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Sonic City:

The Evolving Economic Geography of the Music Industry

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Abstract

Our research examines the changing economic geography of the music industry over the past several decades. It does so by tracking the location of musicians and music groups from 1970 to 2004 in 31 large U.S. metropolitan areas. It also provided a more detailed cross-sectional analysis of the geography of music employment and music-related business establishments for all U.S. combined statistical areas, core based statisical areas and counties in 2004. Our analysis suggests that the music industry is simultaneously becoming geographically both more concentrated and more spread out. On the one hand, New York and Los Angeles remain dominant centers, and a larger share of musicians overall is concentrated in fewer metros than in 1970. Furthermore, Nashville has emerged over time as a major center for the music industry alongside New York and Los Angeles. On the other hand, we find evidence of the persistence of smaller musical centers and scenes in smaller communities such as Billings, Montana. We suggest that these tendencies reflect the ongoing economic and spatial restructuring of the music industry brought on by technological changes which have lowered the costs for producing, distributing and consuming music.

Key words: Music scenes, economic geography, regions, creativity, innovation

Introduction

In 2005, one of the most significant rock musicians of the past decade, Jack White, founder of the legendary White Stripes, relocated his newest band and recording project, The Raconteurs, from Detroit to Nashville (USA Today 2006). Detroit has one of the most legendary rock music scenes around being the home of innovative and highly influential rock bands The MC5 and Iggy Pop and The Stooges as well as Motown, techno, and other musical styles – with a robust pool of musical and business talent. White himself hails from Detroit and built the White Stripes' sound and brand on that city's musical legacy. The three other musicians in The Raconteurs are all originally from the Rustbelt – singer, guitarist and songwriter, Brendan Benson, is White's long-time associate from Detroit, while drummer, Patrick Keeler, and bass player, Jack Lawrence, are from a Cincinnati band, The Greenhornes. The question to ask is: why Nashville?

One line of reasoning says costs. Perhaps Nashville is less expensive to live and to work. Or maybe the answer might lie in what geographers and social scientists identify as a more general shift of population and economic activity to the Sunbelt. Or perhaps Nashville offered the combined benefits a better overall professional environment for making and selling music. Indeed, White himself had gotten familiar with Nashville's musical talent pool and infrastructure when he produced and performed on country-legend, Loretta Lynn's highly regarded *Van Lear Rose* album recorded in Nashville drawing on talent from the region. Or there may well be other reasons.

This paper focuses on the changing economic geography of the music industry. It does so empirically, tracking the location of musicians and music groups from 1970 to 2004 in 31 large

U.S. metropolitan areas, along with a detailed cross-sectional analysis of music employment and music-related business establishments for all U.S. combined statistical areas, core based statisical areas and counties for 2004.

Conceptually, the economic geography of the music industry is shaped by two major countervailing forces. On the one hand, there are good reasons for the location of musicans to spread geographically. Musicians, like other artists, are somewhat unique as economic actors, in that they do not depend on their locations for physical resources or large-scale production complexes. Successful musicians tour and travel to perform, and their location decisions are less constrained by physical assets. Furthermore, many today believe that with the rise of the Internet, social media, and digital distribution of musical content, the musicians and the music industry have little reason left to concentrate in geographic locations and can locate more or less wherever they want.

On the other hand, there are counteracting forces that cause musicians and the music industry to concentrate and cluster. Commerical success in music is tied to audience size. Large cities and metropolitan areas offer access to a larger and more diverse set of potential consumers (Ellis and Beresford 1994). Furthermore, muscians have long shown a tendency to concentrate in geographical creative centers referred to as "scenes" (DiMaggio 1987; Currid 2007; Clark, Rothfield and Silver 2008). Historians have long noted the tendency of musicians and other artists to cluster in colonies in search of inspiration, mutual learning and apprentice experiences (Lèubbren 2001). The term "music scene" was originally used to describe the geographic concentations of specific kinds of musical genres that evolved in mid-20th century

musical centers like New Orleans jazz, Nashville country, Memphis soul, Detroit Motown, or Chicago blues. Economists and geographers have long noted the advantages that come from the agglomeration and clustering of certain kinds of economic activity Marshall (1890); Jacobs (1969); Lucas (1988); Glasear et al (1992); Florida (2002). Caves (2002) shows that creative industries, including music, are defined by intangible products which are idiosyncratic and for which demand is impossible to determine in advance and thus benefit substantially from geographic co-location. Scott (2000) and Currid (2007) note that dense production agglomerations are a key characteristic of originality and innovation in culture-based industries. Music scenes can thus be seen as geographic locations which bring together musical and business talent (e.g., agents, managers, taste-makers, gate-keepers, critics, and sophisticated consumers) across social networks and physical space (neighborhoods, communities, clubs, venues, recording studios and venues). In our view, a music scene is a geographically-delimited market in a microcosm rooted in a specific location.

Our analysis leads us to five main conclusions. First, the music industry remains spatially concentrated and appears to be growing more so over time. Second, Nashville has emerged over time as a major center for the music industry alongside New York and Los Angeles. Third, we note the relative decline of traditional crossroads music centers, such as Memphis, New Orleans and Detroit. Fourth, we find the persistence of musical talent and the music industry in resort and vacation destinations like Las Vegas and Honolulu. Fifth, we note the persistence of robust musical centers in smaller metropolitan regions, core based statistical areas, and counties. Together, these findings suggest that the geography of the music industry

is being reshaped around a simultaneous tension between the push and pull of concentration and dispersion, driven at least in part by new music production and distribution technologies.

The remainder of this paper is organized as follows. The next section outlines the theory and concepts around which we structure our analysis. The third part describes our data and methodology. The fourth section outlines our empirical findings, providing a series of maps on the geography of music over this time period. The fifth part discusses the implications of our findings for the economic and social production of music broadly. The sixth section outlines our conclusions.

Theory and Concepts

Music has been a defining element of society and culture since time immemorial. It continues to play a deep role in modern society and to be a defining element of both high and low culture alike. Since the 1950s and 1960s, if not before, popular music has been a key contributor to and informer of the popular zeitgeist and mood. Music has played a major role in spurring technological innovation from the phonograph and radio to early television, cable television, video games, the Internet, social media, cellular phones and the Ipod. Music also plays an increasingly significant role in the economy. It is a significant segment of the entertainment industry and some of the wealthiest and most influential people in society are musicians. Despite its importance to culture, society, and economics, there is a curious lack of serious scholarship around music and its larger social, economic and spatial context. Music critics and most music scholarship continue to view works of music in isolation, as good or bad,

based on their sound, lyrics and dynamics. However, recent research on the economics of creative industries, the sociology of cultural production and on the geography of innovation can help identify and illuminate key dimensions of the geography of musicans and of the music industry.

As Grana (1964) notes, with the transition from feudalism to capitalism, financial support for music and the arts shifted from the declining monarchy to the new bourgeoisie. The major markets for composers and musical talent shifted to large commercial centers such as London, Vienna, Berlin, Paris and Milan. First and foremost, musicians have concentrated in cities to access these large markets. Historically, major cities and metropolitan areas have not necessarily been the generators of the musical innovation rather they have played a more important role in commercializing music.

However, much of the innovation in popular music in the 20th century was derived from the musical traditions of the poor, especially African-Americans, who migrated from rural environments to certain urban cities which then became the centers for those musical forms. The crossroads music scenes in cities like New Orleans, Memphis, Detroit, Chicago and elsewhere served as mechanisms for bringing together rural folk and blues with commercial interests and actors (Ellis and Beresford 1994). Cities and regions thus provide the diversity of people and the institutional and social infrastructure required to commercialize cultural products like music. Yet, even if the kernel of musical creativity is not generated in a particular location, it may, over time, flow to that place. Thus, cities contain the key elements for appropriating and commercializing that musical creativity.

As noted above, the phenomenon of clustering in the music industry is typically referred to as a "music scene." Historians have noted the tendency of artists to cluster in colonies Mark (1998). The term music scene orginally emerged to describe the musical genres associated with mid-20th century crossroads music locations which brought migrating, largely rural, folk and blues based, musical talent to major cities and in contact with larger audiences, radio stations, commerical venues, recording studios, agents, producers, and music entrepreneurs. Examples of this include the rise of New Orleans as a major center for jazz, Nashville in country, Memphis in blues, soul, rockabilly, and rock-and-roll, Detroit in Motown and rock, and Chicago blues. Later decades saw the rise of independent music scenes in urban centers with larger concentrations of highly educated populated such as San Francisco in the mid-1960s, Seattle with grunge, and more recently, Austin, Minneapolis, and Omaha.

Music scenes are not only where music is produced but also where taste and genre are derived. DiMaggio (1987) notes that scenes involve consumers of art and culture – who shape tastes and imbue it with social context –- as well as direct producers. Bennett and Peterson (2004: 1) define music scenes as "the context in which clusters of producers, musicians, and fans collectively share their common musical tastes and collectively distinguish themselves from others." Clark, Rothfield and Silver (2008) add that scenes are "modes of organizing cultural production and consumption" that "foster certain shared values and tastes, certain ways of relating to one another and legitimating what one is doing or not doing." Mark (2003) notes that socialization in some measure determines musical preferences, that people within niche groups are more likely to have certain preferences than others simply because of their associations, probability and duration of exposure and the time required to become a high level consumer of

music. These networks arise from homophilistic tendencies among individuals. As Currid (2007) notes, scenes arise as communities and subcultures focus on particular niches - such as folk, rock, R&B, funk, hip-hop, indie and so on – clustered around similarly interested producers, specialized gatekeepers, tastemakers, and audiences. Music is thus comprised of many different genres and sub-genres which carve out specialized niches in a highly fragmented market. In this way, many different scenes exist at any one time and these scenes tend to defne themselves and cluster in specific geographic locations.

Geographers and economists have long noted the tendency for certain types of economic activity to cluster Marshall (1890). Jacobs (1969) initially identified the way that cities bring together diverse groups of human talent and spur innovation. Lucas (1988) later formalized these insights specifying the role played by human capital externalities in economic development. A large number of studies have identified the tendency for innovation to occur in cities and result preferentially from knowledge spillovers between sectors Glaeser et al. (1992); Saxenian (1994); Florida (2002).

Caves (2002) provides an economic theory for the clustering of creative industries, including music. These industries, he argues, are defined by intangible products which are idiosyncratic and for which demand is impossible to determine in advance. Such industries benefit from a geographically concentrated economic structure that includes cultural producers, agents, gate-keepers and other market actors. Scott (2000) notes that dense production agglomerations are a key characteristic of originality and innovation in culture industries. Markusen (2004) has noted the specialization of creative activity across locations, which she has dubbed the "distinctive city." Currid (2007) shows how venues, clubs, recording studios and

performance spaces act as physical conduits for economic and social relationships. In a detailed historical examination of technological innovation in the music industry, Tschmuck (2006) notes that major innovations in the production and dissemination of music tend to open up new markets for musical styles and genres. Following Olson (1982, 1983) who notes the tendency of older dominant locations to become sclerotic and for new industries and economic actors to geographically shift to new locations, we can expect that major shifts in music technology, as well would result in a similar shift to new geographic centers.

Location also plays a role in the physical distribution of music which is central to giving consumers access to which cultural goods are on the market Entwistle (2006); Hirsch (1972); Walker(2004). New musical forms and innovations have to be experienced and evaluated "live" and thus proximity to audience as well as gatekeepers and taste-makers is central. Place itself is an important component. This is what Molotch (2002) terms "place in product" – the commercial value of producing in a particular city or location. As Currid (2007) notes, place affirms the legitimacy and value of a cultural good and the artist, designer or musician who created it. In the parlance of contemporary capitalism, place helps to brand music along with other cultural goods.

Thus, in our view, the geography of the music industry is potentially shaped by two forces. On the one hand, new technologies for musical production and distribution should enable the dispersion of the location of musicians and the music industry. On the other, the need for large markets and the nature of creative industries to cluster in scenes is likely to give rise to concentration and consolidation geographically.

Data and Methods

To better understand this, our research examines the changing economic geography of the music industry in the United States from 1970 to 2004. Our analysis spans three levels.

First, we conducted a time series analysis of the location of musicians and music employment from 1970 to 2004. The time-seried data covers 31 major metropolitan areas for reasons of data availability. The data for 1970-1990 comes from the National Endowment for the Arts Galenson (1999). The data for 2000 and 2004 is drawn from U.S. County Business Patterns, the U.S. Census, and the Bureau of Labor Statistics. The 1970 data includes 34 metropolitan areas of residence for employed musicians and composers. Due to changes in metropolitan statistical area (MSA) definitions over the intervening years, several of these early MSAs have been largely absorbed into other larger aggregations. We summed the county data to coincide as best as possible to the earlier definitions. The 2004 data is for Musical Groups and Artists (NAICS code 71113). This yielded comparable data for 31 major metropolitan areas.

Second, we conducted a detailed cross-sectional analysis of the location of music employment and business establishments for the more recent period. These data cover musicians, musical groups, and music related business establishments for all U.S. combined statistical areas, core based statistical areas, and counties. The data are for 2004.

Data suppression is an issue in research of this sort. Employment and payroll data were withheld for between 67 and 85 percent of the 766 counties which reported having musical groups and artists. With regard to relative representation this is important as smaller places may have a greater abundance of musicians and thus make it empirically difficult to identify

clusters outside of large urban areas. It may also over-inflate the relative performance of certain places by distorting the denominator in the calculation of location quotients. Data was primarily withheld for small establishments. More than 70 percent (72%) of the establishments (or groups) in the data have 4 or fewer employees. To deal with data suppression, music employment was estimated by multiplying the number of establishments in each size category by the midpoint of the size category for establishments less than 1000 employees. Only New York County reported an establishment with 1,000 or more employees, and in this case 1,000 was used. This yielded an estimate of total music employment of 45,464, which is not markedly different (107 percent) of the reported total of 42,569.

Third, we examined data on independent or "indie" music scenes. These data are based on the level of commentary on the particular scene from an expert source, in this case www.indie-music.com. The use of this type of metric is similar to that used by Galenson (1999) in assessing painters.

Findings

We now turn to the key findings of our analysis. Table 1 provides detailed data on music employment and music location quotients by major metro for 2004. Table 2 provides historical perspective, showing the number of musicians, density of musicians, and location quotients for musicians for 31 major metropolitan areas from 1970 to 2004. Figure 1 is a map of

music employment, and Figure 2 is a map of the location quotient for music establishments. Both cover combined statistical areas for 2004. Our analysis suggests four key findings.

First, the data suggest that the music industry remains spatially concentrated and if anything has grown more concentrated over time. These 31 metros represent a large proportion of musical groups and artists. In fact, the proportion of musicians located in the 31 regions increased from 52.5 percent in 1970 to 63.5 percent in 2004. In 1990, it took 30 of the top 31 of the 1970 major metros to contain half of all the musicians in the country. In 2004, that same share was exceeded by the top 14 of the major metros.

The county data reinforce this trend. Only 766 of 3,141 total counties report musical groups and artists. Thus, only 24 percent of counties host working or established musical groups and artists. Perhaps more striking, half of all working musicians in the country live in just 50 or more than 3,100 U.S. counties. Clearly the music industry remains geographically concentrated and appears to be growing even more so over time. New York and Los Angeles remain the two leading locations for music employment and the music industry, playing twin roles as epicenters of the music and entertainment industries. When we examined the firm size distribution for the seven largest music industry centers, we found that New York and Los Angeles had a significantly higher percentage of large establishments than other metros.

Second, the data indicate the rise of Nashville as a leading – if not the leading – music scene in the country. In 1970, Nashville was only a minor center for country music. By 2004, only New York and LA, both huge cities, housed a greater number of musicians. Nashville's rise is even more impressive when you look at its location quotient. In 1970, Nashville was not even among the top 5 regions as ranked by their music industry location quotient. By 2004 it

was the national leader, with a location quotient nearly four times the national average. The extent of its growth was so significant, that when we charted the growth in location quotients between 1970 and 2004, as shown in Figure 3, Nashville was the *only one* that registered positive growth. It had, in effect, sucked up all the growth in the industry by expanding its reach from country to all musical genres, particularly rock and pop. Today it is home to much of the world's best studio talent and has eclipsed even New York and LA as *the* place for music writing, recording, and publishing. In a way similar to what Saxenian (1994) has documented for Silicon Valley in high-technology industry, it appears that Nashville provides a broad economic and social infrastructure that is drawing top musical talent across greater numbers of genres. And just like Silicon Valley consolidated its hold on the high-technology industry by generating new companies and attracting top talent and companies from elsewhere, a great deal of top musical talent like Jack White and his band is drawn to Nashville's musical industry infrastructure.

Third, the data indicate the relative stagnation and in some cases the decline of traditional crossroads music centers, such as Memphis, New Orleans, Detroit and Chicago. As Table 1 shows, none of them made the top 20 list for music employment location quotient. In 1970, New York, Los Angeles, Chicago, Philadelphia and Detroit were the five largest centers for musicians. By 2004, 2 of 5 were replaced with Nashville and San Francisco replacing Philadelphia which fell to eighth and Detroit which fell to tenth.

Fourth, the data show the persistence of musical talent and the music industry in resort and vacation destinations like Las Vegas and Honolulu. Honolulu ranks first in music

employment location quotient for 2004, while Las Vegas ranks sixth behind Los Angeles. Las Vegas however fell from first place in 1970 based on our more limited 31 metropolian area time-series data set. Miami has declined significantly as a location of music emplyment over this period.

Fifth, the data also show the persistence of robust musical centers in smaller metropolitan regions, core based statistical areas, and counties. As Table 1 shows, Billings, Montana ranks fourth in music employment location quotient in 2004. In addition, Rochester, Syracuse, and Kingston, New York; Salinas, California; Pittsburgh Pennslyvania; and Santa Fe, New Mexico, all rank in the top twenty, ahead of Chicago and other much larger metros. San Francisco and Seattle, with their long histories of musical creativity and independent music scenes, also rank among the top twenty.

We probe this further by turning to the data for core based statistical areas and for counties. Figure 4 maps music employment by core based statistical area. Figure 5 maps the location quotients for music employment by core based statistical area. Figure 6 maps the location quotients for music establishments by core based statistical area. Figure 7 maps the proportion of music establishments as a percent of all establishments by core based statistical area. Figure 8 shows the location of musicans and musical groups by county.

As these data indicate, smaller and medium-size metropolitan areas such as Santa Fe and Portales, New Mexico; Sevierville, Tennesee; Muncie, Indiana; Salinas and Ukiah, California; Fort Payne, Alabama; Branson, Missouri; Carson City, Nevada;

Flagstaff, Arizona; Billings, Montana; and Sarasota, Florida, all have high location quotients for musicians.

As Figures 5-8 illustrate, many of the core based statistical areas and counties with relatively high concentrations of music employment, musical groups, and music establishments are quite small, some are remote geographically, and a significant number can be regarded as ex-urban. Aside from the counties in and around Nashville, the next large county to register on a county-by-county ranking of music employment location quotients is Marin County, California which is 31st.

The smaller counties with large concentrations of musicians seem to conform to three patterns. Some are located close to larger counties and metro areas. Perhaps musicans locate there to access larger markets while taking on lower business and living costs. Dekalb County, TN, is adjacent to the Nashville, MSA.

Galensburg, Illinois, is nearly equidistant from the substantial metropolitan area of Moline-Davenport, IA-IL, and Peoria, llinois. Owen County, Kentucky, is between Lexington, KY and Cincinnati, OH. Washington, Maryland is part of the Hagerstown, Maryland metro outside Washington DC.

A second pattern is locations which are in close proximity to large music venues and markets. Sevierville, Tennessee, is home to the Dollywood theme park. Taney County, Missouri, and Carroll County, Arkansas, are close to the country music live performance capital at Branson, Missouri. Brown County, Indiana, is home to a large Bluegrass festival in Gnaw Bone.

A third patterm is locations close to major universities, academic music programs and/or concentrations of artists generally. Monroe County, Indiana, is the county where the Indiana University School of Music is housed. Similarly, Delaware County, Indiana, is home to Ball State University which also houses a significant music program. It should be noted however that academic music programs tend to focus on established musical genres like classical music and tend to attract specialists in particular instruments looking toward careers with orchestras or in academia. Most are not necessarily incubators for popular music artists and new bands, though some have produced them. The production of bands likely results from the large volume of high caliber musicians who also happen to be fans which are highly invested in music Tschmuck (2006).

The role of these smaller music centers and scenes is reinforced by the data on independent or "indie" music scenes (see Table 2). The indie scene is a vast and complicated web of social networks across both the real and virtual worlds. The data indicate that significant indie scenes are located in a mix of large and small metros such as Austin, Texas; Omaha, Nebraska; Athens, Georgia; Lawrence, Kansas; Bloomington, Indiana; Denton, Texas; Chapel Hill, North Carolina; and Murfreesboro, Tennessee. Many of them are centered in and around college towns which have large audiences of young people attuned to music. Most are centers for vibrant performance markets. Some like Athens, Omaha, and Austin have significant recording capabilities and are home to significant indie labels.

Conclusions and Discussion

Our research has examined the geography of the music industry and music scenes. We argued that the geography of the music industry is potentially shaped by two forces. On the one hand, musicians have very few obvious, physical constraints on their location. Furthermore, it is commonly thought that the rise of the Internet, social media, and digital distribution means that musicians should be increasingly able to locate wherever they want. On the other, the need to access large (and sophisticated) markets and the nature of music and creative industries to cluster in scenes suggests geographic concentration. Music scenes, as we defined them, have overlapping and mutually reinforcing economic, social and geographic components. They are geographic locations where the market, broadly defined, exists in microcosm, comprising producers and consumers, buyers and sellers, and all sorts of intermediaries, who interact socially as well as economically, and in a defined geographic space. The economic geography of the music industry, we argued, is shaped by the dynamic tension between these two forces.

Our research tracked the location of musicians, music groups and establishments, and of related businesses from 1970 to 2004 in large U.S. metropolitan areas. We also conducted a detailed cross-sectional analysis of the location of music employment and music industry business establishments in combined statistcal areas, core based statistical areas, and counties for 2004.

Our analysis informs five major findings. First, the music industry remains spatially concentrated and appears to be growing more so over time. Second, Nashville has emerged over time as a major center for the music industry. Once a small outpost for country music, by 2004,

only New York and LA both huge regions, were home to a greater absolute number of musicians and musical groups. The extent of its growth was so significant, that when we charted the growth in location quotients between 1970 and 2004, Nashville was the *only one* that registered positive growth. Third, we find evidence of the relative stagnation and in some cases the decline of traditional crossroads music centers, such as Memphis, New Orleans, Detroit and Chicago. Fourth, our analysis indicates the persistence of musical talent and the music industry in resort and vacation destinations like Las Vegas and Honolulu. Fifth, we note the persistence of robust musical centers in smaller metropolitan regions, core based statistical areas and counties.

Taken together, these findings suggest a basic tension in the economic and spatial organization of the music industry. On the one hand, there is substantial evidence of greater concentration and consolidation of music employment and music related business establishments, particularly the largest establishments, in New York and Los Angeles. This seems to reflect their large market size and substantial music and related entertainment infrastructure, and cumulative, path dependent advantages in mobilizing and deploying successful commercial strategies and business models. This continued and expanded role may well reflect attempts by incumbent industry actors to cope with the issues brought on by new digital distribution technology and falling record and CD sales, by consolidating production and distribution around these major complexes. Because of the venues and media access these locations provide, these major geographic centers also represent established platforms for launching major commercial arts sales; and in the case of Nashville appear to do so in a lower cost

environment. This trend thus appears to be driven by established actors attempting to bolster their competitive position in a period of technology-driven restructuring.

On the other hand, the persistence of music industry concentrations and clusters in small metropolitan regions and counties suggests a countertrend toward decentralization and disaggregation. It may well be that new technologies and market trends are enabling smaller centers not simply to hang on but to strengthen their positions. The rise of low cost digital distribution channels and social media may be reinforcing this trend by enabling musicians and musical groups to participate from more remote locations outside the core centers. Certainly, the evolution of independent or `ìndie`` music indicates that musical acts have not only been able to survive and grow in locations like Athens, Georgia or Omaha, Nebraska, but also to build related infrastructure there and spur other acts to germinate or locate there.

These findings inform a more general, if speculative, conclusion. The music industry appears to be in the midst of a period of significant economic and spatial evolution, driven in part by ongoing changes in its underlying technology. As Tschmuck (2006) notes, major changes in musical technology tend to open up the social, cultural and economic space for new genres and forms. Following Olson (1982, 1983), we believe that such shifts are biased against existing locations and in favor of new locations. The rise of sheet music, for example, enabled the concentration of musical production in New York City's Tin Pan Alley. The emergence of radio shattered the music monopoly of the 1950-1960s where producers and moguls found talent, introduced them to the audience, and enabled the rise of independent cross-roads music centers like Memphis and Detroit. The rise of television and the modern entertainment industry shaped the rise of Los Angeles as a major musical center, surpassed only by New York. The cost

pressures of the late 20th and 21st centuries and the centralization of music infrastructure paved the way for the rise of Nashville over the past several decades, a period during which it has, in effect, overtaken many of the functions once performed by those crossroads centers. Over the course of the 20th century, the geography of music has been distinguished by the spatial reallocation of the centers for creative musical production and for mass commerical distribution. Each technological advance has brought new markets and new centers for music employment and industry. While larger, incumbent regional centers clearly have had scale and scope advantages in music production and commercial distribution, they have suffered from inertia and inability to respond to new genres and sounds. This has intermittently enabled smaller locations with a constellation of talent and commercial interests willing to embrace new forms to gain a strategic advantage. It is this sort of space in the marketplace that enabled the rise of Nashville among new musical locations at various points in time.

Music may be in the midst of a similar, if larger, discontinuity today. The internet, low cost, high fidelity recording and reproduction, digital technology and social media have lowered the costs of recording and distribution in powerful ways. Our analysis already reveals the persistence of significant music clusters in places like Billings, Montana, and smaller urban and even exurban counties. At the same time that powerful forces push toward economic consolidation and geographic concentration of music talent, enterprise and infrastructure, significant counterforces are shaping some degree of geographic diffusion. It is important to note that this diffusion does not take the form of a random or ubiquitous spread of musicians, but rather takes shape around specific music scenes in particular places frequently organized around a critical mass of talent in a particular genre or even subgenre.

Thus, the music industry is being shaped by this dynamic tension between geographic concentration and dispersion. On the one hand, we are seeing the consolidation of the already established music centers into an increasingly smaller group of production centers as markets narrow and as the new technological innovations begin to displace the previous commercial models. On the other, we are seeing the emergence of new genres and in new places with competitive advantages of their own. For the foreseeable future, the geography of the music industry will be shaped by the push and pull of these two powerful forces.

References

Bennett, Andy, and Richard A. Peterson, eds. 2004. *Music Scenes: Local, Translocal and Virtual,* Nashville, TN: Vanderbuilt University Press.

Caves, Richard. 2002. *Creative Industries: Contracts between Art and Commerce*. Cambridge, MA: Harvard University Press.

Cowen, Tyler, and A. Tabarrok. 2000. "An Economic Theory of Avant-Garde and Popular Art, or High and Low Culture", *Southern Economic Journal* 67:232-253.

Clark, Terry, Lawrence Rothfield, and Daniel Silver, "A Theory of Scenes", University of Chicago, 2007, unpublished manuscript.

Currid, Elizabeth. 2007. *The Warhol Economy: How Fashion, Art, and Music Drive New York City*. Princeton, NJ: Princeton University Press.

DiMaggio, Paul. 1987. "Classification in Art", *American Sociological Review* 52 (4):440-455.

Ellis, Diane C., and John C. Beresford. 1994. *Trends in Artists Occupation: 1970-1990.* Washington DC: The National Endowment for the Arts.

Florida, Richard. 2002. The *Rise of the Creative Class*. New York: Basic Books.

Galenson, David W. 1999. "Quantifying Artistic Success: Ranking French Painters and Paintings from Impressionism to Cubism", *NBER Working Paper*. Cambridge, MA: National Bureau of Economic Research.

Glaeser, E.L., H.D. Kallal, J.A. Scheinkman, and A. Shleifer. 1992. "Growth in Cities", *The Journal of Political Economy* 100 (6):1126-1152.

Grana, César. 1964**.** *Bohemian versus Bourgeois: French Society and the French Man of Letters in the Nineteenth Century* (New York: Basic Books).

Hirsch, P. M. 1972. "Processing Fads and Fashions: An Organization-set Analysis of Cultural Industry Systems", *American Journal of Sociology* 77 (4):639-659.

Jacobs, J. 1969. *The Economy of Cities*. New York: Vintage.

Lèubbren, Nina. 2001. *Rural Artists' Colonies in Europe, 1870-1910* Manchester: Manchester University Press.

Lloyd, Richard, and Terry Nichols Clark. 2002. "The City as an Entertainment Machine", *Research in Urban Sociology: Critical Perspectives on Urban Redevelopment* 6:357-378.

Lucas, Robert. E., Jr. 1988. "On the Mechanics of Economic Development", *Journal of Monetary Economics* 22:3-42.

Mark, Noah. 1998. "Birds of a Feather Sing Together", *Social Forces* 77 (2):453-485.

———. 2003. "Culture and Competition: Homophily and Distancing Explanations for Cultural Niches", *American Sociological Review* 68 (3):319-345.

Markusen, Ann. 2004. "The Distinctive City: Evidence from Artist and Occupational Profiles", *Project on Regional and Industrial Economics*. Minneapolis, MN: Humphrey Institute of Public Affairs, University of Minnesota.

Marshall, Alfred. 1890. *Principles of economics*. New York, NY: Macmillan.

Molotch, H. 2002. "Places in Product", *International Journal of Urban and Regional Research* 26 (4): 665-688.

Olson, Mancur. 1982. *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities*, Yale University Press.

Olson, Mancur. 1983. "The South Will Fall Again: The South as Leader and Laggard in Economic Growth", *Southern Economic Journal*, 49 (4), April: 917-932

Saxenian, Annalee. 1994. *Regional Advantage*. Cambridge: Harvard University Press.

Scott, A. 2000. *The Cultural Economy of Cities*. London, UK: Sage.

Tschmuck, Peter. 2006. *Creativity and Innovation in the Music Industry* Dordrecht Springer.

USA_Today. 2006. "Jack White Leaves 'Super-Negative' Detroit", *USA Today*, May 25, 2006.

Table 1: Location Quotients for Music Employment, 2004

Nashville-Davidson--Murfreesboro, TN	1,350	2.11%	3.81
Honolulu, HI	730	1.14%	3.50
New York-Northern New Jersey-Long Island, NY-NJ-PA	10,560	16.54%	2.66
Billings, MT	80	0.13%	2.10
Los Angeles-Long Beach-Santa Ana, CA	5,470	8.57%	2.02
Las Vegas-Paradise, NV	830	1.30%	1.98
Rochester, NY	460	0.72%	1.89
Syracuse, NY	280	0.44%	1.86
Salinas, CA	140	0.22%	1.83
San Francisco-Oakland-Fremont, CA	1,700	2.66%	1.77
Sarasota-Bradenton-Venice, FL	250	0.39%	1.77
Albany-Schenectady-Troy, NY	370	0.58%	1.75
Portland-Vancouver-Beaverton, OR-WA	810	1.27%	1.72
Seattle-Tacoma-Bellevue, WA	1,040	1.63%	1.36
Kingston, NY	40	0.06%	1.34
Santa Barbara-Santa Maria, CA	110	0.17%	1.29
Pittsburgh, PA	630	0.99%	1.17
Santa Fe, NM	30	0.05%	1.09
San Diego-Carlsbad-San Marcos, CA	670	1.05%	1.07
Riverside-San Bernardino-Ontario, CA	630	0.99%	1.06

Note: Includes musicians and singers; composer and directors; music repair and tuners.

Source: Bureau of Labor Statistics 2005.

Table 2: Trends in Music Employment for 31 Major Regions, 1970-2004

	Per Sq. Mile		Number		Location Quotient		inde scene
Metropolitan Area	**1970**	**2004**	**1970**	**2004**	**1970**	**2004**	**score**
Nashville	31	19	19	3	10	1	15
Milwaukee	21	13	22	11	29	2	
New York	4	3	1	1	21	3	15
San Francsco	1	1	6	4	4	4	16
Pittsburgh	7	5	14	14	8	5	9
Los Angeles	11	11	2	2	5	6	6
New Orleans	25	27	28	25	27	7	7
Las Vegas	15	12	25	18	1	8	10
Minneapolis	5	4	9	7	3	9	13
Cleveland	17	9	16	12	23	10	
Portland	22	18	30	19	14	11	11
Buffalo	10	17	28	29	18	12	
Boston	3	2	7	6	7	13	13
Baltimore	14	14	11	16	22	14	10
Seattle	16	6	15	9	9	15	14
Memphis	27	29	31	29	30	16	
St. Louis	12	7	17	15	16	17	10
Chicago	9	10	3	5	28	18	13
Cincinnati	18	23	23	27	15	19	
Denver	19	20	20	20	13	20	
Detroit	13	16	5	10	19	21	
Philadelphia	8	15	4	8	24	22	10
San Diego	29	28	21	23	26	23	12
Kansas City	30	31	24	28	17	24	
Phoenix	26	26	27	21	25	25	10
Dallas	24	24	13	13	20	26	8
Atlanta	23	22	18	17	12	27	10
Houston	28	30	12	22	31	28	11
Tampa	20	25	26	31	6	29	
Miami	2	8	10	24	2	30	14
Washington, DC	6	21	8	26	11	31	11

Figure 1: Employment for Musicians and Musical Groups by Combined Statistical Area, 2004

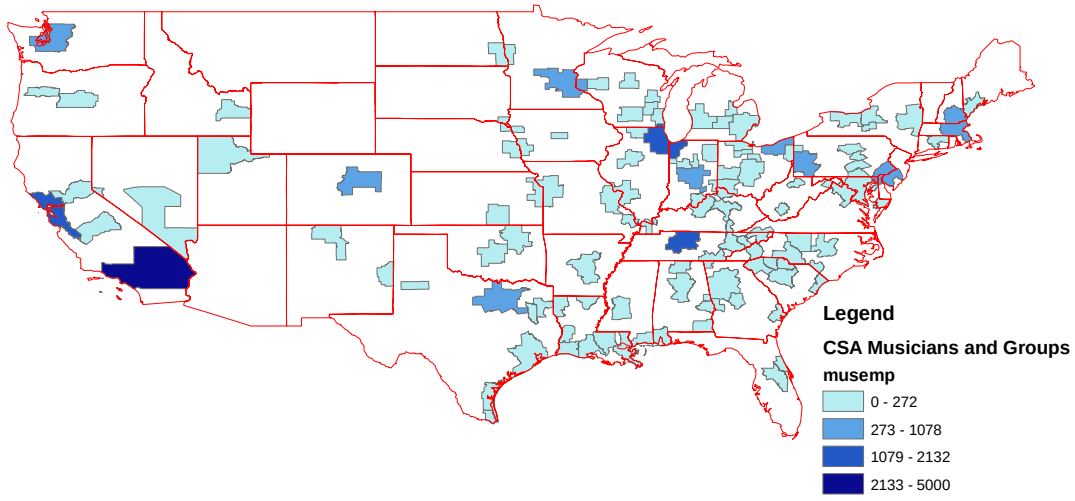

Figure 2: Location Quotients for Music Establishments by Combined Statistical Area, 2004

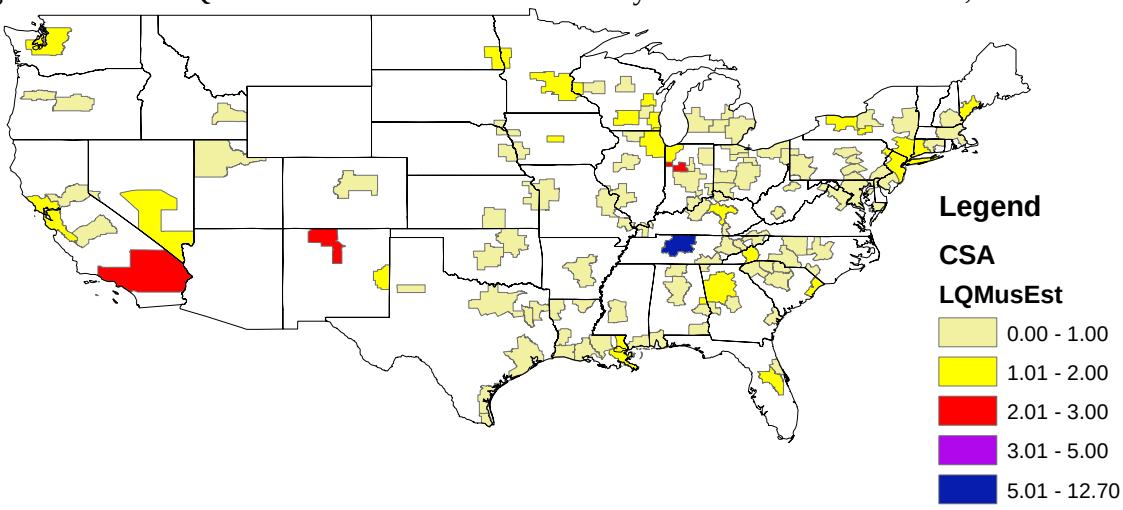

Figure 3: Change in Location Quotient, 1970-2004

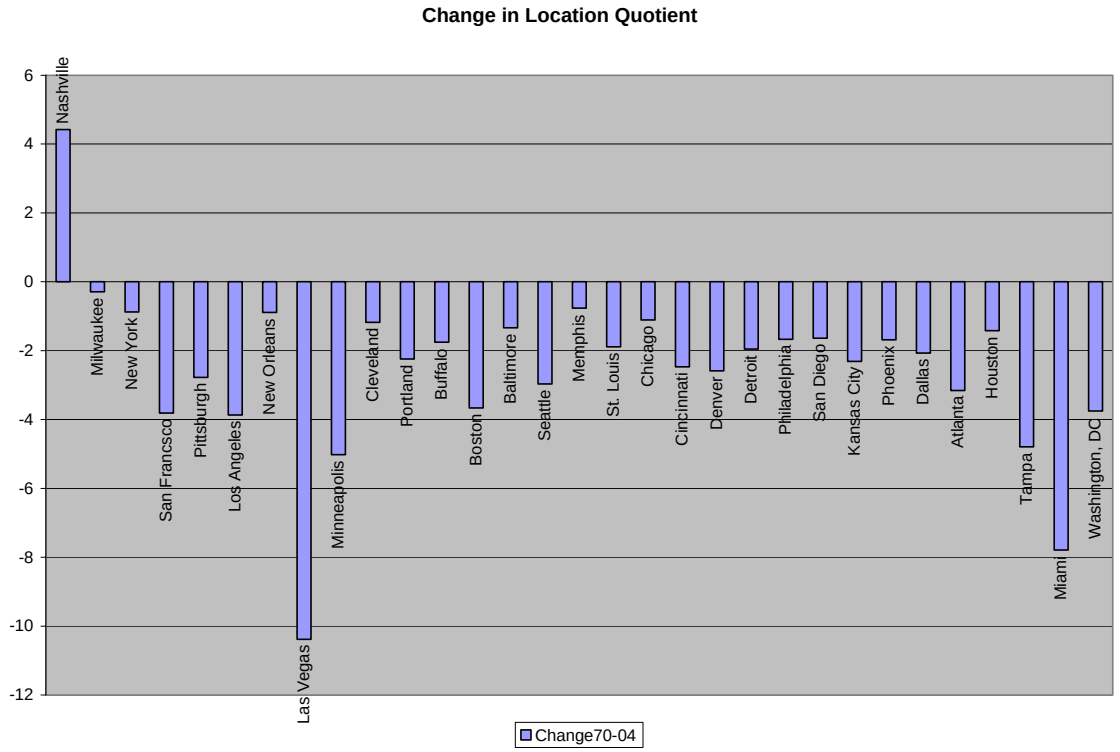

Figure 4: Reported Employment in Musical Groups by Core Based Statistical Area 2004

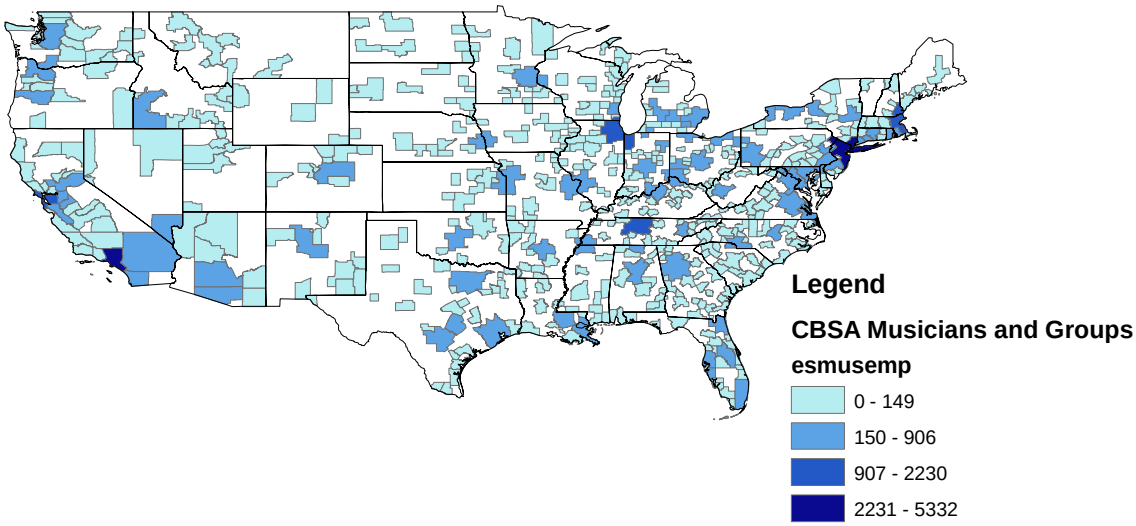

Figure 5: Location Quotients for Music Employment by Core Based Statistical Area 2004 (estimated employment)

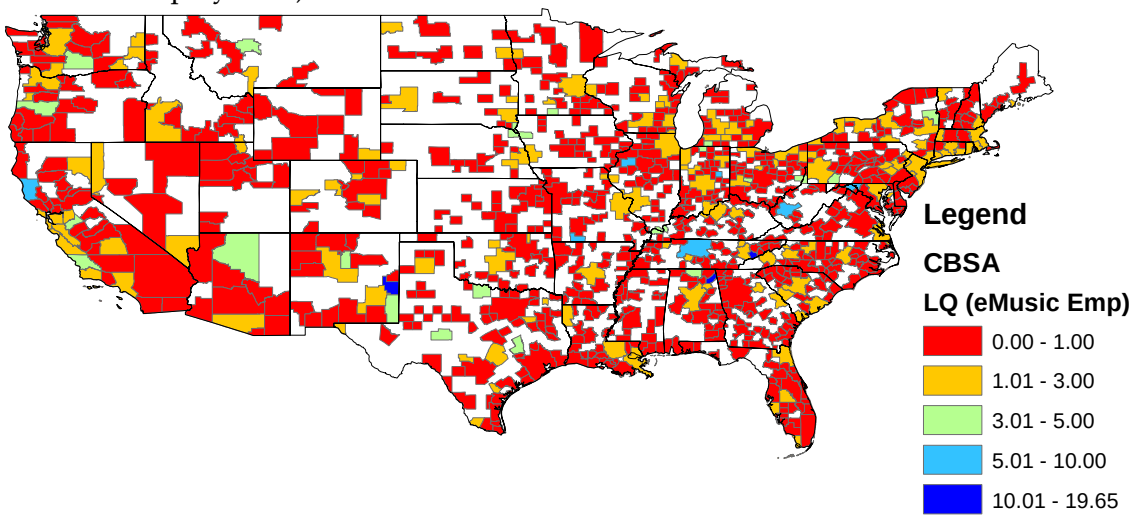

Figure 6: Location Quotients for Music Establishments by Core Based Statistical Area 2004

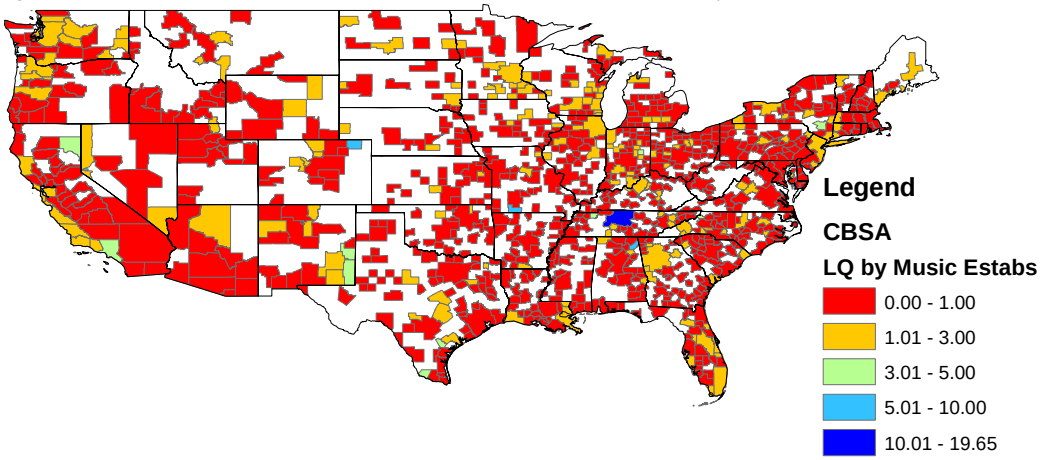

Figure 7: Music Establishments as Share of All Establishments by Core Based Statistical Area 2004

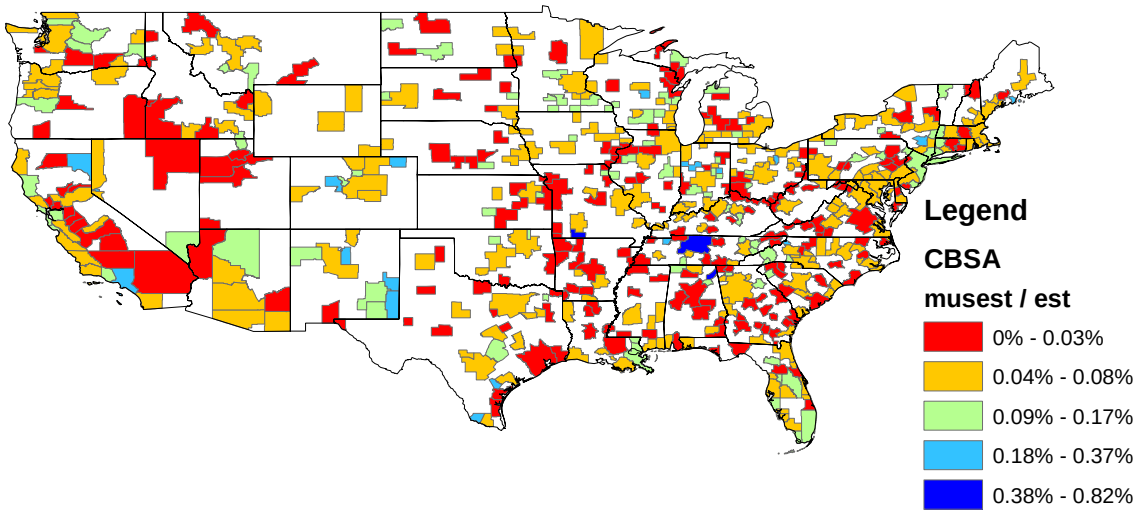

Figure 8: Musical Groups and Artist Establishments by County, 2004