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Ryon Lancaster [a] & Brian Uzzi [b]
[a] University of Chicago
[b] Northwestern University

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Legally Charged: Embeddedness and Profit in Large Law Firm Legal Billings

Ryon Lancaster
University of Chicago

Brian Uzzi
Northwestern University

We examine how forms of a firm's embedding in market relationships affect the size of its spreads – i.e., the difference between the selling price and production costs of its goods and services. Building on Harrison White's work on the relational underpinning of market behavior, we argue that the embeddedness of market transactions in social structures furnishes actors with private information and informal governance benefits that shape spreads by adding unique value to transactions and by revealing the price sensitivity of clients. We propose arguments about how a firm's embedded client relationships, interlock ties, and status influence the size of its spreads. Using longitudinal data on the economic and sociological characteristics of law firms that represent the Fortune 200 corporations and top 250 financial firms in America, we find that social structure has significant effects on spreads and that the effects change in scale and direction, depending on the form of embeddedness.

White's market schedule model of profitability (2002) argues that firms first calculate their selling prices at a minimum value that covers their production costs and then raise prices to meet competitors' prices—what businesspeople call "pricing to market." Production costs, or the expenses incurred in fabricating a good, reflect the floor price that a producer must recapture—or face financial deficits. The "plus" part of the "cost-plus" equation denotes the "spread" or premium payments over production costs that a producer receives for its product. White's insight is that producers do not use production costs to determine spreads, as is assumed in some economic theories (Blinder et al. 1998; Nagle 1987); rather, they work in the opposite direction, looking to each other and buyers to determine the price sensitivity of buyers and then choosing markets to serve and quantities to produce that permit the largest spreads over their production costs.

The idea that producers look to other producers and buyers to determine price sensitivity suggests that relations between and among producers and buyers are critical to understanding how social structure affects the prevalent practice of cost-plus pricing or simply the *size of spreads*.

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Correspondence should be addressed to Brian Uzzi, Kellogg Graduate School of Management, Northwestern University, 2001 Sheridan Road, Evanston, IL 60208, USA. E-mail: Uzzi@northwestern.edu

Yet, few studies have examined how relations affect a producer's understanding of the price sensitivity of its customers; rather, most studies have looked at how relations affect prices, providing clues only about how social structure may influence spreads. Baker (1984) found that network ties among commodity traders affect price volatility. Zuckerman (1999) showed an analyst's categorization of a firm's products alters the firm's stock price. Podolny (1993) demonstrated that the prestigious status of an investment bank affects the price of its fees. Uzzi (1999) found that social attachments and networks between corporate borrowers and bankers determine loan prices. Yakubovich, Granovetter, and McGuire (2005) showed that networks among key industrialists shaped the electric utility industry's pricing system. Uzzi and Lancaster (2004) developed a model of how the embeddedness of law firms in relationships with their clients and their clients' competitors influences the prices law firms charge for their services and how these effects vary with the level of uncertainty in the transactions.

Drawing on a model and market and organizational data developed by Uzzi and Lancaster (2004) for studying the relationship between embeddedness and price formation, we extend this prior work on embeddedness and pricing to examine how three elements of social structure—interlocks, embedded ties, and status affiliations—affect law firm spreads, a measure of profit based on the difference between an associate's hourly billing rate and hourly wage rate. Diverging from work that holds that price sensitivity can be understood by attention to public information and formal governance arrangements alone, we posit a world in which information is irregularly distributed and measurable across all individuals, and informal relationships govern normative behavior and create expectations of trust (Geertz 1978)—shifting the diagnostic problem of how private information and informal governance mechanisms are embedded in social structure. In turn, we argue that relations reveal and modify the price sensitivity of buyers to the size of spreads by facilitating the transfer of private information and creating informal governance arrangements. Our context is the large law firm legal services market from 1989 to 1995. Just prior to this period, law firms experienced a dramatic change in size that led to the emergence of the "mega" firm. The average mega firm employs hundreds (as opposed to dozens) of lawyers and possesses wide business expertise. The hallmark of these firms is their expert provision of complex legal services to large, diversified corporations. As a class, they attend to a similar client base, recruit from similar schools, and are located in major cities. From the perspective of testing arguments about spreads and relationships, this field presents several advantages. It enables us to longitudinally examine a range of relational factors—interlocks, embedded ties, and status affiliation—as well as provides a clear basis for estimating the profit. In addition, the large legal services market is significant in its own right. Legal charges now compose a striking 1.3 percent of the U.S. GDP. From 1967 to 1997, corporate legal expenditures rose by 309 percent and law firms' gross receipts rose 239 percent, from 25 billion to 85 billion in 1987 dollars, which equates to a 480 percent rise in revenues. During this period, employment for lawyers grew at a rate of 141 percent, swamping the 46 percent growth rate of other white-collar professions (including consulting) and the 34 percent growth rate for the overall U.S. workforce (Galanter 1999; Heinz et al. 1998).[1]

[1]Figures underestimate total spending by excluding the large numbers of in-house counsels working in business and government.

Social Structure and the Size of the Spread

Embeddedness theory argues that economic actors are embedded to varying degrees in social relations that mediate the causes and consequences of their economic actions in ways that market theories of price formation tend to ignore (Arrow 1998; Granovetter 1985). Two key forms of embeddedness in commercial markets are social networks and status. Social networks are direct ties among actors that arise in exchanges involving mutual dependency and that promote resource transfers and informal governance arrangements of trust (Uzzi 1997). Status is viewed as a position in a commercial market, which arises to organize diverse individual actors into segmented categories (i.e., roles) that possess established, normative expectations. The normative expectations attached to a status provide information and governance benefits in exchanges by denoting the behavior that an actor is likely to enact when transacting with other actors, independent of that actor's individual preferences. Below, we expand on these arguments to explain how properties of social networks and status may influence spreads.

We argue that the mechanisms by which embeddedness influences spreads arise out of the distinction between private and public information and how social structure facilitates the transfer of private information among actors. Public information is data that is standardized, prepared, and widely accessible in the public domain. It can take the form of financial statements, government filings, brochures, advertisements, and Web pages, and is available through directories such as Dun and Bradstreet, the Internet, libraries, and other government records in the public domain. Third parties monitor the validity of information in the public domain, thereby ensuring the soundness of public information. In addition, competitive market pressures inevitably expose gaps between an actor's underlying qualities and the image presented in public advertisements (Spence 1974). While public information is indispensable for setting prices and spreads, its unrestricted and standardized nature provides no means by which to differentiate producers that present public data of comparable quality. Over and above the reported information, no buyer gains a competitive edge in distinguishing among asking prices. Similarly, with access only to public information, sellers cannot communicate to buyers vital but non-standard information concerning distinctive capabilities that do not fit the predefined categories of public information (Zuckerman 1999).

In contrast, private information gives buyers and sellers knowledge about each other's distinctive capabilities, even though it lacks a prepared, standard, and public presentation such as a profit and loss statement. Private information includes data on an actor's idiosyncratic capabilities, intangible assets, client loyalties, disruptive board politics, dispute resolution strategies, or a person's word. The lack of a standardized format and third-party verification means that private information is typically undocumented, subjective, unprepared, and interpretive. Its validity, therefore, resides in the level of trust in the exchange relationship or in the social position of the provider, not in written documents or third party credentialing (Uzzi 1999).

An analogy to "between" and "within" case designs illustrates our sociological intuition behind the psychology and shows how public and private information influences prediction. In the between-case design, comparing that characteristic across separate cases reveals how a characteristic influences an outcome of interest; variance in the magnitude of that characteristic is correlated with the variance in the outcome of interest. Data are gathered through a wide search across many cases that are uniformly measured. Irregular measurement increases the ratio of noise to knowledge gained. In our model, public information provides data useful to between-case

inferences. Information from third-party analysts, blue book guides, quality reports, employment size, or sales data can be collected for a wide number of market participants and measured with a uniform scale to enable between-case comparisons.

In contrast, within-case designs look at how change in, or the presence, or absence of some distinctive element of a single case conditions outcomes of interest. Here, data gathering requires the discovery of information that is particular to a case. This information is distinctive on a case-by-case basis, because it may be a subjective feature of one case but not another, motivational in one context but not another, or too expensive or irregular in nature to collect on many cases. In our model, private information is useful to a within-case design because it tends to be undocumented, idiosyncratic to a case, and interpreted contingent upon a context. Thus, canvassing a large number of cases on standard characteristics or categories does not furnish access to this information. Rather, actors gain it by asking nuanced questions of one case. One searches deeply within a relationship rather than widely across relationships.

Powerful designs use both within and between designs to capture patterns of association among variables that each individual method otherwise overlooks. In our argument, spreads are a function of both processes. Our actors use public information and between case processes to compare the value of goods and services – to discover benchmarks, to test the waters, and to locate niches. They use private information and within-case processes to discover the distinctive value of goods and certain producers and to complete exchanges.[2] Thus, if we are correct in hypothesizing that private information and informal governance arrangements affect price formation, social structure should affect spreads to the degree that it shapes the flow of private information and influences implicit governance.

"Interlocking directorates, as the most widely employed measure of interfirm networks, provide a logical site from which to test the embeddedness model" (Mizruchi 1996:282). Board seats represent a general class of ties between and among firms that provide access to propriety information about a firm's market and decision-making processes (Mizruchi 1996). In corporate America, lawyers can sit on the board of directors of client and non-client firms, often choosing non-client firms to avoid fiduciary conflicts of interest.

Following our general arguments, we expect that the effect of boards on the size of spreads lies in securing private information about competitor's offerings and fees, as well as the criteria that clients use to confidentially judge law firm services. This knowledge can help law firms differentiate their products vis-à-vis their competitors, as well as add unique and possibly higher value services to clients. While sitting on a board, an attorney can review the pricing strategies of their competitors who bid on the corporation's work and whose proposals are reviewed by the board members. This access to information provides the attorney on the board with knowledge about the prices and competencies of rival law firms that are not revealed publicly, enabling them to choose price-cost plus strategies that are most advantageous for their firm. On one level, this enables law firms to price to market (Nagle 1987; White 2002)—they can observe the propriety

[2]This intensive data collection and processing does not presume that our decision-makers are hyper-rational. Rather, we account for relatively reasonable actors who, in making a decision, search out information, categorize it, and use it to make inferences consistent with Simon's behavioral decision theory (Tversky and Kahneman 1974). While it is rare for decision makers to calculate regression-like models, they aspire to this ideal by collecting information that would make such calculations possible. They attend to both private and public information, while remaining aware that their inferences contain error.

pricing of rivals, calculate how much below market they may be in pricing and managing the costs of certain practices, and then price their products as high as the market bears, while still maintaining competitive prices vis-à-vis their competitors. In addition, by sitting on the board, an attorney gains an understanding of how clients review and value the proposals of law firms, learning how best to frame and present proposals for work. This enables them to "package" their proposals in a way that prioritizes the client's needs. Finally, if they find that they are above market, they can evaluate the terms of their competitors to discover in what ways they can best reduce costs, focus on their firm's competitive products, or offer low cost but high return features to the transaction in order to maintain their prices. Thus, if we are correct in speculating that board seats give access to private information and governance arrangements that enable a firm to selectively price products, then the more seats a firm sits on, the higher its prices should be. This suggests the following hypothesis:

H1: Board seats are positively related to the firm's spread.

Whereas interlocks affect the flow of asymmetric information, embedded ties affect the flow of symmetric information. Embedded ties should affect spreads differently from interlock ties because actors are motivated to exchange information to their mutual benefit. In the law profession, symmetric information flows between a client and a law firm that can affect spreads in many pricing situations. Principle among them is the pervasive manner in which a lack of private information impairs a law firm's ability to anticipate costs that arise ex post during the rendering of legal services. "This is precisely the dilemma confronting the owner of an older house who wants to undertake a major remodeling job, where there are inevitable uncertainties (i.e., what will the contractor discover when the old wall is knocked out?). . . The contractor will include in the fixed price a contingency factor to cover his or her risk. The same reasoning applies to the purchase of legal services, as does the same dilemma" Kritzer (1994: fn 21). Under such circumstances, law firms risk losing money unless they shift the costs to their clients in the form of larger spreads. Moreover, because all firms with access to only public information face the same information problem, there is a lack of incentives for clients to search for lower priced law firms, as well as for any one law firm to lower their spread *except* if they have access to private information that permits a better forecast of the actual costs of the legal work.

Prior research has shown that embedded ties can reduce the information asymmetries that artificially raise spreads. Eccles and Crane (1988) and Baker (2001) reported that banks and client firms that form long-term relationships were more likely to transfer private information, which resulted in the creation of more innovative financial products. For example, Ingram and Roberts (2000) found that friendship network ties enabled hotel managers at different hotels to share private booking and client information to coordinate their hotel room rates with occupancy rates. In a detailed ethnographic study of the formation and function of relationships between bank relationship managers and corporate clients, Uzzi (1999) showed that embedded ties promoted expectations of trust and reciprocity, which increased the transfer of private information and lowered the spread on loans. Conversely, keeping one another at arm's length resulted in the bank and the firm exchanging only public information and in the bank's offering loans at a higher spread. Within the law context, Uzzi and Lancaster (2003) presented case-based material that showed that ongoing ties among law firms and their clients led to increased levels of client–law firm trust and lower levels of uncertainty about the costs of doing business with a client, both of which led

to lower prices. Conversely, clients received better and more credible information from the law firm about the quality of the offering. A generalization that follows from this reasoning is that an embedded relationship should reduce spreads, because clients access novel information on the quality of the offering and law firms gain knowledge concerning the future costs of transacting. In this sense, whereas interlocks affect the *asymmetric* flow of private information that can be used to better differentiate a law firm's product, thereby enabling wider spreads, embedded ties affect the *symmetric* flow of information, which promotes a reduction in transaction costs and motives to mutual share cost savings. Thus, if we are correct about the effects of embedded ties on spreads, we should expect:

H2: Embedded ties are negatively related to the firm's spread.

Our status arguments distinguish between status as a signal of the functional quality of a good and status as a source of information and governance benefits that are independent of the good's functionality by building on the work of Benjamin and Podolny, who conclude: "In our view, there is no underlying incompatibility between these two understandings of status. Status may serve both as a signal of quality and as a tool of conspicuous consumption. If an individual's social standing is enhanced by drinking wine from a high-status winery [for example], then the individual should be willing to pay a higher price for the wine" (1999:586).

Most prior research, however, has focused on the role of status as a proxy measure of a firm's true, but unobservable quality (Benjamin and Podolny 1999; Podolny 1993; Podolny and Philips 1996; Stuart 1998; Stuart, Hoang, and Hybels 1999). A key assumption behind the status-as-signal argument is that consumers use status as a proxy for the underlying quality of the firm or its products because high levels of uncertainty make actual quality too costly to observe. For example, consumers may use the status of an investment bank as an indicator of the investment bank's quality, because they lack the knowledge or ability needed to evaluate the investment bank's true quality. Accordingly, consumers purportedly pay for status, *not* because they think status contains unique value, but because it reflects the producer's quality.

In contrast to prior research, the law market is not between lawyers and uninformed consumers but between professional lawyers who have both the knowledge and ability to evaluate the quality of the legal services they purchase. Our corporate buyers are expert at evaluating quality because they possess large in-house legal departments that are staffed with first-rate JDs that evaluate, select, and price outside legal services. They have this authority because they have the expertise needed to evaluate the *quality of law firms and the difficulty of the legal work; they are also instructed to do so by the corporation (*Kritzer 1994:fn 5). Robert S. Banks, general counsel for Xerox Corporation, exemplifies the role of inside counsels in evaluating the quality of outside law firms. He states "The theory is that we've paid for legal services at the going rate in terms of what they're worth. . .amount of work done, the type of work, by whom, and at what rates." In the law market, institutional structures also support the flow of public information. The disclosure of the content of legal services is mandated by the ABA in Formal Ethic Opinion 93–379, which removes much of the uncertainty of attorney-layman markets. Prior to the Opinion, billing factors were vague on issues of time, labor involved, complexity of issue, fees, etc. "[Thus] much of the legal services used by corporations entails *relatively little uncertainty*, at least when considered over a portfolio of similar cases" (Kritzer 1994:189).

Thus, while the status-as-signal argument is insightful, it leaves cases where status and quality can be separately evaluated unexplained. Salient cases of this type include low-quality producers that acquire and hold high-status positions in competitive markets. Harley Davidson motorcycles boast an elite status and sell at premium prices, despite their mediocre quality. Swiss watches are functionally inferior to Seiko watches but are of higher status. Critics rate California wine above French wine in quality, yet California wine remains lower in status than French wines (Benjamin and Podolny 1999). Similarly, familiar terms such as "silk stocking firm," "Wall Street firm," or "boutique firm" signify the degree to which lawyers and clients attend to status independent of quality (Hitt et al. 2001; Sandefur 2001; Sherer and Lee 2002).

Our argument attempts to complement the status-as-signal argument by focusing on the class of problems where status can be separated from quality. In these cases, we argue that status has value independent of the functional quality of the product; consumers make purchasing decisions based on both the functionality of a good *and* its ability to make evident their success and willingness to conform to conduct appropriate with a status (Blau 1964; Veblen 1899; Weber 1921). We posit that status furnishes valued private information and informal governance benefits that derive from the shared yet undocumented and unspecified expectations that individuals associate with different roles in a status order and the degree to which occupants are likely to conform to these role expectations. Podolny (1993) showed that consumers presume that high-status firms are more likely to conform to normative expectations of due process than lower-status firms, permitting high-status firms to economize on their costs of providing assurances to clients. By lowering their costs of providing assurances, high-status firms can increase their spreads at every price point relative to lower-status firms who charge the same amount but who must incur higher costs.

Another mechanism by which status affects behavior is through conspicuous consumption (Veblen 1899). The conspicuous consumption of prestige "legitimates authority in situations in which the role or activity that accords prestige is deemed relevant by interactants (Sandefur 2001:384). Heinz and Laumann (1982) showed that the law profession is sensitive to status and that lawyers gain authority by working for high-status clients. "The lawyers who served corporations served 'the core economic values of our society. . ..[T]he more a field of law serves these values, the higher its prestige will be within the profession (Heinz and Laumann 1982:130). In general, lawyers more highly esteemed work for "establishment clients" (Heinz and Laumann 1982:128; cited in Sandefur 2001:385). Consistent with these arguments, Uzzi and Lancaster (2003) found that in-house counsels paid higher prices to high-prestige law firms, because the status of the law firm promoted their credibility and standing within the firm, making their authority less reproachable should the legal transaction go badly.

These shared but undocumented decision protocols are the informal governance arrangements that status brings to the exchange. By following these protocols, corporate actors gain implicit ex ante assurances about how ex post transactional problems will be resolved and legitimate their authority in the corporation. In the first case, spreads are increased because transaction costs are reduced; in the second case, spreads are increased because law firms can charge a premium for the status they provide in-house counsels. These arguments suggest:

H3: Law firm status is positively related to the spread.

DATA AND METHODS

To surmount the data obstacles involved in acquiring proprietary price data as well as data on privately owned partnerships, we developed an original dataset from several independent sources. First, law firm pricing data came from the annual survey of the "Top 250 Largest US Law Firms," administered by the *National Law Journal* (*NLJ*), a core law periodical. The *NLJ* samples the population of the 500 largest U.S. firms as measured by number of lawyers and publishes findings on 250 of the 500 law firms sampled. This sampling frame creates a "pooled-repeated survey" (Firebaugh 1997); different law firms are sampled at different time periods on the same items, with a subset of firms being sampled across multiple years. A key decision maker at each law firm reports the number of partners, associates, offices, practice areas, branch locations, and pricing data for the prior year using a standardized *NLJ* questionnaire. Using industry experts and research, we found no reporting biases in the *NLJ* data based on the size, age, practice areas, year, or location of firms. Our database uses the 1987 to 1995 surveys, excluding 1992, when no survey was conducted.

Second, our sources on law firm–client ties came from the "Who represents corporate America" and "Who represents financial America," surveys which are also administered annually by the *NLJ* and sent to the 250 largest U.S. corporations and the 200 largest U.S. banks. Corporations and banks list the names of up to ten law firms employed by them during the prior calendar year. Corporations and banks also report the names and affiliations of lawyers on their boards of directors, the size of in-house legal staff, and their chief legal counsel's name.

Third, the popular *Best Lawyers in America* directory, an independent publication that rates the quality of U.S. lawyers, was used to measure law firm quality. The *Best Lawyers in America* survey polls a random draw of lawyers in different practice areas and cities to identify which lawyers outside of their own firm they "would use if they needed legal counsel in [their] specialty area." The authors of the directory carefully triangulate the responses of respondents to determine the firms with the best lawyers. To avoid referral networks, the authors check respondents' backgrounds and pattern of responses; for example, if two lawyers cross-cite each other but receive no citation from other independent lawyers, it is assumed that these two lawyers do not meet the standard of quality and are excluded.[3] Finally, we used the *Martindale-Hubbell Directory* to collect law degree data on lawyers.

Variables

Dependent variable. Law firms charge on an hourly basis, perhaps, for example, $350 an hour, and each client project includes a separate hourly charge for partners' time and associates' time. In general, partners' charges are applied to complex legal work. Associates charges are applied to routine legal work. Routine work is done primarily by associates who have less experience in different facets of the law. Firms also have high and low billing rates within the categories of partners and associates, which reflect differences in the market value of different

[3]This methodology produces a directory of best-informed expert evaluations of other experts, which is distinguished from other rankings such as *Who's Who in America* and *The Social Register*, which conflate quality and reputation because they base inclusion on non-performance related factors such as birth position, political activities, peripheral involvement in cases, etc.

legal specialties and geographic locations. For example, banking law prices are generally higher per hour than labor law prices for both partners and associates. In our data, firms reported the high-end and low-end partner and associate billing rates.

We measured a firm's spread by calculating the difference between a proxy of the firm's hourly production costs and the firm's average hourly billing rate. Our proxy of the firm's cost of goods sold focuses on measuring the key aspect of a law firm's production costs, the costs of associates' salaries. Because law firms are not capital- or technology-intensive and their product is a service, labor costs cover the most significant portion of production costs (Nelson 1988). To calculate our denominator, we take the average starting salary of a new associate and divide it by the average number of billing hours per year to get an hourly cost of goods sold for each firm. We estimate the number of hours worked each year by associates using the industry average number of hours worked by associates at mega firms, which is 2000 hours. Although the exact number of hours billed by associates at each firm is not available, the use of an estimated 2000 hour year for associates across firms introduces a tolerable level of error, because firms tend to vary slightly in how many hours a year their associates work. To calculate our numerator, we average the high and low billing rate for associates. We exclude the billing rates for partners because there is no way to determine a standard spread for partners; partners receive equity from retained earnings, not a set salary; a partner's costs invariably reflect the costs of the associates they employ. Consequently, using associates' billing rates and wage rates provides a reasonable estimate for a firm's spread. While taking the average of the associate high and low billing rates less the salary per hour is a realistic proxy of the firm level spread (billing data on every lawyer in every firm does not exist), a threat to the validity of this operationalization is that two data points, the high and low price, may inaccurately reflect the average firm level spread. For example, if a firm does little work in the high-priced area of banking and a lot of work in the lower-priced area of tax law, and a second firm does the inverse distribution of work at the same prices, the second firm's true average firm level price would be higher than the first, but in our data the two firms would have the same firm-level values. Thus, to control for this possible bias we included variables that correlate with how work is distributed among practice areas within the firm. These controls include practice area, region, firm size (larger firms have more variance in prices), and age (new firms often specialize in practice specific practice areas).

Independent variables. We measure embedded client-firm ties as the proportion of a law firm's current clients that used the firm within the previous two years. Based on our earlier work (Uzzi and Lancaster 2003), which showed that an embedded tie is likely to form between a corporate client and a law firm if the two organizations work with each other for at least two years, we coded a tie between the law firm and client as embedded (1 = Yes), if it appeared at two separate time periods in our study using a two-year moving window. We lagged the first year of the sample back by two years to obtain consistency in all years of our study. Because we model firm-, not dyad-, level pricing, we divided the number of embedded ties of a law firm by all the ties of a law firm per year, to approximate the aggregate level of embedded ties at the firm level, a measure consistent with prior research (Gulati and Gargiulo 1999; Uzzi 1999). We measured the number of interlock ties possessed by a law firm using a count of the *number of board of director ties* the law firm has with corporations and banks in the sample. Our approach for measuring a firm's status is based on prior work that has showed that a firm's status can be derived from the status of its affiliations (Podolny 1999). Operationally, we measured a law firm's status based on

the status of its network of clientele, an operationalization that conceptually links the firm's status to the consumption patterns of its clientele (Heinz and Laumann 1982). For example, Sandefur (2001:385) concludes that status varies directly with client affiliations because "lawyers value service to wealth and power." Following Wasserman and Faust's (1994:381–385) methodology, we used a single-link hierarchical cluster algorithm to assign law firms with ties to similar client corporations and banks into discrete clusters, grouping isolates into a single cluster. We then ordered and coded the status clusters from low to high, based on the average profits of the client organizations in the cluster (one is the lowest status cluster). Using this method, the number of clusters was similar from year to year. These clustering solutions were chosen for each year because they best explained the variance in the data and were consistent with the field data. Because profitability of clients might also vary with client firm size or purchasing power, we added controls for the size and number of each law firm's clients (see control variables below). Because our study utilizes a pooled-repeated survey design, we allowed for a different number of clusters each year to reflect the annually changing patterns in our data. Nevertheless, given that client-firm ties change slowly and that status orders have a finite number of tiers, the number of clusters was similar from year to year: One year had six clusters, one year had eight clusters, two years had nine clusters, and two years had 10 clusters.

Control variables. To control for the law firm's quality, we constructed two measures that capture the multidimensionality of quality. Building on Lazega (2001:166–169), a law firm's ability to produce high-quality legal services is a function of *both* the rigor of the academic legal training of their lawyers and the applied practice experience of their lawyers. To capture quality differences in the academic legal training of lawyers, we used the standard measure of academic legal training—the percentage of partners with a JD from one of the eight most selective law schools (Columbia, Duke, Harvard, Stanford, Berkeley, Chicago, Michigan, and Yale). The justification for this measure is that a degree from a top law school is a proxy for surviving a competitive winnowing process based on undergraduate grades, test scores, and the rigorousness of law school training (Heinz and Laumann 1982; Hitt et al. 2001). We called this variable the *firm's human capital quality.* In constructing this measure, data on associates and partners would have been ideal, but many firms do not publicize data on their associates' degrees. Nevertheless, because firms with partners with degrees from elite schools tend to hire associates with similar degrees, the percentage of partners with elite degrees is a good proxy for the firm's human capital. To check this, we compared the percentages for firms with both partner and associate data and found a.92 correlation between the percentage of partners and percentage of associates with degrees from the top schools.

To capture partners' exceptional experience in practicing the law, we constructed a *Firm Best Lawyer Quality Index*, which was created from data from the *Best Lawyers in America Directory*. The *Best Lawyers in America* survey is designed to identify the best practicing partners at law firms in the United States and polls a random draw of lawyers in different practice areas and cities to identify lawyers outside of their own firm that they consider the best lawyers in an area of law. The survey item uses a behavioral measure: "Who would [they] use if [they] needed legal counsel in [their] specialty area?" To avoid dyadic referral networks that would threaten the validity of this measure, the pollsters check respondents' backgrounds and pattern of responses. If two lawyers cross-cite each other but receive no citations, the two lawyers are excluded from the list.

We followed Nelson (1988), Lazega (2001), and our own field findings to build a measure that reflects how "best lawyers" translates into a firm-level quality measure. Best lawyers affect the firm's quality by managing and directing associates who do most of the legal work on an engagement. The more associates that can be employed under a best lawyer, the greater the quality returns to the firm of that lawyer and the associates' talents. This contingent influence of the best lawyers on the firm-level quality makes sense, especially in large firms where the number of best lawyers is an increasingly small percentage of the total lawyers as the number of lawyers grows large (i.e., into the hundreds). This means that a simple count of the number of best lawyers per firm, or a percentage of best lawyers per firm, misses how the effect of the best lawyers at a firm is scaled to the size of the associates the best lawyers direct at the firm. Consequently, we operationalized this measure as the number of best lawyers at the firm times the ratio of the number of associates per partner, which enables us to gauge on average how many associates on average each best lawyer manages at the firm. Thus, whereas our human capital measure captures the underlying quality of educational endowments of a firm, best lawyers measures quality differences acquired through practice.

We have validated our Best Lawyer's Directory quality measure and human capital quality measure using the multi-method multi-trait matrix technique—the technique Benjamin and Podolny (1999) used with similar data to solve a similar problem. We correlated our two above perceptional measures with data on *actual* law firm performance. The performance data are "scorecard data" and record the yearly *number* and *size* of law firm deals (see Uzzi and Lancaster 2003 for details). Using the MMTM revealed strong empirical support for our two quality measures, human capital and Best Lawyers Directory. Our quality measures correlated highly with the performance data using three standards of comparison: 1) standardized correlations, 2) ranked interrater reliability tests, and 3) trend tests. *At the same time*, the performance measure did not correlate highly with our status measure, both in cross-section and over time using the same three standards of comparison. This suggests that our quality measures are *not* measuring status too.

A limitation of this method is that our scorecard data are not available for all the firms in our sample and, therefore, could not be used as a separate independent variable. This is a limitation of the data but one we think is acceptable, given the strong and consistent relation to our two quality measures and our status measure (see Uzzi and Lancaster (2003).

We controlled for the standard organizational and economic determinants of spreads in several ways. To capture the relationship between bargaining power and prices, we included *number of branch offices* and *log of number of partners. Firm age,* or number of years since founding, controls for variation in firms' knowledge of pricing strategies and strength of reputation (Fombrun 1996). We controlled for the size of the law firm's network with a count of the *number of corporate clients*. We controlled for the clients' billing sensitivity using research that has shown that the greater the number of in-house lawyers employed by the client, the less it depends on law firms and the more informed it is about the quality and price of law firm services (Nelson 1988:59; Suchman 1998). Consistent with this reasoning, we calculated the average number of *in-house counsels* in a law firm's network of clients by summing the number of in-house counsel of each client and dividing it by the number of clients. We also attempted to measure the sensitivity of a law firm's clients to price differences with a variable called *number of directly competing law firms*, a count of the number of other law firms a focal law firm directly competes with in our sample. This variable changes year to year as corporate clients hire new and let go

past law firms. We use two standard measures to control for the size of client: 1) the average of the *bank assets* of the client banks of each law firm, and 2) the average *corporate revenues* of client corporations of each law firm. To capture differences in competition and demand stemming from location, we constructed four regional indicator variables and major city indicator variables (New York; Boston; Philadelphia; Washington, DC; Chicago; Houston; Dallas; San Francisco; and Los Angeles). To control for demand and competition at the level of market niches we included indicator variables for key practice areas: *banking law, litigation, corporate and securities law, tax law,* and *labor law*. Firms that indicated that at least 20 percent of their work (in terms of billable hours spent by partners and associates) was in one of these areas were coded as 1, and as 0, otherwise. To control for the difference in a firm's demand and supply for its legal services included a variable to measure employment growth or contraction (Romo and Schwartz 1995) called *law firm client demand change*, which is the current year's employment minus previous year's employment divided by the previous year's employment. *Year indicator* variables pick up on demand variations at the national level (e.g., M&A rates, GDP, new firm foundings, etc.). The means and standard deviations of the variables used in our analyses are displayed in Table 1.

Model

Recall that most of our data conform to a pooled-repeated survey design, such that different law firms were sampled at different time periods on the same items, with a subset of firms being repeatedly sampled. This created a dataset of 353 cases based on 133 unique law firms. Of the 133 firms, 46 appear once, 23 twice, 24 three times, 17 four times, 17 five times, and 6 six times. The smallest year, 1993, has 43 cases (12 percent) and the largest year, 1989, has 72 cases (20 percent).

For data structures of this type, Firebaugh (1997) has shown that one can pool all of the cases into a single, cross-sectional firm-level dataset and run standard statistical procedures as if the data had been collected in just one time period as long as indicator variables for each year and interaction terms (i.e., year* independent variables) are added. In the regression analyses reported below, no interaction terms were statistically significant, suggesting that our results are consistent across our time periods. To control for the non-independence of cases for the subset of firms that appear more than once, our regression models use the standard Huber-White robust variance estimator. This estimator adjusts for the correlation (i.e., non-independence) among cases from the same firm; cases from different law firms are assumed to be independently and identically distributed (i.i.d.) (White 1980).

While the pooled-repeated survey method enables us to exploit the full sample of data, it disregards the information in the subset of firms that make up an unbalanced and unevenly spaced panel dataset. To exploit this information, we used a random effects time-series model:

$$Y_{it} = X_{it}\beta + \nu_i + \varepsilon_{it}$$

In this model, Y_{it} is the price in the last period the firm was observed, $X_{it}\beta$ is the vector of independent variables and coefficients measured at different time periods, ν_i is the panel random effect coefficient that is the realization of an i.i.d. process with mean 0 and variance

TABLE 1
Descriptive Statistics of Variables Used in the Analysis

	Mean	*SD*	*Min*	*Max*
Spread	112.66	21.76	63.50	190.50
Board Tie	0.47	1.32	0.00	14.00
Embedded Ties	0.67	0.34	0.00	1.00
Law Firm Status	336.67	37.57	183.33	452.70
Human Capital Quality	0.32	0.16	0.00	0.78
Best Lawyer Quality	12.31	13.94	0.00	68.18
Law Firm Size	111.20	52.70	37.00	393.00
Number of Offices	4.81	3.13	0.00	20.00
Law Firm Age	93.50	34.13	8.00	177.00
Law Firm Labor Demand Change	0.03	0.08	−0.24	0.30
Number of Law Firm Clients	4.12	1.32	0.00	8.33
Number of In-house Legal Counsel	50.88	67.99	0.00	577.00
Size of Bank Assets	32.21	37.43	2.28	325.14
Size of Corporate Revenues	8.24	12.15	0.00	119.75
Number of Directly Competing Law Firms	3.77	3.49	1.00	23.00
Banking Law	0.03	0.17	0.00	1.00
Commercial Law	0.35	0.48	0.00	1.00
Litigation Law	0.59	0.49	0.00	1.00
Labor Law	0.03	0.17	0.00	1.00
Taxation Law	0.01	0.08	0.00	1.00
East Coast	0.35	0.48	0.00	1.00
Midwest	0.24	0.43	0.00	1.00
West Coast	0.12	0.33	0.00	1.00
HQ in Major City	0.50	0.50	0.00	1.00
Year 1990	0.18	0.39	0.00	1.00
Year 1991	0.20	0.40	0.00	1.00
Year 1993	0.12	0.33	0.00	1.00
Year 1994	0.15	0.36	0.00	1.00
Year 1995	0.14	0.35	0.00	1.00

σ_v^2, and ε_{it} is the idiosyncratic robust error component. The random effects estimator captures sources of time-varying unobserved heterogeneity that may remain unmeasured by our predictor variables.

The combination of the pooled-repeated survey regression and the time-series model provides a fuller perspective on the between- and within-case data and more valid and reliable inferences.[4]

[4]We checked the validity of our results by running several different models and looking for convergence. A fixed effects time-series model estimated coefficients of similar size to our random effects model, but produced standard errors that were three to four times larger than the random effects model. These estimates suggest that the parameter point estimates of the random effects model are accurate, even if the fixed effects model lacks enough power to meaningfully test hypotheses on its own. We also ran an autoregressive function with one-time period lags to control for price stickiness. This model also yielded similar point estimates for our reported coefficients. However, because our panels were unbalanced and unevenly distributed, our data violate the assumptions of these models, so we do not report them here. Because all models converged, we report the model with the assumptions that most appropriately fit our data.

TABLE 2
Pooled Cross-Sectional Times Series Regression Estimates of the Spread, 1989 to 1995 (with Robust Standard Errors)

Independent Variables	*Model 1*	*Model 2*	*Model 3*	*Model 4*	*Model 5*	*Model 6*
Board Tie	–	–	1.815*	–	–	1.761*
			(0.998)			(0.963)
Embedded Tie	–	–	–	−5.648**	–	−5.784**
				(2.668)		(2.595)
Law Firm Status	–	–	–	–	0.079***	0.077***
					(0.028)	(0.027)
Law Firm Controls						
Law Firm Human Capital Quality	–	20.851**	22.005**	21.071**	21.585**	22.912**
		(10.559)	(10.028)	(10.363)	(10.439)	(9.714)
Law Firm Best Lawyer Quality	–	0.325**	0.282**	0.340***	0.305**	0.279***
		(0.125)	(0.111)	(0.124)	(0.121)	(0.105)
Law Firm Size	–	0.133***	0.124***	0.132***	0.123***	0.113***
		(0.038)	(0.036)	(0.037)	(0.038)	(0.034)
Number of Law Firm Offices	–	−0.059	0.023	−0.024	0.059	0.173
		(0.458)	(0.450)	(0.444)	(0.448)	(0.423)
Law Firm Age	–	−0.050	−0.058	−0.046	−0.041	−0.045
		(0.037)	(0.035)	(0.037)	(0.038)	(0.035)
Law Firm Labor Demand Change	–	−22.234*	−21.343*	−22.653*	−19.672*	−19.299
		(11.883)	(11.756)	(12.176)	(11.669)	(11.858)
Number of Law Firm Clients	–	−0.835	−0.912	−0.823	−0.904	−0.965
		(0.855)	(0.838)	(0.832)	(0.855)	(0.817)
Banking	–	3.626	3.411	3.414	2.520	2.121
		(6.565)	(6.598)	(6.458)	(6.759)	(6.666)
Commercial	–	1.927	1.685	2.216	1.325	1.402
		(2.516)	(2.459)	(2.516)	(2.494)	(2.440)
Litigation	–	1.261	1.264	1.571	1.200	1.521
		(2.335)	(2.297)	(2.332)	(2.332)	(2.279)
Labor	–	−2.969	−3.241	−3.671	−2.400	−3.397
		(2.593)	(2.475)	(2.661)	(2.581)	(2.568)
Taxation	–	0.195	0.290	0.543	1.363	1.784
		(6.519)	(5.374)	(6.990)	(5.884)	(5.257)
Market & Client Control Variables						
Number of In-house Counsel	−0.027	−0.007	−0.010	−0.010	−0.008	−0.014
	(0.025)	(0.016)	(0.016)	(0.015)	(0.016)	(0.014)
Size of Bank Assets	0.052	0.023	0.029	0.027	0.032	0.041
	(0.036)	(0.033)	(0.031)	(0.032)	(0.032)	(0.030)
Size of Corporate Revenues	0.159	0.054	0.058	0.062	0.054	0.065
	(0.106)	(0.076)	(0.073)	(0.073)	(0.077)	(0.072)
Number of Directly Competing Law Firms	−1.100	−0.542	−0.439	−0.545	−0.492	−0.396
	(0.872)	(0.658)	(0.663)	(0.660)	(0.656)	(0.662)
East Coast	10.924***	11.679***	12.552***	12.207***	9.988**	11.418***
	(4.037)	(3.897)	(3.849)	(3.898)	(3.869)	(3.792)

(Continued)

TABLE 2
(Continued)

Independent Variables	*Model 1*	*Model 2*	*Model 3*	*Model 4*	*Model 5*	*Model 6*
Midwest	−4.098	−8.910**	−8.659**	−8.242**	−9.503**	−8.561**
	(4.449)	(4.024)	(3.891)	(4.012)	(3.987)	(3.840)
West Coast	8.842	6.456	5.841	6.480	6.260	5.693
	(5.874)	(5.404)	(5.460)	(5.421)	(5.487)	(5.569)
Major City	12.999***	8.843**	8.806**	8.585**	8.263**	7.976**
	(3.324)	(3.681)	(3.652)	(3.675)	(3.622)	(3.602)
Year 1990	4.222**	2.125	1.973	3.420*	1.143	2.345
	(1.871)	(1.890)	(1.915)	(1.974)	(1.874)	(2.009)
Year 1991	5.771***	6.365**	5.825**	8.360***	4.329	5.898**
	(2.061)	(2.911)	(2.898)	(2.850)	(3.008)	(2.941)
Year 1993	12.018***	8.898***	8.924***	8.470***	6.901**	6.536**
	(2.629)	(2.728)	(2.677)	(2.749)	(2.707)	(2.675)
Year 1994	10.906***	7.690**	7.706**	8.476***	4.871	5.760*
	(3.355)	(3.130)	(3.175)	(3.048)	(3.452)	(3.433)
Year 1995	20.066***	15.923***	16.427***	16.607***	11.279***	12.581***
	(3.765)	(3.305)	(3.236)	(3.234)	(3.693)	(3.539)
Constant	97.405***	82.704***	82.995***	84.466***	58.756***	61.426***
	(5.175)	(5.307)	(5.082)	(5.406)	(9.909)	(9.609)
R^2	0.3237	0.4796	0.4893	0.4857	0.4915	0.5067
Observations	351	351	351	351	351	351

***p < 0.01; **p < 0.05; *p < 0.1; all tests two tailed.

FINDINGS

The findings in Table 2 indicate support for our embeddedness arguments, with most variables significant and in the predicted directions. The models fit the data well, explaining about 50 percent of the variation in spreads across firms. The direction of effects for our control variables are consistent with prior research and existing theory, further suggesting good model specification. In model 1, the spread is regressed on the baseline model of year, region, and client firm control variables. These variables explain about 35 percent of the variation in spreads, which indicates that spreads vary considerably by year, region, and client-level control variables. Region and year, in particular, explain a disproportionate amount of the variance. Law firms located in major cities and in the east have larger spreads than firms located outside these locales. This is consistent with the anecdotal evidence that east coast firms and firms in larger cities charge higher prices because of their proximity to big corporate clients and the most lucrative commercial deals (Nelson 1988). The results also suggest that client differences in size and size of in-house counsel departments have little explanatory power net of market and year controls. While we did not hypothesize an effect for these variables, the pattern of results is not unexpected when one takes into account that these clients are similar in their characteristics and may be price takers from law firms, especially during this period when the large law firms in our sample were in particularly high demand.

Model 2 introduces organizational controls for practice area concentration, demand, age, number of offices, size and quality. The findings indicate that size and quality are the main differentiating factors across all models. One explanation, consistent with Galanter and Palay

(1990; 1991) is that size determines the internal structure of the firm, including their practice area representation, recruitment and selection strategies, clientele, and demand. The positive effects for quality, net of size, however, indicates that large law firms do vary in their level of quality and that these differences affect spreads. Thus, the baseline models suggest that market and year variables account for most of the variation in spreads, that size is the key structural variable of the firm, and that within comparable structures firms can vary in their levels of quality, depending on their ability to recruit and retain exceptional associates from the best law schools and to hire the best lawyer talent. Thus, while the size of the effects of region, city, year, and size variables indicate that the size of spreads are strongly influenced by these constraints, their fixed nature suggests that other variables, although less powerful in explaining variation in spreads, may play a significant role in differentiating firms net of these controls.

Each hypothesized embeddedness variable is added separately and then as a block in models 3 through 6. Consistent with our predictions, models 3, 4, and 5 show that each embeddedness variable – board ties, embedded ties, and status – significantly affect spreads and model 6 shows that they also have stable effects net of each other. Hypothesis 1 predicted that board of directors ties increase the firm's ability to broker deals and differentiate their product, increasing the price that they can charge for deals. As predicted, board ties increase spreads. This suggests that interlocks are associated with adding low-cost, high-value services to the firm's offerings. Prior research has focused on the ability of embeddedness to lower transaction costs and reduce uncertainty. In contrast, these effects suggest that embeddedness can also be effective in differentiating the firm's product and placement.

Hypothesis 2 predicted that embedded ties would increase trust, creating transaction cost savings that are passed on to the client in the form of lower spreads. Consistent with this argument, we found that as the proportion of embedded ties increases, the spread decreases. This suggests that the different mechanisms by which embeddedness operates – trust and transaction costs minimization in the case of embedded ties and product placement and enhancement in the case of interlocks – are not uniform in their relationship to market uncertainty. At least in this market, different forms of embeddedness are differentially sensitive to levels of market uncertainty. Because of the rudimentary operationalization of an embedded tie, we did several post hoc investigations to test the results' sensitivity to alternative specifications. First, following transaction costs economic theory, one might argue that the lower spread is driven by the law firm's dependence on the on the client – i.e., the law firm is held hostage by the client and thus must lower its spread or lose the corporate client's business. If this were the case, one would empirically expect that smaller law firms reduce prices to retain clients and large corporations bargain down prices with law firms, which implies interaction effects for (a) law firm size x embedded ties and (b) client firm size x embedded ties. When we added these interaction terms to our reported models, no terms were statistically significant and our main effects remained the same. A transaction cost economic argument might also expect that firms with a few clients would be more dependent on those clients and in weaker bargaining positions than would firms who were less dependent on their clients – the small numbers bargaining hypothesis. We tested this interaction, both with law firm network size and client firm network size. These interactions were not significant and did not affect the direction or level of significance of our embedded tie variable, suggesting that asset specificity is not driving the observed price reductions. Finally, we examined if low law firm spreads lead to ongoing embedded ties (price sensitive clients stick to lower-priced firms of the same quality), whereas we argue embedded ties lead to lower spreads. To test this alternative

explanation, we regressed the likelihood of a repeated tie on law firm spread. If low spreads promote long-term ties, then price should be negatively related to tie length. The results showed that there is no relationship between lower prices and the probability of a repeated tie in this market, consistent with hypothesis two.

Hypothesis 3 predicted that status is positively associated with spreads on legal work. Reasoning that status is a uniquely valued asset, we argued that it would positively affect spreads controlling for the quality of the firm. Consistent with this prediction, Models 5 and 6 show that status is positively related to spreads controlling for two measures of the firm's quality.

Table 3 presents the *standardized* effects of key variables on the spread. To calibrate the effect of our embeddedness variables, we use organization size—the organizational variable with the largest effect on spreads. The table shows that a one standard deviation increase in size or an increase in 54 partners increases the firm's spread by approximately 6 dollars an hour. By comparison, adding a single interlock increases the firm's spread by $1.76 or an effect that is 29 percent as large. Similarly, an increase of one standard deviation or 37.5 points of status increases the spread by $2.89 or an effect that is about 50 percent as large as a comparable change in size ($2.89/$6.00). Finally, a 34 percent increase in the proportion of embedded ties with clients lowers a firm's spread by 1.97 or an effect that is about 32 percent ($1.97/$6.00) as large as a decrease in firm size.

While the absolute dollar values of these changes appear small, the effects are substantial when accumulated over all billing associates. Ponder the additive effects of an increase in an interlock tie and one standard deviation increase in status on associates' spreads. A one standard deviation increase in our interlock tie and status measures raises an associate's spread by about $4.65 per hour per associate ($1.76 for an interlock tie and about $2.89 for status). In a large firm, this can create an additional several million in revenue per year. If each associate can charge $4.65 more per hour times 60 hours of billing per week times 50 weeks per year, she can add about $14,000 in revenues. Fourteen thousand dollars in revenues multiplied by 500 associates

TABLE 3
Interpretation of Effect Sizes of Embeddedness Variables

Variable	*Mean*	*Standard Deviation*	*Interpretation of Effect Sizes*
Board Tie	.47	1.32	Increasing the number of interlock ties by one, leads to a $1.76 per hour increase in the spread
Embedded Tie	.67	.34	An increase of one standard deviation or a 34% increase in the proportion of embedded ties leads to $1.97 per hour decrease in the spread
Status	336.6	37.5	An increase of one standard deviation or a 37.5 point increase in the status of the law firm, leads to $2.89 per hour increase in the spread
Human Capital Quality	.315	.164	An increase of one standard deviation or a 16% increase in the proportion of partners with degrees from Top Law Schools leads to $.62 per hour increase in the spread
Best Lawyer Quality	12.31	13.94	An increase of one standard deviation in the quality of the law firm or an increase of 14 more best lawyers, leads to $3.89 per hour increase in the spread
Law Firm Size	111.1	52.7	An increase of one standard deviation or an increase of 53 partners leads to a $5.96 per hour increase in the spread

(not an untypical figure for a mega firm) creates about $6,975,000 in additional annual revenues just from associate work. These effects are noteworthy, not just for their magnitude, but for their theoretical implications for the strategy of the firm. Given that law firms are price takers when it comes to associates' salaries, and their ability to grow quickly is constrained by the restricted talent pool and administrative limits on fast growth, the strategic implications of embeddedness are highlighted.

CONCLUSION

Cost plus pricing is a simple but pervasive pricing strategy that focuses on the size of the spread between the cost of production and the sale price of the good or service (Blinder et al. 1998). Most work in this area has focused on understanding the economics of productions costs or the marketing psychology of the market, rather than on relational aspects of how social structure affects spreads. In this paper, we proposed arguments about how three features of a market's social structure – embedded client relationships, brokerage ties, and status positions – influence firm-level spreads by organizing and differentially distributing private information and informal governance arrangements among market participants. To test our model, we analyzed time-series and qualitative data on the economic and sociological attributes of large law firms and their corporate and banking clients and found that social structure dramatically affects price formation.

Our model focuses on the under-appreciated significance of social structure's unique role in organizing private information and informal governance arrangements. It shows why private information and informal governance are key to price formation, why economic structures fail to capture or communicate these factors in a market, and how embeddedness regulates these activities by channeling private information and creating informal governance arrangements of trust and normative expectations.

Specifically, we found that interlocks, embedded ties, and status affect spreads but in different directions and in different levels of magnitude. The greater the proportion of embedded ties a firm has with its clients, the lower the average price it charges in the market. Our findings support the inference that embedded ties create trust that promotes private information exchange and reduces the transaction costs typically associated with managing opportunism, which result in cost savings that are shared to the mutual benefit of the firm and its clients. In contrast, we found that brokerage ties increase prices; the more partners on boards of directors, the higher the firm's spreads. Here the evidence suggests that ties don't reduce transaction costs or build trust, but position the law firm at the crossroads of private market data that in turn enables it to differentiate its product, which provides a basis for obtaining premium spreads.

These relational effects add specificity to embeddedness theory. We agree with Blau (1964) and Granovetter (1993), who argue that while social exchange is built on unspecified exchanges and reciprocal trust, the presumption persists that social exchange affects spreads because commercial transactions are an unshakable mixture of both specified and unspecified exchanges. Our findings provide one account of how this mixture is obtained. Through the embedding of interdependent commercial transactions in social attachments, embedded ties promote motives of trust and reciprocity that redistribute transactors' private resources to their mutual benefit. In this case, spreads decrease to reflect the enhanced transfer and matching of unspecified exchanges, which create new value but also decrease the transaction costs on which prices form. In contrast,

brokerage relationships shape prices by differentiating a transactor's product from her competitor's products. The findings indicate that actors who occupy brokerage positions access private information that is unevenly scattered among market participants, enabling them to service undersupplied niches that other firms do not recognize. Here the role of trust and reciprocity appears to be less pronounced, though they remain relatively central to access to brokerage roles in the law market. Thus, social structure facilitates the process by which merited innovations reach their appropriate market. Our findings suggest that law firms increase their spreads by carefully choosing features of differentiation that have high exchange value. Clearly, differentiation is an excellent form of business acumen and a service to the market. Blau (1964) argued that unless distinctions can be made along new dimensions, unspecified exchange loses marginal utility at some limit. Brokerage appears to create distinctions that open markets. Rather than buffering the risks and transaction costs of exchange under uncertainty, as in the case of embedded ties, brokerage creates opportunities to manage risk and create wealth. Along these lines, future research might investigate the balance between brokerage ties and embedded ties and examine how changes in the mix of these ties shapes market activities (see Baker 1990 and Uzzi 1999 on banking ties).

Our other major finding relates status to price formation. Initial work argued that status operates through signaling (Spence 1974): when the quality of a product is costly to observe directly, the product's status becomes a proxy for quality. While this model illuminates certain market processes, it tells us less about how status operates in the many markets where quality is publicly observable or where quality weakly correlates with status. Our research showed that in law, where quality is observable, status is not a proxy for quality but a valued resource traded at a premium price, consistent with Veblen's (1899) notions of conspicuous consumption. By decoupling status from quality, our findings indicate how social role structures shape cost plus spreads without the need to define them as a proper subset of the broader mechanism of signaling. In our model, consumers purchase status to enhance their intrinsic sense of worth (i.e., the "bragging rights" that are attached to landing a high-status law firm), as well as to display their knowledge of, and conformity to, appropriate protocols of exchange. In this sense, status is not a marker of quality. Rather, it is more like an insurance policy that is separate from the quality of the good, and which indemnifies against the risks of unforeseen accidents for low- and high-quality goods alike. Thus, consistent with Benjamin and Podolny's (1999) work on the compatibility between status as a signal of quality and status as conspicuous consumption arguments, we find that while conspicuous consumption belies notions of market functionalism, the idea of consuming status to display conformity to a set of normative expectations that provide security against criticism may be viewed as more functional in nature. Future research might begin to analyze this distinction in more detail. One might expect that as markets become more cost sensitive, the conspicuous consumption features of status may become more difficult to justify, while in markets where the risk of failure may be small but result in large losses, status is important independent of quality.

The social dynamics of cost-plus pricing represent one key aspect of market behavior. A related issue is how prices form. Future research might build on the preliminary framework we have outlined here to study how prices form. If price formation is also based on the flow of both private and public information and the presence of both formal and informal governance mechanisms, then examining the link between social structure and these outcomes is a logical next step and one that is already attracting new research (Uzzi and Lancaster 2003; White 2002; Yakubovich, Granovetter, and McGuire 2005; Zbaracki et al. 2004). Prospective work might also

look at the institutional and categorical underpinnings of price. For example, in the law profession, gender has been shown to play a key role in how the labor market works and in the segregation of different areas of law, with women disproportionately in areas of labor law and men disproportionately in the most lucrative areas of banking, finance, and intellectual property. This raises the question of how social categories of gender affect prices through clients' stereotyped categories of women and men's work. A final goal would be to develop a sociological framework that explains how a range of relational, categorical, and institutional structures affect price formation.

ABOUT THE AUTHORS

Ryon Lancaster is Assistant Professor of Sociology at the University of Chicago. His research focuses on organizations and law. He has published on various aspects of legal organizations and the organization of courts. He is currently finishing a book on the emergence of bureaucratic administration in the Medieval Catholic Church.

Brian Uzzi is the Richard L. Thomas Distinguished Professor of Leadership at the Kellogg School of Management and by courtesy Professor of Sociology and Professor of Industrial Engineering and Management Science at the McCormick School of Engineering at Northwestern University, where he is also the co-director of NICO (Northwestern University Institute on Complex Systems). He has published recently on social networks in *Nature*, *Science*, *PNAS*, *PLOS*, *Annual Review of Sociology*, and the *Journal of Mathematical and Statistical Physics*.

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