

Shared Educational Affiliations and Workplace Relationships*

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ABSTRACT

This study examines how intra-organizational allocation processes contribute to the horizontal stratification of higher educational institutions. We propose that organizations stratify employees by allocating them based on their educational affiliations to work groups and to work relationships within work groups. Results of industry and firm level analyses of the U.S. legal services industry support this claim. At the industry level, two lawyers who attended the same law school are more likely to work in the same firm-office and to be assigned to the same practice area within that office than are two lawyers who attended different law schools. Within offices and practices, the likelihood of a hierarchical work tie between partners and associates is greater for two lawyers who attended the same law school than for two who did not. Implications of these findings for studies of careers, organizational inequality, and social stratification are discussed.

INTRODUCTION

The link between educational institutions and labor market outcomes has become the basis of a growing interest in the horizontal stratification of higher educational institutions (Gerber and Chung, 2008). Horizontal stratification refers to persistent socioeconomic inequality based on the institutions individuals attend instead of the quantity of education acquired (i.e. vertical stratification). Research on horizontal stratification has uncovered a positive relationship between educational prestige and socioeconomic attainment (e.g., Tinto, 1980; Trusheim and Crouse, 1981; Useem and Karabel, 1986; Karabell and McClelland, 1987; James, Alsalam, Conaty, and To, 1989; Ishida, Spilerman, and Su, 1997; Rivera, 2011). The correlation between the two is largely attributed to widespread beliefs about the relationship between educational credentials and the ability of higher educational attendees (e.g., Becker, 1964; Spence, 1973; Mincer, 1974; Wise, 1975; Brown, 2001).

Despite increasing interest in horizontal stratification little is known about how work organizations may contribute to it. This is somewhat surprising, given the long-recognized effect of work organizations on inequality. Organizations offer disparate socioeconomic rewards and mobility opportunities depending on their size, type, and location (Kalleberg and Sorensen, 1979; Baron, 1984; Sorensen and Sorenson, 2007). Further, organizations' allocation decisions influence individuals' careers (Useem and Karabel, 1986; Barnett, Baron, and Stuart, 2000; Sorensen, 2004; Kalev, Dobbin, and Kelly, 2006; Castilla, 2008; Stainback, Tomaskovic-Devey, and Skaggs, 2010). Work group assignments determine horizontal, or peer relationships (Brass, 1985; Kogut and Zander, 1996; Gargiulo, Ertug, and Galunic, 2009) which impact the information, advice, and

social support individuals receive in the workplace (Burt, 1992; Ibarra, 1993; Podolny and Baron, 1997; Gabby and Zuckerman, 1998; Mizruchi, Stearns and Fleischer, 2010; Reagans, 2011). Vertical or hierarchical relationships between supervisors and subordinates affect individuals' legitimacy, visibility, and access to critical resources (Kalev, 2009; Briscoe and Kellogg, 2011).

In this study we seek to advance a theory about the contribution of intra-organizational allocation processes to the horizontal stratification of higher education institutions. Although much prior literature emphasizes higher education influences the prestige of its higher educational attendees, a growing body of evidence indicates that such benefits accrue not merely on the basis of educational prestige but also based on the specific institution attended (e.g., Cohen, Frazzini, and Malloy, 2010; Kacperczyk, 2013). For example, within labor markets the specific educational institution that job-seekers attend has been found to affect employer-employee matching (Rider, 2012; Oyer and Schaefer, 2010), and the relationships individuals have available when looking for jobs (DiMaggio and Garip, 2012).

Here, we posit that educational attendance has a constraining effect on workplace associations. Specifically, we suggest managers' implicit beliefs about the contributions of shared educational backgrounds to co-worker complementarities influences staffing and supervision. Our arguments build on organizational work that demonstrates there may be productivity benefits of shared prior experience (e.g., Eisenhardt and Schoonhoven, 1990; Beckman, 2006). We predict employees' educational affiliations influence: (1) assignment to work groups and (2) assignment to hierarchical work relationships within work groups. Stated another way, we suggest that where individuals went to school affects with

whom they interact while at work.

By infusing organizational theory into an understanding of horizontal stratification we make important contributions to existing research on organizational inequality. Our arguments connect intra-organizational allocation processes to the horizontal stratification of higher education institutions, a relationship currently understood primarily as a correlation between educational attainment and labor market outcomes. Population-level data sets such as the National Longitudinal Survey of Youth (e.g. the 1979 and 1997 NLSY cohorts) provide rich educational data, but lack data on organizational processes. As a result, we know a great deal about the effects of education on earnings and employment (see Hout, 2012 and Stevens, Armstrong, and Arum, 2008 for reviews), but intervening organizational processes are not well understood.

To test our propositions we construct a data set on the allocation of individuals into work groups and hierarchical relationships in the corporate law setting. This context is appealing for a number of reasons. First, allocation processes within law firms have important effects on law professionals' careers (Beckman and Phillips, 2005; Gorman, 2005; Gorman and Kmec, 2009). Law firms employ a 'learning by doing' approach whereby associates gain knowledge from partners and other associates on how to do their jobs (Pisano, 1994; Lazega, 2001). As a result with whom individuals work is a key determinant of career success. Second, because formal structures are similar across law firms we can examine allocation processes across many firms in the same industry (Galanter and Palay, 1991). Third, this setting is useful because it allows us to separate our hypothesized basis of sorting from alternative explanations. For example, the fine-grained rankings of law schools enable us to account for allocation by educational prestige in our efforts to identify

institution-specific effects (Useem and Karabel, 1986; Burris, 2004). It is important to note, however, that while our setting helps us rule out alternative explanations, we do not definitively rule in productivity expectations as the motivation for same school sorting. Rather, the intent of our study is to elucidate if and how organizations contribute to horizontal stratification by endogenously sorting individuals into work groups and work relationships based on educational affiliation.

We construct a data set on more than 107,000 lawyers employed by 267 U.S. law firms. We first investigate the effects of shared prior educational affiliations on the likelihood that individuals work within the same firm-office and the same firm-work group (i.e., practice area). These industry-level analyses are complemented by analyses of data from a survey of lawyers in a large international law firm. We examine the influence of educational affiliations on working relationships on over 30,000 possible partner-associate relationships.

Our focus on the antecedents of group assignment and work relationships within organizations enables us to establish an organizational basis for the horizontal stratification of higher education institutions. After presenting our findings, we discuss implications for our study for research on organizational inequality specifically, and then social stratification research more generally. For example, our study suggests that to the degree that factors unrelated to the quality of applicants are used in higher education admissions criteria (e.g. legacy admissions), educational sorting processes are amplified by organizations during allocation processes that impact careers, and that horizontal stratification is a likely precursor to social closure within work organizations.

EDUCATIONAL STRATIFICATION AND ORGANIZATIONAL SORTING

A rich tradition of sociological research has investigated the influence of educational stratification on economic opportunities (see Hout, 2012 and Stevens, Armstrong and Arum 2008 for reviews). Early in life, educational institutions serve as ‘sorting machines’ that segment students into learning tracks (Spring, 1976, Kerckhoff, 1995). This continues through primary, secondary, and post-secondary education (Mare, 1991, Shavitz and Blossfield, 1993; Lucas, 2001). At the post-secondary stage the assortative process occurs mainly across institutions that vary in prestige and institutional type – i.e. the horizontal dimensions of higher education. While occupations have requisite vertical dimensions of education – i.e. years of schooling or degree type – such that they are largely the same within an occupational class, horizontal dimensions of higher education vary.

A growing body of evidence suggests that horizontal stratification of higher educational institutions influences inequality. Educational institutions serve as ‘social sieves’ that affect access to opportunities (Jencks and Riesman, 1968; Grodsky, 2007). College attendance and the prestige of one’s higher educational institution depend strongly on social origins (Blau and Duncan, 1967; Hauser and Featherman, 1976; Shavit and Blossfeld, 1993). For instance, research using data from the National Education Longitudinal Study (NELS) found college entry and the college selectivity depend on social background factors, including parent’s education, income, and attending high school in a rural location (Karen, 2002). Prior work suggests the effects of higher educational attendance found in the NELS study is comparable to studies of college attendance that occurred among students in prior decades (Hearn, 1991, Hout, Raftery and Bell, 1993). However, there is some evidence suggesting that stratification across higher educational

institutions is even more reliant on social origins than in the past. Because demand for higher education is increasing (Schoefer and Meyer, 2005; Alon and Tienda, 2009; Torche, 2011), factors such as legacy (i.e. familial ties to alumni) may have greater weight in the selection process (Espenshade, Chung, and Walling, 2004).

Whether horizontal stratification of higher educational institutions is stagnant or increasing, this prompts important questions about the impact horizontal stratification has on outcomes within organizations. Although the vertical dimensions of education are largely homogenous for individuals within the same occupation the horizontal dimensions are not. Differences exist in the institutions from which workers originate because organizations recruit and select individuals from a variety of institutions depending on geography and other constraints (Oyer and Schaefer, 2012). Employees' educational affiliations may be important in determining opportunities within organizations. Below we suggest reasons that horizontal stratification may operate within organizations by influencing with whom individuals work.

Prior Educational Affiliations and Work Group Sorting

The educational affiliations of employees may affect how managers allocate them into work groups. Specifically, employees' educational affiliations may influence how managers make two decisions that influence the composition of work groups: 1) how to match individuals to tasks (i.e. person-to-task matching) and 2) how to match individuals to one another (i.e. person-to-person matching). Work groups are a main structural building block within organizations. When employees come together to bring

individualized inputs such as knowledge to bear on problems they do so within groups (Galbraith, 1973). For example, tasks are situated in groups or departments – i.e. marketing, R&D, sales – according to the department comprised of employees able to perform the work.

Managers may attend to the educational affiliations of employees because they permit efficiency concerns to be addressed. Formal organizational structure – i.e. the way work groups, levels, and formal work relationships are designed and the way individuals are allocated to positions – serves as a basic underpinning of how organizations operate. A purpose of the formal structure of an organization is to establish legitimate authority and control by aligning tasks with the motivations of employees to improve efficiency (Selznick, 1948; Katz and Kahn, 1978; Gargiulo, Ertug, and Galunic, 2009). Formal structure and sorting processes may be designed to optimize efficiency (Williamson, 1991), or optimize efficiency subject to constraint (Nelson and Winter, 1982). Specifically, managers may work in a boundedly rational way to design work structures and to allocate individuals to these structures in satisficing ways (Cyert and March, 1963; March and Simon, 1958).

Managers may sort people into work groups based on beliefs about the benefits of allocating employees with specific skills to tasks carried out within the group, or person-to-task matching. Educational institutions provide skills and training for occupations (Grusky, 2005). Specialization in knowledge and skills within occupations occurs when individuals attend institutions with varying degrees, course work, and matriculation requirements (Daymont and Adrisani, 1984; Paglin and Rufolo, 1990; Shauman, 2006). When individuals attend the same educational institution they are imprinted with similar cognitive

frameworks and knowledge (Marquis and Tilcsik, 2013; Burton, Sorensen, and Beckman, 2002). For instance, stock analysts that attend the same college have similar investing styles (Massa and Simonov, 2011). Individuals from the same educational institution have overlapping skills and expertise. They may be more likely to be allocated to the same work group tasked with a specific set of activities than individuals that do not share an educational affiliation.

Managers may sort employees into work groups based on factors believed to enhance person-to-person matching. Prior studies indicate positive spillovers across employees occur because employees share common frameworks, language, and skills (Hamilton, Nickerson, and Owan, 2003; Ingram and Simons, 2002). For example, studies indicate shared cognition between entrepreneurial founding team members boosts new venture performance (Beckman, 2006; Tsai and Ghoshal, 1998; Eisenhardt and Schoonhoven, 1990). Individuals with the same prior educational experience have similar cognitive frameworks and skills that facilitate working well together. Economists have found some evidence that there may be worker complementarity effects based on educational attendance (Lazear, 1998; Hayes, Oyer, and Schaefer, 2005; Oyer and Schaefer, 2010).

Managers' implicit beliefs about who works well together may also be grounded in assumptions about the influence of educational institutions on norms and behavior. Educational institutions serve as sites not only for the transmission of knowledge and skills, but values, norms, and institutional beliefs. Further, educational attendance affects individuals' social identities (Stevens et. al, 2008). Social identities, or collective identities

that help individuals see themselves as members of broader social groups, fosters a sense of connectedness amongst group members (Brewer and Brown, 1998; Van Knippenberg, 1999).

Identities form when individuals join organizations or institutions with a strong culture or ideals (Mael and Ashforth, 1992; Brickson, 2000). When individuals attend an educational institution they learn the institution's norms and values through rituals, ceremonies and events that evoke emotional responses (Stevens et. al, 2008). Through participation students' identities become intertwined with institutional principles and beliefs (Rafaeli and Vilnai-Yavetz, 2004).

Managers may place individuals with a shared educational affiliation into the same work group because they share a basis of norms, ideals, and behaviors. In turn, this may facilitate interaction and communication across group members (Hansen, 1999; Hansen, Mors, and Lovas, 2005; Kane, 2010). Research indicates that managers consider the fit job candidates with organizations based on how individuals' and organizations' values overlap (Chatman, 1991; Kristof, 1996). In a similar vein, managers may also look at educational affiliation as an indicator of beliefs and values of their employees and anticipate benefits from employees' overlapping values (Besharov, 2013).

In sum, managers' implicit beliefs may lead individuals to be sorted into work groups based on educational affiliations. Managers anticipate employees' educational affiliations affect their knowledge and skills. As a result they match individuals with shared educational affiliations to tasks within a work group. Further, they may anticipate that when employees share educational affiliations within a group this enhances worker

complementarities based on shared cognitive frameworks, skills, norms and values. As a result we predict the following.

Hypothesis 1. Two employees who share a prior education affiliation are more likely to work in the same group than are two employees who do not.

Prior Educational Affiliations and Hierarchical Sorting

A second component of formal organizational structure is hierarchical work relationships. According to a traditional view of hierarchy in organizations coordination is imposed through vertically enacted bureaucratic processes (Weber, 1947). Higher ranking individuals provide a downward transfer commands to subordinates; in turn subordinates provide an upward transfer of information about tasks and performance.

The traditional view of authority overstates the command-control aspects that occur within organizations. A more accurate depiction of authority relationships involves an exchange of information across both lines of authority. This is an outcome of the need for supervisors and subordinates to jointly solve problems in complex environments. That is, hierarchical relationships require shared cognitive frameworks, language, and norms similar to lateral, or peer-to peer relationships in groups (Gibson and Birkinshaw, 2004).

Facilitating exchange between supervisors and subordinates is important in complex organizations where supervisors undertake multiple activities, and need to consider multiple, competing goals (O'Reilly and Tushman, 1996; Smith and Tushman, 2005). Reaching these goals involve routine and non-routine work that may be beyond a manager's formal job description (Adler et. al, 1999). Supervisors benefit from subordinates that are willing to help solve both rudimentary and non-routine problems whether or not doing so is a part of the subordinate's formal job description.

Similar to our arguments about shared educational affiliation influencing sorting into work groups, we anticipate managers' beliefs about the benefits of shared educational affiliation to guide the placement of individuals into hierarchical

relationships. In making allocation decisions managers may anticipate a greater exchange of ideas and other resources between supervisors and subordinates when they share an educational affiliation and in turn similar institutionally-derived identities, cognitive frameworks, and skill-sets. When individuals are not socially integrated into hierarchical relationships they may be less motivated to cooperate and reduce effort (Hage and Aiken, 1969; Organ and Greene, 1981). By providing hierarchical relationships familiarity in educationally-based skills and norms organizations may avoid conflict that arises in hierarchical relationships (Jablin, 1979).

Moreover subordinates may benefit to a greater extent from resources provided by supervisors with whom they share an educational affiliation. For example, when undertaking tasks, subordinates not only rely on their own social capital or resources embedded in a set of relationships, but the social capital of their supervisors (Burt, 1998). This borrowed social capital is useful for generating resources, such as support and buy-in from the organization (Podolny and Baron, 1997; Sparrowe and Liden, 2005). By being able to utilize the social contacts of supervisors, subordinates' ideas and projects gain legitimacy in organizations. When workers share a common background resource exchange is improved. Studies indicate that sharing an educational affiliation enhances the exchange of resources across individuals that differ in rank and job type. For example, a study finds that stock analysts receive superior information about the companies they evaluate if they attended the same university as the senior officers of the firms (Cohen, Frazzini, and Malloy, 2010). This occurs because educational ties enhance trust and facilitate information exchange across corporate officers and stock analysts. Additionally, research on organizational demography (Tsui and O'Reilly, 1989; Tsui and

Gutek, 1998) suggests resource exchange increases in hierarchical relationships when individuals share a basis of similarity.

In sum, after managers sort individuals into work groups, that may attend to educational affiliations when matching individuals-to-individuals in work relationships. They may do this based on the belief that shared educational affiliations promote social interaction and resource exchange. As a result, after individuals have already been sorted into the same work group, we predict the following.

Hypothesis 2. Relative to two employees who do not share a prior education affiliation, two employees who do are more likely to work in the same hierarchical relationship (dyad).

RESEARCH METHODS

We test these predictions in the context of the legal services industry. We begin by studying the sorting of lawyers into specific firm practice areas by analyzing data obtained from the Martindale-Hubbell Law Directory in August of 2009. The sample was constructed by starting with the largest U.S. law firms (by headcount) based on the 2008 *National Law Journal* rankings. That list was augmented with all additional law firms listed on LawPeriscope.com (Oyer and Schaefer, 2010). For each law firm we obtained a list of all lawyers employed by the firm, according to Martindale-Hubbell. For each individual, we recorded their level (e.g., associate, partner), legal practice area(s), office location, and law school attended. In all, this data set covers over 107,000 lawyers employed by 267 U.S. law firms in 1,179 firm-offices.

We further restricted this data set to only lawyers who listed at least one practice

area in Martindale-Hubbell and also listed degree-granting law school. We, therefore, retained approximately 80 percent of all lawyers (n=85,914) from the data before constructing a dyadic data set of all possible co-employees, defined as all dyads composed of two lawyers i and j who are employed by the same firm. This resulted in a data set of over 18 million co-worker dyads.

In a more fine-grained analysis, we also restricted this data set to only employees assigned to the same firm-office. We do this to address the possibility that most practice area sorting occurs at the office level within firms. To the degree that the composition of offices are also influenced by their geographic proximity to law schools, this more restricted sample allows us to address the possibility that our results may be due to the concentration of schools within local offices. Restricting our analysis to the same firm-office produced a data set of over 5 million dyads.

This industry-level analysis allows us to investigate what sorting might be occurring at the work group (i.e. practice area) level. However, the M-H data does not allow us to observe work relationships directly. Because of this, we undergo a second data collection effort to examine the allocation of individuals into work groups. Our setting is at a large international law firm. This law firm was chosen because it is fairly representative of large corporate law firms that comprise the M-H sample. In 2010 (i.e. the year the study was conducted) the law firm was listed among the *National Law Journal's* 250 (NLJ 250) largest law firms in the United States. The firm has offices in the United States, Europe and in the Middle East and specializes in practice areas across a range of industries, including healthcare, finance, and real estate. Like most major law firms it has a partner-associate

hierarchy, including an “up or out” policy for associates.

In the spring of 2010 we met with a partner of this firm that put us in touch with the partner in responsible for professional development within the organization. This individual served as the sponsor of the study. In the early summer of 2010 the firm’s sponsor sent an email asking associates to participate in the research which included a link to an electronic survey. After this initial request for participation, two additional requests for were made, the first by the sponsor, and a second by a senior associate in the firm. These requests followed within a month of the initial survey being administered. In order to encourage participation, a \$250 gift card was raffled off to associates and the researchers provided a report of the study’s findings to employees in the firm.

The survey took approximately fifteen minutes to complete. On the survey the associates listed the first and last names of the partners that they worked for over the last 12 months. Respondents also indicated the portion of time that they had worked for each partner in the previous year, the frequency with which they had spoken with each partner, the length of time they had worked for each partner, their primary practice area, the law school at which they received their law degree, the office where they worked and the respondent’s demographic information.

Out of the 340 associates at the firm, 139 completed the survey, a 41% response rate. The sponsor of the study indicated that this response rate was in line with other recent surveys conducted at the firm. After excluding non-U.S. based associates and respondents with missing data, 114 associates remained. The demographic composition of the law firm sample is given in Table 1. Although not statistically significant, there were

slight differences in the demographic composition of the sample versus the overall set of associates at the firm and as a result, we control for the demographic background of the respondents in the analysis.

[INSERT TABLE 1 HERE]

Dependent Variables

To analyze the extent to which lawyers sort into specific areas of practice by law school attended, we had to identify all instances in which two lawyers work in the same area of legal practice. Martindale-Hubbell lists 125 unique practice areas, but Heinz, et al. (2005) aggregate legal practice into 28 unique practice areas based on their 1995 study of urban lawyers. Due to great variance across firms in the number of practice areas listed, it was necessary to reduce the number of Martindale-Hubbell practice categories in order to ensure that we identified lawyers within the same firm who work in similar areas of practice regardless of firm reporting conventions. We started with the Heinz, et al. (2005) scheme and modified it to reduce redundancies and to reflect changes in legal practice since their scheme was created. For example, we combined “Business Real Estate” and “Personal Real Estate” into a single “Real Estate Category.” We also created categories like “Alternative Dispute Resolution” and “Technology” to account for the large number of lawyers in Martindale-Hubbell who practice such law. These modifications resulted in the 37 unique areas of legal practice listed in Table 2.

[INSERT TABLE 2 HERE]

According to our practice categorization scheme, the median lawyer in the sample

lists three unique areas of practice (mean = 2.97). The most common areas of practice are Labor & Employment (9.7 percent of lawyers in the sample), Insurance (8.6 percent), Finance (8.3 percent), Intellectual Property (7.4 percent), Corporate Law (6.4 percent), Real Estate (5.1 percent), Securities (4.6 percent), Government (4.0 percent), and Litigation (3.6 percent). We coded a dependent variable for each dyad that equals 1 if the two lawyers work in at least one of the same practice areas within the same firm and 0 otherwise. Likewise, for the firm-office analysis, we coded a dependent variable for each dyad that equals 1 if the two lawyers work in at least one of the same practice areas within the same firm-office and 0 otherwise.

For the investigation of hierarchical relationships at a single firm, the dependent variable is dichotomous, equal to 1 if an associate has a work tie with a partner in the previous 12 months, else 0. We constructed an associate-partner matrix by including each partner in the firm that appeared in Martindale-Hubble. The firm had 298 partners at the time the study was complete. Most partners were easily identified in the survey. However, there was one instance in which two partners had the same first and last names. There was no way to decipher between these partners in the data, and thus they were excluded from the analysis. Due to data limitations on background factors we also excluded partners that worked outside of the United States.

Overall 275 partners were included in this study. The associate-partner matrix was constructed using 114 rows for the associates and 275 columns for the partners. In this matrix cells are coded "1" if the partner-associate had a work tie, otherwise "0". In the 114x 275 matrix there were 31,350 potential partner-associate work ties. Of these work

ties 583 were realized, 1.9% of all possible ties. After constructing the matrix this data was transformed into dyads, where each “i” associate is paired with is each of the possible “j” partners, and is matched with the correct “i” and “j” data.

Independent Variable

Our key independent variable is a binary indicator that takes of value of 1 if the two lawyers obtained their JD from the same law school and 0 otherwise. In a few instances, partners at the firm pursued a specialized degree (e.g. an L.L.M.) after receiving a Juris Doctor (J.D.). In all cases the institution where the lawyer received a J.D. was used in the construction of the education affiliation variable.

In the single-firm study, the partners and associates at the firm received degrees from 107 law schools. Partners received law degrees from 70 law schools and associates received degrees from 74 schools. The law schools with the most representation at the firm are shown in Table 3.

[INSERT TABLE 3 HERE]

Control Variables

We include a number of control variables for other bases of sorting into practice area. In the industry-level analysis we include a variable that equals 1 if the two lawyers work in the same firm-office and 0 otherwise. Additionally, because partners tend to work in more practice areas than do associates (3.3 versus 2.5) we also include two dummy variables: (1) one takes a value of 1 if both lawyers are partners and 0 otherwise (approximately 20 percent of all dyads) and (2) the other takes value of 1 if both lawyers

are associates and 0 otherwise (approximately 16 percent of all dyads). The baseline category in this specification includes dyads composed of one partner and one associate or lawyers with other titles (e.g., counsel). Finally, we control for the availability of same-school affiliates within practice areas by creating a mean law school-practice affiliation variable, which is a dyad average of the % of all lawyers assigned to i or j's practices that graduated from i and j's law schools.

In the single firm analysis we are interested in how education affiliation influences sorting net of working in the same practice area. Thus we include a same practice variable, equal to 1 if associates work in any one of the same practice areas as a partner, else 0. A same office dummy variable is also included. We generated two homophily variables. The first same gender variable is equal to 1 if both the partner and associate are the same gender, else 0. We did likewise for the same race variable. Information on the demographic background of respondents was gathered from the associate survey. Martindale-Hubble does not list demographic information for the partners. The partner that served as the liaison for the study formerly served as the firm's director of diversity. We asked this partner to indicate each partner's race (e.g. Caucasian, African-American, Hispanic, Asian-American) and gender, and used these designations to construct the variables. In order to account for the availability of same-school work ties across dyads, we calculate the share of partners that graduated from an associate's law school and include this as a control variable in the models.

Finally, it is possible that the influence of prior educational affiliation on partner-associate work ties is driven by prestige sorting in law firms. Graduates of law schools sort

into law firms that vary in prestige. Figure 1 shows the profits per equity partner across law firms based on prestige rankings in the Vault 100 and mean law school rank of the firm's employees. The law school rank is decreasing in prestige, meaning the most prestigious law schools are ranked lower than less prestigious law schools. Firms in the top decile recruit from the most prestigious law schools and have the greatest financial returns, while lower-decile firms recruit from lower ranked law schools and receive lower returns.

[INSERT FIGURE 1 HERE]

In order to account for this we include a variable – educational prestige differential – that measures the absolute difference in prestige in the law school attended for the partner-associate dyad. The prestige score is an average of the *U.S. News and World Report's* law school ranking of the top 100 law schools each year from 2000 to 2010. Law schools that were unranked were given a score of 150.

Additionally, because prestige sorting may also occur based on undergraduate affiliation, we calculate a second prestige differential score accordingly. Prestige was measured using the *U.S. News & World Report's* 2011 worldwide rankings of the top 400 global universities. These rankings are produced in cooperation with QS Quacquarelli Symonds, an organization that has produced international education rankings since 2004. The maximum score is 100 and the 400th-ranked school received a score of 29.2. We assigned all unranked schools a score of 28.0. M-H was more limited in listing undergraduate institution, and thus the sample size is reduced due to missing data. Given this, we include the prestige score based on law school affiliation for the main analysis, and incorporate the prestige score based on undergraduate institution as a robustness check.

Analyses

For the industry analysis we estimate logit models of the likelihood that two lawyers work in the same area of legal practice within a firm. We also include an autocorrelation control variable for each dyad that is the mean value of the dependent variable for all dyads in which either i or j appears, excluding the ij^{th} dyad (Lincoln, 1984). This variable accounts for otherwise unobserved heterogeneity at the firm level (Stuart, 1998). For example, if some firms assign many lawyers to a small number of practice areas while other firms assign but a few lawyers to a large number of practice areas this measure controls for such firm-level heterogeneity.

For the single-firm analysis we estimate rare event logit models on the likelihood that two lawyers are in a hierarchical relationship. The realization of work ties between partners and associates at the firm (i.e. the “1’s” in the matrix) is relatively infrequent. Rare events logistic regression generates standard errors that have been adjusted for rare events bias. We present models using King and Zeng’s *relogit* procedure in Stata 12. We also include the autocorrelation variable to account for the non-independence of the observations in the dyadic data.

RESULTS

Same Practice Area

Summary statistics and correlations for all variables included in the “same-firm” and “same-firm-office” co-worker dyadic analyses are summarized in Tables 4 and 5, respectively. Among lawyers working in the same firm, 46% work in the same practice

area, 28% work in the same office and 5% of the lawyers attended the same law school. Among lawyers working in the same firm-office, 9% attended the same law school.

[INSERT TABLES 4 AND 5 HERE]

Figure 2 compares the proportion of co-worker dyads assigned to the same practice area for lawyers that share a law school affiliation and lawyers that do not. At the firm-level, 48.8 percent of dyads who share a prior education are assigned to the same practice area; this figure is 3.1 percent higher than it is for dyads who do not share a prior education affiliation and the difference is statistically significant ($p < 0.01$). At the firm-office level, the respective figures are 48.8 percent and 46.6 percent and that difference in means is also statistically significant ($p < 0.01$).

[INSERT FIGURE 2 HERE]

Table 6 presents the results of the same-firm dyad analyses. Model 1 includes only our independent variable of interest. As predicted, two lawyers employed by the same firm are more likely to be assigned to the same practice area if they graduated from the same law school than are two lawyers who graduated from different law schools. Subsequent models probe the robustness of this pairwise correlation by accounting for other factors that might be associated with the sorting of lawyers into firms and firm-practices by law school attended. Model 2 includes the same-firm-office indicator variable. Two lawyers who work in the same firm-office are more likely to work in the same area of practice than two lawyers who work in separate firm-offices, indicating some firm-level practice specialization by local office. Model 2 also includes the “both partner” and “both associate” indicator variables to account for lawyers’ tendencies to expand their areas of practice as

they gain experience. Consistent with this tendency, two partners are more likely to work within the same firm practice area than are two lawyers of different ranks, whereas two associates are less likely to work within the same firm practice area than are two lawyers of different ranks. The effect of law school indicator variable is robust to the inclusion of these controls.

[INSERT TABLE 6 HERE]

It remains possible that these models merely capture firm-level heterogeneity in the assignment of lawyers to practice areas. To probe this possibility, we estimate models with the autocorrelation control variable (Model 3). The coefficient magnitude is reduced dramatically with its inclusion. This indicates substantial firm-level heterogeneity in practice assignment policies, but also that sorting into practice areas based on law school attended is significant. Model 4 shows that our results hold when we include firm-fixed effects, which capture other aspects of firm-level heterogeneity outside of practice assignment policies that may be influencing the results.

Together, these models demonstrate that lawyers employed by the same firm tend to sort into specific areas of practice based on law school attended. Using the coefficients in Model 4 of Table 6 and the formula detailed in Petersen (1985), we estimate that for two partners employed in the same firm-office the likelihood of being assigned to the same practice area is 1.8 percent higher for two who graduated from the same law school than for two who graduated from different law schools.

We proceed with several checks of the robustness of our results in Table 7. Model 5 includes the mean law school-practice affiliation variable, which accounts for the

possibility that our results are being driven by greater availability of same-school affiliates within the firm. The positive and statistically significant coefficient on this variable indicates that, indeed, having a greater share of same-school affiliates within a firm increases the likelihood of being sorted into the same practice area with these individuals. However, consistent with previous models, the positive and statistically significant effect on same-school affiliates remains.

In Model 6 we consider the possibility that there is heterogeneity across law school affiliates that may be affecting the results. We include law school fixed effects for the top 29 law schools contributing 50% of all lawyers in the sample, and find our results are robust to inclusion of law school fixed effects. Although we include a same-office control variable in the specification for all models in Table 6, for reasons mentioned previously a more conservative test of our argument regarding shared prior education affiliation is to examine school-based sorting at the firm-office level. In Model 7 we restrict our sample to only dyads involving two lawyers who are employed in the same firm-office. The results in Model 7 are consistent with those of Table 6: two lawyers employed in the same firm-office are more likely to be assigned to the same practice area if they attended the same law school than are two lawyers who attended different law schools.

Before turning to the results of the single firm study on partner-associate work relationships, we examine partner-associate sorting into practice areas using the industry data. Model 8 demonstrates the effect of prior education affiliations on same-practice sorting for partner-associate dyads and Model 9 demonstrates this effect for partner-associate dyads within firm-offices. Consistent with the prior models, in the partner-

associate dyads models the effect of a shared educational affiliation has a positive and statistically significant effect on being sorted into the same practice area.

[INSERT TABLE 7 HERE]

These results support our arguments regarding shared prior education affiliations and opportunities to form co-worker relationships, indicating support for hypothesis 1. These results indicate that higher education affiliations act as “sieves” that differentially structure opportunities for individuals to form professional relationships with co-employees. However for hypothesis 2 to be supported, we must not only demonstrate such sorting but, also, the formation of co-worker relationships on the basis of shared prior education affiliations. We, therefore, turn our attention to within-firm analyses of individuals’ hierarchical work ties.

Partner-Associate Work Ties

Table 8 presents summary statistics and correlations among all variables in the partner-associate dyadic models. Across the 31,350 partner-associate dyads, 26% work in the same office, 46% are the same gender, and 80% are the same race. One-quarter of the dyads are comprised of partners and associates in the same practice area.

[INSERT TABLE 8 HERE]

Figure 3 provides descriptive statistics on the dyads that had a positive work tie. Across dyads that share a prior educational affiliation, 4% of the dyads worked together. Comparatively, across dyads with different prior education affiliation, 1.8% worked together. This same comparison is made for male and female associates in the firm. The

proportion of those working together that share a prior educational affiliation is approximately two times greater than it is for partners and associates that do not share a prior educational affiliation.

[INSERT FIGURE 3 HERE]

The descriptive statistics above provides some initial indication that shared prior education affiliation influences sorting into workplace relationships. However, we have not yet controlled for other variables that may be driving this effect. We conduct multivariate analysis to address the influence of covariates in Table 9. Model 1 is the baseline model with the control variables. As expected, partners and associates are more likely to have a work tie if they specialize in the same practice area. They are also more likely to have a work tie if they are co-located. Neither the gender nor racial homophily variables correspond to having a positive work tie. While it is somewhat surprising that neither the gender nor racial homophily variables correspond to having a work tie, it is important to note that this is may be due to the types of relationships under study: in hierarchical relationships, preferences for association based on race or gender may be less at work than in more informal relationships.

In Model 1 we also include the prestige differential variable. The model indicates that the difference in prestige for the law schools attended by associates and partners is not significant. This provides some evidence that prestige is not a main basis of sorting within hierarchical relationships.

Model 2 provides support for the hypothesis that education affiliation influences work ties. Sharing a prior education affiliation has a positive and significant effect on

having a work tie for partners and associates ($p < 0.05$). Model 2 is shown without inclusion of the autocorrelation variable – i.e. no correction has been made for the non-independence across observations. This variable is added in Model 3a. The coefficient on the affiliate variable is positive and significant ($p < 0.01$).

One possibility for the lack of an effect for the prestige differential variable is that law school prestige is less meaningful in this setting than the prestige of an individual's undergraduate institution. In Model 3b the effect of the prior education affiliation variable is assessed when including this alternative prestige differential variable. This variable is not statistically significant. Moreover, the effect of sharing an education affiliation on placement into a hierarchical work relationship remains. Again using the Petersen (1985) formulation and including the covariates at their most common values, we estimate the likelihood of being placed in a partner-associate dyad is 11.9% higher if the lawyers graduated from the same law school than if they did not.

To further test the robustness of our results, we considered alternative model specifications. First, we include more nuanced demographic variables in our models. Perhaps the influence of gender homophily depends on whether the partners and associates are male or female. To examine this further four variables were constructed: male partner-male associate, male partner-female associate, female partner-male associate, female partner-female associate, and include three of these variables in Model 4 in Table 9 (the male partner -male associate variable is omitted). After including these variables, the effect of the prior affiliation variable remains positive and statistically significant.

[INSERT TABLE 9 HERE]

Second, we inspect the influence of educational affiliation on only those partners and associates in the same practice area and the same local office. Individuals that overlap in practice area and geographic location may be more likely to work together. To the degree that university affiliation overlaps with geographic location, it is possible that the effect surfaced above is due to the concentration of university affiliation within offices. Likewise, given the practice area analysis we show above, the availability of individuals that share the same educational affiliation within a practice area could be affecting opportunities for partner-associate work relationships.

To address these possibilities, we first restrict our sample to only those individuals that work in the same practice area in Model 5. We find a positive effect for shared educational affiliations on work tie formation for those in the same practice area. In Model 6 we show the effect of a shared prior education affiliation conditional on working in the same office. Again, the effect of a shared education affiliation is positive and statistically significant ($p < 0.01$).

In a final robustness check, we further examine the possibility the positive effect is being driven by the different opportunities associates have to form ties with partners. To address this possibility for each associate a *partner-share* variable was created indicating the proportion of partners that attended an associate's law school. Inclusion of this variable did not have a substantive effect of results. That is, sharing an educational affiliation has a positive and statistically significant effect on the formation of a work tie (results not shown but available on request).

DISCUSSION

Over the last fifty years, demand for higher education at the post-secondary and graduate-level within the United States and in other industrialized nations has risen dramatically (Schofer and Meyer, 2005). Today college degrees are obtained by a larger and more diverse segment of society than in the past, and individuals attend higher educational institutions over a longer portion of their lives (Census Bureau's Current Population Survey, 2001). Rising demand has led to an increase in the selectivity of higher educational institutions, especially at elite colleges (Hoxby, 2009), and to higher attendance costs (Hout, 2012). The increasing level of competition to attend elite institutions for post-secondary and graduate-level education has prompted a number of scholars to question, is it worth it? Does the higher educational institution a person attends matter?

To answer this question, researchers have largely focused on how higher educational institutions influence the quality of their constituents. A main point of inquiry has been whether or not higher educational institutions endow students with knowledge or specialized skill-sets that affect their labor market opportunities. Due to the belief that higher ability individuals are more likely to be admitted to elite institutions, much attention has been paid to parsing selection and treatment effects of university attendance. Along these lines, evidence suggests higher educational institutions do more than merely sort individuals into opportunities; rather, they also have substantive treatment effects (see Hout, 2012 and Stevens et. al, 2008 for recent reviews). Yet, while providing insights, existing studies have largely left the labor market contexts with which economic and social rewards are gained or lost with respect to educational investments unexplored. That is, there has been a lacuna of studies on the institutions through which returns from investments in higher education are realized.

The purpose of this study has been to investigate if and how organizational allocation processes contribute to horizontal stratification. Specifically, this study investigates how higher educational affiliations affect two allocation processes common in all organizations: sorting into groups and work relationships. We find that sharing an educational affiliation influences both processes. Using industry-level data on the sorting of lawyers into practice areas, we find two individuals are significantly more likely to be sorted into the same practice area within a firm if they share an educational affiliation. Our results hold when restricting practice area sorting to only that which occurs within a local firm-office. The effects at the work-group level suggest that individuals have greater opportunities to associate with those whom they share a higher educational affiliation versus those whom they do not.

This industry-level study is complemented with an inspection of allocation into hierarchical relationships at a large international firm. We find that sharing an educational affiliation has a positive effect on the development of hierarchical work relationships. Associates that share an educational affiliation with a partner are significantly more likely to work with him or her than if an educational affiliation is not shared. This result proves robust to inclusion of a number of variables, including the demographic background of partners and associates and variables that consider various types of prestige sorting. Taken together, the industry and the single-firm case study indicate that where individuals pursue higher education has a substantive effect on with whom they interact while at work.

This study makes important contributions to our understanding of institutions and stratification in the labor market. For decades scholars have studied educational

institutions and work organizations as “dual engines of inequality.” However, surprisingly little research links allocation processes across both types of institutions. Although studies suggest how stratification across educational institutions influence career outcomes such as earnings, the intervening processes that occur within organizations are poorly understood. By expounding upon how educational affiliations influence staffing and supervision processes, this study makes an important step forward in explicating the contribution of work organizations to horizontal stratification.

This study also makes an important contribution to literature on social structure. A lingering question within the networks literature is how do social structures in the form of social ties and networks come about? A study of work groups and work relationships within those groups provide insights the ways this may occur. Formal work ties directly provide resources to individuals and they catalyze more informal relationships, such as friendships and sponsorships to occur (Ibarra, 1992; Burt, 1998). This study provides evidence that the availability of workplace relationships are constrained by institutional factors that are present prior to employees entering organizations. Intra-organizational networks, it seems, are products of external environments that situate individuals into a hierarchy of social opportunities that are replicated within organizations.

While this study yields important insights, it is not without limitations. We propose that organizational managers attempt to improve efficiency in their allocation decisions, and therefore sort based on educational affiliations. Though empirical analysis supports that there are not other bases of sorting at play – i.e. prestige – it is difficult to precisely pinpoint the mechanism at work, particularly in our industry-level study.

An approach that might provide some suggestive evidence for the impetus of same-school sorting is if this lead to performance improvements for employees. In a purely exploratory sense, we examined if there are outcomes that differ between those associates that worked with a partner that attended the same law school and those that did not in our single firm study. In law firms, an important determinant of promotion is an associate's billable hours. Prior studies indicate that billable hours are at least partially determined by the work that becomes available to associates through partners (Lazega, 2001). We asked respondents in our single firm study to specify the number of hours they billed to the firm in 2009. Full-time associates that worked with a law school affiliate partner averaged 2,205 billable hours, while those that did not work for a law school affiliate partner billed 2,040 hours. This 165-hour difference is statistically significant ($p < 0.05$, two-tailed). While we make no claims that this provides substantive evidence that associates working for affiliate partners perform better (i.e. assignment is not random), this comparison offers some suggestive evidence that this might be the case.¹ However, future research should more fully investigate the mechanisms generating same-school sorting.

Future research may also explore the interrelatedness of higher educational institutions and opportunities for association within the workplace across demographic groups. It has long been noted that demographic characteristics run alongside educational attainment (Jencks, 1972), and inequality across demographic groups is most pronounced in high-paying occupations such as business and law, that can require a substantial investment in higher education (Grodsky and Pager, 2001; Elliott and Smith, 2004). For

¹ The t-test compares the average number of billable hours for those individuals that worked in the firm in 2009, which removes 20 associates that began working in 2010. It additionally removes six associates that worked part-time at the firm (or those with less than 1000 billable hours). Overall, this leaves 20 associates with affiliate partners and 68 affiliates without.

example, in these occupations within organizations, there is greater representation of racial minorities in entry-level positions and waning representation in positions with greater levels of compensation (Stainback and Tomaskovic-Devey, and Skaggs, 2010). Because a large variation in wages exists in these professions, the differential allocation of groups across positions contributes to racial inequality (Chiu and Leicht, 1999; Leicht and Lyman, 2006). While further research is needed, the findings from this study indicate that organizations use prior educational affiliations to sort individuals into work groups and relationships, and that this creates a form of social capital that is restricted to members whose prior education affiliations are represented in the organization, which may be the least likely for racial minorities (Elliott et. al, 2004; Rider, Sterling, and Tan, 2013).

CONCLUDING REMARKS

There has been a persistent and long-standing interest amongst social scientists in the impact of education on economic and social rewards. Much of this work has focused on labor market outcomes (e.g. earnings) without investigating the intervening processes that occur within organizations. By suggesting that with whom individuals work within organizations is impacted by higher educational affiliations, this study provides the first investigation into how organizations contribute to the horizontal stratification. By doing so, this study makes important strides over research that has primarily studied the influence of educational pursuits and career outcomes absent from the institutional context in which careers unfold.

While the aim of this research has been to inform an understanding of the

contributions of organizations to social stratification via the imposition of constraints on social relationships, this inquiry prompts important considerations for policy. Prior to this study, little was known about how social capital stemming from educational institutions is harbored within work organizations. The effects uncovered here on the impact of higher educational pursuits on work relationships highlights the care needed by higher educational institutions in selecting and admitting individuals for attendance. There are a number of factors besides the ability of applicants that dictate entry into higher educational institutions. Some of these factors strongly depend on social origins and family background, prompting the “social sieves” metaphor to be applied to higher educational institutions by researchers (e.g. Stevens et. al, 2008). This study prompts the need for increased attention at the selection stage by higher education administrators given the lasting effects higher educational institutions have on individuals’ relational opportunities.

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Table 1. Sample characteristics for single firm study.

Associates (n=114)

Men/Women	43%/57%
White	85%
Black	7%
Hispanic	2%
Asian	6%
Age (Average)	31.6
Years at Firm (Average)	3.4

Partners (n=275)

Men/Women	78%/22%
White	94%
Black	2%
Hispanic	3%
Asian	1%

Table 2: List of all practice areas represented in the multi-firm sample.

Alternative Dispute Resolution	Corporate Law	Insurance	Probate
Antitrust	Criminal Law	International Law	Real Estate
Appellate	Education	Intellectual Property	Securities
Bankruptcy	Energy	Labor & Employment	Tax
Banking	Environmental	Litigation	Technology
Civil Rights	Family Law	Media & Entertainment	Torts
Constitutional Law	Finance	Municipal Law	Transportation
Construction	Government	Nonprofits	Utilities
Consumer Law	Healthcare	Other	
Contracts	Immigration	Personal Injury	

Table 3: Law schools of associates and partners for single-firm analysis.

Law School	Associates & Partners	Partners	Mean USNWR Rank*
University of Virginia	54	25	9
University of Georgia	49	20	34
Harvard University	39	28	2
Emory University	37	12	25
Vanderbilt University	37	14	17
Georgetown University	30	20	13
Georgia State University	24	6	85
University of Texas	18	10	16
Fordham University	15	6	30
Mercer University	14	6	99
University of Houston	14	9	—
Duke University	13	3	12
New York University	11	6	12

*This column displays each school's mean *U.S. News and World Report* (USNWR) Ranking from 2000-2010, rounded to the nearest whole number. An '—' indicates the law school was unranked by USNWR.

Table 4: Summary statistics and correlations of variables in within-firm, same-practice analyses.

	Mean	St. Dev.	(1)	(2)	(3)	(4)	(5)	(6)
(1) Lawyers work in same practice area (0/1)	0.46	0.50	-					
(2) Lawyers graduated from same law school (0/1)	0.05	0.21	0.01	-				
(3) Lawyers work in same office (0/1)	0.28	0.45	0.01	0.12	-			
(4) Both lawyers are partners (0/1)	0.20	0.40	0.04	0.00	-0.01	-		
(5) Both lawyers are associates (0/1)	0.15	0.36	-0.01	-0.01	0.02	-0.22	-	
(6) Autocorrelation control	0.46	0.21	0.65	0.01	0.00	0.03	-0.01	-

n= 18,727,886 dyads

Table 5: Summary statistics and correlations of variables in within-firm-office, same-practice analyses.

	Mean	St. Dev.	(1)	(2)	(3)	(4)	(5)
(1) Lawyers work in same practice area (0/1)	0.47	0.50	-				
(2) Lawyers graduated from same law school (0/1)	0.09	0.28	0.01	-			
(3) Both lawyers are partners (0/1)	0.20	0.40	0.03	0.01	-		
(4) Both lawyers are associates (0/1)	0.17	0.37	-0.01	-0.01	-0.22	-	
(5) Autocorrelation control	0.47	0.22	0.64	0.02	0.02	0.00	-

n= 5,224,581 dyads

Table 6. Dyadic analyses of within-firm assignment to same practice area.

	(1)	(2)	(3)	(4)
Graduated from same law school (0/1)	0.125 ** (0.002)	0.112 ** (0.002)	0.032 ** (0.003)	0.075 ** (0.003)
Work in same office (0/1)		0.048 ** (0.001)	0.037 ** (0.001)	0.112 ** (0.002)
Both are partners (0/1)		0.180 ** (0.001)	0.123 ** (0.002)	0.104 ** (0.002)
Both are associates (0/1)		-0.012 ** (0.001)	-0.037 ** (0.002)	0.043 ** (0.002)
Autocorrelation control			9.99 ** (0.005)	11.5 ** (0.007)
Mean law school-practice affiliation (<i>ij</i>)				
Constant	-0.172 ** (0.000)	-0.220 ** (0.001)	-4.88 ** (0.003)	-4.51 ** (0.006)
Firm fixed effects	No	No	No	Yes
Top 29 law school fixed effects	No	No	No	No
Sample	Same Firm	Same Firm	Same Firm	Same Firm
Lawyers in dyads	All	All	All	All
N (dyads)	18,727,886	18,727,886	18,727,886	18,708,808
Log pseudolikelihood	-12,914,976	-12,901,432	-7,996,228	-7,732,452
Wald Chi-square (d.f.)	3,223 (1)	30,313 (4)	3,713,335 (5)	3,509,710 (238)

Robust standard errors in parentheses.

** $p < 0.01$; * $p < 0.05$; † $p < 0.10$; two-tailed tests.

Table 7. Dyadic analyses of within-firm and within-firm office assignment to same practice area.

	(5)	(6)	(7)	(8)	(9)
Graduated from same law school (0/1)	0.074 ** (0.003)	0.115 ** (0.003)	0.099 ** (0.007)	0.052 ** (0.005)	0.035 ** (0.010)
Work in same office (0/1)	0.112 ** (0.002)	0.110 ** (0.002)	0.096 ** (0.003)		
Both are partners (0/1)	0.103 ** (0.002)	0.102 ** (0.002)		0.106 ** (0.003)	
Both are associates (0/1)	0.043 ** (0.002)	0.044 ** (0.002)		0.029 ** (0.003)	
Autocorrelation control	11.5 ** (0.007)	11.5 ** (0.007)	12.1 ** (0.013)	10.7 ** (0.012)	11.3 ** (0.024)
Mean law school-practice affiliation (<i>ij</i>)	0.361 ** (0.067)	-4.86 ** (0.225)	-5.50 ** (0.435)	0.923 * (0.382)	0.766 ** (0.749)
Constant	-4.52 ** (0.006)	-4.50 ** (0.006)	-5.72 (0.010)	-4.44 ** (0.018)	-5.55 ** (0.026)
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Top 29 law school fixed effects	No	Yes	Yes	Yes	Yes
Sample	Same Firm	Same Firm	Same Firm	Same Office	Same Office
Lawyers in dyads	All	All	Partner-Associate	All	Partner-Associate
N (dyads)	18,708,808	18,708,808	5,480,168	5,212,421	1,457,175
Log pseudolikelihood	-7,732,439	-7,731,585	-2,211,485	-2,217,961	-608,194
Wald Chi-square (d.f.)	3,510,599 (239)	3,511,513 (268)	965,807 (228)	1,011,398 (267)	271,924 (226)

Robust standard errors in parentheses.

** $p < 0.01$; * $p < 0.05$; † $p < 0.10$; two-tailed tests.

Table 8: Summary statistics and correlations of variables in single-firm, work tie analysis.

	Mean	St. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Work tie (0/1)	0.02	0.14	-							
(2) Lawyers graduated from the same law school (0/1)	0.04	0.19	0.03	-						
(3) Lawyers work in the same practice area (0/1)	0.25	0.43	0.07	0.00	-					
(4) Lawyers are the same gender (0/1)	0.46	0.50	0.01	0.00	0.01	-				
(5) Lawyers are the same race (0/1)	0.80	0.40	0.01	0.03	0.00	0.05	-			
(6) Lawyers work in the same office (0/1)	0.26	0.44	0.17	0.09	-0.02	0.01	0.02	-		
(7) Educational prestige differential	41.8	43.3	-0.02	-0.19	-0.03	0.03	-0.14	-0.13	-	
(8) Autocorrelation control	0.02	0.01	0.07	0.04	0.05	0.03	0.10	0.08	-0.07	-

n= 31,350 dyads

Table 9. Rare events logit models of associate-partner work ties.

	(1)	(2)	(3a)	(3b)	(4)	(5)	(6)
Lawyers work in same practice area (0/1)	1.15 ** (0.086)	1.16 ** (0.086)	1.11 ** (0.086)	1.090 ** (0.092)	1.12 ** (0.086)		1.19 ** (0.098)
Lawyers are the same gender (0/1)	0.124 (0.085)	0.119 (0.085)	0.062 (0.086)	0.091 (0.071)			
Female Partner - Female Associate					0.048 (0.144)	-0.418 † (0.246)	-0.174 (0.170)
Female Partner - Male Associate					-0.376 * (0.173)	-0.342 (0.240)	-0.507 ** (0.197)
Male Partner - Female Associate					0.020 (0.097)	-0.007 (0.143)	-0.093 (0.109)
Lawyers are the same race (0/1)	0.185 (0.117)	0.185 (0.117)	0.084 (0.118)	0.122 (0.126)	0.104 (0.118)	0.277 (0.197)	0.198 (0.139)
Lawyers work in the same office (0/1)	2.48 ** (0.106)	2.48 ** (0.106)	2.41 ** (0.107)	2.360 ** (0.111)	2.41 ** (0.107)	2.55 ** (0.157)	
Educational prestige differential (law school)	0.001 (0.001)	0.002 (0.001)	0.002 † (0.001)		0.002 † (0.001)	0.002 (0.002)	0.004 ** (0.001)
Educational prestige differential (undergraduate)				0.000 (0.002)			
Lawyers from same law school (0/1)		0.524 ** (0.167)	0.500 ** (0.166)	0.469 ** (0.161)	0.503 ** (0.165)	0.842 ** (0.238)	0.606 ** (0.180)
Autocorrelation control			50.4 ** (4.91)	49.2 ** (5.13)	51.9 ** (5.14)	56.4 ** (7.99)	43.8 ** (5.66)
Constant	-5.92 ** (0.172)	-5.98 ** (0.176)	-6.86 ** (0.188)	-6.71 ** (0.189)	-6.86 ** (0.200)	-6.06 ** (0.303)	-4.38 * (0.210)
Sample n (dyads)	<i>All lawyers</i> 31,350	<i>All lawyers</i> 31,350	<i>All lawyers</i> 31,350	<i>All lawyers</i> 26,555	<i>All lawyers</i> 31,350	<i>Same practice</i> 7,734	<i>Same office</i> 8,137
Log pseudolikelihood	-2,445	-2,441	-2,401	-2,113	-2,398	-9,623	-1,660

Standard errors in parentheses.

** $p < 0.01$; * $p < 0.05$; † $p < 0.10$; two-tailed tests.

Figure 1. Mean Employee Law School Rank and Profits (000s) per Equity Partner (PPEP)
By Firm's Vault 100 Prestige Score in 2008

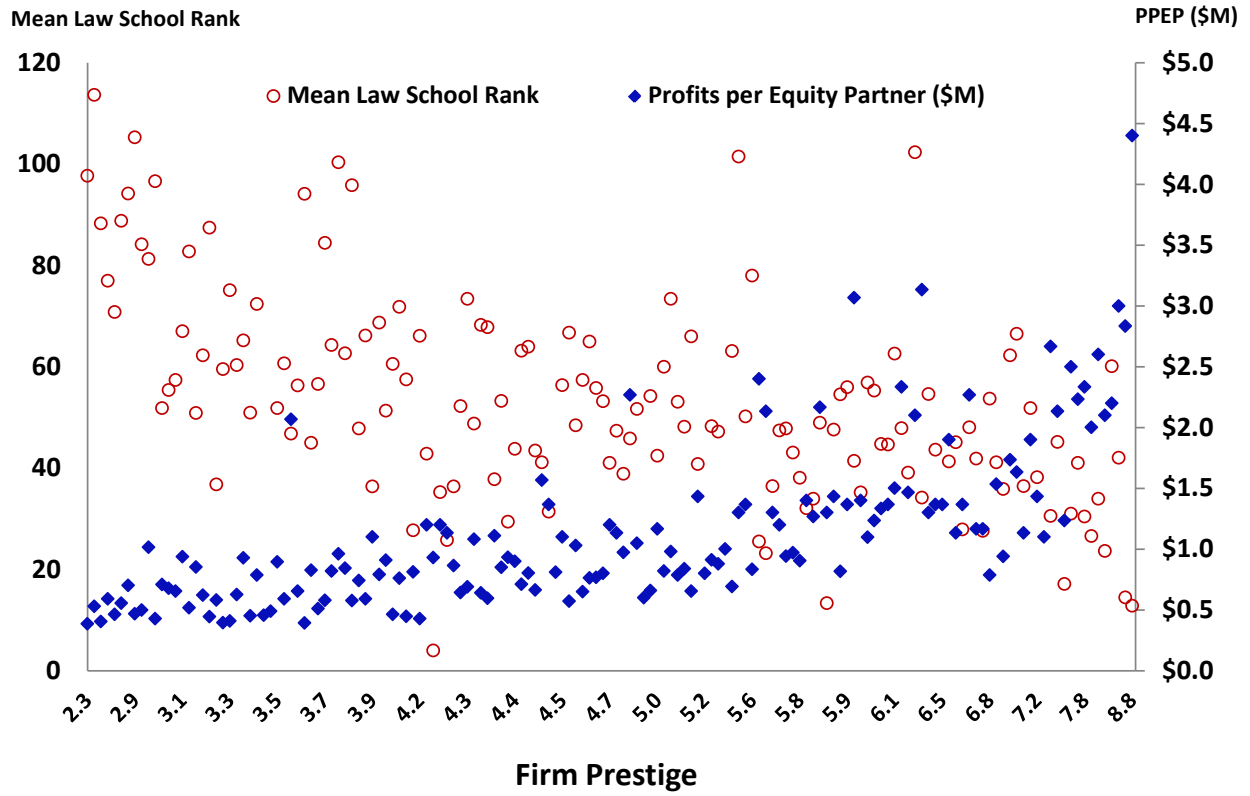
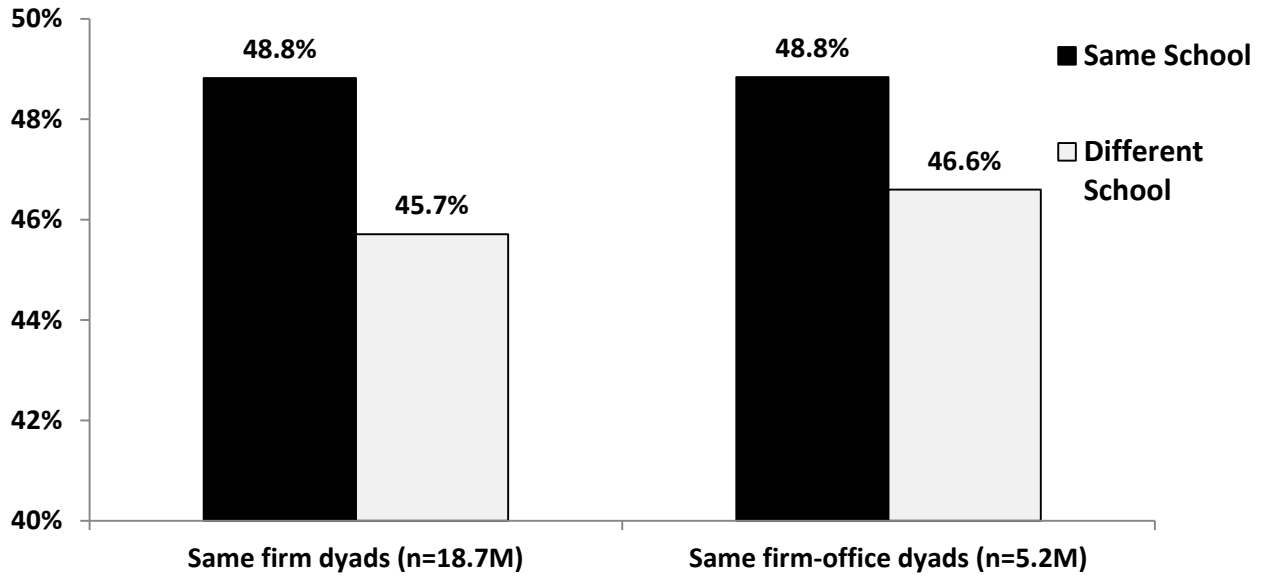
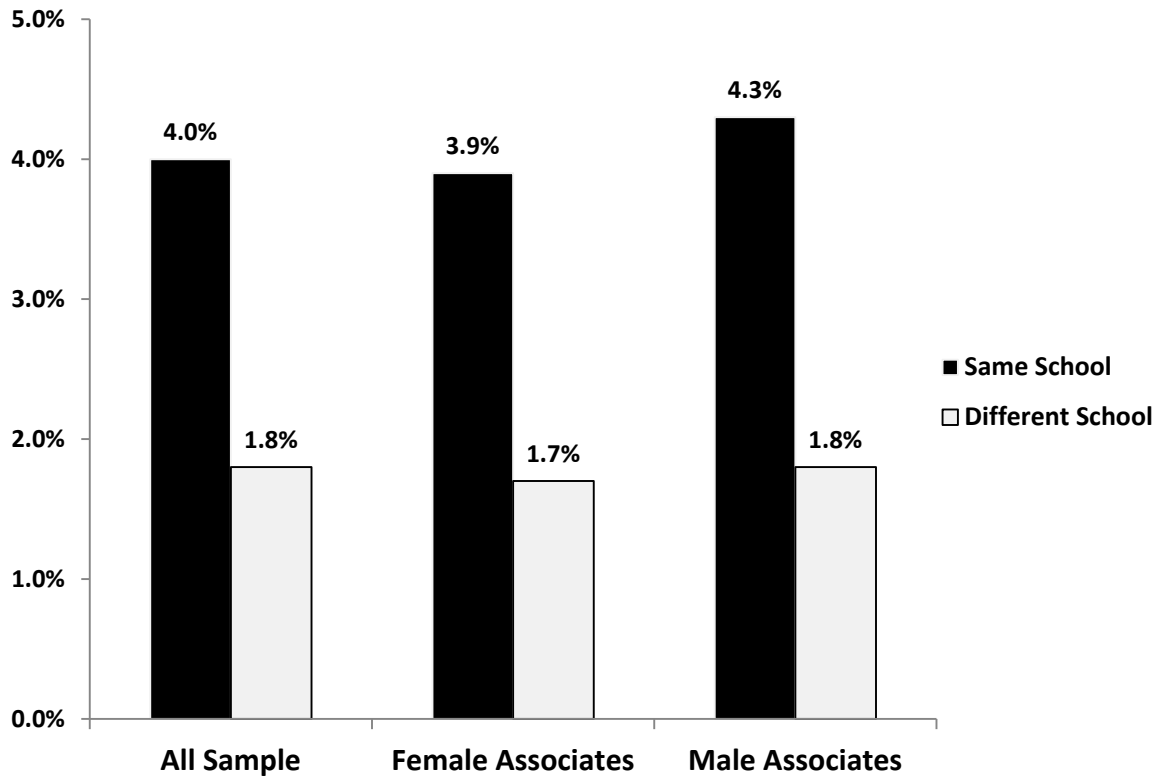


Figure 2. Proportion of Co-Worker Dyads Assigned to the Same Practice Area



Differences in both same firm and same firm-office mean proportions are significantly different ($p < 0.01$, two-tailed)

Figure 3. Proportion of Positive Work Ties across Partner-Associate Dyads



Differences in mean proportions are significantly different ($p < 0.05$, two-tailed)