

**The context of evaluation:
The differential effects of category spanning on inter-firm mobility**

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Abstract

This paper examines the effect of employee's category membership on their inter-firm mobility. We build on prior research that found that a person's category membership facilitates their classification as either a specialist or a generalist. We argue that belonging to a single category, which indicates that the focal worker is specialized in a specific field, versus spanning several categories, which signals generalism, are differentially associated with horizontal and vertical mobility events or lateral and upward transfers. While specialization is likely to be associated with a higher probability of horizontal mobility events, spanning multiple categories impedes the assessment of the focal employee's skills and will reduce the probability of a horizontal mobility event. We also contend the distinctiveness and diverse skill-set indicated by category spanning may qualify them for a different type of job than categorically focused workers. Category spanners should be suited to the demands of executive positions and may be associated with a higher probability of vertical mobility events. An in-depth longitudinal analysis of the labor market for attorneys in international law firms in Hong Kong confirms these hypotheses. A category spanner is less likely to move to a new firm than a categorically focused worker but the category spanning associates that do move are more likely to be immediately promoted to partner.

Key words

Market categories; Organizational ecology; Inter-firm mobility; Generalist / specialist

INTRODUCTION

A considerable literature has investigated the effect that an organization's position within a market category has on its evaluation (Negro, Kocak, & Hsu 2010). A market category is a discrete, bounded segment that groups together organizations that are similar to one another on certain dimensions (Hannan, Pólos, & Carroll, 2007). Examples of categories include genres in the film industry (Zuckerman et al., 2003; Hsu, 2006; Hsu, Hannan, & Koçak, 2009), industry categories in the stock market (Zuckerman, 1999; Smith, 2012), grape varieties (Negro, Hannan, & Rao, 2010), legal practice areas (Phillips & Zuckerman, 2001; Phillips, Turco & Zuckerman, 2015) and restaurant ratings (Kovacs & Hannan, 2015). Empirical research across these different contexts has consistently found that firms that fit neatly within categorical boundaries can be easily classified and understood by external evaluators (Hannan et al., 2007) and, as a result, are more likely to receive social or financial resources from these assessors (Hsu et al., 2009).

While the majority of this research has explored how category membership impacts the evaluation of organizations in product and service markets, scholars have recently begun to apply this framework to the analysis of individuals within labor markets (Zuckerman et al., 2003; Ferguson & Hasan, 2013; Leung, 2014; Merluzzi & Philips, 2015). The argument here is that placement in a market category effectively signals (Negro, Hannan, & Fassiotto, 2015) the focal worker's specialization within that specific area to prospective employers. For example, an attorney's position within the 'family law' category indicates their expertise in this area (Phillips, Turco, & Zuckerman, 2015). Since individuals' categorical position is informative of their job-related capabilities, it facilitates their classification and consequently impacts their assessment.

However, the influence of category membership on evaluation is not always positive. A core finding of research on categories is that organizations that fit into a single category are

appraised differently from those that span or have membership in multiple different categories (Hannan et al., 2007). More specifically, category spanners are often assessed more negatively than category specialists because spanning makes it difficult to determine which category an organization belongs to (Hsu et al., 2009). And applying a theory of market categories to individuals implies that this category spanning penalty should also be applicable to people.

Extant empirical tests of this proposition have focused on whether a person's category membership influences inter-firm mobility or the movement of workers between firms (Zuckerman et al., 2003; Ferguson & Hasan, 2013; Leung, 2014). The reasoning here is that since employers hiring externally cannot directly observe the potential employee's capabilities, they must instead rely on various proxies of an individual's skills when evaluating them (Spence, 1973) such as their categorical position. Since straddling multiple categories makes it harder to judge a person's competence in any one category (Zuckerman et al., 2003) which, it turn, makes spanners' signals harder to decipher than their peers, there should be greater career returns to specialization than to the generalism that category spanning signals (Ferguson & Hasan, 2013).

Yet despite the intuitive appeal of this hypothesis, the empirical picture is considerably more mixed. On the one hand, studies in such diverse contexts as Hollywood film actors (Zuckerman et al., 2003) and the Indian civil service (Ferguson & Hasan, 2013) have found that straddling several categories and signaling a generalist skill-set can impede or reduce the likelihood of inter-firm mobility. On the other hand, there are also clear advantages to possessing a broad range of knowledge; qualitative research suggests that employers can and do value a worker's breadth of experience and skills (O'Mahoney & Bechky, 2006). In fact, a recent paper found that workers that straddle several categories and thus possess a relatively broad range of work-experiences may experience more mobility over their career than individuals that belong to

a single category who have more narrow experiences (Leung, 2014).

Given this evidence for category spanners being both less (Zuckerman et al., 2003; Ferguson & Hasan, 2013) and more (Leung, 2014; Merluzzi & Phillips, 2015) likely to transition to different organizations, the question that arises is on what basis do employers differentiate between category spanners? We compliment and extend prior work on this topic (Leung, 2014; Merluzzi & Phillips, 2015) by focusing on how differences in the type of inter-firm mobility event (horizontal vs vertical) that employees move to may explain when or the conditions under which categorical specialization and categorical generalization are respectively valued. We would argue that category spanning should have a negative effect on horizontal inter-firm mobility events or lateral external transfers. Claiming membership in a broad range of categories will make it may be harder for external employers to match the category spanner to the specific set of skills needed for a focal job. Yet while a category spanning employee may be less likely to move to a new firm than a categorically focused individual, we propose that category spanning workers are more likely to experience a vertical inter-firm mobility event, or an external movement that involves going to a higher level of management, than their specialized peers.

The proposed positive effect of category spanning for vertical inter-firm mobility events should to be most pronounced for external transitions to executive or top management positions. Researchers and companies are increasingly recognizing the value of a generalist skill set for these positions (Bertrand & Schoar, 2003; Custodio, Ferreira, & Matos, 2013). For instance, generalist CEOs should have expertise of greater strategic relevance than those with specific functional expertise (Finkelstein & Hambrick, 1989). Top executives whose experience is concentrated in a single functional area are more likely to adhere to existing strategic policies which can lead to a narrowing of perspectives and less flexible decision-making (Geletkanycz,

& Black, 2001). Despite category specialists experience in a single functional area, they may not have the capabilities or skills that needed for an executive job. And to the extent that category spanning signals that the focal employee possesses a broad range of work experience, there may be a match between the diverse demands of executive positions or roles and spanning.

We test this argument by examining the movements of lawyers between international law firms in Hong Kong (1998 to 2008). A longitudinal analysis of this unique data set found that attorneys that belong to a single category are more likely to experience a horizontal mobility event than attorneys that are not category members. We also found that category spanners are less likely to experience a horizontal mobility event than either categorically focused attorneys or lawyers that are not categorized. Furthermore, we found that the associate-level category spanners that do move are far more likely to experience a vertical mobility event or be hired for a partner-level position, a top managerial position in law firms, than mobile category specialists.

This paper makes the following contributions by establishing that the effect of category spanning on inter-firm mobility varies with the type of inter-firm mobility event. First, we compliment and extend prior work on the effect of labor market categories on individuals. We theorize and show that variance in the effect of spanning on mobility may be due to differences in the requirements of the jobs that category spanners move to. These results add nuance to our understanding of the category literature as they suggest that the non-convergent results of prior studies on the effect of spanning on inter-firm mobility may be in part resolved through reference to the type of position or job that the mobile employee is moving to. One implication of these results is that the relative difference in rates of inter-firm mobility observed in prior studies are not only caused by the category spanning penalty but may also reflect the relative paucity of the jobs that category spanners are perceived as qualified for. This suggests that while category

spanning may not be as reliable a signal as a focused category membership, it can pave the way for higher-levels of success. Thus category spanning in labor markets may be seen as a high-risk, high-reward activity, a dynamic observed in other contexts (Leahey, Beckman, & Stanko, 2016).

Second, we contribute to research on worker mobility and human capital. While careers are often depicted as boundaryless (Arthur & Rousseau, 1996) and firms are viewed as actively searching for experience and skills that they can leverage and learn from (Rao & Drazin, 2002), the consequences of generalism and specialization for inter-firm mobility remain uncertain. Our results suggest that the type of position a worker is moving to may influence whether an individual's human capital is portable across different firms.

Third, we contribute to research on the mobility of knowledge workers by showing that social structures, such as market categories, impact this outcome. While the influence of intra-organizational structure on decision making has been established (Baron & Pfeffer, 1994) and previous research has found that social criteria influence internal evaluation processes (Pfeffer, 1989), there is surprisingly little work on the determinants of inter-firm mobility that arise from external or inter-organizational structure (but see Marx, Strumsky, & Fleming, 2009). We show that in addition to institutional constraints, the mobility of knowledge workers may also be shaped by external social forces and constraints such as categories. These social constraints may be an additional boundary condition on the portability of knowledge workers' skills.

THEORETICAL MODEL & HYPOTHESES

Beginning with Zuckerman (1999), a vigorous body of research has found that actors are influenced by their position within market categories. Market categories are social demarcations or discrete, bounded segments in which people group together units, such as organizations or

individuals, that are similar to one another on certain dimensions and there is a consensus among market participants about the meaning of the label attached to this segment (Hannan et al., 2007). However, some actors are not a perfect match with their category or “bear some but not all of the defining characteristics of the concept” (Hannan, 2010: 160). For example, a film could belong to multiple cinematic genres, such as science fiction and western, by utilizing elements located in each category. Most studies on category membership have found that category spanning is associated with some sort of devaluation (for a review, see Hannan, 2010; Negro et al., 2010).

While most research on market categories has focused on their consequences for organizations, scholars have begun to explore the effect that categories in labor markets have on individuals’ careers (Zuckerman et al., 2003; O’Mahoney & Bechky, 2006; Ferguson & Hasan, 2013; Leung, 2014; Merluzzi & Philips, 2015). The theoretical rationale for an effect of categories on individual-level outcomes is straightforward as prior work in psychology has shown that individuals often use categories to facilitate the classification and assessment of individuals (Fiske, 2010). The added refinement of the market category literature is the argument that the when evaluators use categories to classify others, the classification structure or an agent’s position within or between categories impacts their (the evaluator’s) subsequent appraisal.

The application of this theory to labor markets generally and to inter-firm mobility specifically is also unproblematic. Many accounts of labor mobility conceptualize workers as repositories of embedded skills, routines, and knowledge that may be applicable in multiple organizational contexts (Argote & Ingram, 2000; Corredoira & Rosenkopf, 2010). Employer hiring is then typically depicted as stemming from estimates of workers’ human and social capital and demographic characteristics. Unexplained variance in these models is then typically explained as stemming from either or both error and discrimination (Rivera, 2012).

Because individual attributes act as a selection device, a great deal of variance in labor mobility is predicated on whether employers can recognize and assess the value of job-relevant resources. Unfortunately, research across multiple fields including management (Bidwell & Keller, 2014), organizational sociology (Rivera, 2012) and economics (Acemoglu & Pischke, 1999) has questioned this process of assessment. The issue is that it is often difficult to assess both what skills a person possesses as well as how much skill that focal individual has. For instance, Jovanovic's (1979) classic study on labor mobility showed that employers are often greatly hampered when assessing external job applicants as information about a worker's capabilities is only gradually revealed over time. Similarly, Bidwell and Fernandez-Mateo's (2010) study of a staffing firm found that clients needed a considerable amount of time to determine whether the suggested worker was the right fit for the job. And in a study of elite management consulting, investment banking, and corporate law firms, Rivera (2012) found that time and resource-intensive shared cultural interests, such as sailing or tennis, produced positive evaluations of equally skilled job candidates. Given that cultural rather than skill differentiation led to hiring, she viewed the hiring transaction as a process of cultural matching. In sum, this evidence suggests that the assessment of job-relevant skills is, at the very least, quite complex.

Since the primary function of categories is to reduce the complexity of evaluation, an employee's categorical membership should facilitate their classification. However, and following prior research that has shown that selection criteria do differ when a firm fills a job internally versus externally (Baker, Gibbs, & Holmstrom, 1994), this effect of categories should be more applicable when hiring externally or to inter-firm mobility. The reason that selection criteria do differ for internal promotion and external hiring is that employers selecting from the external labor market cannot directly observe the capabilities of potential employees and must instead

rely on various proxies of an individual's skills when evaluating them (Spence, 1973). Studies that have explored whether these proxies or signals of a person skills include their category membership have found a relationship between an individual's categorical position and inter-firm mobility in the film (Zuckerman et al., 2003; O'Mahoney & Bechky, 2006), software (Leung, 2014) and consulting industries (Merluzzi & Phillips, 2016). In these labor markets, categories are associated with threshold levels of proficiency or competence and an individual's category membership draws attention to their capabilities. Category membership thus acts as a crude screening or filtering mechanism. For instance, if a university wishes to fill a position in marketing, an individual's placement within this category may help that person enter into the evaluator's consideration set for the position (Zuckerman et al., 2003). Thus an employee's fit to established market categories can partially account for observed patterns of inter-firm mobility.

It may be worth noting that researchers have long recognized the role that signals play in the assessment of job-candidates' ability. After all, Spence's (1973) signaling arguments dealt with (employers) assessment of educational credentials. An interesting implication of Spence's (1973) argument is that while signals can reduce uncertainty about the quality or capabilities of an employee, the reliability of the information contained within that signal varies with the cost of obtaining that signal. If this is applied to this paper's discussion of the competence-signaling effect of categories then a clear scope condition of our argument is that job-candidates should not be able to sort themselves into categories. Given that there must be some type of cost associated with an individual's categorical position, market participants other than job candidates themselves should be responsible for allocating employees into labor market categories. If observed, one effect of this scope condition is then that not all individuals within a labor-market will possess membership in a category. Only those individuals who are able to demonstrate the

necessary proficiency in a given activity that meets or surpasses the threshold of competence required for category placement will actually become category members. As a result, at the very least, belonging to a single category should quell doubts in the employer's mind that the focal employees possesses the minimum capabilities and resources needed for that line of work.

Category spanning & inter-firm mobility

While belonging to a single category may inform an employer of a person's skill or knowledge in that line of work, many workers actually straddle or span several categories. One reason that workers in external labor markets may choose to situate themselves in multiple categories is 'employability' or the ability to market oneself to multiple employers (O'Mahoney & Bechky, 2006). In external labor markets, possessing multiple competencies, as proxied by membership in several categories, could increase the number of positions a focal worker is qualified for and also increase the number of employers a person could market herself to.

Unfortunately, although spanning multiple categories may be an indicator of diverse work experience, it is more difficult to make sense of individuals who belong to multiple categories when compared to those who fit neatly within a single category (Leung & Sharkey, 2014). If employers are hiring to fill a vacancy, it may be harder for employers to match job candidates that span categories to the specific set of skills needed for that job. Underlying this argument is the fact that membership in a category may be seen as a signaling that the persons skills or capabilities are either at or above a 'threshold' of competence required for category membership (Zuckerman et al., 2003: 1026). Evaluators may view the accumulation of disparate categories as indicating that the focal actor is incapable of meeting the threshold of competence for any single category (Leung, 2014). Spanning multiple categories can raise doubts in the

employers' mind that the applicant is capable of performing tasks in any single category.

In addition to being confused about the qualities of category spanning workers, people that straddle multiple categories may experience less inter-firm mobility than category specialists because of a jack of all trades but master of none effect (Hsu, 2006). Since workers have a fixed capacity for allocating resources to any task, there is a trade-off between the number of occupied categories and the resources that can be allocated to each category. As a result, positioning oneself within multiple categories means that the person runs the risk of not excelling in any one of the categories (Hsu et al., 2009). The cumulative effect of these different mechanisms is that it is more difficult to gauge the expertise or job-related skills of category spanning workers such that claiming membership in multiple categories can lower the likelihood of inter-firm mobility.

The differential effect of category spanning on horizontal and vertical mobility events

Despite these negative effects, recent work has shown that the returns to a diffuse category membership can vary (Smith, 2011; Pontikes, 2012; Kovács & Hannan, 2015) or that spanning can have a positive effect on a variety of outcomes. Spanning can contribute to differentiation (Hsu et al., 2012) and be suggestive of novelty (Pontikes, 2012). When spanning evokes distinctiveness, evaluators may even assess category spanners more positively than category specialists (Smith, 2011). For instance, Kovács and Hannan (2010; 2015) found that some of the restaurants in San Francisco that spanned cuisines or culinary categories were more likely to attract customers than restaurants that specialized in a single category. In labor markets, Leung (2014) and O'Mahoney and Bechky (2006) found that in workers that straddle several categories are more likely to experience a mobility event than individuals that belong to a single category (Leung, 2014). One intriguing element that all of these studies have in common is that

they differentiate between the difficulty of evaluating category spanners and their penalization. When employers value the breadth of experience that a worker has accumulated over her career, they may be motivated to engage with the ambiguity of category spanners. Thus even though category spanning is often associated with negative outcomes, it is not limited to these outcomes.

The issue that then arises is when or the conditions under which external employers would sufficiently value category spanning and the wide breadth of functional experience that it signals such that they are willing to engage with these otherwise confusing employees. We propose that category spanning will be positively associated with vertical inter-firm mobility events and negatively associated with horizontal inter-firm mobility events. Research in strategic management has argued that top managers with broad functional expertise or knowledge are associated with higher levels of organizational performance (Certo, Lester, Dalton & Dalton, 2006). These individuals tend to have a larger pool of perspectives, skills, and non-overlapping knowledge at their disposal which they can then apply to the problems they face (Simons et al., 1999). This diverse skill-set is especially beneficial for executives (Cappelli & Hamori, 2004) whose jobs typically involve handling complex issues or require a sophisticated understanding of the firm's production. Similarly, research on the beneficial effects of CEO generalism has argued and found that generalist CEOs are better at integrating and exchanging information with the other members of a top management team (Buyl, Boone, Hendriks, & Matthyseens, 2011). While limited to the CEO, these findings imply that a generalist skill-set is well suited to the demands of top management positions. Furthermore, while there is certainly substantial firm-level heterogeneity in hiring strategies, the process of hiring executives or top-level managers often takes substantial time and requires a greater amount of attention than other hiring processes (Cappelli & Hamori, 2013). When hiring for executive positions, firms are certainly motivated to

spend the time needed to understand the qualities and abilities of a category spanning employee.

This suggests that category membership provides employers with a way of understanding employees' job-relevant skills and resources; an employee's position within either one or several categories may act as a filter or a basis for matching the employee to the specific job. More specifically, a category specialist, or a person who belongs to a single established market category, is more likely to experience a horizontal mobility event than individuals who do not have this signal. In essence, external employers filter or match individuals by their specific functional specialty to the demands of a new job. This would also suggest that when category spanners try to move to a new firm, the ambiguity and confusion spanning engenders make it less likely that they will be able to do so; spanning makes it harder for external employers to match individuals to new jobs via their functional experience. Thus category spanning employees are unlikely to experience horizontal inter-firm mobility events. But while category spanners should make up a relatively small minority of mobile employees, they should be overly represented among those employees who are moving for a promotion or experiencing a vertical mobility event. External employers filter or match individuals to the demands of executive positions via their experience across multiple functional domains. We formalize these arguments in the following hypotheses.

Hypothesis 1 (H1): *Membership in a single category increases the likelihood of horizontal inter-firm mobility.*

Hypothesis 2 (H2): *Category spanning decreases the likelihood of horizontal inter-firm mobility.*

Hypothesis 3 (H3): *Category spanning increases the likelihood of vertical inter-firm mobility.*

DATA

We tested these hypotheses by examining the movement of employees between the

offices of international law firms located in Hong Kong, China. We focus on the legal industry because the market for corporate legal services can be meaningfully apportioned into categories (Paloella & Sharkey, 2016). As Phillips and Zuckerman (2001: 391) observe “a [law] firm’s profile of practice areas is understood to reflect its fields of expertise. As such, clients select law firms...based on the set of practice areas they offer”. Since market participants use categories to make sense of the market for legal work, law firms themselves follow this practice in the labor market. Prior work on the legal labor market has found that hiring firms often use an attorney’s category membership as an indicator of skill when evaluating external job candidates (Garciano & Hubbard, 2009). Furthermore, attorneys do not self-select into categories in this market. As we expand on in the description of our independent variable, third party observers are responsible for the classification of attorneys. Thus this market meets the scope condition of our theory.

We examine the legal industry in Hong Kong because it is one of the largest legal markets in the world and law firms in Hong Kong operate within close physical proximity of one another. This reduces unobserved heterogeneity related to relocation costs and ensures that job candidates have a wide range of options to choose from when contemplating an external job shift. Within Hong Kong, we investigate mobility that occurs between international law firms which are law firms that operate one office (the home office) within their home country and one office (the branch office) within a foreign jurisdiction, for the following reason. When analyzing category membership in labor markets, it is important that market participants have a common understanding of the signaling effect of a category or understand the skills that membership in a category proxies for. As international law firms differ from local law firms in terms of their structure and governance (Hitt et al., 2006) as well as their practices and clients (Silver, 2007), there is more within-group homogeneity in how they view category signals. This, in turn, may

reduce unobserved heterogeneity in the interpretation of its effect on mobility.

Since prior research on the relevance of categories for the legal services market took place in the United States, we conducted four interviews with either current or former partners of international law firms (Dutch, U.K., and U.S) who worked in the organization's Hong Kong office about whether Hong Kong law firms took note of a job candidate's category membership. Each interview was conducted over the phone and lasted from 30 to 60 minutes. We first verified that the law firms in which these partners worked were organized into different groups and teams that belonged to different categories. This allowed us to verify that legal work within these law firms was organized across categorical boundaries that corresponded to different legal practice areas. We then discussed hiring. Each partner stressed that when hiring, they look for talent. For instance, the U.S. partner stated that he "look(s) to fill a position or a need. I look to see whether we can acquire talent in a specific area." The U.K. partner said "we certainly review each applicant's competence in a certain field...we are looking to add highly capable attorneys who are capable of joining a specific practice." These responses indicate that decision-makers look to an attorney's position in a given practice area or legal category, most likely as a consequence of the fact that in these firms legal work was structured by categories.

We also discussed associates leaving their employer and receiving a promotion to partner from another firm. One partner observed that "people want to be able to have their own group. This market is fluid. You have the opportunity, as a young guy, to head up your own practice." The other partners confirmed that the Hong Kong legal market does not necessarily prevent or throw up barriers to these promotions. Thus while vertical inter-firm mobility events may not be common, it is also the case that they are an accepted route to the partnership in this market.

Sources. We collected data on law firms and attorneys in Hong Kong from the following

legal directories. The annually published *Hong Kong Law Society Law List* and *Hong Kong Bar Association Bar list* lists the name of the law firm, the size of the firm, and the job-position of attorneys (partner, associate, etc.) at each firm. By following these two directories across time, we could track the hires (entry), departures (exit), and inter-firm transfers of the attorneys working for the branch offices of international law firms in Hong Kong. The *Asia Pacific Legal 500*, *Martindale Hubbell* and the *AsiaLaw Leading Lawyers List* provided additional information on both law firms, such as their size and their specialization within the law, and the lawyers who work for these firms, including the areas of law in which the individual lawyer claims expertise.

Sample. Our final dataset covers the entire population of international law firms in Hong Kong, over an eleven year time period beginning on January 1, 1998 and ending on December 31, 2008. We start our observation window in 1998 after the handover, as the 1997 handover of Hong Kong from British authority to Chinese authority led to a number of changes in the laws of Hong Kong. Our data is specified at the individual-level, and covers 9,044 individuals working within 178 firms for a total of 29,513 observations over an 11-year period. The mean tenure of an attorney at was 3.26 years. Women comprised 37% of the sample while men made up 63%.

There are 1,764 partners (19%) and 7,280 associates (81%). 987 partners and 1,114 associates remained with a single firm throughout the observation window. 316 partners and 3002 associates entered the market, 246 partners and 2064 associates left the market, and 215 partners and 1,100 associates transferred to a new employer in Hong Kong. Left the market means that this individual no longer works within the international law firm population. These attorneys could have moved outside of Hong Kong or they could have transferred to a non-international law firm within Hong Kong. While we control for these mobility events, the analysis focuses on within Hong Kong mobility or when the source and destination of the mobile

employee are in Hong Kong. This ensures consistency in the classification of employees.

Dependent variable

Our first dependent variable, which is used to test the first and second hypothesis, is *horizontal inter-firm mobility*. To avoid confusion, we refer to the mobile attorney's origin as the source firm and the mobile attorney's destination as the destination firm. For this binary variable, one indicates that the employee has transferred to a novel destination firm within Hong Kong while continuance with the source firm is coded as zero. 1244 horizontal mobility events occurred between 1998 and 2008 (215 partners and 1029 associates).

Our second dependent variable, *vertical inter-firm mobility*, is used to test the third hypothesis. For this binary variable, one indicates that an attorney has transferred to a novel destination firm within Hong Kong and was promoted to partner the year following the mobility event while zero indicates continuance with the source firm. Partners are responsible for the management of the firm; becoming a partner represents a promotion to an executive position as the promoted employee gains some influence over organizational decisions. 645 associates, or 9% of the total number of associates, were promoted to partner between 1998 and 2008. 573 of these associates remained with their source firm before their promotion. 71 associates or 6% of all mobile associates transferred to a new firm and were immediately promoted to partner. Table 1 contains information on the number of vertical inter-firm mobility events on an annual basis.

Insert Table 1 about here

Independent Variables

Category spanning. We used data from *Martindale Hubbell* and the *Asia Pacific Legal*

500, which are legal directories that contain information on the legal expertise of attorneys in the Hong Kong market, to construct these measures. The information contained within these directories is based on extensive independent research that allows these directories to cover the operations of different corporate law firms and attorneys working for these law firms across all applicable legal practice areas. In addition to their extensive legal research, the *Asia Pacific Legal 500* also ranks the quality of different law firms' activities in various legal practice areas on an annual basis. The editorial team reviews reports provided by both law firms and their clients that contain information about the quality of a law firm's performance in a legal practice area. The editorial team then contacts a focal firm's peers and conducts further market research to confirm the accuracy of the information they have received. Because this information on categories partially captures or reflects the market's perception of the focal lawyer, it meets the scope condition discussed earlier in this paper or that employees should not be responsible for sorting themselves into categories. In addition, since the allocation of an attorney to a category is based upon information provided by both clients and peers, a lawyer must meet a certain threshold of competence before being included in these directories as a member of a particular legal category. In this context, the signal derived from inclusion in a market category comes at some degree of cost and reflects the attorney's past performance in a certain area.

These directories, which are updated annually, had information on the following 13 legal practice areas: banking, corporate (including mergers and acquisitions), dispute resolution, finance, insurance, intellectual property, information technology, labor and employment, project finance, property, restructuring and insolvency, shipping, tax and trusts. Based on this information, we constructed the following variables. *Category specialist* is a binary variable in which a value of one indicates that the attorney is specialized in a single category and zero

indicates that the attorney does not belong to any category. *Category spanning* measures the degree of category spanning. We first calculated the proportional mean of categories spanned at each year of the observation window. Thus if an attorney occupied both the information technology and tax and trusts categories in 2000, we calculated the sum of the number of occupied categories (2) and divided this sum by the number of total categories (13). Since the most categories occupied by any attorney was seven, this measure ranged from 0.15 to 0.54.

We further differentiated both variables by employment position (partner vs associate) which allowed us to investigate whether the theorized effect of spanning on mobility differed by position. We created associate category specialist, associate category generalist, partner category specialist, and partner category generalist variables. The associate and partner category specialist variables are binary in which a value of one indicates that the attorney is specialized in a single category and zero indicates that the attorney does not belong to any category. The associate and partner category spanning variables measure the degree of spanning for associates and partners.

There are 1364 category specialists or approximately 15% of all attorneys. 575 are partners which is approximately 32% of all partners; 789 are associates which is approximately 11% of the associates. 260 category specialists, 129 partners and 131 associates, experience a mobility event. There are 1072 category generalists or approximately 12% of all attorneys. 537 are partners which is approximately 30% of all partners and 538 are associates or 7% of all associates. 101 spanners, 38 partners and 63 associates, experience a mobility event

Control Variables

Human capital. We used several different measures to control for attorney's underlying skill. First, we created the *Hong Kong lawyer* variable which measures whether an attorney has

successfully passed the Hong Kong bar exam and is able to appear in Hong Kong courts. This allows us to test for a specific type of human capital related to international law firms' multi-jurisdictional work. Second, we created a scale variable for the *level of education* of attorneys using the biographical data in *Martindale Hubbell*. A 1 indicated the possession of an L.L.B., 2 indicated possession of an L.L.M., 3 indicated possession of a *juris doctorate* (J.D.) and 4 indicated possession of a Ph.D. Third, we created a *lawyer experience* variable, which is a count of the time spent in the legal industry beginning with the date that the focal attorney was licensed to practice law. Fourth, we create an *attorney status* variable to capture additional differences in the quality of the attorneys. Status was operationalized as the possession of a degree from an elite law school (Phillips, 2002). In legal markets, an elite education is a credential that suggests that the possessor is among the best of the best in terms of education, performance, and training (Galanter & Henderson, 2008). Thus an elite education signifies that the focal individual is the 'cream' of the applicant pool for a given year. Because of the international diversity of the Hong Kong attorney population, a large number of elite schools were included in order to capture all possible status signals. The elite law schools were selected by examining rankings of law schools and such as the U.S. News and World Report and discussions with the deans of law faculties in Hong Kong. The list included the following universities: Harvard, Yale, Columbia, NYU, Chicago, Northwestern, Stanford, Berkeley, Duke, McGill, Toronto, Oxford, Cambridge, LSE, Imperial College London, and the University of Paris I, II, X, and XI. For this binary variable, a value of one indicates that an attorney possessed a degree in law from one of these universities.

Demographic characteristics. We created the following binary variables to control for any potential effects of the attorney's gender and employment position. If an attorney is a *partner* in a given year, this variable was coded one for that year. If an attorney is an *associate* in

a given year, this variable was coded one for that year. Lastly, for the *gender* variable, one indicated that the lawyer is male while zero indicated that the lawyer is female.

Mobility. The following variables control for the mobility of attorneys who either leave or originate from outside of the Hong Kong market. *Market entry* is a binary variable in which a value of one indicates that an attorney has been not previously been employed by a Hong Kong law firm. *Market exit* is a binary variable in which a value of one indicates that an attorney who was employed by a Hong Kong law firm has left this market. By controlling for these non-Hong Kong mobility events, we can somewhat address the impact of out-of-panel mobility on our outcomes of interest (within Hong Kong inter-firm mobility and promotion).

Organizational characteristics. A foundational idea among organizational sociologists is that an organization's characteristics affect the nature of jobs within it (Hannan, 1988) and thus influence the relative attractiveness of the organization as a destination. We used several variables to control for this effect. First, we measured the *size* and the *growth rate* of the organization. Second, we also measured the associate-to-partner ratio which prior work on law firms has treated as an indicator of firm performance (Hitt et al., 2006). Third we constructed a *firm specialization* measure to control for the possibility that an attorney is moving to a firm because of the overlap that may exist between the mobile individual and destination firm's legal expertise. The measure is taken from Reagens and McEvily (2003); a_{ik} is equal to one if the mobile attorney i is specialized in category k and a_{jk} is equal to one if the destination firm j is also specialized in category k . The product of these two variables equals one when the mobile attorney and the destination firm are specialized in the same practice area. Summing the product across all 13 practice areas and dividing by the number of active practice areas gives us the degree of specialization overlap between the mobile attorney and the destination firm.

$$so_{ij} = \sum_{k=1}^{13} a_{ik} a_{jk} N_i$$

Fourth, we followed Phillips (2002) and calculated the conditional likelihood of a promotion by the current employer, or the *internal promotion hazard*, to account for the likelihood that external mobility is motivated by a dearth of internal promotion chances. We took the natural log of this probability to normalize the distribution. Fifth, we controlled for the *status of the law firm* as the status of an organization may motivate mobility. For instance, successful attorneys may wish to depart from lower-status firms and move to higher-status firm. We used the *Asia Pacific Legal 500* series detailed information on law firm rankings in each practice area to determine firm-level status. This ranking indicate the status of the focal firm in the different practice areas it is active in. The ranking is composed of tiers ranging from one to six in which one represents the highest level of quality in an area. We first constructed a scale in which 1 = Tier 6 and 6 = Tier 1, so that the highest value of the scale represented the highest status tier. We then calculated the proportional mean *status ranking* of the firm on a yearly basis.

Market Characteristics. We used the following measures to calculate the size of the legal market. *Organizational population density* was calculated as the total number of international law firms in Hong Kong in a given year. The *number of associates* and the *number of partners* measures the respective numbers of law firm professionals active in the overall Hong Kong legal market in a given year. One issue in dividing a labor market into categories is that employer demand for category specialists may not be constant throughout all of the categories. In our dataset, there could be greater demand for the finance law category than for the shipping law category. A category spanner that spans popular categories may be more likely to be presented with external job opportunities than an attorney who spans an equal number of unpopular

categories. In order to control for these issues, we first calculated the total number of firms that declare membership in a specific category from 1998 – 2008 in order to determine if a given category is far more popular during this time span. The results are summarized in Figure 1.

Insert Figure 1 about here

According to Figure 1, the corporate-M&A, dispute resolution, and finance categories were the most popular among firms during the sample’s time span. In order to control for a possible hitching effect, in which a lawyer becomes more mobile due to a declaration of mobility in one of these three practice areas, we created the binary *hiring opportunity* variable. A value of one indicates that the attorney is listed in one or more of these categories. A zero indicates that the attorney does not have membership within them. To control for left censored observations (Iceland, 1997), we used the *entry pre-1998 variable*, which indicates that the individual was employed in the market at the start of 1998, the beginning of the observation window. We used the natural log of the annual gross domestic product or *GDP* in millions of Hong Kong dollars, to proxy for the munificence of the legal market. Table 2 summarizes and correlates all variables.

Insert Table 2 about here

Methods & Results

In our context, it is possible that attorneys who belong to one or more categories may move to a new destination for reasons other than their category membership. This presents a selection issue as the observed correlation between category specialism or spanning and inter-firm mobility may be an overestimate of the effect of category membership on this outcome. One solution would be to use individual, firm, and year fixed effects in a regression model. However,

the fact that most attorneys only change employers once prevents us from using individual-level fixed effects. We therefore used propensity score matching to address the selection issue or the possibility that the attorneys that move to new firms may belong to one or more categories yet transfer to a new destination for reasons other than category membership. Matching on observables reduces observed heterogeneity at the individual-level that may be influencing our estimates. We used `psmatch2` in Stata 14 to construct three different matched samples, one for each hypothesis, with the nearest-neighbor greedy matching technique and the previously described control variables as covariates. We then weighted the covariates by their propensity score for each sample and used logistic regression with fixed effects at the firm and year level to test our hypotheses (Table 3, columns (1)-(4)). The firm-level fixed effects allowed us to account for the persistent differences stemming from resource endowments that exist between firms as well as the effect of aggregate trends that occurred in our observation window.¹

The first matched sample was comprised of pairs of attorneys that differed in terms of whether the attorney was a category specialist (the treatment) or had no category membership (the control). The second matched sample was comprised of lawyers that differed in terms of whether an attorney was a category spanner (the treatment) or had no category membership (the control). The third matched sample was comprised of pairs of associates that differed in terms of whether the associate was a category spanner (the treatment) or a category specialist (the control). The outcome for the first two samples was a horizontal mobility event; the outcome for the third sample was a vertical mobility event. The covariates had statistically significant effects

¹ The results of the Hausman test rejected the hypothesis that random effects was a better specification than fixed effects ($p < .01$). We also tested these models with individual-level fixed effects and clustered standard errors to account for possible correlations of the mobility events with law firms. The results were substantially the same albeit with a highly reduced sample (280 attorneys transferred to a new destination more than once within the event window or approximately 21% of all mobile lawyers). This analysis is available upon request from the authors.

for all three matched samples (Sample 1 overall pseudo R-squared of 0.39; Sample 2 overall pseudo R-squared of 0.44; Sample 3 overall pseudo R-squared of 0.58) and satisfied the balancing property of the propensity scores. We found that attorneys who had membership in a single category were more likely to experience an interfirm mobility event ($t\text{-test} = 3.32$) than attorneys who did not possess category membership. We also found that attorneys who spanned multiple categories were less likely to experience an interfirm mobility event ($t\text{-test} = -2.62$) than attorneys who did not possess category membership. Lastly, we found category spanning associates who experienced an interfirm mobility event were more likely to be promoted ($t\text{-test} = 4.85$) than associates who belonged to a single category and also experienced a mobility event.

Insert Table 3 about here

The results of Model 1 in Table 3 indicate that, as hypothesized, category specialism is significantly and positively associated with a higher probability of inter-firm mobility. Attorneys that belong to a single category are approximately 16% ($p < .05$) more likely to experience a horizontal mobility event than attorneys that do not possess category membership. The results of Model 2 in Table 3 show that, as predicted, while category specialism remains positive and significant, category spanning is negatively and significantly associated with lower levels of mobility. More specifically attorneys that belong to a single category are approximately 19% ($p < .05$) more likely to move to a new firm while category spanners are approximately 35% ($p < .05$) less likely to transfer to a new employer. These results offer support for H1 and H2.

Since associates are far more likely ($p < .01$) to move to a new firm than partners, we then examined whether the effects of category specialism and category spanning varied for associates and partners.. The results in Model 3 show that the respective positive and negative effects of

category specialism and spanning influence the mobility of both associates and partners although the effects are stronger for associates than for partners. More specifically, the probability (15%) that an associate that belongs to a single category will experience a horizontal mobility event is significantly higher ($p < .05$) than that of a category specialist partner ($p < .10$; 12%). Similarly, the probability (54%) that a category spanning associate will not experience a horizontal mobility event is significantly higher ($p < .01$) than that of a category spanning partner ($p < .10$; 18%). These results are broadly in line with prior work (Phillips & Zuckerman, 2001) that found that category spanning does not affect high-status individuals, such as partners, as strongly as others. These results provide further support for our second hypothesis.

In Model 4 of Table 3, we find that, as hypothesized, category spanners are far more likely to experience a vertical mobility event and be promoted to partner ($p < .05$; 36%) than mobile category specialists. This supports the third hypothesis. Although category spanners are less likely to move, when they do move they are more likely to move to executive positions.

Robustness tests

The prior analysis tested the effect of an attorney's category membership influenced the likelihood of horizontal and vertical interfirm mobility. While we do use firm and year fixed effects and attempted to address individual-level selection issues with propensity score matching, unobserved heterogeneity may still influence our results. We therefore ran a number of robustness tests to determine whether and the extent to which alternative explanations based on unobserved individual or categorical differences can account for our results.

First, we examined whether employees who span categories are simply less likely to try to leave their current firm. This alternative explanation is consistent with the job characteristics

model (Oldham & Hackman, 2010) which states that skill variety is a desirable characteristics of jobs. From this perspective, category spanners, who are able to work in a variety of different practice areas within their current firm, are highly satisfied with their jobs and thus less likely to try to move while category specialists are less satisfied and more likely to leave. To address this possibility, we examined if category membership was a determinant of internal promotions (Table 4, Model 1) using logistic regression with firm and year fixed effects in Stata 14. The idea here is that while we cannot conclusively rule out a potential effect of job satisfaction, this analysis does show that there may be a push factor, such as a lower likelihood of internal promotion for both category spanners ($p < .05$; 47%) and category specialists ($p < .05$; 23%).

Insert Table 4 about here

While these results may seem counter-intuitive, it is worth noting that several of the controls that are significant, such as an elite education, perhaps point to a different internal selection mechanism for promotion than our postulated external mechanism of category membership. Since prior research (Bidwell & Keller, 2014) has found that firms often use different internal and external selection mechanisms and the internal mechanism is perhaps cultural (Rivera, 2014), we believe that these do results show that the inability to be promoted may be a push factor that could help explain why these attorneys leave even if they are satisfied.

We used propensity score matching to test whether these results with the promotion to partner outcome were congruous with our results from Model 4 in Table 3. We created a matched sample of stationary versus mobile associates who were either category spanners or specialists with the same outcome (promotion to partner). We used the nearest-neighbor greedy matching technique with the previously described control variables as covariates. They had

statistically significant effects (overall pseudo R-squared = 0.21) and satisfied the balancing property of the propensity scores. We found that stationary category specialists and spanners spanning were less likely to be promoted to partner ($t\text{-test} = -2.70$) than their peers who were specialized in a single category. We then weighted the covariates by their propensity score and used logistic regression with firm and year effects to test whether an incoming category specialist or spanner was more likely to be promoted to partner than the associates currently residing in the firm. We found that mobile category generalists were significantly more likely to be promoted to partner than all of their peers. This suggests that even if category spanners are happy with their jobs, promotion is a push factor that would impact their decision to leave their current employer.

Second, we then examined the destinations of these mobile attorneys to rule out the possibility that they were consistently moving to a specific type of law firm. We tested whether category specialists and spanners were moving to specialist or generalist firms respectively. The results of a random-effects logistic regression model showed that neither category specialists ($\beta = -0.24$; $p=.99$) nor category generalists ($\beta = -0.28$; $p=.99$) were likely to move to law firms that specialized in a single category. Similarly, neither category specialists ($\beta = 0.27$; $p=.67$) nor category generalists ($\beta = -0.17$; $p=.99$) were statistically likely to move to generalist law firms.

We also explored whether associate category specialists and category spanners were moving to lower-status law firms. Our concern here was that these individuals, especially the category spanners, could be seen as lower quality than others such that their mobility reflected a desire to move to any potential employer that would hire them. The results of a random-effects logistic regression model showed that category specialists ($\beta = -0.13$; $p=.62$) and generalists ($\beta = -0.95$; $p<.05$) were significantly likely to not move to low-status law firms (status was measured via law firm rankings). Neither category specialists ($\beta = 0.04$; $p=.52$) nor category generalists (β

= -0.01; $p=.29$) were statistically likely to move to medium-status law firms or to high-status law firms (Category specialists: $\beta = 0.16$; $p=.63$; Category spanners: ($\beta = 0.04$; $p=.96$).

Finally, we tried to address the issue of the relative effect of push and pull factors on mobility via an analysis of the mobility of lawyers within Hong Kong after their firm has gone bankrupt. The idea here is that all mobile employees are subject to the same push factors (the bankrupt employer) regardless of their category membership. Thus if internal factors are primarily responsible for the effect of category membership rather than the theorized external factors (the effect of categories on external employers), we should not observe any effect of category spanning. While there are 35 firms that employed a total of 86 associates over the event window, only 31 of these associates transferred to a new employer in Hong Kong and none of these associates were promoted upon entry. Thus this test only applies to the interpretation of our H1 and H2. We used a logistic regression model with year and firm-level fixed effects with the same control variables. Eight of the mobile associates were members of a single category and were marginally significantly more likely to transfer to a new employer than individuals who did not belong to any category ($\beta = 0.16$; $p<.10$). 4 of the mobile associates were category spanners and were also marginally significantly more likely to not transfer to a new employer and thus exit the Hong Kong market than their peers ($\beta = -0.58$; $p<.06$). While this test is not determinative, in conjunction with the other robustness tests, it does lend further support to our arguments that our results are driven by unobserved push and pull factors.

Categorical differences. Recent work on category spanning that has argued that some categorical combinations are more similar and thus easier to understand than others and consequently that the ambiguity of category spanning should vary with the similarity of the categorical combination (Kovacs & Hannan, 2010; 2015). This line of reasoning may easily be

applied to the labor market context. Workers may situate themselves into multiple categories in order to demonstrate their employability. When these categories are related or similar to one another, then employers will not find the categorical combination to be confusing. While we controlled for whether certain categories were more in-demand than others, our measurement of spanning does assume that each categorical combination is equally confusing. To address whether differences in category similarity are affecting our results, we followed Leung (2014) and calculated similarity in job market categories via their co-occurrence.

$$Similarity_{i,j} = \frac{|i \cap j|}{i}$$

The similarity of categories *i* and *j*, respectively is equal to the number of times both categories occur in all attorneys' past histories divided by the total number category occurrences throughout the event window. For attorneys that span more than two categories, we multiply the similarity of each spanned combination and sum the product over the number of spanned practice areas. We then plugged this variable into the fixed-effects logistic regression models testing the effect of category membership on inter-firm mobility and promotion. We are happy to report that this does not change our analysis. Category specialism ($\beta = 0.41; p < .05$) and category spanning ($\beta = -0.76; p < .05$) as well as both associate specialism ($\beta = 0.39; p < .05$) and spanning ($\beta = -0.93; p < .01$) and partner specialism ($\beta = 0.18; p < .05$) and spanning ($\beta = -0.27; p < .10$) have the same effect on inter-firm mobility as the specifications reported in Table 3. Similarly, mobile associate category specialists ($\beta = -0.10; p < .60$) and mobile associate category spanners ($\beta = 0.49; p < .05$) remained less and more likely to be promoted to partner immediately after moving.

While these models provide substantial support to the predicted effects of spanning on mobility, one problem that they face is whether these effects stem from how an attorney is

categorized or reflect the skills and qualities that enabled the lawyer to be placed in a category in the first place. To address this issue, we drew on an unusual feature of our data in which some attorneys were reclassified into a new category. In 2005, the *Asia Pacific Legal 500* introduced a new category, patent and trademark practices (PTP). This category was introduced to differentiate intellectual property (IP) work that focused specifically on patents and trademarks, for other aspects of IP work. What is noteworthy for our design is that this category only lasted for one additional year (2006) and was dissolved and did not appear in either 2007 or 2008. Furthermore, the intellectual property category remained in place during this time. As a result of this new category, a small number of attorneys (87) across 11 law firms were reclassified as either category specialists (44) or category spanners (43). More specifically, 43 attorneys who had only been members of the IP category now belonged to both the IP and the PTP category; 44 attorneys who did not belong to any category were now members of the PTP category.

We constructed a sample of 6,797 attorneys belonging to these 11 law firms across ten years (1998-2007). We included the final year after the reclassification ended to account for any lingering effects of this action. We restricted the sample to the law firms that the reclassified attorneys belong to so that the analysis would show the effect of being reclassified on horizontal and vertical mobility events relative to those attorneys who worked in the same law firms as the reclassified yet kept the same classification throughout the event window. Twenty of the reclassified specialists and ten of the reclassified generalists experienced a horizontal mobility event while one reclassified specialist and three reclassified generalists experienced a vertical mobility event (fifteen non-reclassified attorneys experienced a vertical mobility event). We then used a difference in difference regression to model the effect of reclassification into a category specialist or a category spanner on horizontal mobility and vertical mobility.

We found that being reclassified as a specialist did not have a statistically significant association with horizontal mobility event ($p=.23$). We interpret this result as indicating that perhaps the positive effect of being a specialist on the likelihood of horizontal mobility does derive, at least in part, from the attorney's skills and capabilities rather than their classification. However, we also found that being reclassified as a generalist did have a statistically significant and negative association with horizontal mobility events ($p=.01$) and a marginally statistically significant and positive association with vertical mobility events ($p=.07$). In other words, being reclassified as a category spanner decreased the focal attorney's association with horizontal mobility but increased their association with vertical mobility in the direction we predicted. Given the small number of horizontal and vertical mobility events, we are hesitant to argue that this analysis is definitive. Yet in conjunction with the earlier analysis, it seems to indicate that being classified as a category spanner not only effects inter-firm mobility but also differentially impacts horizontal and vertical inter-firm mobility events.

Discussion

This paper has examined the effect that membership in market categories has on inter-firm mobility and the likelihood of promotion. In line with prior work, we found that category spanners are less likely to experience an interfirm mobility event than other workers. In contrast to prior work on both market categories and on the relationship of specialization to careers (Ferguson & Hasan, 2013), we found that category spanners that do move to a new employer are more likely to be promoted to partner. Our theoretical framework and model has relevance for research on categories and category spanning as well as research into inter-firm mobility.

Market categories. These findings thus extend and compliment prior work (Leung, 2014;

Merluzzi & Phillips, 2015) on the effects of individual category spanning in labor markets by establishing the demands of the job or position as a possible determinant of the value of an employee's categorical position. One intriguing implication of this argument is that it is not that some acts of spanning carry greater penalties than others. Rather, spanning is certainly penalized insofar as the lower rates of mobility may be seen as a penalty while also paving the way for higher levels of success than one's peers. This most likely reflects the fact that it takes more time and effort to master the requirements of multiple legal fields rather than specializing in a single field. At the same time, this should not be seen as a definitive assessment of a negative effect of spanning. Although the negative relationship between spanning and internal promotion suggests that spanning may not always be valued, it does not necessarily mean that category spanners that remain with their employer suffer or that the ones that are mobile surely benefit.

Mobility. Our findings also inform current research on mobility, as they show inter-firm mobility is either constrained or facilitated by an individual's social position. Consistent with research on the 'boundaryless career' (Defillipi & Arthur, 1994), many workers in our sample chose to pursue careers that span organizations. However, as the movement between organizations is never frictionless, our results suggest that external job shifts may be patterned as a result of the overarching social context (O'Mahoney & Bechky, 2006: 935). In other words, the portability of skills hinges on the ability of an employer to recognize the value of these skills, and an individual's social position, in conjunction with the individual attribute, influences this assessment. Thus, hidden social influences may lead to frictions in the transfer of employees between firms. Future research may test whether these social influences also effect the incorporation of skills into the new organization post transfer, or examine which specific employee tactics are most effective in drawing employer attention to their skills.

Limitations. Like any study, there are a number of limitations that apply to this work. We have assumed throughout the paper that if a signal is present, external employers will naturally attend to it and use it when making a hiring decision. However, under certain conditions such as a highly munificent product market or corporate expansion, the primary consideration of employers may be just filling their employment vacancies rather than finding the most suitable employee. Future research should explore the conditions under which the signal conveyed by category membership garners the attention of the evaluator and impacts their evaluation.

The decision to leave for a new organization is one of the more momentous and both internal and external opportunities may influence these career decisions. While the use of fixed-effects model was driven by the need to address internal processes within law firms that may be responsible for either pushing lawyers out or pulling them in, we were not able to fully control for all of these processes. Similarly, we are not able to identify whether it is a good or a bad idea for a category spanning attorney to leave their source or employer to become a partner at a different firm. With that said, the fact that category spanners that do not experience a mobility event are less likely to be promoted than category specialists suggests that category spanners may be departing in an attempt to change their career for the better.

References

- Argote, L., & Ingram, P. 2000. Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*, 82:150-169.
- Acemoglu, D., & Pischke, J. S. 1999. Beyond Becker: training in imperfect labour markets. *The Economic Journal*, 109:112-142.
- Arthur, Michael B., and Denise M. Rousseau. *The boundaryless career*. Oxford University Press, 1996.
- Baker, G., Gibbs, M., & Holmstrom, B. 1994. The internal economics of the firm: evidence from personnel data. *The Quarterly Journal of Economics*, 109:881-919.
- Baron, J. N., & Pfeffer, J. 1994. The social psychology of organizations and inequality. *Social Psychology Quarterly*, 57:190-209.
- Bertrand, M., & Schoar, A. 2003. Managing with style: The effect of managers on firm policies. *The Quarterly Journal of Economics*, 118:1169-1208.
- Bidwell, M., & Fernandez-Mateo, I. 2010. Relationship duration and returns to brokerage in the staffing sector. *Organization Science*, 21: 1141-1158.
- Bidwell, M., & Keller, J. R. 2014. Within or without? How firms combine internal and external labor markets to fill jobs. *Academy of Management Journal*, 57: 1035-1055.
- Cappelli, P., & Hamori, M. 2004. The path to the top: Changes in the attributes and careers of corporate executives, 1980-2001 (No. w10507). *National Bureau of Economic Research*.
- Cappelli, P., & Hamori, M. 2013. Understanding executive job search. *Organization Science*, 25(5): 1511-1529.
- Certo, S. T., Lester, R. H., Dalton, C. M. and Dalton, D. R. 2006. Top management teams, strategy and financial performance: a meta-analytic examination. *Journal of Management Studies*, 43:813-39.
- Corredoira, R. & Rosenkopf, L. 2010. Should auld acquaintance be forgot: the reverse transfer of knowledge through mobility ties. *Strategic Management Journal*, 31:159-181.
- Custódio, C., Ferreira, M. A., & Matos, P. 2013. Generalists versus specialists: Lifetime work experience and chief executive officer pay. *Journal of Financial Economics*, 108:471-492.
- Ferguson, J. P., & Hasan, S. 2013. Specialization and career dynamics evidence from the Indian administrative service. *Administrative Science Quarterly*, 58:233-256

- Finkelstein, S., & Hambrick, D. C. 1989. Chief executive compensation: A study of the intersection of markets and political processes. *Strategic Management Journal*, 10:121-134.
- Fiske, S. T. 2010. Interpersonal stratification: Status, power, and subordination. *Handbook of social psychology*.
- Galanter M. & Henderson, W. 2008. The elastic tournament: The second transformation of the big law firm. *Stanford Law Review*, 60:102-164.
- Garciano, L., & T. Hubbard. 2009. Specialization, firms and markets: The division of labor in and between law firms. *Journal of Law, Economics, and Organizations*, 25:339-371.
- Geletkanycz, M. A., & Black, S. S. 2001. Bound by the past? Experience-based effects on commitment to the strategic status quo. *Journal of Management*, 27:3-21.
- Hannan, M. T. 1988. Social change, organizational diversity, and individual careers. In M.W. Riley (Ed.), *Social structures and human lives*: 161-174. London: Sage.
- Hannan, M. T. Pólos, L., & Carroll, G. R. 2007. *The logics of organization theory: Audiences, codes, and ecologies*. Princeton, N.J.: Princeton University Press.
- Hannan, M. T. 2010. Partiality of memberships in categories and audiences. *Annual Review of Sociology*, 36:159-181.
- Hitt, M., L. Bierman, K. Uhlenbruck, & K. Shimizu. 2006 . The importance of resources in the internationalization of professional service firms: The good, the bad, and the ugly. *Academy of Management Journal*, 49:1137-1157.
- Hsu, G. 2006. Jack of all trades and master of none: Audiences' reactions to spanning genres in feature film production. *Administrative Science Quarterly*, 51:420-350.
- Hsu, G., Hannan, M. T. & Koçak. Ö. 2009. Multiple category memberships in markets: An integrative theory and two empirical tests. *American Sociological Review*, 74:150-169.
- Hsu, G., Negro, G., & Perretti, F. 2012. Hybrids in Hollywood: a study of the production and performance of genre-spanning films. *Industrial and Corporate Change*, 21:1427-1450.
- Iceland, J. 1997. Dynamics of poverty spells and issues of left censoring. *PSC Research Report Series*, 97:1-12.
- Jovanovic, B. 1979. Job matching and the theory of turnover. *Journal of Political Economy*, 87: 972-990.
- Kovács, B. & Hannan, M.T. 2010. The Consequences of Category Spanning Depend on

- Contrast. In G. Negro, O. Koçak, & G. Hsu (Eds.) *Research in the Sociology of Organizations*, Vol. 31: 175-201. Bingley, U.K.: Emerald.
- Kovács, B., & Hannan, M. T. 2015. Conceptual spaces and the consequences of category spanning. *Sociological science*, 2:252-286.
- Leahey, Beckman, & Stanko. 2016. Prominent but less productive : the impact of interdisciplinarity on scientists' research. *Administrative Science Quarterly*, 1-35.
- Leung, M. D. 2014. Dilettante or Renaissance Person? How the Order of Job Experiences Affects Hiring in an External Labor Market. *American Sociological Review*, 79:136-158.
- Leung, M.D. & Sharkey, A.S. 2014. Out of Sight, Out of Mind? Evidence of Perceptual Factors in the Multiple-category Discount. *Organization Science*, 25:171-184.
- Marx, M., Strumsky, D., & Fleming, L. 2009. Mobility, skills, and the Michigan non-compete experiment. *Management Science*, 55:875-889.
- Merluzzi, J., & Phillips, D. J. 2015. The Specialist Discount Negative Returns for MBAs with Focused Profiles in Investment Banking. *Administrative Science Quarterly*, 61:87-124
- Negro, G., Hannan, M. T., & Rao H. 2010. Categorical contrast and audience appeal: niche width and critical success in winemaking. *Industrial and Corporate Change*, 19:1397-1425.
- Negro, G., Koçak, O., & Hsu, G. 2010. Research on categories in the sociology of organizations. In G. Negro, O. Koçak, & G. Hsu (Eds.) *Research in the Sociology of Organizations*, Vol. 31: 3-35. Bingley, U.K.: Emerald.
- Negro, G., Hannan, M. T., & Fassiotto, M. 2014. Category signaling and reputation. *Organization Science*, 26:584-600.
- Oldham, G. R., & Hackman, J. R. 2010. Not what it was and not what it will be: The future of job design research. *Journal of organizational behavior*, 31:463-479.
- O'Mahoney, S., & Bechky, B. 2006. Stretchwork: Managing the career progression paradox in external labor markets. *Academy of Management Journal*, 49 918-941.
- Paolella, L., & Sharkey, A. J. 2016. Forging consensus: an integrated view of how categories shape the perception of organizational identity. Working paper
- Phillips, D. J. 2002. A genealogical approach to organizational life changes: The parent-progeny transfer among Silicon Valley Law Firms, 1946-1996. *Administrative Science Quarterly*, 47:474-506.

- Phillips, D. J., & Zuckerman, E. 2001. Middle status conformity: Theoretical restatement and empirical demonstration in two markets. *American Journal of Sociology*, 107:379-429.
- Phillips, D. J., Turco, C. J., Zuckerman, E. 2013. Betrayal as Market Barrier: Identity-Based Limits to Diversification among High-Status Corporate Law Firms. *American Journal of Sociology*, 118:1023-54.
- Pfeffer, J. 1989. The politics of careers. In M.B. Arthur, D.T. Hall, & B.S. Lawrence (Eds.), *Handbook of career theory*, 380-396. New York: Cambridge University Press,
- Pontikes, E.G. 2012. Two sides of the same coin: How ambiguous classification affects multiple audiences' evaluations. *Administrative Science Quarterly*, 57:81-118.
- Powell, G. N., & Butterfield, D. A. 1994. Investigating the "glass ceiling" phenomenon: An empirical study of actual promotions to top management. *Academy of Management Journal*, 37:68-86.
- Rao, H., & Drazin, R. 2002. Overcoming resource constraints on product innovation by recruiting talent from rivals: A study of the mutual fund industry, 1986–1994. *Academy of Management Journal*, 45:491-507.
- Reagans, R., McEvily, B. 2003. Network structure and knowledge transfer: The effects of cohesion and range. *Administrative Science Quarterly*, 48:240-267.
- Rivera, L. A. (2012). Hiring as cultural matching the case of elite professional service firms. *American Sociological Review*, 77:999-1022.
- Roberts, P. W., Negro, G., & Swaminathan, A. (2013). Balancing the skill sets of founders: Implications for the quality of organizational outputs. *Strategic Organization*, 11:35-55.
- Silver, C. 2007. Local matters: Internationalizing strategies for U.S. law firms. *Indiana Journal of Global Legal Studies*, 14:67-93.
- Smith, E. B. 2011. Identities as lenses: How organizational identity affects audiences' evaluation of organizational performance. *Administrative Science Quarterly*, 56:61-94.
- Wholey, D. 1985. Determinants of firm internal markets in large law firms. *Administrative Science Quarterly*, 30:318-335.
- Zuckerman, E. W. 1999. The categorical imperative: securities analysts and the legitimacy discount. *American Journal of Sociology*, 104:1398-1438.
- Zuckerman, E. W., Kim, T.Y., Ukanawa, K. & Rittmann, J. 2003. Robust identities or non entities? Typecasting in the feature film market. *American Journal of Sociology*, 108: 1018-1074.

Table 1: Promotions to partner per year

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Mobile	0	5	5	5	11	9	6	7	6	8	9
Stationary	46	25	46	43	55	59	65	54	58	50	72

Table 2: Descriptive statistics & bivariate correlations**Table 2: Descriptive statistics**

Variables	Mean	S.D.	Min	Max
1. Horizontal mobility event	0.10	0.30	0	1
2. Vertical mobility event	0.04	0.21	0	1
3. Category specialist	0.13	0.34	0	1
4. Category spanner	0.11	0.31	0.15	0.54
5. Category specialist: Partner	0.05	0.24	0	1
6. Category generalist: Partner	0.07	0.26	0	1
7. Category specialist: Associate	0.06	0.24	0	1
8. Category generalist: Associate	0.03	0.16	0	1
9. Foreign HK lawyer	0.01	0.02	0	1
10. Education	1.20	0.49	0	4
11. Experience	3.25	6.89	0	54
12. Attorney status	0.03	0.17	0	1
13. Entry market	0.16	0.37	0	1
14. Exit market	0.12	0.33	0	1
15. Partner	0.38	0.48	0	1
16. Associate	0.48	0.49	0	1
17. Firm size	24	33	1	180
18. Growth rate	0.08	0.44	-1	5.33
19. Partner associate ratio	0.72	0.89	0	9
20. Firm specialization	0.10	0.06	0	0.92
21. Internal promotion hazard [†]	3.26	1.00	0	34.20
22. Firm status	3.26	1.55	0	6
23. Number of partners	20.18	18.17	0	76
24. Number of associates	40.74	27.42	0	97
25. Firm density	67.77	30.63	115	153
26. Hiring opportunity [†]	8.65	4.11	0	11.43
27. GDP [†]	13.71	0.66	11.75	14.33
28. Entry pre-1998	0.08	0.27	0	1

[†] = Log-transformed.

Table 2 continued: Bivariate correlations (N= 29,514)*

Variable Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Horizontal mobility event	1														
2. Vertical mobility event	0.09	1													
3. Category specialist	-0.02*	0.01	1												
4. Category generalist	-0.07*	-0.02	-0.14*	1											
5. Category specialist: Partner	-0.02*	0.01*	0.62*	-0.08*	1										
6. Category generalist: Partner	-0.07*	-0.01*	-0.11*	0.80*	-0.07*	1									
7. Category specialist: Associate	0.01	-0.01	0.63*	-0.09*	-0.06*	-0.07*	1								
8. Category generalist: Associate	-0.02*	-0.01	-0.06*	0.46*	-0.04*	-0.04*	-0.04*	1							
9. HK lawyer	0.02*	0.03*	-0.01	0.05	0.01*	0.01	0.06*	0.06*	1						
10. Education	-0.06*	0.01	0.09*	0.38	0.01*	0.03*	0.06*	0.19*	0.07*	1					
11. Experience	-0.09*	-0.01	0.05*	0.45	-0.01*	0.01	0.02*	0.59*	0.02*	0.59	1				
12. Attorney status	-0.02*	-0.01*	0.01*	0.11	-0.01*	-0.01	-0.14*	0.15*	0.21	0.15*	0.21*	1			
13. Entry market	-0.12*	0.09	0.03*	0.20	-0.05	-0.02	0.21*	0.18*	0.33*	0.02*	-0.16*	-0.01	1		
14. Exit Market	0.12*	-0.06	-0.04*	-0.18	0.06	0.02*	0.22*	0.14*	-0.30*	-0.06*	-0.07*	0.01	0.03*	1	
15. Partner	-0.04*	-0.01*	0.01	0.08	-0.02	-0.01*	-0.09*	0.04*	0.13*	0.03*	0.22*	-0.25	-0.25*	-0.11	1
16. Associate	-0.06*	-0.01*	-0.04*	-0.11	-0.02	-0.01*	-0.18*	-0.10*	-0.16*	-0.01	-0.25*	0.11*	-0.06*	0.05	-0.01
17. Firm size	-0.07*	-0.02	-0.03*	-0.08	-0.01*	-0.01*	-0.09*	-0.05*	-0.07*	0.01	-0.10*	0.05*	-0.01*	0.04*	-0.12*
18. Growth rate	-0.05*	-0.01	0.07*	0.29	0.02*	0.02	0.12*	0.31	0.29*	0.02*	-0.12*	0.04*	-0.05	-0.03	0.01
19. Partner associate ratio	0.01	-0.01	0.03	-0.01	0.01*	0.06	*0.04	0.01*	-0.01	-0.02	0.03	0.01*	-0.01*	-0.01*	0.01*
20. Firm specialization	-0.01*	-0.02*	-0.01	-0.01	-0.01	0.01	-0.05*	-0.01*	-0.01	-0.01*	-0.01*	-0.01*	0.02*	0.01*	-0.01*
21. Internal promotion hazard [†]	-0.01*	0.02*	0.01	-0.03	-0.01	-0.001	0.08*	-0.03*	-0.01*	-0.04*	0.23*	-0.17*	0.03	-0.02	-0.29*
22. Firm status	0.08*	-0.14*	-0.06*	-0.07	0.01*	0.01*	-0.27*	-0.07*	-0.05*	0.03*	-0.36*	0.16*	-0.04*	0.08*	0.04
23. Number of partners	-0.02*	-0.01	0.06*	0.14	0.01*	0.01*	0.01	0.16*	0.13	0.02*	-0.15*	0.07*	-0.01	0.01*	0.54*
24. Number of associates	-0.05*	-0.01	0.06*	0.27	0.02	0.01*	0.22*	0.27*	0.31	-0.02	-0.02*	0.03*	-0.06	-0.05*	0.59*
25. Firm density	-0.04*	-0.01	0.06*	0.28	0.02	0.01	0.15*	0.29*	0.28	0.01*	-0.11	0.07*	-0.05*	-0.03	0.08
26. Hiring opportunity [†]	-0.01*	0.02	-0.01*	-0.05	0.01	-0.01*	-0.07*	-0.05*	-0.03	-0.02	-0.02	-0.02	-0.03	-0.06*	0.07
27. GDP [†]	0.01*	0.01	0.02*	0.02	0.02	0.01	0.02*	0.02*	0.02	0.01*	-0.01*	0.01*	0.01*	0.02*	-0.02
28. Entry pre-1998	-0.02	-0.01	-0.03*	-0.06	-0.01	-0.01	-0.08*	-0.07*	-0.04	-0.02*	-0.02	-0.02	-0.03	-0.10*	0.06

[†] = Log-transformed ; * indicates $p < 0.05$; significance tests are two-tailed

Table 2 continued

Variable Name	16	17	18	19	20	21	22	23	24	25	26	27
16. Associate	1											
17. Organizational size	0.04*	1										
18. Growth rate	-0.01	-0.01	1									
19. Partner associate ratio	-0.17*	-0.29*	-0.01	1								
20. Firm specialization	0.04	0.06	-0.02*	0.03*	1							
21. Internal promotion hazard [†]	0.17*	0.04*	0.02*	-0.09*	-0.06*	1						
22. Firm status	0.08*	0.45	-0.04	-0.37*	0.14*	0.04*	1					
23. Number of partners	0.04*	0.07	-0.02	-0.14*	0.29*	-0.02*	0.43*	1				
24. Number of associates	0.08*	0.08	-0.01	-0.32*	0.27*	0.03*	0.53*	0.67*	1			
25. Firm density	-0.03*	0.07*	0.02*	0.02*	0.02	0.01	-0.16*	0.02*	0.03*	1		
26. Hiring opportunity [†]	0.01	-0.01*	-0.01	0.02*	0.02*	-0.08*	0.02*	-0.01	-0.02*	-0.18*	1	
27. GDP [†]	-0.02	0.06*	0.02*	0.03*	-0.02*	0.12*	-0.01*	-0.01	0.03*	0.48*	-0.41*	1
28. Entry pre-1998	0.01	0.12*	-0.02*	-0.02*	0.01	-0.05*	0.16*	0.12*	0.12*	-0.08*	-0.01	-0.08*

[†] = Log-transformed ; * indicates $p < 0.05$; significance tests are two-tailed

TABLE 3: Logistic regression models predicting the likelihood of inter-firm mobility

	Model 1 Horizontal mobility	Model 2 Horizontal mobility	Model 3 Horizontal mobility	Model 4 Vertical mobility
Control variables				
HK lawyer	-0.12** (0.04)	-0.50** (0.19)	-0.46** (0.19)	0.25*** (0.08)
Education	-0.07 (0.04)	-0.18 (0.11)	-0.13 (0.11)	-0.12 (0.09)
Experience	-0.03** (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.06)
Attorney status	-0.06 (0.09)	-0.10 (0.24)	-0.15 (0.24)	-0.12 (0.28)
Partner	-0.36 (0.37)	-0.09 (0.21)		
Associate	0.81*** (0.31)	0.74*** (0.21)		
Gender	0.01 (0.04)	0.04 (0.07)	0.03 (0.07)	-0.01 (0.30)
Market entry	-0.19 (0.86)	-0.14 (0.54)	-0.12 (0.40)	-0.13 (0.24)
Market exit	-0.29 (0.72)	-0.37 (0.38)	-0.37 (0.38)	0.19*** (0.03)
Law firm size	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	-0.04 (0.02)
Growth rate	-0.04 (0.05)	-0.04 (0.07)	-0.05 (0.08)	(0.31) -0.21
Leverage	-0.08 (0.07)	-0.01 (0.08)	-0.03 (0.08)	(0.50) 0.31
Firm specialization	0.36 (0.30)	0.35 (0.30)	0.37 (0.31)	(0.27) -0.04
Internal promotion hazard	-0.59*** (0.06)	-.32*** (0.05)	-.31*** (0.05)	(0.22) -0.04
Firm status	0.06 (0.04)	-0.01 (0.05)	-0.07 (0.05)	(0.21) -0.01
Number of partners	-0.01 (0.01)	-0.01 (0.02)	-0.01 (0.02)	0.01 (0.01)
Number of associates	0.02** (0.01)	0.02** (0.01)	0.02** (0.01)	0.02 (0.04)
Firm density	0.04*** (0.01)	0.02** (0.01)	0.02** (0.01)	0.23** (0.08)
Hiring opportunity	0.12*** (0.01)	0.28** (0.13)	0.27** (0.13)	5.02 (4.05)
GDP	5.81*** (0.91)	5.55*** (0.60)	5.54*** (0.60)	0.22 (0.44)
Entry pre-1998	0.13 (0.11)	0.18 (0.12)	0.19 (0.12)	0.20 (0.14)

***p<.01; **p<.05; *p<.10; Robust standard errors in parentheses; Fixed effects at year and firm-level

Table 3 continued

	Model 1 Horizontal mobility	Model 2 Horizontal mobility	Model 3 Horizontal mobility	Model 4 Vertical mobility
Independent variables				
Category specialist	0.21* (0.11)	0.58** (0.25)		
Category spanner		-0.93*** (0.19)		
Associate category specialist			0.60** (0.23)	-0.17 (0.12)
Associate category spanner			-1.69*** (0.34)	0.67** (0.25)
Partner category specialist			0.25* (0.13)	
Partner category spanner			-0.30* (0.17)	
Log-Likelihood	-4063.28	-3279.77	-3173.05	-193.25
Observations	29,514	29,514	29,514	6425
Number of Groups	178	178	178	36

***p<.01; **p<.05; *p<.10; Robust standard errors in parentheses; Fixed effects at year and firm-level

TABLE 4: Logistic regression models predicting the likelihood of promotion to partner

	Model 1	Model 2
Control variables		
HK lawyer	0.13 (0.11)	1.25*** (0.17)
Education	0.41*** (0.08)	0.43*** (0.09)
Experience	-0.04*** (0.01)	-0.04*** (0.01)
Attorney status	0.68** (0.26)	0.62** (0.27)
Gender	-0.06 (0.07)	-0.03 (0.07)
Market entry	0.83 (0.62)	0.64 (0.62)
Market exit	-0.44*** (0.13)	-0.46*** (0.12)
Law firm size	0.01 (0.01)	-0.01 (0.01)
Growth rate	0.01 0.03	0.01 (0.06)
Leverage	0.02 (0.03)	0.10* (0.05)
Firm specialization	0.25 (0.23)	0.18 (0.23)
Firm status	-0.01 (0.03)	-0.05 (0.05)
Number of partners	0.01 (0.01)	0.01 (0.02)
Number of associates	-0.01 (0.01)	-0.01 (0.03)
Firm density	0.01 (0.01)	0.04 (0.05)
GDP	0.55 (0.49)	0.57 (0.54)
Independent variables		
Category specialist	-0.53** (0.17)	
Category spanner	-1.06*** (0.28)	
Stationary category specialist		-0.68*** (0.17)
Stationary category spanner		-1.07 (0.28)
Mobile category specialist		-0.15 (0.64)
Mobile category spanner		0.22** (0.10)
Log-Likelihood	-3948.64	-3885.09
Observations	20,002	20,002

***p<.01; **p<.05; *p<.10; Fixed effects at year and firm-level

2008

