Embeddedness and the Price of Legal Services in the Large Law Firm Market

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The determination of prices is a key function of markets yet it is just beginning to be studied by sociologists. Most theories view prices as a consequence of economic processes. By contrast, we consider how social structure shapes prices. Building on embeddedness arguments and original fieldwork at large law firms, we propose that a firm's embedded relationships influence prices by prompting private information flows and informal governance arrangements that add unique value to goods and services. We test our arguments with a separate longitudinal dataset on the pricing of legal services by law firms that represent corporate America. We find that embeddedness can significantly increase and decrease prices net of standard variables and in markets for both complex and routine legal services. Moreover, results show that three forms of embeddedness - embedded ties, board memberships, and status affect prices in different directions and have different magnitudes of effects that depend on the complexity of the legal service.

PRICES are a crucial and thrifty piece of information bound to almost all commercial goods or services. Familiar terms such as price discrimination, price wars, price fixing, consumer price indices, price rigidity, shadow prices, price tags, and so on signify the key role of prices in society and how markets can fail if the price-setting mechanism falters. At the level of the firm, pricing is the key means by which rents are appropriated; If a firm sets prices to low, it may fail to capture the profits needed for reinvestment and growth (Zbaracki et al. forthcoming). More than just the sum of money that changes hands in a marketplace, prices enable resource allocation and the comparative valuation of good and services.

The vital importance of prices suggests the need for a sociological understanding of them (Swedberg 1994). Classical sociology focused on the impact of prices on stratification (Marx 1867/1952; Weber 1921/1968). Modern sociologists have examined how social relations actively affect prices by reducing exchange uncertainty. This work focuses on how social relations provide information and governance arrangements that are not available through market means and that affect prices by differentiating products and lowering the transactions costs of trade. Baker (1984) showed that the size of commodity traders' networks affected their setting of a market price. Podolny (1993) found that an investment bank's status influenced the price at which it sold a company's stock, a relationship that also holds for the price of wine (Benjamin and Podolny 1999), while Zuckerman (1999) showed that firms that straddled different product categories presented an incoherent economic categorization of the firm to analysts, causing the firm's share price to drop. Uzzi (1999) found that social attachments and networks between corporate borrowers and bankers enable the flow of non-market information and informal governance arrangements that lower loan prices, a model that has also proved predictive of hotel room rates (Ingram and Roberts 2000).

In this paper, we examine how social exchange relations between producers and consumers affect the prices producers charge their clients. Our context is the large corporate law market, a market similar to

consulting, accounting, architecture, advertising, and other influential service industries that now make up major portions of modern economies. Building on prior work that conceptualizes markets as social structures (Granovetter 1985; White 2002; Fligstein 2001), we argue that embeddedness affects prices by adding unique value to exchanges. These values arise because social structure creates information and governance arrangements that affect prices by lowering transaction costs, bettering product differentiation, or providing more rewarding consumption in ways that public markets or formal contracts do not.

Our study aims to contribute to the literature in several ways. First, prior work has looked predominately at how intermediaries shape prices for producers and consumers, i.e., how investment banks exclusively price a stock; analysts evaluate a firm; or hotel managers set a citywide room rate (Podolny 1993, Zuckerman 1999; Ingram and Roberts 2000). Also, this work focused on the pricing of uncertain goods or services. In contrast, we look at the social dynamics of price formation in a market in which producers sell *directly* to consumers and the products they offer vary from complex to routine. This market enables us to investigate how embeddedness affects prices in direct selling environments and under various levels of complexity. Moreover, our market is made up of consumers with capabilities to produce in house the services they might buy from producers, which helps reveal how power balances between producers and consumers can affect prices in markets. Second, we use a novel mixture of field research, survey data, and statistical analysis to link and illustrate the micro and macro mechanisms of pricing in this market. Third, the large law firm market is indicative of other important and lucrative professional services markets and is central to capitalist activity in its own right. Lawyers contribute a striking 1.3 percent to the GDP; and continue to grow more rapidly than other professions (Heinz et al. 2001).

Before proceeding, it is worth noting how our study relates to economic studies of prices. Economics has identified to various degrees the impact of numerous market and organizational factors on prices. These variables include competition, production costs, organizational size, location, bargaining power of buyers and sellers, product specialization, information asymmetry, etc. (Blinder et al. 1998). Of particular theoretical relevance to our arguments is the role of asymmetric information. Asymmetric information means that transactors have unequal knowledge about each other's goods and reliability that affects their ability to accurately price a good or service. One-sided information such as a negotiator's reservation price or the true value of a company may allow producers to overprice their good or service or it might lower the price of their good or service if consumers' discovery costs are high. As such, price theory has focused on economic methods for efficiently reducing information asymmetries through market structure and contracts (Stiglitz 1987).

In a way normally overlooked by price theory (see Arrow 1998), we examine how social behavior regulates information flow and informal governance arrangements that reduce information asymmetries as well as furnish distinctive consumption value. Our aim is not to refute modern price theory but to add to the interdisciplinary thinking on prices. Consequently, we use existing literature as a starting point for our model and as a point of reference for assessing the effects of social relations with our main focus on the development of an embeddedness approach.

Theory

The embeddedness framework offers one of several possible sociological accounts of how social behavior affects price setting (Granovetter 1985). It argues that economic actors, to varying degrees, are imbedded in social relations and networks of affiliations that shape the actors' opportunities for value creation in ways that differ from markets

(systems of impersonal relations) or hierarchies (systems of formal contractual relations). The model examines how the quality of relations as well as the network positions of actors affects their access to information and governance abilities.

On the level of relationship quality, ties vary between arm's-length and embedded (Powell 1990; Baker 1990). Arm's-length ties characterize the atomistic and socially detached market relationship. They "…function without any prolonged human or social contact between parties…[who] need not enter into recurrent or continuing relations as a result of which they would get to know each other well" (Hirschman 1982: 1473); nor do arm's length ties need to be governed by internalized principles of behavior. Rather, transactors manage each other's conduct through contracts; acting as if they "know[s] nothing of honor" (Weber 1946: 12). Such ties have been shown to be an excellent means of cheaply acquiring public information. Public information is "hard information for the asking" such as financial statements, government filings, ads, performance rankings, web pages, or standardized reports that are typically verifiable through 3rd parties that collect, monitor, and report information in and to a market (Uzzi 1999).

Embedded ties differ from arm's-length ties in that commercial exchanges between actors are embedded in social attachments and affiliations, a process that injects into the business exchange expectations of trust and shared norms of compliance. These decision protocols are learned and become internalized through socialization, generating powerful principles of self-enforcement that go beyond "good faith conformity" norms; they furnish shared expectations that govern conduct net of the deal's short-term incentives (Blau 1964; Macneil 1980; Uzzi 1997; Portes and Sensenbrenner 1993; DiMaggio and Louch 1998; Zelizer 2000). A key economic consequence of embedding economic exchanges in social attachments is that the enhanced levels of trust and reciprocity motivate exchange partners to share their private information. Private information is "soft" information and references aspects of an actor's undocumented capabilities, individual preferences, special needs or objectives, or other idiosyncratic and nonstandard information that goes unreported in public information sources. It is because private knowledge is not verifiable by 3rd parties and idiosyncratic across exchange partners that it is typically shared with trusted others who accept it at face value and guard it from misuse. Thus, expectations of trust can increase the predictability with which exchange partners share private knowledge and believe that the costs and profits of their transactions will be shared to their mutual benefit, thereby decreasing governance costs and freeing up resources for other profitable activities.

Network structure affects information flows and governance arrangements through related social mechanisms. Network positions take on many forms of intermediation, such as a stock analyst mediating exchanges between companies and traders, a bank mediating exchanges between a creditor and an entrepreneur, a director receiving private knowledge from other directors via interlocks about the costs of acquiring a target firm, or a lead bank managing the relationship between a syndicate of banks and a client firm (Podolny 1993; Haunschild 1994; Zuckerman 1999; Uzzi and Gillespie 2002). The unifying benefit of these positions is that they enable occupants to observe the private information and communications of others (Burt 1992; Fernandez and Gould 1994). These positions are also subject to agreed upon expectations for behavior that act as governance arrangements. In these positions or roles, actors feel normatively obligated to follow normative prescriptions, which lower the cost of others directly regulating their behavior. For example, Podolny's (1994) work on status role processes among investment banks was first to show that banks are more likely to

partner with banks of a similar status, independent of their partner firm's economic success because failing to do so would violate the norms that firms should partner with firms of similar standing. Predictable conformity to the normative prescriptions is reassured because violating the norm might prompt consumers to believe that the investment bank is not motivated to keep its implicit promises in the absence of formal arrangements that guarantee its promises. This would raise the costs that consumers and other exchange partners incur in monitoring and justifying deals with the bank, hurting the bank's competitive position (Philips and Zuckerman 2001).

Granovetter (1985) has also noted that embeddedness can be the source of fraudulent behavior because the creation of trust can generate the very circumstances under which pernicious conduct has the greatest payoff, a finding consistent with Heimer's (2001) analysis of corporate misconduct. Building on these ideas, the empirical literature has focused on the conditions under which embeddedness can hinder economic performance, both intentionally and unintentionally. If actors favor the preservation of close social ties or exclusive membership based on prejudice rather than merit, networks become a source of economic inefficiency and discrimination (Portes and Sensenbrenner 1993). In other cases, the violation of trust can create powerful negative emotions and invert the benefits of embeddedness (Uzzi 1997), suggesting that embeddedness' effects can vary with the competitive conditions of the market and institutions that also regulate collaboration.

Prices

The above arguments suggest that embeddedness may influence prices. When all information is not publicly available and actors' cannot completely govern their conduct through formal means, then prices can be affected by private information and informal governance arrangements that add value and reduce the costs of transacting. In contrast to public information that is available to market means, private information is not evenly distributed or present in the public domain. Rather, it tends to be circulated only within a network of affiliations that predictably regulate conduct through informal governance arrangements. Thus, we speculate that embeddedness can help differentiate products in price-enhancing ways or reduce transaction costs to the mutual benefit of the transactors by facilitating the transfer of private information and by creating informal governance arrangements. In the next section, we use field research on the large law firm market to flesh out embeddedness theory and to provide case based evidence for the plausibility of our argument on the link between embeddedness and price setting in this market. We begin with a description of our context and field methods and then statistically test our hypotheses using a separate large *N* longitudinal data set.

Mega Law Firms

The years 1989 to 1995 marked the dawn of a new era in the behavior of the large corporate law firm and the corporate law firm market. During this period, a new class of large law firms, dubbed the "mega-firms," emerged. Compared to the smattering of large law firms that existed before 1990, the average mega firm employed hundreds (as opposed to dozens) of lawyers and possessed wide business expertise. The hallmark of these firms is the expert provision of complex legal services to large, diversified corporations. Table 1 provides an overview of the mega firms from 1989 to 1995 in terms of their employment size, salaries, location, and size of clients' in-house legal department.

Insert Table 1 Here

A mega firm's organization reflects its specialized corporate clientele. In order to effectively service corporations' across-the-board legal needs for complex commercial transactions such as mergers and acquisitions

(M&As), securities management, or international affairs, the mega firm typically has expertise in all practice areas pertinent to big business, including tax, securities, banking, litigation, patents, risk management, real estate, bankruptcy, acquisitions, and labor law (Daniels 1992). The firm's production is organized around the project team, which is led by partners and staffed by associates with the aim of uniting varied talents to solve multifaceted legal problems. Because the project team relies heavily on the managing partner's leadership, partners disproportionately influence the team's and the firm's financial success (Lazega 2001).

The aim of the large law firm is to provide lawyers [that] function as transaction cost engineers (Kummel 1996). A law firm's prospect for lowering clients' transaction costs varies according to the uncertainty of the legal work, which can be either complex or routine. Complex legal work typically requires intellectually challenging, original research-oriented work that covers multiple areas of law or multiple parties (e.g., buyer, seller, regulator, financier, accountant, etc.) such as in mergers and acquisitions or new securities cases. Routine legal work involves transactions with the opposite characteristics and therefore presents fewer (but not zero) prospects for a law firm to differentiate its product (Sandefur 2001). To reflect the differences in legal work, law firms typically *price complex and routine work at different hourly rates*. Partners normally do complex work and associates do routine work under a partner's direction within a project team. (See our *ASR* on-line appendix for data on partner and associate prices by practice areas and region.)

To manage their legal costs effectively, corporate clients have devised numerous tools for evaluating the quality and prices of law firms. First, corporations have large in-house legal divisions staffed with first-rate JDs who critically assess the time that law firms devote to a matter, which lawyers staff a case, time spent per day, and rates applied (Nelson and Nielsen 2000; Riesinger 2003). The philosophy of Robert S. Banks, general counsel for Xerox, illustrates the inside counsel's monitoring duties: "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" (cited in Kritzer 1994: Fn. 5). Second, inside counsels are also adept at following trends in law-firm quality as described in publicly data such as the *Corporate Scorecard*, which annually ranks the top 25 law firms in terms of commercial deals by volume and size. A law firm's quality can be measured by its human capital as well, as indicated by the standing of the law schools at which partners earned their credentials (Nelson 1988) or by industry handbooks such as the popular *Best Lawyers Directory*, in which experts rate law firms based on the quality of their star partners. Third, the American Bar Association's Formal Ethic Opinion 93-379 mandates that corporations receive detailed information on content their legal services. Thus, the market's structure and the organization of large corporations make them well equipped to compare law-firm quality (Jude 1994: 189).

The final key dynamic in this industry is social relations. The primary types of embedded relationships between law firms and clients include repeated versus one-time exchanges, board memberships, and status affiliations (Lazega 2001; Sherer and Lee 2002). Before 1980, these relations tended to be exclusive and non competitive, a dynamic that was reinforced by laws forbidding law firms from combining legal and consulting services for the same client. (It has long been recognized in the profession that combing legal and consulting services in the way accounting firms do can promote corruption or the abuse of trust). After 1980 unheard of levels of rivalry among law firms began to unlock the historically settled clubs of loyal clients. Corporations actively spread work among multiple law firms and engaged in

more one-off transactions, a process that was feed by the fast growth of their in-house legal departments that could do much of the legal work that was once contracted out. This has made the law firm industry more market oriented than ever before. Thus, while embedded in numerous ways, particular market and institutional conditions can help minimize the negative effects of overembeddedness in this industry (Granovetter 1985).

Fieldwork

Relying on ties between our university's alumni office and graduates, we were granted interviews at three law firms and at two corporations in a large Midwestern City. Our field questions focused on the law firms' partnership models, production efficiency, training, cultures, profitability, client development strategies, interfirm ties, and pricing tactics. Interview items were open-ended, tape recorded, and transcribed. Interviews lasted about one hour on average. Two interviews were conducted outside the office, which made taping infeasible. These interviews were recorded in a notebook. The fieldwork was undertaken with the objective of gaining first-hand knowledge of law firms' organization, production functions, and pricing strategies, and to augment published work. We use the fieldwork's original findings to help flesh out the mechanisms by which embeddedness affects prices and as case based data that can support the plausibility of our hypotheses.

Interviews are costly to lawyers, whose time is scrupulously metered. Prior work has been sensitive to this issue; field studies are often limited to one firm or aggregate several small samples across a few firms (Nelson 1988; Hagan and Kay 1995; Lazega 2001). Similarly, our sample size was restricted to the size needed to reach convergence in interviewees' responses. Moreover, we kept our sample small because our purpose was not to generate a random sample but to identify plausible hypotheses. We focused on one firm that gave us access to its lawyers' time for research purposes. This mega firm has a strong presence in all commercial practice areas. We interviewed five male partners and one female partner. Our interviewees specialized in banking, M&A, tax, labor, and litigation and possessed 15 years of experience on average. To somewhat mitigate the limitations of drawing informants from primarily the same firm, we chose partners that had worked for multiple firms, diversifying their comparative interfirm experiences. On average, our interviewees had worked for 2.5 firms in their careers. Three lawyers were interviewed in three other firms. Of these three, two were associates, one was a partner, and all were male. One firm is a large "silk-stocking" firm, one is a mega firm, and one is a strong medium-sized firm. Finally, to compare lawyers' views with clients' views, we interviewed a commercial banker and an insurance company executive who work with inside counsels in hiring outside law firms at their company.

To analyze the data, we first organized the distribution of responses into variables relevant to the study of pricing. This task centered on a content analysis and frequency count of each interviewee's response data. To do this, we decomposed each interviewee's entire response record into categories reflecting pricing variables, such as the quality, business relationships, production costs, and status of the firm. In cases where responses were related not only to the specific question being asked but also to other questions relevant to the general discussion of law firm organization and economic behavior, we separated passages into separate stanzas that reflected common categories. Passages reflecting the non-fluency of spoken English were edited to increase comprehension.

FIELD RESEARCH AND HYPOTHESES

Consistent with embeddedness arguments, interviewees commented on how commercial transactions become embedded in social attachments, creating expectations of trust and

reciprocity that are absent in arm's-length ties and that develop overtime and through interaction. For example, an in-house counsel stated,

> "We begin to build a special relationship based on trust within the first year and sometimes sooner depending on if the managing partner is a relationship person and the turnover on the [in-house legal] committee. So, if we work with a law firm for two years it is a pretty sure bet we have a trust relationship because it means we've renewed with them, we're not negotiating a new contract, and have a pattern of comfort in interaction. It also means we have worked out a fee structure. There are increases but not like the first time you deal with them. We work with them on an annual basis and usually won't stop unless we fired them."

In the following quote, a partner at a mega firm comments on how differences in embedded and arm's-length ties affect the level of trust and information exchange between his firm and clients.

> It's no question that trust enters into it [pricing]. I mean, it's very rare that you're gonna get the big five-hundred-million dollar transactions – I don't see 'em with a stranger. Chances are there's a little bit of a dance, and so forth, that goes on before you can form a relationship. It's relationship-building, it's communication, and it is trust. For example, we have a client where the general counsel, while he's familiar with working with law firms, had not dealt with my area of law before. He was initially very skeptical about the amount of work that it would take. And the first phone call was very uncomfortable, because he said, point blank, "I don't believe that this is gonna take this much work. Tell me more about your experiences with other clients." And after a while, he warmed up….But he was initially very skeptical. It's a process. It's a trust, a transparency.

Note that the interviewee makes a point of emphasizing that his client, an inside counsel with a J.D., is well versed in law and capable of evaluating the lawyer's legal competencies. Nevertheless, the quote suggests that the formation of an embedded tie plays a critical role in determining how pertinent price information is transferred and valued.

Most interviewees focused on the impact of embeddedness on the reduction of the transaction costs that affect prices. For example, one partner described how transaction cost benefits arise through embedded client ties, or what he dubbed the "trusted advisor role," his firm's idiom for client relationships that operate on expectations of trust and reciprocity rather than written agreements. He notes how embedded ties prompt the sharing of private information that lowers transaction costs. He said,

> Knowing how a client likes to receive your legal services is important. Some don't want long memos. Just confirm the phone call or give me one a pager. I know that through a relationship. Others I have to scream "for Christ's sake" before they start to take me seriously. [So], having this

> working relationship, I know exactly how clients expect to receive things from me and it helps me make budget. We will limit the number of drafts. It's the benefits of trusted the advisor role. …A relationship allows her [the client] to be more nimble with our firm; rather than having a formal engagement in a project she may call a partner she knows directly…. so it's very efficient for her.

While the above findings suggest that embedded ties can reduce transaction and production costs, we also found that they promote motives to mutually share these savings. Law firms reported sharing a portion of the transaction cost savings with clients by offering the client a lower than normal price but one that maintained the law firm's profit margin, for example, by discounting the pricing of new work because some portion of it was completed for another client. In economic terms, this practice enables a law firm's fixed production cost to be spread more profitably over several clients, increasing the law firm's profit while lowering fees for clients. Despite obvious the financial benefits of this practice, the profession's ethical codes forbid lawyers from charging a client for work completed for another client; "double billing" is a serious offense (Kritzer 1994).

One permissible exception to double billing is for lawyers to disclose to clients that they would like to charge them a price that is less than the price of the original engagement but more than the nominal price involved in taking the knowledge "off the shelf." An interviewee notes:

> If we happen to know of an answer, or be smart on an issue, everybody benefits, other than the fact that we can't charge as much as maybe the last time. If you come up with a solution that benefits more than one client, it's very tricky within our firm rules as to whether you can do multiple billings because you came up with the same answer once…I'm going to have to divide up that fifteen minutes by five unless we get the client's permission to bill on a different rate, which would be a premium price.

Sharing the value created in previous work in this way creates mutual benefit for the attorney and the client. The attorney gets scope benefits and the client gets a price that is less than what it would pay if another attorney priced the deal from scratch. Nevertheless, lawyers noted that despite the mutual benefits to both parties, such deals are difficult to create in the absence of embeddedness because clients have no way of validating an attorney's word. On the one hand, clients cannot verify whether an attorney's past work should reduce the price per hour by 5 percent, 10 percent, or some other figure. On the other hand, the client may discount the attorney's presentation of the facts, raising haggling costs and creating suspicion of the lawyer's motives. Under these conditions of uncertainty, embedded ties provide the governance mechanism that enables these types of exchanges to be specially priced. In the following statement, a partner explains how embeddedness and pricing are linked in this way.

> I recognize that if I'm giving somebody the million-dollar answer in an hour, I'm thinking to myself, I'm losing on this one, because I know it and I'm delivering in an hour, and I'm not getting paid for it. All I'm getting is an hour. And so there is the sense of – frustration – or just recognition that we sometimes have the

> golden answer that's going to save the client a lot of money and a lot of time. So, [with the client's permission] the…. hourly rate is a blended rate of the great super-duper value we had, as well as times when we knew more routine advice.

There is also evidence that a lack of embeddedness impairs a law firm's ability to efficiently price. In the absence of embeddedness lawyers may include a contingency price to cover the problems that can arise during the rendering of complex legal services that did not surface or were hidden when the pricing was originally set. "This is precisely the [pricing] 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). This suggests that when there is an arm's-length tie between a law firm and a client, the law firm tends to raise its price to cover unknown but expected production and transaction costs, else risk suffering the full brunt of the costs when they arise. This suggests that embedded tie should reduce prices.

Hypothesis 1a: The greater the proportion of the firm's ties that are embedded, the lower the law firm's partner price.

Hypothesis 1b: The greater the proportion of the firm's ties that are embedded, the lower the law firm's associate price.

This effect should also vary with the uncertainty level of the transaction. If there is less uncertainty in the exchange, transactions are inherently more transparent and trust should have less of an impact on pricing. This suggests that embedded ties should more strongly affect pricing for complex work by partners than for associates' more routine work.

Hypothesis 1c: The proportion of embedded client ties has a larger effect on partner prices than on associate prices.

Board Membership

Besides encouraging the flow of private information between exchange partners, network ties can promote access to private information flowing between others. In corporate America, lawyers can become board members for non-client firms.[1] As board members lawyers can acquire private information about other law firms' offerings or the criteria that clients use to judge legal services in the course of their board reviewing the bids of other law firms – information that is otherwise unavailable in law's confidential bid system.[2] Our interview data suggests that board memberships can affect price by providing access to information that circulates only among board members, enabling a law firm with board membership to better differentiate its product from competitors' products. In the following quote, one of our interviewees describes the advantages of a board seat:

> I think it's very important for law firms to be able to place their people on major boards, I think so, because of two things. You're gonna have the benefit of seeing what other law firms

[1] We use the term board membership to distinguish these board seats from board interlocks (Mizruchi 1996). Typically, board interlocks refer to the board seats that are held by a firm's suppliers such as banks or buyers such as downstream retailers (Mizruchi 1996) and established to manage the firms' resource dependencies (Pfeffer and Salancik 1978; Mintz and Schwartz 1985). In contrast, board memberships are board seats that are not occupied by a firm's buyers or suppliers but independent advisors. Lawyers typically cannot and do not sit on the board of their client firms because the resource reliance of the law firm on the client firm would be construed as violating ABA guidelines and promoting impartiality, which exposes the law firm partnership to malpractice liability.

[2] Corporations typically solicit a number of confidential competing bids from different law firms for each major project.

> are charging if the company that you sit on is using other firms…And you're gonna get the benefit of the commentary that your fellow board people have on legal services, and what they consider to be important. This enables you to make the last bid and reposition your firm relative to your competitors so that you can add something of low cost but high value to the client.

Board seats also allow lawyers to learn about business prospects before competitors do, thereby gaining opportunities to strategically add price-enhancing features to a proposal or to make advance investments in lucrative and promising areas of legal work. An interviewee observed:

> The law firm is clearly looking for business opportunities on boards. If there's a deal, if there's a change of control, if there's some hot issue, the person's in the know or can hear it first and have an opportunity to say, "Oh, we've got some people who can help out and so forth."

Thus, whereas embedded ties create expectations of trust and reciprocity that reduce transaction costs to the mutual benefit of both parties, board memberships are principally sources of private information that promote the firm's ability to strategically differentiate its product. Similarly, board memberships do not seem to lower prices but to raise them. This is because the use of private information to lower price (possibly to underbid a competitor) is unlikely to be a sustainable strategy in the long-term because there is not an attendant drop in transaction costs as was found in the case of embedded ties. These processes also seem in line with White's (2002) notion that firms seek to maximize revenues by identifying a service offering mix of price and volume (i.e., a place in the "market schedule") that is most lucrative vis-à-vis their competitors' offerings. Theses findings indicate that board memberships furnish a means for identifying parts of the market schedule. This suggests that:

Hypothesis 2a: The greater the number of board memberships, the higher the law firm's partner price.

The preceding quote also suggests that while board membership effects seem especially applicable to complex work, which offers the most options to add special features, it is likely to hold for routine work, albeit less intensely. This is because knowledge of competitors' prices permits a firm to position its routine at the high end of the associate price range by deliberately selecting higher end commodity work or commodity work that has less competition.

Hypothesis 2b: The greater the number of board memberships, the higher the law firm's associate price.

Like the effect of embedded ties, we expect the magnitudes of the above effects to vary. If the information gathered through memberships on boards can help a law firm improve its product differentiation and placement, then the more complex the product the greater the range of price enhancing or product differentiating features it might add. Thus, we expect the following:

Hypothesis 2c: Board memberships have a greater effect on partner prices than on associate prices.

Status Affiliations

Previous statistical research has found that status affects prices by signaling the true but costly to verify quality of the producer (Podolny 1993; Benjamin and Podolny 1999). Our interviewees suggested that in the legal market status affects price by reducing the costs of governing the exchange relationship net of the quality of the producer because the

purchase of legal services pays heed to more than the functional quality of the law firm's talent; it pays for the intangible qualities of the law firm that come from its status. On this point, a partner made the following observation. He noted that status relates less to determining the law firm's functional quality and more to the law firm's power to invoke the impression of a superior ability to satisfy the "emotional part" of a purchase. While the emotional part of a purchase does not figure as large as functional quality in the economics of pricing it has a prominent role in marketing research. Marketing research has focused on a company's ability to create an image that distinguishes functionally comparable products according to the unique emotional benefits they offer consumers (See also Veblen 1899).

> Pricing is multi-faceted. Experience is one facet… that we are efficient and the client gets the top gun [i.e., the top lawyer in that area]. [But] Because we certainly find that when our clients get into a crisis, when there's an emotional part of the project and there always is, somewhere along the line – they want us to give them the impression that *they're* really number one. That comes from our status. …So, I think what clients are looking for and what they're entitled to is the benefit of our experience. And if we have the status and we're entitled to claim it, I think we have every right to expect [that] as part of the pricing they give us a premium. I think both those things have to go into the equation. I don't think there's anything exclusionary about that analysis even for inside corporate counsels. Each of those things is going to play a role in pricing.

The above quote suggests that clients put a premium on selecting functionally capable law firms and that functional capability is indicated by the quality of the firm's legal talent. The quote also points out that clients will pay a premium price for services that satisfy a wider set of needs and that come with the socially defined status of the law firm. These other needs include enhancing the client's image, a finding consistent with Veblen's (1899) notion of conspicuous consumption, as well as furnishing a validation that their hiring decision followed appropriate protocols should unmanageable problems arise during the engagement. Interviewees suggested that the greater the status of the law firm, the more the hiring decision would be perceived to be accordance with accepted and defensible norms of behavior. These norms appear to help to reduce the inside counsel's potential cost of validating the correctness of their choice of a particular law firm, an expectation that is further reinforced because the company's and hirer's image is enhanced through association with a high status law firm. This process seems consistent with March's (1994) observation that choices depend not only on a decision maker's ability to pick the product of the highest quality but her desire to display conformity to the norms of the choice process that satisfy the emotional choice criteria attached to the decision. For example, one attorney reflected on how the choice of a high status law firm decreases the inside counsel's costs of validating their choices because making a decision that is consistent with the logic of appropriateness protects the inside counsel from potential criticism and raises their worth in the eyes of others.

> The tax director says to herself, 'You know, I could get this [legal expertise] somewhere else. I can use a medium-size firm in Kentucky, and they're

> fine. But I think I'd like to be able to tell my directors I got Baker & McKenzie – a high-status firm.' There's less to justify before the deal and after the fact if something goes wrong.

Accentuating the cost saving role of status in this market, interviewees noted that the standard hiring process increases the conspicuousness of the law firm's status, promoting its value and salience in the purchasing and pricing decision. They often used the term "beauty contests" to describe the hiring practices that involve multiple law firms trying to woo the business of a corporate client. As the term beauty contest connotes, the status of the law firm is made conspicuous by the contest, which causes both the client and the law firm to place a unique premium on status during the hiring and pricing decisions.

> You know there aren't that many pure beauty contests that are out there, but they're all beauty contests to some degree.….It was so the [hiring] person at the company could say whatever happens, no one's going question my choice. [I]n commodity work or the areas where there's more competition, we may be thrown into a beauty contest too. [But] It's not about quality. It's not about is the firm better at spitting out materials and ready to answer questions?

Thus, status affects pricing through information and governance benefits that are different from but related to board memberships and embedded ties. Like board memberships, status helps firms to differentiate their offerings in price enhancing ways. Differentiation however is not achieved by adding functionally enhancing legal services or by concentrating on lucrative legal specialties but by providing unique image enhancing and protocol appropriate benefits. Similarly, like embedded ties it helps to reduce transaction costs by regulating conduct. In this case, hiring high status firms displays knowledge of, and testament to the conformity of appropriate hiring norms that makes the behavior of others more predictable and therefore less costly to govern. However, unlike embedded ties the costs savings are reserved by the firm because they are not generated by expectations of reciprocity but by their role position, which the law firm individually invested in.

Hypothesis 3a: The higher the law firm's status, the higher the law firm's partner price.

Hypothesis 3b: The higher the law firm's status, the higher the law firm's associate price.

Nevertheless, the information and governance benefits of status should be greater for partner than for associate pricing because the more complex nature of partner work means that there may be a greater reliance on status to satisfy the intangible aspects of purchasing decision.

Hypothesis 3c: The effect of status on price is greater for partners than for associate prices.

DATA

Our data came from the National Law Journal's (*NLJ*) annual survey of the "Top 250 Largest U.S. Law Firms," which asked a key decision-maker to complete a standard questionnaire regarding their firm's number of partners, associates, offices, practice areas, and branch locations, as well as their high and low partner and associate prices per hour for the prior year. The *NLJ* survey sample is the 500 largest U.S. firms (by number of lawyers) of which 250 are sampled yearly. This survey design creates an unbalanced panel – each year the same items are asked of a different set of firms – which means that, over time, some firms may be polled once (e.g., 1990), while other firms may be polled several times (e.g., 1991, 1992, and 1995). Because we needed to

construct variables that included at least two samplings of each firm, our panel includes data on 133 unique law firms for the seven-year period 1989 to 1995. To test whether excluding single-case firms created a sampling bias, we compared our sample to the full NLJ 250 and found them to be consistent (see online appendix).

Data on law firm-client ties came from the "Who Represents Corporate America" and "Who Represents Financial America," annual *NLJ* surveys that are sent to the Fortune 250 and the 200 largest U.S. banks (by assets). Corporations and banks report the names of up to ten law firms that they used most during the prior calendar year; the names and affiliations of lawyers on their board of directors; the number of in-house lawyers; and their chief legal counsel's name. Data on law firm quality came from the *Best Lawyers in America* directory and the *Martindale-Hubbell Directory*.

Dependent Variables

Mega firms' pricing is done on an hourly basis (e.g., $350.00 per hour), and each client project includes a separate hourly price for partners' time and associates' time. Generally, partners' prices are applied to complex legal work and associates' prices are applied to routine legal work. While partner prices are systematically higher than associate prices, firms also have high and low prices within the categories of partner and associate prices, which reflect the market value of different legal specialties and geographic locations. For example, banking prices are generally higher per hour than tax prices for both partners and associates. In our data, firms reported separate high-end and low-end prices for partners as well as associates. These values were checked against the "Of Counsel 500 Survey," a more limited survey of law firm pricing reported in the *Lawyers' Almanac*. To operationalize a firm-level partner and associate price, we averaged the high and low partner rate and averaged the high and low associate rate for each firm and lagged them one year.

While this is a realistic proxy of the firm-level rates (an exact average of the firm-level price would require unavailable data on the complete billing rates of every lawyer in every firm), we were concerned that a possible threat to the validity of this operationalization is that two data points, the high and low price, may inaccurately reflect the average firm-level price if the amount of work done in different areas is differently weighted across firms. For example, if a firm does little work in the high-priced area of banking and much work in the lower-priced area of tax law, and if a second firm has the opposite distribution of work at the same prices, the second firm's true average firm-level price would be higher than the first, while in our data, the two firms would coded identically. We control for this possible bias with variables that correlate with how much work is distributed across practice areas at each firm. We also checked our operationalization with an interval regression on that uses the high- and low-end price as the dependent variable. This analysis confirmed the reported results, suggesting that our results hold if the true firm-level price is unknown but between the two extreme prices (see online appendix).

Independent Variables

In our data, we can measure if a law firm-client tie reflects an embedded tie but cannot distinguish between embedded ties of different intensities. This is because we do not know the start date of ties, only if they recur annually within our data window of 1987 to 1995. Consequently, using our knowledge of the context, we constructed our measure in the following way. First, we coded a tie as embedded (1=Yes) if it lasted at least two years to identify relationships that have the key properties of an embedded tie. Consistent we our other measures we lagged the first year of the sample back (i.e., 1989) by two years (i.e., 1987) to obtain consistency in all years of our study. Second, to approximate an average firm-level measure of embedded ties,

we divided the number of embedded ties of a law firm by all of the ties of a law firm per year.

This binary measure furnishes a proxy for an embedded tie but does not discriminate between embedded ties of different intensities. This adds some measurement error but also makes our tests of this variable more conservative rather than less conservative. Further, to check the validity of our embedded tie measure beyond the face validity afforded it by the interviewees, we did three tests. (1) We examined whether the distribution of embedded versus transactional ties in our sample are consistent with the distribution found in other samples. A survey of the top 350 corporate in-house lawyers called "Partnering with Outside Counsel" (Thomas 2002) suggests that about half of client-law firm ties are embedded as we define the term. Consistent with the survey data, our sample of firms have 50% of ties coded as embedded and 50% coded as transactional.

We measured the number of board memberships of a law firm as the number of lawyers from the law firm that sit on the boards of any of the Fortune 250 or the largest 200 U.S. banks that make up the *NLJ* sample.

Previous research has shown that a law firm's status derives from its client affiliations (Sandefur 2001). Sandefur (2001: 390) concludes that "lawyers value service to wealth and power," especially for "business organizations [that] serve the 'core economic values of society' and are prestigious for doing so." In law, terms such as "silk-stocking firm," "Madison Avenue A-Firm," or "Wall Street B-Firm" reflect the familiar status marker categories of mega firms (e.g., the firms "Cravath," "Skadden," and "Wachtel" are viewed as having comparable status, while Baker and McKenzie is considered to be in the next bracket down). Consequently, building on prior work, we constructed a measure of law-firm status that was based on the extent to which a law firm enters exchange relations with the wealthiest and most powerful corporate clients.

Following Wasserman and Faust's (1994: 381-385) methodology, we used a single-link hierarchical cluster algorithm that assigns law firms to the same status cluster based on having ties to the same client corporations and banks, grouping isolates into a single cluster. We then ordered the status clusters from low to high based on the average profits of the client corporations 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 bargaining power, we added controls for these characteristics of clients.

Law firm, Client, and Market Control Variables

To control for differences in law firms' *costs of goods sold*, we used the standard measure of the yearly starting salary of the firm's associates (Hagan, et. al. 1991; Gilson and Mnookin 1985). Partners typically receive a share of the residual profits rather than a salary, and therefore are not part of the cost of goods sold. We measured law firm size with two variables: *number of branch offices* and *log of number of lawyers. Firm age* (log of years since founding) controls for differences in firms' strength of reputation, inertia, and operating knowledge (Hannan and Freeman 1989).

Because law firm quality is a multidimensional construct, we used multiple measures to operationalize it (Benjamin and Podolny1999). A law firm's ability to produce high-quality legal services is a function of *both* the rigor of the academic legal training of its lawyers and the acquired experience of its lawyers in applying the law (Lazega 2001). To operationalize the quality of the firm's academic legal training, we created a variable called the *firm's human capital quality*. This variable uses the standard measure of academic legal training –

the percentage of partners with a J.D. from one of the eight most selective law schools (Columbia, Duke, Harvard, Stanford, U.C. Berkeley, University of Chicago, University of 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 high undergraduate grades, high test scores, and superior law school training and certification (Heinz and Laumann 1982). Philips (2001) used this measure to differentiate law firm prominence in Silicon Valley, an immature market with rapid growth in the undeveloped practice area of intellectual property (Suchman 1998). In contrast, our market is mature. Consequently the link between high quality law school training and the quality of legal services has become recognized. 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 (personal communication with Bryant Garth, Director of the American Bar Foundation). To check this claim, we compared 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. We used the percentage of partners in the main office, except when main office data were not available, in which case we used the firm-wide percentage.

To the degree to which the quality of a firm's educational qualifications promotes high-quality legal services, it fails to capture the degree to which partners' actual experience in practicing the law enables a law firm to produce high-quality legal services. To capture this aspect of quality, 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 U.S. The Best Lawyers survey polls a random draw of lawyers in different practice areas and cities to identify lawyers outside of their firms that they consider to be the best in an area of law. The survey item uses a behavioral measure: "Who would you use if you needed legal counsel in your 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 citation from other lawyers, it is assumed that these two lawyers do not meet the standard of quality and are excluded.

The literature shows that "best lawyers" impact firm-level quality in proportion to the number of associates they manage at the firm because the size of the case load that can be affected by a best lawyer increases with the number of associates the best lawyer can employ (Nelson 1988; Lazega 2001; Hitt et al. 2002). Consequently, we operationalized this quality measure as the number of best lawyers at the firm times the firm's ratio of the number of associates per partner, which gauges the average number of associates assigned to each partner at the firm (Hitt et al. 2002: 19). A concern with this measure is that some best lawyers may work as solo practitioners. However, solo work is rare in mega firms because they are organized around project teams. Moreover, if project team size varies, it most likely varies with practice areas, which we control for. Another concern is whether this measure conflates size with quality. The correlation between size and best lawyers is only .40, which is not unexpected given that quality and size should positively correlate in this field.

Lastly, because both of our measures of law firm quality are perceptual, we attempted to validate them with a behavioral measure of law firm quality. Our behavioral measure of law firm quality comes from the *American Lawyer Corporate Scorecard*. The

Corporate Scorecard collects annual data on corporate law firms' deals by volume and size in the key mega firm practice areas of litigation, commercial/securities law, banking, and tax. These data are considered a behavioral measure of law firm quality because competitive market pressures and client feedback should reward high quality firms with the most deals, especially over time as law firms gain competencies in proportion to the amount of work they competitively win (Lazega 2001). The data are limited however to the top 25 law firms in each practice area in each year. Thus, although the longitudinal nature of the behavioral performance data provides many advantages for examining the agreement between our perceptual measures of quality and actual performance at multiple points in time they provide too small a sample to be use in the regressions reported in the paper.

Consequently, to provide a confirmatory check on our quality measures, we used Benjamin and Podolny's method (1999). Their method establishes validation by statistically testing for agreement and disagreement among related and unrelated measures. In their study of wine status and wine quality, they looked for agreement between a wine's appellation status score and the ratings of seven wine experts for a sub-sample of wines for one of the 16 years covered in their analysis. In this sense, their method does not provide the same level of rigorous validation possible with ideal data but does furnish a useful confirmatory check when test results are consistent with each other. We have an analogous situation in terms of available supplemental data with the added advantage of being able to examine agreement over multiple time periods rather than just one period.

First, we tested whether the top firms of the *scorecard* performance measure were rated among the top firms by our *best lawyers* quality measure for each year. We found that firms rated highly by our best-lawyers measure were also significantly more likely to be at the top of the scorecard lists, a finding consistent with our measure of quality being valid. Second, we examined the Kappa interrater reliability between the best-lawyers rating and the scorecard measure. The Kappa test showed that the two measures agree in 65.83 percent of cases, a rating of "substantial agreement." Third, we conducted a Cumulative Sum test ($p < .0001$), which indicated that the probability that a firm is in one of the top lists increases as its quality rating increases. Fourth, to test if quality ratings increase with market experience – we conducted a Wilcoxon rank-sum test, confirming that our perceptual ratings of quality reflect actual behavior ($p < .0001$). Fourth, if we are correct about the validity of our best-lawyers quality measure, our measure of human capital should also be associated with our best-lawyers measure and scorecard measure because these are all cognate measures. Using the same tests, we found that the firm's human capital was positively and significantly related to our scorecard and best best-lawyers quality ratings, suggesting the best-lawyers and human-capital measures of quality are in agreement, but operationalize different dimensions of quality. Fifth, if our quality measure is valid and reliable, our status measure should *not* be strongly correlated with our scorecard, best-lawyers, or human-capital quality measures. Using the same test criteria, we found a positive but non-significant relationship between our status and our three measures of quality. A full description of these analyses is in the online appendix.

Prior research has shown that the greater the *number of in-house counsels* employed by the client, the more informed the client is about, and the more carefully it can screen, the quality and price of law-firm services (Suchman 1998; Nelson and Nielsen 2000). 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. To control for power

differences, we used three standard measures: 1) the average *bank assets* of bank client firms; 2) the average *corporate revenues* of corporate client firms; and 3) the *total number of clients* of each law firm in the sample.

While research shows that these top firms compete for similar clients, the demand and supply for services varies by region – Northeast, Midwest, West Coast and South, major city location, practice areas, and the individual level of demand for a firm's services. 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, D.C., 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 one, and zero otherwise. To control for the degree to which a firm's demand for its legal services exceed its supply of legal manpower or vice versa, one can control for temporary output adjustments, which focus on increases or decreases in the hours worked per associate, or control for long-term structural changes, which focus on increases or decreases in employment size (Romo and Schwartz 1995). Because we are measuring yearly changes in the law firm not temporary adjustments, the proper measure is employment growth or contraction (Romo and Schwartz 1995). Thus, we constructed a variable *Law Firm Client Demand*, which is current year's employment minus previous year's employment divided by previous year's employment. *Year indicator* variables capture demand variations at the market level (e.g., M&A rates, GDP, etc.). The online appendix contains a table of the variables' means, standard deviations, and correlations.

STATISTICAL MODEL

Recall that our data are an unbalanced panel – different law firms were sampled at different time periods on the same items, with a subset of firms being repeatedly sampled (Firebaugh 1997). Our two dependent variables are also related to one another. To model this data structure, we used a Seemingly Unrelated Random Effects Pooled Cross-Sectional Time Series regression model (Greene 2000). This model enables us to control for any correlation between our dependent variables and to compare the effect size of our coefficients across our partner and associate pricing models (Zellner 1962). To control for the non-independence of cases for the subset of firms that appear more than once, our models use the standard Huber-White robust variance estimator to adjust for the correlation among cases from the same firm; cases from different law firms are assumed to be independent (White 1980).

Insert Table 2 and 3 about here

The Effects of Embeddedness on Price

The results suggest that the models display a good fit and are correctly specified. R^2 is .72 and .67 for the partner and associate models respectively and the direction of effects for our market and organizational variables are in the expected directions. Model 1 in Table 2 and Table 3 regress partner and associate pricing on the baseline model of year, region, and client firm control variables. As expected region and city has a powerful effect on price. Number of in-house counsels had a strong negative effect on price. This important finding suggests that client firms boost their bargaining power and comparison shop in the law-firm market, a dynamic that has received keen debate in the literature but that has heretofore lacked empirical analysis. The total number of clients had no effect on partner price but had a positive impact on associate price. This suggests that many clients may be capturing demand for the firm's services, allowing it to charge higher prices for the routine work of associates. In contrast, the complex nature of partner work

may be less sensitive to volume of business and more sensitive to specific kinds of cases that our volume measure of demand does not allow us to examine in detail. If one accepts that these variables constitute the baseline model, then they explain a large amount of variance on their own. (However, the amount of variation explained by a variable depends on whether it is added first or last in a list of variables. For example, the embeddedness variables explain about 27% of the variation when added first – see appendix). Nevertheless, from a strategic management perspective, these factors are difficult for the firm to manage in the law market because it is notoriously hard to establish new regional offices and practice areas. Consequently, variables that explain proportionally less of the variation in prices may nonetheless play a significant role in setting apart high and low performers.

Model 2 of Table 2 and Table 3 introduce organizational controls. Law-firm size and cost of goods sold are positively associated with prices, a finding consistent with past research (Galanter and Palay 1991). By contrast, law-firm age reduces prices. While we did not hypothesize an effect for age, the negative association between age and price is somewhat surprising but consistent with recent research that has examined the effect of age and innovation (Sørensen and Stuart 2000), where pricing strategies are considered innovations (Dutta et al. 2002). This research has found that the innovations of older firms can be less applicable to the organization's current environmental demands than the innovations of younger firms, a condition that is likely in our market given its recent dramatic changes (Sørensen and Stuart 2000).

Quality positively affected price for both human capital and Best Lawyers measures. A post hoc test showed that quality had a greater impact on partner than associate prices, further validating our quality measures.

Hypotheses 1a and 1b predicted that embedded ties would create transaction-cost savings and new market-building opportunities that are shared with the client in the form of lower market prices for partners and associates. Model 3 in Table 2 indicates support for hypothesis 1a, showing that the proportion of ongoing ties between a law firm and its client network had a significant and negative impact on partner prices. Model 3 in Table 3 indicates that the effect for embedded ties for associates is in the expected direction but only marginally significant in a one-tailed test (p=0.05). The conservative interpretation of this effect is that while there is evidence that embedded ties weakly depress the prices of routine work the effect is inconclusive. Because we were unable to reject the null hypothesis for hypothesis 1b, we did not conduct the statistical test for hypothesis 1c. In sum, while embedded ties affect prices, their effect is contingent on the level of uncertainty in the transaction with a weak effect on low-uncertainty transactions.

To further test the robustness of these findings, particularly given our rudimentary measure of embedded ties, we conducted two post hoc analyses. First, we were concerned that our embedded ties effect was spuriously related to resource dependence (Pfeffer and Salancik 1978). Smaller law firms might lower prices to retain clients or acquiesce to the bargaining demands of large clients. Similarly, long-term ties might increase human asset specificity and the firms' abilities to hold one another hostage. In these cases, prices are driven by a firm's unilateral ability to bargain prices down rather than in the desire of both firms to mutual share transaction costs savings (Casadesus-Masanell and Spulber 2000). Although our data do not permit us to make definitive tests, if these arguments were operating, one would expect that at a minimum smaller law firms would reduce their prices when working for large corporations that would use their power to beat down prices, which implies an interaction effect 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. It should also be noted that our models control for the size of in-house legal departments, which in transaction cost economic terms provides high bargaining power for the buyer over the supplier because the buyer can "make" rather than "buy" as well as avoid asset specific hostage taking by reserving high specificity work for its in-house lawyers. Thus, these results indicate that size dependence does not drive our results.

Second, we were concerned that low law-firm prices might be a cause rather than a consequence of embedded ties (i.e., price-sensitive clients stick to lower-priced firms of the same quality). Consequently, we regressed the likelihood of a repeated tie on law-firm price. If low prices promote long-term ties, then price should be negatively related to tie length. In both the partner and the associate markets, we found no statistical association between price and the probability of a repeated tie, suggesting that price, net of other factors, is not driving tie duration.

Third, we examined whether price stickiness confounded the embedded tie effect (i.e., law firms may avoid increasing prices to market value for old customers who expect breaks on ongoing work). In addition, our embedded ties could be picking up on multi-year projects that prevent firms from changing their prices during the contract. To see if these processes were confounding the results, we auto-regressed the dependent variable, which controls for any correlation between price at time *t* and time *t+1*. Because of our data structure, the autoregressive time-series model excluded all of our cases that were not consecutive. Nevertheless, the results were consistent with our arguments. To gain more conclusiveness in our analysis, we tested whether firms with embedded ties were less likely to change prices from year to year. Those with embedded ties and those without them did not statistically differ in their likelihood to change prices. This finding is also inconsistent with a price stickiness explanation. All these finding also hold net of controls for law firm size, client firm size, and number of clients of law firm, and the size of the in-house legal department, which represents the client's power to "make" rather than "buy" legal services. Thus, the several independent analyses further support hypothesis 1a and 1b.

Hypothesis 2a and 2b predicted that board membership increases the firm's ability to differentiate their product, which should permit firms to increase their prices. Consistent with this hypothesis, Model 3 in Tables 2 and 3 indicates that the number of board seats results in a rise in the firm's pricing for partners and associates. Hypothesis 2c argued that the magnitude of the effects of board seats is greater on partner price than on associate price. The substantive effects suggest support for hypothesis 2c but do not take into account the different ranges of the associate and partner prices. To test for the effect sizes more formally, we compared the equality of the coefficients of Model 3 of Tables 2 and 3. The test showed that they were not significantly different (p=0.259 – the standardized coefficients were .097 and .092 respectively). This suggests that board seats are associated with adding low-cost, high-value services to the firm's offerings of equivalent price points for both partner and associate work once the range of partner and associate prices is standardized. Thus, while the effect of embedded ties on price decreases as the level of uncertainty in the transaction decreases, it is not the case for board membership. This suggests that different forms of embeddedness are not contingent on the level of market uncertainty, at least in this market.

Hypotheses 3a and 3b reasoned that if status is a uniquely valued asset, it would have a positive effect on price controlling for the quality of the firm. Consistent with this prediction, Model 3 in Tables 2 and 3 shows that status is positively related to prices for both partners and associates. Consistent with

hypothesis 3c, our test of the equality of the standardized coefficients indicated that the two coefficients are significantly different (p<.001) and in the predicted direction (standardized coefficients were .20 and .10 respectively).

Insert Figures A and B about Here

Figures A and B present the *standardized* effects of key variables on partner and associate prices, respectively, when all other independent variables in Model 3 are held at their means. Figure A shows that an increase in production costs (the economic variable with the largest effect on prices) of one standard deviation increases the partner price by roughly $12.88 per hour while in Figure B a one standard deviation increase in production costs increases the associate price by about $8.94 per hour. Using these values for our metric of the effect sizes of embeddedness, the figures show that a one standard deviation increase in our measure of embedded ties leads to roughly a $3.82 decrease in average partner price, or an effect 29 percent ($3.82/$12.88) as large as production costs. Similarly, a one standard deviation increase in the level of our board variable – the equivalent of gaining an additional board seat, raises price by roughly $4.25, or about a 32 percent ($4.25/$12.88) as large an effect on pricing as production costs for partners and a 25 percent effect for associates ($2.25/$8.94). Figures A and B indicate that status has the largest effect size of our embeddedness variables. A one standard deviation increases the partner price by roughly $9.41 per hour, or 73 percent ($9.41/$12.88) as large an effect on pricing as production costs and by $2.44 or an effect 27 percent ($2.44/$8.94) as large as production costs for associates.

From the law firm's perspective, these effects can be substantial. Consider the additive effects of an interlock tie and status on associates' prices. A one standard deviation increase in our board membership and status measures would translate into an increase of about $5.00 per hour per associate ($2.50 for an interlock tie and about $2.50 for status). If each associate can charge five dollars more per hour times 60 hours of billing per week times 50 weeks per year, she can add $15,000 in revenues. Fifteen thousand dollars in revenues multiplied by 500 associates results in about $7,500,000 in additional annual revenues just from associate work.

These effects are noteworthy not just for their magnitudes but for their theoretical implications when one takes into account that some theorists claim that social factors have inconsequential effects in low uncertainty, routine product markets. At the partner level, the same level of embeddedness would translate into an additional $13.66 ($9.41 + $4.25) per hour or approximately $2,732,000 in billings ($13.66 x 40 hours per week x 50 weeks x 100 partners). Moreover, considering that law firms are principally price takers when it comes to labor market costs, the strategic autonomy furnished by embeddedness is substantial.

Discussion

Prices are a universal language of exchange that enables goods and services to be competitively allocated. Nevertheless, few sociological studies of markets have explicitly examined how prices form. Building on work that conceptualizes markets as social structures (Granovetter 1985; White 2002; Fligstein 2001), we argued that embeddedness affects prices by adding unique value to exchanges. This value can include lower transaction costs, more efficient production, better product differentiation, or conspicuous consumption. Embeddedness promotes these values by facilitating private information exchange and the creation of informal governance arrangements that are unavailable through market processes, enabling firms embedded in social relations to generate premiums over firms that lack embeddedness.

We built on theory and original fieldwork to propose arguments about how three forms of embeddedness – embedded ties, board memberships, and status – influence firm-level prices. To test our ideas, we

analyzed longitudinal data on the legal prices charged by large law firms to their corporate clients for both complex and routine legal work. We found that these variables affect price formation net of economic organizational and market variables and that their effects vary in direction and magnitude. The greater the proportion of embedded ties a firm has with its clients, the lower the firm-level price for complex services but not routine services. In contrast, board memberships increase prices in equal measure for both complex and routine legal services, while status increases pricing in both complex and routine markets, although relatively more so for complex than routine legal services.

Finding that embedded ties decrease asking prices raises questions about how social relations affect efficiency and power in markets. Our interpretation of the finding is that embedded ties lower transaction costs, which opens up opportunities for price reduction. At the same time, they engender motivates to mutually share the transaction-cost savings rather than self-servingly gain all of the additional benefits. Exchange partners can thereby accept lower prices but maintain their profit margins, while also improving incentives for client retention. An alternative explanation might concern power; namely, that embedded ties make law firms dependent on clients who use their purchasing power to unilaterally bargain down prices. While we could not completely rule out this argument, a number of post hoc tests suggested that the main tendency is towards efficiency benefits at least over the period in which our firms are tied. These efficiency benefits can have far reaching implications for the behavior of the system. For example, most arguments about the financial efficiency of the system address the macrostructure, leaving the microstructure of the market underspecified (Petersen and Rajan 1994). Our results indicate that the types of relationships that form between producers and consumers can significantly affect prices, especially the pricing of goods where high trust can reduce the transactions costs typically viewed as irreducible through contracts. Thus, the financial market efficiency benefits of embedded ties seem to lie in their ability to solve Coase's fundamental transaction cost problem without the need of formal agreements or hierarchies, which bring to the transaction new costs – a finding consistent with Uzzi' (1999) work on bank loan pricing. This suggests that while sociological and economic arguments about the market's microstructure address similar issues, the solutions differ. Future research should examine the ways in which these solutions can reinforce or weaken each other.

Most of the past research on board memberships has examined their ability to coordinate resource dependence and to learn of new business practices (Pfeffer and Salancik 1978; Mizruchi 1996; Davis and Greve 1997). This study shows that board memberships can also play a role in price formation. Beckman and Haunschild's (2002) found that interlocks permit an acquiring firm to learn negotiating behaviors that improve their price bargaining strategies. We extend this research by isolating the informational and governance mechanisms that affect the underlying value of the good that is priced. We show that with private information, producers gain insight into how to differentiate and position their products in price-enhancing ways vis-à-vis their competitors.

This finding also moves the role of board membership away from the historical focus on power and bargaining in a market to a focus on how a market is ordered along lines of similar and different producers that seek to maximize their returns by finding the most lucrative position of price and volume relative to other producers -- what White (2002) calls a market schedule. Consistent with his theory, we found that law firms used their board positions to locate their place in the market schedule by identifying peer and non-peer firms that provide a basis for strategic differentiation into areas where their product encounters the lowest level of competition or

highest degree of demand. In this sense, board memberships are not only coordinating and learning mechanisms, they are marketing mechanisms firms use to identify and manipulate their market schedule.

Past work on status, which examined status processes in markets where highly uncertain goods make quality hard to measure and where price is partly set by intermediaries, showed that status operates through signaling (Spence 1974; Podolny 1993; Benjamin and Podolny 1999; Zuckerman 1999). Our analysis looked at status in markets where quality is theoretically as observable and costly to measure as status, where goods vary from complex to routine, and where producers sell directly to consumers. Our results suggest that in these kinds of markets status has an effect on prices that is independent of the quality of a firm. By decoupling status from quality, our findings indicate how social role structures shape prices without the need to define them as chiefly an economic signaling mechanism. 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, the etiquette of social decision making. In this sense, status is not a stand-in for functional quality but a separate characteristic of an actor that adds value and credibility to the decision process.

At the same time, our research does not refute the role of status as a signal of quality but aims to extend it following Benjamin and Podolny's latest work (1999). Our interviewees noted that the decision to purchase legal services is multidimensional. One important dimension is functional quality. The other dimension is more intangible and emotional and focused on the image conveyed by the product and the process of buying the product – aspects of pricing that are often underemphasized in economic pricing models but highlighted in marketing theory. Future research might begin to analyze these economic and marketing roles of status in more detail, especially the conditions under they affect consumers most. One might expect that as markets become more cost sensitive, the intangible benefits of status become more difficult to justify, while in markets where uncertainty may be low but result in sizable losses, status is important to the decision process independent of the level of uncertainty.

The diverse effects of embeddedness seem to occur because the three mechanisms of embeddedness affect information and governance costs in related but distinct ways. This allows for a greater range of embeddedness effects because the mechanisms are not substitutes for one another. Whereas embedded ties create expectations of trust and reciprocity that reduce transaction costs and prompt the sharing of these benefits to the mutual advantage of both parties, board memberships are principally sources of private information that promote the firm's ability to strategically differentiate its product. In the absence of reciprocity, board memberships are unlikely to lead to a drop in price (say a "low ball" bid) because the law firm lacks the transaction cost savings and collaborative motives, as in the case of embedded ties, to make a lower price a profitable objective. Like board memberships, status helps firms to differentiate their offerings in price enhancing ways. Differentiation however is not gained through identifying lucrative legal specialties or service add-ons but by providing unique image enhancing benefits. Status also helps to reduce transaction costs ties by regulating conduct in a way that is similar to embedded ties. However, unlike embedded ties the costs savings are not shared with the client because they are not generated by embedding exchanges in social attachments but by the law firm's role position, which the law firm individually invests in. Thus, we find that a law firm gains in both ways with status. It gains from product differentiation and lower transaction costs, a result that may account for the relatively greater effect of status on price.

More broadly, most sociological studies of markets and prices have been conditioned on the level of uncertainty in the market. The argument has been that transactors resort to social relations to reduce informational uncertainty that escapes economic screens. An unsettling implication of this assumption is that social relations have no effect on the multitude of down market, commodity-like products and services, which have low levels of uncertainty attached to their buying and selling. Similarly, it suggests that if uncertainty-reducing economic factors were present in a market, then the role of social structure would be beside the point for these transactions. Few studies have actually investigated this speculation directly, however (cf. Podolny 1994; Stuart 1998). We attempted to confront these arguments by measuring the magnitude of our effects in markets of high and low uncertainty. Our results indicate that the magnitude of the effect of social relations varies with uncertainty and does not disappear in markets where uncertainty is low, suggesting that social relations can have broader effects than previously assumed.

Our conclusions partly depend upon the generalizability of the mega-law-firm market. Although highly competitive, it is an industry in which knowledge is the product, service is crucial, clients are informed consumers, and equipment matters little. Looked at in this way, it would seem that our findings are most appropriate for the fast expanding service sector, which is typified by engineering and consultancies, architectural firms, ad agencies, and research firms. Nevertheless, several conditions suggest the generalizability of our model. First, the service sector represents a main portion of the economy and is growing rapidly with projections showing that it will soon be the dominant sector in employment and wealth creation. Second, embedded ties, board memberships, and status are conditions of many kinds of markets, service and manufacturing alike. Third, other studies of prices have looked at the role of intermediaries in setting prices or suggested prices for producers and consumers. In contrast, the law firm market is representative of the large number of competitive markets in which producers sell directly to consumers.

Finally, our model focused on embeddedness and price setting. A fuller sociological theory of price however, should account for how market and organizational conditions influence prices as well as prices and wealth accumulation. We controlled for how a client firm's size of in-house corporate counsel department, financial health, quality, number of alternative law firms currently being used, and so on affected price but we did not develop novel sociological interpretations of these variables. Similarly, we did not investigate the link between price and profits. Production and transaction cost efficiencies, accounting systems, costs of good sold, negotiating strategies, market share, norms and local cultures all simultaneously determine prices to differing degrees at different firms and should be integrated into a social theory of price – perhaps along the lines of labor market theory which has been successful in creating a multidisciplinary understanding of wages. Thus, an interesting line for future research is to begin to develop a broader social understanding of prices and the link between prices and stratification.

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Table 1. Descriptive Statistics of the Mega Law Firms, 1989-1996

	Firm Characteristics							*Client Legal Staff*	*Billing Rates*	
Size Quintile	Age	Offices	# of Attorneys	# of Partners	# of Associates	Costs-Starting Salary	% with Main Office in Major City	Mean # In-house attorneys at clients	Partner Billing Rates	Associate Billing Rates
1	98	10.6	510	178	312	$75,307	76.8%	53.3	$190-350	$94-218
2	100	6.9	291	115	162	$70,456	64.8%	43.9	$187-338	$97-201
3	86	5.9	217	95	113	$65,290	56.0%	49.3	$177-314	$94-188
4	79	4.7	174	77	90	$62,301	57.9%	43.5	$167-299	$93-180
5	88	4.6	142	64	72	$60,668	36.8%	34.4	$163-286	$90-174
Mean	91	6.5	267	106	150	$66,812	58.3%	45.7	$173-309	$93-187
F-statistic	1.09	141.82				170.48	38.00	5.32	8.45, 16.01	3.34, 8.45
p-value	0.27	0.00				0.00	0.00	0.00	0.00, 0.00	0.01, 0.00

Data are from *The National Law Journal* and the *Of Counsel 500*. Firms are organized into quintiles based on the total number of attorneys at the firm, with the first quintile being the largest 20% of firms. The number of cases range from 1052 to 2000 due to missing data for some of the variables. Major cities include New York, Boston, Philadelphia, Chicago, Houston, Dallas, San Francisco and Los Angeles. The *F*-statistic tests the equality of the means in each column except for size, which as used to separate firms into categories. The *F*-statistics for billing rates were calculated for the high and low price and are reported separately above.

Table 2. Seemingly Unrelated Random Effects Regression on Billing Rates for Partners, 1989-1995

	Model 1	Model 2	Model 3
Embeddedness Measures			
Embedded Ties			-11.977*
			(4.827)
Board Memberships			3.356**
			(1.226)
Law Firm Relational Status			0.260***
			(0.048)
Firm Characteristics			
Human Capital Quality		33.240**	41.837***
		(12.174)	(11.571)
Best Lawyer Quality Index		0.614***	0.525**
		(0.157)	(0.152)
Costs of Goods Sold		1.557***	1.323***
		(0.250)	(0.239)
Size		0.174***	0.119**
		(0.047)	(0.045)
No. of Branches		-0.283	0.302
		(0.671)	(0.640)
Age		-0.146**	-0.129**
		(0.052)	(0.049)
Client Characteristics			
No. In-House Counsel	-0.065*	-0.036	0.848*
	(0.030)	(0.025)	(0.613)
No. of Clients	4.880***	1.133	0.091
	(0.582)	(0.646)	(0.047)
Average Bank Assets	0.095	0.036	-0.053
	(0.057)	(0.049)	(0.024)
Average Corporate Revenues	0.063	-0.023	0.014
	(0.163)	(0.140)	(0.132)
Market Controls			
Banking Law	17.485	9.501	5.150
	(10.879)	(9.370)	(8.872)
Commercial/Securities Law	3.587	0.133	-1.684
	(4.253)	(3.649)	(3.477)
Litigation	-4.005	-1.157	-0.472
	(4.761)	(4.130)	(3.908)
Labor Law	1.658	-6.050	-5.810
	(10.570)	(9.078)	(8.597)
Tax Law	18.949	5.772	11.210
	(24.173)	(21.035)	(19.875)
Law Firm Client Demand	-29.526	-34.725	-27.118
	(24.297)	(21.001)	(19.885)
East Coast	16.237**	10.244*	8.424
	(4.960)	(4.903)	(4.786)
Midwest	-13.179***	-22.343***	-22.316***
	(5.099)	(4.874)	(4.655)
West Coast	0.361	-4.081	-6.183
	(6.567)	(6.331)	(5.991)
Major City	38.319***	18.261***	18.297***
	(4.314)	(4.823)	(4.553)
1990	6.904	6.819	6.161
	(6.178)	(5.285)	(5.143)
1991	7.962	9.776	6.276
	(6.745)	(5.788)	(5.860)
1993	16.138*	16.981**	9.254
	(6.798)	(5.855)	(5.678)
1994	22.190**	18.015**	10.745
	(6.502)	(5.650)	(5.633)
1995	34.109***	29.737***	16.521*
	(6.646)	(5.763)	(6.183)
Constant	198.049***	107.803***	47.096***
	(6.627)	(14.989)	(19.411)
N	353	353	353
R^2	0.554	0.682	0.719
F-statistic	21.79***	28.01***	29.60***

* $p<.05$, ** $p<.01$, *** $p<.001$. All variable hypothesis tests are two-tailed. These models were run as seemingly unrelated regressions with the equivalent model for associate billing rate to control for correlation between our dependent variables. So model 1 in this table was run with model 1 in Table 5, and so on for the other models.

Table 3. Seemingly Unrelated Random Effects Regression on Billing Rates for Associates, 1989-1995

	Model 1	Model 2	Model 3
Embeddedness Measures			
Embedded Ties			-4.717
			(2.822)
Board Memberships			1.770*
			(0.715)
Law Firm Relational Status			0.066*
			(0.028)
Firm Characteristics			
Human Capital Quality		14.035*	16.975*
		(6.812)	(6.742)
Best Lawyer Quality Index		0.253**	0.218*
		(0.089)	(0.090)
Costs of Goods Sold		0.998***	0.919***
		(0.142)	(0.142)
Size		0.138***	0.119***
		(0.026)	(0.026)
No. of Branches		0.078	0.267
		(0.377)	(0.374)
Age		-0.049	-0.046
		(0.029)	(0.029)
Client Characteristics			
No. In-House Counsel	-0.023	-0.004	-0.011
	(0.017)	(0.014)	(0.014)
No. of Clients	1.317***	-0.908*	-1.015*
	(0.332)	(0.362)	(0.358)
Average Bank Assets	0.041	0.005	0.024
	(0.033)	(0.028)	(0.028)
Average Corporate Revenues	0.087	0.028	0.043
	(0.093)	(0.078)	(0.077)
Market Controls			
Banking Law	8.344	3.221	1.964
	(6.202)	(5.243)	(5.169)
Commercial/Securities Law	3.807	1.537	1.098
	(2.432)	(2.050)	(2.033)
Litigation	-0.622	1.037	1.295
	(2.718)	(2.312)	(2.279)
Labor Law	-0.524	-4.070	-4.252
	(6.030)	(5.083)	(5.014)
Tax Law	9.543	-1.954	-0.228
	(13.780)	(11.775)	(11.588)
Law Firm Client Demand	-15.929	-20.470	-18.127
	(13.886)	(11.773)	(11.610)
East Coast	14.074***	10.387***	10.492***
	(2.836)	(2.755)	(2.805)
Midwest	-2.533	-9.371**	-8.999**
	(2.907)	(2.729)	(2.714)
West Coast	10.024**	7.028*	6.220
	(3.743)	(3.543)	(3.491)
Major City	15.224***	3.388	3.531
	(2.464)	(2.715)	(2.670)
1990	2.370	1.856	2.032
	(3.522)	(2.957)	(2.997)
1991	5.960	6.250	5.716
	(3.845)	(3.239)	(3.415)
1993	10.052*	9.921*	7.744*
	(3.906)	(3.309)	(3.350)
1994	11.321**	7.672*	5.983
	(3.722)	(3.174)	(3.300)
1995	20.226***	16.566***	13.636***
	(3.788)	(3.225)	(3.611)
Constant	117.278***	54.895***	41.443***
	(3.779)	(8.450)	(11.315)
N	353	353	353
R^2	0.425	0.604	0.621
F-statistic	12.86***	19.85***	18.85***

* $p<.05$, ** $p<.01$, *** $p<.001$. All variable hypothesis tests are two-tailed. These models were run as seemingly unrelated regressions with the equivalent model for partner billing rate to control for correlation between our dependent variables. So model 1 in this table was run with model 1 in Table 4, and so on for the other models.

Figure A. Sensitivity Analysis of Effects of Selected Variables on Partner Billing Rate

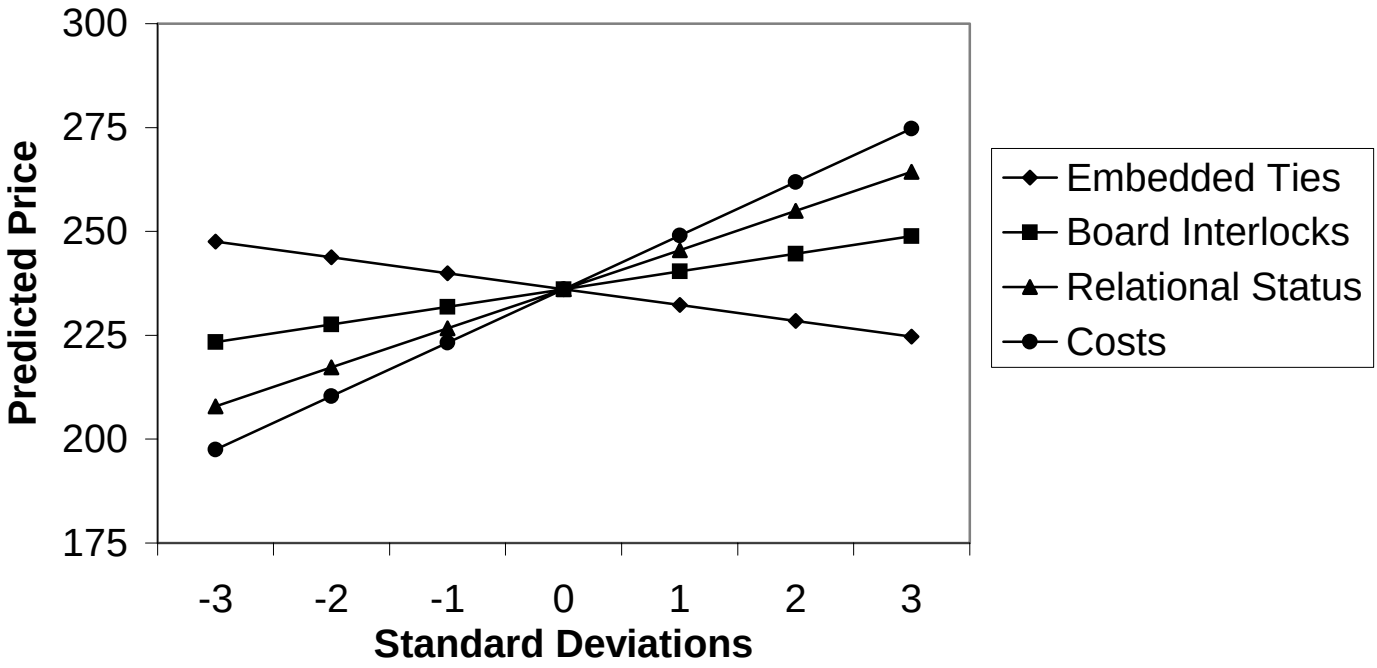

Figure B. Sensitivity Analysis of Effects of Selected Variables on Associate Billing Rate