Local Employment Opportunities and Corporate Retention Policies

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Abstract

We construct a measure of employees' outside opportunities within the local labor market and examine how firms choose policies to retain employees with such opportunities. We find that firms grant more rank and file stock options, provide a more employee-friendly work environment, and maintain higher levels of financial flexibility (higher cash balances and lower financial leverage) when employees have more outside options in the local labor market. These relations are stronger among firms relying more on high skill workers and investing more in research and development. In a quasi-natural experiment involving employee mobility shocks following the adoption of Inevitable Disclosure Doctrine by U.S. state courts, we further show that the recognition of the doctrine attenuates the effects of our measure of employees' outside opportunities on the retention policies.

JEL classification: G32, J21, J33, J42, M14

Key words: Labor Force Composition, Stock Options, Corporate Social Responsibility, Working Conditions, Financing

1. Introduction

Labor markets are segregated by geographic location, and local labor markets are heterogeneous with respect to the skill composition of their labor force.[1] Accordingly, workers in these markets are exposed to different employment opportunities depending on their skill sets and localities. For instance, computer programmers in Silicon Valley may find more local employers to which they can sell their skills, compared to those in Idaho. Likewise, workers with different skills residing in the same location can have different local job opportunities. Such heterogeneity in employment opportunities may pose a challenge to firms that desire stable supply of quality labor as input for production. In this paper, we examine how employees' outside opportunities in the local labor market affects corporate policies.

Using detailed occupation-level data, we develop a novel measure of employees' outside options in the local labor market (i.e., local employee mobility) for a large sample of firms in the U.S. We show that our measure of local labor market opportunities strongly affects policy choices relevant for employee retention; when employees have greater outside opportunities in the local labor market, firms grant more rank and file stock options, provide a higher quality work environment, and maintain greater financial flexibility. All these results become stronger among firms relying on high skill workers and R&D intensive firms. Our findings are overall consistent with the notion that high employee mobility in the thick local labor market exposes firms to the risk of losing employees, despite its potential benefits (Almazan, De Motta, and Titman (2007)).

The presence of many neighboring employers that use the same worker skills (i.e., workers have more outside opportunities in the local labor market) may provide several advantages to the

[1] The economics literature documents low geographic labor mobility in the US since the 1980s due to family-related constraints, socioeconomic factors, and regulations (see, e.g., Kaplan and Schulhofer-Wohl (2017), Molloy et al. (2011), and Molloy et al. (2014)).

firm. In such a thick local labor market, it is relatively easy for the firm to hire workers, therefore reducing concerns about labor shortage (see, e.g., Moretti (2011)). In addition, employees may be more willing to invest in human capital, which may also be valued at another local employer. This facilitates high quality firm-worker matches that leads to higher productivity (Acemoglu (1997)). However, workers' many outside opportunities can also present substantial disadvantage; it is hard for the firm to retain employees who can easily move to another local employer along with their skills (valued at a competitive market). Such high labor motility can be costly for the firm, in particular, due to a labor market friction - labor adjustment costs. In addition to output losses caused by labor turnover, firms incur the costs of search, hiring, and training when they replace departing employees. Prior research (see, e.g., Douglas (1918), Oi (1962), and Shapiro (1986)) documents *de facto* sizable costs associated with labor adjustment, especially with training. Further, the theoretical model in Almazan et al. (2007) shows that employees' outside opportunities in conjunction with training costs can create hold-up problems, and the resulting underinvestment in human capital may impose additional costs on the firm and the economy on top of explicit expenses related to employee turnover.

The above arguments lead to the following hypothesis; when there are many neighboring firms competing on the same set of employee skills, the firm may optimally choose its policies to retain employees and prevent costly employee turnover. In particular, we expect that firms strategically use policies on: (1) compensation, (2) work environment, (3) cash holdings, and (4) financial leverage for employee retention.

Employee stock options granted with a vesting period can incentivize employees to stay with the firm. Among other types of deferred compensation, Oyer (2004) and Oyer and Schaefer (2005) suggest that stock options can be particularly powerful for employee retention if the current

firm's stock price is positively related to employees' outside employment opportunities. This is because stock options index the value of employees' deferred compensation to their outside opportunities. Therefore, the use of employee stock options may increase with employees' outside opportunities in the local labor market.

Labor is distinct from capital due to the inalienable nature of human capital; firms need to provide incentives and satisfying working conditions to employees in contrast to other types of capital that firms can use as they wish (Akerlof (1982)). Satisfying working conditions, such as financial information sharing and employee involvement in management decision making, may be helpful in motivating and retaining employees (Douglas (1918), Freeman (1978), Shapiro and Stiglitz (1984), Akerlof et al. (1988), and Edmans (2011)). In particular, Freeman (1978) and Akerlof et al. (1988) provide evidence that employees highly satisfied with the current working conditions (e.g., non-pecuniary benefits such as congenial coworkers, manageable workloads, challenging but interesting work, etc.) are less likely to quit. Hence, firms may provide a more employee-satisfying work environment in order to retain employees from local competitors.

In addition, firms may build up financial flexibility in the presence of local labor market threats (see, e.g., Graham and Harvey (2001)). When hit by negative cash flow shocks, financial slack allows the firm to cover the expenses related to employee retention and recruitment. By so doing, the firm can maintain their desired labor force, not losing to neighboring employers. Financial flexibility could be of various forms (Denis (2011)). For instance, firms may use cash reserves for employee retention when faced with shortage of internal funds (Ghaly, Dang, and Stathopoulos (2017) and Bolton et al. (forthcoming)). Alternatively, firms can tap unused debt capacity (low financial leverage ratios) to raise capital for labor-related expenses. The latter is also consistent with the notion that financial distress could make it difficult for firms to retain and

recruit high quality workers (Baghai, Silva, Thell, and Vig (2015), Brown and Matsa (2016), and Bolton et al. (forthcoming)).

To test our hypotheses, we begin by constructing a measure of employees' outside opportunities in the local labor market for each firm. Specifically, we create a measure of similarity in skill composition between a firm's employees and the entire labor force in the local area. Using data from the Occupational Employment Statistics (OES) of the Bureau of Labor Statistics (BLS), we first construct firms' employee skill profiles based on the industry membership of a firm's business segments and the associated industry employee skill profiles from OES. The OES data define industries by three-digit SIC codes (up until year 2001) and four-digit NAICS codes (from year 2002), and the employee skill profiles are vectors containing fractions of a given industry's workers in approximately 800 different occupations. We compute the firm's employee skill profile as the segment sales-weighted average of its segments' OES industry employee skill profiles. Next, our relevant local labor markets are Metropolitan Statistical Areas (MSAs), and we obtain employee skill profiles for each MSA from the OES data. Likewise, the MSA employee skill profiles from OES are vectors containing fractions of a given MSA's workers in different occupations. Based on a firm's headquarters' zip code from Compustat and the crosswalk between zip code and MSA code from the Office of Workers' Compensation Programs (OWCP), we identify the MSA employee skill profile relevant for the firm.

Our *Local employment opportunities* (denoted *LEO*) between each pair of firm and MSA is computed as the scalar product of the firm employee skill profile vector and the MSA employee skill profile vector divided by the product of their lengths. It is a continuous variable increasing in the similarity of the firm employee skill profile and the MSA employee skill profile (i.e., *LEO* is

high, when many other employers in the MSA are using similar worker skills) and is bounded between 0 and 1.

Using panel regressions controlling for a wide range of firm characteristics and industry and year fixed effects, we provide empirical evidence on how *LEO* affects employee stock options, work environment, and financial flexibility. Following Kedia and Rajgopal (2009) and Call, Kedia, and Rajgopal (2016), we estimate the number of stock options granted to rank and file employees using ExecuComp and Compustat. We find that the number of rank and file option grants is strongly increasing with *LEO*. For the average firm in our sample, a one-standard deviation increase in *LEO* leads to a 10% to 20% increase in rank and file stock options, compared to its industry peers in another MSAs. The result is consistent with our hypothesis that firms use stock options to retain employees in the presence of many outside opportunities. Next, for a subset of firms covered by the MSCI KLD data, we find that the likelihood that a firm has strength in employee involvement increases with *LEO*. Additionally, a firm is more likely to be included in the "100 Best Companies to Work for in America" (Edmans (2011)) when *LEO* is high. The result is consistent with our prediction; firms provide a better work environment for retention, when employees have many outside options.[2] All the above mentioned results are more pronounced among firms facing higher labor adjustment costs; firms relying on high-skill workers and/or firms investing heavily on R&D.

Further, we find that firms' financial flexibility is strongly increasing with *LEO*; firms have higher cash holdings and lower financial leverage ratios, when local labor mobility is high. The result is economically significant. For the average firm in the sample, a one-standard deviation increase in *LEO* results in a 10% increase in cash holdings and a 5% decrease in book leverage.

[2] Interestingly, we find that the effects of LEO on work environment measures are stronger in more recent periods (see Appendix C).

Again, the result on financial flexibility becomes stronger for firms relying on high-skill workers and/or investing more in R&D. This suggests that firms use financial slack as a buffer so that they can maintain the desired workforce in case of cash flow shocks.

To establish the causal relation between employees' outside opportunities and policies on stock options, work environment, and financial flexibility, we follow Png and Samila (2015) and Klasa et al. (2018) and use the staggered adoption of the Inevitable Disclosure Doctrine (IDD) by the US state courts as a quasi-natural experiment. The adoption of IDD is plausibly exogenous and prevents the former employee from working for another firm if he or she has the information that constitutes the former employer's trade secrets. Png and Samila (2015) and Klasa et al. (2018) show that IDD reduces labor mobility by curtailing employees' outside opportunities. Accordingly, we expect that IDD will mitigates the aforementioned effects of our *LEO* on firm policies. Consistent with our prediction, we find the effects of *LEO* on stock options, work environment, cash holdings, and leverage are significantly attenuated by the adoption of IDD.

One may argue that our measure of local labor mobility, *LEO*, may be more closely related to the benefits of a thick local labor market (e.g., as discussed above, the ease of hiring from the local labor market and the reduced concern over unemployment) than to the risk of losing employees. However, if that was the case, we would find the *opposite* results; high *LEO* firms would be less concerned about local labor supply and therefore have weaker incentives to appear attractive to workers, compared to low *LEO* firms. Our claim is further corroborated by the quasi-natural experiment, IDD. Overall, all our results strongly indicate that our *LEO* is a measure of the risk of employee departure.

All our results stand up to various robustness checks. One assumption underlying the way we construct *LEO* is that the firm's employment occurs only within the MSA, which does not hold

for geographically diversified firms. We find similar results when we exclude the largest firms, likely candidates for geographically diversification (Tuzel and Zhang (2017)). Another issue is that our *LEO* could be mechanically high when the MSA is dominated by few local firms. Our results remain similar when excluding such cases. Last but not least, our results are more pronounced for industry clusters but are not limited to them.

This paper contributes to the literature that studies the link between firms' location, labor, and corporate policies. Prior research has shown that the firm's geographic location has an economically important influence on various firm policies such as director appointment, employee compensation, investment, and financing (see, e.g., Kedia and Rajgopal (2009), Almazan et al. (2010), and Dougal et al. (2015)). Our main contribution is that we develop a measure to quantify employees' outside opportunities in the local labor market for a large sample of U.S. firms and show that our measure is causally related to firms' variety of retention policies.

We also contribute to the literature on how firms pay and treat their employees. Oyer (2004) argues that stock options can be an efficient compensation form when retaining employees with outside opportunities is firms' major concern. Kedia and Rajgopal (2009) show that the practice of rank and file option grants varies by firm location, and such practice is more prevalent in local areas where local firms' stock prices co-move with one another, and where the enforcement of non-compete agreements is difficult. Consistent with these studies, we show that employee retention in the presence of local labor market threats is an important factor for broad based option grants. In addition, we show that local employee mobility strongly influences firms' corporate social responsibility programs, especially those related to work environment.

Finally, our research is related to the literature that studies the connection between competition among firms (e.g., predation risk) and firm policies (e.g., Haushalter et al. (2007),

Hoberg et al. (2014), and Fresard (2010)). Our study highlights that the competition for firms' labor input can importantly affect firms' financial policies, whereas others mostly focus on the competition in product (output) markets. Recent studies by Azar et al. (2018) and Benmelech et al. (2018) document that labor market concentration varies across locations in the U.S.. In particular, Benmelech et al. (2018) find that local labor market concentration is significantly associated with wages. Our paper differs from them in that (1) we attempt to measure employees' outside opportunities in the local labor market, and (2) we focus on firms' retention policies such as rank and file options, work environment, cash holdings, and financial leverage.

The remainder of the paper proceeds as follows. Section 2 describes the data. Section 3 reports the results, and Section 4 concludes.

2. Data and variables

2.1. Sample construction

We construct a panel database of firm-year observations in Compustat over the period from 1997 to 2015. We exclude firm-years with a book value of total assets less than $500,000 or a negative market value of equity. As is standard in the literature, we exclude firms in the utility (SIC codes 4900-4999) and financial (SIC codes 6000-6999) industries. The final sample consists of 59,245 firm-years for which we can construct our local labor mobility. The sample sizes in our regressions vary across different dependent variables due to missing data.

2.2. Measure of local employment opportunities (LEO)

Our key independent variable is a measure of employees' outside opportunities in the local labor market. To construct such a measure, we calculate the similarity in employee skill profile between a firm and its local labor market.

2.2.1. Occupational data from OES

We obtain occupation title data from the Occupational Employment Statistics (OES) program of the Bureau of Labor Statistics (BLS). The OES program collects employment and wage data surveying approximately 1.2 million US business establishments. This occupational data is reported at various levels; by industry, by MSA, and by state. Prior to 1999, occupations are defined using the OES taxonomy of occupations, which has 258 occupation titles. From 1999 onward, the OES program uses the Office of Management and Budget (OMB) Standard Occupational Classification (SOC) taxonomy, which has more than 800 detailed occupations.

We use the industry-level occupational data and the Compustat Industry Segment (CIS) files to construct a proxy for a firm's employee skill profile based on the industry membership of its segment(s).[3] Industries in the OES data are defined by three-digit Standard Industrial Classification (SIC) code prior to 2002, and by four-digit North American Industry Classification System (NAICS) code from 2002.

We use the MSA-level occupational data to construct a proxy for the employee skill profile of the MSA where the firm is headquartered. The United States Office of Management and Budget (OMB) defines metropolitan area as "a core urban area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core". Each MSA contains a single core of 50,000 or more population.

[3] If a firm is not covered by CIS, we treat it as a single-segment firm.

The OES industry-level occupational data is available from 1988 while the pre-1997 data covers only selected industries. The OES MSA-level occupational data is available from 1997, and therefore, our sample begins in 1997.

2.2.2. Firm-level employee skill profile

In each year and for each industry, we obtain an industry-level employee skill profile vector from the OES program. For industry i in year t, we obtain the vector $H_{i,t} = (H_{i1}, \dots, H_{in})_t$ where element H_{ik} is the proportion of the total number of workers in industry i assigned to occupation k. We use these industry employee skill profiles and a firm's industry membership to construct a firm's employee skill profile. When a firm is covered by the CIS database, we compute the firm's employee skill profile, $H_{a,t}$, as $H_{a,t} = \sum_{i=1}^{I} w_{i,t} H_{i,t}$ (i.e., segment sales weighted-average of its industry employee skill profiles), where a segment's weight, $w_{i,t}$, is segment sales to total segment sales, and I is the number of industries. The industry employee skill profile of a segment is matched based on three-digit SIC codes prior to 2002 and four-digit NAICS codes from 2002.

2.2.3. MSA-level employee skill profile

In each year and for each MSA, we obtain an MSA employee skill profile vector from the OES program. For MSA m in year t, we obtain the vector $H_{m,t} = (H_{m1}, \dots, H_{mn})_t$ where element H_{mk} is the proportion of the total number of workers in MSA m assigned to occupation k. To identify the MSA in which the firm's headquarters is located, we obtain a firm's zip code from Compustat and match it to the MSA using the crosswalk between zip code and MSA code from the Office of Workers' Compensation Programs (OWCP).

2.2.4. LEO between for a pair of firm and MSA

We construct a measure of employees' outside opportunities, LEO, for firm a whose headquarters is located in MSA m using the angular separation (or uncentered correlation) of the firm's employee skill profile vector, $H_{a,t}$, and the MSA employee skill profile vector, $H_{m,t}$. This angular separation was employed to measure the similarity in policies between a pair of firms by prior research (e.g., Jaffe (1986) and Lee, Mauer, and Xu (2018)). Specifically, we calculate local employment opportunities, LEO, as the scalar product of the firm's employee skill profile vector and the MSA employee skill profile vector divided by the product of their lengths:

$$LEO_{a,m,t} = \frac{H_{a,t}H'_{m,t}}{\sqrt{H_{a,t}H'_{a,t}}\sqrt{H_{m,t}H'_{m,t}}}$$

LEO is bounded between zero and one. It is close to zero when the two occupation profile vectors are close to orthogonal, and one when the two vectors are identical. It is closer to unity when a firm and the other firms in the same MSA have similar employee skill profiles.[4] Appendix B provides a simple example and the discussion of our *LEO* measure.

2.3. Firm retention policies

[4] Our measure of local employment opportunities (i.e., local labor mobility) has the following underlying assumptions. First, the local labor market is segmented by worker skill but not by industry (see Moretti (2011) for further discussions on labor market segmentation). For example, a firm geographically isolated from its industry peers could have high *LEO* if other local employers (from different industries) rely on the same set of worker skills. Second, a firm's employees are all located in the headquarters MSA (see the robustness tests section in which we address the concern about geographically diversified firms).

Our baseline analysis examines how employees' outside options in the local labor market influence firms' retention policies. Specifically, we focus on the following three corporate policies: rank and file employee stock options, work environment policies, and financial decisions.

2.3.1. Rank and file employee stock options

We follow Kedia and Rajgopal (2009) and Call et al. (2016) and estimate the number of options granted to rank and file employees as the total number of options granted by the firm minus the number of options granted to the firm's top executives. We first estimate the total options granted by the firm by using the information on (1) the options granted to the executive (NUM-SECUR) and (2) the executive's share of total option grants (PCTTOTOPT), both items are from ExecuComp. We then obtain an estimate of the total options granted by the firm from each of top five executive's share of the total options granted. We only use estimates of the total option grants that are within 1% of each other and use the average value as the measure for the total options granted by the firm. After 2006, ExecuComp does not report the percentage of total options granted to each top executive. Thus, from year 2007, we use Compustat item "OPTGR" to identify the total number of options granted by the firm. We create the following two variables:

RFEO1 is defined as the number of rank and file option granted during the fiscal year scaled by the number of shares outstanding (CSHO):

$$RFEO1_{i,t} = \left[\frac{Number\ of\ option\ grants\ in\ the\ year}{Number\ of\ shares\ outstanding}\right] i, t$$

RFEO2 is defined as the number of rank and file option granted during the fiscal year scaled by the number of employees (EMP).

$$RFEO2_{i,t} = \left[\frac{Number\ of\ option\ grants\ in\ the\ year}{Number\ of\ employees}\right] i, t$$

2.3.2. Work environment

We consider the following categories to assess firms' work environment: employee involvement, corporate social responsibility, and *Fortune* magazine's 100 best company to work for. We collect data on employee involvement and overall corporate social responsibility from the Kinder, Lydenberg, and Domini (KLD) dataset that starts in 1991 and provides ratings on firm's environmental, social, and corporate governance policies. KLD covers approximately 650 US firms from 1990-2000, 1100 US firms in 2001 and 2002, and 3100 US firms since 2003. We primarily use the rating (either zero or one) of a firm's strengths and concerns on six dimensions: community, diversity, employee relations, environment, human rights, and product.

We use KLD the strength indicator "employee involvement (EMP-STR-D)" in the employee relation area and define *Employee involvement* as a dummy variable equal to one if a firm is considered to have strengths in employee involvement (i.e., EMP-STR-D = 1), and zero otherwise. KLD defines strength in employee involvement (EMP-STR-D) as "the company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees gain sharing, stock ownership, sharing of financial information, or participation in management decision-making".

Following Di Giuli and Kostovetsky (2014), we define *Corporate social responsibility* (*CSR*) as the difference between the number of strengths and the number of concerns scored by each firm in each year. The score numbers are calculated based on 30 strengths and 26 concerns across six KLD dimensions.

Following Edmans (2011), we define *Best companies to work for* (*BCW*) using the list of "100 Best Companies to Work for in America".[5] The list is produced by the Grate Place to Work

[5] The list can be found on Edman's website http://alexedmans.com/data/. We thank him for making the list available.

For Institute based on employee survey responses and evaluation of firms' overall work environment and is annually available during the period of 1998-2012.[6] *BCW* is a dummy variable that equals one if a firm is listed in the "100 Best Companies to work for in America", and zero otherwise.

2.3.3. Financial flexibility

We follow the literature and use two empirical measures of financial flexibility; cash holdings and book leverage. *Cash holdings* is defined as the ratio of cash and short-term investments to the book value of assets. *Book leverage* is defined as the ratio of long term debt plus debt in current liabilities to the book value of assets.

2.4. The adoption of Inevitable Disclosure Doctrine as an exogenous shock

To tackle endogeneity that arises from unobservable firm characteristics, we exploit an exogenous variation in labor mobility using the adoption of inevitable disclosure doctrine (IDD) at the state-level. IDD prohibits an employee with trade secrets from working for another firm or founding a rival firm.[7] IDD provides an effective setting to test our hypotheses for several reasons. First, compared to alternative legal means that protect patents, copyrights, and trademarks, IDD is more enforceable in that it protects any knowledge that is not known to others but can derive

[6] The survey questions range from job satisfaction and fairness to attitudes toward management. Firms' overall work environments are evaluated on four categories: credibility (communication to employees), respect (opportunities and benefits), fairness (compensation, diversity), and pride/camaraderie (teamwork, philanthropy, celebrations). Prior to 1998, the list of "100 Best Companies to Work for in America" was published only twice, one in 1984 and the other in 1993.

[7] According to Uniform Trade Secrets Act, Trade secret is defined as "the information that can derive economic value, is not generally known, and is treated as secrets".

economic values. Second, the decision to embrace the IDD depends on court jurisdiction that is independent of firm-level characteristics. Lastly, the staggered adoptions of IDD that occur in multiple states at different times alleviates the concern about the violation of parallel trends assumption.

Following Klasa et al. (2018), we identify the U.S. states that have adopted (or rejected) the *IDD* through court rulings. We then create a dummy variable *IDD* that is equal to one if the state of the firm's headquarters has adopted the IDD by the year, and zero otherwise.

2.5. Descriptive statistics

In panel A of Table 1, we report the descriptive statistics and the Pearson correlations for the main sample between 1997 and 2015. All variables are winsorized at the 1 and 99 percentiles of their distributions, except local employment opportunities (*LEO*) and dummy variables. Note that firm policy variables (i.e., dependent variables) are from year t+1, while *LEO* and firm characteristics (i.e., independent variables) are from year t.

The mean and median *LEO* are 0.321 and 0.304, respectively. On average, firms in our sample have a leverage ratio of 26% and a cash ratio of 19%. The stock option grant of the average (median) firm in our sample to rank and file employees is 17% (10%) of total shares outstanding.[8]

Panel B of Table 1 shows the Pearson correlation between *LEO* and corporate retention policies. *LEO* is significantly *positively* correlated with rank and file stock options and work environment measures. And consistent with our prediction that firms with greater local labor mobility build more financial flexibility, we find a positive correlation between *LEO* and cash

[8] This number is substantially higher than stock option grants percentages reported by Kedia and Rajgopal (2011) because our sample starts from 1997 and ends in 2015, which is consistent with the evidence of the increasing use of employee stock options in recent years.

holdings and a *negative* correlation between *LEO* and financial leverage. Although these correlations are consistent with our hypotheses, we perform multivariate tests as a more rigorous approach in the next section.

3. Results

In this section, we present our estimation results. We first examine the effects of local labor mobility on employee compensation, work environment, and financial decisions to mitigate the risk of employee turnover. We then test whether the aforementioned effects differ across different skill groups and different industries. Lastly, we use Inevitable Disclosure Doctrine as a quasi-natural experiment to identify the causal effects of local employment opportunities on corporate policies. Our sample size varies across different dependent variables due to data availability, in particular, smaller sample sizes for stock options and work environment.[9]

3.1. Local employment opportunities and retention policies

As discussed earlier, when a firm is located in a thick labor market where its employees possess more outside opportunities (i.e., high *LEO*), the firm faces greater risk of losing their employees, and therefore adopts a variety of employee retention and motivation policies. We therefore predict that a firm uses more stock options, creates more employee-satisfying work environment, and maintains more financial slack as *LEO* increases.

3.1.1. Rank and file stock options

[9] As a robustness check, we re-estimate the regressions of cash holdings and leverage against *LEO* using the subsample of firm-years in which stock options data are available. The results are similar to those reported in Tables 5 and 6 (reported in Online Appendix).

In Table 2, we report ordinary least square (OLS) regressions of rank and file stock options against local labor mobility. Stock options serve as an effective means for employee retention because they vest over a long time period and index employees outside options. In Columns 1 and 2, our dependent variable is *RFEO1*, the proportion of the number of rank and file options to the number of shares outstanding. In Columns 3 and 4, the dependent variable is *RFEO2,* the proportion of the number of rank and file options to the number of employees. Columns 1 and 3 report the regression estimates without industry fixed effects (with year fixed effects). Columns 2 and 4 control for industry fixed effects, by which we compare firms in the same industry but different locations. Across all regressions, we observe a positive and statistically significant relation between *Local labor mobility* and rank and file stock options. The results are also economically significant; take Columns 1 and 3 as an example, a one-standard deviation increase in *LEO* increases *RFEO1* by 9% and *RFEO2* by 20%. The result holds when we include industry fixed effects based on the 2-digit SIC codes (Columns 2 and 4), which suggests that even in the same industry, firms under different local labor market threats adopt different compensation policies for employees. This is consistent with our prediction that firms grant significantly more rank and file options to retain human capital when employee mobility is high in the local labor market.

3.1.2. Work environment

Table 3 examines the impact of firm local labor mobility on work environment. As discussed above, we predict that firms exposed to more competitive local labor market will provide a more employee-friendly work environment and cultivate better employment relationship, which we attempt to measure using employee involvement, corporate social responsibility *(CSR)*, and the

list of best work companies in the US (*BCW*). Specifically, we expect that firms with higher *LEO* are more likely to involve workers in important corporate decision making, to have better corporate social responsibility initiatives, and/or to be recognized as one of the best company to work for. Columns 1, 2, 5, and 6 report marginal effects from probit regressions. In Columns 1 and 2, the dependent variable is one if a firm is considered to have strengths in employee involvement, and zero otherwise. In these regressions, the marginal effects are the likelihood of having strong employee involvement for a one-standard deviation change in a regressor, holding all other variables at their means. In Columns 5 and 6, the dependent variable is one if a firm listed in the "100 Best Companies to Work for in America", and zero otherwise. Likewise, in these regressions, the marginal effects are the likelihood of being listed as one of the 100 Best Company to Work for in America for a one-standard deviation change in a regressor, holding all other variables at their means. Columns 3 and 4 report estimates from OLS regressions, where the dependent variable is the difference between the number of strengths and the number of concerns scored by each firm in each year. Columns 1, 3, and 5 include year fixed effects and Columns 2, 4, and 6 add year and industry fixed effects. The sample size varies across regressions because of limited data coverage in the KLD dataset.

As we see in the table, across all our measures of work environment are used, we find a significant and positive association between *LEO* and work environment; employees' local mobility increases the firm's strength in employee involvement, overall *CSR* scores, and propensity to be selected as one of the best companies to work for. From the probit regressions in columns 1 and 2, a one-standard deviation increase in *LEO* increases the probability of having strong employee involvement by 5.7% and 2.8%, respectively, based on the frequency of having strong employee involvement in the sample. The results in columns 3 and 4 suggest that *LEO* is

positively and significantly related to firms' overall corporate social responsibility. Based on the estimates in columns 5 and 6, a one-standard deviation increase in *LEO* increases the probability of being included in the list of the 100 Best Companies to Work for in America by 14.8% and 21.8%, respectively, based on the frequency of being included on the list in our sample.

Overall, the results presented here are consistent with our prediction that when the local labor market is more competitive, the firm provides a better work environment to retain employees.

3.1.3. High skill workers

So far, we find that *LEO* has a positive impact on rank and file stock options and employee-friendly environment. Given the particularly high turnover costs of high-skill employees (Belo et al. (2017) and Ghaly et al. (2017)) and firms' strong incentive to retain them, the above mentioned results should be stronger when firms rely on high-skill employees. In particular, we test if the impact of *LEO* on stock options and work environment is more pronounced when a firm operates in an industry that depends more on high-skill employees and/or that invests more on R&D.

Following Belo et al. (2017) and Ghaly et al. (2017), we classify industries into high skill *versus* low skill. Specifically, we combine industry employee skill profile vectors from BLS and the classification of occupation based on required skill-level from the U.S. Department of Labor's O*NET program (ranging from 0 (no skill) up to 5 (high skill)). For each industry, we take the employee-weighted average of required skills, which is bounded between 0 and 5. We create a dummy variable, *High skill,* that equals one if the skills required by the firm's industry is above the median, and zero otherwise. In addition, we group industries by their R&D spending and define *High R&D* as a dummy equal to one if a firm's ratio of R&D to total assets is above the median within the 2-digit SIC industry, and zero otherwise. To capture the cross-sectional variation, we

re-estimate the regression models while including the interaction term; $LEO \times High\ skill$ (or $LEO \times High\ R\&D$). .

Table 4 presents the estimation results. Panel A reports regressions where *LEO* is interacted with *High skill*, while Panel B reports regressions where *LEO* is interacted with *High R&D*. In Columns (1)-(5) of Panel A, the coefficients on the interaction term are positive and significant, which suggests the positive effect of *LEO* on rank and file stock options and work environment is amplified when firms operate in industries that rely heavily on high-skill workers. We find a similar pattern in Panel B. R&D intensity increases the effect of *LEO* on employee stock options, employee involvement, corporate social responsibility, and the propensity of being listed as a best company to work for.

Overall, the result here lends further support for our main hypothesis; firms choose stock options and work environment as retention policies and respond to local labor market threats, especially when employee turnover can be particularly costly.

3.1.4. Financial flexibility

As noted earlier, not only broad based employee stock options and better work environment help firms retain employees, firms could use financial slack to buffer against negative cash flow shocks so that they could make optimal employment decisions. We, therefore, posit that firms with more mobile labor force will hold larger cash reserves and have lower financial leverage.

In Table 5, we examine the effect of local employment opportunities on cash policy. The dependent variable is *Cash holdings* defined as the ratio of cash and short-term investments to the book value of assets. Column 1 reports a regression without industry dummies, and Column 2 reports the one with industry dummies. The coefficients on *LEO* are significantly positive across

the columns supporting our prediction that firms hold larger cash balances as the mobility of their labor force increases. The results are also economically significant. In Column 2, for instance, a one-standard deviation increase in *LEO* leads to a 9.8% increase in *Cash holdings*.

Table 6 reports regressions of financial leverage against *LEO*. In Columns 1 and 2, the dependent variable is a continuous variable, *Book leverage*, while in Columns 3 and 4, it is a dummy variable, *Net debt*. The coefficients on *LEO* in Columns 1 and 2 are negative and significant suggesting that firms with high *LEO* tend to keep leverage ratios low. In Columns 3 and 4, we find that firms with high *LEO* are less likely to have net debt on their balance sheet. In sum, the results are consistent with our prediction that firms build up financial slack to maintain their desired workforce when facing stiff local labor market competition.

Further, in Table 7 we examine whether the positive effect of *LEO* on financial flexibility is more pronounced among firms with high labor adjustment costs (i.e., firms that depend more heavily on high skill employees and/or that invest more in R&D). We re-estimate the models in Tables 5 and 6 while including an additional variable; *LEO* interacted with *High skill* (*High R&D*). As shown in Columns 1-4, we find supportive evidence that the impact of employees' local job opportunities on financially flexibility is stronger among high skill firms and high R&D firms.

3.2. Inevitable Disclosure Doctrine

Although we have documented a strong relation between employees' local labor market opportunities and firms' retention policies, it is possible that our results are subject to endogeneity. For example, firms with more employee-friendly policies may attract employees with more outside options, or both employees' outside options and corporate policies are associated with some unobservable variables. In such a case, the coefficients derived from the OLS specifications are

biased. To establish the causal relation between *LEO* and corporate retention policies, we rely on a quasi-natural experiment: The adoption of Inevitable Disclosure Doctrines (*IDD*), which reduces employee mobility across firms.[10] This experiment directly affects employee mobility, and since the adoption of the law depends on court rulings, it is exogeneous to firm policies. More importantly, the staggered nature of the IDD allows us to not only address the endogeneity concerns, but also mitigate omitted variable biases, given that the IDD was adopted in multiple states at different times.

The embracement of IDD restricts employees' labor mobility, and therefore mitigates the employer's concern about losing employees. Accordingly, we would expect that the IDD *attenuates* the aforementioned effect of *LEO* on firm policies.

Panel A of Table 8 reports the augmented regressions for employee stock options (Columns 1 and 2), work environment (Columns 3 through 5), and financial flexibility (Columns 6 and 7) in which we include the interaction term $LEO \times IDD$. All regressions include the relevant control variables and industry and year fixed effects.

In Panel A, we find that IDD significantly weakens the effect of employees' local opportunities on firm retention policies. The coefficients on the interaction term (i.e., $LEO \times IDD$) are negative for employee stock options and work environment (Columns 1 through 5); positive for book leverage (Column 6); and negative for cash holdings (Column 7). The results are consistent with our prediction that after the adoption of IDD, firms have less incentives to choose employee-friendly policies due to employees' reduced outside opportunities.

However, one may still raise a concern that firms could relocate to another state, therefore being unaffected by IDD. This relocation issue may be more relevant for young firms that have

[10] The literature has documented a negative effect of the IDD on employee mobility (see, e.g., Png and Samila (2015) and Klasa et al. (2018))

recently located their headquarters (Almazan et al. (2010)). Accordingly, we exclude young firms from our sample and re-estimate the models. We sort all firm-years into quartiles and classify those in the bottom quartile as *young firms*. Then, our re-estimated differences-in-differences results are reported in Panel B of Table 8. Our findings remain similar to that of Panel A. In sum, the results provide strong support for the causal inferences regarding how employees' local mobility affects firms' retention policies.

The adoption of IDD may be more relevant for high skill employees who can depart with knowledge of valuable trade secrets. To examine this possibility, in Panel A Table 9, we interact three variables (*LEO, IDD,* and *High skill*) and estimate triple differences (i.e., difference in differences in differences), while in Panel B, we interact *LEO, IDD,* and *High R&D*. Our analysis in Table 9 reveals that the attenuating effect of IDD on the retention policies are overall stronger for high skill and high R&D firms.

3.3. Robustness tests

In this section, we perform a battery of robustness tests. One underlying assumption of our *LEO* measure is that the firm's all employees are located within the MSA where the firm is headquartered. If a firm is geographically diversified and hire from multiple locations, our *LEO* may not be informative about the firm's true employees. To address this concern, we exclude firms in our sample that are geographically diversified. We follow Tuzel and Zhang (2017) and define geographically diversified firms based on firm size (total assets); larger firms tend to be more geographically diversified. We sort all firms into deciles and exclude firms in the top decile (i.e., largest firms) from our sample. We re-estimate our baseline regressions and present our results in

Panel A of Table 9. Across all the models, we consistently find the evidence that support our hypotheses.

Additionally, our *LEO* can be mechanically high in the MSA whose local labor market is dominated by very few firms. In such a case, *LEO* may not be a good measure for outside opportunities, because other local employers barely exist. To alleviate this problem, we first calculate the ratio of a firm's employees to the MSA total employees for all firms and sort them into deciles, next we exclude from our sample the firms in the top decile and re-estimate regressions in Panel B of Table 9. We continue to find robust results.

Lastly, we examine whether our results are stronger for industry clusters. We follow Kedia and Rajgopal (2009) and classify an MSA as an industry cluster if 10% of the 2-digit SIC industry's market value is located in the MSA, and 10% of the market value of that MSA is coming from that industry. We add to the baseline specifications *LEO* interacted with *Industry cluster* and *Industry cluster* alone and repeat the regressions. Panel C of Table 9 shows the results. We find that the effects of local employment opportunities tend to be more pronounced for but not limited to industry clusters.

4. Conclusions

In this paper, we examine the influence of employees' outside opportunities in the local labor market on firms' retention policies. Our evidence strongly supports our hypotheses. Firms choose various policies in order to respond to local labor market threats; rank and file stock options, work environment, and financial flexibility. The relationship between employee's outside opportunities and firm policies are stronger among firms depending on high skill workers and firms with large R&D expenses. Using the adoption of IDD as an exogeneous shock to employee

mobility, we document the causal effect of employees' local opportunities on firm retention policies. We conclude that the competition for worker skills in the local labor market importantly affects corporate policies.

Appendix A. Variable definitions

Local employment opportunities (LEO)

- The similarity between the firm's employee skill profile and the metropolitan statistical area's (MSA) employee skill profile where the firm is headquartered. For each pair of a firm and its MSA, we calculate the similarity between the employee skill profiles of the firm and the MSA as a cosine product between the firm-level employee skill profile vector and the MSA-level employee skill profile vector. A firm's employee skill profile vector is constructed as the segment-sales-weighted average of its industry segments' employee skill profile vectors, where the weights are segment sales to total segment sales. Industry employee skill profile vectors are from the Occupational Employment Statistics (OES) of the Bureau of Labor Statistics. For each 3-digit SIC code for years 1989-2001 and 4-digit NAICS code thereafter, OES reports an industry employee skill profile vector where the elements are the number of industry workers assigned to an occupation divided by the total number of workers in the industry. The MSA's employee skill profile vectors are from the Occupational Employment Statistics (OES) of the Bureau of Labor Statistics. The elements of the MSA employee skill profile vector are the number of industry workers assigned to an occupation divided by the total number of workers in the industry. *LEO* is bounded between 0 and 1.

Log sale

- Natural logarithm of sales (SALE) in year t. (Source: Compustat)

Market-to-book

- Total assets (AT) minus the book value of equity (CEQ) plus the market value of equity (PRCC_F*CSHO), all scaled by total assets (AT). (Source: Compustat)

Log firm age

- Natural logarithm of one plus the number of years a firm has appeared in Compustat. (Source: Compustat)

Book leverage

- Ratio of long term debt (DLTT) plus debt in current liabilities (DLC) to the book value of assets (AT), measured at year t. (Source: Compustat)

Stock return

- Stock return over fiscal year t. (Source: CRSP)

Stock return volatility

- Variance of daily stock returns during fiscal year t. We require at least 200 trading days. (Source: CRSP)

Cash holdings

- Ratio of cash and short-term investments (CHE) to the book value of assets (AT), measured at year t. (Source: Compustat)

R&D/Sales

- Research and development expenditures (XRD) scaled by sales (SALE); all items from year t. If XRD is missing, we set it equal to zero. (Source: Compustat)

Sales growth
- Sales (SALE) in fiscal year t minus sales in fiscal year t-1, scaled by sales in fiscal year t-1. (Source: Compustat)

Net working capital
- Ratio of net working capital (WCAP) minus cash and short-term investments (CHE) to total assets (AT). (Source: Compustat)

Cash flow to assets
- Ratio of earnings after interest, dividends, and taxes but before depreciation divided by book assets (= (OIBDP-XINT-TXT-DVC)/AT). (Source: Compustat)

State GDP growth
- A firm's headquarters state's per capital GDP growth rate from year t-1 to year t (Source: BEA)

Log employees
- Natural logarithm of the number of employees in year t. (Source: Compustat)

Industry CF volatility
- Standard deviation of the ratio of cash flow to total assets over previous ten years averaged across firms in the same 2-digit SIC industry. (Source: Compustat)

Firm employees to MSA employees
- Ratio of a firm's employees to MSA total employees. (Source: BLS)

CSR
- The difference between the number of strengths and the number of concerns scored by each firm in each year. The score numbers are calculated based on 30 strengths and 26 concerns across six KLD dimensions, including community, diversity, employee relations, environment, human rights, and product. (Source: KLD)

BCW
- Dummy variable equal to one if a firm is listed in the "100 Best Companies to Work for in America". This dataset is available up through 2012. (Source: Alex Edmans' webpage)

RFEO1
- Number of rank-and-file employee options granted in the year scaled by the number of shares outstanding. We follow Call, Kedia, and Rajgopal (2016) to calculate this variable using Execucomp and Compustat. (Source: Execucomp and Compustat)

RFEO2
- Number of rank-and-file employee options granted in the year scaled by the number of employees. (Source: Execucomp and Compustat)

Employee involvement

- Dummy variable equal to one if a firm is considered to have strengths in employee involvement and zero otherwise. (KLD). KLD describes this item as "The company strongly encourages worker involvement and/or ownership through stock options available to a majority of its employees; gain sharing, stock ownership, sharing of financial information, or participation in management decision-making." (Source: KLD)

Appendix B. Example of the computation of LEO

We provide a simple example to illustrate the calculation of our local employment opportunities (*LEO*) measure. Firms A and B operate in the same industry but in different locations, the former in MSA X and the latter in MSA Y. The firms have the exactly same laborforce; 2 computer scientists, 1 cashier, and 1 dietary cook. The two MSA´s have the same size of local labor market, albeit different laborforce compositions. Both locations have a total of 100 employees. MSA X has 2 computer scientists (2% of all local employees in MSA X), 50 cashiers (50%), and 48 dietary cooks (48%). That is, Firm A is the only business in MSA X employing computer scientists. On the other hand, MSA Y has 40 computer scientists (40% of all local employees in MSA Y), 20 cashiers (20%), and 40 dietary cooks (40%).

Panel A. Firm A in MSA X

	Firm A		MSA X	
	No. employees	%	No. employees	%
Computer scientist	2	50 %	2	2 %
Cashier	1	25 %	50	50 %
Dietary cook	1	25 %	48	48 %
Total	4	100 %	100	100 %
LEO		**0.60**		

Panel B. Firm B in MSA Y

	Firm B		MSA Y	
	No. employees	%	No. employees	%
Computer scientist	2	50 %	40	40 %
Cashier	1	25 %	20	20 %
Dietary cook	1	25 %	40	40 %
Total	4	100 %	100	100 %
LEO		**0.95**		

We calculate *LEO* for each firm. Firm A´s *LEO* is 0.60, while Firm B´s *LEO* is higher at 0.95. Firm B´s employees, on average, have more local outside opportunities than do Firm A´s employees, in particular, the computer scientists. Accordingly, Firm B may find it more difficult to maintain its desired laborforce compared to Firm A

Appendix C. The 100 Best to Companies to Work for in America across different time periods

This table reports probit regressions of the 100 Best Companies to Work for in America (*BCW*) against *Local employment opportunities* (*LEO*), control variables, and fixed effects across different time periods.[11] We report marginal effects from probit regressions. Marginal effects are computed as the change in the likelihood of being included in the 100 Best Companies to Work for in America for one-standard deviation change in a variable, holding all other variables at their means. Columns 1 and 3 do not include year fixed effects, whereas Columns 2 and 4 do. Dependent variables are from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. Z-value are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

	BCW (t+1)							
	[1]		[2]		[3]		[4]	
	Mar eff.	*z-value*	*Mar eff.*	*z-value*	*Mar eff.*	*z-value*	*Mar eff.*	*z-value*
LEO × Years 1997-2004	0.001	*1.01*	0.001	*0.69*				
LEO × Years 2005-2011	**0.004**	***3.93***	**0.004**	***4.20***				
Years 1997-2004	0.011	*3.58*	-	-				
Years 2005-2011	-	-	-	-				
LEO × Years 1997-2001					0.001	*0.32*	-0.001	*-0.01*
LEO × Years 2002-2006					**0.002**	***1.65***	0.001	*1.41*
LEO × Years 2007-2011					**0.004**	***4.08***	**0.004**	***4.48***
Years 1997-2001					0.013	*3.72*	-	-
Years 2002-2006					0.009	*2.53*	-	-
Years 2007-2011					-	-	-	-
Controls	Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes	
Year fixed effects	-		Yes		-		Yes	
Pseudo R^2	0.05		0.05		0.05		0.05	
No. of observations	35,888		35,888		35,888		35,888	

[11] Note that the annual publication of *BCW* is available from 1998 to 2012, and our dependent variable is from year +1.

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Table 1. Descriptive statistics and correlation

The sample includes all firm-years in the Compustat database during the period 1997 to 2015, where data are available to compute *Local employment opportunities* (*LEO*) for each pair of firm and MSA. We exclude firm-years with a book value of total assets less than $500,000 or a negative market value of equity. As is standard in the literature, we exclude firms in the utility (SIC codes 4900-4999) and financial (SIC codes 6000-6999) industries. Panel A reports descriptive statistics. Panel B reports Pearson correlation coefficients between local employment opportunities and firm policy measures. *LEO* and firm characteristics are measured in year t, whereas firm policy measures are measured in year t+1. All variables are winsorized at the 1 and 99 percentiles of their distributions, except *Local labor mobility* and dummy variables. All variables are defined in the Appendix A. In Panel B, all italicized are p-values.

Panel A. Descriptive statistics

	Mean	Std. Dev.	25th Pctl.	Median	75th Pctl.	Obs.
Local emp. opportunities (*LEO*) in year t	0.321	0.117	0.241	0.303	0.389	56,156
Firm policies (in year t+1)						
RFEO1	16.556	21.424	3.337	9.952	20.723	15,379
RFEO2	672.905	1765.750	21.957	82.712	378.174	15,287
Employee involvement	0.091					12,344
CSR	-0.214	2.145	-1.000	0.000	1.000	12,344
BCW	0.008					51,079
Book leverage	0.264	0.314	0.020	0.192	0.379	50,065
Cash holdings	0.190	0.218	0.027	0.099	0.283	50,245
Firm characteristics (in year t)						
Sale	1316.990	3825.620	22.508	138.028	743.938	56,156
Market-to-book	2.469	2.832	1.112	1.550	2.544	56,140
Firm age	16.766	13.414	7.000	12.000	22.000	56,139
Stock return	0.235	1.232	-0.359	-0.012	0.380	52,062
Log stock volatility	-6.650	1.070	-7.432	-6.690	-5.910	40,394
R&D	0.326	1.539	0.000	0.000	0.089	56,156
Sales growth	0.246	0.890	-0.051	0.075	0.248	52,447
Net working capital	-0.003	0.367	-0.069	0.035	0.169	55,002
Cash flow to assets	-0.083	0.440	-0.067	0.053	0.103	56,009
State GDP growth	1.845	2.357	0.500	1.900	3.500	56,156
No. employees	6.002	16.326	0.128	0.680	3.750	54,195
Industry CF volatility	1.186	1.459	0.237	0.522	1.364	56,153
Firm employees to MSA employees	0.000	0.000	0.000	0.000	0.00001	46,648

Table 1. Continued

Panel B. Pearson correlations

	1	2	3	4	5	6	7	8
1. *LEO*	1.000							
2. *RFEO1*	0.135	1.000						
	0.00							
3. *RFEO2*	0.086	0.604	1.000					
	0.00	*0.00*						
4. *Emp. Involve.*	0.058	0.127	0.125	1.000				
	0.00	*0.00*	*0.00*					
5. *CSR*	0.098	0.080	0.039	0.407	1.000			
	0.00	*0.00*	*0.00*	*0.00*				
6. *BCW*	0.033	0.023	0.023	0.298	0.294	1.000		
	0.00	*0.00*	*0.00*	*0.00*	*0.00*			
7. *Book leverage*	-0.052	-0.068	-0.084	-0.045	-0.054	-0.028	1.000	
	0.00	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*		
8. *Cash holdings*	0.011	0.256	0.415	0.068	0.050	0.004	-0.317	1.000
	0.01	*0.00*	*0.00*	*0.00*	*0.00*	*0.38*	*0.00*	

Table 2. Rank and file stock options

This table reports panel regressions of rank and file employee stock options on *Local employment opportunities* (*LEO*), control variables, and industry and year fixed effects. *RFEO1* is defined as the number of rank and file option granted scaled by the number of shares outstanding. *RFEO2* is defined as the number of rank and file option granted scaled by the number of employees. Dependent variables are from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and unreported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

	RFEO1 (t+1)				*RFEO2* (t+1)			
	[1]		[2]		[3]		[4]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO	**14.019**	***5.56***	**12.715**	***4.11***	**1002.541**	***4.79***	**1278.712**	***4.78***
Log sale	-0.5792	*-1.74*	1.281	*2.70*	173.1120	*5.14*	219.978	*4.22*
Market-to-book	0.741	*3.23*	0.186	*0.87*	156.850	*5.62*	135.902	*4.64*
Log firm age	-2.490	*-5.91*	-2.0197	*-4.79*	-39.342	*-1.05*	-42.9892	*-1.09*
Stock return	-0.719	*-2.84*	-0.525	*-2.16*	-65.278	*-2.77*	-58.186	*-2.50*
Log stock volatility	5.426	*13.82*	5.141	*13.63*	391.803	*10.85*	351.645	*9.73*
R&D	0.729	*0.64*	0.769	*0.79*	639.415	*4.66*	611.077	*4.75*
Sales growth	1.736	*2.39*	2.2522	*3.29*	171.079	*2.06*	198.9318	*2.39*
Net working capital	-9.597	*-5.26*	-8.588	*-4.33*	-1538.417	*-8.32*	-1507.128	*-6.84*
Cash flow to assets	-5.830	*-1.22*	-5.542	*-1.35*	-1988.526	*-3.17*	-1975.090	*-3.12*
State GDP growth	0.598	*5.85*	0.526	*5.37*	35.858	*3.95*	30.302	*3.39*
Log employees	-0.227	*-0.73*	-1.735	*-3.80*	-389.718	*-11.76*	-429.212	*-8.88*
Industry fixed effects	-		Yes		-		Yes	
Year fixed effects	Yes		Yes		Yes		Yes	
Adjusted R^2	0.28		0.34		0.35		0.37	
No. of observations	13,775		13,775		13,743		13,743	

Table 3. Work environment

This table reports regressions of *Employee involvement*, overall corporate social responsibility (*CSR*), and the 100 Best Companies to Work for in America (BCW) on *Local employment opportunities* (*LEO*), control variables, and industry and year fixed effects. Columns 1, 2, 5, and 6 report marginal effects from probit regressions. Marginal effects are computed as the change in the likelihood of having strong employee involvement (being included in the 100 Best Companies to Work for in America) for one-standard deviation change in a variable, holding all other variables at their means. Columns 3 and 4 report ordinary least square regression coefficients. Dependent variables are from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. Z-value (in Columns 1, 2, 5, and 6) and t-statistics (in Columns 3 and 4) are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Employee involvement (t+1)				*CSR (t+1)*				*BCW (t+1)*			
	[1]		[2]		[3]		[4]		[5]		[6]	
	Mar. eff	*z-value*	*Mar. eff*	*z-value*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*	*Mar. eff*	*z-value*	*Mar. eff*	*z-value*
LEO	**0.005**	***2.25***	**0.003**	***2.04***	**1.375**	***3.21***	**0.857**	***1.79***	**0.001**	***2.27***	**0.002**	***3.04***
Log sale	0.106	*13.43*	0.115	*11.54*	0.161	*2.59*	0.363	*5.15*	0.022	*14.90*	0.026	*13.70*
Market-to-book	0.037	*9.80*	0.022	*6.20*	0.199	*8.05*	0.155	*6.82*	0.008	*14.53*	0.007	*12.31*
Log firm age	-0.012	*-4.02*	-0.017	*-5.57*	-0.072	*-1.00*	-0.118	*-1.70*	-0.003	*-5.66*	-0.003	*-5.60*
Stock return	-0.010	*-2.21*	-0.004	*-1.14*	-0.157	*-7.96*	-0.127	*-6.65*	-0.005	*-4.26*	-0.004	*-3.75*
Log stock volatility	-0.001	*-0.34*	-0.013	*-3.19*	-0.292	*-4.41*	-0.309	*-5.11*	-0.002	*-2.10*	-0.003	*-3.81*
R&D	0.028	*6.76*	0.027	*6.68*	0.135	*4.35*	0.195	*5.21*	0.006	*5.36*	0.006	*5.24*
Sales growth	-0.020	*-3.21*	-0.014	*-2.47*	-0.133	*-3.83*	-0.065	*-1.88*	-0.005	*-3.24*	-0.005	*-3.37*
Net working capital	-0.046	*-8.09*	-0.049	*-7.72*	-1.038	*-3.60*	-1.211	*-3.74*	-0.004	*-4.18*	0.000	*-0.05*
Cash flow to assets	0.006	*0.62*	-0.003	*-0.41*	0.937	*3.41*	0.723	*2.66*	0.011	*4.22*	0.007	*2.55*
State GDP growth	0.003	*1.04*	0.003	*0.76*	0.022	*1.50*	0.022	*1.61*	0.001	*0.85*	0.000	*0.48*
Log employees	-0.037	*-5.88*	-0.042	*-5.00*	0.029	*0.62*	-0.100	*-1.65*	-0.003	*-2.14*	-0.006	*-3.63*
Industry fixed effects	-		Yes		-		Yes		-		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
Adjusted (or pseudo) R^2	0.07		0.11		0.11		0.18		0.04		0.05	
No. of observations	11,397		11,397		11,397		11,397		35,888		35,888	

Table 4. Broad based options and work environment for high skill employees

Columns 1, 2, and 4 report OLS regression coefficients, while Columns 3 and 5 report marginal effects from probit regressions. Marginal effects are computed as the change in the likelihood of having strong employee involvement (being included in the 100 Best Companies to Work for in America) for one-standard deviation change in a variable, holding all other variables at their means. Following Bello et al. (2017) and Ghaly et al. (2017), we classify industries into high skill *versus* low skill. *High skill* is a dummy equal to one if a firm's industry employs high skill workers more than the median firms. *High R&D* is a dummy equal to one if a firm's ratio of R&D to assets is above the industry median based on 2-digit SIC codes during the year. Dependent variables are from year t+1. Independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics (in Columns 1, 2, and 4) and z-value (in Columns 3 and 5) are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported.

Panel A. High skill	*RFEO1 (t+1)*		*RFEO2 (t+1)*		*Emp. Involve. (t+1)*		*CSR (t+1)*		*BCW (t+1)*	
	[1]		[2]		[3]		[4]		[5]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar. eff*	*z-value*	*Coeff.*	*t-stat*	*Mar eff.*	*z-value*
LEO	2.055	*0.64*	**570.218**	***2.24***	-0.004	*-1.16*	0.339	*0.96*	0.002	*1.28*
LEO × High skill	**15.397**	***2.92***	**951.639**	***1.86***	**0.012**	***1.99***	0.93	*1.56*	**0.002**	***1.71***
High skill	-1.672	*-0.97*	-113.972	*-0.70*	0.021	*1.53*	0.195	*0.70*	0.003	*0.67*
Controls	Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.35		0.37		0.11		0.19		0.05	
No. of observations	11,604		11,581		10,797		10,797		28,215	

Panel B. High R&D	*RFEO1 (t+1)*		*RFEO2 (t+1)*		*Emp. Involve. (t+1)*		*CSR (t+1)*		*BCW (t+1)*	
	[1]		[2]		[3]		[4]		[5]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff.*	*z-value*	*Coeff.*	*t-stat*	*Mar eff.*	*z-value*
LEO	**4.256**	***1.67***	**568.317**	***3.10***	-0.013	*-1.20*	0.143	*1.38*	**-0.003**	***-2.90***
LEO × High R&D	**13.771**	***2.86***	**1158.806**	***2.67***	**0.024**	***3.67***	**1.078**	***1.72***	**0.009**	***5.62***
High R&D	0.8686	*0.55*	67.782	*0.45*	0.010	*0.67*	0.123	*0.47*	-0.008	*-2.51*
Controls	Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.35		0.38		0.12		0.19		0.05	
No. of observations	13,775		13,743		11,397		11,397		35,888	

Table 5. Cash holdings

This table reports panel regressions of corporate cash holdings on *Local employment opportunities* (*LEO*), control variables, and industry and year fixed effects. *Cash holdings* is defined as the ratio of cash and short-term investments to the book value of assets. The dependent variable is from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Cash holdings (t+1)			
	[1]		[2]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*
LEO	**0.123**	***6.58***	**0.159**	***7.59***
Log sale	-0.025	*-15.68*	-0.024	*-15.12*
Market-to-book	0.025	*20.35*	0.018	*15.87*
Log firm age	-0.022	*-6.99*	-0.025	*-8.10*
Stock return	-0.006	*-4.77*	-0.002	*-2.11*
Log stock volatility	0.004	*1.72*	-0.006	*-2.47*
R&D	0.030	*14.68*	0.026	*12.99*
Sales growth	-0.001	*-0.58*	0.001	*0.71*
Net working capital	-0.114	*-9.16*	-0.189	*-12.58*
Cash flow to assets	0.009	*0.74*	0.032	*2.83*
State GDP growth	0.006	*8.47*	0.005	*7.26*
Industry CF volatility	0.014	*8.77*	-0.003	*-2.19*
Industry fixed effects	-		Yes	
Year fixed effects	Yes		Yes	
Adjusted R^2	0.32		0.40	
No. of observations	35,546		35,546	

Table 6. Book leverage

This table reports panel regressions of financial leverage on *Local employment opportunities* (*LEO*), control variables, and industry and year fixed effects. Columns 1 and 2 report ordinary least square regression coefficients, and Columns 3 and 4 report marginal effects probit regressions. Marginal effects are computed as the change in the likelihood of having potive net debt for one-standard deviation change in a variable, holding all other variables at their means. *Book leverage* is defined as the ratio of long term debt plus debt in current liabilities to the book value of assets. *Net debt* is a dummy equal to one if long term debt plus debt in current liabilities minus cash and short-term investments is positive, and zero otherwise. Dependent variables from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics (in Columns 1 and 2) and z-value (in Columns 3 and 4) are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

	Book leverage (t+1)				*Net debt (t+1)*			
	[1]		[2]		[3]		[4]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff.*	*z-value*	*Mar eff.*	*z-value*
LEO	**-0.169**	***-7.09***	**-0.118**	***-4.82***	**-0.045**	***-18.68***	**-0.038**	***-14.35***
Log sale	0.032	*17.67*	0.031	*16.39*	0.179	*41.98*	0.171	*39.93*
Market-to-book	-0.016	*-8.00*	-0.010	*-4.64*	-0.184	*-34.71*	-0.124	*-25.89*
Log firm age	-0.004	*-0.92*	-0.005	*-1.16*	0.034	*11.02*	0.031	*10.26*
Stock return	0.000	*0.14*	-0.004	*-2.57*	0.016	*4.96*	0.006	*1.95*
Log stock volatility	0.019	*5.42*	0.030	*8.86*	-0.014	*-3.83*	0.018	*5.14*
R&D	-0.002	*-0.79*	-0.003	*-1.01*	-0.039	*-7.07*	-0.024	*-5.11*
Sales growth	0.011	*3.92*	0.006	*2.35*	0.022	*6.70*	0.011	*3.58*
Net working capital	-0.216	*-12.48*	-0.153	*-7.65*	-0.037	*-7.65*	0.023	*4.57*
Cash flow to assets	-0.155	*-7.74*	-0.163	*-8.06*	-0.093	*-15.42*	-0.101	*-18.11*
State GDP growth	-0.006	*-5.73*	-0.004	*-4.75*	-0.035	*-9.46*	-0.028	*-8.10*
Industry CF volatility	-0.004	*-1.54*	0.004	*1.79*	-0.030	*-9.75*	0.016	*3.99*
Industry fixed effects	-		Yes		-		Yes	
Year fixed effects	Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.12		0.21		0.19		0.27	
No. of observations	35,421		35,421		35,418		35,418	

Table 7. High skill employees for financial flexibility

This table exaines whether the effect of local employment opportunities on financial flexibility is stronger for firms using high skill employees and R&D intensive firms. We follow Ghaly et al. (2017) and classify industries into high skill versus low skill. *High skill* is a dummy equal to one if a firm's industry employs high skill workers more than the median firms. *High R&D* is a dummy equal to one if a firm's ratio of R&D to assets is above the industry median based on 2-digit SIC codes during the year. Dependent variables are from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported.

	Cash holdings (t+1)				*Book leverage (t+1)*			
	[1]		[2]		[3]		[4]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO	0.076	*2.57*	0.086	*3.47*	-0.074	*-1.91*	-0.082	*-2.47*
LEO × High skill	**0.157**	***4.11***			**-0.107**	***-2.19***		
High skill	0.019	*1.38*			-0.003	*-0.15*		
LEO × High R&D			**0.091**	***2.72***			**-0.030**	***-1.73***
High R&D			0.083	*7.12*			-0.067	*-4.78*
Controls	Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes	
Adjusted R^2	0.43		0.45		0.21		0.23	
No. of observations	28,567		35,546		28,466		35,421	

Table 8. Inevitable Disclosure Doctrine

This table examines whether the adoption of Inevitable Disclosure Doctrine (IDD) changes the way *Local employment opportunities* (*LEO*) affects firm policies. Columns 1, 2, 4, 6, and 7 report ordinary least square regression coefficients, while Columns 3 and 5 report marginal effects from probit regressions. We obtain the year of IDD adoption across states from Klasa et al. (2018). *IDD* is a dummy equal to one if the state of the firm's headquarters has adopted the IDD by the year, and zero otherwise. In Panel A, we run differences-in-differences tests for the full sample. In Panel B, we sort all firm-years based on firm-age, and exclude the bottom quartile (i.e., young firms). Dependent variables are from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics (in Columns 1, 2, 4, 6, and 7) and z-value (in Columns 3 and 5) are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Full sample

	RFEO1		*RFEO2*		*Emp. Involve.*		*CSR*		*BCW*		*Book leverage*		*Cash holdings*	
	[1]		[2]		[3]		[4]		[5]		[6]		[7]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*z-val.*	*Coeff.*	*t-stat*	*Mar eff*	*z-val.*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO	**16.466**	***4.47***	**1444.527**	***4.19***	**0.008**	***2.92***	**1.393**	***2.52***	**0.002**	***2.73***	**-0.168**	***-5.73***	**0.187**	***7.70***
LEO × IDD	**-14.087**	***-3.43***	**-737.261**	***-2.18***	**-0.033**	***-4.87***	**-1.697**	***-2.45***	-0.001	*-1.63*	**0.141**	***3.46***	**-0.092**	***-2.96***
IDD	2.663	*1.91*	95.457	*0.77*	0.050	*3.93*	0.475	*2.02*	0.001	*0.21*	-0.031	*-2.19*	0.011	*1.05*
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.34		0.37		0.11		0.19		0.05		0.21		0.41	
No. of observations	13,775		13,743		11,397		11,397		35,888		35,421		35,546	

Table 8. Continued

Panel B. Excluding young firms

	RFEO1		*RFEO2*		*Emp. Involve.*		*CSR*		*BCW*		*Book leverage*		*Cash holdings*	
	[1]		[2]		[3]		[4]		[5]		[6]		[7]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*z-val.*	*Coeff.*	*t-stat*	*Mar eff*	*z-val.*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO	**12.913**	***3.09***	**773.470**	***2.37***	**0.010**	***2.55***	**2.033**	***3.10***	**0.002**	***2.24***	**-0.148**	***-4.76***	**0.159**	***6.09***
LEO × IDD	**-12.019**	***-2.77***	-304.887	*-1.52*	**-0.043**	***-4.45***	**-2.159**	***-2.68***	-0.002	*-1.48*	**0.135**	***3.15***	**-0.073**	***-2.24***
IDD	2.438	*1.62*	-19.336	*-0.15*	0.070	*3.76*	0.623	*2.27*	0.002	*0.54*	-0.028	*-1.92*	0.007	*0.64*
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.30		0.33		0.12		0.20		0.06		0.22		0.39	
No. of observations	9,688		9,665		8,774		8,774		29,469		29,060		29,166	

Table 9. Inevitable Disclosure Doctrine for high skill employees

This table examines whether the effect of Inevitable Disclosure Doctrine (IDD) varies across high skill *versus* low skill employees. Columns 1, 2, 4, 6, and 7 report ordinary least square regression coefficients, while Columns 3 and 5 report marginal effects from probit regressions. We obtain the year of IDD adoption across states from Klasa et al. (2018). *IDD* is a dummy equal to one if the state of the firm's headquarters has adopted the IDD by the year, and zero otherwise. We follow Bello et al. (2017) and Ghaly et al. (2017) to classify industries into high skill *versus* low skill. *High skill* is a dummy equal to one if a firm's industry employs high skill workers more than the median firms. *High R&D* is a dummy equal to one if a firm's ratio of R&D to assets is above the industry median based on 2-digit SIC codes during the year. In Panel A, we present triple differences (i.e., difference in differences in differences) estimations interacting *LEO, IDD,* and *High skill*. In Panel B, we present estimation results based on *High R&D*. Dependent variables are from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics (in Columns 1, 2, 4, 6, and 7) and z-value (in Columns 3 and 5) are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. High skill dummy

	RFEO1		*RFEO2*		*Emp. Involve.*		*CSR*		*BCW*		*Book leverage*		*Cash holdings*	
	[1]		[2]		[3]		[4]		[5]		[6]		[7]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff.*	*z-val.*	*Coeff.*	*t-stat*	*Mar eff.*	*z-val.*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO × IDD × High skill	**-22.512**	***-2.42***	-213.849	*-1.53*	**-0.020**	***-1.71***	-0.500	*-1.35*	**-0.006**	***-1.65***	**0.154**	***1.67***	**-0.114**	***-1.79***
LEO × IDD	-1.078	*-0.25*	-451.221	*-1.41*	-0.032	*-3.73*	-1.310	*-1.54*	0.000	*-0.27*	0.033	*0.56*	0.023	*0.55*
LEO × High skill	18.518	*2.82*	695.228	*1.06*	-0.001	*0.19*	0.793	*0.81*	0.002	*1.18*	-0.143	*-2.34*	0.183	*3.94*
High skill × IDD	5.827	*1.90*	-70.507	*-0.23*	0.004	*0.33*	0.398	*0.84*	0.003	*0.90*	-0.071	*-2.29*	0.037	*1.55*
LEO	1.776	*0.43*	736.715	*2.15*	0.007	*1.20*	0.921	*1.37*	0.001	*1.04*	-0.088	*-1.76*	0.059	*1.68*
High skill	-2.458	*-1.12*	11.788	*0.05*	0.057	*2.98*	0.119	*0.35*	0.004	*0.72*	0.021	*0.94*	0.008	*0.48*
IDD	-0.531	*-0.37*	57.195	*0.51*	0.063	*3.72*	0.241	*0.81*	0.000	*0.05*	0.013	*0.65*	-0.024	*-1.68*
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.35		0.38		0.11		0.19		0.05		0.21		0.43	
No. of observations	11,604		11,581		10,797		10,797		28,215		28,466		28,567	

Table 9. Continued

Panel B. High R&D dummy

	RFEO1		*RFEO2*		*Emp. Involve.*		*CSR*		*BCW*		*Book leverage*		*Cash holdings*	
	[1]		[2]		[3]		[4]		[5]		[6]		[7]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff.*	*z-val.*	*Coeff.*	*t-stat*	*Mar eff.*	*z-val.*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO × IDD × High R&D	**-19.714**	***-2.56***	**-1280.805**	***-2.31***	**-0.028**	***-2.77***	-1.922	*-1.52*	0.003	*-1.38*	**0.133**	***1.73***	**-0.110**	***-1.88***
LEO × IDD	0.294	*0.06*	321.595	*1.12*	0.000	*-0.04*	-0.373	*-0.46*	-0.001	*-0.66*	0.043	*0.80*	0.029	*0.78*
LEO × High R&D	17.403	*2.95*	1389.009	*2.57*	0.029	*3.60*	1.552	*1.65*	0.007	*3.85*	-0.060	*-1.15*	0.119	*2.98*
High R&D × IDD	3.618	*1.40*	126.000	*0.61*	0.016	*1.67*	0.705	*1.60*	-0.002	*-1.14*	-0.053	*-1.99*	0.024	*1.19*
LEO	2.732	*0.68*	322.017	*1.50*	-0.012	*-2.65*	0.248	*0.38*	-0.002	*-1.98*	-0.099	*-2.30*	0.065	*2.19*
High R&D	0.608	*0.31*	106.891	*0.53*	0.009	*0.37*	-0.099	*-0.29*	-0.006	*-1.34*	-0.050	*-2.59*	0.078	*5.27*
IDD	-0.500	*-0.29*	-96.684	*-0.90*	0.009	*0.44*	0.043	*0.15*	-0.001	*0.26*	0.001	*0.04*	-0.016	*-1.26*
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.35		0.39		0.12		0.19		0.05		0.23		0.45	
No. of observations	13,775		13,743		11,397		11,397		35,888		35,421		35,546	

Table 10. Robustness checks

Columns 1, 2, 4, 6, and 7 report ordinary least square regression coefficients, while Columns 3 and 5 report marginal effects from probit regressions. In Panel A, we sort all firms into deciles based on total assets, and then we exclude firms in the top decile that are likely to operate across multiple locations. In Panel B, we exclude the firms in which the ratio of the firm's employees to the MSA total employees belongs to the top decile (i.e., the dominant local employer). In Panel C, we add *Industry cluster* interacted with *LEO*. *Industry cluster* is a dummy equal to one if a firm is located in an industry cluster, and zero otherwise. A given MSA is classified as an industrial cluster, if 10% of the 2-digit SIC industry's market value is located in the MSA, and 10% of the market value of that MSA is accounted for by that industry. Dependent variables from year t+1, while independent variables are from year t. Industry fixed effects are defined using 2-digit SIC codes. All variables are defined in Appendix A. T-statistics (in Columns 1, 2, 4, 6, and 7) and z-value (in Columns 3 and 5) are computed using robust standard errors with clustering of observations at the firm level. An intercept is included and not reported. ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Excluding large firms

	RFEO1		*RFEO2*		*Emp. Involve.*		*CSR*		*BCW*		*Book leverage*		*Cash holdings*	
	[1]		[2]		[3]		[4]		[5]		[6]		[7]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*t-stat*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO	**14.021**	***4.13***	**1253.539**	***4.41***	0.001	*1.36*	0.543	*1.55*	**0.0003**	***1.73***	**-0.123**	***-4.77***	**0.166**	***7.42***
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.35		0.37		0.09		0.17		0.02		0.21		0.40	
No. of observations	11,467		11,444		10,281		10,281		31,723		31,119		31,235	

Panel B. Excluding dominant local firms

	RFEO1		*RFEO2*		*Emp. Involve.*		*CSR*		*BCW*		*Book leverage*		*Cash holdings*	
	[1]		[2]		[3]		[4]		[5]		[6]		[7]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*t-stat*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO	**13.393**	***3.90***	**1312.935**	***4.48***	0.001	*1.32*	**0.775**	***1.79***	**0.001**	***2.00***	**-0.107**	***-4.29***	**0.167**	***7.51***
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.35		0.37		0.11		0.19		0.04		0.21		0.40	
No. of observations	11,573		11,548		10,291		10,291		32,246		31,640		31,762	

Table 10. Continued

Panel C. Industry clusters

	RFEO1		*RFEO2*		*Emp. Involve.*		*CSR*		*BCW*		*Book leverage*		*Cash holdings*	
	[1]		[2]		[3]		[4]		[5]		[6]		[7]	
	Coeff.	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*t-stat*	*Coeff.*	*t-stat*	*Mar eff*	*t-stat*	*Coeff.*	*t-stat*	*Coeff.*	*t-stat*
LEO	2.916	*1.49*	**265.473**	***1.73***	**-0.006**	***-2.04***	0.440	*0.87*	0.0001	*0.14*	**-0.085**	***-3.07***	**0.071**	***3.10***
LEO × Industrial Cluster	**19.088**	***3.28***	**2161.180**	***4.07***	**0.012**	***2.34***	0.427	*0.38*	**0.004**	***3.53***	-0.002	*-0.53*	**0.175**	***4.12***
Industrial Cluster	-2.862	*-1.38*	-404.928	*-2.13*	0.0002	*-0.38*	0.122	*0.29*	-0.011	*-3.13*	-0.037	*-1.67*	-0.005	*-0.33*
Controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Adj. (or pseudo) R^2	0.34		0.38		0.11		0.19		0.05		0.21		0.41	
No. of observations	13,775		13,743		11,397		11,397		35,888		35,421		35,546	