The Ties among the Notes: The Social Capital of Jazz Musicians in Three Metro Areas

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Abstract

Previous work shows that social capital matters for careers of creative workers, leading to jobs and bolstered income. We focus here on factors that may facilitate various types of social capital possessed by jazz musicians and on how the options of building connections may differ for peripheral versus dominant musicians. Among other things, we find that both general education and formal music training promote formal social capital but constrain the share of local musicians known; meanwhile, generalism fosters both the share and diversity of local musicians known. Only a few options benefit peripheral musicians, namely union membership and having an agent.

> **Keywords:** Musicians; Social Capital; Signaling; Creative Careers; Freelance Work

Introduction

> *The [jazz] musician conceives of success as movement through a hierarchy of available jobs. Unlike the industrial or white-collar workers, he does not identify his career with one employer; he expects to change jobs frequently…To have a career one must work; to enjoy the security of steady work one must have "connections."* (Becker, 1963, pp. 103-105)

Becker's classic observation resonates with several themes in the study of creative

workers and their careers. First, although creative careers are marked by much uncertainty (e.g.,

relatively few jobs, an oversupply of workers), uncertainty is especially pronounced for those

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who move from one temporary job to another (Menger, 1999). For example, jazz musicians have less stable and predictable work than do musicians employed by symphony orchestras (Allmendinger et al., 1996; Jeffri, 2003). Second, while some types of creative work require formal credentials and rigorous evaluation, others require little to none (Zuckerman et al., 2003). Thus, unlike ensemble musicians in classical music, whose intensive education and demanding auditions are common paths to jobs (Allmendinger & Hackman, 1995; Berliner, 1994; Murninghan & Conlon, 1991), jazz musicians have a different path. Finally, for creative personnel whose work is mostly freelance and not heavily credentialized (e.g., poets, jazz musicians, soundtrack composers), connections with others—also known as "social capital" (Crossley, 2009)—are important for securing work and maintaining careers (Craig & Dubois, 2010; Faulkner, 1983; Pinheiro & Dowd, 2009).

Given the importance of connections for various types of creative workers (DiMaggio, 2011), we investigate here how social capital plays out for jazz musicians. Our prior study (Pinheiro & Dowd, 2009) showed the merits of Becker's (1963) early emphasis on connections: jazz musicians who know many fellow musicians earn more than those knowing few. Yet two questions remain from that study: Which jazz musicians accrue social capital and, in turn, benefit from it? Do peripheral musicians have different options for accruing social capital than do dominant ones? This article answers that question in two ways. Analytically, we consider three types of factors that could lead to heightened social capital for jazz musicians: (1) the various capitals that they possess and can marshal to make connections with other musicians,

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such as economic, cultural, and human capital; (2) the "signaling" of their musical capabilities that can facilitate ties with other musicians, such as genre generalism and self-promotion; and (3) characteristics of the musicians themselves that can limit or promote association with others, including their race, gender, and age. Empirically, we proceed by first examining whether or not there is a dominant group of musicians in the field of jazz. Whereas Becker (2000) suggested that a certain degree of egalitarianism marks contemporary jazz, our multiple correspondence analysis (MCA) shows a different picture: the jazz field is marked by a core containing high capital volume (e.g., high levels of social and economic capital), with that core mapping onto musicians who are respectively African American, older, highly educated, union members, and residents of either New York City or New Orleans.

We then rely on regression analysis to examine what factors are associated with the various types of social capital possessed by jazz musicians—be it their formal social capital (membership in a musician's union), the extent of their informal social capital (the percentage of local musicians known by name), or the range of their informal social capital (the diversity of local musicians known by name). Among other things, we find that both acquired resources and signaling mechanisms each have a decisive and positive impact on one type of social capital, while they each also have countervailing impacts on another type. In contrast, musician characteristics consistently and positively relate to all three types of social capital. We also find only a few ways in which both peripheral and dominant musicians differ in terms of the options they have for building social networks. To provide both the MCA and regression analysis, we

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rely on a Columbia University survey that provides a wealth of information about jazz

musicians in three metro areas.

Capital as Convertible Resource

When considering the resources that jazz musicians possess and employ, it is helpful to

locate those resources in a broader context. A common approach is to position them in an

analytical space known as a "field." A field refers to a particular domain of social life. It can be

one involving creative work (a field of cultural production), the tastes of audiences (a field of

cultural consumption), or even domains of faith (a religious field) or scholarship (the academic

field) (Bourdieu, 1984, 1988, 1991, 1993). A given field has limited resources, and the actors

within that field are engaged in a zero-sum struggle: The success of some comes at the expense

of others. Furthermore, the capital possessed by various actors contributes to their placement in

the field.

Bourdieu's approach emphasizes multiple types of capital, including economic, social,

and cultural (Bourdieu, 1985; Emirbayer & Johnson, 2006). Economic capital refers to financial

resources (e.g., earnings). Social capital refers to the resources that flow from a network of

relations. In fields of cultural production, such relations can be both formal (e.g., creative

workers' membership in professional organizations) and informal (i.e., interpersonal

connections) (Anheier et al., 1995). Cultural capital is a distinctive and central element in this

approach. Lamont and Lareau (1988, p. 156) have defined it as, "…widely shared, high status

cultural signals (attitudes, preferences, formal knowledge, behaviors, goods and credentials) used

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for social and cultural exclusion, the former referring to exclusion from jobs and resources, and the latter to exclusion from high status groups." Cultural capital can take three forms (Bourdieu, 1986). The "objectified" form involves cultural objects that purportedly require special training to appreciate, most notably those deemed to be "high culture" (e.g., classical music). The "embodied" form of cultural capital involves both tastes for and appreciation of such esteemed objects (e.g., the symphonies of Mozart), if not the disposition to appreciate cultural objects of all types in aesthetic terms (e.g., finding artistry in the country music of Hank Williams) (Holt, 1997). The "institutionalized" form of cultural capital entails certification of legitimated knowledge, such as university degrees. Given the survey information at our disposal, we only focus on the latter two forms.

Fields are made dynamic by the circulation and conversion of capitals. Anheier et al. (1995, p. 862) observed, "Economic capital is the most liquid, the most readily convertible form for transformation into social and cultural capital…While it is difficult to convert social capital into cultural capital, the transformation of cultural into social capital is easier." Research on fields of consumption has illustrated such conversion. Indeed, the conversion of economic capital into both cultural and social capitals figures prominently in Bourdieu's approach (Bennett & Silva, 2011; Lizardo, 2006): Tastes are shaped by social circumstance, with privileged classes (economic capital) inculcating an aesthetic sensibility in their children (embodied cultural capital). Given the elective affinities that flow from similar tastes and dispositions (i.e., "like seeks like"), those rich in cultural capital are later drawn together as friends (social capital) while

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excluding those lacking cultural capital (Bourdieu, 1984; Lamont & Lareau, 1988). This conversion of cultural to social capital can be intense. For example, the process of obtaining a university degree not only can shape the aesthetic tastes of individuals, but it can also lead to new, if not varied, connections for these graduates (Friedman 2012; Kane 2011). Meanwhile, as Lizardo (2006) has shown, engagement in the arts (e.g., attending classical music concerts) leads to social ties that are strong (e.g., having friends with whom problems are discussed), whereas engagement in popular culture (e.g., attending rock concerts) leads to a higher number of weak ties.

Research on fields of cultural production has likewise illustrated this conversion process. Creative workers with similar levels of economic capital often associate together, as when musicians with little money move in different social circles than do those with lots of money (e.g., Scott 2012). Furthermore, creative workers with university degrees are sometimes drawn together by dint of common experience and similar outlook (e.g., Craig & Dubois 2010; Giuffre 2009). This conversion of capitals can, in turn, lead to the accrual of advantage for some. Anheier, Gerhards, and Romo (1995) offered the classic study of a field of production: one of authors in Cologne, Germany. With detailed information on social capital (e.g., friendship ties with other authors; membership in professional associations)—as well as both the authors' cultural capital (e.g., formal educational training) and economic capital (e.g., proportion of income due to writing activities)—Anheier and colleagues revealed a field that contains an elite group of authors rich in both social and cultural capital (and doing fairly well in terms of

economic capital). Those authors on the semiperiphery of the field are there because of their particular amount of social capital, while those on the periphery are marked by both lower economic and social capital. Although we lack longitudinal data to delve into this conversion process, as did Anheier et al. (1995) in their study of authors, we follow their insight and hypothesize that high levels of both economic and cultural capital each correspond to heightened social capital among jazz musicians; moreover, we expect that dominant musicians in the jazz field will be marked by their combination of capitals and that peripheral musicians will be marked by their dearth of capitals.

We have not yet mentioned one capital familiar to scholars of organizations and labor markets: human capital, the extent to which individuals invest in their (job-specific) capabilities and knowledge by way experience and training. Emirbayer and Johnson (2008: 25) have noted that human capital is an "individual-level phenomenon" and, thus, differs from cultural capital, as the latter involves dispositions and tastes that are grounded in broader, societal divisions (e.g., class). Nonetheless, we would not be surprised if human capital could likewise spur social capital among jazz musicians. For example, musical experience (e.g., the number of years as a musician) represents an accumulation of knowledge about various aspects of music. While it plays a role in shaping the likelihood of critical attention (Pinheiro & Dowd, 2009), musical experience can also play a role in shaping social capital: Musicians with much experience often attract the attention, if not friendship, of others, sometimes serving as both mentors for novices and as nodal points that connect entire groups (Berliner, 1994; Faulkner & Becker, 2009;

Grazian, 2003; Sudnow, 2001). Similarly, those musicians who seek musical training—private lessons, workshops, master classes, and conservatory instruction—can often develop ties with other musicians in the process, with those immediate ties paving the way for future ties (Berliner1994; Murninghan & Conlon 1991; Sudnow 2001). Hence, we predict that jazz musicians with extensive experience and with formal musical training will also have much social capital.

Signaling: Generalism and Promotion

When requirements for credentials are not commonplace in a field of cultural production (as is the case for jazz), then the possession of a university degree may not matter for creative workers as much their as ability to "signal" their skills in shorthand fashion, doing so for both employers and for colleagues. In other words, connections may arise as musicians allude to their competencies (say, in passing conversation) rather than by either demonstrating or verifying them in deliberate ways. One type of signaling involves genres, particularly whether or not creative workers are genre "specialists" or "generalists." The research of Faulkner (1983) and Zuckerman et al. (2003) is instructive in this regard. They found that specialization has advantages for creative workers (i.e., actors, soundtrack composers) new to the film industry. Working repeatedly in the same genre (e.g., comedy) allows actors and soundtrack composers to develop both expertise (human capital) and connections with others engaged in the same genre. Thus, when one film project ends, those who have found repeated work in a given genre can look "acceptable" to future employers in that genre; of course, the close-knit ties that flow from

previous specialization can also help in securing future work in that genre. However, specialization over the course of years can have its disadvantages: Future employers and colleagues may see such creative workers as unable to do anything else (i.e., they are "typecast"), regardless of these workers' actual abilities or credentials. In other words, actors with many years of experience (human capital) can be stymied by this signaling process.

Given such typecasting—which can severely limit their options—both actors and soundtrack composers may strive to become "generalists." In attempting this shift, however, they move into new genres for which they have few connections, and they run the risk of looking unaccomplished in those genres. Thus, generalism has its own risks. Nonetheless, those actors and soundtrack composers who succeed in making the transition to generalism face better work opportunities over the long run than do specialists (Faulkner 1983; Zuckerman et al., 2003).

In our previous study (Pinheiro & Dowd 2009), we adapted the arguments of Faulkner (1983) and Zuckerman et al. (2003) and focused on genre generalism among jazz musicians (which resembled those scholars' substantive concerns) as well as on instrument generalism (which moved beyond their concerns). Although we were dealing with cross-sectional data and could not get at the temporality that lies at the heart of their arguments, we did find that jazz musicians who are genre generalists both earn more money and attain more critical success than their specialized counterparts (whether these generalists are either novices or veterans), and that instrument generalism leads to less critical success, especially for veteran musicians (which is

consistent with the charge of "Jack of all trades, master of none"). We now explain how this signaling can have implications for the social capital that jazz musicians have.

Although one can think of jazz as a single genre, it is perhaps best to consider "jazz" as an umbrella term for a collection of genres. Given its long history and development, there has been a veritable parade of genres associated with jazz, including swing of the 1930s, be-bop of the 1940s, and jazz-rock fusion of the 1970s (Berliner, 1994; Dempsey, 2008; Kirschbaum & Vasconcelos, 2006). The result of this parade is not the ongoing displacement of previous genres but rather an accumulation of genres that jazz musicians can know and claim.

When claiming either a genre or genres, musicians are aligning themselves with similar practitioners (Curran, 1996; Kirschbaum & Vasconcelos, 2006). Each genre is associated with both a particular cognitive orientation (e.g., expectations regarding what to play) and a distinctive community of musicians and fans, if not specific venues or locales (Lena, 2012; Roy & Dowd, 2010). Specializing in particular genres, then, signals to colleagues a like-mindedness in musical terms as well as shared competencies. Nonetheless, the boundaries between genres can be more permeable than permanent. It is not unusual for jazz musicians to encounter a variety of styles when performing at either impromptu settings (e.g., jam sessions) or in freelance jobs (e.g., wedding parties) (Berliner, 1994; Dempsey, 2006; MacLeod, 1993). Musicians who claim a mix of genres ("generalists") can face enhanced work opportunities given their ability to meet the varied needs of both employers and other musicians (Berliner, 1994; Macleod, 1993; Faulkner, 1979). In other words, generalism signals to multiple groups the potential for musical

collaboration. Consequently, we hypothesize that genre generalism encourages social capital among jazz musicians, as this signaling allows musicians to connect broadly beyond a single group of musicians.

Mastery of an individual instrument involves knowledge that is both corporal—such as the technique that can take years to perfect via practice—and cognitive--such as approaching music and career from the perspective of one's instrument (e.g., I am a bassist, and this is how I play) (Berliner, 1994; Gibson, 2006; Sudnow, 2001). Although critical acclaim flows to musicians who are masters of a single instrument (Pinheiro & Dowd, 2009), Berliner (1994) suggests that multi-instrumentalists have heightened opportunities for contact with others (e.g., jobs) given their range of expertise. Yet, in the world of freelance work, auditions in which musicians demonstrate their instrumental competency are not as common as simple queries posed to them (see Berliner 1994). Hence, claims of instrumental generalism are arguably as important as competencies. We thus expect that the signaling that instrument generalism allows, in turn, facilitates social capital.

While both genre and instrument generalism offer signals in shorthand if not suggestive fashion—with others inferring what such generalism means for them (e.g., she plays both be-bop and fusion, so we should have some things in common)—other forms of signaling are more explicit and to the point. One involves self-promotion. When active in a given locale, musicians can develop both intense and numerous connections with comparably oriented musicians, listeners, and entrepreneurs. However, such face-to-face ties can also be quite insular, as when

musicians in a particular genre are set apart from others in their locale (Crossley, 2009, 2011).

Some musicians reach beyond their immediate group: they create additional ties by relying on

individuals (e.g., agents) to promote their music and by using the Internet to disseminate it

(Sargent, 2009; Young & Collins, 2010). While such self-promotion leads to financial success

for jazz musicians (Pinheiro and Dowd 2009), we also expect it will result in heightened social

capital. Another direct form of signaling involves "other-promotion." When musicians are

acknowledged or celebrated in their own community, such as via press coverage or awards, that

information should signal to others whether the musician would make a good colleague even if

they have never shared a face-to-face (and, hence, musical) encounter. In other words, local

recognition may lead to increased social capital (see Anheier et al. 1995).

Musician Characteristics: Race, Gender, Age, and Residence

The characteristics of musicians may also shape social capital. While popular music has a

long history of racial and gender inequities—such as limited opportunities for work and

association—the situation has somewhat improved in recent decades (Dowd & Blyler, 2002;

Dowd et al., 2005). For instance, when controlling for a range of factors, neither race nor gender

ultimately has any bearing on the earnings of jazz musicians in the year 2000 (Pinheiro & Dowd,

2009). Nonetheless, small to moderate amounts of both racial and gender homophily remain,

showing that jazz musicians forego connections with some types of individuals (Heckathorn and

Jeffri, 2003). Hence, we examine the impact of race and gender on the connections of jazz

musicians.

Age may also have implications for social capital. Kirschbaum (2007; Kirschbaum & Vasconcelos, 2006) reveals both a "typical" career path, in which older jazz musicians are upstaged by younger ones associated with new genres, and a "deviant" path, in which older musicians move deftly from one genre to another, remaining relevant in a changing field. Seen in this light, older musicians may have more connections overall given their time in the field, but their careers might ultimately be limited if they have fewer ties with both emerging genres and musicians (see also Heckathorn & Jeffri, 2003).

Musicians residing in cities flush with a large pool of potential colleagues should have more extensive ties than those in cities with smaller pools. Heckathorn and Jeffri (2003) report that New York City has some 33,000 jazz musicians, San Francisco has more than 18,000, and New Orleans has but 1700 or so. We thus expect the most ties for New Yorkers. Musicians in cities with a diverse population of musicians should have more varied connections than those in cities with less diverse pools. Given that New York City, compared to New Orleans and San Francisco, has greater proportions of non-white and female jazz musicians (Jeffri, 2003), we expect that New Yorkers will also have the most diverse connections. Finally, the longer that musicians reside in a given city, the more extensive and more varied should be their connections with other local musicians due to opportunities that come with the passage of time.

Controls: Centrality

Finally, we control for two factors that may shape social capital in various ways. Musicians are located in physical places that are populated by musical genres and musical

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instruments, with some genre and instruments more central to those places than others. Given that genres spawn communities of similarly oriented musicians and fans (Lena, 2012; Roy & Dowd, 2010), musicians who claim central genres in a given locale could have a greater potential for social capital than those who claim peripheral genres, as the former are able to tap into the networks of connections (including those of working musicians) that undergird such genre centrality. Similarly, those playing central instruments (e.g., piano) in a given locale may have many potential and connected colleagues sharing comparable musical concerns, while those playing peripheral instruments lack such a ready-made grouping. Thus, both genre and instrument centrality could foster social capital. Then again, being on the periphery may spur intense and vibrant connections, such as when wind players in the Alsace region of France have forged deep ties while performing a stigmatized genre (Dubois, et al. 2013).

Data and Methods

Given the freelance nature of jazz, there is no master list of all jazz musicians working in a given US city and, thus, no clearly designated population from which to draw a representative sample (DiMaggio, 2011). The American Federation of Musicians (AFM) provides what appears to be a way to locate jazz musicians. However, working musicians need not be members of the union, and non-AFM musicians can be difficult to locate (e.g., those working late hours in small venues or working on an occasional basis) (DiMaggio, 2011). Jazz musicians, then, are a "hidden population" (Jeffri et al., 2010).

We relied on a unique survey that reveals this normally hidden population. *The Study of Jazz Artists 2001* was conducted by the Research Center for the Arts and Culture (RCAC) at Columbia University, and it was generated by "respondent driven sampling" (RDS) (Jeffri, 2003). RDS begins by making use of chain-referrals (also called "convenience" sampling), where an individual jazz musician refers researchers to other jazz musicians, and then those other musicians likewise make referrals. RDS goes beyond the limits of convenience sampling by combining waves of chain-referrals with sophisticated techniques "…to eliminate biases resulting from the [referral] choice of initial subjects and to weight the sample to compensate for the effects of differences in networks sizes [of musicians] (e.g., subjects who know many people vs. those who don't) and for other sources of bias…" (Jeffri et al., 2011, p. 21).

Dependent Variables: Formal and Informal Social Capital

We assessed formal social capital by examining whether an individual musician is a member of the American Federation of Musicians. This union—with roots dating back to 1896—collectively represents the rights of instrumentalists by attending to such things as pay scales, the minimum number of musicians hired for a given venue, break schedules, and health insurance (Dowd & Blyler, 2002; Faulkner, 1985; MacLeod, 1993). It thus connects musicians by way of work arrangements and shared interests. Thirty percent of the survey respondents have this formal social capital, with New Orleans having the most AFM members (51% of its jazz residents), followed by New York City (40%) and San Francisco (13%). Table 1 provides the survey-wide descriptives for this dependent variable, "AFM Membership."

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We gauged the extent of a musician's informal social capital in two ways. First, we considered the extent of musicians known by starting with the following survey question: "How many jazz musicians do you know by name in this metro area who also know you?" On average, jazz musicians in this survey know 134 local musicians. Once obtaining the number known for each musician, we then divide the number known by the total number of musicians in the respondent's metropolitan area—be it New York (33,003 jazz musicians), New Orleans (1723) or San Francisco (18,733)—using the estimates provided by Heckathorn and Jeffri (2003). Finally, we took the natural logarithm of this variable given its skewed distribution. The descriptives of this dependent variable, "Log Percentage of Local Musicians Known," are given in Table 1.

Second, we assessed the diversity of informal ties in the following fashion. The survey provided a series of follow-up questions that asked, "Of the musicians you know by name in this metro area who know you, how many are…?" and then gave respondents a number of categories to address. Based on this, jazz musicians in this survey know, on average, sixty-seven African American musicians, sixty-three white musicians, twenty-five musicians of other races, twenty-five female musicians, and thirty-one musicians of young age (less than twenty-five years old). For each respondent, we noted the percentage of each type of musician she knows locally, using sample estimates from Heckathorn and Jeffri (2003) as the denominators. We then constructed a Herfindahl index via the following formula:

$$\text{Herfindahl Index} = \Sigma (S_i)^2$$

where *S* equals the percentage of type *i* known (e.g., African American). We next took the inverse of this Herfindahl, so that the minimum score of "0" denotes that the musician knows only members of one of the types, and the maximum score of "3" denotes that the musician knows roughly equivalent numbers of all types. We say "roughly" because the survey questions are not mutually exclusive (e.g., a musician can be an African American woman who is less than twenty-five years)—which is why the maximum score is "3" rather than usual "1" for a Herfindahl. Given the skewed distributions of this variable, we took the natural logarithm. This final dependent variable is "Log Diversity of Local Musicians Known" (see Table 1).

Independent Variables

Economic Capital. We measured this in two different ways. One addresses the amount of money that respondents earned from music in 2000, with average earnings being less than $20,000. The other involves the percentage of that income coming from jazz music, with the average being more than 50% (see Table 1).

Cultural Capital. We tapped the embodied form of cultural capital via two dichotomous variables: whether a survey respondent's early musical involvement was encouraged by his or her family (42% answered "yes") and was financially supported by his or her family (3%; see Table 1). Such measures are consistent with Bourdieu's (1984) argument that these tastes and dispositions result from early family socialization. We captured the institutionalized form by way of an ordinal variable detailing the respondent's highest education level. More than half of the musicians in the survey have earned college degrees.

Human Capital. We measured musical experience by the number of years elapsed since each respondent first began playing musical instrument(s) (Average = twenty-five years). Meanwhile, we measured training in two different ways. "Formal musical training" is a dichotomous variable indicating whether the respondent received such training from a certificate program, a conservatory, or from private teachers (72% of the sample). We also assessed whether a musician has participated in a jazz workshop, clinic, or master class; given the public nature of these, we treat them separately from the other forms of training. More than 40% of the sample has done so (Table 1).

Genre / Instrument Generalism. The survey assessed the following genres, with the number of musicians playing each in parentheses: Avant-Garde (202), Acid Jazz (106), Blues (239), Boogie-Woogie (63), Bop (299), Contemporary (227), Cool (177), Free (233), Funk (222), Fusion (151), Hard Bop (198), Latin (246), Mainstream (209), Ragtime (44), Regional (75), Rhythm and Blues (186), Scat (55), Swing (266), Traditional (270), World Music (126), and Other (114). The survey also gauged the instruments that musicians play: Alto Sax (87), Banjo (16), Baritone Sax (42), Bass (141), Bass Clarinet (28), Cello (12), Cornet (23), Drums (144), Flugelhorn (27), Flute (89), Guitar (153), Harmonica (83), Percussion (27), Piano/Keyboard (307), Saxophone (94), Trombone (48), Trumpet (70), Tuba (16), Vibraphone (16), Violin (13), Voice (137), and Other (114).

We documented the generalism of jazz musicians by taking the following steps. First, we obtained Jaccard similarity coefficients for every pair of genres/instruments in the survey. These

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similarity coefficients detail the extent to which each combination is proximate for all musicians in the survey. We next relied on "one minus the Jaccard coefficient" to get at dissimilarity, highlighting those combinations that are wide-ranging at the aggregate level. We then documented all pairs of genres/instruments that *each* musician in the sample utilizes. Finally, for each particular pair of genres/instruments pursued by a particular musician, we summed the corresponding "1 minus the Jaccard coefficient" score. The following formula summarizes these steps: $\Sigma P_{ij} * \beta_{ij}$, where

P is the *ij* pair of genres/instruments played by the musician, and

β is "1-Jaccard similarity coefficient" for that pair.

The resulting measures tell us the extent to which each individual musician is signaling a wide range of genres/instruments, with low scores indicating "specialization" and high scores noting "generalism" (see Table 1). We take this approach because genres and instruments tend to "clump" together, as when musicians perform both blues and rhythm blues (a historical clumping), or when they play both the alto and tenor saxophone (a technical clumping). Simply counting the number of genres/instruments played would give undue credit to musicians who combine tightly clumped genres/instruments (Pinheiro & Dowd, 2009). While our focus on generalism is informed by Faulkner (1983) and Zuckerman et al. (2003), our measures differ from theirs given the type of data available in the jazz musicians survey.

Promotion. We used three dichotomous variables to examine the signaling involved in self-promotion: whether the respondent's music has been marketed in publications, at

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performances, or to prospective employers (20% said "yes"); whether the respondent uses the

Internet for music (57%); and whether the respondent has an agent (25%). We captured the

signaling involved in "other-promotion" via a dichotomous variable addressing whether a

musicians' work has been recognized locally (49%; Table 1).

Musicians Characteristics. Dichotomous variables address the race of musicians, with

African American musicians comprising 24% of the sample, musicians of other race-ethnicity

(e.g., Latino) comprising 12%, and white musicians serving as the reference group in the

regression analysis (see Table 1). A dichotomous variable gets at gender, with women

comprising 19% of the sample, and men serving as the reference group. Age is an ordinal

variable, with the average musician being in the mid to early forties. Other dichotomous

variables detail the residence of jazz musicians, with 20% in New Orleans, 41% in New York

City, and San Francisco the reference group. We also gauged how long a jazz musician has

resided in the same county, with the average exceeding five years (see Table 1).

Genre / Instrument Centrality. We documented the centrality controls via the following

formula:

$$(\sum(m_{ik}*n_{ij})/N_j)/M_k$$

The lower case *m* is a binary variable indicating whether an individual *k* plays genre/instrument

i; lower case *n* is the total number of individuals that play genre/instrument *i* in the metro area *j*;

upper case *N* is total number of individuals in the sample from the metro area *j*; and upper case

M is the total number of genres / instruments that individual *k* plays. The measures allow us to

gauge in continuous fashion the local centrality that a given musician enjoys in terms of genre(s)

and instrument(s) (see Table 1).

Methods

       While we are interested in factors that spur social capital among jazz musicians, we are

also interested in how those factors may work differently for dominant musicians than for

peripheral musicians. To ascertain the types of musicians that are dominant, we use MCA, which

is a technique appropriate for categorical variables. It enables us "…to display geometrically the

rows and columns of the data table—where rows represent individuals and columns the

categories of the variables—in a low-dimensional space, so that proximity in the space indicates

similarity of categories and individuals" (Fox, 2010, p. viii). Bourdieu was one of the most

famous proponents of correspondence analysis, arguing that it ideally captures the objective

relations in a given field (de Nooy, 2003; Le Roux & Rouanet, 2010).

       Given limited space, we here use MCA in descriptive fashion, mainly to situate the

dominant musicians from the peripheral by way of the "cloud of categories." The "active"

variables used to generate this cloud are the resources and signaling elements discussed above.

Meanwhile, musician characteristics serve as "supplementary" categories that provide additional

insights into the positioning of the capitals and signaling mechanisms (Le Roux & Rouanet,

2010). We relied on STATA, employing the MCA command using the Burt matrix approach

with adjusted inertias. This modest usage of MCA, in turn, will situate the regression analysis.

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When addressing both formal and informal social capital as dependent variables in regression analysis, we must take into account potential issues of endogeneity. In particular, we expect union membership to have an impact on informal social capital while also being shaped by many of the same factors. To control for this, we used a treatment effects model (Heckman, 1976; Maddala, 1983). In the first stage of the model, we estimated the bivariate endogenous variable (in this case, AFM membership), and in the second stage, we estimated both the extent and diversity of informal social capital using STATA's Treatreg procedure.

To distinguish the first stage of analysis from the second, there were two variables unique to the first stage. One involved a dichotomous variable assessing whether a musician considers himself or herself to be a "professional jazz musician"—which 81% of the sample does (see Table 1). The second involved economic capital. Given that AFM membership significantly heightens actual earnings among jazz musicians (Pinheiro & Dowd, 2009), we opted for the second measure of economic capital in the regression analysis, the one that distinguishes between those who dabble in jazz music and those who pursue it singularly (i.e., those whose income comes primarily from jazz). However, when using MCA to examine how capitals and signaling mechanism are positioned relative to one another in the jazz field (with MCA), we use annual earnings to capture economic capital.

Results

Multiple Correspondence Analysis

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In this section, we employ MCA to explore what types of musicians are dominant in the field of jazz and what types are peripheral. Table 2 presents the twelve variables and thirty categories used in the MCA. We arrived at these by way of the following steps. First, we eliminated from consideration those variables that fared poorly in preliminary analyses. Second, given the low percentage of respondents who reported their family's financial support of music (3%), we combined the family encouragement and financial support variables so as to avoid complications with the MCA (Le Roux and Rouanet, 2010). Finally, we recoded continuous measures into categorical ones—with those respondents having less than the median amount on a given variable being "low" and those having at least median amounts being "high"—and we reduced the number of categories for the education variable.

Table 3 lists five potential axes for the field of jazz in three metro areas. We use the first axes for interpretation because its eigenvalue exceeds the average (0.833) of all eigenvalues [1 divided by the number of variables] and because of its large modified rate (49.41%). While the second axis is below the average, we use it because of its relatively large rate (23.26%) (Le Roux & Rouanet, 2010). Table 3 thus documents the contribution of the categories to Axes 1 and 2, as well as their frequencies and coordinates. Those exceeding the average contribution (0.33) are listed in bold, with that average given by [1 divided by the number of categories] (Le Roux & Rouanet, 2010).

Rather than present the full cloud of categories, Figure 1 depicts those variables whose categories make above average contributions. Axis 1 runs from left to right in the figure. When

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considering those categories with the highest contribution (see Table 2), we interpret this axis as mainly tapping inequities in the field of jazz: high capital volume versus low volume. Hence, social capital—both the formal capital associated with AFM membership and knowing a high number of local musicians—maps to the right of the figure, versus the low or no social capital on the left. Similarly, high amounts of economic capital are found on the right, which are distinctive from low amounts on the left. Meanwhile, one type of cultural capital (possession of a graduate degree) is on the right, while the lack of human capital (no formal musical training) is on the left.

Axis 2 runs from top to bottom of Figure 1. In light of those categories contributing the most to this axis (see Table 2), we interpret this axis as primarily capturing not inequities but musical approaches in the field—"focused" approaches versus "broad" ones. Regarding the focused, both the signaling of genre specialization (i.e., low generalism) and the playing of peripheral genres are towards the top of the axis (with peripheral instruments in that direction as well). That contrasts with the fact that genre generalism as well as central genres and instruments are at the bottom of the axis.

Figure 2 adds supplementary categories to the MCA, so that we can examine how musician characteristics overlay the differentiation captured by the active categories in Figure 1. The residence categories are positioned in a way that shows import for both axes. Regarding the inequities captured by Axis 1, both New Orleans and New York City residence map decisively on the high capital volume side of the axis, while San Francisco residence maps decisively on the low side. The race categories have a similar pattern to those of residence, but to a lesser extent.

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African American musicians map onto high capital volume, with white musicians and—and especially—musicians of other race-ethnicity mapping on the low side. While race does not statistically predict differences in the earnings or critical acclaim of jazz musicians (Pinheiro & Dowd, 2009), Figure 2 shows that it does matter when describing the total volume of capital. In these three metro areas, then, resources flow to African Americans rather than musicians of other race-ethnicity, likely because of historical accounts that rightly privilege their contributions and current notions regarding authenticity (Grazian, 2003; Roy & Dowd, 2010). The age categories are positioned diagonally, showing their relation to both axes. Older musicians (but not the oldest) map on the high volume side of Axis 1, and the youngest map onto the low side; this is consistent with findings that older musicians accrue more earnings (Pinheiro & Dowd, 2009). Finally, the deviation (.183) between the male and female categories on Axis 1 is neither large (> 1.00) nor even notable (> .50) (Le Roux & Rouanet, 2010). This fits with previous findings that the gender of jazz musicians has no net impact on earnings (Pinheiro & Dowd, 2009).

Regarding the musical approaches captured by Axis 2, the vast jazz scene in New York City (Berliner, 1994; Jeffri & Heckathorn, 2003) is favorable to the focused in terms of those musicians signaling genre specialization and those playing peripheral genres and instruments, contrasting notably with the generalism and centrality associated with both New Orleans and San Francisco. Women musicians map onto this axis in a fashion similar to New Yorkers, although to a lesser extent. The age categories likewise provide an intriguing pattern: older musicians are high on the "focused" end of Axis 2, while younger ones are located towards the "broad" bottom.

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Finally, we see that white musicians are distinguished from musicians of color on Axis 2, with the former marked by generalism and instrument centrality.

This descriptive MCA suggests that, in terms of inequities, there are dominant musicians who map onto the core of the jazz field. They are musicians who are African American; who have formal training, high education and union membership; who live in New Orleans and New York; and who are older, with the intersection of the types likely yielding dividends in terms of dominance (e.g., older African Americans in New Orleans).

Regression Analysis

Having identified the dominant, we now see which factors are associated with heightened social capital in general, as well as the options for building social capital that differ between dominant and peripheral musicians. Column A in Table 4 addresses formal social capital, providing the first stage of the model. It shows the import of economic capital: the more jazz-based income that musicians receive (see the .152 coefficient), the more likely they are union members. Musicians with both an institutionalized form of cultural capital and a particular type of human capital are also more likely to have formal connections, with both general education (.317) and formal musical training (.419) increasing the odds of AFM membership. One of the control variables attains significance: the less central an instrument that a musician plays (-1.929), the greater the odds of AFM membership. This shows that the more musicians operate on the periphery of a given locale (which would involve smaller networks of peers who play the same instrument), the more likely they are to join a collective organization. The first column also

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reveals that, while there are no significant differences by race or gender, older musicians (.32) are more likely to be members of the AFM. When compared to San Franciscans (the reference category), musicians in New Orleans (.970) are also more likely to be members of the AFM.

The remaining columns in Table 2 deal with informal social capital, either the percentage of local musicians known (Column B) or the diversity of local musicians known (Column C). In both of these columns, we are especially interested in how the building of informal social capital may differ for peripheral players in the field versus dominant ones. Consequently, we examined a host of statistical interactions between, on the one hand, various types of musicians on the periphery and, on the other hand, the options that such musicians have at their disposal for building connections. These "types" of peripheral musicians included the following: young musicians, those who live outside of New York City (or New Orleans), those without formal training, and those who are not African American, with all these types suggested by the MCA; we also included female musicians given their history of limited opportunities in popular music (e.g., Dowd et al. 2005). The "options" for building connections included union membership, genre generalism, using the Internet for music, having an agent, marketing one's music, and attending a jazz workshop. As the list of "types" and "options" show, there were a considerable number of statistical interactions to examine. In evaluating all these interactions, we considered if each one improved the fit of the model (by comparing nested models), and, if so, whether the interaction term was significant. In doing so, we found that only a few interactions yielded both improvement and significance.

Consider now the percentage of local musicians known by name (Column B). Having addressed the endogeneity issue via a treatment effects model, we find that AFM membership is associated with a greater percentage of musicians known (1.193). Thus, formal social capital is connected with informal social capital. That result resonates with musician accounts mentioning the everyday connections that can flow from belonging to the union (Berliner, 1994; Faulkner, 1985; MacLeod, 1993). Only one measure of cultural capital, general education, relates to the extent of musicians' social capital, but it does so in negative fashion (-0.850). Hence, while higher levels of education pave the way for AFM membership (Column 1), they work in exclusionary fashion in terms of informal connections. This is consistent with Bourdieu's argument that "like seek like" while also avoiding the "unlike" (Lamont & Lareau 1988). One type of human capital is associated with a greater percentage of local musicians known: while private and ongoing types of music training (e.g., private lessons) have no bearing on whether musicians connect with others, the public and one-shot nature of jazz workshops and master classes brings local musicians together (see the .220 coefficient).

Moving away from capitals to the other factors, we see that the signaling has relevance for informal social capital (Table 4; Column B). Just as genre generalism spurs both the financial and critical success of jazz musicians (Pinheiro & Dowd, 2009), this signaling also connects them with a greater share of local musicians (.584). As musicians might hope, self-promotion does help in terms of connections. Both marketing one's music (.251) and having an agent (.197) are associated with knowing a greater percentage of local musicians (and those musicians

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knowing the self-promoter by name, too). Place of residence shows some striking results. Recall that the dependent variable addresses the percentage of local musicians known, thereby accounting for the fact that New York City has more than 33,000 musicians and that New Orleans has less than 2000. Yet, even then, musicians in both those cities have more extensive social capital than do those in San Francisco (the reference category), despite the nearly 20,000 musicians found in the Bay Area. Not only do New York and New Orleans musicians enjoy more money and critical success than their California counterparts (Pinheiro & Dowd, 2009), but they also benefit from the connections that are possible in the world's largest jazz scene (New York City) or in the birthplace of jazz, with its infrastructure devoted to heritage and tourism (New Orleans) (Berliner, 1994; Jeffri 2003).

Column B also reveals, via statistical interactions, that dominant and peripheral players sometimes differ in how they build their connections. For example, the insignificant coefficient for female (.120) shows that women who are non-union members are no different from their male counterparts in terms of knowing a high share of local musicians. However, the significant multiplicative term (.399) points to a divergence: women who are AFM members have more informal social capital than men who belong to the AFM. In other words, while AFM membership benefits musicians in general, it gives an extra boost to women musicians in terms of forming ties. The insignificant coefficient of (0.032) shows that non-union musicians with formal musical training are no different than those who lack such training. In contrast, when formal musical training is combined with AFM membership (as indicated by the coefficient of -

0.421), those musicians know a lower share of local musicians. Interestingly enough, this form of human capital works similarly to institutionalized cultural capital (general education), in that it leads more to exclusion (a lower share of connections) than inclusion (a higher share). Of course, the inverse of that finding bears mentioning as well: musicians with no formal training likewise get an extra boost from union membership. Finally, in terms of informal social capital, African American musicians with no agent do not differ from white musicians lacking an agent (witness the insignificant coefficient of -0.309). Yet those African Americans with an agent actually have less extensive social capital (-0.368) than their white counterparts. In other words, agents are especially beneficial to whites in terms of forging ties with local musicians.

Knowing a large share of local musicians is not the same thing as knowing a broad range of them. Column C of Table 3 makes that point abundantly clear. For instance, whereas AFM membership is associated with extensive cultural capital (Column B), it has no impact on the diversity of local musicians known (Column C). While it helps musicians to reach out and connect with other musicians, it does not necessarily connect them to different types of musicians. Neither the types of cultural capital nor human capital that either constrain the share of musicians known (general education; formal musical training) or expand that share (workshops) have any impact on the diversity of connections. Nonetheless, one kind of signaling does lead to more diverse connections among musicians, but it is a signaling that involves instrument generalism (.993) rather than genre generalism. Some have noted how genres and sub-genres can often invoke strong boundaries between groups of people, as when people make

negative value judgments about the people associated with particular genres (e.g., Bryson 1996; Friedman 2012). Perhaps that is why instrument generalism is better for diversifying one's social connections than is genre generalism. Meanwhile, the signaling that comes from one kind of self-promotion can actually lead to less diverse ties; having an agent, then, works for "narrowcasting" more than "broadcasting." Meanwhile, African American musicians—who, as a group, are dominant in the field of jazz (see the MCA)—have more diverse ties than their white counterparts. In this regard, African Americans in jazz resemble African Americans in the Chicago blues scene, by both being prominent and being social nodes for those involved in the music (Grazian 2005). Finally, no interactions offered improvement and significance to the model contained in Column C. Thus, the options for building a diverse network work similarly for both dominant and peripheral musicians.

Conclusions

In terms of musical content, a "tie" refers to the combination of two or more notes—a linkage that occurs between them. Standing back from the music itself, and considering those creating it, ties also occur as musicians come in contact with each other—sometimes in brief and fleeting ways, but sometimes in ways that endure and cross divides associated with, say, race or age. We know that such ties have ramifications for some key outcomes, as when possession of many ties facilitates greater financial or critical success for musicians (DiMaggio, 2011; Pinheiro & Dowd, 2009). Yet, we also know from scholarship on jazz (e.g., Becker, 1963; Berliner, 1994; Faulkner & Becker, 2009; Kirschbaum & Vasconcelos, 2006) that ties between musicians are

important outcomes in and of themselves and, as a result, merit close inspection. For example, it is difficult to think about creative careers, in general, without attending to the social capital that makes such careers possible (Craig & Dubois, 2010; Crossley, 2009, 2010; DiMaggio, 2011; Scott, 2012).

Nonetheless, social capital is not simply the connections that provide "glue" for community and civic society (a la Robert Putnam's formulation); rather, as Bourdieu argued, it is a special type of resource that positions actors within fields marked by competition and inequality—a resource that can be converted into other resources, as when social capital begets economic capital (Cvetičanin & Popescu, 2011). That view is consistent with the descriptive MCA that we offer. On the one hand, our multiple correspondence analysis showed that the field of jazz is marked by inequities—with the core of the field containing high capital volume (i.e., the combination of high levels of cultural, economic, human and social capitals). On the other hand, the MCA showed that dominant types of jazz musicians map onto that core, such as musicians who are African American, are older, are members of the union, are well-educated (in general and musically), and are residents of either New York City or New Orleans.

Given that social capital plays such a fundamental role in structuring the jazz field and its inequities, then what factors facilitate the possession of it by jazz musicians? In other words, why do some musicians have so much of this capital and others have so little? The answer depends on the type of social capital that is considered. For example, when we look at its formal type—that is, the connections that come from membership in an organization—then the factors

shaping social capital are straightforward. Musicians who develop and cultivate capitals, such as general education and formal music training, are most likely to enter into this type of social capital, as are musicians who are older, who reside in a vibrant city rich with musical history, and who play unusual instruments who also, in turn, could benefit from association. Aside from the impact of age and residence, then, membership in the union represents an extension of previous efforts—another accomplishment, if you will.

The picture changes if we consider another type of social capital—that of the informal variety that involves the share of local people known by name. The capital resources that work so straightforwardly for formal social capital now become more complex. Most notably, general education limits the share of people known, as does formal music training (for those who are union members). The resources that lead easily into formal association (inclusion) also constrain the extent of informal connections (exclusion). Such constraints are offset by the positive impact of two other resources—union membership and participation in jazz workshops—as well as the positive impact of residence in either New York City or New Orleans. Yet, "signaling" provides the most intriguing difference between formal social capital and the extent of informal social capital. Those who promote themselves via marketing or the Internet, and those who claim more diverse genres, both know a greater percentage of local musicians by name.

Finally, the picture becomes cloudiest when we consider not the percentage of local musicians known, but rather the diversity of those known by name. Now factors such as cultural and human capital fall by the wayside in terms of predictive significance, as does residence in

the great jazz cities. We do see, though, that African American musicians have more diverse connections than white musicians, which is not surprising given their central and prominent place in the jazz field (see the MCA). All that remains in terms of explanatory power is signaling. Yet, for this last type of social capital, it is not genre generalism that has import, but instrument generalism. Those who claim a diverse collection of instruments are the ones who cross more social boundaries built around race, gender and age, arguably doing so in a way that genre generalists cannot. That said, another form of signaling—having an agent—actually leads to a narrow range of people known. In sum, as we move from formal to informal social capital, and from mere numbers to diversity, the explanatory factors that matter likewise shift from acquired resources to more ephemeral signaling—albeit in countervailing ways—with only musician characteristics providing explanatory stability.

As Becker (1963) observed long ago, jazz musicians must have connections in order to gain work and forge careers. Yet those connections may not always come easily. In general, we know that those starting from privileged positions and securing educational credentials face favorable conditions in a given field, which includes the gathering of helpful connections (Bourdieu, 1984; Lamont & Lareau, 1988). In the jazz field, for example, higher levels of general education are associated both with greater earnings (Pinheiro & Dowd, 2009) and with formal social capital; moreover, as the MCA showed, advanced degrees are at the core of the jazz field, along with high economic capital. While jazz musicians' freelance work itself is not credentialized, credentials nonetheless matter in the jazz field, serving as an important resource.

Lacking the means to pursue such education, then, can put musicians behind—both in terms of connections and money.

The inequities in the jazz field are notable but not insurmountable. For creative workers negotiating the uncertainties of freelance work—particularly novices—social capital may be the most important currency at their disposal (Scott, 2012). In the jazz field, for instance, compiling ties in informal fashion—i.e., knowing others musicians by name—provides a resource that can be converted into other resources, such as enhanced earnings (Pinheiro & Dowd, 2009). Of course, it takes time and effort to compile such ties, but the results of this study also show some shortcuts, so to speak. Joining the musician's union, for instance, is an efficient way to build one's social capital. That membership is particularly beneficial for two types of "peripheral" musicians in the jazz field—women musicians and those with no formal musical training—thus providing them an option for network building that works better for them than for dominant musicians. While having an agent does not lead to more diverse ties, it does lead to more extensive ties for musicians of all types, and it especially does so for white musicians. Although relocating to a particular city is no panacea for all the uncertainties that mark freelance jazz work, there is something to be said about residing in cities rich in musical tradition and jazz resources (see Berliner, 1994; Heckathorn & Jeffri, 2003). Hence, both New Orleans and New York City, when compared to San Francisco, provide both expanded work and earning opportunities (Pinheiro & Dowd, 2009), and both cities are conducive to the ties among the notes.

Acknowledgements

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Bios

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Table 1. Descriptive Statistics from the "The Study of Jazz Artists 2001"

VARIABLES:	Mean	Std. Dev.	Min	Max.
Dependent Variables				

AFM Membership	0.303	0.46	0	1
Log Percentage of Local Musicians Known	-0.590	1.187	-2.302	3.371
Diversity of Local Musicians Known	1.334	0.682	0	3
Economic Capital				
Annual Income Earned from Music[a]	2.668	1.192	1	5
Percentage of Income Earned from Jazz Music[b]	3.981	1.840	1	6
Cultural Capital				
Early Family Encouragement of Music	0.423	0.495	0	1
Early Family Financing of Music	0.03	0.171	0	1
General Education[c]	6.694	1.013	2	9
Human Capital				
Musical Experience	25.641	4.306	0	34
Formal Musical Training	0.716	0.452	0	1
Attended Jazz Workshop, Clinic, or Master Class	0.415	0.493	0	1
Generalism				
Genre Generalism	16.852	26.614	0	150.042
Instrument Generalism	3.322	7.337	0	110.356
Promotion				
Musical Work Marketed	0.201	0.401	0	1
Uses Internet for Music	0.573	0.495	0	1
Has an Agent	0.252	0.435	0	1
Music Recognized Locally	0.485	0.5	0	1
Musician Characteristics				
African American	0.241	0.428	0	1
"Other" Race-Ethnicity (e.g., Latino, Asian American)	0.122	0.327	0	1
Female	0.188	0.391	0	1
Age[d]	3.143	1.303	1	6
New Orleans Resident	0.197	0.398	0	1
New York City Resident	0.406	0.492	0	1
Years in Current County[e]	4.889	0.52	1	5
Self-Identified as Professional	0.814	0.389	0	1
Controls				
Genre Centrality	0.385	0.124	0.070	0.645
Instrument Centrality	0.233	0.097	0.012	0.504

[a] Earned income is an ordinal variable with 5 categories: (1) $0 – 500; (2) $501 – 12,000; (3) $12,001 – 20,000; (4) $21,001 – 40,000; (5) $40,001+

[b] Proportion of income earned from jazz music is an ordinal variable with six categories: (1) none; (2) 25% or less; (3) between 25% and 50%; (4) between 51% and 75%; (5) between 76% and 99%; (6) 100%

c General education is an ordinal variable with eight categories: (1) elementary school through grade 8; (2) some high school; (3) 12th grade but did not graduate; (4) 12th grade / GED; (5) 12th grade, graduated from high school; (6) some college; (7) college degree; (8) graduate degree, and (9) other.
d Age is an ordinal variable with six categories: (1) 18 – 24 years; (2) 25 – 34; (3) 35 – 44; (4) 45 – 54; (5) 55 – 64; and (6) 65+.
e Years in current county is an ordinal variable with five categories: (1) under one year; (2) two-three years; (3) four-five years; (4) six-ten years; and (5) more than ten years.

Table 2. Active Categories in the Construction of the Jazz Field in Three Metro Areas

Capitals and Categories For Twelve Variables	**Freq.**	**Axis 1 Coord.**	**Axis 1 Ctbr.**	**Axis 2 Coord.**	**Axis 2 Ctbr.**
Economic Capital					
$0 to 500 (1)	62	-2.87	**8.2**	0.30	0.1
$501 to 12,000 (1)	222	-1.13	**4.6**	0.36	0.5
$12,001 to 20,000 (1)	82	1.17	1.8	-0.70	0.6
$20,001 to 40,000 (1)	110	2.10	**7.8**	-0.50	0.5
$40,000 and above (1)	41	2.49	**4.1**	0.35	0.1
Social Capital					
No AFM Membership (2)	356	-1.07	**6.5**	-0.03	0.0
AFM Membership (2)	161	2.36	**14.5**	0.07	0.0
Low Musicians Known (3)	223	-1.67	**10.1**	-0.91	3.0
High Musicians Known (3)	294	1.27	**7.6**	0.69	2.3
Cultural Capital					
No Family Encg./Support (4)	296	-0.22	0.2	0.56	1.5
Family Encg./Support (4)	221	0.30	0.3	-0.75	2.0
High School or Less (5)	37	-0.28	0.0	-0.79	0.4
Some College (5)	171	-0.50	0.7	-0.80	1.8
College Degree (5)	209	-0.31	0.3	0.78	2.0
Graduate Degree (5)	100	1.60	**4.1**	0.03	0.0
Human Capital					
No Formal Music Training (6)	146	-1.48	**5.2**	-0.95	2.1
Formal Music Training (6)	371	0.58	2.0	0.37	0.8
Generalism					
Low Genre Generalism (9)	267	0.02	0.0	1.45	**9.0**
High Genre Generalism (9)	250	-0.02	0.0	-1.55	**9.6**
Low Instr. Generalism (10)	261	-0.35	0.5	0.47	0.9
High Instr. Generalism (10)	256	0.36	0.5	-0.48	0.9

Promotion					
No Marketed Music (11)	422	-0.45	1.4	0.48	1.5
Marketed Music (11)	95	1.98	**6.0**	-2.12	**6.9**
No Net Used for Music (12)	224	-0.97	**3.4-**	1.11	**4.5**
Net Used for Music (12)	293	0.74	2.6	0.85	**3.4**
Centrality					
Low Genre Centrality (7)	263	0.36	0.5	1.62	**11.1**
High Genre Centrality (7)	254	-0.37	0.6	-1.68	**11.5**
Low Instr. Centrality (8)	255	-0.42	1.2	0.79	**4.2**
High Instr. Centrality (8)	262	1.85	**5.3**	-3.50	**18.8**

Bold numbers signify an above average contribution to a given axis; (N = 517)

Table 3. Evaluating Potential Axes for the Jazz Music Field in Three Metro Areas

	Axis 1	**Axis 2**	**Axis 3**	**Axis 4**	**Axis 5**
Eigenvalues	.01167	.00546	.00046	.00022	.00004
Modified Rates	50.19	23.46	1.99	0.96	0.17

Table 4. Regression Estimates for the Social Capital of Jazz Musicians in Three Metro Areas (Two-Stage Treatment Effects Model)

	Odds of AFM Membership (First Stage)	**Log % of Local Musicians Known (Second Stage)**	**Log Diversity of Local Musicians Known (Second Stage)**
	(Column A)	(Column B)	(Column C)
Economic Capital			
Percentage of Income from Jazz Music	0.152** (0.048)		-----
Formal Social Capital			
AFM Membership	-----	1.700** (0.381)	-0.241 (0.229)
AFM * Formal Musical Training	-----	-0.421* (0.164)	-----
AFM * Female	-----	0.399* (0.168)	-----
Cultural Capital			

Early Family Support	-0.127 (0.148)	0.058 (0.080)	0.011 (0.051)
Early Financial Support	0.727 (0.440)	-0.299 (0.232)	0.103 (0.150)
General Education	0.317** (0.079)	-0.115* (0.046)	-0.014 (0.030)
Human Capital			
Musical Experience	0.018 (0.019)	0.008 (0.009)	0.0038 (0.006)
Formal Musical Training	0.419* (0.183)	0.032 (0.103)	0.072 (0.062)
Attended a Jazz Workshop or Master Class	-0.262 (0.157)	0.229** (0.086)	0.054 (0.056)
Generalism			
Genre Generalism/100	-0.216 (0.307)	0.584** (0.163)	-0.186 (0.105)
Instrument Generalism/100	-0.097 (1.080)	0.009 (0.528)	0.993** (0.341)
Promotion			
Musical Work Marketed	0.080 (0.183)	0.251* (0.104)	0.071 (0.067)
Uses Internet for Music	0.198 (0.162)	0.125 (0.085)	-0.098 (0.055)
Has an Agent	-0.051 (0.165)	0.197* (0.101)	-0.127* (0.059)
Has an Agent * African American	-----	-0.368* (0.151)	-----
Music Recognized Locally	0.015 (0.159)	-0.024 (0.081)	-0.0465 (0.052)
Musician Characteristics			
African American	0.151 (0.172)	-0.031 (0.109)	0.130* (0.063)
Other Race-Ethnicity (e.g., Latino)	-0.017 (0.240)	0.165 (0.118)	0.0562 (0.076)
Female	-0.301 (0.192)	0.120 (0.113)	0.0543 (0.069)

Age	0.346**	0.076	0.0428
	(0.064)	(0.043)	(0.028)
New Orleans Resident	0.970**	1.922***	0.316**
	(0.222)	(0.163)	(0.106)
New York City Resident	0.245	0.425**	0.0514
	(0.255)	(0.131)	(0.084)
Years in Current County	0.001	-0.019	-0.023
	(0.151)	(0.081)	(0.052)
Self-Identified Professionals	0.213	-----	-----
	(0.304)		
Centrality			
Genre Centrality	-0.440	0.679	-0.090
	(0.307)	(0.401)	(0.258)
Instrument Centrality	-1.929*	0.312	-0.402
	(0.776)	(0.423)	(0.275)
Constant	-5.047**	-1.637**	3.039**
	(1.155)	(0.619)	(0.400)
Chi-Square Statistics	-----	860.00	129.37
N (Musicians)	460	460	460

Standard errors in parentheses; ** $p < 0.01$, * $p < 0.05$

Figure 1. Mapping of Capitals (Both General and Field-Specific) in the Jazz Field of Three Metro Areas (Variables whose Categories Offer Above-Average Contribution)
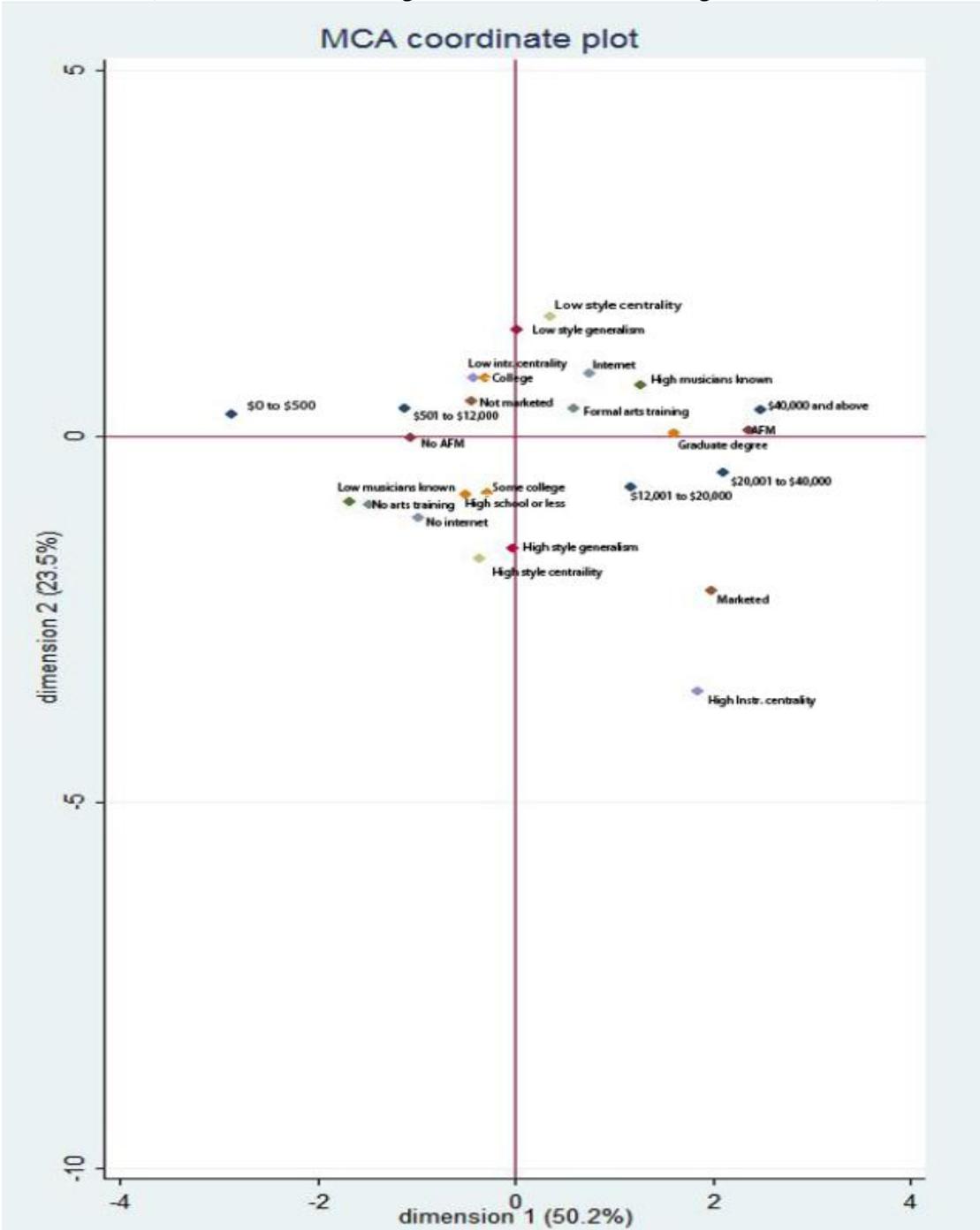
Figure 2. Mapping of Musician Characteristics (Supplementary Categories) on the Jazz Field in Three Metro Areas