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Abstract

We provide a framework for reconciling two seemingly incompatible claims regarding identity in social and economic arenas: (a) that complex, multivalent identities are advantageous because they afford greater flexibility; and (b) that simple, generic identities are advantageous because they facilitate interpretation by key audiences. Following Faulkner (1983), we argue that these claims do not conflict with one another but that they apply to different contexts. A generic identity is helpful in gaining the recognition necessary for sustained participation in a social arena. However, as one becomes better established, the limitations entailed by a simple, “typecast” identity increasingly rival the benefits. We test these hypotheses in an analysis of the labor market for actors in the feature film industry. Interviews with key informants and analysis of comprehensive data from the Internet Movie Database support the proposed theoretical framework. In addition, the evidence supports the salience of the hypothesized typecasting processes even in the presence of related processes based on underlying skill differences and social networks. Our results have important implications for research on identity formation in various social arenas, categorical boundaries in external labor markets, and more generally, the interplay between actor and position inherent in market dynamics.

An agent/casting director sees too many resumes and headshots to avoid immediately classifying the person in his mind. I'll be honest: there is no real thought going into this. Do you fit? Fine. Not? Fine. People are traded and paraded.

—Hollywood talent agent

Introduction

Is it better to have a simple identity or one that is more complex? The influential notion of “robust action” suggests that assuming a well-defined identity is problematic because it lowers an actor’s freedom of action (Padgett and Ansell 1993; cf., Leifer 1988, 1991; Stark 1996). As personified by Cosimo DeMedici in Padgett and Ansell’s account (1993: 1262-1265), actors who have multivocal identities, in that they could potentially be associated with multiple roles or groups, retain flexibility in responding to interactants whose more narrowly defined identities induce commitments to restricted lines of action. Earlier versions of this idea may be found in role theory and symbolic interactionism.¹ For example, Goffman introduced the concept of role distance to describe how a role occupant may demonstrate that her identity is not fully encapsulated in the role (Goffman 1961). Similarly, labeling theory (e.g., Becker 1973) is predicated on a self-fulfilling prophecy whereby the application of an (negative) identity tag to an individual restricts his or her ability to act in a way that is inconsistent with that attribution. Conversely, successful avoidance of a label means that one may potentially be accepted in other (positively valued) roles. Whereas simple identities introduce constraints on future courses of action, complex identities entail greater flexibility and therefore seem preferable.

But this conclusion runs counter to theories that analyze the sources of order in markets and organizational fields. As Zuckerman points out (1999: 1403), common to such different perspectives as neoinstitutionalism (Meyer and Rowan 1977; DiMaggio and Powell 1983; Scott 2001), White’s market model (White 2002), and marketing theory (e.g., Bronnenberg and Vanhonacker 1996; Urban, Hulland, and Weinberg 1993) is the assumption that actors face pressure to demonstrate adherence to the forms, roles,

¹ The idea that multivalence is beneficial is also related to the theme in the network and exchange-theoretic traditions that brokerage-- i.e., being able to bridge between divergent constituencies-- provides negotiating leverage (e.g., Burt 1980; 1982; 1992; Cook, Emerson, Gillmore, and Yamagishi 1983; Pfeffer and Salancik 1978).

or categories that guide valuation.² Each of these theories implies that an actor who defies prevailing socio-cognitive frames risks sowing confusion among relevant audiences, thereby producing social penalties in the form of disattention or outright rejection (Zuckerman 1999; see also Polos, Hannan, and Carroll 2002). As a result, actors are pressured to conform in a way that may be purely symbolic (Meyer and Rowan 1977) but may include substantive change as well (e.g., Zuckerman 2000). By trying to broaden their identity to include multiple and diverse roles, actors thus risk being devalued and even rejected. As such, it may be preferable to assume a simple, generic identity.

There are several ways one might reconcile these seemingly contradictory views. One approach is to recognize that variation in the stability of a role or classificatory structure inserts contingency into the relationship between complexity and success. For example, niche width theory (Hannan and Freeman 1977; Freeman and Hannan 1982; Peli 1997; cf., Levins 1968) suggests that a complex, generalist identity is advantageous in a volatile environment yet disadvantageous if environmental resources are stably concentrated in a single category (see also Pinch and Bijker 1987; Rosa et al., 1999). Another solution is to identify environments that support the co-existence of both generalists and specialists, as do the environments analyzed by resource partitioning theory (Carroll 1985; Peli and Noteboom; Carroll and Swaminathan 2000; cf., Peterson and Berger 1975). Yet while such models help account for the existence of both generalists and specialists, they are less useful for elucidating the tensions in identity-construction outlined above because they treat the assignment of actors to generalist and specialist roles as unproblematic. Since actors may successfully assume a role only when accepted as legitimate role-occupant by key audiences (Stone 1962), and since role structures typically invalidate certain role transitions and combinations (see Zuckerman and Kim 2003, pp. 28-29), fundamental and opposing constraints operate on generalist and specialist identities. In particular, actors often face the following dilemma: whether the identity constraints faced by a specialist-- that one will be consigned to an identity that is more limited than the set of roles that one could potentially play—are more or less serious than those faced by a (potential) generalist-- that one be regarded as too much of

² Research on role conflict and strain is also relevant here, though this literature focuses more on internal, psychological consequences faced by actors who attempt to maintain complex identities (Merton 1968: 424-440; Stryker and Macke 1978).

a dilettante to be accepted in any particular role.³

In this paper, we erect a framework for understanding this dilemma by building on Faulkner's (1983) insights into the typecasting process among Hollywood composers. The phenomenon of typecasting highlights a core sociological claim about markets generally and labor markets in particular-- that an actor's position in the market and the rewards associated with it cannot be reduced to individual attributes or preferences (e.g., White 1970; Sørensen 1977; Podolny 1993). In particular, typecasting is typically understood to involve a curtailment of the opportunities available to job candidates based either on social attributes such as gender (Bielby and Bielby 1992, 1996) and age (Bielby and Bielby 2001) or on past work. The latter type of typecasting formed the focus of Faulkner's analysis, which stressed its double-edged nature: "It's good, because at least people make a link between the composer (and his work). It's bad, because producers and directors tend to confuse what a composer *does* with what he *can* do (1983: 79)." That is, typecasting encompasses the twin implications of assuming a simple, generic identity reviewed above. While becoming typecast introduces limitations on one's identity-- often experienced as arbitrary and only loosely related to one's true skills (Faulkner 1983: 78-9), it at least carries the recognition necessary for securing future work.

In the first part of this paper, we follow Faulkner in developing a theoretical framework that illuminates the fundamental trade-off pertaining to the complexity/simplicity of labor market identities. We argue that, to the extent that employers screen candidates according to recognized categories, candidates who succeed in associating themselves with one such category enjoy greater success in attracting employers' attention-- even though they thereby accept significant restrictions on their future identities. Limiting oneself to a simple identity means that one will at least retain that identity in the future. Conversely, one who attempts to assume a broad identity risks

³ Note that the problem is potentially solved by keeping the audiences for each of one's roles separate from one. This strategy sometimes works, but: it (a) is risky because the audiences may eventually come in contact with one another; and (b) sacrifices some of the main advantages identified by Padgett and Ansell (1993). In particular, while the ability to play multiple roles to different audiences is useful as a form of hedging as in the generalists in niche width theory, one does not thereby achieve multivocality. Rather than having each audience strive to discern one's true identity in the face of multiple, contradictory affiliations and commitments, each remains ignorant of the other roles that one plays and assumes that such roles do not exist. In order to achieve the robust action described by Padgett and Ansell, one's audience must *know* that one has a complex identity and therefore be forced to guess one's interests. What makes

losing the opportunity to have *any* standing in the market. However, once the candidate has achieved sufficient recognition to obtain a sustainable line of work in a particular category, the value of having a strong association with that category begins to be dwarfed by its cost. The question of whether simplicity or complexity is more advantageous turns on whether one has established oneself beyond the point at which a multivalent identity is construed as no identity at all.

After introducing our theoretical framework, we attempt to validate it by analyzing the labor market for actors in the feature film industry. We summarize interviews conducted with key participants in this market, which echo the themes reported in Faulkner's research on composers. In addition, our quantitative analyses allow us to gain a systematic understanding of the implications of typecasting and, more generally, how the assumption of a more or less simple identity influences future career outcomes.

Our analysis has two notable features beyond illustrating the trade-offs associated with assuming a simple versus a complex identity. First, our theoretical framework is unusual in that it posits a general process by which labor-market boundaries structure work careers. Theorists in the sociology of work have long maintained that careers are structural entities that route individuals through the labor force in characteristic patterns (e.g., Weber 1978; Hughes 1937; Spilerman 1977; Abbott and Hrycak 1990). And yet, while there has been much research on the structure of internal labor markets (e.g., White 1970; Rosenbaum 1984; Stewman and Konda 1983; Stovel, Savage, and Bearman 1996), there exist few comparable models for the external labor market, and perhaps no *general* models that posit a common structural constraint that produces similar career patterns across markets.⁴ Rather, there appears to be wide agreement that such careers, which have become increasingly common in the contemporary economy, are relatively unstructured or "boundaryless" (Arthur and Rousseau 1996). We argue that, in fact, the tendency by employers to screen workers by category induces career lines that either are

such a strategy difficult is that audiences will generally avoid such guesswork and favor actors whose identities are easier to interpret.

⁴ Various studies have illustrated the idiosyncratic patterns characteristic of particular professions and labor markets (e.g., Hall 1948; Smith and Abbott 1983; Abbott and Hrycak 1990; Blair-Loy 1999). In addition, structuralist approaches to labor markets have demonstrated that barriers between economic sectors govern cross-sectional differences in worker experiences (e.g., Beck, Horan, and Tolbert et al., 1978). But there exist no general models for the sequences of shifts among jobs or sectors that govern experience in any external labor market.

structured according to the boundaries of market categories or are unsustainable. Indeed, our analysis of acting careers, which play themselves out entirely in the external labor market, suggests that, for many workers, “boundarylessness” may be a significant liability.

A second noteworthy feature of our analysis is our attempt, both theoretically and empirically, to distinguish processes associated with typecasting from alternative models that imply similar empirical patterns but rely on different theoretical assumptions. The first set of alternatives takes issue with our premise that a wedge may be driven between skill and identity. Indeed, while our framework is broadly consistent with various screening models, which assume that employers use crude indicators of ability to sort job candidates (e.g., Phelps 1972; Arrow 1973; Aigner and Cain 1977; Greenwald 1986; McCormick 1990), our hypotheses also resemble models that posit that worker ability is either known or is revealed over time. In particular, the two principal labor-economic models for labor turnover in the firm (see Topel and Ward 1992, pp. 440-441)-- firm-specific human capital and matching-- could explain attachment to labor-market categories and to the market generally. These alternatives are especially important to consider when analyzing market behavior because typecasting will emerge only when employers regard past work as an indicator of a worker’s skill. Indeed, the difficulty of adjudicating between typecasting and processes based on underlying skill differences represents in microcosm the larger challenge faced by structural sociology: to demonstrate that structural position can have causal force even though occupancy of a particular position is, at least in part, endogenously determined by attributes or preferences.

While definitive tests are unavailable, our theoretical framework identifies the ways a typecasting process differs from one based on matching or human capital. First, we argue that employers’ revealed preference for specialists cannot be completely reduced to the value placed on category-specific training. Rather, it is (at least in part) a spurious reflection of the difficulty of filtering the unskilled from the multitalented when no other indicators of skill are available. Second, we argue that employers’ hiring practices systematically curtail the amount of matching that takes place and that this limits the extent to which generalists might emerge. We present empirical tests of these claims, each of which indicates the salience of typecasting processes. In addition to these

tests, we also present qualitative data that strongly point to the importance of typecasting. In particular, labor-market participants on both the demand and supply sides of the market acknowledge that typecasting drives a wedge between skill and identity.

While the first set of alternative models assumes that structure can be ignored in favor of underlying skill differences, a second alternative is that structure is all that matters. In particular, one might suppose that employers in fact do not care about skill (and do not engage in typecasting as a crude attempt to discern it) but merely hand out jobs to candidates to whom they have some (pre-existing) social tie. One might then hypothesize (cf., Burt 1992) that a candidate needs a focused set of ties to gain access to a stream of jobs that are located in a particular “clique” and that mobility across cliques becomes possible only once one has established such a foothold. Such an hypothesis is reasonable and we find some evidence of it in our analysis, though it is weaker than that for the typecasting process we describe below.

Yet a more important reason to de-emphasize social networks is that an account of identity construction in a given social or economic arena that relies solely on social networks-based processes will be fundamentally incomplete. Of course, it is possible in any given case for there to be important exogenous or “primordial” (see Zuckerman 2003) networks for observed structure (e.g., concentration in particular career paths) to be exogenously determined as well. Yet it is unreasonable to assume that behavior in various domains can be often fully reduced to the acting out of particularistic commitments. Rather, it is more productive to at least begin by considering the domain in question as a system with its own endogenous logic. In particular, the sociological study of labor markets should begin by assuming that employers in fact care about skill and take it into account in making hiring decisions, though particularistic attachments may influence such decisions in many cases as well. But the extent to which they do then becomes an empirical, rather than a theoretical, issue.⁵

⁵ For instance, Granovetter’s (1973, 1974) observations about the importance of weak ties in transmitting information about job opportunities are only relevant for the allocation of jobs *on the margin*. Knowing about a job or having a social connection with the employer will be of limited help if the candidate’s skills are significantly (though perhaps not if only somewhat) at variance with job requirements.

Theory

Labor-Market Classification

We begin then with some observations about labor market classification and its origins in theories of skill, which then serve as the foundation for our understanding of typecasting. As with product or asset markets, labor markets tend to be divided into relatively discrete categories such that competition by sellers (employees) and selection by consumers (employers) generally occurs within but not across category boundaries. Examples from professional labor markets illustrate such structures. For example, the market for physicians may be decomposed into sets of distinct market segments such that access to jobs in a particular specialty is restricted to doctors with the relevant background and training.⁶ The market for attorneys displays similar patterns though they are somewhat looser. The critical boundary in this market divides higher status corporate work, which is generally open only to graduates of elite law schools, and lower status work for individual clients performed by graduates of lower-tier schools (e.g., Heinz and Laumann 1982; Phillips and Zuckerman 2001). Each of these sectors contains a wide variety of specialties, such as bankruptcy and patent law on the one hand and family and personal injury law on the other, which channel subsequent career mobility. Academic labor markets are even less well organized, though they are also subdivided in consequential ways. For example, of the 46 job openings for sociologists listed in the ASA Bulletin in December 2000, 41 were restricted in terms of the area of specialization and 20 were open only to candidates in one or two fields.

Two features of these classificatory structures merit attention. First, categories are not arbitrarily constructed. Rather, as with any system of classification, categorical boundaries reflect the dominant theory of value used by labor-market participants. For example, how a society distinguishes among animals in terms of the purposes to which they may be used-- e.g., as food, as pets, or as religious totems-- reflects its reigning cosmology (Douglas 1966). Similarly, the stock market's division into industry-based sectors reflects the general theory that a firm should be valued according to its earnings power together with the premise that firms in different industries experience distinct environments that shape their earnings prospects (Zuckerman 1999, 2000, 2002).

⁶ Physicians such as internists or pediatricians, who treat patients across a variety of categories, are not true generalists but specialists who focus on a certain type of patient and/or the first step in the chain of referrals.

In the same fashion, labor-market categories reflect dominant beliefs about the distribution of skill. To the extent that the same skills may be applied in two different areas of work, employers generally are unlikely to distinguish between the two categories in their hiring efforts and job candidates will not take pains to advertise their suitability for one relative to the other. Conversely, one category will be distinguished from others when it is thought to represent a skill-set that is distinct from that covered by other categories. Moreover, it is at least a good first approximation to presume that a given category captures a unique combination of abilities. Accordingly, a distinct submarket exists for each medical specialty since each requires would-be practitioners to make significant investments in specialized training and to forgo the opportunity to be trained in other specialties. By contrast, the relative permeability of categories in the sociological labor market reflects the fact that sociological skills are more readily transferable from one subfield to another.

Second, labor-market categories do not necessarily coincide with product or service-market categories. Examples of such non-correspondence include occupations where the work performed occurs at several removes from the end-user. For example, while competition in the market for engineers is organized by such specialties as mechanical and electrical engineering, both types of engineers contribute to such products as automobiles or airplanes. A related point is that labor-market categories do not necessarily map into distinct locations in the division of labor. For example, employers in many different industries may hire from the same pool of unskilled workers for a wide variety of jobs. Similarly, workers who have generalist credentials-- e.g., the MBA degree-- may vie for jobs in many industries.

Emergence of Typecasting

Employers' tendency to sort skills into relatively discrete categories is necessary for (work-based) typecasting to emerge. To see how typecasting operates, we consider the interaction between employer and potential employee as an interface between a set of candidates who compete with one another to be selected by an audience (Zuckerman 1999; Phillips and Zuckerman 2001; cf., White 2002). In this role-relationship, audience members engage in two ideal-typical stages of choice, which correspond to two phases of candidate behavior. The second stage is the familiar process by which audience

members-- who are often represented by a market intermediary rather than the ultimate buyer-- select among competing offerings presented by candidates. Yet with the myriad of options potentially available, which offerings merit consideration? This question implies that the selection stage is logically preceded by a prior stage during which the boundaries of the competitive field are set. Audience members first identify the set of offerings that will be considered and then select from among the members of this consideration set. This two-stage process of choice on the part of the audience induces two stages of competition among candidates. First, candidates demonstrate that their offerings *conform* to the basic criteria that render them worthy of consideration; next, they labor to *differentiate* their wares from the rival offerings that have been so recognized (cf., Urban, Hulland, and Weinberg 1993).

Thus, in order to be selected, a candidate must first show that she merits consideration in one of the available categories. In considering the implications of this imperative for labor markets, we must ask how employers determine whether a job candidate belongs to a given category. As with other valuation or investment situations in the context of significant uncertainty, three factors generally guide such determinations (e.g., Faulkner and Anderson 1987; Bielby and Bielby 1994; Zuckerman and Kim 2003): (a) how that candidate is perceived by others, particularly those making the same valuation; (b) the identities of the individuals and institutions that have sponsored, trained, or affiliated themselves with the candidate; and (c) the candidate's past track record. The first factor is important in understanding the decisions made by any individual evaluator, though it cannot explain the aggregate evaluation. The second factor is important in many labor markets, especially in occupations where the attainment of a particular credential establishes the candidate as having the necessary training to do the relevant work. Even if the training does not involve much preparation for the specific job to be done, the credential may still be a useful signal if the cost of acquiring it is inversely correlated with fitness for that job (e.g., Arrow 1973; Spence 1974).

However, let us assume for the present discussion that signals such as credentials and endorsements are either unavailable or weak and that employers have access to only one kind of information about job candidates: the set of jobs performed in the past that met some threshold of competence. In such a context, the third factor obviously looms large. Indeed, a short answer to the question of what it takes to be recognized as a

candidate in a labor-market category is that one must already have experience in that category (or some related set of categories that involve similar or transferable skills). And more experience in the category is a stronger indicator of relevant competence. Conversely, experience in other categories suggests incompetence at the work in question.⁷ To the extent that employers believe that labor-market categories represent distinct skills, experience in one category will be regarded as *prima facie* evidence that the candidate does not have the necessary skills to participate in another category. For instance, a qualitative sociologist who applies for an opening in quantitative sociology must contend with the perception that qualitative and quantitative sociology involve distinct skills and that experience in one field indicates that the candidate does not have the skills associated with the other.⁸ This mobility barrier is a hallmark of typecasting based on past work, which we may define as employers' tendency to consider (and eventually hire) for jobs in a particular labor-market category only those candidates who have demonstrated competence in that category and to avoid candidates who have demonstrated competence in other categories (cf., Faulkner 1983: p.79).

The tendency to typecast is neither irrational nor arbitrary. Rather, it reflects the general belief that labor-market categories effectively represent the distribution of skill, coupled with the practice of using past work as an indicator of underlying ability, which is typically hard to discern. Since it is generally true that sociologists are successful in either quantitative or qualitative sociology but not in both, a straightforward rule of thumb is that one screens out candidates that have experience in one area when they apply to jobs in the other. Such a heuristic is necessarily crude. Clearly, it is possible for a scholar to excel both at qualitative and at quantitative sociology. But a scholar who is indeed multitalented faces an uphill battle in demonstrating her range of skills if others typecast her in the first category that she demonstrates competence. Accordingly, as

⁷ There are important exceptions to these rules. First, as discussed below, these statements are true only for categories of work that are regarded as requiring substantially different skills. In addition, it is important to keep in mind that employers may reverse these desiderata when they seek to introduce a new culture or work practices and they assume that past experience is irrelevant or even detrimental to the inculcation of new skills (see e.g., Finlay and Coverdill 2002, p.8; O'Reilly and Pfeffer 1995). Indeed, such practices suggest a different form of typecasting whereby it is assumed that old dogs cannot learn new tricks. A related exception from the general pattern was suggested in a personal communication with Richard Locke: contexts where there is an institutionalized career ladder that involves the accumulation of various specialist skills. For example, a restaurateur may consider a pastry chef for an opening as a chef de cuisine because the former is regarded as a stepping stone for the latter. The larger point is that one must understand the theories of skill that are used by labor market participants.

illustrated below in the case of feature film actors, typecasting is frequently experienced as a constraint whereby one either does not get recognition for, or is prevented from, moving beyond a single category of work.

The Problem with “Robust Action:” Main Hypotheses

It would seem that a straightforward strategy for removing this constraint is to spread one’s work over multiple categories from the outset. This is the approach implied by the notion of “robust action” (Padgett and Ansell 1993; cf., Leifer 1988, 1991). By remaining unattached to any one category, a candidate should be less likely to be labeled in a way that limits mobility across the market. Yet the problem with this approach as a general prescription is that such a candidate could be confused with someone who remains unattached to a particular category as a consequence of failure rather than choice. To the extent that it is generally hard for scholars to excel at both qualitative and quantitative sociology for example, those who work in both areas risk signaling that they cannot do either at an acceptable level. Such a signal logically follows from a belief that each labor-market category represents a distinct skill. Where such a belief prevails and it is difficult to distinguish high from low performance, candidates who wish to do a variety of work face a more serious problem than the frustration of being confined to one category-- the threat that their participation in multiple categories is construed as indicating that they lack the skills to perform *any* type of work.

In sum, we hypothesize that candidates who are typecast in a single category of work will generally achieve greater attachment to the labor market than those who have spread their work across multiple specialties-- despite the fact that assuming a simple identity means reducing chances for broadening that identity in the future. If we define a typecast candidate as one who has become recognized as possessing the necessary skills for a particular category of work, our argument includes three testable predictions:

H1a: Ceteris paribus, candidates who are typecast in a given category of work will be more likely to obtain future work in that category than are candidates who are not so typecast.

⁸ If such an example seems farfetched, consider instead the suspicion by which a qualitative sociologist

H1b: Ceteris paribus, candidates who are typecast in a given category of work will be less likely to obtain future work in other categories than are candidates who are not so typecast.

H1c: Ceteris paribus, the positive effect of typecasting on obtaining work in the original category will be greater than the negative effect on obtaining work in other categories, which results in typecast actors obtaining future work at a higher rate than non typecast actors.

Scope Conditions and Contingency Hypotheses

These hypotheses need qualification. Clearly, their scope is circumscribed by the assumptions stated above-- that candidate quality is difficult to discern and that the only available information consists of the types of work she has performed in the past. To the extent that either of these conditions does not hold, we should not expect the hypotheses to be valid. In particular, if skill is not difficult to evaluate or if credentials and affiliations are available to signal ability, the valuation problem that underlies typecasting—i.e., the difficulty of distinguishing the multitalented from the untalented—diminishes in salience. Typecast candidates would therefore have less of an advantage. In addition, we have implicitly assumed that a candidate’s full resume is observable by employers or their representatives. To the extent that the candidate can present a separate resume for each category, she may succeed emitting ambiguous cues.

It is also reasonable to expect that typecasting processes should be *more* salient in markets where the candidate and employer are separated by layers of intermediaries that seek and screen possible matches. Recent research on search firms or “headhunters” (Finlay and Coverdill 2002; Khurana 2002) suggests that the screening function that such intermediaries fulfill involves the search for generic attributes that they perceive are sought by their clients. That is, it is more efficient for a headhunter to present employers with a set of candidates she can be very certain the employer will consider to be appropriate. She then tends to define the scope of consideration more narrowly than might the employer. Similarly, it is more efficient for candidate representatives such as talent agents to select from their portfolio of clients those who clearly fit each job rather

than present employers (or their representatives) with a more complex set of options that include candidates who have less relevant experience. Thus, the intermediaries on both sides of the market likely reinforce typecasting processes that might otherwise have less of an impact.

Another important scope condition concerns the porousness of category boundaries. Typecasting should be especially noticeable in markets (or among any sub market comprising two or more categories) where categories are used by employers to distinguish among different types of skills but where boundaries between specialties are not so sharply drawn that employers and their representatives never face the question of whether a candidate belongs in one or another category. For example, our hypotheses are likely not relevant to the market for physicians, at least after their training is over.⁹ Indeed, markets with sharply bounded specialties tend to involve one or more institutionalized screening processes, which work to eliminate any ambiguity as to a candidate's category by the time she reaches the market. Thus, the mechanisms posited by our hypotheses should be operative only where pre-screening by candidates is relatively limited and where labor-market categories involve different skills, but not so different that generalism is essentially impossible.¹⁰

Finally, the possibility of generalism also raises a key contingency factor that should moderate our hypotheses: the candidate's tenure on the market. Consider our assumption that employers regard experience in other job categories as suggesting a lack of competence in the focal category. While reasonable, this preference would seem to contradict the well-known ideal of the multitalented "Renaissance man," which is often ascribed to the most highly regarded workers. Indeed, while participation in a wide array of categories potentially signals a lack of ability, it might also suggest a rare person who is especially talented. How then do employers distinguish between the two conflicting signals (in the absence of more direct evidence)? When might a multitalented worker be

⁹ This discussion ignores the institutionalized matching system in place to match physicians with jobs. Such a system obviously makes the boundaries between specialties even more rigid than they would otherwise be.

¹⁰ One might think that this scope condition builds in a circularity such that one *necessarily* finds typecasting, in the sense discussed here, in markets where generalism is uncommon but not impossible. We do not believe that this is the case. In particular, neither of the two labor-economic models discussed below would expect to find typecasting regardless of the rarity of generalism. They would argue that the level of generalism that is observed reflects the distribution of relevant skill endowments and/or the optimal allocation of human capital investments. Our typecasting framework suggests that the observed level of generalism is reduced by the screening processes that govern labor market matching.

recognized as such?

Faulkner's (1983) analysis of typecasting over the Hollywood composer's career helps address these questions. According to Faulkner, becoming typecast is an asset at the beginning of a career because it confers a recognizable, if generic, identity and thus serves as the basis for securing a sustainable line of work. Yet as the candidate moves beyond the novice stage, the question of whether the candidate has any of the required skills recedes. At that point, the threat commonly associated with typecasting-- that one will be prevented from demonstrating skills beyond one's original category-- increases in salience as the candidate is more strongly identified with that category. Specialization in a single category of work by the veteran sends an even stronger signal than when sent by the novice: that one may have sufficient skill to perform one type of work, but not others. Conversely, the advantages enjoyed by specialists in obtaining work in their specialty should be reduced among veterans. As Phillips and Zuckerman's (2001) argue, once having gained admission to a market or interface, better-established candidates (for which, tenure is a proxy) can afford to deviate from the behavior that typically defines members of a given category.¹¹ Such deviance is especially likely in labor markets where generalists are regarded as superior to specialists because the former may often have an advantage over the latter even in a given specialty.

Thus, robust (simple) identities are more (less) valuable among veteran candidates because employers are more likely to interpret participation in multiple categories by such workers as signifying broad skills rather than a lack of skill; employers are also more likely to interpret a veteran's specialization in a single category as indicating a narrow skill-set. Accordingly, we hypothesize the following contingency effects:

H2a: Ceteris paribus, the positive effect of typecasting on obtaining work in the original category is lower (greater) among veteran (novice) candidates.

¹¹ Rather than tenure, one could consider status or prestige as an indicator of how established a candidate is in a given interface, as do Phillips and Zuckerman (2001). In the present case though, the main boundary appears to pertain to the division between the large majority of actors who remain at the periphery of the feature film labor market and those that achieve a sufficient foothold to maintain a sustainable career. Traditional measures of status in this market (e.g., billing order, Academy Award nominations) distinguish among veterans who are already so established. They also pose difficulties for use as general indicators of status because they either apply to a very few actors (Academy Awards) or do not have the same meaning across films (billing order) and therefore do not lend themselves to the construction of a general prestige hierarchy.

H2b: Ceteris paribus, the negative effect of typecasting on obtaining work in other categories is greater (lower) among veteran (novice) candidates.

H2c: Ceteris paribus, the overall positive effect of typecasting on obtaining future work is lower (higher) among veteran (novice) candidates.

Alternative Processes

The typecasting process emphasized in our account is likely to be intertwined empirically with two related patterns. Whereas we have argued that typecasting emerges from crude attempts to summarize a candidate's skill-set, one may alternatively suppose that: (a) skill is essentially irrelevant to labor market identities, which are actually derived from social affiliations; or that (b) labor market identities fully capture a candidate's abilities. The former is essentially an empirical, rather than a theoretical alternative. In any particular case, a diffuse resume could suggest that the candidate is an outsider to a clique or group within which jobs are handed out. Further, one could consider our contingency hypotheses as a form of the contingency argument proposed by Burt (1992), whereby an actor benefits from a social network that is high in structural autonomy only if she has established herself as an insider. Yet to say that what appears to be typecasting in a given case is simply a matter of networks does not mean that typecasting is *never* a salient process. Rather, the network alternative is simply a process that could produce similar patterns to that generated by a typecasting process. Moreover, reliance on a "pure" network account of patterning in labor markets is theoretically problematic because it is evident that labor-market participants' attempts to discern, adjust for, and invest in skill must play a significant role in structuring careers. Our empirical challenge is to show that this behavior produces structural effects that cannot be reduced to unrelated network patterns.

Typecast or Specialist?

A second alternative to our framework is rooted in a very different logic: that career structure reflects nothing more or less than the efficient allocation of investments in human capital and of candidates to jobs. Note that our model of typecasting is broadly

consistent with various models in labor economics that depict employers as relying on crude screening devices when it is costly to use more refined methods. For example, models of statistical discrimination (e.g., Phelps 1972; Arrow 1973; Aigner and Cain 1977; cf., Bielby and Baron 1986) posit that employers who have difficulty ascertaining a candidate's skills appeal to their membership in a recognized social category and determine job assignments based on aggregate differences in skill among the members of such categories. Perhaps more relevant to typecasting based on past work are screening models such as those presented by Greenwald (1986), McCormick (1990), and Gibbons and Katz (1991), who respectively describe the scarring or stigmatizing implications of job-changing, acceptance of unskilled work during periods of unemployment, and discretionary lay-offs. In addition, the "bandit models" studied by statisticians (Berry and Fristedt 1985) and introduced into economics by Rothschild (1974; see also Schmalensee 1975; McCall and McCall 1987; Bolton and Harris 1999) are germane here because they posit rational limits to the process of experimentation by which decision-makers (e.g., employers) attempt to discern the underlying quality of their options.¹²

However, while these limited information models are consistent with our framework, it might still be the case that true skill differences fully account for any observed relationship between typecasting and opportunities for future work. In particular, note the similarity between hypothesis 2b, which states that mobility barriers for typecast candidates are greater among veterans, and the observation that the hazard of a job separation decreases with tenure on the job (see e.g., Mincer and Jovanovic 1979; Topel and Ward 1992; Farber 1994).¹³ Labor economists have proposed two processes that might account for the latter pattern, neither of which depends on the use of screening devices that resemble typecasting: firm-specific capital and matching. According to the former, tenure reflects greater investment in firm-specific training; such models also assume that the costs of termination for both employer and employee increase as such

¹² Bandit problems get their name from the following scenario: given the option of playing two or more slot machines ("one-armed bandits"), which one should the gambler choose? Analysis of this problem leads to the general observation that, given the costs to experimentation, it may often make rational sense for the gambler to continue playing a slot machine with an inferior yet known odds as opposed to a machine with a superior but unknown odds. The analogue to typecasting is that it may make sense for employers to keep on "playing" a worker in a category based on his initial performance in that category and cease to engage in costly experimentation.

¹³ The decreasing hazard of termination with tenure may follow a short initial period in which the hazard of tenure rises (see Farber 1994, pp. 590-591). This initial period of low turnover may be interpreted may be

investments are made (e.g., Becker 1962; Parsons 1972). A matching model assumes that, even before hire, there is variation in the quality of the potential match between candidates and jobs. If it takes time for a candidate and an employer to recognize whether they are well matched (relative to alternative matches for each), this uncertainty should decrease over time, thereby reducing the hazard that either the employer or the employee will terminate the relationship (Jovanovic 1979a).¹⁴

It is not difficult to sketch an extension from these models of turnover in firms to produce a pattern consistent with hypothesis 2b. Rather than analyze attachment to one of the array of possible firms, we may consider attachment to one of the labor market's categories. In matching terms, a worker's seniority might indicate a reduction in the uncertainty regarding the match of a worker to a category. Alternatively, seniority might indicate that more category-specific human capital has been invested in the match. By either logic, we would see a reduction in cross-category mobility among veterans.

Hypothesis 1a may also be restated in these terms. From a matching perspective, assume that each candidate cycles through the categories in the labor market until it is known which match the candidate's skills. To say that a given candidate is typecast in a given category is merely to say that she has matched in that category. Alternatively, we may say that typecast candidates are those who have received category-specific training in a particular category. And workers whose skills are best suited for a particular type of work, either due to natural endowments or past training, should be more likely to work in that area in the future. These alternative foundations for hypothesis 1a demand consideration because they represent the very heuristic that any account of typecasting must attribute to employers: they assume that past work in an area indicates the possession of category-specific skills. Thus, it is possible to construct matching and human-capital models that account for typecast candidates' tendency to be rehired in the same category and for cross-category mobility to be reduced among veterans. How then may we adjudicate between these models and the framework we developed above?

understood as a trial period during which time the option value of remaining on the job exceeds the costs of re-entering the labor market (see Jovanovic 1979a).

¹⁴ Jovanovic (1979b) presents an alternative matching story in which jobs are search goods rather than experience goods (cf., Nelson 1970). According to this model, it does not take time for the employer and employee to evaluate the quality of the match. As soon as a better alternative emerges, the relationship is terminated. According to this model, a negative relationship between tenure and the likelihood of termination is spuriously generated as a consequence of the fact that longer-lived matches are those for which all other alternatives have been exhausted.

Consider first what distinguishes typecasting from a pure matching process. Matching models assume that employers and employees continuously experiment with matches until the best match is found. In markets in which a worker could potentially match multiple categories of work, this means that workers cycle through the various categories of work until the worker and the candidate discover which set of categories constitute good matches. By contrast, the process of experimentation is limited if typecasting is operative. On the one hand, a catch-22 besets the new candidate in the market: since he does not yet have any experience, he will tend to be screened out of consideration. Moreover, once a candidate achieves recognition in a given category of work, employers may continue to give him work in that area but they consider it too costly to try him out in other categories. *In a labor market marked by significant typecasting, employers' hiring practices systematically reduce opportunities and particularly, for potential generalists.* Thus, typecasting is more likely to be operative in contexts where: (a) many candidates do not get an opportunity to circulate through the market's categories; (b) matching with one category leads to a premature curtailment of the experimentation process. The latter expectation stands in direct contrast with our hypothesis 1b, particularly at the beginning of a career. As long as generalism is possible, matching with one category should not prevent a worker from having an opportunity to match with other categories: he should cycle through all categories until the full range of matches is discovered.

While a test of hypothesis 1b helps us judge whether typecasting is operative even in the presence of matching, hypothesis 2a helps distinguish an account based on typecasting from one based on human capital.¹⁵ In human capital terms, this hypothesis implies that the value of category-specific relative to general human capital is lower among veteran workers. Yet the logic of a human capital approach would, if anything,

¹⁵ One might also claim that hypothesis 2a is inconsistent with a matching account. However, it can be made consistent with matching by making the following reasonable assumptions. First, there exist three types of workers in terms of their natural endowments: the unskilled, the singly-skilled or specialists, and the multi-skilled or generalists. Second, as the matching process unfolds, the unskilled are eliminated from the market, leaving specialists and generalists. Under these assumptions, typecast candidates should be more likely to obtain future work than those who are not typecast because the latter group includes both skilled and unskilled people. But if the matching process has already followed its course-- i.e., among veterans-- this effect will disappear because the only workers who remain are those who have the required skills. Note however that this hypothesis is consistent with a matching process only if we assume that generalism is possible. If we prefer to assume that generalism is impossible-- an assumption that would make hypothesis 1b consistent with matching-- there would be no basis for postulating hypothesis 2a. Hypotheses 2a and 1b are thus mutually inconsistent in matching terms.

imply the opposite (see e.g., Neal 1998): veteran status should reflect a greater stock of the category-specific skills that make specialists more valuable than generalists.¹⁶ By contrast, our interpretation of typecasting suggests that the advantage of being typecast is reduced among veteran workers because employers are more likely to regard them as no more qualified than veteran generalists for a given job.¹⁷ This contrasts with the situation for novices among whom generalism resembles failure or dilettantism. *In a labor market marked by significant by typecasting, employers' revealed preference for specialists is (at least in part) spuriously generated by the difficulty of filtering the unskilled from the multitalented.* Thus, a test of hypothesis 2a helps distinguish typecasting process from one based on category-specific human capital.

Finally, it is useful to contrast typecasting processes with those implied by human capital and matching models in terms of the felt experience of workers and employers. *In a labor market governed either by matching or human capital processes, there should be little reason for candidates and (especially) employers to complain.* These processes ensure that workers will (eventually) be paired with the jobs for which they are suited or which are most efficient in how human capital investments have been allocated. Moreover, even if we think that workers will generally be dissatisfied because they overvalue their talents or hold weak bargaining positions relative to employers, we would expect employers to be satisfied with the results of these processes. By contrast, participants in a labor market governed by typecasting are likely to express much more ambivalence and to express feelings of alienation from the labor-market identities to which they have been assigned. Indeed, even employers may recognize that they use past work as a crude screening mechanism, which thereby limits the opportunities for candidates to broaden the type of work they may perform.

In the following, we analyze typecasting in the feature film labor market in an effort to test the hypotheses delineated above regarding the implications of robust versus

¹⁶ There are interesting exceptions to this. For example, consider a field such as engineering one's knowledge quickly becomes outdated. There may also be an aging effect such that older workers are regarded as less fit for the job (see e.g., Bielby and Bielby 2001). However, we restrict attention here to the beginning of actor's careers where such skill atrophy is unlikely to be operative. Thanks to Ron Burt for pointing out this possibility.

¹⁷ Hypothesis 2a might be made consistent with a human capital account if we relax the assumption that category-specific skills are important. However, this would imply that hypothesis 2b, which implies greater limits on inter-category mobility among established specialists, could not hold. Thus, just as a matching approach cannot simultaneously imply both hypotheses 1b and 2a, a human capital approach cannot imply both hypotheses 2a and 2b.

simple identities. In addition, we try to distinguish the typecasting story from those implied by matching and human capital perspectives by examining each of the distinguishing elements discussed above: the extent of the experimentation that takes place; whether there is a reduction in the advantages of typecasting/specialism among veteran candidates; and the felt experience of labor market participants. First, we describe the labor market and interviews we conducted with key informants. Second, we analyze the aggregate degree of concentration of work in acting careers by film genre. Finally, we present logit models that predict the likelihood of future work (in a given genre) based on the degree of genre-based concentration.

Typecasting in the Feature Film Labor Market

Several considerations motivate our choice of the feature film labor market as the setting for our analysis. First, this labor market falls within the scope conditions delineated above: skill is difficult to discern, as it is for performances in any cultural industry; the boundaries among categories (generally discussed in genre terms; see below) are salient but not so sharply defined that generalism is impossible; and the relevant credentials or institutional affiliations (e.g., graduation from an acting school) are relatively unimportant. Another important feature of the market, which reflects such low institutional barriers to entry, is that it includes a very large pool of peripheral participants who vie to establish a foothold in the industry. Thus, the issue that forms the basis for our main hypotheses-- how the novice may gain a foothold in the market-- is quite salient here. Indeed, while typecasting is most associated with the difficulty faced by various stars to broaden the range of roles they play—for instance, Jimmy Cagney’s desire to shed the tough guy image and to star in a musical (McCabe 1998), the role of typecasting in facilitating entry into the industry by unknown actors is less commonly recognized.

As illustrated in figure 1, the highly mediated nature of this labor market, which constitutes a “brokerage system of administration” (DiMaggio 1977), is bridged by talent agents (or managers) who represent the seller (actor) and casting directors (CDs) who are retained by the employer (producer and director). Except for the biggest stars (whose participation in the film project may even precede the hiring of a CD) or for low-budget, non-union productions, these brokers mediate the relationship between buyers and

sellers. In general, a CD, who may be an employee of a production company or an independent contractor, is generally given responsibility for finding actors to fill the roles in a film. CDs make openings known to talent agents and managers, who present clients that they think will fit with one of the available roles.

FIGURE 1 ABOUT HERE

A second motivation for studying the feature film labor market is that it provides an opportunity to examine the constraints that shape market-based careers. Since jobs under the “short-term production system” (see Faulkner and Anderson 1987) are contracted almost entirely via the market, we may investigate whether such careers really are “boundaryless” (Rousseau and Arthur 1996) or are more structured, in the manner of careers within internal labor markets (e.g., Stovel, Savage, and Bearman 1996; Rosenbaum 1984; Stewman and Konda 1983). A third and final reason for choosing this labor market is pragmatic: due to the great demand for information about the feature film industry, unusually comprehensive data are available on the tens of thousands of actors who have ever acted in a feature-length film.

Background: Key Informant Interviews

While information on the market for acting services is abundant, we sought to gain greater insight by interviewing key informants. In the first of two waves of interviews, conducted in autumn 2000, we interviewed three agents, four CDs, ten individual actors, and a group of four student actors. The actors we interviewed spanned the gamut of career success, from Academy Award winners to novices. All respondents had careers based in film, television, or both. Most interviews were approximately twenty minutes in length and followed the same, loosely structured format. In a small subset of interviews (one agent, one CD, and three actors), interviewees were given more time to give in-depth answers, and these interviews were up to one and a half hours in length.

The image of typecasting that emerged from these interviews resonated strongly with what Faulkner (1983) found among Hollywood composers. In particular, most participants recognized both advantages and disadvantages to being typecast, with the former predominating before an actor becomes established. It appears to be widely recognized that typecasting plays an important role in developing a preliminary body of work that allows an actor to get a foothold in the industry. Without an initial set of

credits to an actor's name, she has difficulty obtaining membership in the Screen Actors Guild, representation by an agent, and the attention of CDs. In short, typecasting provides a route into the industry by conferring the minimum level of recognition necessary to continue to obtain work, even if this recognition involves the adoption of a generic identity. Thus, one talent agent pointed out that

in show business, most actors and actresses only get 15 minutes of fame. Being typecast is a way ... to extend those 15 minutes into a possible career. I'd swear by typecasting, especially just starting out. Typecasting can be just like a foot-in-the-door. It's great to be known and consistently hired.

A casting director expressed the advantage of typecasting in similar fashion:

An actor can be more comfortable or more interested in a particular character or playing a personality type. If he ends up successful with that part, it's hopefully easy to get steady work because people know what you can do.

Various actors echoed this sentiment in response to the question of what are the benefits of typecasting to an actor's career:

... a major benefit, at first blush anyway, ... is recognition. You are a known quantity. People know what you can do, what you are good at. It comes down to the elimination of risk. An actor becomes typecast because he is good at playing a character.

You'd immediately come to mind to whomever was doing the hiring – producer, director, casting agents, etc. – assuming the role was there of course.

While informants generally described the advantages of typecasting in gaining initial recognition, a consensus prevailed that typecast actors were limited in the opportunities they are given to obtain roles that are “against type.” As one well-known actress told us, “Without great effort, I don't believe you can break out of a typecast once it's been established.” Most of the actors reported that this limitation is felt acutely because they grow bored from repeatedly playing the same kinds of roles. They also generally consider actors who have succeeded in “breaking” a typecast as the most successful. Jim Carrey's success in broadening his repertoire to include dramatic as well as comedic parts was the most commonly cited example. At the same time, several informants acknowledged that many of Hollywood's most successful actors were typecast (Lucille Ball, Jerry Lewis, and Harrison Ford were notable examples) and they

also cited many examples of actors who had failed to broaden the characters they played. Sylvester Stallone, who had acted against his action image in several comedies and dramas, was often mentioned as such a failure. Informants also cited numerous examples of actors who had never received an opportunity to play roles that departed from the ones in which they had originally become typecast.

Our interviews highlighted two related aspects of typecasting among actors that are not present in many other markets, including the Hollywood composers studied by Faulkner (1983). First, while the CD or director may make the hiring decision, this choice is influenced by consumer reaction. This is thought to play a particularly important role in the constraints experienced by stars, whom the public seems unwilling to accept in roles that go against type (see Goldman 2000). Second, in addition to typecasting based on roles played in the past, informants emphasized the importance of physical appearance as a basis for typecasting. More generally, societal stereotypes get enacted in casting decisions because it is assumed that audiences prefer to see characters and behavior that is consistent with such stereotypes. One might thus conjecture that constraints against playing multiple roles may be stronger in this industry than some others because they are partly shaped by societal stereotypes as to what type of person belongs in a particular role. As one novice actress reported:

Because I am a large, black woman... I will always play someone's mother, someone poor, the neighbor. Shakespeare? Yeah, right. Next!

Physical characteristics mentioned by respondents as being the basis for typecasting included various visible ethnic identities, blond hair (on actresses), age, size, and scars. These two issues-- typecasting due to appearance and the role of audience expectations-- raise the question of how successfully we may generalize from typecasting in the feature film industry to other labor markets, an issue we discuss below.

The most intriguing finding from our initial wave of interviews was the tendency for CDs to describe the typecasting process in terms that were quite similar to those used by actors and talent agents. As argued above, there would be no reason for labor-market participants, and especially employers, to express any ambivalence if typecasting were simply a reflection of an efficient process of labor-employer matching or of the allocation of human capital investments. One CD was particularly outspoken in describing the CD's role in perpetuating typecasting:

It's hard all the time to, you know, be open-minded about everything. I think we're all *guilty* of, you know, playing the typecasting part, for sure... It's an advantage on one side of it just because... timing-wise it just helps to know that there's (*sic*) people out there that can fit certain characteristics. And you know on the other side, the disadvantage is you're not giving the people that are typecast a chance to try something different. (It's) not necessarily (a disadvantage to me though). It's a disadvantage to the actor (*italics added*).

In the summer and autumn of 2001, we conducted thirteen additional interviews with CDs to get a better understanding as to whether the quoted CD's sense of guilt and the recognition that typecasting placed limits on actors' careers were widespread. These interviews did not constitute a representative sample of CD opinion. At the same time, a considerable range of views was expressed and several noteworthy themes emerged. First, virtually all CDs we interviewed saw typecasting as a real phenomenon that restricts actors' ability to find work in a wide array of jobs. Even the three CDs who were least sympathetic to actors¹⁸ acknowledged that typecasting is a barrier that demands considerable effort to overcome.¹⁹ Generally, the other CDs differed not on whether there are extensive barriers associated with typecasting (as well as the advantages in the form of recognition at the outset of an actor's career, which virtually all acknowledged), but on whether these barriers should be construed as unfair. On the one hand, five informants answered in the affirmative when we asked them whether actors were right to "complain that being typecast prevents them from exhibiting or developing the full range of their talents." As one such CD explained:

Sure... The problem is that no movie wants to be the test ground that an actor/actress uses to learn skills. If I were a business exec in charge of movie investment, I would want to minimize my risks and hire people who could play the roles perfectly.

The remaining five CDs used similar language to depict typecasting as a feature of the

¹⁸ One such CD said, "Most actors are hacks. In movies and in life, those people who complain about the lack of opportunity most often deserve nothing more." A second CD said, "most actors have limited themselves... by not putting in the effort... Everyone has limitations, but they can be worked within to expand opportunity." Finally, the third CD opined, "If they were really talented, they wouldn't be typecast to the point that they couldn't develop further as actors."

¹⁹ Thus, the first CD quoted in the previous footnote answered emphatically in the affirmative (and gave an example) when asked if he had "ever been involved in a situation where (he) felt that an actor had been unfairly denied a role due to typecasting." The second CD said that the drawback of typecasting to an actor "is that for other roles, the actor won't even be considered." Finally, the third echoed this sentiment

“business” that actors needed to accept and that, rather than complain, they needed to work harder (by turning down typed roles, getting additional training, or taking stage roles) if they want to overcome it. Perhaps most representative of this view was the 26-year veteran of the industry who said that actors’ complaints about being prevented from exhibiting or developing their talents:

(may be) valid, but then again it’s their career, not the agent’s, not the casting director’s. If all they are being offered is (*sic*) the same parts over and over again, then it’s time to turn them down and maybe take a small role in a big picture... it’s their career, they have to take control.

At the same time, this CD said that he had “been involved in a situation where (he) felt that an actor had been unfairly denied a role due to typecasting”

.. more times than I even think about. I once worked on a picture where the actress I presented from the day I started was who I wanted for the lead.... I pushed and pushed and they resisted and resisted. She did not get the role even though the part was written with her name all over it. Now, she wins awards almost every year. But they didn’t think she could be sexy or believable. An actor has to prove themselves (*sic*) every day, sometimes through their work or by other means. But typecasting will go on as long as there are people making the decisions.

To summarize, our interviews with key informants in the feature film labor market suggests that typecasting acts as a double-edged sword here just as it does in the labor market for Hollywood composers (Faulkner 1983) and as expected by our theoretical framework. The advantages of typecasting consist largely in the foothold that it provides to aspiring actors by giving them a viable, if generic, identity to assume. The main drawback is that the identification with a particular character often prevents typecast actors from being considered for other roles. We have also seen that this view of typecasting is common even among representatives of the purchasers of acting services. It is striking that many CDs recognize typecasting as posing constraints on actor’s careers. While this does not provide definitive proof that a typecast identity cannot be reduced to underlying skills, it strongly suggests that: (a) employers’ tendency to use crude screening devices systematically limits the experimental process assumed by matching models; and (b) in addition to any value attributable to category-specific training, employers’ seeming preference for specialists reflects the difficulty of

when he said that the “drawbacks come when an actor wants more variety in acting jobs and can’t get them.”

discerning generalist ability.

Analytic Strategy

We use data from the Internet Movie Database (IMDB) to test our hypotheses. Our analytic strategy is to investigate the implications of an actor's degree of concentration in a particular genre during a defined period of time (1992-1994) on the future likelihood that she will work in that genre and other genres during 1995-1997. We focus on the probability of obtaining work because it is a career outcome that is easily measurable, is desired by all actors, and is in fact achieved by a small minority of them. As figure 2 illustrates, only about 30% of the actors who appear in (a credited role) in films released over a three-year period will ever work again. This skewed distribution of participation in the industry, which has been noted by Faulkner and colleagues (Faulkner 1983; Faulkner and Anderson 1987) provides powerful evidence that matching processes are limited in this labor market: it can hardly be said that actors are cycled through different types of roles to find the best match.

FIGURE 2 ABOUT HERE

Several additional aspects of our approach should be noted. First, while appearance-based typecasting is reportedly very common, we do not examine it here for two reasons: (a) it is less relevant to other labor markets and social arenas than is typecasting based on past work; and (b) IMDB data do not include the textured data on appearance that would be necessary to conduct such an analysis. However, it is reasonable to assume that, to the extent that we find a given actor specializes in a particular genre, this is at least partly due to particular aspects of her appearance that are considered to be suited to that type of film. Second, a significant drawback to our analysis is that the IMDB data include information on jobs performed but do not include offers made. This is potentially problematic insofar as a failure to obtain work (in a particular genre) could reflect a decision not to accept jobs that were offered. However, based on our interviews, we believe that it is reasonable to assume that actors generally wish to continue working and to broaden their careers beyond a restricted set of roles. A third and related issue is that we do not have data on how casting directors and others view the actors and thus cannot construct direct measures of labor market identity, typecast or otherwise. We instead measure the degree to which an actor has concentrated

in a particular genre and assume that greater concentration is associated with a greater likelihood that the actor is regarded as having demonstrated competence in that genre. This assumption makes it particularly important that we try to distinguish the typecasting process from those based on matching and human capital, which would interpret concentration of candidates in particular categories somewhat differently.

Finally, we assume that the genre categories used by IMDB may usefully proxy for the labor-market categories by which actors are categorized and in which they may potentially be typecast. That is, we use product categories to approximate skill categories. As pointed out earlier, this assumption is potentially problematic because there are many instances in which multiple types of work contribute to a given product. At the same time, most film roles tend to be associated with particular genres. But how reasonable is it to assume, for purposes of this analysis, that genre categories represent labor-market categories? Before analyzing the relationship between specialization and future career outcomes, we must examine the extent to which actors' careers tend to be significantly concentrated in particular IMDB genres. Insofar as careers occur within genres, this will give us greater confidence in the use of genre categories as proxies for categories in the market for acting services. Further, since the assignment of works of art to genres is necessarily somewhat arbitrary (DiMaggio 1987), this analysis gives us greater confidence that the IMDB assignments are reasonable approximations for those in use by industry participants.²⁰

Concentration in Actors' Careers: Genres & Networks

For this analysis, we use information from IMDB on all credited actors in a given film, the year it was filmed, and the various genres (up to five) that it was assigned by IMDB. We restrict our dataset to all non-Adult films in which speaking parts were primarily in English. We divide the data into three-year periods. We then assess, for each genre in every period, whether work in that genre was concentrated among a smaller number of actors than would be expected to occur under random assignment of actors to genres. This approach involves the following steps. First, for actor i in film f in year y , a dummy variable is computed that indicates whether the role was in the genre under consideration:

²⁰ Genre classifications as well as all other information on IMDB are produced in a collaborative process among a community of online film enthusiasts who make contributions and corrections according to the information at their disposal.

$D_{ify} = 1$, if one of the genres assigned to film f is the genre under consideration

$D_{ify} = 0$, otherwise

The total number of roles in which the actor was cast in that genre over the three-year period is thus:

$$g_i = \sum_y \sum_f^3 D_{ify}$$

Note that, because most films are assigned to multiple genres, the same film role may increase the g_i for multiple genres. Next, a Herfindahl score is generated over the three years:

$$H = \sqrt{\sum_i \left(\frac{g_i}{G} \right)^2},$$

where G is the total number of roles in movies that were classified in that genre over the three-year period. The Herfindahl score for any genre should be much lower than that observed in industry market shares-- after all, one actor cannot obtain a large share of all the roles in most movies, let alone in all movies in a genre. Moreover, the Herfindahl scores of various genres cannot be compared in a straightforward way because a genre that has many films assigned to it and, hence, many roles associated with it, will generally have a lower Herfindahl score. However, it is possible to ascertain whether the observed level of concentration for each genre is significantly greater than that which can be attributed to random chance. To do this, we take 1,000 samples of each D_{fy} vector, randomly matching actors with roles within each of the three years. For each sample, we calculate a Herfindahl score based on the random vectors, thus generating a sampling distribution against which we may compare the observed score. For example, the observed Herfindahl for the Action genre over the years 1992-1994 was 0.01289. While this number appears to be quite low, it exceeds the mean Herfindahl of the 1,000 random samples, which was 0.01184. Indeed, in none of these random samples was the Herfindahl score as high as the observed score. The extent of the departure from random chance can be computed through the following Z-score:

$$Z = \frac{H - \mu}{\sigma},$$

where μ is the mean Herfindahl and σ is the standard deviation taken over the 1,000

random samples. Since σ in the case of the Action genre was 0.0000399, the difference between the observed Herfindahl and the mean of the random samples (0.00105) is actually quite high, as indicated by its Z-score of 26.16.

Table 1 presents the results from this procedure for all 17 genres applied by IMDB to the period 1992-1994. Several interesting patterns emerge from this table. First, we observe significant concentration among all but four genres. Excluding Film-Noir, which did not have enough roles during this period to obtain meaningful results, the average Z-score obtained by the genres was 7.8. Thus, the labor market for feature film actors appears to be significantly structured by genre. In addition, there is interesting variation across genres in their degree of concentration. Notably, despite the fact that it was the largest genre during this period, Drama does not represent a salient category in the labor market for actors-- at least, as it is measured by IMDB. By contrast, several genres display significant concentration despite their small size.

TABLE 1 ABOUT HERE

While our analysis below focuses on the contemporary film labor market, it is instructive to observe how the patterns observed in table 1 have changed over time. Figure 3 presents historical patterns for four notable genres-- Western, Action, Drama, and Comedy. The figure charts both the proportion of all roles that were associated with a given genre and the Z-score for the difference between the observed Herfindahl and the mean of the random samples for the three-year periods that ended in 1954, 1959, 1964, 1969, 1974, 1979, 1984, 1989, and 1994. A comparison of the trends for Western and Action suggest the rise of one genre and its replacement by a second. In 1954, the Z-score of 43.6 obtained by the Western genre was by far the highest of all genres, with the second highest obtained by Comedy (10.55). Over the next forty years, the Western genre declined both in its share of film roles and in its degree of concentration while the Action genre saw a steady rise on both counts. Yet note that Action had a significant Z-score (4.3) in 1954 when it accounted for only 3.27% of all film roles, while Western had a significant Z-score (5.86) in 1994, when its share of roles was just 1.8%. This illustrates that what determines the level of concentration in a genre is less the sheer size of the genre than whether it captures patterns in actors' careers. The contrast between Comedy and Drama reinforces this point. While 20% to 40% of all roles are typically in one or both of these genres, Comedy has historically displayed a high level of career-

based concentration while Drama has not.

Finally, we consider how concentrated were actors careers during 1992-1994 in terms of their relationships with particular directors.²¹ As discussed above, it is possible that genre-based typecasting actually reflects the presence of social boundaries around cliques of actors and directors (who may focus on the genre). A necessary condition for this to be true is that there be significant concentration in actors' tendency to work with particular directors. To calculate such concentration, we use a variant of the procedure deployed above. First, we calculate a Herfindahl score for the actor's concentration of work with a small set of directors,

$$hd_a = \sqrt{\sum_d \frac{w_{ad}^2}{N_a}}$$

where a indexes actors, d indexes directors, w_{ad} is the number of films directed by d in which a appeared, and N_a is the total number of films in which a appeared. We then take the mean Herfindahl over all actors in the sample to generate our measure of aggregate concentration of relationships with particular directors:

$$HD = \frac{\sum_a hd_a}{A}$$

The observed score for this measure is 0.9296, which suggests a very high level of concentration. However, since 80% of the 32,141 actors in our 1992-1994 sample appeared in only 1 film, they have an unmeaningful concentration score of 1. Thus it is more informative to observe the level of concentration when controlling for the number of films in which actors appeared, as presented in table 2. As may be expected, the level of concentration declines with increases in the number of films in which she appeared. However, at each number of films, the mean Herfindahl exceeds what would be observed were actors to work with a different director in every film ($N_a^{-0.5}$).²² To test whether the observed concentration in actor-director ties significantly exceeds what would be found through random pairings, we follow a similar resampling procedure to that used for

²¹ Unfortunately, data on casting directors are not available. However, since we do not believe that casting directors specialize by genre whereas directors clearly do evince such specialization, we believe that the actor-director network is more likely to produce observed patterns of genre-based concentration.

²² If an actor never works with the same director twice, the share of films that each director represents is simply $1/N_a$. The Herfindahl is thus $H = \sqrt{\sum_a (1/N_a)^2} = \sqrt{(N_a)^{-2} * N_a} = \sqrt{(N_a)^{-1}} = N_a^{-0.5}$.

genre-based concentration.²³ In particular, we conduct 1,000 random permutations of the actor-director vectors for each of the three years under observation and compute HD for each iteration. The mean HD from the sampling distribution was 0.9269 and the standard deviation was $0.0239 \cdot 10^{-3}$, resulting in a Z -score of 113.47. Thus, we have found evidence of significant concentration in the actor-director network, which reinforces the need to control for such network ties in our analysis of the effect of typecasting on career outcomes.²⁴ In particular, we must make sure that actors who are presumed to be categorized in a particular genre are not simply connected to a director (or more generally, an employer) who specializes in that genre.

Hypothesis Tests

The previous analysis demonstrates that there has been and continues to be a significant degree of concentration in feature film careers by genre (as measured by IMDB), although the degree of concentration varies. This gives us greater confidence that we may use the IMDB data to test the hypotheses stated above, at least for the most highly structured genres. In particular, we seek to verify whether actors whose past work displays a high level of concentration in a given genre are: (a) more likely to obtain work in that genre in the future; (b) less likely to obtain work in other genres; and (c) more likely to obtain work in general because the first effect outweighs the second effect. We also examine whether these effects interact with an actor's tenure such that the advantages of concentration are greater for novices and the disadvantages greater for veterans.

²³ It might appear that, since the observed level of concentration is always within two standard deviations of the sample mean, it is not significant. However, the distribution of hd_a is not normal, but skewed with a structural limit at $N_a^{-0.5}$. In addition, $N_a^{-0.5}$ is not an appropriate criterion because it assumes that there are as many directors as there are films. One reason there would be concentration greater than $N_a^{-0.5}$ is that directors are associated with multiple films. Hence the need for the bootstrapping procedure which avoids making parametric assumptions and takes into account the observed distribution of films per director.

²⁴ It is tempting to conclude from the size of this Z -score relative to those in table 1 that network-based concentration is greater than genre-based concentration. Such a conclusion would be premature, however because the genre-based Z -scores apply to each genre but not the overall level of genre-based concentration. Note as well that an analysis of the latter is made difficult by the tendency for films to be assigned to multiple genres (whereas there is a single director for each film).

The Models

We present results from two types of models. First, we estimate logit models that predict whether an actor who found work in any of the years 1992-1994 (“the current period”) will work during 1995-1997 (“next period”). These models take the following form:

$$\ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + \beta_{n+1} v + \beta_{n+2} c + \beta_{n+3} v^* c + \varepsilon,$$

where p is the probability of obtaining work in a film during the next period; x_1 through x_n are a set of control variables measured in the current period, v is a dummy variable for veteran status in the current period-- specifically, whether the actor had appeared in any films released prior to 1992; and c is the actor’s maximum concentration score across the largest and most significant genres during the current period, as described below. The last two terms of the equation allow us to test hypotheses 1c and 2c: we expect concentration to increase the probability of obtaining work in the future and for that effect to be significantly reduced for veterans. Preliminary analyses revealed that a simple dummy denoting whether the actor worked in a film released prior to 1992 is better predictor of obtaining future work than is any other specification that we have estimated, which included a model with linear, quadratic and cubic terms. This reinforces our claim that the key challenge for most actors involves gaining a foothold in the industry beyond participation in a single film or period.

In addition to the binomial logit models, we also estimate multinomial logit models that divide future work between roles that occur in a genre of interest and those that are in films assigned to other genres. These models, which help us to test hypotheses 1a, 1b, 2a, and 2c, take the following form:

$$\ln\left(\frac{p_i}{p_0}\right) = \beta_0 + \beta_1 x_1 + \dots + \beta_n x_n + \beta_{n+1} v + \beta_{n+2} c^G + \beta_{n+3} gc + \beta_{n+4} v^* gc + \varepsilon, \quad i=1, 2$$

where p_0 is the probability of not working in a film released during the next period; where p_1 is the probability of working during the next period in one or more films, at least two-thirds of which were classified in genre G ; where p_2 is the probability of working during the next period in one or more films, more than one-third or of which were not classified in genre G ; where c^G is the actor’s maximum concentration score across the largest and most significant genres during the current period, but excluding genre G ; and where gc is a measure of an actor’s concentration in genre G during the

current period. We expect that results from this model to reveal that concentration in a given genre: increases the odds of p_1 versus p_0 ; reduces the odds of obtaining p_2 versus p_0 ; and for the former effect to outweigh the latter. We further expect the slope for each equation to be more negative among veteran actors. Finally, we examine whether there is evidence of a negative effect of concentration on p_2 even among novice actors, which would provide compelling evidence that matching processes are limited, at least with respect to the genre in question.²⁵

A Note on Selection. One could object that our models are beset by a selection problem. Since veterans have already survived through one or more periods, they are likely to be different from novices on some unmeasured dimensions. In particular, it is possible that whereas novices include both skilled and unskilled actors, veterans are likely to include only the skilled. However, this is precisely our interpretation of the difference between veteran and novice: that while the latter may potentially be regarded as unskilled, the former are less at risk of such a perception. We believe employers (directors or casting directors) to be suspicious of novices because they have yet to be subject to the selection processes that presumably cull the skilled from the unskilled. Whether such selection processes efficiently remove the chaff and preserve only the wheat is a separate matter. Thus, rather than being a problem, selection effects are precisely what we wish to measure with the dummy variable for an actor's veteran status.

Control Variables

We include six control variables in all models, each measured during the current period. These are: the natural logarithm of the number of films to which the actor was credited; the most recent year that a film featuring the actor was released; the highest billing that the actor received in any of her films; the square root of the highest box-office gross (in millions) of the actor's films; the actor's concentration of work with particular directors; and the actor's level of concentration in the Documentary genre. The last variable is included because participants in a documentary are typically not dramatic actors and thus are unlikely to have career lines that resemble other actors.

²⁵ Note that a potentially appealing modeling framework-- estimating a single equation for the probability of appearing in each of the IMDB genres-- is not available to us. Since each film may be (and typically is)

Measurement of each of the first two variables is straightforward. The box-office variable is also unproblematic. Note however that we code as having a box-office gross of zero all films for which box office data are missing in the IMDB files. We make this imputation because, under the period under study, the absence of box office data indicates that the film was not exhibited at theaters but probably released straight to video or some other non-theatrical release. Approximately one-third of the actors in our sample appeared in a film that had no recorded box office data. Thus, while we remove skewness from the number of films in which an actor appeared by logging it, we achieve the same objective with the box-office gross variable by taking its square root because this transformation allows those films with a box-office gross of zero to take on a defined value.

In measuring the prominence of an actor's roles, we use information from IMDB on the order of the casting credits at the end of a film. Specifically, we take the first position that an actor was listed in any of the films released during the current period. In general, the actor playing the lead role will appear first, and so on. This variable is measured with some degree of imprecision, however, because some films lists credits in order of appearance rather than in terms of the prominence of their roles in the film. In addition, films with larger casts generate a higher mean placement in the credits listing than those with smaller casts. Moreover, it is unlikely that the credit order is meaningful as one descends the list: the difference in prominence between an actor listed first and that listed fifth should be much greater than those listed twentieth and twenty-fifth.

To address these issues, we cross-classified the lowest billing in a given year with highest billing in the prior year across a ten-year period, 1985-1994, and fit log-multiplicative association models to this contingency table (see Goodman 1979; Clogg 1982). Results from this analysis, which is not included due to space constraints: (a) demonstrate that there is highly significant association in highest billing from year-to-year, which suggests that these data are a reliable measure of the prominence of an actor's role; (b) provide a more appropriate scaling of billing order; and (c) allow us to test the effects of collapsing positions lowest in the order of credits. In our analysis below, we use the rescaled variable, as given in table 3. That is, our billing variable runs from $-.353$, which corresponds to an actor who appeared no higher than 16th in the list of

classified in two or more genres, this makes it impossible to partition the likelihood into mutually exclusive

credits in any of the films released during 1992-1994, to .5692, which corresponds to an actor who was listed first in at least one such film. Members of the former category, who comprise the majority of actors in the analysis, are coded as having a level of prominence that is actually closer to those who were placed 15th or higher in the credits (.353-.2365=.1165) than the distance between the first and second ranks (.5692-.3957=.1735). This suggests the presence of a star system at the top of the hierarchy and indicates that differences in prominence are less meaningful as one descends that hierarchy.

TABLE 3 ABOUT HERE

Concentration Variables.

We create measures of genre and network-based concentration using the resampling procedures described above. For the genre-based concentration scores, we first register the number (out of 1,000 in total) random samples from the the D_{fy} vectors, the actor was found to have acted in a particular genre as often as was observed. We then take the mean over all actors who had the same number and proportion of films in a particular genre. This corrects for the presence of random noise that generates variation even among actors with exactly the same profile of participation in a particular genre. Finally, we subtract this mean value from 1000 and then divide the result by 1000. This normalization transforms the variable from an indicator of how *rare* a given profile is to a measure of concentration and expresses it as a percentage.

Table 4 illustrates this procedure with the 20 actors who had the highest concentration scores in the Action genre for this period. We see that there were four actors who appeared in seven films that were classified as Action movies and no films that were classified exclusively in other genres. On average, this profile occurred 1.25 times out of 1,000 random samples. Note that working entirely within the Action genre is more likely if an actor did not appear in many film roles. Thus, the concentration score for the 284 actors who were in two films, both of which were classified as Action, was .714. By contrast, even though half the films in which he acted were not classified as Action, Samuel L. Jackson exhibited a high concentration score because the probability of that high a proportion among his twelve films was quite low. Thus, the genre-based concentration scores are a function both of the number and the proportion of genres in a

given role.

TABLE 4 ABOUT HERE

We measured an actor's concentration of work with particular directors in similar fashion. In particular, we count the number of iterations in which the actor displayed as high a concentration level (hd_a) as was observed.²⁶ We normalize this measure as above, such that the concentration score varies from 0 (for which actors achieved the observed level of concentration or exceeded it in all 1,000 samples) to 1 (where the actor never achieved such a high degree of concentration through random chance). There were 104 actors who had a score of 1, among whom were a few well-known stars as Woody Allen, Tommy Lee Jones, and Emma Thompson and many lesser-known actors such as who tended to do all or most of their work with a particular director.²⁷

In table 5, we provide descriptive statistics and a correlation matrix for the regressors used in the analyses below. Association among the variables follows expectations. In particular, there are positive and moderate to high correlations among the variables measuring the number of films in which an actor appeared, how recently he appeared in a film, whether he was a veteran, and his highest billing. Each of these variables is also associated with the actor's maximum concentration score, which is the maximum taken over the ten largest genres (at least 4% of all film roles during the current period) but excluding those that did not display significant aggregate concentration (see Table 1): Action, Adventure, Comedy, Crime, Horror, Romance, Science Fiction, and Thriller. The significant association between maximum concentration and the number of films reflects the difficulty of separating level or size from pattern: distinctive patterns are only recognizable once a certain scale has been achieved (cf., Zuckerman 2001, pp. 18-19). Nevertheless, this association is not so high that collinearity poses a problem.²⁸ Finally, note that actors who concentrated their work with particular directors also tended to display higher concentration in a particular genre, though the association is relatively moderate.

²⁶ Unlike the genre-concentration scores, we do not correct for the random variation generated among actors with the same profile of relationships with directors. In this case, such a correction is unavailable because the vast majority of such profiles is unique.

²⁷ These examples suggest some variation in the aetiology of such director-actor relationships. Allen is an unusual example because he is a director who acts in the films he directs. Jones is a star who acted in nine films during this period, but displayed an elevated tendency to work with two directors with whom Mr. Jones worked twice: Andrew Davis and Oliver Stone. Emma Thompson appeared in seven films during this period, two directed by her then-husband Kenneth Branagh and two by James Ivory.

²⁸ The VIF statistic for maximum concentration in table 6, model 4 is only 1.18.

TABLE 5 ABOUT HERE

Results: Binomial Logit Models

In table 6, we present the binomial logit models that test hypotheses 1c and 2c. Results from the baseline equation presented as model 1 show that each of the covariates has a substantial impact on the probability of working during the next period. As may be expected, veterans are much more likely than novices to work again: when all other covariates are evaluated at their mean values, veterans enjoy an estimated probability of working in the next period of 38.2% versus 16.4% for novices.²⁹ The recency of an actor's last film is also an important factor: those for whom their most recent film was in 1992 were estimated to have only a 17% likelihood of finding work again in the next period, vs. 27% among those who worked in a film released in 1994. The effect of the number of films is also quite strong. An increase from the mean (which corresponds to 1.22 films) of just one film brings about a rise in the estimated probability of working in the next period from 22.6% to 36.4%. A similar increase is also brought about by a rise in highest billing from the mean (about 12th) to about 4th. Finally, the effect of box-office gross is significant as well, though less substantial. It takes an increase from the mean (about \$7 million) to mega-blockbuster status (about \$450 million) to produce a rise to 36% in the estimated probability of working in the next period.

TABLE 6 ABOUT HERE

In model 2, we add two additional control variables: concentration in work with particular directors and concentration in Documentary. Each of these has a significant effect, though that for the former is slight. It indicates that, in general, strong ties with a small number of directors reduces the likelihood in the future, perhaps because it reflects an overdependence on jobs provided through a small number of sources. The significant negative coefficient on concentration in Documentary confirms the distinctiveness of this category from the dramatic genres.

Results from model 3 provide support for hypothesis 1c. Controlling for the various factors found to have a significant impact on the probability of obtaining future work, the more concentrated is an actor's resume during the current period, the more likely is she to find work in a film released during the next period. This impact of this variable is not as great as the other covariates apart from director-concentration, which should not be surprising: after all, prominence, tenure, recency, and present level of

current participation in the industry should be much more powerful predictors of future participation than the pattern of current participation. Thus, an increase in maximum concentration from the mean level (.41) to .90-- where there is a 10% probability of observing a level of concentration that high-- brings about a rise in the estimated probability of obtaining work from 22.6% to 24.0%.

However, as predicted by hypothesis 2c and demonstrated in model 5, this effect is much more pronounced among novice actors-- and is reversed among veterans, as illustrated by figure 4.³⁰ Among novices, an increase in maximum concentration to .90 raises the estimated probability of working during the next period from 16.4% to 21.3%. Among veterans, the same increase in concentration reduces this estimated probability from 38.4% to 33.5%. These findings support our attempt to reconcile the notion that multivalent identities are robust with the claim that generic identities are necessary to gain recognition. The evidence we have provided suggests that, before an actor has become established in the market, it is advantageous to assume an identity that falls within the confines of existing categories. But, as argued by Faulkner (1983), the limits inherent in a generic identity outweigh the advantages among actors who have already established themselves in the market. Since the vast majority of actors never achieve a foothold in the labor market, the downsides of a typecast identity pale in comparison to the advantages it holds.

FIGURE 4 ABOUT HERE

In addition, we see from model 5 that it is unlikely that these patterns are spuriously produced by the presence of actor-director cliques through which circulate. We observe a negative interaction effect between veteran status and director-concentration in model 4, a finding that is broadly consistent with Burt's (1992) argument that structural autonomy is more advantageous once one is accepted as an insider. Yet this is a relatively weak effect which disappears in model 5. It is clear that maximum concentration and its interaction with veteran status have a much more salient impact on future career outcomes. This does not mean that social networks are unimportant in obtaining work in Hollywood but that a different type of structure is more relevant. Indeed, our genre concentration scores can be considered networks of

²⁹ In all other calculations, we assess the effect of a given variable while all others are evaluated at their mean values.

attribution to a set of categories. They reflect the tendency for certain people to work in particular types of jobs and for industry participants and observers to then identify a linkage between certain categories and not others. That this structure appears more salient than one based on social networks reinforces our argument that is often more revealing to focus on structure that arises endogenously from the process of selecting and rating alternatives in the markets (“prisms” in the terminology of Podolny 2001) rather than to analyze structure that derives from external forces.

Results: Multinomial Logit Models

Next, we present results from multinomial logit models, which help to test hypotheses 1a, 1b, 2a, and 2b, and which help distinguish between typecasting and alternatives based on category-specific human capital and matching processes. Rather than present the models for each genre, we present results in tables 7a-7c for the three largest genres that were shown to have significant aggregate concentration-- Action, Comedy, and Thriller-- and discuss how they compare with findings from the models on the five other genres that had significant aggregate concentration and which represent at least 4% of all film roles during the current period: Adventure, Crime, Horror, Romance, and Science Fiction.

TABLES 7a-7c ABOUT HERE

Results from the first model in table 7a show how the relationship between concentration and future work may be decomposed between work in one genre and all others.³¹ As illustrated in figure 5, concentration in Action produces a significant increase in the likelihood that the actor will work in Action in the next period: an increase from the mean concentration (.12) to .90 causes a fourfold rise in the estimated probability of working in 2/3 or more Action films during the next period: from 5.3% to 22.7%. Such a rise in Action-based concentration also increases the probability that the actor will work at all in the future (from 22.6% to 34.5%) because, while the probability of working outside Action is reduced (from 17.4% to 11.8%), this reduction is exceeded by the increase in the likelihood of working in Action. Similar patterns are observed for

³⁰ We thank Simon Cheng and J. Scott Long for providing their “xpost” tools for analyzing the results of categorical regression models. See <http://www.indiana.edu/~jsl650/xpost.htm>.

³¹ Tests for the independence of other alternatives (see Long 1997: pp. 182-184) were ambiguous. However, binary logit models estimated for each of the two alternatives produced results that were substantially the same as those generated by the multinomial logits. Also, it is clearly the case that, from the standpoint of the concentration variables, it is quite clearly the case that the outcome categories are not substitutes for one another.

seven of the eight genres. With the exception of Crime, the expectations postulated in hypothesis 1a were met for each genre: actors who display significant concentration in a genre during the current period are more likely to work in a set of films, more than 2/3 of which are in that genre, than they are not to work during the next period. Furthermore, such success in obtaining work in a particular genre is responsible for the general effect, which was observed in table 6, whereby genre-based concentration increases the likelihood of obtaining any kind of work in the future. Only in the case of Comedy and Action was there an overall negative effect on the odds of obtaining work in other genres versus not working at all, as postulated in hypothesis 1b. However, for all other genres but Crime, this effect was insignificant such that the advantages of concentration outweighed any disadvantages.

FIGURE 5 ABOUT HERE

Moreover, the trade-off between simple and robust identity is particularly salient among novice actors, as expected. The results in table 7c illustrate the pattern in the case of Thriller. We see in model 2 that veteran status provides a significant and negative slope adjustment to the effect of concentration in Thriller on the odds of working in Thriller versus not working, and on the odds of working outside of Thriller versus not working. This indicates that the advantage of concentrating in the Thriller genre for obtaining work in the next period is greater among novice actors and more attenuated among veterans. The graph in figure 6 illustrates the contrast between the two groups. We see that, while there is no overall effect of concentration in Thriller on the likelihood of obtaining work outside of Thriller, this effect is negative and significant among veterans. With all other variables held at their means, an increase from mean Thriller-based concentration from the mean (.10) to .90 reduces the estimated probability of working in non-Thriller films in the next period from .42 to .36. In addition, the advantages of concentrating in Thriller are lower for veterans. While for both groups, a rise in Thriller-based concentration from the mean to .90 increases the probability of working largely in Thriller in the next period, the effect is more dramatic among novices than among veterans: the rise in the estimate probability is from .022 to .066 for the former and from .08 to .139 for the latter.

Both the first interaction effect-- whereby veterans enjoy less advantage for obtaining work in the genre of interest-- and the second-- whereby veterans suffer greater

disadvantage for obtaining work outside that genre-- are negative and statistically significant (at least at the .06 level) in six of the eight genres.³² The former is more noteworthy. This reduced advantage for veterans, which is consistent with hypothesis 2a, suggests that a human capital perspective cannot easily explain our results. The rewards for specialism seem to be greater before a significant stock of specialist skills have been accumulated-- that is, for actors at the beginning of their careers. A human capital perspective affords one possible explanation for this finding: that specialist skills actually depreciate over time to the degree that the same level of specialism is less valuable for veterans (relative to other veterans without such skills) than for novices. Such a possibility that might be produced by a tendency for senior actors to become overexposed in a particular type of role. However, note that more than half of the veterans in our sample are within ten years of the release of their first film. Further, only a small proportion (~5%) of the veterans are household names or faces. It seems unlikely that specialist skills would be less valuable among this group of actors than among novices. Rather, our results are more consistent with the rationale we provided above: that employers' revealed preference for specialists is (at least in part) a spurious outcome of their attempts to find candidates who can fit a particular category of work. Since employers face particular difficulty discerning whether a novice is multitalented or unskilled, the novice benefits when he can at least present himself as someone with generic skills. But since the veteran is less likely to be regarded as unskilled, the advantages of a simple identity are reduced.

FIGURE 6 ABOUT HERE

Finally, our results on the constraining aspect of typecasting give us confidence that a matching perspective cannot fully account for the patterns we observe. We argued above that the experimentation characteristic of matching processes appears to be limited in this market, as indicated by the tendency for most careers to be highly episodic. Most aspiring feature-film actors are prevented from getting a chance to showcase and develop their skills because it is less costly for casting directors to hire known quantities than to experiment with actors with no feature film experience. In addition, it also appears that, at least for Comedy, experimentation tends to be curtailed after the first match is consummated. Consider the right columns in the models presented in table 7b. As

³² The former interaction effect is not significant in the case of Comedy (see Table 7b) and the latter in the

expected, concentration in Comedy leads to a lower likelihood of working during the next period in other genres-- and this effect is stronger for veterans. Yet while weaker, the effect is also significant for novices, as illustrated in figure 7. Concentration in Comedy even at the earliest career stage reduces the likelihood of working in other genres rather than not work at all. And note (from the coefficient on maximum concentration in the left column) that the converse is true as well: concentration in any genre other than Comedy reduces the probability that the actor will work in comedic films.

This curtailment of experimentation among novice actors is not observed for Thriller or for any of the smaller genres and is only marginally significant for Action ($p=.07$). However, this should not be surprising: as hypothesis 2b suggests, we expect the constraining effect to become more salient only as an actor becomes identified with the category in question. That we find *any* evidence for such a constraint among actors who have just begun their careers provides strong evidence for the salience of typecasting in structuring the careers of feature film actors. Specifically, our results point to the boundary between comedic and non-comedic genres as having particular importance. While our interpretation of this result can only be suggestive, it is instructive to consider both that Comedy is a genre as old as the arts and that it has exhibited a significant degree of aggregate coherence as a labor-market category for at least forty years. In addition, our informants typically made reference to the comedy/drama boundary as particularly difficult to cross. Thus, our results suggest that typecasting processes are most salient where genre boundaries are clearest. Once identified as belonging to one or the other side of the boundary between the comedic and non-comedic, it appears that feature film actors are systematically constrained from crossing it to broaden their repertoires. Such an actor must confront the assumption, routinely applied but rarely tested, that one cannot perform skillfully in both comedic and non-comedic roles.

Discussion

The prospect of assuming a complex, multivalent, or “robust” identity holds great appeal. Who would not prefer to move across domains as one sees fit without being committed to any one? As Marx and Engels put it, it seems more fulfilling to “do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening,

criticize after dinner, just as I have a mind, without ever becoming hunter, fisherman, shepherd or critic (Marx and Engels 1988: 97).”

However, two factors prevent this generalist ideal from becoming reality. First, to the extent that various tasks require (investments in) highly specialized skills, we are highly limited in the extent to which we may be generalists. As Freidson (1980) points out, it is hard to conceive of an advanced economy (or industry) without highly developed specialism.³³ In addition, where skill is hard to determine and the prevailing belief holds that specialism is more common than generalism, opportunities for true generalists to emerge will be limited. Without any other evidence of skill to the contrary, a worker who attempts to be a generalist faces the threat that she will be regarded as a dilettante who is not competent at any type of work. As a result, assuming a generic identity is a more viable strategy at the inception of one’s career or, more generally, when one is at risk of being screened out of consideration. When this risk recedes, however, generalism becomes a more attractive strategy-- though a path that is difficult to follow once one has become identified with a particular specialty. Thus, the seeds are sown for feelings of alienation as workers are systematically constrained to become more generic, commodity-like, products than they would be on the basis of their skills alone.³⁴ At the same time, such alienation does not stem simply from the elaboration of a division of labor, as Marx and Engels argued, but rather from the labor market’s limited ability to identify and develop workers with generalist skills.³⁵

Accordingly, the patterns that we hypothesize and observe in the case of feature film actors should be less apparent in many other contexts. As argued above, a labor market such as that for physicians, where the boundaries between specialties are typically deep and job assignments are based on years of dedicated training, there will be little ambiguity as to a candidate’s identity by the time she reaches the market. Our

³³ “How can we conceive of the possibility of someone being a good tool-and-die maker in the morning, a competent oboe player in the afternoon, an up-to-date linguist in the evening, and a creative research physicist after dinner, without ever being any one of them full-time? (Freidson 1980, par. 25).”

³⁴ It is interesting to link this discussion with Podolny and Hsu’s (2002) discussion of variation in the simplicity and complexity of quality schemas across arenas, with “markets” typified by simple schemas and “Art” characterized by more complex schema. Making the link to the current context, one might say that within a given labor market, most workers (including in an artistic field such as acting) are evaluated as simple, generic commodities but that a more complex, “artistic” identity becomes possible once one has become sufficiently established that the threat of being disregarded recedes.

³⁵ We refer here only to the type of alienation that Marx and Engels discuss in the German Ideology as resulting from a highly elaborated division of labor (Marx and Engels 1988). Other forms of alienation, such as that which results from a lack of autonomy, do not concern us here.

framework is applicable only where generalism is sufficiently rare that it is costly for employers (and the intermediaries who act on their behalf) to experiment in identifying such workers but is not so rare as to be unobserved. In addition, we expect that in many contexts, candidates may avail themselves of other signals of quality (e.g., credentials) that allow employers to code their generalism as indicating multiple talents rather than none. Finally, we believe that typecasting processes should be particularly salient in markets that are mediated by multiple layers of brokers, each of whom acts to screen out candidates who do not fit generic criteria.

While delimited in scope, we believe that our framework sheds light on the trade-off between complex and simple identities in a variety of social contexts, well beyond the example of labor markets. In general, diffuse identities are hard to assume, both because they require difficult psychological adjustments (Merton 1968: 424-440; Stryker and Macke 1978) and because audiences and interactants typically discipline actors to play roles that they can understand (e.g., DiMaggio and Powell 1983; Meyer and Rowan 1977; Scott 2001; Urban, Hlland, and Weinberg 1993; White 2002; Zuckerman 1999, 2000). As Padgett and Ansell (1993: 1264) point out, “Robust action will not work for just anyone.” Indeed, the case of Cosimo DeMedici is instructive because his success in achieving a network position that spanned multiple factions was the result of a series of a series of largely contingent events that transpired over the course of decades (ibid: 1286-1306). And the Medici were alone in achieving such a position in Florentine networks despite the benefits that would accrue to those who might emulate them. We argue that, in general, the difficulties of assuming a “Renaissance Man” identity generally outweigh its advantages, but that this balance is moderated by the degree to which one has already achieved a degree of acceptance that allows audiences to interpret deviation from generic behavior as broadening one’s identity, rather than as sullyng it (Phillips and Zuckerman 2001). Most actors in most arenas most of the time have not achieved such acceptance. Thus we typically behave generically.

Concluding Remarks

In closing, we note several other features and limitations of our analysis. First, our analysis suggests that: (a) that career structures in the external labor market may not be as “boundaryless” (Rousseau and Arthur 1996) as is often believed; and that careers marked

by a low degree of coherence are likely to face greater difficulty than those that are more clearly defined. The latter observation leads to an expectation that there exists a general sequence to the initial stages of a worker's career in a given labor market: an initial stage during which the actor either assumes a generic identity or fails to achieve sustained participation in the market; and a second stage during which the worker either remains generic or broadens his or her identity. We believe that, due not only to the rarity of generalist potential but the tendency for labor markets to reduce opportunities for generalism, careers that are curtailed at the first stage are more common than careers that graduate from genericity.

A second feature of our analysis has been our attempt to distinguish a typecasting process from alternatives based on human capital and matching. While not definitive, we regard our results to be more consistent with our typecasting framework. It is awkward to depict this labor market as characterized by anything approaching the type of experimentation (in terms of actor to genre matches) that is posited in matching models. It is also unlikely that a human capital approach could account for the finding that novices enjoy more advantage from their relatively limited stock of specialized skills than do specialists from their more elaborated skills. Finally, our interviews with agents, actors, and casting directors testify to the ways a wedge is driven between an actor's labor market identity and her skills. Alienation is common-- and, to the extent that employers identify with candidates, they recognize and express such alienation as well. Together, these three pieces of evidence provide strong motivation for considering the possibility that the typecasting processes first described by Faulkner (1983) and elaborated upon here, are at work.

Yet the objective is not to displace labor-economic models and, more specifically, to claim that skill is somehow irrelevant to the labor-market positions that workers attain. Rather, while positions in labor markets are defined by skill differences and the assignment of workers to position is conducted on the basis of a candidate's past, the difficulty of measuring skill introduces systematic bias into the process, which works to break the link between skill and position. This does not mean that workers are assigned to positions to which they are not fit. Rather, it implies that many workers occupy positions that are narrower than they would achieve if their (potential) skills were more readily discernible. We hope we have shown how structural sociological accounts of

labor markets may begin with skill but emerge with a more complex picture, one in which position cannot be reduced to underlying ability (cf., Sørensen 1977; Podolny 1993; Gould 2002).

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Table 1: Degree of Concentration of Film Roles for 17 Genres in English-Speaking Feature Films, 1992-1994

Genre	Percent of Movies (Total=2,253)	Percent of Roles (Total=68,003)	Observed Herfindahl	Random Herfindahls			Z-Score
				Mean	S.D.	% as High as Observed	
Drama	34.29	39.82	.0089	.0089	.0000	64.3	-0.39
Comedy	27.64	33.47	.0101	.0097	.0000	0	13.25
Action	20.4	20.92	.0129	.0118	.0000	0	26.22
Thriller	18.45	16.75	.0136	.0129	.0000	0	16.90
Romance	7.95	9.74	.0163	.0161	.0001	0	5.12
Horror	7.67	6.28	.0201	.0197	.0001	0	5.88
Science Fiction	6.19	5.38	.0219	.0212	.0001	0	9.31
Crime	4.11	5.17	.0220	.0215	.0001	0	5.77
Adventure	5.35	4.51	.0235	.0230	.0001	0	7.22
Mystery	2.41	2.88	.0286	.0286	.0001	24.7	0.78
Documentary	5.61	1.82	.0368	.0357	.0001	0	11.34
Western	1.46	1.8	.0369	.0363	.0001	0	5.86
War	1.24	1.7	.0373	.0369	.0001	2	3.49
Children	1.5	1.58	.0397	.0383	.0001	0	13.06
Fantasy	1.37	1.5	.0394	.0392	.0001	2.9	2.09
Music	0.78	0.63	.0600	.0602	.0002	100	-0.88
Film-Noir	0.33	0.17	NA.	NA	NA	NA	NA

Table 2

Concentration in Work with Directors: By Number of Films, 1992-1994

Number of Films (NF)	N (Actors)	Herfindahl <i>Mean (S.D.)</i>	$NF^{-0.5}$
1	25,613	1.000 (0.000)	1.00
2	3,599	0.725 (0.071)	0.707
3	1,330	0.600 (0.076)	0.577
4	687	0.518 (0.058)	0.50
5	312	0.469 (0.081)	0.447
6	159	0.428 (0.049)	0.408
7	91	0.403 (0.085)	0.378
8	57	0.370 (0.033)	0.354
9	29	0.359 (0.039)	0.333
10	15	0.324 (0.014)	0.316
11+	27	0.305 (0.035)	0.284

Table 3: Rescaling of Casting Order as Highest Billing

Casting Order (Rescaled)	Frequency	Percent
1 (.5692)	1,148	3.57
2 (.3957)	933	2.90
3 (.2981)	876	2.73
4 (.1941)	885	2.75
5 (.1297)	885	2.75
6 (.0795)	856	2.66
7 (.0194)	843	2.62
8 (-.0185)	838	2.61
9 (-.0716)	824	2.56
10 (-.0956)	813	2.53
11 (-.1659)	802	2.50
12 (-.1886)	793	2.47
13 (-.2080)	822	2.56
14 (-.2259)	778	2.42
15 (-.2365)	763	2.37
16+ (-.3530)	19,282	59.99

Table 4: Actors with Highest Concentration in Action Genre, 1992-1994

Name	N (Films)	N (Action)	Avg. Prevalence of Profile (1,000 resamples)	Concentration Score
Ciarfaliao, Carl	11	10	0	1.0000
Jackson, Samuel L.	12	6	1	0.9990
Lamas, Lorenzo	10	9	1	0.9990
Asinas, Ronald	7	7	1.25	0.9988
Strzalkowski, Henry	7	7	1.25	0.9988
Wilson, Don 'The Dragon'	7	7	1.25	0.9988
Thorsen, Sven-Ole	7	7	1.25	0.9988
Okamura, Gerald	5	5	3.6	0.9964
Adamos, Archie	5	5	3.6	0.9964
Aleong, Aki	5	5	3.6	0.9964
VanDamme, Jean-Claude	5	5	3.6	0.9964
Rogers, Steve	5	5	3.6	0.9964
Obata, Toshirô	5	5	3.6	0.9964
Nicholson, Nick	5	5	3.6	0.9964
D'Salva, Ramon	5	5	3.6	0.9964
Holmes, Paul (I)	5	5	3.6	0.9964
Phelan, Mark	5	5	3.6	0.9964
Moss, Jim (I)	6	6	3.67	0.9963
Norton, Richard (I)	6	6	3.67	0.9963
Daniels, Gary	6	6	3.67	0.9963

Table 5: Summary Statistics and Correlation Matrix Among Regressors

Variable	Mean	S.D.	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]
1. Ln (Number of Films)	0.19	0.42	--									
2. Most Recent Year	1993.16	0.82	.29	--								
3. If Veteran	0.35	0.48	.39	.08	--							
4. Highest Billing	-0.19	0.25	.47	.16	.33	--						
5. Highest Box Office	2.71	3.34	.32	.10	.17	.04	--					
6. Concentration (Director)	0.01	0.12	.29	.08	.09	.12	.05	--				
7. Concentration (Maximum)	0.41	0.25	.38	.15	.17	.18	.16	.14	--			
8. Concentration (Documentary)	0.01	0.09	-.00•	.02	-.02	.02	-.08	-.00•	-.19	--		
9. Concentration (Action)	0.12	0.21	.27	.11	.11	.10	.10	.11	.02*	-.07	--	
10. Concentration (Comedy)	0.16	0.21	.27	.12	.13	.09	.27	.05	-.15*	-.06	-.15	--
11. Concentration (Thriller)	0.10	0.20	.29	.13	.13	.17	.09	.09	-.02*	-.06	.19	-.17

N=32,141

• *Not significant at p<.05.*

* Shows the correlation between concentration for the genre in question and the lowest concentration across all 11 genres with significant aggregate concentration (Table 1) but excluding the genre in question.

Table 6: Maximum-Likelihood Binomial Logit Models of Log-Odds of Obtaining Work in a Film Released in 1995-1997

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Logged Number of Films	1.11●● (0.04)	1.14●● (0.04)	1.14●● (0.04)	1.11●● (0.04)	1.15●● (0.04)
Most Recent Year	0.28●● (0.02)	0.28●● (0.02)	0.28●● (0.02)	0.28●● (0.02)	0.28●● (0.02)
Veteran	1.15●● (0.03)	1.14●● (0.03)	1.14●● (0.03)	1.15●● (0.03)	1.16●● (0.03)
Highest Billing	1.61●● (0.06)	1.61●● (0.06)	1.61●● (0.06)	1.61●● (0.06)	1.62●● (0.06)
Sqrt (Highest Box-Office)	0.07●● (0.00)	0.06●● (0.00)	0.06●● (0.00)	0.06●● (0.00)	0.06●● (0.00)
Concentration (Director)		-0.29● (0.12)	-0.30● (0.12)	-0.00 (0.20)	-0.18 (0.20)
Concentration (Documentary)		-1.04●● (0.19)	-0.96●● (0.20)	-0.96●● (0.20)	-0.96●● (0.20)
Concentration (Maximum)			0.16● (0.07)	0.16● (0.07)	0.65●● (0.09)
Veteran*Director				-0.46 (0.24)	-0.46 (0.24)
Veteran*Maximum					-1.08●● (0.13)
Constant	-561.16●● (38.62)	-565.86●● (38.64)	-561.01●● (38.68)	-561.84●● (38.70)	-566.23●● (38.76)
X ² (df)	8,204.64 (5)	8,241.84 (7)	8,247.39 (8)	8,250.90 (9)	8,321.31 (9)
Δ in X ² (df)*		37.20 (2)	6.19 (1)	3.41 (1)	70.41

N=32,141

Two-sided t-tests: ● p<.05 ●● p<.01

* Relative to model that excludes the bolded covariates.

Table 7a: Maximum-Likelihood Multinomial Models of Log-Odds of Work in Action and Other Genres vs. Not Working During 1995-1997

Variable	Model 1: All Actors		Model 2: All Actors		Model 1a: Novice Actors*	
	Action [†] vs. No Work	Other Genres [‡] vs. No Work	Action [†] vs. No Work	Other Genres [‡] vs. No Work	Action [†] vs. No Work	Other Genres [‡] Vs. No Work
Ln (Number of Films)	0.76●● (0.07)	1.17●● (0.05)	0.77●● (0.07)	1.18●● (0.05)	1.22●● (0.14)	1.54●● (0.08)
Most Recent Year	0.32●● (0.04)	0.27●● (0.02)	0.31●● (0.04)	0.27●● (0.02)	0.35●● (0.06)	0.40●● (0.04)
If Veteran	1.12●● (0.06)	1.15●● (0.03)	1.18●● (0.06)	1.14●● (0.03)		
Highest Billing	1.17●● (0.11)	1.72●● (0.06)	1.16●● (0.11)	1.73●● (0.06)	1.41●● (0.19)	1.89●● (0.10)
Highest Box Office	0.02●● (0.01)	0.07●● (0.00)	0.02●● (0.01)	0.07●● (0.00)	0.04●● (0.02)	0.08●● (0.01)
Concent. (Director)	-0.05 (0.17)	-0.40●● (0.12)	-0.05 (0.17)	-0.41●● (0.13)	-0.28 (0.33)	-0.55●● (0.23)
Concent. (Docum.)	-1.36●● (0.46)	-0.89●● (0.20)	-1.34●● (0.46)	-0.89●● (0.21)	-1.99● (0.85)	-1.08●● (0.31)
Concent. (Maximum) [§]	0.07 (0.12)	0.06 (0.07)	0.08 (0.12)	0.07 (0.07)	-0.02 (0.17)	0.39●● (0.10)
Concent. (Action)	2.08●● (0.11)	-0.27●● (0.08)	2.43●● (0.17)	-0.08 (0.11)	2.27●● (0.17)	-0.21 (0.12)
Action*Tenure			-0.64●● (0.22)	-0.39●● (0.15)		
Constant	-635.54●● (75.76)	-540.46●● (41.89)	-631.80●● (75.74)	-539.88●● (41.91)	-705.13●● (113.78)	-797.60●● (61.60)
X ² (df)	8,782.96 (18)		8795.54 (20)		2,124.67 (16)	
Δ in X ² (df)**	428.27 (2)		12.58 (2)		175.50 (2)	
N	32,141		32,141		20,877	

Two-sided t-tests: ● p≤.05 ●● p≤.01

* Excludes veterans: includes only those actors whose first film was released during 1992-1994.

† At least two-thirds of the films in which the actor appeared were classified as Action.

‡ More than one-third of the films in which the actor appeared were classified in genres other than Action.

§ Maximum concentration score across the largest eight genres, but excluding Drama and Action.

** Relative to model that excludes the bolded covariates.

Table 7b: Maximum-Likelihood Multinomial Models of Log-Odds of Work in Comedy and Other Genres vs. Not Working in 1995-1997

Variable	Model 1: All Actors		Model 2: All Actors		Model 1a: Novice Actors*	
	Comedy [†] vs. No Work	Other Genres [‡] vs. No Work	Comedy [†] vs. No Work	Other Genres [‡] vs. No Work	Comedy [†] vs. No Work	Other Genres [‡] vs. No Work
Ln (Number of Films)	0.74●● (0.07)	1.23●● (0.05)	0.75●● (0.07)	1.24●● (0.05)	1.17●● (0.12)	1.62●● (0.08)
Most Recent Year	0.30●● (0.03)	0.28●● (0.02)	0.30●● (0.03)	0.28●● (0.02)	0.48●● (0.05)	0.37●● (0.03)
If Veteran	1.07●● (0.05)	1.17●● (0.03)	1.07●● (0.05)	1.17●● (0.03)		
Highest Billing	1.42●● (0.09)	1.68●● (0.06)	1.42●● (0.09)	1.68●● (0.06)	1.74●● (0.16)	1.81●● (0.10)
Highest Box Office	0.07●● (0.01)	0.06●● (0.01)	0.07●● (0.01)	0.06●● (0.01)	0.09●● (0.01)	0.06●● (0.01)
Concent. (Director)	-0.43● (0.19)	-0.30● (0.13)	-0.43● (0.19)	-0.30● (0.13)	-0.37 (0.36)	-0.53● (0.22)
Concent. (Docum.)	-0.83●● (0.32)	-1.02●● (0.21)	-0.83●● (0.32)	-1.02●● (0.21)	-1.07●● (0.49)	-1.38●● (0.36)
Concent. (Maximum) [§]	-0.35●● (0.09)	0.23●● (0.06)	-0.35●● (0.09)	0.22●● (0.06)	-0.42●● (0.14)	0.59●● (0.09)
Concent. (Comedy)	1.31●● (0.12)	-0.54●● (0.09)	1.39●● (0.17)	-0.28●● (0.12)	1.08●● (0.19)	-0.36●● (0.13)
Comedy*Veteran			-0.23 (0.21)	-0.46●● (0.16)		
Constant	-595.93●● (65.32)	-563.70●● (43.20)	-595.22●● (65.31)	-563.71●● (43.22)	-953.80●● (99.98)	-735.64●● (63.47)
X ² (df)	8,712.17 (18)		8,720.90 (20)		2,075.43 (16)	
Δ in X ² (df)**	222.45 (2)		8.73 (2)		47.40 (2)	
N	32,141		32,141		20,877	

Two-sided t-tests: ● p≤.05 ●● p≤.01

* Excludes veterans: includes only those actors whose first film was released during 1992-1994.

† At least two-thirds of the films in which the actor appeared were classified as Comedy.

‡ More than one-third of the films in which the actor appeared were classified in genres other than Comedy.

§ Maximum concentration score across the eight largest genres, but excluding Drama and Comedy.

** Relative to model that excludes the bolded covariates.

Table 7c: Maximum-Likelihood Multinomial Models of Log-Odds of Work in Thriller and Other Genres vs. Not Working in 1995-1997

Variable	Model 1: All Actors		Model 2: All Actors		Model 1a: Novice Actors*	
	Thriller [†] vs. No Work	Other Genres [‡] vs. No Work	Thriller [†] vs. No Work	Other Genres [‡] vs. No Work	Thriller [†] vs. No Work	Other Genres [‡] vs. No Work
Ln (Number of Films)	0.88●● (0.08)	1.14●● (0.05)	0.88●● (0.08)	1.16●● (0.05)	1.23●● (0.14)	1.54●● (0.08)
Most Recent Year	0.31●● (0.04)	0.27●● (0.02)	0.31●● (0.04)	0.27●● (0.02)	0.40●● (0.06)	0.39●● (0.03)
If Veteran	1.13●● (0.06)	1.14●● (0.03)	1.16●● (0.06)	1.14●● (0.03)		
Highest Billing	1.07●● (0.11)	1.71●● (0.06)	1.08●● (0.11)	1.72●● (0.06)	1.39●● (0.20)	1.87●● (0.10)
Highest Box Office	0.04●● (0.01)	0.07●● (0.00)	0.04●● (0.01)	0.07●● (0.00)	0.05●● (0.01)	0.08●● (0.01)
Concent. (Director)	-0.20 (0.19)	-0.32●● (0.13)	-0.19 (0.19)	-0.31●● (0.12)	-0.67 (0.42)	-0.40 (0.12)
Concent. (Docum.)	-1.80●● (0.53)	-0.84●● (0.20)	-1.79●● (0.53)	-0.84●● (0.20)	-2.16●● (0.97)	-1.11●● (0.31)
Concent. (Maximum) [§]	0.49●● (0.13)	0.08 (0.07)	0.49●● (0.12)	0.08 (0.07)	0.92●● (0.19)	0.22●● (0.10)
Concent. (Thriller)	1.00●● (0.13)	-0.05 (0.08)	1.46●● (0.19)	0.27●● (0.11)	1.39●● (0.20)	0.13 (0.12)
Thriller*Veteran			-0.86●● (0.25)	-0.63●● (0.15)		
Constant	-622.12●● (78.66)	-545.34●● (41.46)	-617.70●● (78.71)	-543.21●● (41.50)	-794.73●● (120.60)	-778.69●● (60.62)
X ² (df)	8,380.87 (18)		8,404.16 (20)		1,973.34 (16)	
Δ in X ² (df)**	68.04 (2)		23.29 (2)		44.21 (2)	
N	32,141		32,141		20,877	

Two-sided t-tests: ● p≤.05 ●● p≤.01

* Excludes veterans: includes only those actors whose first film was released during 1992-1994.

† At least two-thirds of the films in which the actor appeared were classified as Thriller.

‡ More than one-third of the films in which the actor appeared were classified in genres other than Thriller.

§ Maximum concentration score across the largest eight genres, but excluding Drama and Thriller.

** Relative to model that excludes the bolded covariates.

Figure 1:
The Market for Acting Services:
Principals and Intermediaries

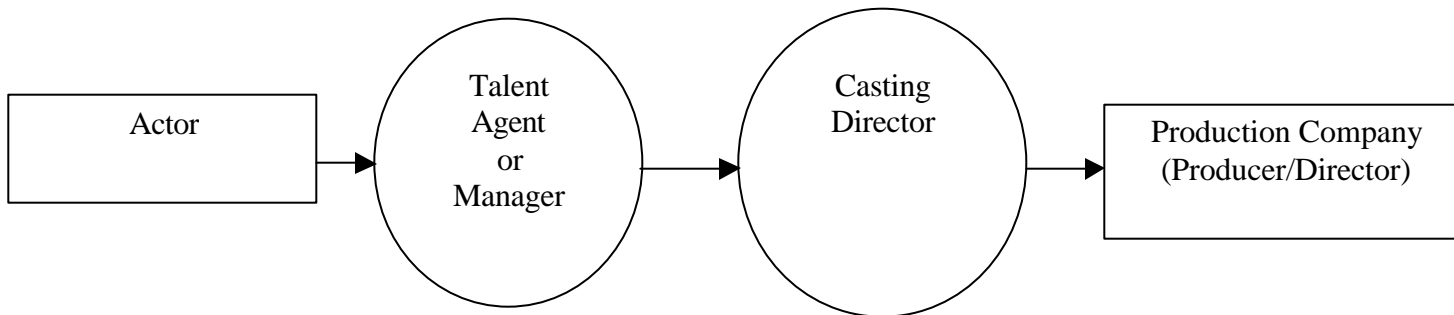
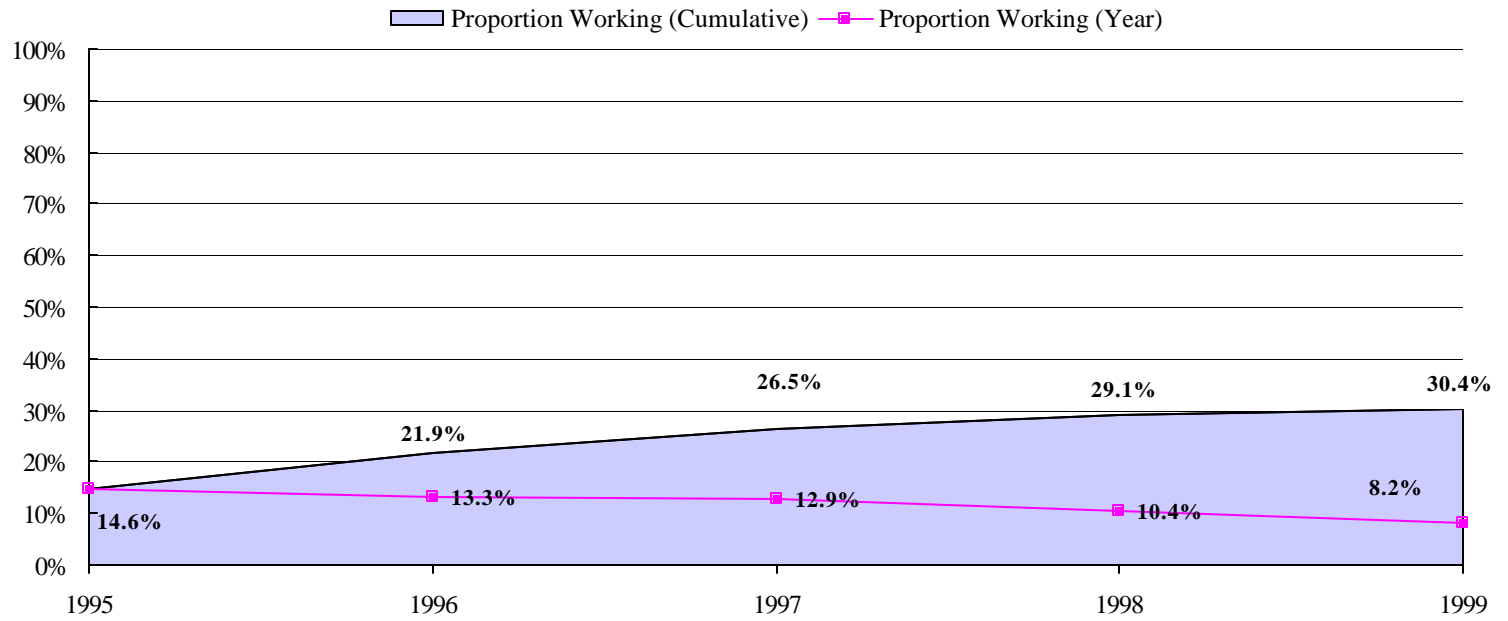
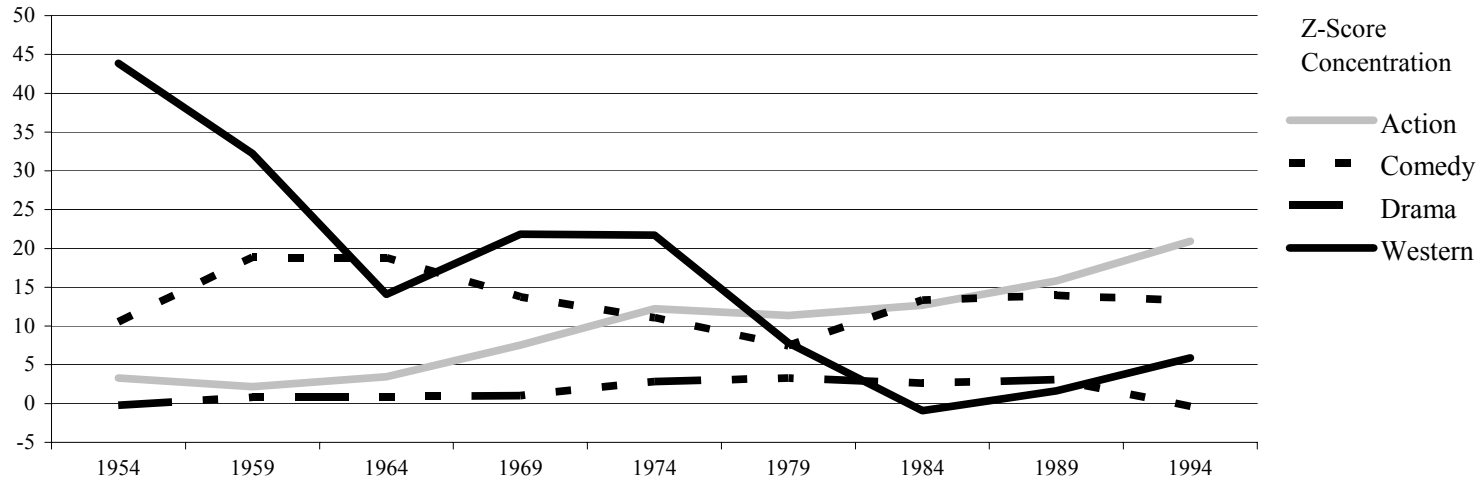


Figure 2: Probability of Future Work



N=32,141 actors who appeared in one or more films released during 1992-1994

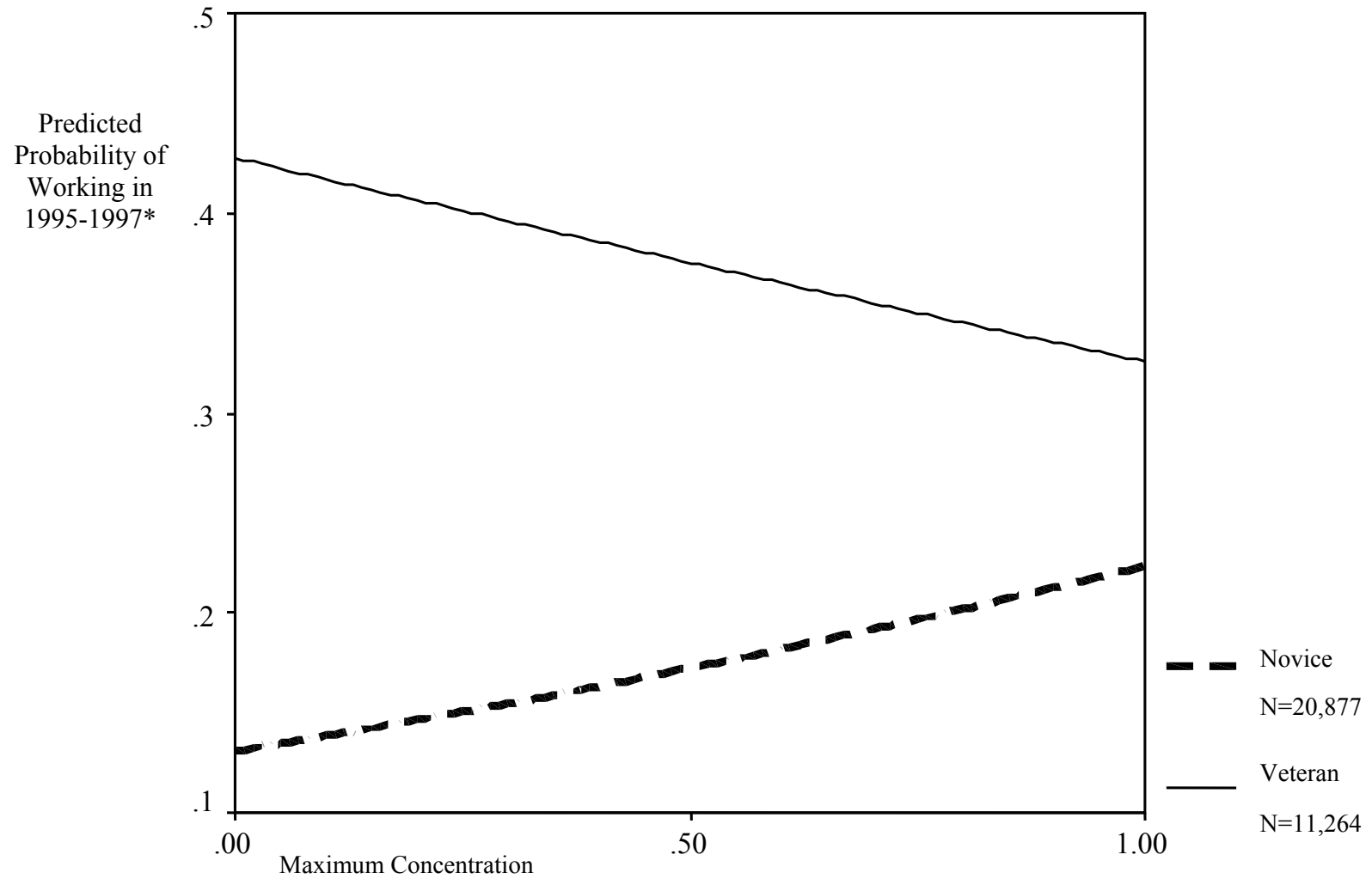
Figure 3: Size and Aggregate Concentration of 4 Genres Over Time



Share of Roles in Genre

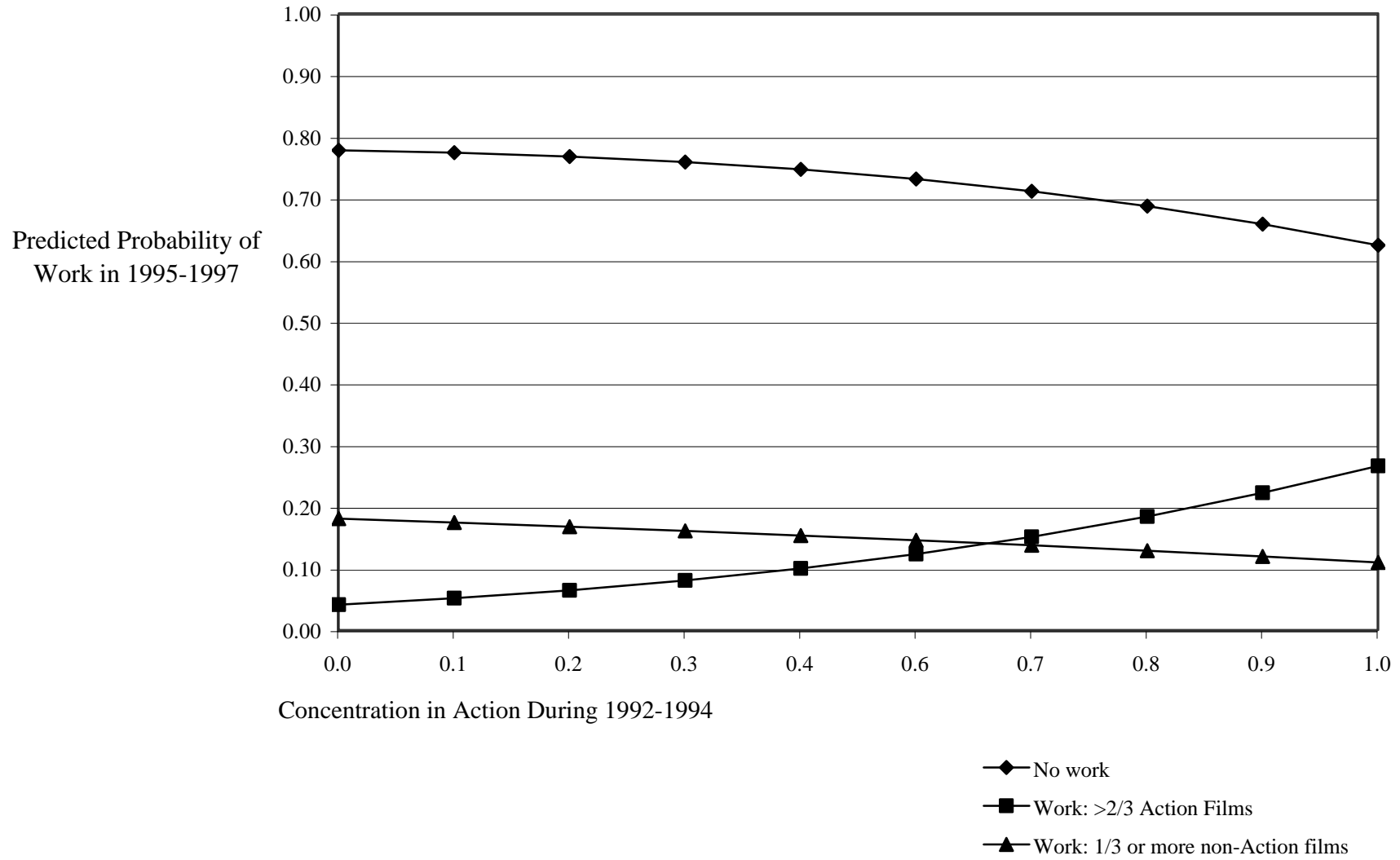
	1954	1959	1964	1969	1974	1979	1984	1989	1994
Action	3.27%	2.16%	3.46%	7.52%	12.22%	11.36%	12.67%	15.84%	20.92%
Comedy	26.46%	19.16%	32.28%	31.09%	22.45%	31.63%	35.19%	38.87%	33.47%
Drama	26.46%	30.74%	30.76%	31.56%	29.35%	35.70%	36.96%	33.89%	39.82%
Western	18.08%	13.70%	6.33%	10.44%	7.32%	3.63%	0.98%	0.72%	1.80%

Figure 4: Effect of Maximum Concentration on Probability of Working in 1995-1997*



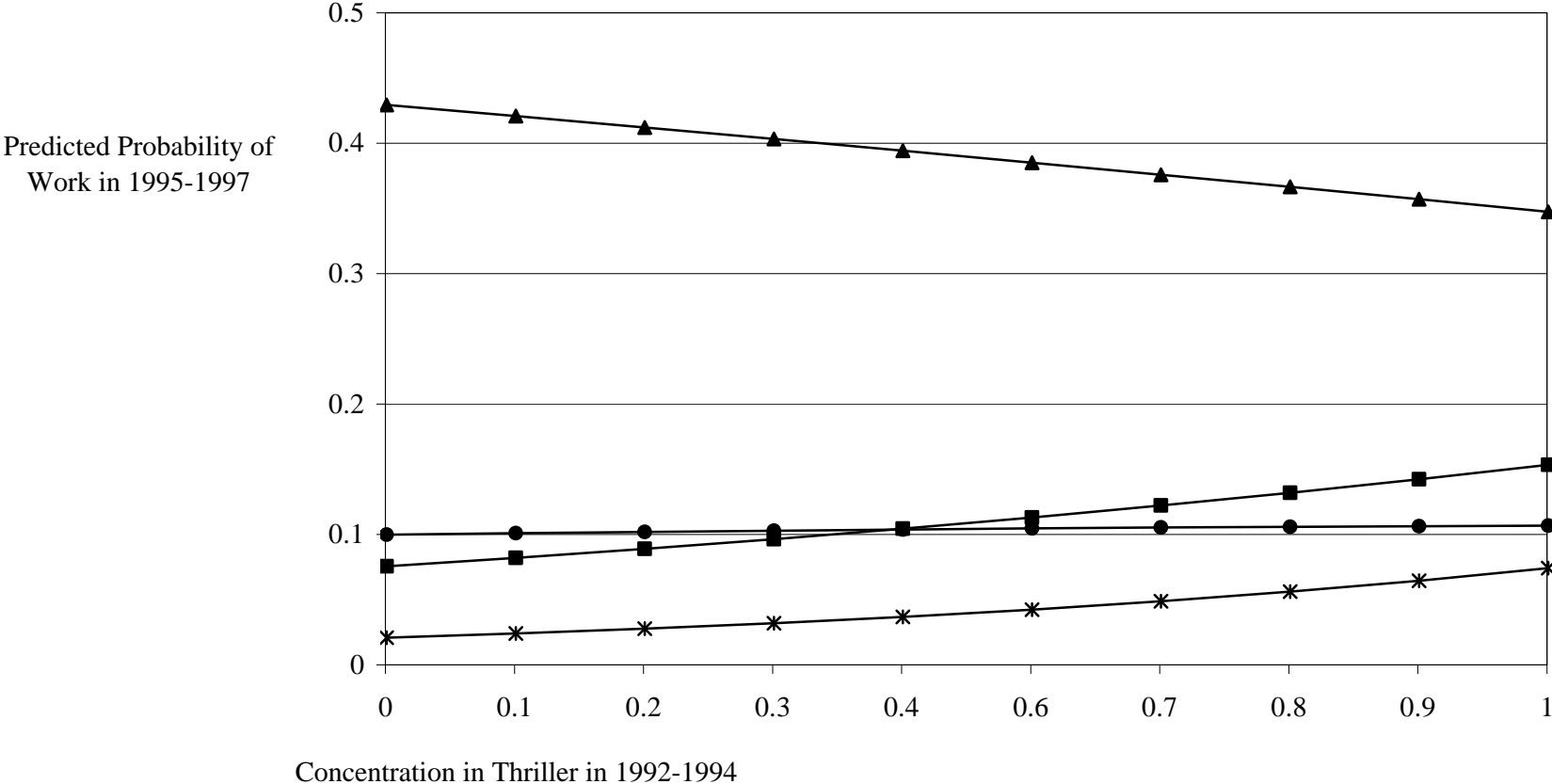
*From Table 6: Model 5

Figure 5: Effect of Concentration in Action on Work in 1995-1997*



* From table 6a: model 1

Figure 6: Effect of Concentration in Thriller on Work in 1995-1997:
 Novices* and Veterans†

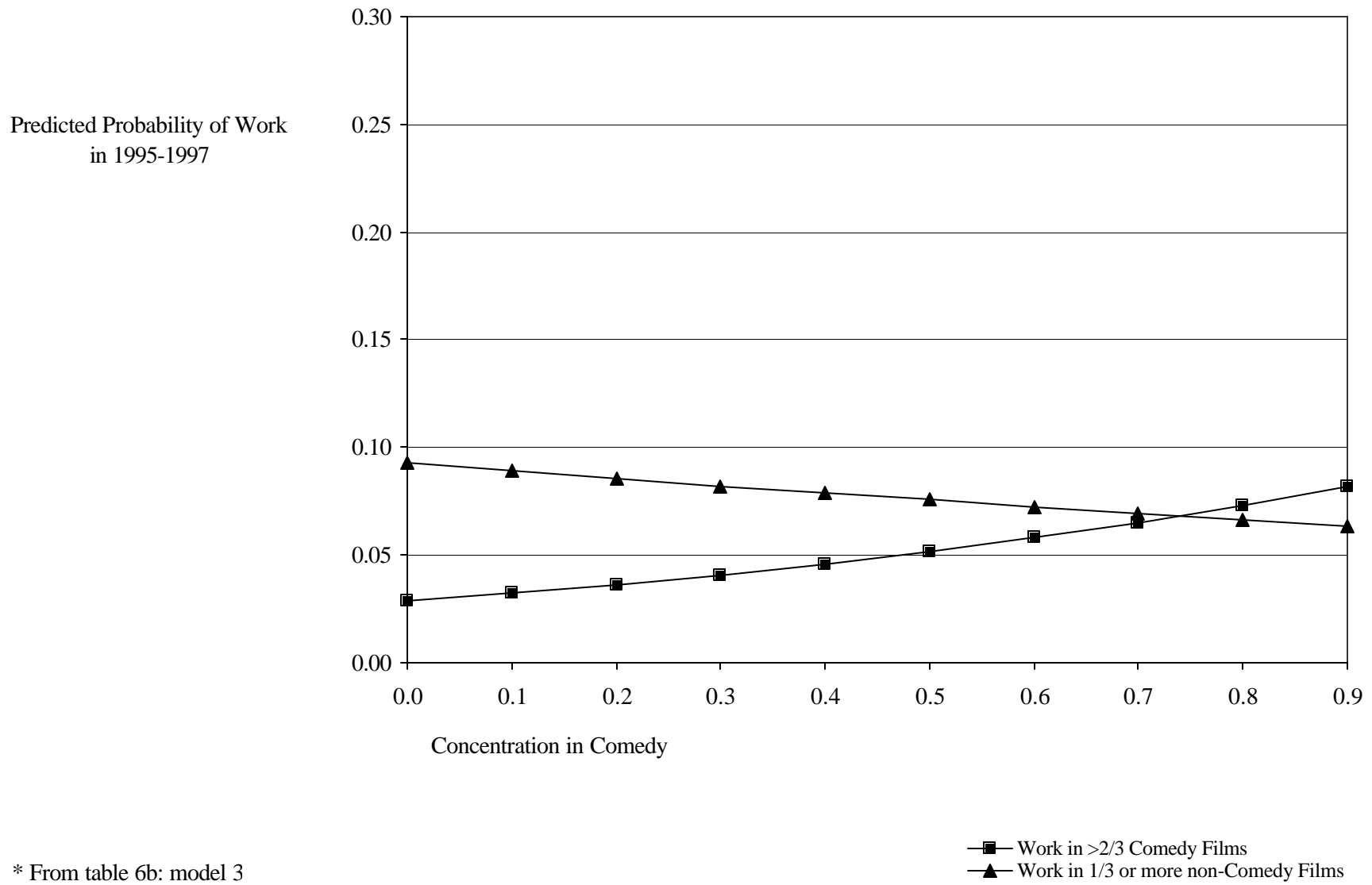


- Veterans: >2/3 Thriller Films
- ▲ Veterans: 1/3 or more non-Thriller Films
- * Novices: >2/3 Thriller Films
- Novices: 1/3 or more non-Thriller Films

* From Table 6c: model 3.

† From a model that parallels table 6c: model 3 but is estimated on veterans, rather than novices.

Figure 7: Effect of Concentration in Comedy on Work in 1995-1997:
Novices*



* From table 6b: model 3