ONLINE APPENDIX FOR

CORPORATE SOCIAL RESPONSIBILITY AS A DEFENSE AGAINST KNOWLEDGE SPILLOVERS: EVIDENCE FROM THE INEVITABLE DISCLOSURE DOCTRINE

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Appendix A. Survey of knowledge workers

Survey design

We surveyed alumni from Boston University (BU) and the Massachusetts Institute of Technology (MIT).[1] We distributed the survey electronically to the alumni and received 1,257 responses (759 from the BU survey and 498 from the MIT survey, corresponding to a response rate of about 7% at each institution). Although our sample is unlikely to be perfectly representative, we have no reason to expect the sample to be biased toward respondents that are favorably inclined toward CSR initiatives. Respondent characteristics are provided in Table A1. In particular, we note that a large fraction of respondents work in industries that are knowledge-intensive—e.g., information technology (19%), finance (18%), pharmaceuticals (11%), consulting (10%), consumer products (7%), aerospace (6%), energy (4%), and several others.

An important concern in survey design is the possibility of social desirability bias, or the tendency of participants to present themselves in a socially acceptable way (Maccoby and Maccoby, 1954; Nederhof, 1985). In our case, social desirability bias may motivate the respondents to express favorable opinions about CSR initiatives. We mitigated this concern in two ways. First, we administered the survey in an anonymous manner and informed the respondents that their identity would remain undisclosed. Second, we implemented the technique of "indirect questioning," which has been shown to reduce social desirability bias (e.g., Fisher, 1993). Rather than asking participants about their own behavior, we asked them about the general use of CSR as a means of reducing knowledge spillovers. Moreover, we presented the respondents with a

[1] The sampling frame of the BU survey includes all alumni from the Questrom School of Business (and the former School of Management) who graduated by 2016 and are based in the U.S.; the sampling frame of the MIT survey includes all alumni from the Sloan School of Management who graduated between 1980-2015 and are based in the U.S. The responses were very similar across both schools.

hypothetical scenario and asked them to make decisions regarding CSR. Specifically, participants were told that a legislative change was about to increase the threat of knowledge spillovers. Faced with this increased threat, respondents had to assess the effectiveness of CSR initiatives in helping reduce knowledge spillovers.

For all survey questions, we asked the respondents to agree or disagree with the proposed statements, using a standard 6-point Likert scale ranging from *Strongly Disagree* (= 1) to *Strongly Agree* (= 6).

Survey questions

The goal of this survey is to better understand how to prevent employees with access to a firm's valuable and unique knowledge from leaving to other firms and disclosing this knowledge to competitors. The insights of this research have important implications for human resource management and innovation. The survey will take about 5 minutes. Your participation is highly valued. All responses are anonymous and will be kept strictly confidential. The information provided will be used only for the purposes of this research.

Please answer the questions based on what is/was typical for you as a manager/employee.

1. **Have you ever worked as an employee with access to a firm's trade secrets? By trade secrets, we mean knowledge and information that is valuable to the firm and is not shared with competitors. For example, a firm's trade secrets include (but are not limited to) research and development processes, chemical formulas, manufacturing techniques, product design, technical data, customer lists, business leads, marketing strategies, pricing schedules, and sales techniques. (yes/no)**

2. **Please state whether you agree or disagree with the following statements (use 6-point Likert scale to measure agree/disagree):**

   "In general, it is important for a firm to put in place practices that aim to retain workers with access to a firm's trade secrets (i.e., knowledge workers)."

   "In general, socially-responsible practices can enhance knowledge workers' appreciation of their current employment."

   "In general, socially-responsible practices can improve firm's ability to retain their knowledge workers."

3. **Please state whether you agree or disagree with the following statements (use 6-point Likert scale to measure agree/disagree):**

   "In general, improving a firm's socially-responsible practices might help retain knowledge workers because:

   a. … it helps better differentiate the company from other employers."

   b. … it helps improve the overall reputation of the company as a workplace."

   c. … it allows employees to have a positive (direct or indirect) impact on society and the natural environment and hence helps improve how knowledge workers feel about the job they are doing."

   d. … it helps strengthen knowledge workers' loyalty to the company (e.g., by fostering interpersonal relationships among employees, appealing to their general justice perception, and by enhancing employees' identification with the firm)."

4. **Please state whether you agree or disagree with the following statement (use 6-point Likert scale to measure agree/disagree):**

   "In general, improving a firm's socially-responsible practices might strengthen knowledge workers' loyalty and prevent them from disclosing a firm's unique and valuable knowledge such as trade secrets even if they choose to leave the company to work for a rival firm."

5. **Please consider the hypothetical scenario below:**

   Suppose that you are a manager of a firm that heavily relies on knowledge workers. A legislative change is about to make it easier for employees to switch employers. As a result, you worry that your employees might join a rival firm and disclose your valuable knowledge to competitors.

   Please state whether you agree or disagree with the following statements (use 6-point Likert scale to measure agree/disagree):

   "In an attempt to mitigate this threat, you will likely:

   a. … increase non-salary work/life benefits (e.g., flex time, maternity policy, child care, health benefits, retirement benefits, etc.)."

   b. … offer more authority, employee involvement in decision-making, learning and advancement opportunities, and/or other forms of career development to knowledge workers."

   c. … improve the firm's policies to support minorities, LGBT (lesbian, gay, bisexual, and transgender), women, and other underrepresented groups among employees."

   d. … improve the firm's work environment in terms of health, safety, recreational facilities, sports and wellness offerings, etc."

e. … provide knowledge workers with the opportunity to devote some of their worktime to environmental initiatives, and/or other ways to have a positive impact on society and the natural environment."

f. … increase the firm's engagement in local communities (e.g., through charitable donations)."

g. … increase the firm's efforts to be eco-friendly (e.g., green the workspace with plants, improve the firm's environmental footprint, increase efforts in green tech development, or increase efforts in other sustainable practices)."

h. … improve firm relations with customers (e.g., improve product quality, develop innovative products, offer products and services that benefit economically disadvantaged customers, improve customer service, etc.)."

6. Please provide the following information:

a. What is your age?

- ❍ 25 or under
- ❍ 26-35
- ❍ 36-45
- ❍ 46-55
- ❍ 56-65
- ❍ Over 65

b. What industry do you work in? _____

c. What is your current job function? (e.g., manager, consultant) _____

Appendix B. The inevitable disclosure doctrine—institutional background

The inevitable disclosure doctrine prevents employees with valuable know-how from working for a competitor in the immediate future as they would "inevitably disclose" their current employer's trade secrets. A "trade secret" is information or knowledge—which may include a formula, pattern, compilation, program, device, method, technique, or process—that is i) not generally known; ii) cannot be easily figured out by those who want to know it; iii) derives actual or potential economic value (because it is not broadly known); and iv) requires reasonable efforts to keep it from becoming broadly known (see, e.g., Kahnke and Bundy, 2013).[2] Trade secrets can range from

[2] See Uniform Trade Secrets Act §1(4), 14 U.L.A. 619 (1985) for the legal definition of a trade secret.

high-tech information (such as chemical formulas, manufacturing techniques, product design, and technical data) to relatively low-tech information (such as client lists, business leads, marketing strategies, pricing schedules, and sales techniques) and account for a substantive part of firms' intangible assets (Thomas, 2014). On average, trade secrets are estimated to make up two-thirds of the value of firms' intangible assets, and up to 80% for companies in knowledge-intensive sectors. In absolute terms, this translates into an estimated $5 trillion worth of trade secrets for publicly traded U.S. companies (U.S. Chamber of Commerce, 2014). Precisely because of their value, trade secrets are prone to misappropriation, which most often involves insiders—typically employees or contractors—who are given access to sensitive information (*The Economist*, 2013). The rise of computer technology, ubiquity of cell phones, and the Internet have made misappropriating trade secrets easier and, conversely, increased the managerial difficulty of keeping trade secrets safe (Thomas, 2014). Indeed, researchers have found that the value of trade secrets is particularly high in industries where the rate of inter-firm mobility is high (Castellaneta, Conti, and Kacperczyk, 2017).

A number of legal tools aim to mitigate the risk of trade secret disclosure and imitation by rival firms: U.S. patent law, the Uniform Trade Secret Act, non-compete covenants, and the doctrine of inevitable disclosure.[3] The latter, much like a non-compete covenant, severely restricts the mobility of employees in order to protect companies from unintended knowledge spillovers and economic losses. Yet, unlike non-compete covenants and other legal tools, the inevitable disclosure doctrine does not require i) a specific contract signed by employees, nor ii) an actual misappropriation of confidential information. The mere possibility of trade secret disclosure is

[3] By its very nature, information disclosed in a published patent is not a secret anymore. Yet, patent law grants the patent holder the exclusive right to exclude others from making, using, importing, and selling the patented innovation for a limited period of time (see United States Code Title 35 U.S.C.A. § 154(a)).

sufficient for this doctrine to apply.

In inevitable disclosure cases, courts issue an injunction prohibiting the employee from going to work for a competitor. The case in point is PepsiCo, Inc. v. Redmond, 54 F.3d 1262 (7th Cir. 1995):

> While in upper management at PepsiCo, Redmond signed a confidentiality agreement but not a non-compete agreement. After he left PepsiCo for a similar job at Quaker, PepsiCo sought to enjoin him from assuming his duties or divulging trade secrets, which concerned mainly strategic sales, marketing, logistics and financial information. Considering the similarity of positions, competitive landscape, timing of departure, and Redmond's previous work conduct, the court ruled that Redmond's new employment "would inevitably lead him to disclose trade secrets." (See, e.g., Kahnke and Bundy (2013) for further details.)

As this case illustrates, the inevitable disclosure doctrine provides employers with a legal tool to prevent employees from working for another company without proving that the individual disclosed any trade secret or even threatened to do so. As such, this doctrine provides employers with a mechanism to severely restrict knowledge workers' mobility and hence knowledge spillovers (e.g., Gilson, 1999; Kahnke and Bundy, 2013; Png and Samila, 2015).

Appendix C. Validity of the identification strategy

Our identification strategy needs to satisfy two requirements to be valid: the relevance condition and the exclusion restriction. First, the treatment (i.e., the rejection of the IDD) needs to trigger *relevant* changes in the threat of knowledge spillovers. Second, the treatment needs to be *exogenous* with respect to CSR. In the following, we discuss both requirements.

Relevance condition

To satisfy the relevance condition, the rejection of the IDD needs to bring about relevant changes in the risk of knowledge spillovers. Extant literature suggests that this is indeed the case (e.g., Gilson, 1999; Kahnke and Bundy, 2013; Png and Samila, 2015). In particular, Png and Samila

(2015) show that companies located in states that have rejected the inevitable disclosure doctrine experience a 10% increase in mobility of knowledge workers. This effect is comparable to—in fact, slightly stronger than—the effect of the rejection of non-compete agreements on knowledge workers' mobility. For example, Marx, Strumsky, and Fleming (2009) find an 8% increase in inventors' mobility following Michigan's rejection of non-compete agreements. Overall, this indicates that the rejection of the inevitable disclosure doctrine triggers a substantial increase in knowledge workers' mobility and the threat of knowledge spillovers.

Exclusion restriction

Our identification strategy assumes that the rejection of the inevitable disclosure doctrine is exogenous with respect to firms' CSR practices. In the following, we discuss potential identification concerns and how our difference-in-differences specification helps address them.

Lobbying. A potential concern is that firms may lobby for the rejection of the inevitable disclosure doctrine, and hence the treatment would reflect a firm's choice. For instance, if firms that are considerate of their stakeholders' interests—that is, firms with high CSR—tend to (successfully) pressure courts to reject the doctrine, then our results would be driven by reverse causation. Nevertheless, this concern is mitigated for the following reasons. First, we search for qualitative evidence that would be indicative of this possibility. In particular, we search the *Lexis-Nexis* database for press releases mentioning that social responsible firms actively advocated the rejection of the doctrine. Not surprisingly, we find no such evidence. Second, to further rule out potential reverse causality concerns, we examine the dynamics of the treatment effect. If reverse causation explains our results, then we would expect that the rejection of the inevitable disclosure doctrine has a positive and significant "effect" already before the rejection occurs. However, we find no evidence for such pre-existing trends. Changes in CSR appear only *after* (not before or

contemporaneous with) the rejection of the doctrine (see the results section).

Unobserved differences between treated and control firms. Another potential concern is that treated and control firms may differ along unobservable characteristics, and that these differences may correlate with both CSR decisions and states' rejection of the inevitable disclosure doctrine. Nevertheless, this concern is unlikely to explain our results, for several reasons. First, as discussed above, we find no evidence of pre-existing trends. This suggests that treated and control firms are on similar trends prior to the treatment. Second, the inclusion of region by year fixed effects mitigates the potential concern that omitted local trends may confound our results. Third, to further address this point, we re-estimate our baseline regression including a large set of (time-varying) state-level controls that capture i) changes in the state's pro-social values, ii) changes in local economic conditions, and iii) other regulatory changes. We find that our results are robust (see Appendix D). Fourth, given the staggered nature of the treatments, the eventually treated firms are first in the control group, and only later in the treatment group (i.e., once they have been treated). This feature allows us to re-estimate our difference-in-differences specification using only the eventually treated firms—which means that the control group consists only of firms that are eventually treated (for a similar test see, e.g., Bertrand and Mullainathan, 2003; Flammer and Kacperczyk, 2016). When re-estimating our baseline specification using only the eventually treated firms, we find that our results are again robust (see Appendix D).

Appendix D. Robustness

Table A7 presents various robustness checks that are variants of the specification used in column (3) of Table 2 (henceforth "baseline specification"). In the following, we describe each of them.

State-level controls. In our baseline specification, the inclusion of firm fixed effects—which, by construction, absorb state fixed effects—ensures that our results are not driven by fixed

differences across states. That being said, it could still be the case that *time-varying* differences across states affect our results. This concern is mitigated by the inclusion of region × year fixed effects, which account for unobservable trends at the regional level. Yet, Census regions are broader than states and need not account for more granular trends at the state-year level. To alleviate this issue, in column (1) of Table A7, we include a large set of (time-varying) state-level controls that could potentially correlate with both the rejection of the IDD and CSR policies. First, we include variables that capture *changes in the state's pro-social values*—specifically, we control for i) income inequality (the top 10% income share) at the state level and ii) a set of three indicator variables for the state's political lean (Democrat, Republican, split).[4] Second, we include variables that capture *changes in the state's economic conditions*—i) changes in state-level GDP and ii) changes in the state-level unemployment rate.[5] Third, we include variables that capture *other legal changes* that may coincide with the timing of the IDD and also affect CSR—specifically, we account for changes in i) antitakeover legislation, ii) banking deregulation, and iii) the enforcement of non-competes.[6] As can be seen, our results change little when we include all these controls.

Accounting for the Uniform Trade Secret Act (UTSA). In column (2) of Table A7, we account for the staggered introduction of the Uniform Trade Secret Act (UTSA) at the state level. The UTSA strengthened the protection of trade secrets by dropping the requirement that the information be business-related and in continuous use, and by defining misappropriation to include mere acquisition of the secret (Png, 2017). To account for the adoption of UTSA, we extend the

[4] The data on income inequality are obtained from the World Top Incomes Database. The data on states' political lean are obtained from the National Conference of State Legislatures.

[5] The data on state-level GDP growth are obtained from the U.S. Bureau of Economic Analysis. State-level unemployment rates are obtained from the U.S. Bureau of Labor Statistics.

[6] The list of antitakeover laws (business combination laws) is obtained from Karpoff and Wittry (2018). The list of bank deregulation laws is obtained from Amore, Schneider, and Zaldokas (2013). For each set of legislations, we include a dummy variable equal to one if a law has been passed in the state. To control for the enforcement of non-competes, we include the Starr (2018) index described in Appendix E.

set of state-level controls by including an indicator variable equal to one if the state has adopted the UTSA by the year in question.[7] As is shown, our results are robust to this inclusion.

Alternative control groups. In our baseline specification, the control group includes all states that have not rejected the IDD—i.e., it includes i) states that have not ruled on the IDD, and i) states that have ruled in favor. In columns (3) and (4) of Table A7, we show that our results are robust if the control group is restricted to states that have not ruled (column (3)) and states that have ruled in favor (column (4)), respectively.[8] As is shown, the treatment effect is positive and significant in either specification. The point estimate is 0.153 (*p*-value = 0.019) in column (3), and 0.164 (*p*-value = 0.019) in column (4).

Eventually treated companies. As discussed in Appendix C, a potential concern is that unobserved differences between treated and control firms may affect our results. To address this issue, we take advantage of the staggering of the treatments and re-estimate our baseline specification using only the subsample of eventually treated firms. As can be seen from column (5) of Table A7, our estimate of the treatment effect remains similar, which implies that our findings are not driven by unobserved differences between firms located in treated and control states.

Geographically concentrated firms. The inevitable disclosure doctrine applies in the state in which the employee works, whereas our analysis is based on the state in which the company's headquarters is located. As discussed in the methodology section, this raises two measurement issues. First, Compustat only records the most recent state of headquarters' location. Second, the

[7] The list of UTSA by state and year is obtained from Table 1 of Png (2017, p. 180). We supplement Png's list (which is up to year 2010) with New Jersey and Texas who adopted the UTSA in 2012 and 2013, respectively.
[8] We identify states that adopt the IDD using the compilation of Kahnke, Bundy, and Liebman (2008). Note that their compilation ends in 2008, yet we find that no other state has adopted the IDD in the later part of our sample (2009-2013).

state of headquarters' location is an imperfect measure of employees' location for companies that have operations outside of their headquarters' state. This measurement error is likely to attenuate our estimate of the treatment effect. To address this issue, we use the data of Garcia and Norli (2012) on the state-level operations of companies based on their 10-K filings. Specifically, we follow the approach of Flammer and Luo (2017) and identify a subset of "geographically concentrated firms," that is, firms with at least 80% of their operations in a given state. We then re-estimate our baseline specification using this subsample of firms. As is shown in column (6) of Table A7, our results also hold in this subsample. As expected, the point estimate is larger than in the full sample.

Serial correlation. In their assessment of the difference-in-differences methodology, Bertrand, Duflo, and Mullainathan (2004) recommend that standard errors be clustered at the dimension of the treatment. Accordingly, in our baseline specification, we cluster standard errors at the state of location. In column (7) of Table A7, we consider an alternative method proposed by Bertrand *et al.* (2004): block bootstrapping. The difference to standard bootstrapping is that instead of drawing single observations, we draw entire groups ("blocks") of observations. The idea, which is similar to clustering, is to preserve the existing correlation structure within each block while using the independence across blocks to consistently estimate standard errors. In analogy to our clustering approach, we construct blocks at the state level. Specifically, we construct 100 bootstrap samples by drawing with replacement states of location. For each bootstrap sample, we estimate our baseline specification and store the coefficients. The standard errors are then calculated based on the empirical distribution of these 100 sets of coefficients. As is shown, the significance level is very similar to before.

Accounting for CSR concerns. In column (8) of Table A7, we re-estimate our baseline specification using the "net" KLD-index (i.e., the number of KLD strengths net of the number of KLD concerns) instead of the KLD-index based on the number of KLD strengths. As can be seen, the point estimate is similar to our baseline estimate in Table 2.

Appendix E. Cross-sectional heterogeneity

Our main results show that companies respond to an exogenous increase in the threat of knowledge spillovers by increasing their CSR. In this section, we complement this analysis by showing that the response is stronger when the risk of knowledge spillover is higher. We consider five different dimensions.

First, the risk of knowledge spillovers is likely lower in states that strongly enforce non-compete agreements. Such agreements restrict employees' ability to leave their current employer and hence reduce the threat of knowledge spillovers. Second, the risk of knowledge spillovers is likely higher for companies located in close proximity to innovation hubs, as the geographic agglomeration of firms can lead to increased interactions between firms and their knowledge workers, resulting in increased knowledge spillovers (e.g., Almeida and Kogut, 1999; Mariani *et al*., 2015). Finally, the risk of knowledge spillovers is likely higher in i) R&D-intensive industries, ii) competitive industries, and iii) industries with better investment opportunities—that is, industries where the ability to innovate and retain knowledge is key to competitiveness and survival. In the following, we describe how we measure each of these five characteristics.

Contingencies

Enforceability of non-compete agreements. Following Starr (2018) and Starr, Ganco, and Campbell (2018), we measure the extent to which states enforce non-compete agreements by using Starr's (2018) index of enforceability of non-compete agreements at the state level (*non-compete*

index).[9]

Proximity to innovation hubs. To measure the proximity to innovation hubs, we compute the great-circle distance between the ZIP code of the company's headquarters (from Compustat) and the fifteen innovation hubs identified by Booz Allen (see Booz Allen, 2016, p. 11)—San Francisco, Seattle, Austin, Boston, Raleigh, San Diego, Los Angeles, Salt Lake City, Houston, Denver, Pittsburgh, Washington DC, Minneapolis, Phoenix, and Dallas. The great-circle distance is the shortest distance between any two points on the surface of a sphere and is obtained from the formula:

$$r \times \arccos\left[\sin(\lambda_i) \times \sin(\lambda_{hub}) + \cos(\lambda_i) \times \cos(\lambda_{hub}) \times \cos(\theta_i - \theta_{hub})\right],$$

where λ_i (θ_i) is the latitude (longitude) of the ZIP code of company *i*'s headquarters, and λ_{hub} (θ_{hub}) is the latitude (longitude) of the centroid of the innovation hub, respectively. We match ZIP codes to longitudes and latitudes using the "zipcode" file of the SAS software. We approximate the latitude and longitude of each innovation hub by taking the average latitude and longitude of all ZIP codes pertaining to the innovation hub's city. We then compute *proximity to innovation hub* as the ratio of one divided by the distance to the closest innovation hub.

R&D intensity. We construct a measure of R&D intensity at the industry level by computing the average ratio of R&D expenses to total assets across all Compustat firms in the same 3-digit SIC industry (*R&D intensity*).

Product market competition. We measure industry concentration by using the Herfindahl-Hirschman Index (HHI) of industry concentration at the 3-digit SIC level. HHI is defined as the

[9] The Starr index is a refinement of the index of Bishara (2011) that assigns a score between 0 to 10 on seven dimensions of non-compete enforceability at the state level, and aggregates the individual dimensions using subjectively chosen weights. The Starr index improves upon Bishara's weighting scheme by using confirmatory factor analysis on the seven scores to generate weights that capture the importance of the various dimensions of non-compete enforceability. The data are obtained from Table B1 of Starr (2018, p. 51). Note that the index is available for 1991 and 2009. To fill in the missing years, we use the index from the latest available year (i.e., we fill in the 1992-2008 values with the 1991 index and the 2010-2013 values with the 2009 index).

sum of the squared market shares of all companies in the same industry. We use sales data from Compustat to compute market shares. (Note that HHI is a measure of concentration, and hence an inverse measure of competition.) We then measure product market competition by taking 1 – HHI (*competition*).

Investment opportunities. We construct a measure of investment opportunities at the industry level by computing the average Tobin's Q across all companies in the same 3-digit SIC industry (*investment opportunities*).

Interaction analysis

In Table A8, we re-estimate our baseline specification, interacting the treatment dummy (IDD) with the five contingencies described above. We mean-adjust each of the contingencies to ensure that the coefficient of *IDD* represents the effect of *IDD* at the sample mean of the contingency. Moreover, each contingency is measured in the year prior to the treatment. Using pre-treatment values mitigates concerns that the contingencies are affected by the treatment itself.[10]

As can be seen, we find that the treatment effect is larger for firms in R&D-intensive industries ($p = 0.041$), in closer proximity to innovation hubs ($p = 0.000$), in competitive industries ($p = 0.061$), and—to a lesser extent—in industries with better investment opportunities ($p = 0.155$). Moreover, the treatment effect is smaller in states with a stronger enforcement of non-compete agreements, although the coefficient is not significant at the 10% level ($p = 0.164$).[11] Overall, these results confirm that the treatment effect is stronger when the risk of knowledge spillover is higher.

[10] Since all contingencies are measured in the year prior to the treatment, they are time-invariant by construction. Hence, we do not include them as standalone in the regressions (as they would be absorbed by the firm fixed effects).
[11] In Table A9, we refine this analysis by interacting IDD with four dummy variables that indicate the four quartiles of *non-compete* (measured in the year prior to the treatment). We find that the treatment effect is monotonic in the non-compete index. Importantly, when we test the difference between the two extremes (i.e., the top versus bottom quartiles), we indeed find that the treatment effect is significantly smaller in states with a stronger enforcement of non-compete agreements (p-value = 0.021).

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Table A1. Respondents' characteristics

Panel (A): Age distribution

25 or under	0.2%
26-35	22.0%
36-45	28.2%
46-55	21.9%
56-65	13.8%
Over 65	13.9%

Panel (B): Industry distribution

Information technology/computer science/high tech	19.3%
Financial services	17.9%
Pharma/biotech/health care	10.6%
Management consulting	9.9%
Consumer products/retail/wholesale	7.1%
Aerospace/aviation/defense	5.6%
Energy/oil/gas	3.5%
Advertising/sales/marketing	3.0%
Manufacturing	2.7%
Automotive/transportation	2.5%
Government	2.4%
Other	2.2%
Food & beverage/hospitality	2.1%
Non-profit	1.9%
Telecommunication	1.7%
Engineering/construction	1.6%
Legal services	1.6%
Education	1.5%
Media/communications	1.3%
Entertainment/arts	1.0%
Agriculture	0.4%
Chemicals	0.4%

Table A2. Rejection of the inevitable disclosure doctrine (IDD)

State	Year	Case
Arkansas	2009	*Cellco Partnership v. Langston* , No. 4:09CV00928 JMM (W.D. Ark. 2009)
California	2002	*Whyte v. Schlage Lock Co.* , No. G028382 (Ct. of App. of California 2002)
Florida	2001	*Del Monte Fresh Produce Co. v. Dole Food Co.* , Inc., 148 F. Supp. 2d 1322 (S.D. Fla. 2001)
Georgia	2013	*Holton v. Physician Oncology Servs., LP* , No. S13A0012, 2013 WL 1859294 (Ga. 2013)
Maryland	2004	*LeJeune v. Coin Acceptors, Inc.* , 381 Md. 288 (Md. 2004).
Massachusetts	2012	*U.S. Elec. Servs. v. Schmidt* , Civil Action No. 12-10845-DJC (U.S. Dist. CT. for the Dist. of Mass. 2012)
Michigan	2002	*CMI Int'l, Inc. v. Intermet Int'l Corp.* , 649 N.W.2d 808, 812 (Mich. Ct. App. 2002)
New Hampshire	2010	*Allot Communications v. Cullen* , 10-E-0016 (N.H. Merrimack Superior Ct. 2010)
New Jersey	2012	*SCS Healthcare Marketing, LLC v. Allergan USA* , Inc., N.J. Super. Unpub. LEXIS 2704 (N.J. Sup. Ct. Ch. Div. 2012)
New York	2009	*American Airlines, Inc. v. Imhof* , U.S. Dist. LEXIS 46750 (S.D.N.Y. 2009)
Ohio	2008	*Hydrofarm, Inc. v. Orendorff* , Ohio App. LEXIS 5717 (Ohio App. Ct. 2008)
Virginia	1999	*Government Technology Services, Inc. v. Intellisys Technology Corp.* , 51 Va. Cir. 55 (Va. Cir. Ct. 1999)
Washington	2012	*Amazon.com, Inc. v. Powers* , Case No. C12-1911RAJ (W.D. Wash. 2012)
Wisconsin	2009	*Clorox Co. v. SC Johnson & Son Inc.* , 2:09-cv-00408-JPS (U.S. District Court, Eastern District of Wisconsin 2009)

Table A3. Summary statistics

	Variable	N	Mean	Std. Dev.	1	2	3	4	5
1	KLD-Index	30,216	1.357	2.208					
2	Size	30,216	7.359	1.742	0.511				
3	ROA	30,216	0.109	0.128	0.118	0.137			
4	Tobin's Q	30,216	1.960	1.348	-0.001	-0.316	0.094		
5	Leverage	30,216	0.216	0.199	0.062	0.274	0.001	-0.183	
6	Cash	30,216	0.172	0.201	-0.092	-0.434	-0.320	0.466	-0.331

Notes. The sample includes all firm-year observations for companies in the merged KLD-Compustat sample from 1991-2013.

Table A4. ASSET4 ratings

Dependent variable	ASSET4 score		
	ASSET4 score (composite)	ASSET4 score (social)	ASSET4 score (environment)
	(1)	(2)	(3)
IDD	3.512	3.958	3.066
	(1.496)	(1.954)	(1.599)
Size	4.297	4.327	4.266
	(1.157)	(1.301)	(1.387)
ROA	9.081	7.894	10.268
	(5.288)	(6.028)	(6.669)
Tobin's Q	0.966	1.504	0.427
	(0.473)	(0.534)	(0.620)
Leverage	7.316	7.481	7.151
	(5.849)	(5.331)	(7.283)
Cash	0.743	7.580	-6.094
	(3.632)	(3.514)	(4.800)
Firm fixed effects	Yes	Yes	Yes
Industry × year fixed effects	Yes	Yes	Yes
Region × year fixed effects	Yes	Yes	Yes
R-squared	0.869	0.832	0.842
Observations	5,112	5,112	5,112

Notes. Standard errors (reported in parentheses) are clustered at the state level.

Table A5. ASSET4 components

Dependent variable	Components of ASSET4 social score							Components of ASSET4 environment score		
	Workforce *diversity and opportunities*	Workforce *employment quality*	Workforce *health and safety*	Workforce *training and development*	Society *community*	Society *human rights*	Customer *product responsibility*	Environment *emission reduction*	Environment *product innovation*	Environment *resource reduction*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
IDD	3.190	3.922	3.476	4.614	3.210	2.925	1.859	2.917	1.907	3.300
	(1.865)	(1.429)	(1.780)	(1.725)	(1.929)	(1.855)	(1.794)	(1.547)	(1.523)	(1.700)
Size	3.214	3.321	2.938	4.257	4.275	5.299	2.250	3.528	3.836	4.098
	(1.056)	(1.098)	(1.152)	(1.175)	(1.443)	(1.314)	(1.463)	(1.405)	(1.398)	(1.363)
ROA	2.597	6.979	7.394	12.379	3.692	12.329	4.097	9.346	11.146	7.970
	(6.308)	(4.865)	(5.223)	(6.488)	(6.488)	(6.914)	(4.124)	(6.602)	(5.869)	(7.037)
Tobin's Q	1.139	0.843	1.556	1.183	1.381	2.124	0.996	0.282	0.515	0.466
	(0.485)	(0.553)	(0.500)	(0.590)	(0.524)	(0.553)	(0.416)	(0.626)	(0.576)	(0.633)
Leverage	6.087	5.422	12.267	5.270	4.943	2.866	7.886	7.357	6.612	6.876
	(5.012)	(4.937)	(5.354)	(4.490)	(5.359)	(4.631)	(5.831)	(7.372)	(6.747)	(7.097)
Cash	4.399	6.966	7.477	6.648	5.376	7.552	5.252	-5.484	-6.693	-4.304
	(3.750)	(3.160)	(3.894)	(3.326)	(3.716)	(3.134)	(3.984)	(4.289)	(4.934)	(5.183)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region × year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.824	0.837	0.795	0.808	0.826	0.783	0.830	0.847	0.831	0.837
Observations	5,112	5,112	5,112	5,112	5,112	5,112	5,112	5,112	5,112	5,112

Notes. Standard errors (reported in parentheses) are clustered at the state level.

Table A6. R&D expenditures

Dependent variable	R&D / sales	R&D / assets
	(1)	(2)
IDD	0.0025	0.0017
	(0.0019)	(0.0012)
Size	0.0026	-0.0114
	(0.0019)	(0.0040)
ROA	-0.1238	-0.0175
	(0.0204)	(0.0083)
Tobin's Q	0.0064	0.0050
	(0.0010)	(0.0006)
Leverage	-0.0023	-0.0068
	(0.0078)	(0.0045)
Cash	-0.0140	-0.0256
	(0.0074)	(0.0048)
Firm fixed effects	Yes	Yes
Industry × year fixed effects	Yes	Yes
Region × year fixed effects	Yes	Yes
R-squared	0.940	0.924
Observations	13,635	13,691

Notes. Standard errors (reported in parentheses) are clustered at the state level.

Table A7. Robustness

Dependent variable	KLD-index							Net KLD-index
	Accounting for time-varying state-level controls	Accounting for time-varying state-level controls (including adherance to UTSA)	Control group consisting of states that have not ruled on IDD	Control group consisting of states that have ruled in favor of IDD	Eventually treated firms	Geographically concentrated firms	Block-bootstrapped standard errors	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
IDD	0.149	0.155	0.153	0.164	0.125	0.623	0.171	0.230
	(0.072)	(0.071)	(0.065)	(0.070)	(0.052)	(0.299)	(0.080)	(0.078)
Size	0.172	0.171	0.096	0.218	0.133	0.087	0.174	-0.004
	(0.076)	(0.076)	(0.092)	(0.098)	(0.128)	(0.115)	(0.073)	(0.108)
ROA	0.080	0.077	0.118	0.066	0.080	-0.126	0.079	0.281
	(0.140)	(0.141)	(0.132)	(0.207)	(0.189)	(0.367)	(0.161)	(0.166)
Tobin's Q	-0.028	-0.028	-0.032	-0.040	-0.044	0.060	-0.028	-0.035
	(0.017)	(0.017)	(0.018)	(0.015)	(0.015)	(0.035)	(0.018)	(0.020)
Leverage	0.186	0.184	0.297	0.159	0.243	0.519	0.187	0.113
	(0.113)	(0.113)	(0.117)	(0.125)	(0.133)	(0.511)	(0.120)	(0.170)
Cash	0.445	0.442	0.416	0.574	0.563	0.133	0.444	0.298
	(0.143)	(0.143)	(0.149)	(0.171)	(0.176)	(0.463)	(0.164)	(0.187)
UTSA		-0.202						
		(0.093)						
Firm fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region × year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time-varying state-level controls	Yes	Yes	No	No	No	No	No	No
R-squared	0.778	0.778	0.780	0.788	0.796	0.943	0.778	0.686
Observations	30,216	30,216	24,771	21,930	17,142	1,763	30,216	30,216

Notes. Standard errors (reported in parentheses) are clustered at the state level, except in column (5) where they are block-bootstrapped at the state level using 100 bootstrap samples.

Table A8. Contingencies

Dependent variable	KLD-index				
	(1)	(2)	(3)	(4)	(5)
IDD	0.155	0.138	0.164	0.175	0.170
	(0.068)	(0.065)	(0.067)	(0.067)	(0.064)
IDD × R&D intensity (mean-adjusted)	0.889				
	(0.424)				
IDD × Proximity to innovation hubs (mean-adjusted)		0.737			
		(0.191)			
IDD × Competition (mean-adjusted)			7.050		
			(3.684)		
IDD × Investment opportunities (mean-adjusted)				0.164	
				(0.114)	
IDD × Non-compete index (mean-adjusted)					-0.079
					(0.056)
Size	0.177	0.175	0.172	0.169	0.174
	(0.075)	(0.075)	(0.076)	(0.074)	(0.075)
ROA	0.061	0.083	0.086	0.076	0.081
	(0.143)	(0.143)	(0.139)	(0.139)	(0.140)
Tobin's Q	-0.028	-0.027	-0.028	-0.027	-0.027
	(0.017)	(0.018)	(0.017)	(0.017)	(0.017)
Leverage	0.187	0.184	0.176	0.179	0.183
	(0.117)	(0.113)	(0.114)	(0.112)	(0.114)
Cash	0.442	0.439	0.450	0.447	0.444
	(0.150)	(0.143)	(0.146)	(0.145)	(0.144)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Industry × year fixed effects	Yes	Yes	Yes	Yes	Yes
Region × year fixed effects	Yes	Yes	Yes	Yes	Yes
R-squared	0.774	0.778	0.778	0.778	0.778
Observations	29,241	30,216	30,216	30,216	30,216

Notes. Standard errors (reported in parentheses) are clustered at the state level.

Table A9. Contingencies (continued)

Dependent variable	KLD-index
IDD × Non-compete index (1st quartile)	0.285
	(0.097)
IDD × Non-compete index (2nd quartile)	0.168
	(0.092)
IDD × Non-compete index (3rd quartile)	0.110
	(0.096)
IDD × Non-compete index (4th quartile)	0.099
	(0.079)
Size	0.174
	(0.075)
ROA	0.080
	(0.141)
Tobin's Q	-0.027
	(0.018)
Leverage	0.183
	(0.114)
Cash	0.443
	(0.144)
Firm fixed effects	Yes
Industry × year fixed effects	Yes
Region × year fixed effects	Yes
R-squared	0.778
Observations	30,216

Notes. Standard errors (reported in parentheses) are clustered at the state level.

Table A10. Experimental vignette study

<table>
<tr><td colspan="2">Control Group</td><td colspan="2">Treatment Group</td></tr>
<tr><td>Baseline company info

(1)</td><td>Baseline company info

+

neutral company info (same length as CSR info)

(2)</td><td colspan="2">Baseline company info

+

CSR info related to employees</td></tr>
<tr><td></td><td></td><td>Baseline company info
+
CSR info related to employees

(3)</td><td>Baseline company info
+
CSR info related to society and environment

(4)</td></tr>
<tr><td colspan="4"><u>PREVIOUS EMPLOYER:</u>

Imagine that your previous employer is an automobile company that develops and manufactures electric vehicles. The market for electric vehicles is still in its infancy and companies fiercely compete for new clients who are willing and able to purchase electric vehicles.

For this employer you were part of a small team that had developed an extensive client list (Client List A)—of current and prospective clients—that is used for direct marketing purposes globally (including USA, China, and other countries). Compiling this list and identifying customers who are ready, willing and able to buy an electric vehicle was an expensive, arduous and time consuming task. Clearly, this client list is very valuable to the company and is a well-kept trade secret.

Your previous employer undertook considerable efforts to protect its client list as a trade secret. For example, it limited access to the client list and advised all those with access (including you) that this client list is the property of the company and a trade secret of great economic value to the company. All employees with access (including you) were aware that the company considers the list to be confidential and valuable, and that they are not to use or divulge any client information to anyone outside the company. Its disclosure would allow a competing firm to direct its sales efforts to (current and prospective) customers who have already shown a willingness to buy an electric vehicle as opposed to a list of people who only might be interested.

Your previous employer, a California-based company is a leader in the market for electric vehicles and has a workforce of nearly 3,500 employees in total.</td></tr>
</table>

(continued on next page)

	Most recently, it has published a detailed report on the company's product portfolio and growth strategy. For example, it highlights its plan to enter the Chinese market—the fastest growing market for electric vehicles. A key reason for this strong growth is the aim of the Chinese government to drastically reduce its carbon emissions.	Most recently, the company was ranked among the best places to work for. For example, it was praised for offering shared governance, for encouraging employee involvement and autonomy. Furthermore, it strongly supports minorities, and offers superior learning and advancement opportunities, work/life benefit programs (e.g., flextime), and overall a safe and healthy work environment.	Most recently, the company was ranked among the best places to work for. For example, it was praised for providing its employees the opportunity to devote some of their worktime to environmental and social initiatives. Furthermore, the company matches any of its employees' donations made to support the community and protect the environment.
Click on "continue" on the bottom of this page once you are done reading your previous employer's company info.			

NEW EMPLOYER:

In early 2018, you moved to a different city for family reasons. You have found a similar job at a competitor firm.

Compared to your previous employer, your new employer is a young player in the field with a relatively short client list (Client List B). With the aim to grow its business, it tasked you to conduct a marketing campaign and to reach out to (current and potential) clients.

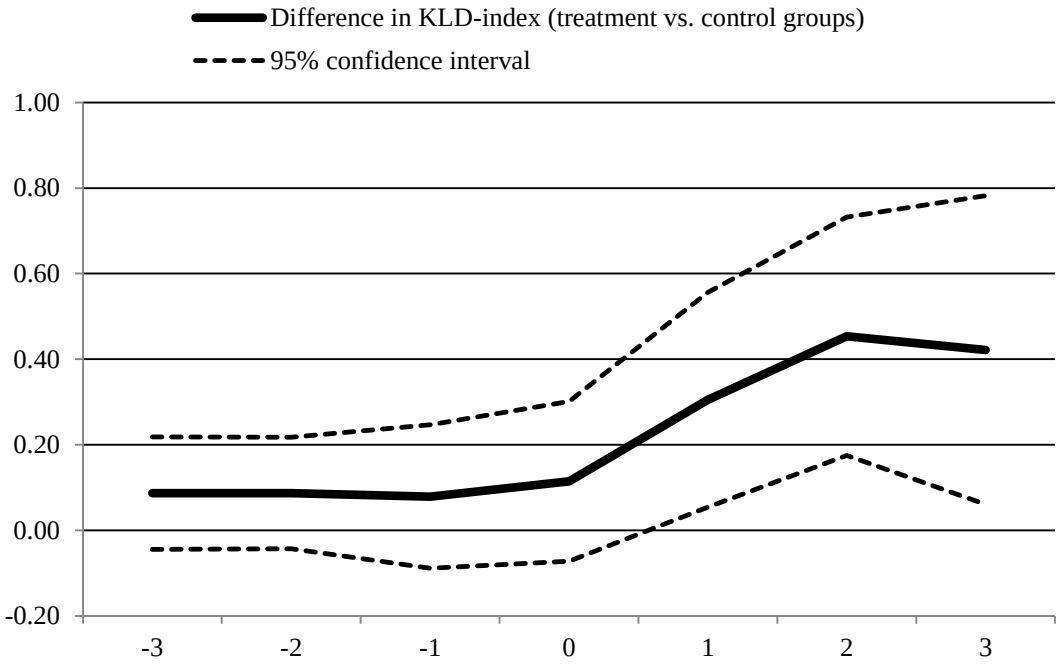
Whom will you contact?

* Client List A
* Client List B
* Client Lists A and B

Please explain your choice.

Thank you for your participation.

Figure A1. Evolution of the KLD-index around the rejection of the IDD



Notes. The vertical axis plots the average KLD-index in the treatment group minus the average KLD-index in the control group three years before and after the treatments (95% confidence interval within dashed lines). "Treatments" refer to the rejection of the inevitable disclosure doctrine in the treated states listed in Table A2. The horizontal axis plots the years relative to the treatment ("year 0" refers to the year of the treatment, "year 1" is the year after the treatment, etc.).