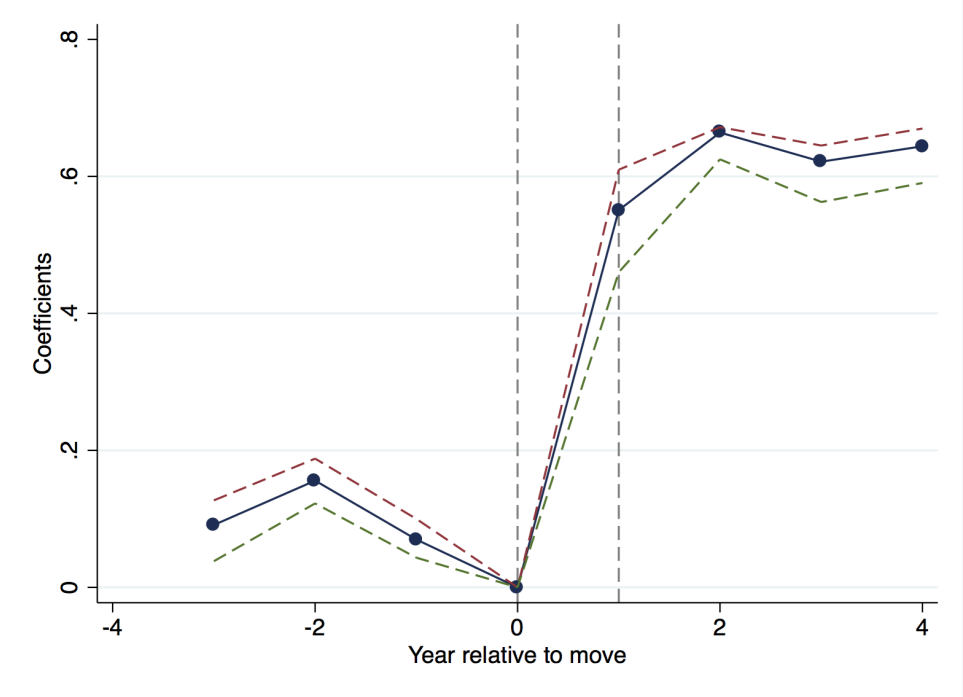

Table 1: Summary statistics for family vs non-family firms

This table presents firm characteristics for all limited liability firms in Denmark during 2007 and 2012 (columns 1-3) as well as firm characteristics for our sample firms (columns 4-6). Columns 7-9 presents differences.

	All	Family Firm	Non-family Firm	All -sample firms	Family firms -sample firms	Non-family -sample firms	Diff All vs Sample	Diff Fam vs non-Fam All	Diff fam vs non-fam -sample firms
OROA	0.0757	0.0834	0.0693	0.0599	0.0757	0.0547	-0.0267***	0.0141***	0.0210***
	(0.0007)	(0.0008)	(0.0009)	(0.0025)	(0.0050)	(0.0028)	(0.0026)	(0.0012)	(0.0056)
	[257,397]	[117,824]	[139,573]	[7,678]	[1,279]	[6,399]	[257,397]	[257,397]	[7,678]
Net Income/assets	0.0433	0.0483	0.0391	0.0349	0.0491	0.0321	-0.0087***	0.0092***	0.0171***
	(0.0005)	(0.0007)	(0.0008)	(0.0022)	(0.0043)	(0.0025)	(0.0023)	(0.0010)	(0.0050)
	[257,392]	[117,823]	[139,569]	[7,673]	[1,278]	[6,395]	[257,392]	[257,392]	[7,673]
Assets	51.8463	26.5896	73.1631	364.1203	172.7436	402.2706	321.9191***	-46.5735***	-229.5270***
	(0.8400)	(0.5732)	(1.4175)	(9.7585)	(16.8654)	(10.9275)	(9.7870)	(1.4984)	(19.9949)
	[257,432]	[117,827]	[139,605]	[7,713]	[1,282]	[6,431]	[257,432]	[257,432]	[7,713]
Ln(Assets)	2.8465	2.5750	3.0756	4.9601	4.0941	5.1327	2.1789***	-0.5006***	-1.0386***
	(0.0082)	(0.0098)	(0.0114)	(0.0340)	(0.0761)	(0.0363)	(0.0349)	(0.0143)	(0.0838)
	[257,431]	[117,827]	[139,604]	[7,712]	[1,282]	[6,430]	[257,431]	[257,431]	[7,712]
No. of employees	38.5082	27.6476	47.6645	179.0560	120.2805	190.6564	145.0036***	-20.0169***	-70.3759***
	(0.3553)	(0.3130)	(0.5697)	(3.5823)	(7.5892)	(3.9339)	(3.5965)	(0.6315)	(8.4839)
	[257,636]	[117,850]	[139,786]	[7,917]	[1,305]	[6,612]	[257,636]	[257,636]	[7,917]
Firm age	22.9027	23.3942	22.4875	35.0215	33.6352	35.2964	12.5025***	0.9067***	-1.6612
	(0.1416)	(0.1915)	(0.1863)	(0.5679)	(0.9299)	(0.6503)	(0.5860)	(0.2505)	(1.1215)
	[256,356]	[117,399]	[138,957]	[7,867]	[1,302]	[6,565]	[256,356]	[256,356]	[7,867]

TABLE 2

This table presents firm characteristics for all limited liability firms in Denmark during 2007 and 2012 (columns 1-3) as well as firm characteristics for our sample firms (columns 4-6). Columns 7-9 presents differences.

	All	Family Firm	Non-family Firm	All -sample firms	Family firms -sample firms	Non-family -sample firms	Diff All vs Sample	Diff Fam vs non-Fam All	Diff fam vs non-fam -sample firms
Employee wage	306,750	263,892	323,311	425,184	359,582	428,958	147,087***	-59,418***	-69,375***
	(3143.6150)	(1367.6600)	(4368.6510)	(8458.332)	(11415.7700)	(9033.072)	(8864.1990)	(4560.9820)	(14545.3100)
Employee age	38.5200	38.1461	38.6635	41.1428	37.7966	41.3342	3.2780***	-0.5174**	-3.5376***
	(.1747)	(.1039)	(.2387)	(.2802)	(1.0518)	(.2836)	(.3381)	(.2592)	(1.0886)
Male	0.6625	0.7018	0.6475	0.6207	0.6117	0.6212	-0.0523***	0.0543***	-.0095
	(.0041)	(.0048)	(.0050)	(.0089)	(.0356)	(.0092)	(.0100)	(.0066)	(.0368)
Hospitalization Days	0.2512	0.2681	0.2447	0.2095	0.2012	0.2099	-.0520***	.0235***	-.0088
	(.0017)	(.0021)	(.0021)	(.0038)	(.0100)	(.0039)	(.0042)	(.0029)	(.0107)
Sickness Absence	.	.	.	7.6321	6.7005	7.6854	.	.	-.9848**
	.	.	.	(.3042)	(.2328)	(.3182)	.	.	(.3942)
No. of Children	1.3843	1.4277	1.3676	1.2647	1.0948	1.2745	-.1488***	.0602***	-.1797**
	(.0093)	(.0074)	(.0122)	(.0170)	(.0740)	(.0173)	(.0200)	(.0142)	(.0760)

TABLE 3: ABSENCE

This Table presents average absence days for different groups of employees. Panel A presents the average absence days for employees who spend 0-1, 2-3 and 5-9 days in the hospital that year. Panel B shows the average absence for young (20 to 45 years old) and old (45 to 65 years old) employees. Panel C explores how absence varies with the employee's position in the organization.

Panel A			
Sub-Sample	hosp0-1	hosp2-4	hosp5-9
	(1)	(2)	(3)
Average Absence	6.7679	27.3994	40.4525
	(0.0153)	(0.2706)	(0.5624)
Observations	1,573,247	26,353	10,052

Panel B		
Sub-Sample	age20to45	age45to65
	(1)	(2)
Average Absence	7.4129	8.0137
	(0.01947)	(0.03123)
Observations	474,842	725,228

Panel C			
Sub-Sample	Managers and High Level	Intermediate Level	Low Level
	(1)	(2)	(3)
Average Absence	4.7529	6.5642	9.6295
	(0.0236)	(0.0301)	(0.0283)
Observations	430,988	389,297	796,261

Table 4: Family Firms and Employee Absence

This table examines the relation between family firm control and employee absence. We estimate the following regression: $absence_{ijt} = \tau_i + \iota_j + \mu_t + \beta Family_{jt} + x_{it}\theta + \zeta_{jt}\delta + e_{ijt}$, where $absence_{ijt}$ is each person-firm-year observation of absent days. τ_i is task fixed effect, ι_j is industry fixed effect, μ_t is year fixed effect,x_{it} are personal characteristics controls and ζ_{jt} are firm controls. The main variable of interest is $\text{Family}_{\text{jt}}$, which takes the value 1 if a firm is a family firm and 0 otherwise. Definitions of the variables are provided in Appendix B. In each column, we report estimated coefficients and their standard errors. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: Absence Days	(1)	(2)	(3)	(4)	(5)	(6)
Family	-0.9665**	-0.5992**	-0.8287***	-1.1368***	-0.9448***	-1.2139***
	(0.4176)	(0.2827)	(0.2704)	(0.3527)	(0.3320)	(0.3532)
Male			-3.9744***	-3.9567***	-3.6967***	-3.5674***
			(0.1439)	(0.1669)	(0.1831)	(0.1620)
Age			0.0292***	0.0283***	0.0284***	0.0389***
			(0.0046)	(0.0055)	(0.0047)	(0.0051)
No. of Children			-0.0118	-0.0192	0.0345	0.0858*
			(0.0387)	(0.0457)	(0.0550)	(0.0490)
Bachelor Degree			-3.0801***	-3.0798***	-1.6483***	-2.2821***
			(0.2150)	(0.2328)	(0.1150)	(0.1884)
Assets_{t-1}				-0.0001	0.0004**	-0.0000
				(0.0003)	(0.0002)	(0.0003)
OROA_{t-1}				0.9023	1.1604	1.0572
				(1.1794)	(0.9263)	(1.1405)
$\text{Short-term Debt/Asset}_{t-1}$				-2.2033**	-1.3403*	-2.0175**
				(1.0320)	(0.7484)	(0.9574)
$\text{Long-term Debt/Asset}_{t-1}$				-1.6508	-0.7244	-1.5332
				(1.2202)	(0.8594)	(1.1356)
Firm Age				-0.0101	-0.0066	-0.0079
				(0.0084)	(0.0061)	(0.0079)
Employee Wage						-0.0047***
						(0.0005)
Constant	7.6664***	7.2152***	9.7455***	11.0188***	10.3593***	11.7608***
	(0.3475)	(0.4757)	(0.4482)	(1.0226)	(0.7401)	(1.0451)
Observations	1,686,407	1,686,407	1,565,299	1,110,701	1,110,701	1,104,926
R-squared	0.0001	0.0019	0.0140	0.0147	0.0196	0.0170
Sample	All firms	All firms	All firms	All firms	All firms	All firms
Industry FE	No	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	Yes	Yes	Yes
Employee Characteristics	No	No	Yes	Yes	Yes	Yes
Firm Controls	No	No	No	Yes	Yes	Yes
Task FE	No	No	No	No	Yes	No
No.firms	2,856	2,856	2,851	1,792	1,792	1,792

Table 5: Family Firms and Employee Absence; Alternative Dependent Variable: Number of Absence Spells

This table repeats the main specification (Equation (2)) using as dependent variables the number of absence spells per year. We estimate the following regression: $NoAbsenceSpell_{ijt} = \tau_i + \iota_j + \mu_t + \beta Family_{jt} + x_{it}\theta + \zeta_{jt}\delta + e_{ijt}$, where $NoAbsenceSpell_{ijt}$ is each person-firm-year observation of number of absence spells. τ_i is task fixed effect, ι_j is industry fixed effect, μ_t is year fixed effect,x_{it} are personal characteristics controls and ζ_{jt} are firm controls. The main variable of interest is $\mathrm{Family}_{\mathrm{jt}}$, which takes the value 1 if a firm is a family firm and 0 otherwise. Definitions of the variables are provided in Appendix B. In each column, we report estimated coefficients and their standard errors. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: No of Absence Spells	(1)	(2)	(3)	(4)	(5)	(6)
Family	-0.2158***	-0.1729*	-0.2756***	-0.2678**	-0.2228**	-0.2916**
	(0.0764)	(0.0964)	(0.0966)	(0.1140)	(0.1117)	(0.1163)
Male			-0.7610***	-0.7689***	-0.7440***	-0.6755***
			(0.0427)	(0.0504)	(0.0598)	(0.0465)
Age			-0.0476***	-0.0514***	-0.0520***	-0.0479***
			(0.0026)	(0.0021)	(0.0020)	(0.0020)
No of Children			0.1940***	0.1975***	0.2030***	0.2168***
			(0.0103)	(0.0134)	(0.0132)	(0.0149)
Bachelor Degree			-0.0235	-0.0805	0.0483	0.1155**
			(0.0517)	(0.0492)	(0.0330)	(0.0486)
Asset_{t-1}				0.0002***	0.0002***	0.0002***
				(0.0001)	(0.0001)	(0.0001)
OROA_{t-1}				0.6206**	0.6259**	0.6649**
				(0.2643)	(0.2480)	(0.2631)
Short-term $\mathrm{Debt/Asset}_{t-1}$				-0.1554	-0.0679	-0.0990
				(0.1610)	(0.1565)	(0.1598)
Long-term $\mathrm{Debt/Asset}_{t-1}$				-0.2840	-0.1499	-0.2639
				(0.2035)	(0.2031)	(0.2089)
Firm Age				0.0009	0.0011	0.0015
				(0.0015)	(0.0015)	(0.0015)
Employee Wage						-0.0014***
						(0.0002)
Constant	3.5564***	3.6361***	5.8025***	6.0864***	5.9835***	6.3333***
	(0.0401)	(0.1164)	(0.1586)	(0.1880)	(0.2015)	(0.1998)
Observations	1,686,407	1,686,407	1,565,299	1,110,701	1,110,701	1,104,926
R-squared	0.0002	0.0033	0.0365	0.0419	0.0467	0.0461
Sample	All firms	All firms	All firms	All firms	All firms	All firms
Industry FE	No	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	Yes	Yes	Yes
Employee Characteristics	No	No	Yes	Yes	Yes	Yes
Firm Controls	No	No	No	Yes	Yes	Yes
Task FE	No	No	No	No	Yes	No
No.firms	2,856	2,856	2,851	1,792	1,792	1,792

Table 6: Absence around holidays and weekends

This table repeats the main specification (Equation (2)) using as dependent variable the number of absence spells that start on Monday or Friday or around a national holiday . We estimate the following regression: $NoAbsenceSpell_{ijt} = \tau_i + \iota_j + \mu_t + \beta Family_{jt} + x_{it}\theta + \zeta_{jt}\delta + e_{ijt}$, where $NoAbsenceSpell_{ijt}$ is each person-firm-year observation of number of absence spells that start on Monday or Friday (Columns(1)-(4)) and the number of absence spells that start within two days days around a national holiday (Columns(5)-(8)). τ_i is task fixed effect, ι_j is industry fixed effect, μ_t is year fixed effect,$x_{\rm it}$ are personal characteristics controls and $\zeta_{\rm jt}$ are firm controls. The main variable of interest is $\text{Family}_{\rm jt}$, which takes the value 1 if a firm is a family firm and 0 otherwise. Definitions of the variables are provided in Appendix B. In each column, we report estimated coefficients and their standard errors. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

	Absence Starting Monday/Friday				Absence Spell Starting Around National Holiday			
Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Family	-0.0686*	-0.0985**	-0.0746	-0.1059**	-0.0342*	-0.0497**	-0.0380*	-0.0533**
	(0.0360)	(0.0492)	(0.0475)	(0.0503)	(0.0184)	(0.0239)	(0.0230)	(0.0242)
Male		-0.3807***	-0.3603***	-0.3476***		-0.1745***	-0.1626***	-0.1583***
		(0.0249)	(0.0280)	(0.0236)		(0.0108)	(0.0139)	(0.0104)
Age		-0.0208***	-0.0208***	-0.0197***		-0.0092***	-0.0092***	-0.0087***
		(0.0009)	(0.0009)	(0.0009)		(0.0004)	(0.0004)	(0.0004)
No of Children		0.0635***	0.0691***	0.0720***		0.0311***	0.0338***	0.0353***
		(0.0046)	(0.0046)	(0.0052)		(0.0021)	(0.0022)	(0.0023)
Bachelor Degree		-0.0317	0.0099	0.0362		-0.0353***	-0.0049	-0.0018
		(0.0253)	(0.0170)	(0.0252)		(0.0119)	(0.0077)	(0.0114)
Assets_{t-1}		0.0001**	0.0001***	0.0001***		0.0000	0.0000***	0.0000*
		(0.0000)	(0.0000)	(0.0000)		(0.0000)	(0.0000)	(0.0000)
OROA_{t-1}		0.3069**	0.2954**	0.3174**		0.1068*	0.1052*	0.1121*
		(0.1435)	(0.1347)	(0.1445)		(0.0609)	(0.0553)	(0.0609)
Short-term Debt/Asset_{t-1}		-0.0549	-0.0255	-0.0404		-0.0668	-0.0440	-0.0599
		(0.0797)	(0.0765)	(0.0805)		(0.0408)	(0.0356)	(0.0396)
Long-term Debt/Asset_{t-1}		-0.1020	-0.0543	-0.0938		-0.0900*	-0.0571	-0.0860*
		(0.0934)	(0.0952)	(0.0971)		(0.0485)	(0.0425)	(0.0471)
Firm Age		0.0008	0.0009	0.0010		0.0000	0.0001	0.0001
		(0.0007)	(0.0007)	(0.0007)		(0.0004)	(0.0003)	(0.0004)
Employee Wage				-0.0004***				-0.0002***
				(0.0000)				(0.0000)
Constant	1.0092***	2.0665***	1.9364***	2.1278***	0.4426***	0.9552***	0.8853***	0.9849***
	(0.0212)	(0.0948)	(0.0974)	(0.0977)	(0.0106)	(0.0468)	(0.0420)	(0.0478)
Observations	1,686,407	1,110,701	1,110,701	1,104,926	1,686,407	1,110,701	1,110,701	1,104,926
R-squared	0.0001	0.0367	0.0421	0.0399	0.0001	0.0267	0.0313	0.0294
Industry FE	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Year FE	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Task FE	No	No	Yes	No	No	No	Yes	No
No.firms	2,856	1,792	1,792	1,792	2,856	1,792	1,792	1,792

Table 7: Family Firms and Absence: Controlling for Common Shock

This table examines the relation between family firm control and employee absence for subsamples of employees with similar personal shocks. We measure personal shocks based on the days an employee stays in the hospital.. Definitions of the variables are provided in Appendix B. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: Absence	Cond. 1 day hosp	Cond. 1 day hosp	Cond. 2-5 day hosp	Cond. 2-5 day hosp	Cond. 6-10 day hosp	Cond. 6-10 day hosp
Family	-2.4414***	-2.7323***	-2.3268***	-2.3735***	-7.4787***	-6.0048*
	(0.8149)	(0.7833)	(0.8495)	(0.8167)	(2.8239)	(3.2375)
Age		0.0906***		0.2250***		0.5198***
		(0.0172)		(0.0185)		(0.0769)
Male		-6.2403***		-7.7640***		-13.3852***
		(0.6341)		(0.6053)		(1.8903)
No of Children		0.4074**		0.3123		0.0202
		(0.1702)		(0.2071)		(0.6346)
Bachelor Degree		-2.5814***		-3.4426***		-7.8903***
		(0.4568)		(0.4039)		(1.8185)
Assets_{t-1}		0.0011*		0.0015**		0.0027
		(0.0006)		(0.0007)		(0.0023)
OROA_{t-1}		2.2168		1.7311		5.3989
		(2.4257)		(3.3698)		(7.7011)
Short-term Debt/Asset_{t-1}		-2.6835**		-3.3339**		-0.7384
		(1.3510)		(1.5277)		(4.0462)
Firm Age		-0.0088		-0.0133		0.0376
		(0.0138)		(0.0165)		(0.0342)
Constant	16.7374***	21.7304***	20.2591***	21.0013***	44.0353***	33.4405***
	(1.3618)	(1.5886)	(1.6517)	(1.9225)	(3.8238)	(6.3680)
Observations	44,872	40,132	75,805	68,033	7,823	7,102
R-squared	0.0048	0.0315	0.0041	0.0330	0.0093	0.0401
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Employee Characteristics	No	Yes	No	Yes	No	Yes
Firm Controls	No	Yes	No	Yes	No	Yes
Task FE	No	Yes	No	Yes	No	Yes
No.firms	2142	2004	2351	2215	1239	1149

Table 8: Contributions of Firm and Person to Gap Between Family and Non-Family Firms

This table compares firm and person contribution to difference of absence level between family firms and non-family firms. Column (1) refers to the basic model (Equation (3)) and Column (2) refers to model with both person and firm controls. The first two panels show mean firm F.E. of both family and non-family firms and their difference. Welch's standard errors (in parentheses) are provided to compare family firm fixed effects and non-family firm fixed effects through Welch's t test. Difference in average absence days between family and non-family firms is shown in panel 3. Shares of difference due to firm and person are shown in panel 4. Standard error of firm share is calculated by bootstrap of 50 repetitions.

	Basic	Person and Firm Control
Mean Firm F.E. for Family	-1.2669	-0.9162
Mean Firm F.E. for Non-Family	-0.2975	-0.0120
Diff. Fam - Non-Family	-0.9694	-0.9282
(Welch Std. Err.)	(0.0197)	(0.0195)
Overall Diff. in Mean Absence Days Between Family and Non-Family	-1.2652	-1.2742
Share of Diff. Due to		
Firm	0.7662	0.7284
	(0.2844)	(0.2817)
Due to Employees	0.2338	0.2716

Table 9: Employee Consequences of Absenteeism: Promotions, Separations and Salary Increases

This table presents the effect of employee absenteeism on employee promotions, separations, and salary increases, and whether there is differential effect for family versus non family firms. In Columns (1)-(3) the dependent variable is the indicator variable promotion that takes the value 1 if the employee received a promotion and 0 otherwise. In Columns (4)-(6) the dependent variable is the indicator variable separation that takes the value 1 if the employee left the company and 0 otherwise. In Columns (7)-(9) the dependent variable is wage increases. Definitions of the variables are provided in Appendix B. In each column, we report estimated coefficients and their standard errors. Heteroskedasticity-robust standard errors (in parentheses)are clustered at the firm level.. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

	Promotion			Separation			Salary Increase	
Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$Absence_{t-1}$	-0.0001***	-0.0001***	0.0000	0.0007***	0.0006***	0.0004***	-0.0005***	-0.0006***	-0.0005***
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)	(0.0001)	(0.0000)	(0.0001)
Family		-0.0055	0.0073		0.0238**	-0.0253		0.0185***	0.0037
		(0.0073)	(0.0321)		(0.0097)	(0.0170)		(0.0066)	(0.0205)
Family × Absence		0.0001	0.0000		0.0004**	0.0004		-0.0006***	-0.0006**
		(0.0001)	(0.0002)		(0.0002)	(0.0002)		(0.0002)	(0.0003)
Age	-0.0007***	-0.0007***	0.0121	-0.0016***	-0.0016***	-0.6553***	-0.0047***	-0.0044***	-0.0399***
	(0.0002)	(0.0002)	(0.0158)	(0.0002)	(0.0002)	(0.0226)	(0.0002)	(0.0001)	(0.0114)
Bachelor Degree	-0.0055*	-0.0055*	-0.0094	0.0090***	0.0094***	-0.2884***	-0.0226*	-0.0028	-0.3556***
	(0.0031)	(0.0030)	(0.0251)	(0.0024)	(0.0024)	(0.0305)	(0.0129)	(0.0018)	(0.0554)
Employee Wage	0.0001***	0.0001***	0.0000	-0.0001***	-0.0001***	-0.0000	0.0001		
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0001)		
$Assets_{t-1}$	0.0000***	0.0000***	-0.0001*	-0.0000***	-0.0000***	-0.0000	-0.0000	0.0000	0.0000
	(0.0000)	(0.0000)	(0.0001)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
$OROA_{t-1}$	-0.0043	-0.0036	0.0427	-0.1077***	-0.1111***	-0.1384***	0.0210	0.0215*	0.0599*
	(0.0252)	(0.0252)	(0.0825)	(0.0214)	(0.0211)	(0.0322)	(0.0136)	(0.0127)	(0.0324)
Short-term $Debt/Asset_{t-1}$	0.0581***	0.0580***	0.0577	0.0264***	0.0271***	-0.0077	0.0051	0.0098*	0.0185
	(0.0160)	(0.0160)	(0.0421)	(0.0092)	(0.0092)	(0.0150)	(0.0071)	(0.0059)	(0.0192)
Firm Age	0.0002	0.0002	-0.0000	-0.0002*	-0.0002*	-0.0002	-0.0001**	-0.0001	-0.0000
	(0.0001)	(0.0001)	(0.0003)	(0.0001)	(0.0001)	(0.0004)	(0.0000)	(0.0000)	(0.0001)
Male	-0.0027	-0.0027		0.0034*	0.0032*		-0.0150**	-0.0048***	
	(0.0028)	(0.0028)		(0.0020)	(0.0019)		(0.0071)	(0.0013)	
No. of Children	0.0013**	0.0013**		-0.0019***	-0.0019***		-0.0073***	-0.0048***	
	(0.0006)	(0.0006)		(0.0004)	(0.0004)		(0.0017)	(0.0005)	
Constant	0.0161	0.0165	-0.5444	0.1709***	0.1686***	29.4764***	0.2152***	0.2439***	1.9272***
	(0.0174)	(0.0172)	(0.7058)	(0.0152)	(0.0152)	(1.0130)	(0.0226)	(0.0118)	(0.5116)
Observations	726,250	726,250	726,250	795,478	795,478	795,478	743,209	743,210	743,210
R-squared	0.0625	0.0625	0.3930	0.0175	0.0180	0.6925	0.0339	0.0284	0.5859
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Employee Characteristics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Employee FE	No	No	Yes	No	No	Yes	No	No	Yes
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No.firms	1694	1694	1694	1699	1699	1699	1695	1695	1695

Table 10: Exploring Within Family firms. Members of controlling family versus non members.

This table examines the relation between employee absence and employee relation with the controlling family. The sample is restricted only to family firms. Definitions of the variables are provided in Appendix B. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: Absence	(1)	(2)	(3)	(4)	(5)
Relative of Controlling Family	-4.6476***	-4.3328***	-4.3890***	-2.8248***	-3.2169***
	(0.4337)	(0.4062)	(0.3953)	(0.4085)	(0.4212)
Male					-3.5930***
					(0.2571)
Age					0.0241**
					(0.0112)
No. of Children					0.2046**
					(0.1021)
Bachelor Degree					-1.4259***
					(0.2545)
Assets_{t-1}			0.1527*	0.2697***	0.2191*
			(0.0791)	(0.0863)	(0.1204)
OROA_{t-1}			2.4079	1.9028	2.6265*
			(1.7386)	(1.5750)	(1.4869)
Short-term Debt/Asset_{t-1}			0.1099	0.0145	0.3177
			(0.9809)	(0.9533)	(0.8859)
Firm Age			-0.0060	-0.0097	-0.0028
			(0.0088)	(0.0089)	(0.0079)
Constant	6.7967***	6.1370***	5.8422***	6.4003***	8.0587***
	(0.2314)	(1.1402)	(1.3368)	(1.4123)	(1.4477)
Observations	98,749	98,749	95,720	95,720	89,163
R-squared	0.0011	0.0022	0.0027	0.0057	0.0131
Sample	Family Firms	Family Firms	Family Firms	Family Firms	Family Firms
Industry FE	No	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	Yes	Yes
Employee Characteristics	No	No	No	No	Yes
Firm Controls	No	No	Yes	Yes	Yes
Task FE	No	No	No	Yes	Yes
No.firms	602	602	581	581	580

Table 11: Absence and Tournament Incentives

This table examines the relation between tournament incentives and absence in family versus non family firms. Definitions of the variables are provided in Appendix B. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: Absence	(1)	(2)	(3)	(4)	(5)
Family	-0.9636***	-1.0515***	-1.3742***	-1.2614***	-1.4128***
	(0.3312)	(0.3171)	(0.4089)	(0.3784)	(0.4039)
Senior Manager	-3.8277***	-2.6539***	-2.8330***	-2.8685***	-2.2585***
	(0.3281)	(0.3252)	(0.3038)	(0.2979)	(0.2600)
Family × Senior Manager	0.8713**	0.8644*	0.8661*	1.3363***	0.8245*
	(0.4253)	(0.4461)	(0.4860)	(0.4024)	(0.4602)
Male		-3.7718***	-3.7181***	-3.6796***	-3.4597***
		(0.1387)	(0.1551)	(0.1803)	(0.1556)
Age		0.0300***	0.0279***	0.0285***	0.0357***
		(0.0042)	(0.0052)	(0.0047)	(0.0050)
No. of Children		0.0162	0.0144	0.0404	0.0893*
		(0.0399)	(0.0463)	(0.0547)	(0.0482)
Bachelor Degree		-2.2008***	-2.1040***	-1.5625***	-1.6672***
		(0.1397)	(0.1644)	(0.1205)	(0.1498)
Assets_{t-1}			0.0001	0.0004**	0.0002
			(0.0003)	(0.0002)	(0.0003)
OROA_{t-1}			0.9976	1.3644	1.1049
			(1.1644)	(0.9287)	(1.1391)
Short-term Debt/Asset_{t-1}			-1.9658**	-1.3050*	-1.8676**
			(0.9663)	(0.7504)	(0.9232)
Long-term Debt/Asset_{t-1}			-1.6959	-0.7655	-1.5955
			(1.1579)	(0.8679)	(1.1064)
Firm Age			-0.0086	-0.0061	-0.0071
			(0.0081)	(0.0061)	(0.0077)
Employee Wage					-0.0037***
					(0.0004)
Constant	8.1406***	9.8838***	11.0335***	10.5891***	11.6352***
	(0.4419)	(0.4327)	(0.9841)	(0.7426)	(1.0061)
Observations	1,686,407	1,565,299	1,110,701	1,110,701	1,104,926
R-squared	0.0074	0.0163	0.0172	0.0202	0.0185
Sample	All firms	All firms	All firms	All firms	All firms
Industry FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Employee Characteristics	No	Yes	Yes	Yes	Yes
Firm Controls	No	No	Yes	Yes	Yes
Task FE	No	No	No	Yes	No
No.firms	2856	2851	1792	1792	1792

Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Appendix A Additional Analysis and Robustness Tables

Table A1: Employee Absence and Firm Performance

This table presents the effect of employee absence on firm performance. We estimate the following regression: $OROA_{jt} = \gamma_j + \mu_t + \eta absence_{jt} + x_{it}\theta + \zeta_{jt}\delta + e_{ijt}$, where $OROA_{jt}$ is each firm-year observation of operating return on assets, defined as the ratio of operating income to total assets. γ_j is firm fixed effect, μ_t is year fixed effect, and ζ_{jt} are firm controls. Absence_{jt} , is the mean absence days at the firm-year level. Column 1 presents results for firms with less than 100 employees, Column 2 presents results for firms with more than 100 employees and in Column 3 for firms above 300 employees. In each column, we report estimated coefficients and their standard errors. Heteroskedasticity-robust standard errors (in parentheses)are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: OROA	< 100 employees	100 > employees	300 > employees
Absence	0.0000	-0.0008**	-0.0011*
	(0.0007)	(0.0004)	(0.0006)
Firm Age	-0.0079***	-0.0079***	-0.0065***
	(0.0030)	(0.0015)	(0.0020)
Assets	0.0004	-0.0000	-0.0000
	(0.0029)	(0.0000)	(0.0000)
Constant	0.3120***	0.3740***	0.3228***
	(0.0935)	(0.0586)	(0.0815)
Observations	3,499	4,078	1,932
R-squared	0.8058	0.7127	0.7035
Year FE	Yes	Yes	Yes
Firm Controls	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes
No.firms	1,652	1,236	550

Table A2: Robustness: Excluding members of controlling family

This table repeats the analysis of Table 4 but we exclude member of the controlling family. Definitions of the variables are provided in Appendix B. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: Absence	(1)	(2)	(3)	(4)	(5)
Family	-0.8729**	-0.5047*	-0.6023**	-0.7854***	-0.8053***
	(0.4169)	(0.2828)	(0.2975)	(0.2977)	(0.2823)
Male					-3.7420***
					(0.1832)
Age					0.0297***
					(0.0039)
No of Children					0.0427
					(0.0466)
Bachelor Degree					-1.7985***
					(0.1006)
Assets_{t-1}			0.0001	0.0008***	0.0004*
			(0.0003)	(0.0002)	(0.0002)
OROA_{t-1}			0.4975	0.6323	0.5519
			(1.3209)	(1.0923)	(1.0619)
Short-term Debt/Asset_{t-1}			-1.3397**	-0.8013*	-0.9508**
			(0.6441)	(0.4745)	(0.4592)
Firm Age			-0.0085	-0.0026	-0.0054
			(0.0086)	(0.0056)	(0.0058)
Constant	7.6669***	7.2160***	8.1182***	8.7643***	10.6334***
	(0.3475)	(0.4760)	(0.6605)	(0.6502)	(0.5894)
Observations	1,684,237	1,684,237	1,583,513	1,583,513	1,469,151
R-squared	0.0001	0.0019	0.0023	0.0112	0.0188
Sample	All firms	All firms	All firms	All firms	All firms
Industry FE	No	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	Yes	Yes
Employee Characteristics	No	No	No	No	Yes
Firm Controls	No	No	Yes	Yes	Yes
Task FE	No	No	No	Yes	Yes
No.firms	2845	2845	2697	2697	2694

Table A3: Position in the Organization

This table examines the relation between family firm control and employee absence for employees with different position in the organization. Column 1 refers to managers and high level employees, column 2 refers to intermediate levels employees and column 3 to lower level employees. Definitions of the variables are provided in Appendix B. Heteroskedasticity-robust standard errors (in parentheses) are clustered at the firm level. ***, **, * correspond to statistical significance at the 1, 5, and 10 percent levels, respectively.

Dependent Variable: Absence	Managers and High Level Professionals	Intermediate Level Employees	Skilled Workers & Elementary Tasks
Family	-0.0545	-0.7956**	-1.6779***
	(0.2561)	(0.3276)	(0.5629)
Male	-3.4354***	-4.0747***	-4.8474***
	(0.1571)	(0.1682)	(0.2737)
Age	0.0345***	0.0134**	0.0606***
	(0.0064)	(0.0061)	(0.0079)
No of Children	-0.2289***	0.0560	0.2144***
	(0.0410)	(0.0659)	(0.0752)
Bachelor Degree	-1.0638***	-2.1218***	-4.1203***
	(0.1220)	(0.2404)	(0.2889)
Assets_{t-1}	0.0004	0.0003	0.0013
	(0.0002)	(0.0004)	(0.0010)
OROA_{t-1}	0.5872	2.6454**	-2.8316**
	(0.6490)	(1.2765)	(1.4124)
$\text{Short-term Debt/Asset}_{t-1}$	0.0907	-1.7234***	-0.2503
	(0.3138)	(0.6648)	(0.6674)
Firm Age	0.0009	-0.0132	0.0051
	(0.0034)	(0.0111)	(0.0093)
Constant	6.4433***	10.5874***	10.9059***
	(0.5185)	(0.6858)	(0.8085)
Observations	421,319	779,952	269,911
R-squared	0.0109	0.0130	0.0132
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Employee Characteristics	Yes	Yes	Yes
Firm Controls	Yes	Yes	Yes
No.firms	2499	2565	2227

Appendix B

Table B1: Definitions of variables

Variable	Definition
Firm Level Variables	
Family	An indicator variable that takes the value 1 if the firm is a family firm and 0 otherwise.
Assets	Measured in real DKK. The source is KOB.
OROA	Source is KOB.
Firm Age	Firm age based on the firm foundation date. The information source is the business registry.
Employee Level Variables	
Male	An indicator variable that takes the value 1 if the person is male and 0 otherwise. The source is the Danish Civil Registration System.
Age	Employee Age. The source is the Danish Civil Registration System.
No Children	The number of living children the employee has. The source is the Danish Civil Registration System.
Wage	Total annual wage of the employee. The information comes from the administrative matched employer-employee dataset (IDA).
College Degree	Is an indicator variable that takes the value 1 if an employee has completed a bachelor degree. The variable is constructed based on information on the official Danish registry.
Promotion	An indicator variable that takes the value 1 if the employee got a promotion that year and 0 otherwise. The promotion variable is constructed based on information of employee position from IDA.
Separation	An indicator variable that takes the value 1 if the employee left the company that year and 0 otherwise. The separation variable is constructed based on information from IDA.
Relative of Controlling Family	An indicator variable that takes the value 1 if the employee is related to the controlling family. To construct the variable "Relative of Controlling Family" we construct the extended family tree for each employee based on the Danish Civil Registration.

Appendix C Event study

In Figure 2 we visualize event study on the move to present a simple and clear vision of the contribution of firm effect and individual effect to employee absence. Borrowed from Finkelstein et al. (2014), the event study method derives from regression model, which can be considered as an improved version of common event study design using sample average.

The quantities of interest are the shares of firm and individual effects in explaining individual's absence level. We construct indicator of share of firm effect

$$y_{it}^{share} = \frac{y_{it} - \bar{y}_{o(i)}}{\bar{y}_{d(i)} - \bar{y}_{o(i)}} \tag{9}$$

which equals 1 if y_{it} equals average absent days in the destination firm, $\bar{y}_{d(i)}$, and 0 if y_{it} is at the average absence level of individual i's original firm, $\bar{y}_{o(i)}$. y_{it} is number of absent days individual i takes in year t. If employee absence is largely influenced by firm effect, an obvious large jump of absence level due to firm switch will be observed before and after the moving year. So it is with y_{it}^{share}. We expect course of y_{it}^{share} goes flat around 0 before move in the sample period (because we expect individual absence level to be around origin firm average before move) and to be around a value of true share of firm effect after move (because we expect individual absence level to be around destination firm average after move) assuming $\bar{y}_{o(i)}$ and $\bar{y}_{d(i)}$ are consistent estimator of mean absent days in origin and destination firms. The difference of y_{it}^{share} occuring at the move will be a consistent estimator of share of firm, S_γ. The higher the contribution firms make to individual, the larger the jump is.

However, several problems need to be dealt with with the indicator. Variance of y_{it} might be large due to influence of individual characteristics or time effect and can obscure the real trend if not well controlled. Thus, time fixed effect μ_t and individual characteristics x_{it} that might change across years should be included for control. Furthermore, entry and exit in the dataset can cause pre- and post-trends and may change the distribution of population. Individual fixed effect can be introduced to control the bias. Finally, variance of y_{it}^{share} could be unnecessarily large when employee faces a very small influence of move, referring to small difference between $\bar{y}_{d(i)}$ and $\bar{y}_{o(i)}$. Thus, we use a regression based method to avoid these problems, which is implemented upon our two-way fixed effect model.

Note that Equation (3) can be rewritten as

$$y_{ijt} = \alpha_i + \gamma_{o(i)} + (\gamma_{d(i,t)} - \gamma_{o(i)}) + \mu_t + x_{it}\beta + e_{ijt} \tag{10}$$

where $o(i)$ is mover i's original employer and $d(i,t)$ is mover i's employer at time t. If at time t mover i is still in his old position, $d(i,t) = o(i)$.

$$\gamma_{d(i,t)} - \gamma_{o(i)} = \begin{cases} 0 & \text{if } d(i,t) = o(i) \\ S_\gamma(\bar{y}_{d(i,t)} - \bar{y}_{o(i)}) & \text{if } d(i,t) \neq o(i) \end{cases} \tag{11}$$

Thus,

$$y_{ijt} = \tilde{\alpha}_i + S_\gamma \cdot (\bar{y}_{d(i,t)} - \bar{y}_{o(i)}) 1\{r(i,t) > 0\} + \mu_t + x_{it}\beta + e_{ijt} \tag{12}$$

Person fixed effect and original firm fixed effect are combined as one $\tilde{\alpha}_i$. S_γ is share of firm we have defined. If we know the true mean of absent days for origin firm and destination firm we can estimate this model and check if S_γ is significantly different from 0 and, if so, what the value of S_γ is. We use sample mean as approximate for $\bar{y}_{d(i,t)}$ and $\bar{y}_{o(i)}$ and estimate the following model instead

$$y_{ijt} = \tilde{\alpha}_i + \lambda_{r(i,t)} \cdot (\hat{y}_{d(i,t)} - \hat{y}_{o(i)}) + \mu_t + x_{it}\beta + e_{ijt} \tag{13}$$

This is the model that we use for event study. $\hat{\lambda}_{r(i,t)}$ is plotted against relative year $r(i,t)$ to show complete trend before and after move. The figure shows a sharp, discontinuous jump at the time of the move, from 0 to approximately 0.6. As discussed above, the size of this jump can also be interpreted as an estimate of a weighted average of firm share S. Under the assumptions of our model, the plot should be flat in the years before and after the move. In practice, the plot shows no post trend and a small downward pre-trend.