Searching For Directors

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PRELIMINARY

Abstract: Does it matter who identifies and proposes a new board member? We exploit a 2003 Securities and Exchange Commission (SEC) disclosure rule to identify the source recommending new independent directors (NID) appointed to corporate boards. We document that disclosure of the source of recommendation is missing for 75% of NID – suggesting a high degree of non-compliance. Among those with disclosed sources, 44% are recommended by search firms, 30% by current independent directors, and 20% by CEO and other executives – with the role of search firms increasing in recent years as the push for board diversity intensified. Next, we explore whether and how the "origin" of the NID affects their characteristics, the market reaction to their appointment, and subsequent progression on the board and in the director labor market. We find that boards turn to search firms when they need to go beyond their immediate network and look for candidates with greater executive expertise, or to diversify the board along dimensions of gender and race. As for candidates recommended by the CEO, there is some support for the notion that CEOs try to bring on the board loyal directors. For example, CEO-recommended NID tend to receive higher shareholder voting dissent during their tenure (i.e., they take a more management-friendly stance). Notably, three years after their appointment CEO-recommended NID tend to enjoy greater progress on the board and its committees (e.g., in terms of chair positions), relative to search firm-recommended NID. Overall, our evidence suggests that the "origin" matters, in that it affects the characteristics of NIDs appointed and their ability to gain influence on the board.

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1. Introduction

Board of directors play a central role in the U.S. corporate governance system. As such, boards have been the focus of policy reforms and the subject of a large body of research examining board composition, election, independence, expertise, diversity, and other aspects. [1] However, surprisingly little is known about *who* first identifies and recommends a candidate to the board (e.g., another independent director, the CEO, a search firm, a shareholder), and whether and how such "origins" shape the characteristics of new directors and their subsequent actions.

To fill up this gap, we exploit a little-known Securities and Exchange Commission (SEC) 2003 rule requiring firms to disclose in their proxy filing whether a new independent director (NID) was identified and recommended by current independent directors, the CEO, other executives, a search firm, a shareholder, or other sources (see Section 2 for more details). We exploit these requirements to identify the recommending source(s) and examine whether it is systematically associated with NID characteristics and their subsequent progression on the board and in the director labor market.

Using a tailored keyword search, we extract and read the relevant portions of the proxy filing and we identify the recommending source for 5,235 of the 20,746 NID reported in the BoardEx database between 2010 and 2020. Thus, the first striking result is that the recommending source is disclosed for only 25.2% (5,235 out of 20,746) of the NID in our sample, suggesting a high degree of non-compliance with the SEC requirements – almost 75% of the NID. At the firm level, 60.6% (2,623 out of 4,327) of the sample firms never disclose the recommending source, and there is significant variation in the degree of compliance among disclosing firms (i.e., they do not disclose the source for all the NID appointed during the sample period).

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[1] Examples of these studies include Linck, Netter and Yang (2008), Adams and Ferreira (2009), Duchin, Matsusaka, and Ozbas (2010), Kim, Mauldin and Patro (2014), Adams (2017), Adams, Akyol and Verwijmeren (2018), Ertimur, Ferri and Oesch (2018), among others.

Among the sample of 5,235 NID with disclosed recommending source, search firms are the most frequent source (43.8% of NID), followed by independent directors (29.7%), CEO (15.0%), shareholders (9.8%), other executives (5.2%) and other sources (5.2%). The fraction of NID recommended by a search firm has been trending upward in the last few years as the push for board diversity intensified. Next, we compare the NID recommended by different sources in terms of their (i) characteristics at the time of their appointment (e.g. demographic traits, executive and board experience, connectedness, market reaction around their announcement) and (ii) their subsequent actions and progressions on the board and in the director labor market (e.g., votes when up for re-election, leaderships positions on committees and the board, other seats held). Ultimately, the goal is to understand whether the "origin" of the NID matters, and if so, how.

While our analysis is largely exploratory and descriptive in nature, we organize it around the following conceptual framework. Our starting point is that identifying new candidates for the board institutionally is a board responsibility, usually delegated to a nominating and governance committee made of independent directors. Thus, we view the case of NID recommended by independent directors (hereinafter "ID-recommended NID) as the "default" or benchmark case. That is, we envision a process where independent directors try to identify a candidate with the required skills and experience within their referral network. Then, we make predictions as to why the NID ultimately appointed may instead be one proposed by a search firm (hereinafter SF-recommended NID), or by the CEO and other executives (hereinafter CEO-recommended NID) and use the comparisons with the "benchmark" case (the ID-recommended NID) to infer which hypotheses are most supported by the empirical evidence. [2]

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[2] As for NID recommended by shareholders or other sources (hereinafter SH-recommended NID), it turns out that they are mostly NID appointed as a result of some agreement with the shareholder (e.g., hedge fund activist) or some transaction (merger, spin-off). Thus, many of the NID in this category are not truly 'recommended' to the board.

Starting with SF-recommended NID, we consider three (not mutually exclusive) hypotheses.[3] The first – which we label as the *certification* hypothesis – is that search firms are called in to identify the same type of directors from the same network as those usually recommended by independent directors, while providing the client (and its shareholders) with a third-party certification. The second hypothesis – labeled as the *diversify pool* hypothesis – is that search firms are hired to identify "different" directors, whether in terms of gender and race, or in terms of unique expertise, experience or any other characteristic that is otherwise infrequent among the population of independent directors. The premise is that current independent directors have limited access to this pool, hence the decision to rely on the search firm. The third hypothesis – labeled as the *expand pool* hypothesis – is that search firms are recruited to go beyond the immediate network of current independent directors while still searching for 'traditional' candidates.

Based on our analyses, we fail to find support for the *certification* hypothesis. This hypothesis would predict little differences between SF-recommended and ID-recommended NID, whereas our data reveal numerous, significant differences in many dimensions. Notably, the proportion of SF-recommended NID with a 1st-degree connection to the board is significantly lower, suggesting that search firms draw from a broader talent pool, beyond the immediate network of the board's independent directors. Partially in support of the *diversify pool* hypothesis, the frequency of female and non-white directors is higher among SF-recommended NID, consistent with anecdotal evidence that search firms are employed to diversify the board in terms of gender and race. However, if this hypothesis was prevalent (beyond gender and race), SF-recommended NID

Hence, our analysis focuses on ID-, CEO- and SF-recommended NID, and we present data on the SH-recommended category only for completeness (see Section 4.3 for details).

[3] We refer to our predictions as 'hypotheses', but we acknowledge these are not hypotheses derived from an analytical framework. Rather, they represent "conjectures" based on arguments and prior literature. We use the term hypotheses for ease of exposition.

should be more likely to be rookie directors, without 1st or 2nd degree connection to the board, and without CEO/C-suite experience, since (on average) "different" directors should come from outside the circle of "usual suspects". The evidence, however, suggests exactly the opposite.

Finally, and relatedly, we find greater support for the *expand pool* hypothesis. Consistent with this hypothesis, SF-recommended directors are less likely to be rookie directors and to have a 1-st degree connection to the board, but they are more likely to have a 2nd-degree connection. In other words, they are not from the immediate board network, but they are still drawn from a pool of candidates with previous board experience and with some indirect (2nd-degree) connection to the board. Interestingly, SF-recommended NID are more likely to have executive experience in publicly traded firms, while ID-recommended NID (conditioned upon having some board experience) have deeper board experience (as captured by cumulative years on boards, number of past board seats and committees, frequency of leadership positions on board or committees).

Overall, it appears that independent directors tend to recommend candidates within their immediate network (1st-degree connection) and with more board experience, whereas they use search firms when they need to go beyond their immediate network and look for candidates with greater executive experience, or occasionally, to diversify the board along dimensions of gender and race.[4] We also find some evidence of a more positive reaction for SF-recommended ID, which may suggest that by going outside their network and relying on the search firm, independent directors succeed in recruiting better candidates.

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[4] We recognize that the characteristics of SF-recommended NID may reflect not only specific mandates of the companies hiring the search firm, but possibly also search firms' preferences. For example, our findings are also consistent with search firms preferring to push "safer" candidates (such as non-rookie directors with strong executive experience in publicly traded firms) to minimize the risk of ex post clients' disappointment with the candidate. See discussion in Section 4.

Next, we consider CEO-recommended NID and examine two hypotheses. The first – labeled as the *loyal directors* hypothesis – is that powerful CEOs inject themselves in the director recruiting process by proposing candidates expected to be favorable to the CEO, and use their influence on the board to get such candidates approved. The second hypothesis – referred to as the *access to CEO network* hypothesis – is that independent directors solicit and approve CEO-recommended candidates because CEOs can exploit their personal network to tap into a pool of high-profile candidates with superior traits relative to those identified by independent directors.

Our analyses do not find much support for the *access to CEO network* hypothesis. While CEO-recommended NID are more likely to be distant from the board in the network (beyond 2-degrees of distance) – consistent with an attempt to reach beyond the independent directors' immediate network – they do not appear to have superior executive or board experience, nor a larger network, relative to ID-recommended NID. Also, relative to ID-recommended NID, they do not display a higher score in the director-specific quality (DSQ) metric developed by Bhattarai et al (2022) nor does their announcement elicit a more positive market reaction.

As for the *loyal directors* hypothesis, it is hard to provide conclusive evidence without data on personal ties between CEO and CEO-recommended NID. However, we find that subsequent to their appointment to the board, CEO-recommended NID are significantly more likely to experience shareholder voting dissent relative to ID-recommended NID. This does not appear to be selection effect, i.e., CEOs proposing candidates with a history of standing up to shareholder pressure and supporting management position, since these NID were not more likely to experience voting dissent when sitting on other boards in the past. Rather, this finding suggests that the recommending source consciously or unconsciously affects the behavior of NID at focal firms. Along the same lines, SF-recommended NID experience similar voting dissent (to both CEO- and

ID-recommended NID) when sitting on other boards in the past but are *less* likely to experience voting dissent after their appointment, perhaps because SF-recommended NID care about building a reputation as independent, shareholder-friendly candidates selected by third-party firms. Again, this finding suggests that the "origin" of the NID matters. A second piece of evidence consistent with the *loyal directors* hypothesis is that, in the 3 years post-appointment, CEO-recommended NID enjoy greater progress on the board of the focal firm relative to SF-recommended NID, in terms of likelihood of remaining on the board, likelihood of chairing the board or its committees and number of committees they sit on. That is, the recommending source seems to affect the NID's ability to gain influence on the board. Finally, it is noteworthy that CEO-recommended NID are substantially less likely to be female (23% vs. 30% for ID-recommended NID and 38% for SF-recommended NID), suggesting that the recommending source of NID is an important (and neglected) factor in explaining gender diversity on boards (or lack thereof).

The study is subject to three caveats. First, the high non-compliance implies that our examination is subject to the standard selection bias problem of voluntary disclosure studies. We investigate this problem and conclude that the frequency of the disclosed recommending sources is not representative of the "true" frequency in the entire population. The fraction of ID- and CEO-recommended NID (SF-recommended NID) is likely much higher (smaller), reflecting strategic disclosure incentives. Also, while the type of NID with undisclosed recommending source tend to be different, these differences are not large and they imply that the documented differences between SF-recommended NID, on one hand, and ID-recommended and CEO-recommended on the other, if anything, are understated. Thus, selection bias arising from non-compliance should not affect our key qualitative inferences. The second caveat is that we do not observe the pool of candidates considered by the board. Thus, we can only compare the "winners" of the contest (the

candidates appointed to the board) and our findings should be interpreted accordingly. Finally, we only focus on director-level outcomes. The limited compliance with the rule prevents us from building a firm-level measure of board composition by recommending source.

Our study contributes to a limited literature that speaks to how directors are appointed to the board. Cai, Nguyen and Walkling (2022) report that over 80% NID have a 1st or 2nd degree professional connection to the board they are joining – implying that referrals between board members are the dominant channel by which NID are identified. Our study complements Cai et al (2022) by examining a novel dimension: the recommending source leading to the NID appointment.[5] While most NID are indeed connected to the board, there is substantial variation in the recommending source, and such variation is associated with different director characteristic and outcomes. Second, we contribute to a growing literature on board diversity (e.g., Adams and Ferreira 2009; Gul, Srinidhi and Ng 2011; Bernile, Bhagwat and Yonker 2018) in that we show that the recommending source affects gender representation on boards. Third, we document that CEOs and executives are the recommending source for about 20% of the NID, and thus they continue to play an important role in director nominations even at a time when only independent directors can sit on the nominating committee (Shivadasani and Yermack 1999; Fracassi and Tate 2012). In doing so, we contribute to the research on CEO influence on boards (Baldenius, Melumad and Meng 2014; Coles, Daniel and Naveen 2014). Fourth, our novel examination of the role of search firms may stimulate future research on the market for directors (Levit and Malenko 2016). Finally, our findings should be of interest to the SEC and investors: the recommending source of NID matters, yet most firms do not comply with requirements to disclose it.

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[5] To the best of our knowledge, the only study collecting data on the frequency of recommending sources is Akyol and Cohen (2013). However, they do not examine whether the recommending source is associated with differences in director characteristics and director-level outcomes.

2. Institutional Setting and Sample Construction

2.1 Disclosure requirements regarding new nominees to the board

The governance scandals of the early 2000s led to a series of reforms aimed to improve directors' accountability. In 2003 the Securities and Exchange Commission (SEC) issued Release Nos. 33-8340, "Disclosure Regarding Nominating Committee Functions and Communications Between Security Holders and Boards of Directors". Among other things, this rule requires that for each new independent director nominated to the board the firm must include in the proxy filing "a statement as to which one or more of the following categories of persons or entities recommended that nominee: security holder, non-management director, chief executive officer, other executive officer, third-party search firm, or other, specified source" (Item 407(c)(2)(vii)).[6]

The rule also states that in disclosing the category of persons or entities that initially recommended a candidate to (or otherwise brought to the attention of) the nominating committee, "companies should ensure that they identify also any person or entity that caused a particular candidate to be recommended. For example, if the chief executive officer asks a third party to evaluate a potential candidate, and that third party ultimately recommends the candidate to the nominating committee, both the chief executive officer and the third party should be identified as recommending parties in the company's disclosure". More generally, in case of multiple sources for a nominee the rule explicitly calls for disclosure of all sources.[7]

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[6] Initially, the proposed rule required to specifically identify the person recommending the nominee. However, commenters objected that naming the specific source could have a "chilling effect on the search process" or could imply that a nominee was unqualified to serve on the board based solely on the position held by the individual who originally recommended the nominee (SEC 2004). Thus, the final rules only require disclosure of the general category of persons who recommended the nominee, except when a nominee is recommended by the chief executive officer.

[7] The rule also states that "if the company pays a fee to any third party or parties to identify or evaluate or assist in identifying or evaluating potential nominees, [it must provide] disclosure of the function performed by each such third party". This means that the firm must disclose whether it retained a search firm (only) to vet a candidate proposed by the CEO or another director, etc.

We exploit these requirements to identify the recommending source(s) and examine whether it is systematically associated with new independent directors' characteristics, market reaction to their appointment and their subsequent progression on the board and in the director labor market.

2.2 Sample construction

Our initial sample includes all new independent directors (NID) joining a board of a publicly traded firm covered in BoardEx between 2010 and 2019 and with available financial data in CRSP and Compustat.[8] For 98.6% of these NID we are able identify the corresponding proxy filing first reporting the information about the new nominee up for election.[9]

For the resulting sample of 20,746 NID, we then proceed in three steps. First, to identify the NID recommended by a search firm, we extract all portions of the proxy filing where the last name of the NID and certain keywords appear in the same sentence or in two adjacent sentences. The keywords we use are "search firm(s)", "recruiting firm(s)", as well as the names of the top five search firms: Spencer Stuart, Russell Reynolds, Heidrick Struggles, Korn Ferry, and Egon Zehnder. We read all these sentences to determine whether the NID was recommended by a search firms. When (voluntarily) disclosed, we also collect the name of the search firm. Then, we add to our list of keywords all the names of other 38 search firms identified in this process and repeat the search described above. Overall, this process identifies 2,292 NID recommended by search firms.

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[8] More precisely, we include NID of firms with an annual report date (fiscal year end) between January 2010 and June 2020 in BoardEx, which means we have few observations for 2020 (since most firms have a December fiscal year end). We only include publicly traded firms listed on NYSE, Nasdaq or the American Stock Exchange with at least $1 million in total assets, $3 million in market value of equity, and end-of-year stock price of $1 or more. We start in 2010 because in 2009 the SEC required firms to disclose the experience, qualifications, attributes, or skills that led the nominating committee to choose an individual as a director (Regulation S-K; Adams et al. 2018). This choice allows us to have a homogenous sample period in terms of director-related disclosure requirements.

[9] We search the NID's last name in the firm's DEF 14A proxy filings with a filing date within one year (before or after) of the annual report date in BoardEx (which typically corresponds to the end of the fiscal year), and we retain the earliest proxy filing mentioning the NID. We fail to identify the corresponding proxy filing for about 1.4% of NID. Manual inspection of these cases suggests that the reason is slight differences in the way the last name is reported in the proxy statement versus BoardEx. For example, for Ana Botín (a new director of Coca Cola Company in 2013) her last name appears in the proxy statement as "Botín", versus "Botin" in BoardEx.

In our second step, we aim to identify the cases where NID were recommended by sources other than a search firm. Based on the sentences read in the first step, we identify the verbs typically used to describe how a NID was selected, such as 'recommend/recommended' and 'identify/identified'. Then, we extract the sentence including the last name of the NID and one of these verbs, plus the two adjacent sentences. Finally, we read all these sentences to determine whether the source of recommendation was disclosed and – when disclosed – we hand code the identity of such source using the categories indicated in the SEC Release 33-8340: independent directors, CEO, other executives, shareholders, or other sources.

As a third and final step, for all firm-years with NID recommended by a search firm, if there is an additional NID with a recommending source not identified in the second step we search for the NID name in the entire proxy statement to determine whether the recommending source for such NID is disclosed.[10] The purpose of this step is to have a sample where we can compare NID recommended by search firms and NID recommended by other sources within the *same* firm-year.

Overall, we read potentially relevant sentences for over 8,000 NID and we identify the source for 5,235 NID.[11] The results of this process are summarized in Table 1, Panel A.

3. Descriptive Statistics

3.1 Compliance rate

The first, striking result in Table 1, Panel A, is that the recommending source appears to be disclosed for only 25.2% (5,235 out of 20,746) of the NID in our sample, suggesting a high degree

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[10] We plan to perform the same process for all firm-years with multiple NID where we were able to identify the recommending source only for some of them.

[11] There are many cases of "false positives". For example, the sentence of interest may simply state that no "search firm" was used to "identify" the director. Also, for 1,254 NID the proxy filing states that the nominating and governance (N&G) committee recommended the NID to the board of directors. Because ultimately a nominee is always recommended by the N&G committee to the board (no matter who proposed the nominee), we classify these cases as "source of recommendation not disclosed" (Table 1, Panel A). In contrast, if the language suggests that one (or more) of the N&G committee members identified or recommended the NID, then the NID is included in our final sample of 5,235 NID with disclosed recommending source (the source being independent directors).

of non-compliance with the SEC requirements – almost 75% of the NID. This figure is stable over the sample period, ranking from 72% to 77% (untabulated). At the firm level, 60.6% (2,623 out of 4,327) of the sample firms never disclose the recommending source of NID.[12]

One concern is that our search may fail to detect all cases where the recommending source is disclosed, causing us to overstate the rate of non-compliance. However, in a random sample of 300 NID (each from a unique firm), we read all mentions of the NID in the relevant proxy filing and find that the recommending source was disclosed only in 11 cases (3.7%). In these cases, the source was a large or activist shareholder. Our search did not capture these cases because the relevant sentence does not use words such as "identified" or "recommended" but rather states that the NID was appointed as part of an agreement with a shareholder. Thus, our 'false negative' rate appears to be low and limited to the case of NID identified by shareholders.[13]

To sum up, our data suggest an extremely high degree of non-compliance. In a board-centric governance process, understanding how newly appointed directors are identified (and especially the role played by top management) seems of great importance. In that sense, it is surprising that institutional investors over the last 20 years have not pushed for greater disclosure compliance (or failed to identify the low compliance). For example, we are not aware of any shareholder proposals requesting such disclosures at non-compliant firms. As for enforcement by the SEC, we identified a handful of comment letters urging firms to comply with the disclosure requirements (see

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[12] Among the firms disclosing the recommending source for at least one of their NID during the sample period (39.4% of the sample), only 40.6% disclosed their recommending sources for at least 2/3 of their NID. If we limit the analysis to the 1,273 firms with at least 5 NID (to reduce the effect of firms with few NID), the above percentage is even lower at 31.7%, while more than 1/3 of the firms (34.4%) disclose the recommending source only for less than 1/3 of their NID. These data suggest significant cross-sectional variation in the degree of compliance among disclosing firms.

[13] Our "false negative" rate is equally low –at about 5% –in the third step of our search process, when we condition on firm-years with one NID recommended by a search firm, and we examine other NID in the same firm-year not captured by the second step of our search process. Since in this sample by construction the source is disclosed for at least one NID, the "false negative" rate of 5% is likely over-estimating the true rate.

Appendix 1). However, these letters were issued in the context of a broader SEC review of a firm's filings. We are not aware of any SEC initiative specifically targeting the enforcement of this rule.[14]

In the next sections we examine the sample of NID with disclosed recommending source, focusing on "within-sample" comparisons (e.g., comparing NID by recommending source). An important caveat is that our inferences are affected by any selection bias arising from the limited compliance with the rule. For ease of exposition, we first present the results as if the sample of NID with disclosures was a random sample from the universe of NID. Then, in Section 6 we will assess the potential selection bias and discuss how it may affect the interpretation of our findings.

3.2 Frequency of recommending sources

Table 1, Panel B, details the recommending source for the 5,235 NID with available information. Search firms are the most frequent source (43.8%), followed by independent directors (29.7%), CEO (15.0%), shareholders (9.8%), other executives (5.2%) and other sources (5.2%). As shown in Figure 1, the fraction of NID recommended by a search firm (35% in 2010) has been trending upward – especially in 2018 and 2019 (at 46-47%), as the push for board diversity intensified – mostly at the expense of NID recommended by independent directors and CEO. Notably, the fraction of NID recommended by the CEO was almost 20% in 2010, then hovered around 15-16% until 2017 and dropped to 10-11% over the last two years of our sample period, perhaps because of greater scrutiny over the source of director nominations as board diversity gained greater attention.

Panel B also reports that 92.4% of NID are recommended by a single source, with 7.6% identified by multiple sources (these figures are fairly stable over the sample period). When multiple sources are involved (400 NID), the most frequent combinations (untabulated) are

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[14] The paucity of these letters and the lack of penalties for non-disclosure imply that the cost of non-compliance is effectively zero – which may explain the high degree of non-compliance.

independent directors and CEO (133), independent directors and search firms (62), independent directors and executives (52 cases), and CEO and executives (28). A comparison of column (1) (frequency of each source in total) and column (3) (frequency of each source when it is the unique source) confirms that SF usually act as the single recommending source for a NID.

Two of the six categories in Panel B require some explanation. As for the "shareholders" category, firms generally describe in the proxy filing the process by which any shareholder can send recommendations for nominees to the board. However, cases of such recommendations (mostly from large shareholders) are not frequent. In contrast, most cases under this category refer to special agreements under which a shareholder (e.g., an activist or a large shareholders) has the right to nominate a certain number of board members. As for the "other sources" category, it mostly includes NID appointed via some transactions (merger agreement, spinoffs), with a few cases where the NID was recommended by other parties (industry sources, outside counsel, etc.). Appendix 2 presents examples of each category.

Finally, Panel C shows that among when a search firm is the recommending source, its name is mentioned only in 25% of the cases (such disclosure is not mandatory), with the five largest search firms representing over 83% of such mentions. As for the other categories, sometimes firms voluntarily disclose the names of the specific independent director, executive or shareholder recommending the NID (see examples in Appendix 2), but this is not frequent.

Overall, Table 1, Panel B-C, provides two key insights. First, search firms are the most frequent recommending source. Prior research indicates that over 80% NID have a 1st or 2nd degree connection to the board they are joining, implying that referrals between board members are the dominant channel by which NID are identified (Cai et al. 2022). Our data suggest that search firms play an important role as well, which provides further motivation for our study.

Second, CEOs and other top executives are the recommending source for about 20% of the NID in our sample. Reducing the CEO influence on the director nomination process was part of the reasons for the NYSE/Nasdaq 2003 rules mandating that only independent directors can sit on the nominating committee (Shivdasani and Yermack 1999). While such committee has the final word (CEOs and executives can only propose certain candidates, if consulted), our figures suggest that NID proposed by the top management represent a sizeable fraction of all NID, making the investigation of the characteristics of these candidates even more salient.

A caveat, as noted earlier, is that we only observe the frequency of recommending sources when firm comply with the SEC rule and disclose this information. The frequency of NID recommended by CEO may be understated if firms strategically omit this information to avoid shareholders' scrutiny over the NID potential conflicts of interest. By the same token, the frequency of NID recommended by search firms may be overstated if firms believe that disclosing the involvement of a search firm credibly conveys to shareholders that the nomination process is transparent and independent. We will go back to this discussion in Section 6.

4. Recommending Source and Characteristics of New Independent Directors

Table 2, Panel A, compares the characteristics of NID identified by different sources along five dimensions: demographic and education background, executive experience, board experience, connectedness, and a measure of director-specific quality (DSQ) developed by Bhattarai, Serfling and Woidtke (2022). The variables are described in detail in Appendix 3. To make the comparisons cleaner, we exclude NID recommended by multiple sources, though the inferences are generally similar when using the entire sample of 5,235 NID (untabulated). We group together the categories "CEO" and "other executives" from Table 1, on the ground that the incentives of these sources

(and the potential conflicts of interest) are likely to be similar.[15] We also combine the categories "shareholders" and "other sources" because in both groups most cases refer to NID appointed through special agreements or transactions. Thus, in columns 1-4 we present the characteristics of NID by four recommending sources: search firms (hereinafter SF-recommended NID), independent directors (ID-recommended NID), CEO/executives (CEO-recommended NID) and shareholders/others (SH-recommended NID).

Since the ultimate responsibility to identify new directors resides with the board, which delegates it to a nominating committee of independent directors, in column 5-7 we report a significance test for the difference between the other three sources and the ID-recommended NID, which we view as the "default" or benchmark, as explained in the Introduction.

4.1 New independent directors recommended by search firms

Column 5 shows that SF-identified NID significantly differ from ID-recommended NID in many dimensions. We will first describe such differences (focusing on the ones that are both statistically and economically relevant) and then discuss their combined interpretation.

In terms of demographics and background SF-recommended directors are significantly more likely to be female (38% vs 30%), to be non-white (9% vs. 7%), and to have an MBA or other master (44% vs 36%). They are also less likely to be older than 70 (0.01 vs 0.04).

In terms of executive experience, 15% (33%) of SF-recommended directors are (have been) CEO of a publicly traded firm, versus 6% (21%) of ID-recommended ones (variables *CEO - Current* and *CEO - Ever*). Similar differences hold for non-CEO executive experience (untabulated). As a result, 26% (62%) of SF-recommended directors are (have been) in the C-suite of a publicly traded firm, versus 11% (38%) of ID-recommended NID (variables *C-suite - Current*

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[15] Untabulated analyses indicate that NID recommended by CEO and NID recommended by executives are similar along all characteristics in Table 2, unless otherwise noted in the text.

and *C-suite - Ever*). These differences are markedly smaller if one considers executive experience in both public and private firms (untabulated), suggesting that search firms tend to focus on candidates with experience in publicly traded firms, either because expressly requested by their client or because they view such candidates as a superior (or perhaps safer) choice.

In terms of board experience, a notable difference is that SF-identified NID are much less likely to be a *Rookie Director* (31% vs. 45%), i.e. they are less likely to serve on a board for the first time.[16] Conditioned upon having board experience, SF-recommended NID: (i) have a lower number of past board seats (2.6 vs. 2.8; *# Board Seats – Ever*); (ii) have less spent time on boards cumulatively (9.3 vs. 11.5 yrs; *# Cumul Yrs on Boards*); (iii) are less likely to have served in a leading role – that is, as independent chair or lead independent director (12% vs. 15%; *Indep Chair/Lead ID - Ever*); (iv) they served on fewer board committees (4.3 vs. 5.0; *# Committees - Ever*); and (v) they served as committee chair on a smaller fraction of the committees they served on (0.13 vs. 0.18; *% Committees as Chair - Ever*).

In terms of connectedness, a striking difference is that SF-recommended NID are less likely to have a *1st-Degree Connection* with the board they are joining relative to ID-recommended NID (26% vs. 40%),[17] consistent with independent directors preferring candidates with direct referrals from one of their own. Interestingly, SF-recommended NID are more likely to have a *2nd-Degree Connection* (57% vs. 32%). Thus, most SF-recommended directors are not too 'close' but neither

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[16] The difference remains statistically significant, but it is smaller in magnitude when we measure the frequency of rookie *outside* directors, i.e., those serving for the first time as outside directors (51% vs. 56%). This is because SF-recommended NID are more likely to have served as CEO or C-suite executives in publicly traded firms, and thus more likely to have served as inside director on the board. That said, the fact that SF-recommended NID are less likely to be rookie outside directors runs counter to the conventional wisdom that search firms are hired to recruit "new" candidates to boards.

[17] The NID are classified as having a 1st-degree connection with the board they are joining if they worked at the same company, or sat on the same board, as the existing directors. They are classified as having a 2nd-degree connection if they worked or sat on the same board as directors who in turn worked with or sat on the same board as the existing directors. See Appendix 3.

too 'far' in the network from the board they are joining. SF-recommended NID also have a larger *Network Size* (defined as the number of 1st-degree connections to other directors in BoardEx), partly because of the lower frequency of rookie directors (who tend to have lower network size; untabulated analysis).

Finally, we examine the director-specific quality (DSQ) metric developed by Bhattarai et al. (2022), which aims to capture the unique, time-invariant transferable attributes of directors (such as critical thinking skills, grit, creativity, interpersonal skills, work ethic, etc.) that contribute to firm value across all the boards they sit on and that are distinct from time-varying director and firm-related aspects.[18] We find no difference in DSQ between SF- and ID-recommended NID.

Overall, what does this analysis tell us about the role of search firms and, especially, the three hypotheses discussed in the Introduction? First, we fail to find evidence supporting the *certification* hypothesis, i.e., the notion that search firms are called in to identify the same type of directors from the same network as those usually recommended by independent directors, while providing a third-party certification. Under this hypothesis, we would expect little differences between SF-recommended and ID-recommended NID, whereas our data reveal numerous and significant differences on many dimensions. Also, the proportion of SF-recommended NID with a

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[18] Bhattarai et al. (2022) exploit the time-series and cross-sectional variation in director-firm pairs in Boardex to decompose firm value into variation attributable to (i) time-invariant firm-specific effects, (ii) time-varying firm, board, and director effects, (iii) year effects, and (iv) time-invariant director-specific effects – the latter being referred to as director-specific quality (DSQ). Bhattarai et al. (2022) find that DSQ explains 10% of the total variation in firm value (Tobin's Q). Also, estimates of DSQ are largely unrelated to observable characteristics of the type examined in Table 2, consistent with the notion that it may capture those soft, individual personal attributes that practitioners view as important contributors to director effectiveness but are hard to measure using observable characteristics. The authors validate this measure by showing that high DSQ directors receive higher shareholder voting support and trigger a more positive price reaction around their appointment, and that boards with higher average DSQ are associated with better decisions in terms of M&A, innovation, executive compensation, and cash management. While this measure is estimated by the authors over the entire Boardex database (and thus, it is based on data *subsequent* to the NID appointment), we use it as proxy for those "soft" NID traits which presumably existed already at the time of their appointment (e.g., interpersonal skills, creativity) but are not captured by the other observable characteristics in Table 2, Panel A.

1st-degree connection to the board is significantly lower, suggesting that search firms draw from a broader talent pool, beyond the immediate network of the board's independent directors. Second, there is some, but limited, evidence in support of the *diversify pool* hypothesis, i.e., the notion that SF is a means to identify "different" directors, whether in terms of gender and race, or in terms of unique expertise, experience or any other characteristic that is otherwise infrequent among the population of independent directors. Supporting this hypothesis, the frequency of female and non-white directors is higher among SF-recommended NID, consistent with anecdotal evidence that search firms are employed to diversify the board in terms of gender and race. However, if this hypothesis was prevalent (beyond gender and race), SF-recommended directors should be more likely to be rookie directors, without 1st or 2nd degree connection to the board, and without CEO/C-suite experience, since (on average) "different" directors should come from outside the circle of "usual suspects". The evidence, however, suggests exactly the opposite.

Finally, and relatedly, we find greater support for the *expand pool* hypothesis, i.e., the notion that SF are recruited to help current board members go beyond their immediate network (e.g., 1st-degree connections) while still searching for 'traditional', highly experienced candidates. Consistent with this hypothesis, SF-recommended directors are less likely to be rookie directors and to have a 1st-degree connection to the board, but they are more likely to have a 2nd-degree connection. In other words, they are not from the immediate board network, but they are still drawn from a pool of candidates with previous board experience and with some indirect (2nd-degree) connection to the board (perhaps because, among all candidates proposed by search firms, boards choose those for whom they can gather information via their 1st-degree network). Interestingly, SF-recommended NID are more likely to have executive experience in publicly traded firms, while they tend to have less board experience (conditioned upon having some board experience), as

shown by the lower number of cumulative years on boards, lower number of past board seats and committees, and lower frequency of leadership positions (independent chair or lead director, committee chair).

Altogether, it appears that independent directors tend to recommend candidates within their immediate network and with more board experience, whereas they use search firms when they need to go beyond their immediate network and look for candidates with greater executive experience, or occasionally, to diversify the board along dimensions of gender and race. Note that the characteristics of SF-recommended NID may reflect not only specific mandates of the companies hiring the search firm, but possibly also search firms' preferences. For example, the above data are also consistent with search firms preferring to push "safer" candidates (such as non-rookie directors with strong executive experience in publicly traded firms) to minimize the risk of ex post clients' disappointment with the candidate and protect their reputation. Along the same lines, it is possible that when looking outside the immediate network of the board search firms strategically focus on candidates with 2nd-degree connections to the board since they expect the board to be more comfortable with candidates with common connections.

4.2 New independent directors recommended by CEO and/or top executives

CEO-recommended NID are less likely to be female (23% vs. 30% for ID-recommended NID; column 6), while they are equally likely to be non-white. In untabulated tests, when we split NID recommended by CEO and those recommended by other executives we find that that only 20.2% of the NID recommended by CEOs are women, versus 31.0% of those recommended by other executives. Thus, as the debate about reasons for lower women representation on board continues, our data suggest that the source of recommendation is an important factor: when the board relies on CEO recommendations, women are less likely to be appointed to the board.

CEO-recommended and ID-recommended NID are similar in terms of executive experience as well as likelihood of being rookie directors (though CEO-recommended NID are more likely to be serving for the first time as outside director: 0.62 vs. 0.56 - untabulated). Conditional upon having served on boards, they have generally less board experience (fewer committees, less leadership positions on the board and on committees).

In terms of connectedness, 30% (65%) of CEO-recommended NID have a 1st-degree (1st- or 2nd- degree) connection to the board, versus 42% (75%) of ID-recommended NID. Thus, boards are more likely to appoint NID less close and less known to the board when the recommendation comes from the CEO (rather than from independent directors), reflecting either CEO's power over the board, or the board's reliance on the CEO to find candidates outside the board network. CEO-recommended candidates also have a smaller network. Finally, we fail to find a significant difference in terms of DSQ between CEO-recommended and ID-recommended directors.

Combined, this evidence does not support the *access to CEO network* hypothesis, i.e., the idea that boards resort to the CEO-recommended candidates because CEOs are able to tap into a pool of high-profile candidates with superior traits relative to those identified by independent directors. While CEO-recommended NID are more likely to be distant in the network (beyond 2-degrees of distance) – which does suggest an attempt to reach beyond the independent directors' immediate network – they do not appear to have superior executive or board experience, nor a larger network, relative to ID-recommended NID. The lack of difference in executive experience is somewhat surprising, since one would expect CEOs to emphasize this trait. On the other hand, ID with strong executive experience may be perceived as threatening the CEO's decision-making authority.

As for the *loyal directors* hypothesis, it is hard to provide conclusive evidence without data on personal ties between CEO and CEO-recommended NID. However, in untabulated tests we find

that 81% of the CEO-recommended NID with a 1st-degree connection to the board have a 1st-degree connection to the CEO, whereas this figure is only 48% for ID-recommended directors. That is, when CEO-recommended NID are "close" to the board, they tend to be close (also) to the CEO. We also note that CEO-recommended NID are more likely to have a 2nd- rather than 1st-degree connection to the board, that is they are less directly known to the board. Finally, the fact that CEO-recommended NID have less experience in leadership positions on the board and committees may signal CEOs' preference to avoid NID with strong leadership traits, potentially challenging their authority. Of course, arguably NID with strong leadership traits may negatively affect board dynamics and thus such CEO preferences may be optimal for the firm. We will go back to the *loyal directors* hypothesis after presenting additional evidence in Section 5.

4.3 New independent directors recommended by shareholders

As discussed in the Introduction, we do not have a clear hypothesis about the differences between SH-recommended and ID-recommended NID, because the former comprises a heterogenous group of NID appointed via activism, special agreements with large shareholders, mergers and other transactions, etc. Thus, unlike the case of CEO-recommended and SF-recommended NID – where we can make conjectures on the circumstances under which independent directors would seek input from the other parties – for SH-recommended NID in many cases the independent directors may not have a choice as to whether to involve shareholders, nor a final say on the candidate (indeed, the term "recommended" may be a misnomer). Nonetheless, we offer this descriptive analysis for completeness.

Column 7 shows that SH-recommended NID are the least likely to be female, at 13% (versus 30%, 38% and 23%, respectively for ID-, SF-, and CEO-recommended NID). We conjecture that this is because NID recommended by large shareholders and activists and/or appointed as part of

some transactions are likely to be senior members of some financial entity representing the shareholder, and such members tend to be male. Nonetheless, the difference is striking and suggests that NID appointed via shareholders' intervention are a barrier to greater gender diversity on boards. However, SH-recommended NID are more likely to be non-white (0.10 vs. 0.07).

In terms of executive experience, SH-recommended NID and ID-recommended NID are generally similar, except that SH-recommended NID are slightly less likely to be currently a C-suite executive. In contrast, they generally have more board experience: namely, they are less likely to be rookie directors (0.39 vs. 0.45), they have served on more boards and committees, and they are much more likely to have served as independent chair or lead independent director (0.26 vs. 0.15). This is consistent with the notion that NID appointed in the context of certain complex transactions tend to be candidates with substantial board leadership experience.

Given the heterogeneous circumstances leading to the appointment of SH-recommended NID, it is not obvious how to interpret their characteristics in terms of connectedness. However, it is notable that the fraction of SH-recommended NID with a 1st- or 2nd-degree connection to the board is lower (0.68 vs. 0.75), as it is their network size. This is to be expected if some of these NID are brought by activists or other parties (e.g., merging company) and thus not necessarily within the referral network of current board members. In untabulated tests, we also find that – relative to all other three categories – SH-recommended NID are more likely to have expertise in finance and to be from the same industry as the firms whose board they are joining, which is consistent with the nature of the transactions (e.g., activism, mergers) leading to their appointment.[19]

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[19] 52% of SH-recommended NID have expertise in finance (based on the Boardex description), versus 38-39% in the other three categories (differences statistically significant at the 1% level). 27% of SH-recommended NID are from the same industry as the firm whose board they are joining, versus 19%-23 for the other three categories (the differences are statistically significant at the 5% level).

With regards to DSQ, perhaps surprisingly the DSQ of SH-recommended NID is significantly lower. One conjecture is that SH-recommended NID tend to be finance specialists placed on a specific board to add value in the context of a given transaction (i.e., their value is context specific), rather than because of their portable, soft skills.

Finally, we re-examine all the comparisons in Table 2, Panel A, separately for the first and second half of our sample period (untabulated). As expected, the fraction of female NID is significantly higher in the second half of the period (39% vs. 22%), but the differences in NID characteristics across recommending sources are generally similar in both periods.

4.4 Do different search firms recommend different types of directors?

As shown in Table 1, Panel B, the five largest search firms are also by far the ones most often mentioned in the proxy filing as recommending source (the next one has only 9 mentions). Little is known about the market of director search firms and how they compete to gain market share and differentiate their services. As a first step towards filling this gap, in Table 2, Panel B, we examine the characteristics of the NID recommended by those five search firms.

Based Table 2, Panel B, it appears that Egon Zehnder is the search firm specialized in diversifying the board by gender and race. For example, the proportion of female and non-white NID recommended by Egon Zehnder is, respectively, 0.45 and 0.14, versus about 0.35 and 0.06-0.09 for the other search firms. Egon Zehnder also seems to be the search firm most often hired to recruit directors with a less conventional background, i.e., directors with less executive and board experience. For example, Egon Zehnder has the lowest fraction of NID with current or past CEO or C-suite positions in publicly traded firms (respectively, 0.24 and 0.51; versus, for example, 0.38 and 0.65 at Spencer Stuart, and 0.40 and 0.72 at Russell Reynolds). Notably, it also has the higher percentage of rookie directors at 0.49, followed by Korn Ferry at 0.37 and only 0.20-0.27 for the

other three search firms. Conditioned upon past board experience, Egon Zehnder candidates also have slightly lower experience (in terms of board and committee seats ever held, likelihood of serving as independent chair or lead independent directors, or as committee chair). In terms of connectedness, the differences between search firms are less pronounced, though Egon Zehnder has a slightly lower fraction of NID with 1st-degree connection to the board, suggesting a focus on directors outside of the immediate network of the board. In contrast, the fraction of connected NID is the highest for Spencer Stuart and Russell Reynolds. In unreported tests, we also find that Egon Zehnder-recommended NID have greater expertise in IT, suggesting a specialization in recruiting directors with functional expertise.[20] Finally, Russell Reynolds, Korn Ferry and Egon Zehnder NID appear to have slightly higher DSQ.

We acknowledge that disclosing the names of the search firm is not mandatory and thus SF-recommended NID with disclosed search firm name may differ from the ones without such disclosure. For example, the company may prefer to disclose the search firm name only when employing a high-reputation search firm (this could also explain the high frequency of the largest search firms reported in Table 1, Panel C). However, a comparison of column 7 and 8 shows little differences between SF-recommended NID with and without disclosure of the search firm name (see significance level for tests of differences in mean reported in column 8).

Overall, subject to the caveat that the sample size is small, Table 2, Panel B indicates a certain degree of specialization among search firms, with Egon Zehnder emerging as the search firm utilized to recruit "non-traditional" candidates to the board. Future theoretical and empirical research may use this preliminary evidence to further explore the market for director recruiting.

4.5 Market Reaction to the Appointment of New Independent Directors

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[20] Among the NID recommended by Egon Zehnder, 18% have expertise in IT (which includes also cybersecurity,) versus 5-6% for the other four search firms.

In this section we examine whether the market reaction to the announcement of NID varies with the recommending source. In many cases, the appointment of a NID is first publicly disclosed in the proxy filing sent to shareholders with the agenda of the upcoming annual meeting where shareholders will vote on director elections. Because proxy filings contain a large amount of other information, they are not suitable for an event study aimed at detecting shareholders' perception of the expected impact of the NID on firm value. However, there is a sizeable number of NID whose appointment is announced prior to the proxy filing. This is the case, for example, when the director is appointed during the year to serve on the board until duly elected with a shareholder vote at the next annual meeting. Such appointments must be disclosed via an 8-K filing under Item 5.02 ("Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers").

Importantly, the recommending source is *not* disclosed in the 8-K filing (or the press release attached to the filing). Thus, the market reaction is not confounded by "signaling" effects that investors may infer from the recommending source (e.g., investors may react negatively to CEO-recommended NID regardless of their quality out of concerns with excessive loyalty to the CEO) and should only capture shareholders' assessment about quality of NID and her "fit" with the firm. In essence, it should capture shareholders' assessment of how the "bundle" of characteristics examined in Panel A (and any other traits we did not measure) will affect firm value. As a result, it also speaks to the value of the recommendations made by different sources.

To identify the relevant announcement dates for the event study, for each NID we extract and retain the earliest 8-K Form with Item 5.02 mentioning the last name of the NID and filed during the year prior to the proxy filing date. We identify such filings for 3,487 NID and use the 8-K

"report date" as announcement date. [21] We also exploit the fact that BoardEx reports an announcement date for 2,373 NID. For NID with both 8-K report date and BoardEx date, we use the earliest date (though in almost all cases the dates are identical). For NID without an 8-K filing but with a BoardEx announcement date (314 NID), we use the latter as announcement date (as long as it is earlier than the proxy filing date). Finally, we remove all cases where the announcement date is contaminated by a concurrent earnings announcement (i.e., we remove all announcement dates with an earnings announcement taking place within 2 days prior to or after the NID announcement date). As a result of this process, we identify "clean" announcement dates for 3,230 NID recommended by a single source.

Next, we compute the cumulative abnormal returns (CAR) during the [-1,1], [0,1] and [0,2] windows around the NID announcement date. The top portion of Table 2, Panel C, reports the univariate results by recommending source. The market reaction is generally insignificant for ID-recommended and CEO-recommended NID, while it is positive and significant for SF-recommended NID when using the [-1,1] and the [0,1] windows. The difference in CAR between SF-recommended and ID-recommended NID is only significant when using the [-1,1] window. Notably, there is a strong, positive market reaction for SH-recommended NID, but we caution that in these cases the 8-K and press release typically provide also important information about the underlying transaction, and thus the market reaction is likely to capture other value-relevant information beyond the news of the NID appointment.

The bottom portion of Panel C present a similar analysis for the subset of SF-recommended ID. There is a significant positive market reaction for both SF-recommended NID where the

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[21] The "report date" for an 8-K is the date of the event disclosed in the 8-K. In our setting, such event is typically the press release announcing the new director (i.e., the announcement date). Firms have up to four days to file an 8-K, after the "report date". Thus, the 8-K "filing date" will either coincide with or follow the 8-K report date.

search firm is disclosed and the subset where it is not disclosed (see column 7 and 8; the difference in CAR across the two columns – untabulated - is not significant). Subject to the caveat that its sample size is small, it appears that there is a significant positive reaction for NID recommended by Egon Zehnder-recommended around the [0,1] and [0,2] windows. There is also a large positive reaction around the announcement of NID recommended by Russell Reynolds, but the significance level is between 14% and 20%.

Next, we present a multivariate test. We know from Table 2, Panel A, that there is significant overlap in these NID characteristics across recommending sources. For example, most NID have substantial executive and board experience. Thus, it is important to run a multivariate test to examine the reaction to the incremental (i.e., unique) features of each "bundle". For this purpose, we remove the case of SH-recommended NID (since the announcement dates are likely to contain information about the transaction leading to the NID appointment), and we regress the CAR on indicators for SF-recommended and CEO-recommended ID, with the ID-recommended NID being used as benchmark. We also control for whether on the announcement date the firm also announces the departure of another director.

As shown in Panel D (column 1-3), there is a significant positive coefficient on the indicator for SF-recommended NID (at the 10% level), but only when using the [-1,1] window. In column 4-6, when we replace the indicator for SF-recommended NID with indicators for the specific search firm (and an indicator denoting cases where the search firm name is not disclosed), we find some evidence of a positive reaction around the announcement of NID recommended by Russell Reynolds (using the [-1,1] and [0,2] windows) and by Egon Zehnder (using the [0,1] window, while the coefficient for the [0,2] window has a p-value of 0.107).

Overall, there is some evidence of a more positive reaction for SF-recommended ID, especially when recommended by Egon Zehnder, consistent with investors reacting positively to the bundle of characteristics that differentiate these NID. However, we caution that – as in other studies on director announcements – the significance and magnitude of the effects are small, thus we caution against drawing strong inferences from the event study.

5. Recommending Source and Performance of New Independent Directors

In this section we examine whether the post-appointment "performance" of NID varies depending on the source of recommendations. The individual actions of each NID on the board and her contribution to joint board decisions are not observable. Nonetheless, we examine a few observable post-appointment individual-level metrics that may speak to the question of whether the recommending source systematically predicts certain director-level outcomes.

5.1 Shareholder Votes on New Independent Directors Over Time

Table 3, Panel A, examines director-level votes at the annual meetings taking place after the meeting where the NID is first elected.[22] Shareholder votes are a useful metric for our analysis both because they are director-specific and because they measure shareholders' (dis)satisfaction with directors' performance (Fischer, Gramlich, Miller and White 2009). In particular, we examine whether the propensity of directors to take pro-management actions opposed by shareholders – as reflected in the percentage of votes cast against the NID when up for re-election – depends on the source recommending their appointment.

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[22] Proxy advisors, such as Institutional Shareholder Services, generally recommend in favor of new nominees in uncontested elections, even when issuing a "withhold" recommendation against existing board members, on the ground that new directors should not be held accountable for issues prior to their appointment (Ertimur, Ferri and Oesch 2018). Thus, virtually all NID are elected with almost unanimous support and the votes at the annual meetings ratifying their elections are not informative about the directors' performance. Hence, we focus on the subsequent votes.

To measure shareholders' voting dissent, following prior studies (e.g. Cuñat, Gine and Guadalupe, 2012) we compute three variables: (i) the average voting dissent experience by the NID in all (subsequent) meetings where she is up for re-election at the focal firm; (ii) the percentage of such meetings where the NID experience voting dissent above 15% or 20% (the thresholds typically viewed as capturing substantial shareholders' opposition; Ertimur, Ferri and Oesch 2018); and (iii) an indicator denoting whether the NID experience voting dissent above 15% or 20% at least once after the appointment. This last variable is affected by the number of meetings where the NID is voted upon, thus we also report such number.

The findings reveal an interesting pattern: relative to ID-recommended NID, CEO-recommended NID (SF-recommended NID) are significantly more (less) likely to experience voting dissent. For example, 20% of CEO-recommended ND experience at least once voting dissent above 20%, versus 13% of ID-recommended NID, and 8% of SF-recommended NID.

These figures may reflect either the fact that CEOs recommend directors with a history of standing up to shareholder pressure and supporting management position, or the fact that ND recommended by the CEO become "loyal" to management out of gratitude for the appointment. Similarly, it is possible that search firms propose candidates with a history of low voting dissent (whether because of their characteristics or their policies) or that SF-recommended NID are especially careful in managing their relations with shareholders because they care about building a reputation as independent, shareholder-friendly candidates carefully selected by third-party firms. To disentangle these two explanations, in the bottom portion of the table we also report the same voting data for any other boards the director sat on prior to their appointment as NID to the focal firm (this analysis can only be done for directors with past board experience). Interestingly,

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there is no difference in voting dissent among CEO-, ID- and SF-recommended directors.[23] Thus, while we cannot establish causality in this setting, it appears that the voting pattern documented above is not the result of "director effects" but, rather, the result of the recommending source consciously or unconsciously affecting the behavior of NID at focal firms. Put it differently, who recommended you to the board matters – making the high non-compliance with the SEC disclosure requirements more salient.

5.2 Progression of NID on the Board and in the Director Labor Market

Table 3, Panel B, presents two sets of variables. The first relates to the progress of NID on the board of the focal firm 3 years after their appointment. We report whether the NID are still on the board after 3 years (*On Board After 3Yrs*) and, if so, how many committees they sit on (*# Committees After 3 Yrs*), how frequently they hold a committee chair (*Committee Chair After 3 Yrs*) or sit as independent chair or lead independent director (*Indep Chair/Lead ID After 3 Yrs*).

Relevant to our research question, we examine whether these outcomes vary by recommending source. We focus on two specific questions. The first relates to the concern that SF-recommended NID may not "fit" as well as ID-recommended or CEO-recommended NID because they are less connected to the current board members (recall that SF-recommended directors are less likely to have 1st-degree connections to the board; see Table 2, Panel A). Such lower fit would predict higher turnover for these directors. Also, to the extent that SF-recommended directors differ along dimensions that may affect their chemistry with the rest of the board (along the diversifying pool hypothesis), they may be more likely to leave the board or be replaced. However, Table 3, Panel B, shows that SF-recommended and ID-recommended NID have a similar probability of remaining on the board after 3 years (68% vs. 69%).

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[23] Unfortunately, in most cases we cannot determine who recommended these directors at other firms they sat on in the past because of the low compliance with the disclosure requirements reported in Table 1, Panel A.

The second question is whether SF-recommended NID are given equal opportunity to join committees and take leadership positions on the board as NID proposed by independent directors. In this respect, Table 3, Panel B, shows that (conditioned upon remaining on the board) after 3 years they sit on the same number of committees and have a similar likelihood of being the independent chair or lead independent director. However, they are less likely to be committee chairs (0.33 vs 0.40).[24] Thus, there is some (but limited evidence) evidence that SF-recommended NID struggle to gain influence on the board.

With regard to CEO-recommended NID, the data in Table 3, Panel B, allow us to explore whether the support from the CEO results in the NID staying on the board longer and gain greater influence relative to ID-recommended NID (along the lines of the *loyal directors* hypothesis). We find that CEO-recommended NID are somewhat more likely to remain on the board (73% vs. 69%) – in spite of receiving greater voting dissent, as noted in Panel A – but there is no significant difference in the other variables. Thus, there is little evidence that CEO-recommended NID gain greater influence than ID-recommended NID. At the same time, though, CEO-recommended NID fare better than SF-recommended directors in all four variables (all differences are significant at the 5% level, except the committee chair variable, significant at the 10% level – untabulated). Thus, the combined evidence suggests that CEO-recommended NID enjoy greater progress on the board of the focal firm relative to SF-recommended NID.

As for the SH-recommended NID, once again this category represents a bit of a different "animal". Relatively to ID-recommended NID, they are substantially less likely to remain on the board after 3 years (0.48 vs 0.69) and – conditioned upon staying – they sit on fewer committees and are less likely to chair them. At the same time, they are twice more likely to be the

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[24] This difference holds also the first year (0.16 vs. 0.25) and the second year (0.26 vs. 0.34).

independent chair or lead independent director (0.09 vs. 0.04). These figures may reflect the transactional nature of most appointments in this category. For example, some SH-recommended NID may be appointed for a temporary period, explaining the higher turnover rate. Also, the underlying transaction may require a leadership position on the board. Thus, we only present these data for descriptive completeness.

The second set of variables in Table 3, Panel B, examines NID progression in the director labor market, namely in terms of number of other seats held as independent director. As for the non-rookie NID, it appears that across all categories (except the SH-recommended NID) NID experience a significant (net) increase in other board seats.[25] Among the rookie-directors (who, by construction, have no other seats at the time of their appointment), SF-recommended NID sit on more boards than ID- or CEO-recommended directors after 3 years. If one views the increase in other seats as an ex post measure of director quality, this evidence may suggest that search firms are better at identifying higher quality NID with no past board experience (rookie directors) and/or that rookie NID proposed by search firms are more likely to be chosen by the board when their quality is higher. That said, it is also possible that SF-recommended rookie NID simply reap the benefits of the relation with the search firm in the director labor market.

6. Non-compliance: reasons and potential impact on the findings

One of the most surprising findings from our analysis is the high degree of non-compliance documented in Table 1, which implies that our setting is de facto a voluntary disclosure setting, and thus potentially subject to the standard selection bias problems.

As a starting point, we consider the most benign scenario: non-disclosure simply reflects firms randomly ignoring the disclosure requirements. Under this scenario, there would be no selection

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[25] SF-recommended NID exhibit a higher increase in absolute and percentage terms, but the increase is not statistically different from ID-recommended directors (see column 5).

bias: the frequency in Table 1 and our "within-sample analysis" in Section 3-5 would be generalizable to the universe of NID. A necessary condition for this scenario is that characteristics of NID w/ and w/o disclosures should be similar (reflecting similar distribution of the recommending sources *and* similar characteristics of NID w/ and w/o disclosures within each recommending source).[26] As shown later in Section 6.1, this condition is not met.

Next, we explicitly consider three potential sources of selection bias, with different implications. The first is that firms' disclosure rule is a function of the recommending source (e.g., always disclose the recommending source if it is a search firm), *regardless* of the characteristics of the NID. In this case, the frequency of recommending sources reported in Table 1 will not be representative of the true population, but our within-sample comparisons (Table 2-3) should remain valid and generalizable. The second possibility is that firms' disclosure rule is a function of the "type" of NID (e.g., only disclose the recommending source for high-quality directors), *regardless* of the recommending source. In this case the frequency of recommending sources reported in Table 1 may or may not be representative of the true population (depending on whether those "types" of NID are more frequent for certain recommending sources than others), and our within-sample comparisons in Table 2 and 3 would be 'conditionally' valid, i.e., they would be valid only within the subset of NID of the "type" that triggers the disclosure. The third possibility is that firms' disclosure choice is a function of the *combination* of recommending source and "type" of NID (e.g., always disclose the source for SF-recommended NID, but only disclose it for CEO-recommended NID if the NID has excellent credentials). In this case, the bias affects both the frequency of recommending sources and - importantly – our within-sample comparisons in

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[26] The condition is necessary but not sufficient because in theory the mean characteristics of the two samples could be similar because any difference in the distribution of recommending sources could be offset by differences in the characteristics of NID w/ and w/o disclosures.

Table 2-3. For example, if firms disclose the recommending source for all SF-recommended NID (and thus we observe their full distribution) while they disclose it for CEO-recommended NID only for NID of the highest quality, our analysis (based on disclosed recommending sources) would bias the comparison between SF-recommended NID and CEO-recommended NID. Finally, it is possible that all three sources of selection bias are at play.

While understanding the exact extent and implications of selection bias in this setting is admittedly difficult, to narrow down the potential scenarios we offer the following arguments regarding each of the four recommending sources. With respect to CEO-recommended NID we argue that boards (and the CEO herself) may strategically withhold disclosure of the recommending source because CEO-recommended NID may be viewed by shareholders as too loyal to the CEO. Such incentives should be most pronounced for CEO-recommended NID that shareholders may perceive as of lower "quality" and/or with traits that may be viewed as questionable or less desirable by shareholders.

With respect to SF-recommended NID, we argue that boards have an incentive to disclose their source since these NID should be perceived as more "independent" and perhaps of higher-quality (because drawn from a broader talent pool and selected through a more structured vetting process). As for the NID type, there is no obvious benefit for boards from hiding the source when the NID is of lower quality since any "blame" should go to the search firm. That said, in some cases perhaps boards are concerned that disclosing a search firm as recommending source may signal that they were not capable of identifying a "good" NID within their network – a concern exacerbated if the NID is perceived as a low-quality director.[27]

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[27] We also found a few cases where firms not using search firms emphasize that they did not incur any cost in recruiting the NID. Thus, perhaps some firms (especially smaller, cost-conscious firms) may prefer to hide that they used a search firm.

As for the case of ID-recommended NID, it is not clear why a firm would not want to disclose the recommending source since ultimately it is the independent directors' job to identify new board members. Thus, disclosing that the NID was ID-recommended should not carry any special negative or positive connotation. Nor would the board benefit from leaving uncertainty around the recommending source. Based on our earlier discussion (i.e., incentive to disclose the role of a search firm), investors would likely assume that the undisclosed source is either the CEO or the ID. Given shareholders' potential concerns with CEO-recommended ID, independent directors would be better off by disclosing that the NID was ID-recommended, else they would be blamed for allowing the CEO to "pick" a NID. Thus, there is no clear strategic disclosure incentive associated with ID-recommended NID. However, another type of non-strategic selection may be taking place. Some firms may naively believe that disclosure is only necessary when they deviate from the 'default' case, i.e., the case of ID-recommended NID (as noted earlier, independent nominating committee members are responsible for identifying and recommending nominees to the board). Under this scenario, there would be selection based on the recommending source (i.e., only disclose when the NID is *not* ID-recommended), but it would not be strategic nor opportunistic. Also, there would be no selection based on the type of NID.

Finally, we see little opportunity for strategic behavior in the case of SH-recommended NID. In most cases, due to the transaction-driven nature of the NID appointment the recommending source becomes public through other sources (press releases, 8-K and other SEC filings, etc.) - even if not disclosed in the proxy filing. Thus, boards should not have an incentive to omit disclosing the recommending source, regardless of the type of NID.

Combined, the above arguments result in two broad predictions. First, in the sample of NID w/o disclosure the relative weight of CEO-recommended NID and ID-recommended NID is likely

to be significantly larger than in Table 1, while the weight of SF-recommended NID is likely to be much smaller. Therefore, the sample of NID w/o disclosures should exhibit characteristics much closer to those of ID-recommended and CEO-recommended NID than those of SF-recommended NID, all else being equal. Second, there may be an incentive not to disclose the source for lower-quality NID and for NID with less 'desirable' traits (especially when recommended by the CEO). Therefore, the sample of NID w/o disclosures should be generally of lower quality or exhibit less desirable traits. To examine these predictions in the next section we compare the characteristics of NID with undisclosed recommending source (hereinafter "NID w/o disclosure") to NID with disclosed recommending source (hereinafter "NID w/disclosure").

6.1 Comparing NID with and without disclosure of the recommending source

Table 4 presents the same data as Table 2, Panel A (the four recommending sources), with two additional columns, one for the NID w/o disclosures (column 1) and one for the NID w/disclosures (column 2). For ease of exposition, in each column (other than the first column) the significance levels refer to a test for the difference between that column and the first column, i.e., they capture the significance of the difference between NID w/disclosure (in total or by recommending source) and the NID w/o disclosures (the first column). A quick glance at Table 4 immediately suggests that NID w/o disclosure and NID w/disclosures (column 2) are significantly different along most dimensions. Thus, we can rule out the "no selection bias" scenario where non-compliance is a result of random "ignorance" of the disclosure rule.

Next, we consider the two predictions developed earlier about the effect of the disclosure incentives of the four recommending sources. The first prediction was that in the sample with undisclosed source the frequency of CEO-recommended and ID-recommended NID relative to SF-recommended NID is higher than in the sample with disclosed source reported in Table 1. One

way to (loosely) "test" this prediction is the following. For variables where the mean for SF-recommended NID is lower than the mean of *both* CEO-recommended NID and ID-recommended NID (such as *Rookie Director, Age 70+, # Board Seats Ever, # Cumul Yrs on Boards, % Committees as Chair Ever, 1ˢᵗ Degree Connection to Board))* then the mean among NID w/o disclosure should be higher than among NID w/disclosures. By the same token for variables where the mean for SF-recommended NID is higher than the mean of *both* CEO-recommended NID and ID-recommended NID (such as *Female, Non-White, MBA/Master,* the Executive Experience variables, *2ⁿᵈ Degree Connection to the Board, 1ˢᵗ or 2ⁿᵈ Degree Connection to the Board, Network Size*) then the mean among NID w/o disclosure should be lower than among NID w/disclosures. The evidence in Table 4 is consistent with this prediction. Consider for example the variable *Rookie Director*, where the mean for SF-recommended NID at 0.31 is below the mean of *both* CEO-recommended and ID-recommended NID (respectively, 0.49 and 0.45). Consistent with the frequency of the latter two groups being higher when the source is undisclosed, the mean *Rookie Director* for the NID w/o disclosure is 0.48, versus 0.38 for NID w/disclosure. The same pattern holds for the other variables listed above. In other words, the NID w/o disclosures "look more like" CEO-recommended and ID-recommended NID than SF-recommended NID.

It is more difficult to determine whether (or how much) the mean characteristics of NID w/ and w/o disclosures also differ because of differences in "type" of NID with disclosed vs. undisclosed recommending source. However, we note that the difference in mean between NID w/ and w/o disclosures is not "constant" across variables, suggesting at least some difference in the type of NID with disclosed vs. undisclosed source.[28]

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[28] The "frequency" (weight of each source) that may explain the difference in mean between NID w/ and w/o disclosures for a given variable does not explain the difference for other variables. That is, a different frequency of the sources does not seem able to entirely explain the change in means between the two groups of NID.

It is more difficult to ascertain whether NID w/o disclosures are of lower quality or exhibit less desirable traits, especially for CEO-recommended NID – our second prediction. Table 4 shows that the mean director-specific quality (*DSQ*) variable is significantly lower among NID w/o disclosures relative to NID w/disclosures as well as relative to CEO-, ID- and SF-recommended NID. Assuming *DSQ c*aptures directors' quality, this would be consistent with the incentive to avoid disclosing the source for lower quality directors (though we cannot determine it is driven by lower DSQ in one on the sources or all of them). As for other variables, one needs to make some assumption about desirable traits. To the extent that greater board and executive experience and a larger network are desirable, the fact that the mean of the corresponding variables (among the NID w/o disclosure) is lower is consistent with our second prediction, though we cannot ascribe it entirely to CEO-recommended NID. In spite of these challenges, the data strongly suggest that any change in type between NID w/ and w/o disclosure is in the direction of the characteristics of CEO- and ID-recommended NID, and "away" from the characteristics of SF-recommended NID. Thus, any bias due to "type"-based incentives to disclose should lead, if anything, to understate the differences in Table 2 between SF-recommended NID, on one hand, CEO- and ID-recommended NID, on the other.

In Panel B we repeat the analysis in Panel A within the subset of firms disclosing the recommending source at least once during the sample period. That is, we now compare NID w/ and w/o disclosures within firms that disclose the source for at least some of their NID. The results are qualitatively similar to Section 6.1. The difference in means between NID w/ and w/o disclosure is smaller in Panel B. This is to be expected since by construction Panel B focuses on disclosing firms, which disclose the recommending source for at least some CEO-recommended and ID-recommended NID. Thus, the "frequency" and "type" effects examined in Section 6.1

should be less pronounced than for the "never disclosing" firms excluded in Panel B. Indirectly, this also suggests that the sample of "never disclosers" contributes to the difference observed in Panel A and that the selection issue affects both never disclosing firms and firms disclosing the NID recommending source only in some cases.

6.2 Implications of selection bias for our study

What are the implications of the selection bias issue for the interpretation of the findings in Section 3-5? First, the above analysis indicates that the frequency of recommending sources reported in Table 1 for NID w/disclosure is not representative of the "true" frequency in the entire population. The fraction of NID recommended by independent directors or the CEO is likely much higher, while the fraction recommended by search firms is likely to be lower. However, the different frequency does not invalidate the within-sample comparisons in Table 2 and 3, if the types of NID with and without disclosure of the recommending source are similar. With regard to the latter, the evidence suggests that there are some differences between the "types" of NID w/ and w/o disclosures, but their effect is such that the differences between SF-recommended NID, on one hand, and ID- and CEO-recommended on the other, are understated, if anything. Thus, we cautiously conclude that the selection bias arising from non-compliance should not affect our key qualitative inferences.

7. Conclusions

Despite the key role board of directors play in the U.S. corporate governance system, surprisingly little is known about the "origin" of new independent directors (NID) – i.e., *who* first identifies and recommends a candidate to the board. To fill this gap, we exploit a 2003 Securities and Exchange Commission (SEC) disclosure rule to identify the source recommending NIDs.

In a sample of 20,746 NIDs reported in BoardEx from 2010 to 2020, we document that the disclosure of the source of recommendation is missing for 75% of NIDs – suggesting a high degree of non-compliance. Among those with disclosed sources, 44% are recommended by search firms, 30% by current independent directors, and 20% by CEOs and other executives – with the role of search firms increasing in recent years as the push for board diversity intensified.

Next, we explore whether and how the "origin" of the NID affects their characteristics, the market reaction to their appointment, and their subsequent progression on the board and in the director labor market. We find that, consistent with the *expand pool* and *diversify pool* hypotheses, boards turn to search firms when they need to go beyond their immediate network and look for candidates with greater executive expertise or to diversify the board along dimensions of gender and race. As for candidates recommended by the CEO, there is some support for the *loyal director* hypothesis – i.e., CEOs try to recruit directors that are expected to be loyal to the CEO. For example, CEO-recommended NIDs tend to receive higher shareholder voting dissent during their tenure (i.e., they take a more management-friendly stance). Notably, after their appointment, CEO-recommended NIDs enjoy greater progress on the board and its committees (e.g., in terms of chair positions) relative to search firm-recommended NIDs.

Overall, our evidence should be of interest to the SEC and investors: the "origin" of NID matters, in that it affects the characteristics of NIDs appointed and their ability to gain influence on the board. Yet, most firms do not comply with requirements to disclose it.

References

Adams, R. Boards, and the Directors Who Sit on Them, 2017. The Handbook of the Economics of Corporate Governance**,** 291-382.

Adams, R., A. Akyol, and P. Verwijmeren, 2018. Director Skill Sets. *Journal of Financial Economics*, 130, 641-662. *Journal of Financial Economics*, 130, 641-662.

Adams R. and D. Ferreira, 2009. Women in the Boardroom and Their Impact on Governance and Performance. *Journal of Financial Economics*, 94, 291-309.

Akyol, A.C. and Cohen, L., 2013. Who Chooses Board Members? *Advances in Financial Economics*, 16, 43-77.Bhattarai, D., M. Serfling, and T. Woidtke. 2022. Do Individual Directors Matter? Evidence of Director-Specific Quality. Working Paper, available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4216979

Bernile, G., V. Bhagwat, and Yonker, S., 2018. Board Diversity, Firm Risk, and Corporate Policies. *Journal of Financial Economics*, 127, 588-612.

Baldenius, T., Melumad, N. and Meng, X., 2014. Board Composition and CEO Power. *Journal of Financial Economics*, 112(1), 53-68.

Cai, J., T. Nguyen, and R. Walkling. 2022. Director Appointments: It Is Who You Know. *Review of Financial Studies*, 35, 1933-1982.

Coles, J.L., Daniel, N.D. and Naveen, L., 2014. Co-opted Boards. *The Review of Financial Studies*, 27(6),1751-1796.

Cuñat, V., M. Gine and M. Guadalupe, 2012. The Vote is Cast: The Effect of Corporate Governance on Shareholder Value. *Journal of Finance* 67, 1943–1977.

Duchin, R., Matsusaka, J.G. and Ozbas, O., 2010. When Are Outside Directors Effective?. *Journal of Financial Economics*, 96(2), 195-214.

Ertimur, Y., Ferri, F. and Oesch, D., 2018. Understanding Uncontested Director Elections. *Management Science*, 64, 3400-3420.Fischer, P.E., Gramlich, J.D., Miller, B.P. and White, H.D., 2009. Investor Perceptions of Board Performance: Evidence from Uncontested Director Elections. *Journal of Accounting and Economics*, 48(2-3), 172-189.

Fracassi, C. and Tate, G., 2012. External Networking and Internal Firm Governance. *The Journal of Finance*, 67(1), 153-194.

Gul, F.A., Srinidhi, B. and Ng, A.C., 2011. Does Board Gender Diversity Improve the Informativeness of Stock Prices?. *Journal of Accounting and Economics*, 51(3), 314-338.

Kim, K., Mauldin, E. and Patro, S., 2014. Outside Directors and Board Advising and Monitoring Performance. *Journal of Accounting and Economics*, 57(2-3), 110-131.

Levit, D. and Malenko, N., 2016. The Labor Market for Directors and Externalities in Corporate Governance. *The Journal of Finance*, 71(2), 775-808.

Linck, J.S., Netter, J.M. and Yang, T., 2008. The Determinants of Board Structure. *Journal of Financial Economics*, 87(2), 308-328.

Shivdasani, A., and D. Yermack, 1999. CEO Involvement in the Selection of New Board Members: An Empirical Analysis. *Journal of Finance* 54, 1829-1853.

Appendix 1 – SEC Comment Letters and Firms' Responses

"Please provide the information required by Item 407(c) (2) (vii) of Regulation S-K with respect to Mr. Weiss." (*SEC Comment Letter to Natus Medical Inc., May 9, 2018*)

"Mr. Weiss was brought to the attention of the Nominating and Governance Committee for its consideration by Mr. Hawkins, our director and President and Chief Executive Officer." (*Natus Medical, Proxy Filing, May 11, 2018*)

"Please state which one or more of the following categories of persons or entities recommended Mr. Ryan as a nominee: Security holder, non-management director, chief executive officer, other executive officer, third-party search firm, or other specified source. See Item 7(d) of Schedule 14A and Item 407(c) (2) (vii) of Regulation S-K (*SEC Comment Letter to Essex Rental Corp., May 5, 2015*)

"Mr. Ryan was recommended to the Committee by industry sources whom the Committee reached out to when previously searching for candidates for Chief Executive Officer of Essex (*Essex Rental Corp. Response Letter to SEC, May 7, 2015*)

"Please provide to us and undertake to include in your future filings, revision of this section to comply with Item 407 as follows:…with regard to the two nominees that are not standing for re-election state which category of person or entity recommended each nominee as required by Item 407(c)(2)(vii)" (*SEC Comment Letter to Popular Inc., September 24, 2010*)

"Messrs. Ballester and Unanue were recommended as nominees for directors by non-management directors." (*Popular Inc. Response Letter to SEC, November 12, 2010*)

"Ensure that you include the disclosure specified in Item 407(c)(2)(vii) of Regulation S-K regarding nominees for director that at the time of their nomination are not standing for re-election and are not executive officers…We note, for example, that it is not apparent what category of persons or entities recommended to the committee that William Kerr in particular be considered as a director candidate" (*SEC Comment Letter to Whirlpool, August 21, 2007*)

"The non-management directors recommended Mr. Kerr to the Corporate Governance and Nominating Committee as a director nominee (*Whirlpool Response to SEC Comment Letter, October 20, 2007*)

"We note that, regarding Lawrence Nussdorf, you have not included the additional disclosure specified in Item 407(c)(2)(vii) of Regulation S-K" (*SEC Comment Letter to CapitalSource Inc., August 21, 2007*)

"The Company acknowledges this comment and will include disclosures responsive to Item 407(c)(2)(vii) in future proxy statements when required." (*CapitalSource Inc. Response to SEC Comment Letter, September 21, 2007*)

Appendix 2: Examples of Source of Recommendation

Recommending Source: Search Firm

"Ms. Carter was newly elected to the Board in fiscal year 2011. She was recommended to the Company by its third-party recruiting firm."   *(Air Products & Chemicals Inc, Proxy Statement, December 14, 2011)*

"Ms. Koellner was initially identified to the Board as a potential director by Spencer Stuart, an executive search consulting firm retained by the Board."   *(Nucor Corp, Proxy Statement, March 3, 2016)*

Recommending Source: Independent Directors

"Mr. Mark T. Schroepfer…was recommended for nomination by a non-Management member of the Board."   *(Winnebago Industries, Proxy Statement, October 25, 2011)*

"Mr. Alvarez was identified as a potential director candidate to the Governance Committee by Mr. Berkowitz." [an independent director].   *(St Joe Co, Proxy Statement, April 5, 2012)*

Recommending Source: CEO or other executives

"Dr. Rothman was first identified as a possible director candidate by the Company's CEO."

(Schering-Plough, Proxy Statement, April 11, 2016)

"The Board appointed Ms. Messemer as a director in January 2019. Ms. Messemer was initially identified as a potential candidate by an executive officer."   *(Paypal Holdings Inc, Proxy Statement, April 10, 2019)*

"Ms. Hoskins was initially recommended for consideration by Raymond A. Ritchey, our Senior Executive Vice President, and Mr. Walton was initially recommended for consideration by Mr. Thomas, our Chief Executive Officer."   *(Boston Properties Inc, Proxy Statement, April 5, 2019)*

Recommending Source: Shareholders

"In 2013, consistent with the Shareholder Agreement dated June 6, 2013 between the Company and Marubeni…the Nominating and Corporate Governance Committee determined to add two new members to the Board [and]…recommended Messrs. Konto and Toya (each of whom was designated by Marubeni) to be elected to the Board."   *(Aircastle Ltd, Proxy Statement, April 8. 2014)*

"Mr. Hamill was recommended to the Nominating and Corporate Governance Committee as a director candidate by a stockholder."   *(Arch Resources Inc, Proxy Statement, March 18, 2019)*

Recommending Source: Others

"Prior to the Spin-Off, Myra M. Hart, Peter B. Henry, Terry J. Lundgren, Mackey J. McDonald and John C. Pope served as directors of our Former Parent. In connection with the Spin-Off, they resigned as directors of our Former Parent and joined our Board."   *(Kraft Foods Group Inc, Proxy Statement, April 5, 2013)*

"Mssrs. Spoehel and Pirnat were recommended by a financial advisor to the Company."
(Profire Energy Inc, Proxy Statement, January 17, 2014)

Variable	Definition	Source
Demographics and education background:		
Age	The age of the new independent director (NID) when joining the board.	BoardEx
Age 70+	Indicator variable equal to 1 if *Age* of the NID is greater than 70, 0 otherwise.	BoardEx
Female	Indicator variable equal to 1 if the NID is female, 0 otherwise.	BoardEx
Non-White	Indicator variable equal to 1 if the NID is non-white, 0 otherwise. The race is identified based on the NID's last name using Python ethnicolr package which classifies the predicted the race into four categories: White, Black, Asian, and Hispanic. We classify categories Black, Asian, and Hispanic as non-white.	BoardEx
MBA/Master	Indicator variable equal to 1 if the NID has an MBA or other Master degree, 0 otherwise.	BoardEx
Executive Experience:		
CEO – Current	Indicator variable equal to 1 if the NID is currently CEO of a publicly traded firm, 0 otherwise.	BoardEx
CEO – Ever	Indicator variable equal to 1 if the NID has served as CEO of a publicly traded firm, 0 otherwise.	BoardEx
C-suite – Current	Indicator variable equal to 1 if the NID is currently a C-suite executive of a publicly traded firm, 0 otherwise.	BoardEx
C-suite – Ever	Indicator variable equal to 1 if the NID has served as a C-suite executive of a publicly traded firm, 0 otherwise.	BoardEx
Board Experience:*		
Rookie Director	Indicator variable equal to 1 if the NID has never sat on any board as inside (employee) or outside (non-employee) director before, 0 otherwise.	BoardEx
# Board Seats - Current**	Number of other boards the NID currently sits on.	BoardEx
# Board Seats - Ever**	Number of other boards the NID ever sat on.	BoardEx
# Cumul Yrs on Boards**	Number of cumulative years spent by the NID as director across all board seats ever held.	BoardEx
# Committees - Ever**	Number of committees the NID ever served on across all board seats ever held.	BoardEx
% Committees as Chair - Ever**	Percentage of committees where the NID served as chair, calculated as the number of committee chairs ever held by the NID divided by the number of committees the NID ever served on.	BoardEx
Indep Chair/Lead ID - Ever**	Indicator variable equal to 1 if the NID has ever served as independent chair or lead independent director before, 0 otherwise.	BoardEx
Connectedness:		
1st Degree Connection to Board	Indicator variable equal to 1 if the NID and any existing director of the board they are joining have worked (in	BoardEx

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	either director or executive capacity) at the same company during an overlapping period of time, 0 otherwise.	
2nd Degree Connection to Board	Indicator variable equal to 1 if the NID and any existing director of the board they are joining have a first-degree connection to the same third person, 0 otherwise.	BoardEx
1st or 2nd Degree Connection to Board	Indicator variable equal to 1 if NID has the *1st Degree Connection to Board* or *2nd Degree Connection to Board*, 0 otherwise.	BoardEx
Network Size	Number of first-degree connections to other directors in BoardEx.	BoardEx
Director-Specific Quality (DSQ)	Director-Specific Quality (DSQ) is a director-specific measure that captures the collection of value-relevant transferable attributes unique to a director, developed by Bhattarai, Serfling, and Woidtke (2022).	Bhattarai, Serfling, and Woidtke (2022)

Market Reaction Around Appointment News

Appointment Announcement Date	The earlier Form 8-K report date or BoardEx announcement date, excluding same-day proxy filing date. We also exclude earnings announcement dates that occur two days before or after.	BoardEx, Compustat, Edgar
CAR (-1,1)	Cumulative abnormal return (−1,+1) around a NID appointment announcement, calculated as the stock return of an appointing firm over the three trading days centered on a director *Appointment Announcement Date*, minus the CRSP value-weighted market return over the same period.	CRSP
CAR (0,1)	Cumulative abnormal return (0,+1) around a NID appointment announcement, calculated as the stock return of an appointing firm over the two trading days starting on a director *Appointment Announcement Date*, minus the CRSP value-weighted market return over the same period.	CRSP
CAR (0,2)	Cumulative abnormal return (0,+2) around a NID appointment announcement, calculated as the stock return of an appointing firm over the three trading days starting on a director *Appointment Announcement Date*, minus the CRSP value-weighted market return over the same period.	CRSP

Market reaction to NID appointment by recommending source

SF	Indicator variable equal to 1 if NID is identified by a search firm, 0 otherwise.	Edgar
Spencer Stuart	Indicator variable equal to 1 if NID is identified by the search firm Spencer Stuart, 0 otherwise.	Edgar
Heidrick Struggles	Indicator variable equal to 1 if NID is identified by the search firm Heidrick Struggles, 0 otherwise.	Edgar
Russell Reynolds	Indicator variable equal to 1 if NID is identified by the search firm Russell Reynolds, 0 otherwise.	Edgar
Korn Ferry	Indicator variable equal to 1 if NID is identified by the search firm Korn Ferry, 0 otherwise.	Edgar
Egon Zehnder	Indicator variable equal to 1 if NID is identified by the search firm Egon Zehnder, 0 otherwise.	Edgar

Other SF w/ Name	Indicator variable equal to 1 if NID is identified by other search firms with a name disclosed, 0 otherwise.	Edgar
SF w/o Name	Indicator variable equal to 1 if NID is identified by search firms without a name disclosed, 0 otherwise.	Edgar
CEO	Indicator variable equal to 1 if NID is identified by the CEO or other executives of the firm, 0 otherwise.	Edgar
Concurrent Departure	Indicator variable equal to 1 if the firm announces the departure of another directors 2 days before or after the *Appointment Announcement Date*, 0 otherwise.	BoardEx

Shareholder Votes at Focal Firm Post-Appointment

# Annual Meetings with a Vote	Number of shareholder annual meetings where the NID gets voted from the focal firm after joining the board.	ISS
Average Voting Dissent	Average voting dissent for the NID after joining the board. Voting dissent is calculated as the number of shares shareholders cast as Abstain or Against divided by the total number of shares shareholders cast as For, Abstain or Against.	ISS
% Meetings with Dissent >20%	Percentage of meetings where the NID get voting dissent greater than 20% from the focal firm after joining the board.	ISS
% Meetings with Dissent >15%	Percentage of meetings where the NID get voting dissent greater than 15% from the focal firm after joining the board.	ISS
Indicator for Dissent >20%	Indicator variable equal to 1 if the NID has ever got voting dissent greater than 20% after joining the board, 0 otherwise.	ISS
Indicator for Dissent >15%	Indicator variable equal to 1 if the NID has ever got voting dissent greater than 15% after joining the board, 0 otherwise.	ISS

Shareholder Votes at Other Firms Pre-Appointment

# Annual Meetings with a Vote	Number of shareholder annual meetings from other firms where the NID got voted before joining the board.	ISS
Average Voting Dissent	Average voting dissent from other firms before the NID join the board. Voting dissent is calculated as the number of shares shareholders cast as Abstain or Against divided by the total number of shares shareholders cast as For, Abstain or Against.	ISS
% Meetings with Dissent >20%	Percentage of meetings where the NID got voting dissent greater than 20% from other firms before joining the board.	ISS
% Meetings with Dissent >15%	Percentage of meetings where the NID got voting dissent greater than 15% from other firms before joining the board.	ISS
Indicator for Dissent >20%	Indicator variable equal to 1 if the NID has ever got voting dissent greater than 20% from other firms before joining the board, 0 otherwise.	ISS
Indicator for Dissent >15%	Indicator variable equal to 1 if the NID has ever got voting dissent greater than 15% from other firms before joining the board, 0 otherwise.	ISS

Progression on the board

On Board After 3 Yrs	Indicator variable equal to 1 if the NID stays on board 3 years after the appointment, 0 otherwise.	BoardEx
Indep Chair/Lead ID After 3 Yrs	Indicator variable equal to 1 if the NID serves as independent chair or lead independent director 3 years after the appointment, 0 otherwise. This variable is constructed only for the subset of NID with *On Board after 3 yrs* = 1.	BoardEx
# Committees After 3 Yrs	Number of committees the NID serves on 3 years after the appointment. This variable is constructed only for the subset of NID with *On Board after 3 yrs* = 1.	BoardEx
Committee Chair After 3 Yrs	Indicator variable equal to 1 if the NID serves as a committee chair 3 years after the appointment, 0 otherwise. This variable is constructed only for the subset of NID with *On Board after 3 yrs* = 1.	BoardEx

Progression in the Director Labor Market

# Other Seats as Indep Dir - Current	Number of other boards the NID currently sits on as independent director.	BoardEx
# Other Seats as Indep Dir After 3 Yrs	Number of other boards the NID sits on as independent director 3 years after the appointment.	BoardEx
Change # Other Seats as Indep Dir After 3 Yrs	The change of number of other boards the NID sits on as independent director 3 years after the appointment, calculated as the difference between *# Other Seats as Indep Dir After 3 Yrs* and *# Other Seats as Indep Dir - Current*.	BoardEx

* All the board experience variables refer to the experience on boards of publicly traded companies.

** These variables are only defined for NID who are not classified as *Rookie Director*.

Figure 1 Frequency of NID (disclosed) sources of recommendations over time (2010-2019)
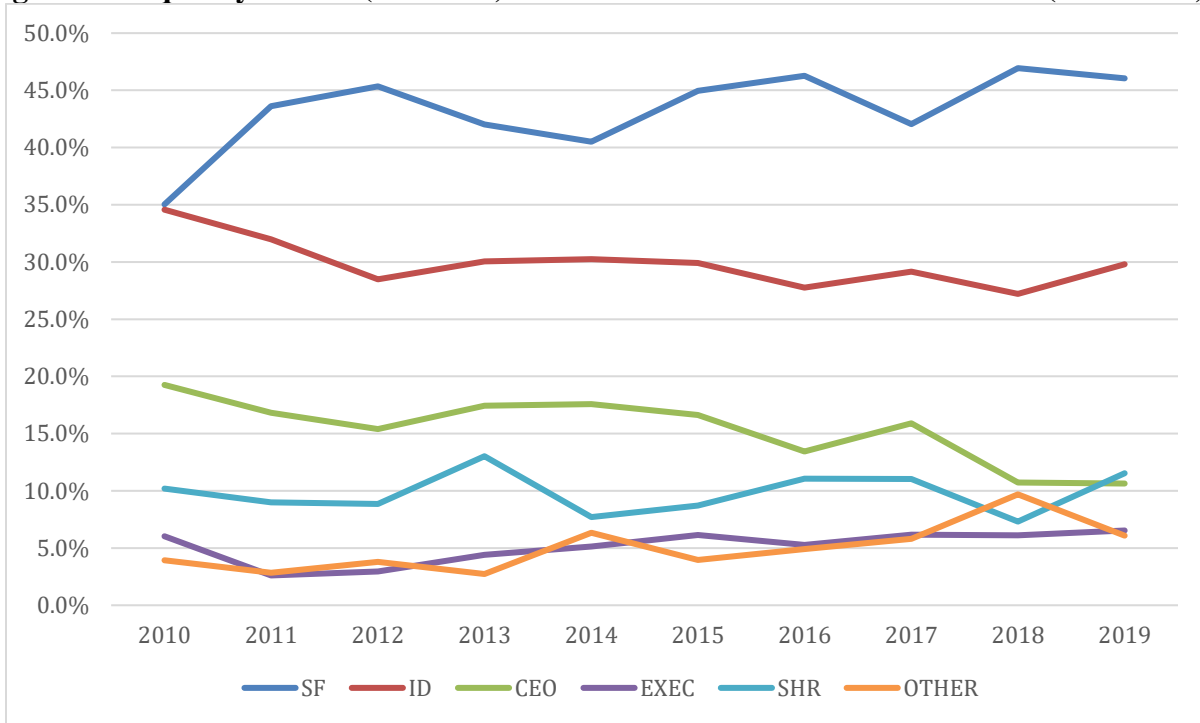
Notes: The dark blue line shows the percentage of NID recommended by search firm (SF). The red line shows the percentage of NID recommended by independent directors (ID). The green line shows the percentage of NID recommended by CEO. The purple line shows the percentage of NID recommended by other executives (EXEC). The light blue line shows the percentage of NID recommended by shareholders (SHR). The orange line shows the percentage of NID recommended by other sources (OTHER).

Table 1 Source of new independent director (NID) recommendations
Panel A. Source of recommendation of NID: Disclosure

Description	Number	% Total
New Independent Directors (NID) in BoardEx [2010-2020]	20,746	
Source of recommendation not disclosed	15,511	74.8%
Source of recommendation disclosed	5,235	25.2%
Unique firms in the sample	4,327	
Firms never disclosing source of NID	2,623	60.6%
Firms disclosing source for 1 or more NID	1,704	39.4%

Panel B. Sources of recommendation of NID: Frequency

Description	One of the sources	% NID with disclosure	Unique source	% NID with disclosure
Single source			**4,835**	**92.4%**
Search Firm	2,292	43.8%	2,172	41.5%
Independent director(s)	1,553	29.7%	1,244	23.8%
CEO	784	15.0%	575	11.0%
Other executive(s)	272	5.2%	146	2.8%
Shareholders	513	9.8%	450	8.6%
Others	270	5.2%	248	4.7%
Multiple sources			**400**	**7.6%**
Total NID with disclosed source			**5,235**	**100.0%**

Panel C. Sources of recommendation of NID: Breakdown of Search Firms

Description	Number	% Total	% Name SF disclosed
NID recommended by a search firm	**2,292**		
Name of Search Firm not Disclosed	1,708	74.5%	
Name of Search Firm Disclosed	584	25.5%	
Spencer Stuart	172		29.5%
Heidrick Struggles	102		17.5%
Russell Reynolds	93		15.9%
Korn Ferry	68		11.6%
Egon Zehnder	51		8.7%
Other firms (43)	98		16.8%

Notes: This table reports descriptive statistics on the source of recommendations of new independent directors (NID). Panel A reports the frequency of disclosure of the NID source recommendation both at the director level and at the firm level. Panel B reports the frequency of each recommending source (i.e., search firm, independent directors, CEO, etc.) conditional on disclosure. In the first two columns the NID recommended by multiple sources are counted within each of the recommending sources. Thus, the sum of the first (second) column is higher than 5,235 (100%), i.e., the total number of NID with disclosed recommending source. In the third and fourth column, all the NID recommended by multiple sources are reported in a separate line (Multiple sources). For the subset of NID-recommended by search firms Panel C reports the frequency of disclosure of the name of the search firm, and, when disclosed, the frequency of each search firm.

Table 2 Recommending source and characteristics of new independent directors (NID)
Panel A. Comparison of NID characteristics by recommending source

	Mean				Diff. in Means		
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*
Source of recommendation	*ID*	*SF*	*CEO*	*SH*	*(2)-(1) SF*	*(3)-(1) CEO*	*(4)-(1) SH*
Variables	*(n=1244)*	*(n=2172)*	*(n=749)*	*(n=705)*	*vs. ID*	*vs. ID*	*vs. ID*
Demographics and education background:							
Age	57.89	56.82	57.58	55.24	-1.07***	-0.31	-2.65***
Age 70+	0.04	0.01	0.04	0.06	-0.03***	-0.01	0.02*
Female	0.30	0.38	0.23	0.13	0.08***	-0.07***	-0.17***
Non-White	0.07	0.09	0.07	0.10	0.03***	0.00	0.03**
MBA/Master	0.36	0.44	0.34	0.33	0.08***	-0.02	-0.03
Executive Experience:							
CEO - Current	0.06	0.15	0.08	0.05	0.08***	0.01	-0.01
CEO - Ever	0.21	0.33	0.23	0.22	0.12***	0.02	0.01
C-suite - Current	0.11	0.26	0.11	0.08	0.15***	0.00	-0.03**
C-suite - Ever	0.38	0.62	0.35	0.34	0.24***	-0.03	-0.04
Board Experience:							
Rookie Director	0.45	0.31	0.49	0.39	-0.15***	0.04	-0.06***
# Board Seats - Current	1.04	1.02	0.92	1.07	-0.03	-0.13**	0.02
# Board Seats - Ever	2.84	2.57	2.70	3.76	-0.26**	-0.14	0.92***
# Cumul Yrs on Boards	11.51	9.27	10.75	12.28	-2.24***	-0.76	0.77
# Committees - Ever	5.03	4.32	4.29	5.88	-0.71***	-0.74***	0.85***
% Committees as Chair - Ever	0.18	0.13	0.16	0.17	-0.05***	-0.03*	-0.01
Indep Chair/Lead ID - Ever	0.15	0.12	0.10	0.26	-0.03*	-0.05**	0.11***
Connectedness:							
1st Degree Connection to Board	0.42	0.26	0.30	0.40	-0.16***	-0.12***	-0.03
2nd Degree Connection to Board	0.32	0.57	0.35	0.28	0.24***	0.03	-0.04*
1st or 2nd Degree Connection to Board	0.75	0.83	0.65	0.68	0.08***	-0.09***	-0.07***
Network Size	246.68	330.42	212.66	193.88	83.73***	-34.02***	-52.80***
Director-Specific Quality (DSQ):	0.04	0.04	0.04	0.00	0.01	0.01	-0.03***

Notes: This panel reports the comparison of NID characteristics across various source of recommendation. Column (1) to (4) reports the mean of NID characteristics when the source of recommendation is independent director(s) (ID), search firm (SF), CEO or executives (CEO), and shareholders or others (SH), respectively. Column (5), (6) and (7) reports the difference in means between NID recommended by SF, CEO and SH relative to those recommended by ID, respectively. Note that the N reported in the top row refers to the variable with the highest number of observations. See Appendix 3 for variable definitions. *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences from zero.

Panel B. Comparison of SF-recommended NID characteristics by search firms

	Mean							
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
Search firm names	*Spencer Stuart*	*Heidrick Struggles*	*Russell Reynolds*	*Korn Ferry*	*Egon Zehnder*	*Others*	*SF w/ Name*	*SF w/o Name*
Variables	*(n=172)*	*(n=102)*	*(n=93)*	*(n=68)*	*(n=51)*	*(n=98)*	*(n=584)*	*(n=1708)*
Demographics and education background:								
Age	58.09	56.38	57.48	57.25	56.76	55.82	57.11	56.78
Age 70+	0.03	0.01	0.02	0.01	0.00	0.01	0.02	0.01*
Female	0.35	0.35	0.34	0.34	0.45	0.39	0.37	0.38
Non-White	0.06	0.08	0.09	0.09	0.14	0.06	0.08	0.10
MBA/Master	0.44	0.53	0.46	0.46	0.47	0.44	0.46	0.43
Executive Experience:								
CEO- Current	0.17	0.12	0.12	0.10	0.08	0.19	0.14	0.15
CEO - Ever	0.38	0.31	0.40	0.26	0.24	0.35	0.34	0.32
C-suite - Current	0.25	0.24	0.25	0.18	0.16	0.34	0.24	0.26
C-suite - Ever	0.65	0.64	0.72	0.51	0.51	0.64	0.63	0.61
Board Experience:								
Rookie Director	0.27	0.20	0.26	0.37	0.49	0.37	0.30	0.30
# Board Seats - Current	1.17	1.09	1.13	0.93	1.00	1.03	1.09	1.00*
# Board Seats - Ever	2.87	2.90	2.77	2.67	2.38	2.38	2.73	2.54
# Cumul Yrs on Boards	12.28	10.72	10.58	10.69	8.09	8.88	10.73	8.93***
# Committees - Ever	4.79	4.90	4.89	4.77	3.57	3.53	4.56	4.31
% Committees as Chair - Ever	0.12	0.15	0.12	0.21	0.11	0.14	0.14	0.13
Indep Chair/Lead ID - Ever	0.15	0.16	0.13	0.16	0.12	0.13	0.15	0.11*
Connectedness:								
1st Degree Connection to Board	0.31	0.29	0.37	0.22	0.25	0.27	0.29	0.25*
2nd Degree Connection to Board	0.57	0.52	0.52	0.59	0.53	0.51	0.54	0.57
1st or 2nd Degree Connection to Board	0.88	0.81	0.88	0.81	0.78	0.78	0.83	0.83
Network Size	358.79	401.77	311.43	289.16	312.02	239.67	326.58	330.69
Director-Specific Quality (DSQ):	0.03	0.04	0.06	0.06	0.05	0.04	0.04	0.04

Notes: This panel reports the comparison of NID characteristics across various search firms, conditional on the source of recommendation being a search firm and on the name of the search firm being disclosed. Column (1) to (6) reports the mean of NID characteristics when the recommending search firm is Spencer Stuart, Heidrick Struggles, Russell Reynolds, Korn Ferry, Egon Zehnder and other search firms with a name disclosed, respectively. Column (7) and (8) reports the mean of NID characteristics when the recommending search firm is with and without a name. See Appendix 3 for variable definitions. In Column (8) *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences from the value in Column (7).

Panel C. NID quality and market reaction to NID appointment by recommending source

Full sample	Mean				Diff. in Means		
Source of recommendations	(1) ID (n=740)	(2) SF (n=1593)	(3) CEO (n=447)	(4) SH (n=450)	(5) (2)-(1) SF vs. ID	(6) (3)-(1) CEO vs. ID	(7) (4)-(1) SH vs. ID
Market reaction around appointment news							
CAR (-1,1)	-0.05	0.20**	0.21	0.96***	0.25*	0.27	1.02***
CAR (0,1)	0.05	0.17**	0.06	0.93***	0.12	0.01	0.88***
CAR (0,2)	0.12	0.11	0.09	1.24***	-0.02	-0.03	1.12***

Notes: This subpanel reports mean cumulative abnormal returns (CAR) around NID appointment news by recommending source. Column (1) to (4) reports the mean CAR around the appointment news of NID recommended by independent director(s) (ID), search firm (SF), CEO or executives (CEO), and shareholders or others (SH), respectively. Column (5), (6) and (7) reports the difference in means between the CAR around appointment news of NID recommended by SF, CEO and SH relative to those recommended by ID, respectively. See Appendix 3 for variable definitions. *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences from zero.

Recommended by SF	Mean							
Search firm names	(1) Spencer Stuart (n=136)	(2) Heidrick Struggles (n=71)	(3) Russell Reynolds (n=74)	(4) Korn Ferry (n=51)	(5) Egon Zehnder (n=37)	(6) Others (n=63)	(7) SF w/ Name (n=432)	(8) SF w/o Name (n=1246)
Market reaction around appointment news								
CAR (-1,1)	0.16	0.15	0.66	0.44	0.48	0.08	0.30**	0.19**
CAR (0,1)	0.07	0.18	0.47	0.44	0.85***	0.13	0.28**	0.17**
CAR (0,2)	0.07	-0.54	0.74	0.01	0.97**	0.18	0.19	0.12

Notes: This subpanel reports mean CAR around appointment news of NID recommended by search firms. Column (1) to (6) reports the mean CAR around the appointment news of NID recommended by Spencer Stuart, Heidrick Struggles, Russell Reynolds, Korn Ferry, Egon Zehnder and other search firms with a name disclosed, respectively. Column (7) and (8) reports the mean CAR around appointment news of NID recommended by search firm with (without) disclosed names. See Appendix 3 for variable definitions. *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences from zero.

Panel D. Market reaction to NID appointment by recommending source – multivariate analyses

Variable	*(1)* CAR(-1,1)	*(2)* CAR(0,1)	*(3)* CAR(0,2)	*(4)* CAR(-1,1)	*(5)* CAR(0,1)	*(6)* CAR(0,2)
			Dependent Variables			
SF	0.270*	0.153	0.043			
	(1.95)	(1.37)	(0.31)			
Spencer Stuart				0.275	0.016	-0.077
				(0.91)	(0.07)	(-0.25)
Heidrick Struggles				0.211	0.146	-0.625
				(0.50)	(0.43)	(-1.46)
Russell Reynolds				0.718*	0.431	0.653*
				(1.84)	(1.38)	(1.65)
Korn Ferry				0.467	0.386	-0.094
				(1.01)	(1.04)	(-0.20)
Egon Zehnder				0.534	0.805*	0.874
				(1.00)	(1.88)	(1.61)
Other SF w/ Name				0.149	0.101	0.093
				(0.36)	(0.30)	(0.22)
SF w/o Name				0.236	0.124	0.031
				(1.62)	(1.06)	(0.21)
CEO	0.274	0.071	0.091	0.273	0.071	0.092
	(1.59)	(0.51)	(0.52)	(1.59)	(0.51)	(0.53)
Concurrent Departure	0.404**	0.244	0.235	0.397**	0.235	0.231
	(2.14)	(1.61)	(1.23)	(2.11)	(1.55)	(1.20)
Constant	-0.109	0.009	0.06	-0.108	0.009	0.061
	(-0.93)	(0.09)	(0.50)	(-0.92)	(0.10)	(0.51)
Observations	2,904	2,904	2,904	2,904	2,904	2,904
Adj. R-Square	0.002	0.001	0.000	0.001	0.000	0.000

Notes: This panel reports multivariate analyses for market reaction to NID appointment by recommending source. Column (1) to (3) reports the CAR around the NID appointment date by recommending source (pooling all search firm recommendations together). Column (4) to (6) replicates the results in Column (1) to (3) by breaking search firm recommendations into each specific search firm with a name (i.e., Spencer Stuart, Heidrick Struggles, Russell Reynolds, Korn Ferry, Egon Zehnder, other search firms with a name disclosed), and search firms without a name disclosed. See Appendix 3 for variable definitions. All continuous variables are winsorized at the top and bottom one percent. *, **, and *** indicate two-tailed statistical significance at the ten, five, and one percent levels, respectively. t-statistics in parentheses.

Table 3 Recommending source and performance of new independent directors (NID)
Panel A. Shareholder votes on NID

	Mean				Diff. in Means		
	(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*
Source of recommendation	*ID*	*SF*	*CEO*	*SH*	*(2)-(1) SF*	*(3)-(1)*	*(4)-(1) SH*
Variables	*(n=1244)*	*(n=2172)*	*(n=749)*	*(n=705)*	*vs. ID*	*CEO vs. ID*	*vs. ID*
Shareholder Votes at Focal Firm Post-Appointment:							
# Annual Meetings with a Vote	4.74	4.90	4.94	3.60	0.16	0.20	-1.14***
Average Voting Dissent	0.04	0.03	0.05	0.05	-0.01***	0.01***	0.01***
% Meetings with Dissent >20%	0.05	0.03	0.08	0.05	-0.02***	0.03***	0.00
% Meetings with Dissent >15%	0.07	0.05	0.10	0.08	-0.03***	0.03**	0.01
Indicator for Dissent >20%	0.13	0.08	0.20	0.12	-0.05***	0.06***	-0.02
Indicator for Dissent >15%	0.19	0.12	0.24	0.19	-0.06***	0.06***	0.01
Shareholder Votes at Other Firms Pre-Appointment:							
# Annual Meetings with a Vote	6.61	6.32	5.48	6.64	-0.29	-1.12***	0.03
Average Voting Dissent	0.03	0.04	0.04	0.05	0.00	0.00	0.01***
% Meetings with Dissent >20%	0.03	0.03	0.04	0.05	0.00	0.01	0.02***
% Meetings with Dissent >15%	0.05	0.05	0.06	0.08	0.00	0.01	0.03***
Indicator for Dissent >20%	0.15	0.16	0.16	0.24	0.01	0.01	0.09***
Indicator for Dissent >15%	0.23	0.23	0.23	0.32	0.00	0.00	0.09***

Notes: This panel reports the shareholder votes on NID both at the firm they are joining (subsequent to their appointment) and at other firms where they hold a board seat (prior to their appointment). Column (1) to (4) reports the director-level votes when the source of recommendation is independent director(s) (ID), search firm (SF), CEO or executives (CEO), and shareholders or others (SH), respectively. Column (5), (6) and (7) reports the difference in means between the shareholder votes on NIDs recommended by SF, CEO and SH relative to those recommended by ID, respectively. See the Appendix 3 for variable definitions. *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences from zero.

Panel B. Progression of NID on the board and in the director labor market

	Mean				Diff. in Means		
Source of recommendation *Variables*	*(1)* *ID* *(n=1244)*	*(2)* *SF* *(n=2172)*	*(3)* *CEO* *(n=749)*	*(4)* *SH* *(n=705)*	*(5)* *(2)-(1)* *SF vs. ID*	*(6)* *(3)-(1) CEO* *vs. ID*	*(7)* *(4)-(1) SH* *vs. ID*
Progression on the board:							
On Board After 3 Yrs	0.69	0.68	0.73	0.48	-0.01	0.04*	-0.21***
Indep Chair/Lead ID After 3 Yrs	0.04	0.04	0.06	0.09	-0.01	0.02	0.05***
# Committees After 3 Yrs	1.87	1.86	1.94	1.74	-0.01	0.07	-0.13**
Committee Chair After 3 Yrs	0.40	0.33	0.38	0.33	-0.07***	-0.03	-0.08**
Progression in the Director Labor Market:							
Non-Rookie Directors							
# Other Seats as Indep Dir – Current	0.93	0.82	0.77	0.96	-0.10**	-0.16***	0.03
# Other Seats as Indep Dir After 3 Yrs	1.03	0.98	0.90	0.93	-0.05	-0.13*	-0.09
Change # Other Seats as Indep Dir After 3 Yrs	0.10***	0.16***	0.12**	-0.02	0.06	0.03	-0.12*
Rookie Directors							
# Other Seats as Indep Dir After 3 Yrs	0.31	0.40	0.25	0.24	0.09**	-0.06	-0.07

Notes: This panel reports the progression of NID on the board of the firms they are joining (top portion) and in the director labor market (bottom portion). Column (1) to (4) reports the progression of NID when the source of recommendation is independent director(s) (ID), search firm (SF), CEO or executives (CEO), and shareholders or others (SH), respectively. Column (5), (6) and (7) reports the difference in means between the progression of NIDs recommended by SF, CEO and SH relative to those recommended by ID, respectively. See the Appendix 3 for variable definitions. *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences from zero.

Table 4 Characteristics of NID with vs. without disclosures of recommending source
Panel A. Full sample

			Means			
Source of recommendation *Variables*	*(1)* *NID w/o Disclosure* *(n=15511)*	*(2)* *NID w/ Disclosure* *(n=4870)*	*(3)* *ID* *(n=1244)*	*(4)* *SF* *(n=2172)*	*(5)* *CEO* *(n=749)*	*(6)* *SH* *(n=705)*
Demographics and education background:						
Age	57.05	56.98	57.89***	56.82	57.58*	55.24***
Age 70+	0.06	0.03***	0.04**	0.01***	0.04***	0.06
Female	0.25	0.30***	0.30***	0.38***	0.23	0.13***
Non-White	0.08	0.08	0.07*	0.09**	0.07	0.10*
MBA/Master	0.34	0.39***	0.36	0.44***	0.34	0.33
Executive Experience:						
CEO- Current	0.05	0.10***	0.06	0.15***	0.08**	0.05
CEO - Ever	0.20	0.27***	0.21	0.33***	0.23*	0.22
C-suite - Current	0.11	0.17***	0.11	0.26***	0.11	0.08***
C-suite - Ever	0.37	0.48***	0.38	0.62***	0.35	0.34*
Board Experience:						
Rookie Director	0.48	0.38***	0.45	0.31***	0.49	0.39***
# Board Seats - Current	0.93	1.02***	1.04***	1.02***	0.92	1.07***
# Board Seats - Ever	2.88	2.82	2.84	2.57***	2.70	3.76***
# Cumul Yrs on Boards	10.57	10.39	11.51*	9.27***	10.75	12.28***
# Committees - Ever	4.76	4.70	5.03	4.32***	4.29**	5.88***
% Committees as Chair - Ever	0.17	0.15***	0.18	0.13***	0.16	0.17
Indep Chair/Lead ID - Ever	0.16	0.14**	0.15	0.12***	0.10***	0.26***
Connectedness:						
1st Degree Connection to Board	0.36	0.33***	0.42***	0.26***	0.30***	0.40**
2nd Degree Connection to Board	0.31	0.43***	0.32	0.57***	0.35**	0.28
1st or 2nd Degree Connection to Board	0.67	0.76***	0.75***	0.83***	0.65	0.68
Network Size	210.88	271.15***	246.68***	330.42***	212.66	193.88*
Director-Specific Quality (DSQ):	0.02	0.04***	0.04***	0.04***	0.04***	0.00**

Notes: This panel reports the comparison of NID characteristics with vs. without disclosure on source of recommendation. Column (1) and (2) reports the mean of NID characteristics without and with disclosure. Column (3) to (6) reports the means of NID recommended by independent director(s) (ID), search firm (SF), CEO or executives (CEO), and shareholders or others (SH), respectively. See Appendix 3 for variable definitions. *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences of the value in Column (2)-(6) from the value in Column (1).

Panel B. Subset of firms disclosing the recommending sources at least once during the sample period

Source of recommendation Variables	*(1)* *NID w/o Disclosure* *(n=4791)*	*(2)* *NID w/ Disclosure* *(n=4870)*	*(3)* *ID* *(n=1244)*	*(4)* *SF* *(n=2172)*	*(5)* *CEO* *(n=749)*	*(6)* *SH* *(n=705)*
			Means			
Demographics and education background：						
Age	57.07	56.98	57.89***	56.82	57.58*	55.24***
Age 70+	0.05	0.03***	0.04	0.01***	0.04*	0.06
Female	0.26	0.30***	0.30***	0.38***	0.23	0.13***
Non-White	0.08	0.08	0.07*	0.09	0.07	0.10
MBA/Master	0.36	0.39***	0.36	0.44***	0.34	0.33
Executive Experience：						
CEO- Current	0.07	0.10***	0.06	0.15***	0.08	0.05
CEO - Ever	0.23	0.27***	0.21	0.33***	0.23	0.22
C-suite - Current	0.12	0.17***	0.11	0.26***	0.11	0.08***
C-suite - Ever	0.40	0.48***	0.38	0.62***	0.35***	0.34***
Board Experience：						
Rookie Director	0.42	0.38***	0.45*	0.31***	0.49***	0.39
# Board Seats - Current	0.97	1.02**	1.04*	1.02*	0.92	1.07**
# Board Seats - Ever	2.97	2.82**	2.84	2.57***	2.70**	3.76***
# Cumul Yrs on Boards	10.96	10.39*	11.51	9.27***	10.75	12.28**
# Committees - Ever	4.96	4.70**	5.03	4.32***	4.29***	5.88***
% Committees as Chair - Ever	0.16	0.15*	0.18*	0.13***	0.16	0.17
Indep Chair/Lead ID - Ever	0.16	0.14	0.15	0.12***	0.10***	0.26***
Connectedness：						
1st Degree Connection to Board	0.37	0.33***	0.42***	0.26***	0.30***	0.40
2nd Degree Connection to Board	0.34	0.43***	0.32	0.57***	0.35	0.28***
1st or 2nd Degree Connection to Board	0.72	0.76***	0.75**	0.83***	0.65***	0.68*
Network Size	237.80	271.15***	246.68	330.42***	212.66**	193.88***
Director-Specific Quality (DSQ):	0.02	0.04***	0.04**	0.04***	0.04***	0.00***

Notes: This panel reports the comparison of NID characteristics with vs. without disclosure on source of recommendation, restricted to the subset of firms that have disclosed the source of recommendation for at least one NID. Column (1) and (2) reports the mean of NID characteristics without and with disclosure. Column (3) to (6) reports the means of NID recommended by independent director(s) (ID), search firm (SF), CEO or executives (CEO), and shareholders or others (SH), respectively. See Appendix 3 for variable definitions. *, **, *** represent significance levels of 0.1, 0.05, 0.01, respectively, for two-tailed tests of differences of the value in Column (2)-(6) from the value in Column (1).