

The Artistic Dividend:

Urban Artistic Specialization and Economic Development Implications

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Abstract

Over the past two decades, urban and regional policymakers have increasingly looked to the arts and culture as an economic panacea, especially for the older urban core. The arts' regional economic contribution is generally measured by totaling the revenue of larger arts organizations, associated expenditures by patrons, and multiplier effects. This approach underestimates the contributions of creative artists to a regional economy, because of high rates of self-employment and direct export activity, because artists' work enhances the design, production and marketing of products and services in other sectors, and because artists induce innovation on the part of suppliers. Artists create import-substituting entertainment options for regional consumers and spend large shares of their own incomes on local arts output. We take a labor-centered view of the arts economy, hypothesizing that many artists choose a locale in which to work, often without regard to particular employers but in response to a nurturing artistic and patron community, amenities, and affordable cost of living. Because evidence on such economic impacts and location calculus is impossible to document directly, we use the distribution of artists across the largest U.S. metropolitan areas as a proxy, using data from the PUMS for 1980, 1990 and 2000. We find artists sort themselves out among American cities in irregular fashion, not closely related to either size or growth rates. We further explore variations in the definition of artist, the relationship between artistic occupation and industry, and differentials in artists' self-employment rates and earnings across cities. We conclude that artists comprise a relatively footloose occupation that can serve as a target of regional and local economic development policy, and we outline the components of such a policy.

I. Conceptualizing an Artistic Dividend

For decades, arts advocates and cultural economists have tried to make the case that public and philanthropic investments in the arts create a positive economic return for the host community beyond the aesthetic enjoyment of the immediate audience or the incomes generated for workers in the artistic enterprise. Hundreds of arts impact studies have been done, detailing the probable expenditure of arts patrons, including tourists drawn to a region expressly for this purpose, on tickets, restaurant meals, hotels, and other local purchases. Despite the methodological problems that confront such efforts (Seaman, 1987; Beyers and GMA, 1999), these studies document a not insignificant economic return to non-artistic businesses and the regional economy as a whole.¹

These studies approach the arts as a predominantly a local-serving industry, especially for museums and the performing arts where, with exceptions like New York and London, the majority of tickets are purchased by local residents. Visitors may also attend, but they do not base their travel destinations on the opportunity to see local theatre or dance. Few performing artists, then — musicians, dancer, actors and performance artists — are believed to export their art out of the region. Other artists — painters, sculptors, photographers, authors — may more easily export their work as well as sell it locally, since it is embodied in a product that stores artistic value for consumption elsewhere. But for the most part, artists in these occupations are seen as initially creating for a local market. Thus resident artists and artistic establishments are not generally considered a part of the economic base of the region, especially because economic base analysis has relied on industries rather than occupations in identifying base components.²

Such an approach seriously understates the full economic contribution of an artistic community to a regional economy. Restricting itself to arts organizations and the impact of events associated with them, it fails to trace the many ways in which a region's artistic talent contributes to regional productivity and output. It cannot capture, for instance, the work that artists do to enhance the design features of a region's manufacturing products or marketing efforts. It does not tally up the success of photographers, painters, authors, poets and graphic designers in exporting their work out of the region over the internet, arts fairs, or via other direct sales routes. Nor does it account for the revenues and income to groups or individual artists who tour with theatrical, musical or dance performances. It does not take into account the incomes earned and human capital created by the many artists who teach others in their craft. It does not trace the incomes generated for support workers who build sets, edit manuscripts, print books and music, act as brokers or agents and engage in paid promotional efforts outside of arts establishments, links that Howard Becker enabled us to see so powerfully in his book, *Art Worlds* (1982). Finally, arts impact analysis does not evaluate the extent to regional consumption of the arts may be import-substituting, as consumers prefer to spend on performances and artwork rather than spending at shopping malls full of imports. Furthermore, since artists themselves heavily patronize other artists' work, and so much of this work is labor intensive, the multiplier effect of local arts consumption may be higher than expected. All of these are components of the *artistic dividend* for a regional economy — the additional economic impact that would not occur without the presence of artists. In this analysis, we focus on artists and urban economic development, defining artists to include performing artists (actors, directors, dancers,

choreographers), musicians, writers and visual artists (painters, photographers, filmmakers, ceramicists, textile artists, sculptors, printmakers).³

Artistic activity produces dividends for a regional economy in two ways — as current income streams and as returns to the region as a whole on past investments. Every year, thousands of individuals in a regional economy labor to produce artistic performances, canvasses and photographs, books and magazine articles, tapes and films and videos that are attended by paying customers or sold via bookstores, galleries, art fairs and art crawls, the internet, private patronage or contractual arrangements (including with government, business and wealthy individuals). To the extent that their work is marketed at all, artists creating such works of art earn greater or lesser amounts of income. They also place orders for materials, equipment and labor, much of which further generates incomes in the region. Furthermore, the work of regional artists can enhance the quality and salability of products and services of other businesses in the region who are customers of or suppliers to artists.

Artists are thus not simply earning income from local activities. They are contributors to the region's economic base — goods and services exported out of the region that enable the producers to earn incomes that are in turn spent in support of local-serving businesses as well as on imports of yet other goods and services. Every region must have a relatively unique economic base to thrive in a world increasingly integrated through trade with other regional economies. Artists contribute to this economic base when their work and performances are paid for by consumers and businesses elsewhere. They also contribute to it when their work helps regional businesses win or expand markets elsewhere.

We can also think of the artistic dividend as a kind of public good, a return to past decades of investments by funders, patrons, businesses, arts organizations, the public sector and artists themselves in the human capital and physical infrastructure that constitute “art worlds” in the regional economy (Becker, 1982). A vibrant arts community encompassing everything from pioneering and internationally renowned regional theatre companies and museums to the thick and diverse layers of artistic talent in the regional economy will serve as a major drawing factor for the location of new businesses, the recruitment of new employees from elsewhere and further gravitation of artists to the region (Florida, 2002b). It also helps reinforce the loyalty of current residents and businesses to the region, providing the “lovability” that is so essential to the future of a high wage region in a fast integrating world (Markusen, 1996).

The artistic dividend compares favorably with economists’ analysis of a professional sports dividend (Noll and Zimbalist, 1997; Seaman, 2003). There are similarities. Like arts events, major league teams draw audiences both locally and from out-state, and people who come to these events spend money at local bars, restaurants and on purchases they make in the environs. Much of this spending — especially that of regional residents — would have been likely spent on other recreational and restaurant purchases in the region, which is also true of theatre and concert-goers. The same business and civic leaders who work to bring professional sports to a region are often important patrons of the arts.

But the location and work behavior of sports players and artists are strikingly different. Professional athletes generally do not live year round in the region where their team is headquartered and thus spend the bulk of their incomes outside of the region

(Zimbalist, 2002). A few Broadway plays and Hollywood acts excepted, most artists who perform in a metropolitan region live there as well. Few professional athletes or other members of their entourage apply their talents to other business activities in the region or engage in teaching, whereas many artists do. Because they are not pursuing work in other venues, athletes are unlikely to be indirectly contributing to the employment of others beyond what is already measured with economic impact techniques. Studies of the overall economic impact of a new stadium show an extremely small, perhaps negative effect on overall economic activity and employment and no reasonable return on investment (Noll and Zimbalist, 1997; Coates and Humphreys, 2002), and metros with professional sports teams do no better in the long run than those that do not (Baade, 1994; Chatfield, 2003).

Our occupational approach, described in the following sections, allows us to make the case that artists' contributions reach more broadly and deeply into the regional economy. We do not address here the impact of artists and arts establishments on sub-regional communities. Studies have found that both have helped to stabilize and revitalize urban neighborhoods (Metropolitan Regional Arts Council, 1985; Stern and Seifert, 1998; Stern, 2003; Strom, 2001; Center for an Urban Future, 2002; Walker, 2002). Conscious public, foundation and private decisions to support traditional arts centers such as museums, orchestra halls and theatres as well as the staff and companies that work in them have contributed to such effects. The development of inner city loft spaces has also had a powerful impact (Zukin, 1982; Penne and Shanahan, 1987.) When arts venues are decentralized across cities and suburbs, it amplifies the panoply of distinct neighborhoods that draw people across traditional boundaries for entertainment and

recreation and adds to the amenities of the region as a whole, much as Jane Jacobs espoused in her pathbreaking work on New York City (Jacobs, 1961).

II. Theorizing the Distribution of Artists among Cities

Why might artists thrive in large, mature cities or newer, faster-growing ones? First, sheer size may matter. Residents who love big cities may display a higher penchant for arts consumption, and producers may enjoy increasing returns to scale, especially in art forms such as the opera. Previous work uncovered some evidence of this, but surprisingly, the effect is greater for popular arts than high culture; only at very high thresholds does the demand for elite arts activities show sensitivity to size of place (Blau, 1989: 57-9). Second, the demand for artistic activity from residents may be higher in the traditional elite cities like New York, Philadelphia, Boston, Chicago, San Francisco and Los Angeles where people with high, unearned (i.e. capital) income cluster and patronize the arts through philanthropy, attendance and collecting. Third, certain large city centric industries, such as advertising and media, may form a significant source of demand and income for artists. Scott's (2004) new book on Hollywood shows intricately how this operates in Los Angeles. Fourth, artists and art spaces attract tourists (Judd, 1999; Holcomb, 1999), generating urban income flows that feed back into artists' livelihoods. Fifth, synergies among different types of artistic activity may create agglomerative tendencies that enhance the draw of large, traditional city centers; prior work has found some synergy between theatre and dance activities, and between opera and chamber music ensembles, though less than anticipated (Blau, 1989: 67-76). Such synergies can be informal as well as organizational; two excellent sociological studies of art worlds

show how extraordinarily networked artists are with other artists and with workers in other sectors (Becker, 1982; Rodgers, 1989). Sixth, artists may be drawn to the amenities offered by a plethora of cultural institutions in, and the diversity and innovativeness of, the largest cities (Florida, 2002a, 2002b; Glaeser, Kolko and Saiz, 2000; Clark, 2003). Finally, the impact of these factors may be magnified by the behavior of artists themselves, who are more likely to patronize other artistic endeavors than any other group.

Are there factors that might mitigate the draw of these cities and channel artists to second tier and smaller cities and even rural locations? Yes, several. First, higher costs of living may drive artists, who tend to earn low incomes and be self-employed, away from the largest cities (Markusen and King, 2003). Second, some artists, particularly those in the non-performing fields, may prefer certain amenities such as less congested, recreational and private spaces for doing their art. Many artists are by temperament “loners” and value the solitude available in non-urban settings; others prefer the neighborhood feel of cities in the mid-sized range. Prior research has found that performing artists are more apt to live closer to metropolitan cores than are visual artists and writers, with musicians in the middle range, though members of all artistic subgroups are more centripetally oriented than residents as a whole (Markusen, 2004). Finally, the emergence of the Internet has greatly expanded the possibilities for sales of artwork, including music, graphic and visual arts and writing, from remote locations, freeing artists from the need to be “where the action is.”

In this paper, we use artistic concentrations across American cities as proxies for the size and presence of an artistic dividend. We do not test for the contribution of the

many causal forces we have just reviewed in generating these patterns – that is a project for future research. We do refer to them in interpreting certain shifts and outcomes.

III. Operationalizing the Artistic Dividend Occupationally

Because the data do not exist, it is impossible to accurately document the value of artists' direct exports from the region, the value of their work on contract to non-arts businesses, or their role in inducing innovation on the part of suppliers. In survey and interview work we have done, artists are sometimes able to estimate their artistic income, though not to distinguish easily the export from non-export components, but they have difficulty put a value on the other two functions beyond articulating instances. We employ, therefore, an occupational approach to document the presence and array of artists in a metropolitan economy and compare these with those of other similarly-sized regions. Our inference is that artistic over-representation in an economy is an indicator of the presence and rough size of an artistic dividend.

Our use of occupations rather than industries to probe the creative economy is a part of a research shift towards a labor/human capital emphasis in regional development. While industries aggregate up establishments (often embedded in multi-site and multi-industry firms) on the basis of what they produce and treat them as location decisionmaking units, advocates of an occupational approach stress the virtues of aggregating up workers (including managers) on the basis of what they do, a way of conceptualizing regional economies by their production process rather than their output and acknowledging the role that occupational groups play in the formation of skill and decisions to locate (Thompson and Thompson, 1985; Feser, 2003 ; Markusen, 2004;

Markusen and Schrock, 2004; Markusen and Barbour, 2003). Consider, for instance, the cultural industries approach pioneered by a number of sociologists and economic geographers in recent years (Pratt, 1997; Scott, 1997; Power, 2002; Hesmondhalgh, 2002; Pratt, 2004). Although these researchers define cultural industries differently, the unifying idea is to group together industries that supply cultural products, in turn defined as those with high symbolic content, conveying social meaning, and/or providing psychic gratification and personal ornamentation. Such a definition produces a strikingly different picture of the creative economy. While Hemondhalgh's conceptual treatment is highly original, and the geographers provide powerful insights into various of the industries amalgamated, several caveats can be raised. First, these accounts lack a coherent concept of "cultural" to drive the actual designation of industries. Second, resulting industry lists contain huge industries, such as advertising, printing and publishing, which have many other product characteristics and serve as integral elements in other production chains and systems. Finally, as we show below for advertising, the numbers of workers (and thus the share of activity) that can reasonably be considered creative is very small in many of the industries included.

Our definition of artists includes actors, directors, performance artists, dancers, musicians, composers, authors, writers, painters, sculptors, and photographers. We are primarily interested in those who self-identify as artists and have figured out a way to engage in their art work as their major occupation, whether through employment, grants-sponsored work, commercial contracts or sales of their own original work. We acknowledge the presence, talents and hard work of part-time and unpaid artists in creating aesthetic value and in contributing to the cache of a region. As arts fans, we

believe in art for art's sake and in the tremendous educative, cultural and entertainment value of artistic endeavor. The value of arts in our communities cannot be conflated with its economic dimensions. Our work is designed to articulate the economic development reasons why artistic practice should be nurtured by a city or region and to suggest ways of doing so.

We use the Census of Population 5% Public Use Micro-Data sample to gauge the presence of working artists, because it asks those surveyed their occupation, based on the activity on which they spend the largest share of their working hours. While this data set captures many more artists than do studies based on employers' reporting of employment by occupation, it stills results in significant under-counting of income-earning artists because the Census directs part-time artists whose major activity belongs to another occupation to report only the latter (Wassall and Alper, 1985). One estimate available for the degree of such undercounting is available from the Bureau of Labor Statistics and is explored below. We used the twenty-nine largest U.S. metropolitan areas (as of 2000) as our study population. Using the Census data involved challenges in working across metropolitan areas whose boundaries change over time and across changing occupational definitions, especially the 1997 major overhaul of occupational codes. A detailed description of the data base, occupational coding, metropolitan units and statistical reliability are available in the Appendix to Markusen, Schrock and Cameron (2004).

We use this data to answer the following questions. To what extent do the largest U.S. metro areas differentially specialize in artists and sub-groups of artists? How have these patterns changed over time? To what extent are changing concentrations the result of net migration of artists? Are concentrations closely associated with either growth rate

or sheer size of metro economies? Do arts-related occupations with lower rates of self-employment and higher average incomes, such as architect and designer, exhibit patterns of concentration similar to artists? How might artistic concentrations correspond to differential industrial specializations? What do we know about self-employment among artists and does this vary across metro areas? The answers we give are exploratory in nature and suggest many lines of future research.

IV. Patterns of Artistic Advantage at the 21st Century's Beginning

During the 1990s, American artists gravitated in large numbers towards three pre-eminent centers of creative activity: Los Angeles, New York and San Francisco.⁴ These gains were accompanied by notable artistic specializations in eight "second tier" metros: Washington DC, Seattle, Boston, Minneapolis/St. Paul, Orange County, Miami, Portland and San Diego. All hosted artistic agglomerations at rates between 10% and 36% above the national average by 2000. In contrast, a number of large metros remained 10% or more below the national average, including St. Louis, Houston, Pittsburgh, Riverside-San Bernardino, San Jose and Tampa. Net migration of artists contributes to these differentials. Artistic prowess does not appear to be closely associated with metro size or rate of growth.

These rankings of "artistic dividend" reflect the degree to which the character of a metro's workforce is distinctively artistic. This does not mean that places with relatively low artistic concentrations, measured in terms of location quotients (LQ), do not have significant arts enclaves and high absolute numbers of artists. In cities like Chicago, the magnitude of these arts activities is muted by the overall size and diversity of the regional

economy. In work elsewhere, we caution that one must look at both employment specialization and absolute numbers of workers in occupations and industries to fully understand regional economic comparisons. Chicago, for instance, is the most high tech of American metros in terms of the numbers of workers in high tech industries, but San Jose, Boise and other metros have higher rates of high tech specialization, because they lack broader array of manufacturing and service activities of the former (Chapple, Markusen, Schrock, Yamamoto and Yu, 2004a, 2004b).

A. Artistic Edge in the Big Three: Los Angeles, New York and San Francisco

Artistic advantage, as gauged by location quotients, is highly skewed in the United States. Distinguishing themselves from the nation's other large metros, Los Angeles, New York and San Francisco attract and/or home-grow artists that comprise disproportionately large shares of their workforces. In 2000, each of these metros posted artistic specializations close to or in excess of twice the national norm (Table 1). Indeed, they are the only three whose concentrations consistently exceed the norm for the large metro group as a whole. Moreover, they wield their strengths across the board, ranking in the top three in all of the sub-occupations – performing and visual artists, writers and musicians.

A number of factors have contributed to the prominence of the “big three:” a growth in arts funding, possibly tied to wealth appreciation especially at the highest end of the income distribution; the rise and cultivation of tourist activity by these cities; and more self-conscious pursuit of cultural capital by the core cities' leadership and economic development organizations. The three super artistic centers are particularly outstanding

in the performing arts, where their lead is quite dramatic. The relationship between the performing arts and large, diversified media empires in these cities, including television, motion pictures, and publishing enhances their draw. In the 1990s, American media products were extraordinarily successful in international trade, not just in English language forms. As we show below, these factors enabled these three metros to reverse a trend towards artistic decentralization from previous decades.

Though these three super-arts cities led the nation at the beginning of the 21st century, they are not the only ones to manifest an artistic dividend. A group of mid-sized metros also exhibit artistic specialization (Table 1). Seven of them enjoyed a lead of 10% or more over the national average by 2000: Washington, DC, Seattle, Boston, Orange County, the Twin Cities, San Diego, and Miami. Lagging the national average, and at less than 75% of the all metro average, are the metros of Dallas, Philadelphia, Phoenix, Denver, San Jose, Cleveland, Pittsburgh, Detroit and Houston, among others. In these metros, other occupations play the lead roles in their economies, and the arts appear to be more “local-serving.” Of course, this is an overall generalization – some performers will live in Pittsburgh and travel to gigs elsewhere; other artists will paint or write there and export their work. But the aggregate size of these artistic pools are small relative to the rest of the metro workforce and thus are not likely to be acting as magnets in the competition to attract and keep artistic talent as they are in the dividend cities.

B. Re-concentration in the Los Angeles, San Francisco, New York in the 1990s

Reversing a trend towards decentralization between 1980 and 1990, Los Angeles, New York and San Francisco increased their artistic lead over other American metros in

the 1990s. Using a modestly expanded definition of artistic occupations, necessitated by coding changes between 1990 and 2000,⁵ we show that artistic concentrations in the top three cities declined in the 1980s but grew disproportionately in the last decade of the century (Table 2).⁶ This attractive power, attributable to the success of media and entertainment industries and tourism in these three cities, appears to have been at the expense of the rest of the country, including other mid-sized metros who had gained on the big three in the 1980s: Boston, Minneapolis/St. Paul, Portland, Chicago.

In a shake-up of the ranks of the big three, Los Angeles outpaced New York to post the highest concentration of artists vis-à-vis the nation in 2000. Washington, DC and Seattle maintained their fourth and fifth positions, but the artistic advantage in each declined quite a bit, creating a growing gap between the top three and the rest. Among gaining mid-sized metros, Orange County moved up ranks from twelfth to seventh, perhaps sharing in neighbor Los Angeles' draw, and the Twin Cities moved up from tenth to eighth, surpassing Miami, San Diego and Atlanta.

It is important to keep in mind that artistic specialization is a function of not just the number of artists but of their presence relative to other groups in the labor force. If other occupations disappear from a region, the denominator of the location quotient will decline and the region will appear more artistically-oriented. This may be operating in the case of Los Angeles and Orange County, two metros hit hard by the defense industry implosion in the 1990s. As aerospace jobs evaporated, the region came to rely more heavily on artistic prowess for its livelihood. Similarly, the relative decline in artistic specialization in Washington, DC, Miami, San Diego and Atlanta may be associated with faster growth in other occupations. Heavy population in-migration and job creation in

other sectors, including construction and elderly care, may be diminishing the significance of artists as a propulsive force in these economies.

Shifts in metropolitan growth rates for artists for the two decades reflect an overall curtailment of growth in artistic occupations in the 1990s (Table 3.) Artists dramatically outpaced national job growth in the 1980s, but the occupation's growth reflected more closely the national experience in the following decade.⁷ There are two possible explanations for this. First, generous public funding, especially from the National Endowment for the Arts, and generous philanthropic support for artists shrank dramatically following political controversy over the NEA and the stock market crash of the late 1980s. Many artists may have had to turn to other occupations as a primary source of support. Second, the information technology boom of the 1990s may have absorbed a large number of artistically-inclined workers. This shift from philanthropic and public funding to the private sector may have favored the metropolitan areas where private sector media, advertising, entertainment, and other arts-requiring private sector firms congregate. Washington, Boston, Chicago, San Diego and Seattle posted very modest artistic employment growth rates in the 1990s compared with rates greater than 50% in the 1980s.

Despite these caveats, our review of the evidence suggests that artists, especially visual artists and writers, remain relatively footloose – able to practice their craft in any number of places and responsive to different offerings in each. Our work confirms two somewhat contradictory tendencies. First, the concentration of top fine art venues and associated media and entertainment industries in the artistic super cities continues to generate and draw artists to these poles. In the 1990s, this pace quickened. Second, other

artists are drawn to a selective set of mid-sized metros at the expense of other metros and of small towns and rural areas as a whole. The rise of these second tier artistic cities seems secure, even if artistic concentrations between the Big Three and the second tier group fluctuate somewhat decade by decade.

C. The Role of Migration in Changing Artistic Specializations

Artists choose among cities as locations to live and work, and their net migration rates contribute to the changing pattern of specialization. The Census PUMS data set shows where artists sampled lived in 1995 and 2000. From these, we computed the net migration rates for artists for each of the 29 metros. Los Angeles had by far the highest net in-migration rate of artists, feeding its large jump in artistic specialization over this period (Table 4). Thus Los Angeles' artistic distinctiveness, as gauged by location quotients, is not chiefly a function of the implosion of other occupations – it has been fed by an unusually large stream of artists in-migrants hoping to make their fortunes in that city and by fewer artists leaving. The New York metro attracted higher numbers of new artists from migration in this period, but lost many more to outmigration than did Los Angeles. In other words, churning in the artistic workforce was greater in New York and may be attributable to that city's higher concentrations of actors and dancers and to its higher cost of living. Other second tier cities enjoyed a marked positive rate of net migration by artists – Phoenix, Portland, Orange County, Dallas, Riverside, San Diego and Atlanta. In many cases, these were counterparts to relatively rapid growth rates in overall population.

Overall, net migration varies dramatically for metros among the set, from a high of 2.16 for Los Angeles to a low of 0.37 for Houston in this period. Such rate differentials confirm a great deal of ferment and self-sorting among artists in terms of where they choose to live and work. They help to explain the resurgence of the three arts super cities in the 1990s. As National Endowments for the Arts individual grants imploded in the 1990s (Kreidler, 1996) and regional corporate contributions plunged following the late 1980s stock market crash, private sector media and entertainment-related jobs and contract work became relatively more important to artists than grants and commissions, forcing them to move on balance toward the major corporate centers of such activity.

D. Artists' Clusters: Not Simply a Function of Size or Growth

Are the largest metros' artistic talent pools proportionately or exponentially related to sheer size? Does rate of growth have anything to do with it – do artistic endeavors lag behind in faster growing cities, where new construction and finance and manufacturing dominate the near term agenda? As others have found for past decades, the answer to both of these questions is no.

Take the nation's largest metros by size. Los Angeles and New York do rank first and second by size, but artistically blessed San Francisco ranks sixth in size of the 29 metro set. On the other hand, Chicago and Philadelphia, the nation's third and fifth largest metros, remain just above or below the national norm, while at least ten smaller metros posted more impressive artistic specializations. The absence of a clear

relationship between size and artistic specialization is evident in Figure 1, which arrays the top 29 metros from largest at the top to smallest at the bottom.

Nor does recent growth experience track closely to artistic excellence. Fast-growing, “newcomer” cities like Atlanta, San Diego, and Portland experienced an erosion in artistic shares of their workforce in the 1990s, as did older, slow growth metros like Boston and Cleveland. Other faster-growing metros such as Dallas, Phoenix and Denver failed to reach the national average.

E. Diversity in Specialization: How Genres of Artists Sort Themselves Out by Place

Lumping all types of artists together provides a nice metric for simple comparison, but it does not do justice to the complexity of artistic advantage. No metro’s lead is preeminent across all groups of artists. The rich panoply of artists’ residential specialization depicted in Table 1 shows that particular types of artists congregate in particular locales. Even among the top three metros, variations in artistic specialties are striking. Los Angeles’ artistic workforce is more heavily oriented towards performing artists and musicians than the other two. New York posts the highest share of authors. Perhaps characterizing these cities’ artistic strengths with labels like “Hollywood” and “Greenwich Village” is not a bad first approximation.

A look at the “second tier” artistic cities – those eight that exceed the national norm by 10% in the aggregate but fall behind the super three – shows how variegated artistic strong suits can be (Figure 2). Writers are Boston’s strongest suit, as they are for the Twin Cities and Washington DC. Visual artists are more prominent among the ranks of artists in Orange County and San Diego – a striking West Coast alignment - and less

so in Washington DC, Boston and Miami. Seattle excels both among writers and visual artists with more modest shares of performing artists. Miami shows a surprising strength in performing arts. Orange County and Miami show a deficit of writers, and San Diego lags among performing artists. Thus second tier artistic metros appear to develop niches around certain arts sectors, with relatively few excelling across the board. Among these seven second tier arts cities, only Washington DC, Seattle, Boston and Minneapolis-St Paul outpaced the U.S. average in each of the four artistic subgroups.

V. Metro Concentrations of Related Artistic Occupations: Designers and Architects

Urban pools of creative artists often coexist alongside other occupations with considerable artistic content. Some researchers include architects and designers in the definition of artists. We did not do so because we wanted to focus closely on those whom people traditionally think of as artists. Both architects and designers as occupational groups are more likely to have full time, professional jobs than are the artists we have focused on so far, and thus to have higher average incomes. Here we look at these two related occupations and compare their regional distributional patterns with those of artists. We find that New York, Los Angeles and San Francisco host the most dense concentrations of designers but not architects, and that Detroit makes a surprise showing among designers, because of its pre-eminence in industrial design.

A. Designers

In 2000, more than 350,000 people in the largest 29 U.S. metros designated their principal occupation as “designer.” This diverse occupation consists of several

suboccupations, including commercial and industrial designers (10% of U.S. total), fashion designers (3%), floral designers (21%), graphic designers (39%), interior designers (9%), merchandise displayers (15%), and set and exhibit designers (2%). Pay varies dramatically across these subgroups, with fashion (\$27.04/hour) and commercial and industrial designers (\$24.55/hour) among the highest paid, graphic designers in the middle (\$18.25) and floral designers (\$9.29) the lowest (Bureau of Labor Statistics, Occupational Employment Statistics, 2002).

Among U.S. metros, New York, Los Angeles and San Francisco/Oakland host the largest shares of designers (Table 5). New York exceeds the national workforce share by over 80%. These rankings mirror the strong artistic showing of these metros, though they sort in New York's rather than Los Angeles' favor.

But the gap between these three and other large cities is not that marked as it is for artists. Detroit is also included in the high-performance group, ranking fourth, with a concentration of designers 64% above the national norm. This reveals the diversity among designers in terms of industries that use their skills. Designers are in high demand in Detroit's automobile industry and in the auto-promotional advertising activities housed nearby. Detroit supports more than nine times the national average of commercial and industrial designers – one out of every six to seven jobs in the nation in this category is located in Detroit. Designers are also prominent in the labor force in Seattle, Boston, Portland, San Jose, Orange County and Minneapolis-St. Paul, where they outpace larger metros such as Chicago, Washington DC, Philadelphia, Atlanta and Houston.

Although we often think about architects and designers as a cluster of their own – with interior designers working hand-in-hand with architects, our analysis shows this to

be a misconception. Designers are a much larger and more diverse group than popular notions capture. Many industrial and consumer product and service firms require specialized groups of designers to fashion them into attractive and useful items that will sell well on the market, from automobiles to software and health care services to the advertising that promotes them.

Different metros may be heavily specialized in one subgroup of designers and not in others, while some will be relatively diversified. The two largest designer subgroups (commercial/industrial and graphic designers) illustrate this (Table 5). Four metros (Detroit, Seattle, San Jose, and Portland) possess concentrations of commercial and industrial designers twice the national average. Detroit and San Jose are notable in posting below average concentrations of graphic designers. This skewed pattern is tied to very high concentrations of manufacturing activities in each, autos in the former, and aerospace, computers and electronics in the latter. A second group of metros host impressive pools of graphic designers but fall below the national average for commercial and industrial designers: San Francisco, New York, Denver, Orange County, Baltimore, and Washington DC. In addition to Seattle and Portland, four other metros show prominence (40% above the U.S. average) in one of these design occupations and at least a better than average showing in the other – Boston, Kansas City, Minneapolis/St. Paul, and Phoenix.

Designers comprise an occupation with relatively rapid growth over the past few decades. An understanding of their emerging and distinctive geography requires knowledge of the interface between designers and the industries they tend to work in, a point we explore next in the next section.

B. Architects

Architects design buildings and work with engineers, city planners, lawyers and other professionals to make them become reality. They are diverse, in that many work for large firms – some focus on commercial buildings, others on large residential complexes and yet others on public monumental buildings like theaters and museums – with an elaborate internal division of labor. Other architects hang out a shingle and work out of home offices, designing houses for those who can afford them or redesigning kitchens, porches and housing rehabs for middle class owners or apartment complexes. Landscape architects plan and design new commercial and residential projects and maintain gardens around existing homes and offices. While many architects serve primarily regional markets, there are a growing number of firms with national and global reach, and these are not all concentrated in the largest U.S. cities. Renowned architect Cesar Pelli, for instance, works from New Haven, CT, and Minneapolis/St. Paul architects Vincent James and Jennifer Yoos compete for and win projects across the country.

Architects, perhaps because their creative work requires the cooperation of many other parties to come to fruition, are more concentrated in metropolitan areas as a whole than other artists (Table 5). They reveal, in other words, a tendency to cluster in what regional scientists call “central places” and serve, from these, a regional hinterland. We find some support for this tendency, which presumes that the larger a city is, the larger its share of such an occupation. However, we also find considerable specialization that cannot be predicted from sheer metro size. In general, the metro distribution of architects

is not far different from that of artists, although metro rankings do differ in some respects.

The economies of the San Francisco/Oakland, Seattle, and Boston metros support more architects as a share of their workforce than does New York. The Bay Area's strong showing may be related to intensive earthquake-related redesign and rehabbing in the last decade. It may also, as with Seattle and Boston, be a talisman of a stronger local market for architecture-intensive design, with many architects working on rehab and upgrading projects. Strikingly missing from the list of the top clusters of architects is Los Angeles, barely above the national norm and well below that of the metro group as a whole. Not surprisingly, rapidly growing metros like Atlanta and Dallas outpace many slow-growing metros, where we would not expect much new construction. Yet fast-growing Tampa and Riverside/San Bernardino fall well below average.

VI. Artists by Industry: the Case of Advertising

Economic developers often think first in terms of industry and only then in terms of occupation. Elsewhere, we make the case treating occupations as a co-equal force in regional development (Markusen 2004). Location decisions on the part of skilled workers may be as important as those of firms, because firms' success may rely on pools of talent and the ability to retain and attract more talented workers (Florida, 2002b). In a broader sense, a region's success around certain industries may be predicated on its strength in key occupations driving those industries.

We can use the intersection between one industry, advertising, and artists (including designers), as an opportunity to explore this interrelationship. Nationally,

about 10% of employees in the advertising industry, as reported by employers, belong to arts occupations (Table 6). Large numbers of graphic designers, art directors, writers and multi-media artists (a subgroup of visual artists) work in this industry. Painters, commercial and industrial designers and actors are also employed in this sector, but make up miniscule proportions of its workforce.

Do metro specializations in advertising industry employment dovetail with prominent pools of designers, writers and other artistic groups? The answer is yes, with some caveats. New York, San Francisco and Chicago dominate the list of metros with high concentrations of jobs in advertising (Table 7). For their size, San Jose, Minneapolis-St. Paul, and Detroit have developed vibrant specializations in advertising. This may help explain the relatively strong showing of designers in each, whose concentrations are higher than those of other artistic occupations. Although the two are related, it is not possible to determine whether industry or occupation drives the presence of the other in any one region. One can speculate that Detroit's preeminence in auto manufacturing bred an auto-centric advertising sector that in turn attracted designers. In the Twin Cities, the presence of large, consumer-oriented companies like General Mills and Pillsbury may have interacted with the independent emergence of an artistic community to breed a successful advertising industry. This brief exploration of the interconnection between industry and occupation suggests that an adequate understanding of a metro's artistic dividend should be based on a joint exploration of occupational and industrial structure in the region.

VII. Metro Patterns of Artists' Self-Employment

Artists demonstrate a strong commitment to self-employment, sometimes by choice, often from desperation. Writers and fine artists, in particular, are more apt to be self-employed than earning a salary, while performing artists and architects are more apt to be on a payroll. For many artists, such self-employment adds to their income as an avocation or second. Do metros differentially offer regularized employment for artists? Yes. Using the case of writers, a group with very high rates of self-employment, we find dramatic differentials in writers' self-employment across metro areas. Our findings on self-employment suggest that analysts and policymakers should use Census rather than establishment-based data in evaluating the presence of artists in their region. Even with the Census, self-employed artists remain undercounted because many of them moonlight, i.e. do their art work as a second job (Alper and Wassell, 1999). We are able to estimate the size of this effect at the national level but not for individual metros.

Nationally, artists are highly likely to be self-employed, ranging from 68% for writers and authors to 24% for performing artists (Table 8). By comparison, only 8% of workers overall were self-employed as of 2002. These data are drawn from careful work by the Bureau of Labor Statistics that take into account both establishment and self-reported employment sources. Using national estimates from the Current Population Survey, they add to the Census totals an estimate of individuals who are self-employed as artists as a second occupation. This raises the rate of self-employment among writers, for instance, from 57% to 68%. Many self-employed artists who earn artistic income do so as their second "job." Musicians are most prominent in this regard – almost one in three self-employed musicians engage in their musical activity as an avocation.

That more than two out of every three writers are not tied to an employer underscores the relatively footloose character of this occupation – writers may be drawn to New York, the heart of the international publishing industry, where lots of craft know-how is in the air but where rents are astronomical and networks highly competitive. Or they may gravitate to a second tier city like Minneapolis/St. Paul, Portland or Seattle with a vibrant writing community and superior amenities. Yet others may prefer an affordable small town in a stunning natural environment, where the Internet is one’s access to an artistic community. Among performing artists, musicians are the most likely to be self-employed, at 39%, while actors and choreographers are the least likely at 17%. Designers (32%) and architects (22%) are less apt to be self-employed than artists as a whole, yet the share is not negligible and far exceeds the national norm of 8%.

Artists within each of these occupations may vary markedly from each other. Some writers have full-time jobs with magazines, newspapers or educational institutions, while others work purely from commissions or sales of finished work. Some musicians are unionized employees of orchestras or members of successful combos with a corporate identity, while many others play local clubs, entertain at weddings and make occasional recordings, much of it “off the books.”

Using writers as a case study, we probe the degree to which writers, reporting in the Census as their primary occupation, are self-employed across our metro set. We find dramatically different rates, from 57% of Los Angeles’ writers self-employed to only 22% in Kansas City (Table 9). Other high self-employment metros include Houston, Portland, Riverside-San Bernardino, San Francisco and New York. Low self-employment shares are found among writers in Baltimore, Cleveland, Washington, DC,

Minneapolis/St. Paul and Dallas. This may be due to the character of writing-intensive activities in these regions. Payroll employment for writers may be high due to the huge presence of Hallmark cards in Kansas City and legal, lobbying and political work in Washington, DC. In other locales (Los Angeles, San Francisco and New York), short-term media-related work (and lots of it) may attract self-employed writers. An additional force is the high costs of living in some cities, driving self-employed artists to lower-cost, amenity-rich environments. Interestingly, there is no clear Sunbelt/Frostbelt distinction here, although there does seem to be a Western bias among metros that attract self-employed writers.

The presence of self-employed artists in a region means that analysts and policymakers should not rely solely on arts organization impact studies or establishment data on artists' employment in understanding the size of their artistic dividend. All the metros studied show dramatically higher numbers of writers in their workforces when the Census figures are used to chart their presence rather than employer-based OES data (Table 9). The smallest differential is found in Baltimore, which reports 68% more writers, and Portland possesses the largest gap, where the Census finds seven times as many writers. If we used employer-based employment statistics to rank metros as writers' enclaves, Washington DC, New York and Minneapolis-St. Paul would top the list in that order. But using Census figures, New York, San Francisco and Los Angeles dominate, with Washington ranked fourth and the Twin Cities as eighth. Self-employment is clearly driving these discrepancies, as evidenced by a strong statistical correlation (0.72) between the metropolitan rate of self-employment among authors and the ratio of Census to OES employment.

VIII. Artists' Income Differentials by Region

Migration research has generally emphasized earnings as the single most important factor in driving workers' locational choice. Do metros with high concentrations of artists pay their artists better than regions with low concentrations? The Census permits us to study income differentials among those self-identifying as artists, though it is not clear the extent to which such income is attributable to artistic work (since artists may be working a second job or have non-wage income). In 2000, differences in median artists' incomes across metropolitan areas were fairly significant, ranging from \$42,000 in Newark to \$20,000 in Riverside-San Bernardino (Table 10).

These earnings differentials are correlated with concentrations of artists among the employed, suggesting that a premium does exist for artists working in creative centers. They are also correlated with cost of living differentials (proxied by median home price divided by median household income)—real income differentials are thus somewhat lower than nominal levels. Some of the unexplained differential between metros could be attributable to different mixes of artistic subgroups—performing artists (\$35,000) and writers (\$33,000) have higher personal incomes than visual artists (\$25,000) and musicians (\$20,000). New York, Los Angeles and San Francisco all host larger concentrations of the former two subgroups, while San Diego, with low median artistic incomes, hosts much higher concentrations of visual artists and musicians than the former two. We found no correlation between median income and shares of artists working for for-profit employers across the metro set, even though Galligan and Alper (1988) found that artists working for commercial employers made more money (but

suffered higher unemployment rates) than artists working in the non-profit sector. We also observed no correlation between the extent of self-employment among artists and their median incomes.

These findings are exploratory. To adequately test for factors attracting artists to metro area, a model would have to include variables representing industry structure, amenities, and artist training and service organizations, as well as cost of living, type of employer, and the presence of artistic concentrations. Artists may be as drawn to amenities, and be willing to trade them off for lower earnings or higher costs of living, as to higher earnings. They may also be drawn to regions with grand apprenticeship and learning opportunities, trading off current income against future returns.

IX. Conclusion

Artists make important contributions to regional economies beyond those associated with arts organizations and events, and these contributions are unevenly spread among cities. Los Angeles, New York and San Francisco increased their lead over other regions in the 1990s, reversing a modest trend of several decades towards decentralization. Our perusal of 2000 shows that a number of “second tier” cities have emerged and maintained distinction as artist-rich centers: Washington, DC, Seattle, Boston, Orange County, Minneapolis/St. Paul, San Diego and Miami. Portland, Atlanta, Baltimore, Chicago and Newark are also above the national norm. Other large metros fall below the national norm, though there is some shifting over time in these ranks as well.

The Big Three excel in all subgroups of artists, while the mid-sized cities with artistic strength tend to specialize in one or two – some attract writers, others performing artists or visual artists. The range of occupational discrepancy between these twenty-nine regions ranges from an indexed share of 5.44 for Los Angeles in performing artists to 0.52 for St. Louis, also for performing artists. This means that Los Angeles hosts more than five times the national workforce artists' share norm, while St. Louis falls almost 50% below it.

We found no clear relationship between artistic strength and either overall regional employment size or recent growth rates. Some large regions, like Chicago and Philadelphia, do not share the other mega-regions' artistic prowess, while many mid-sized metros, such as Seattle, outpace the national norm.

The distribution of architects is even more concentrated in large cities nationally than creative artists and generally mirrors their location patterns. Among designers, however, a diverse group that encompasses industrial and commercial designers and graphic artists, we find that metros like Detroit, Seattle, Portland and San Jose do not trail far behind the Big Three. Detroit and San Jose host prominent concentrations of industrial designers, while Seattle tops the list among graphic designers.

Our model of artistic specialization does not assume that firms and arts organizations come first and artists follow. We believe that decisions of artists to live in certain regions may be a stimulant to new firm formation and may attract other arts-using firms to the region as well; our qualitative work on the Twin Cities confirms this (Markusen and King, 2003). Decisions by both employers and artists interact to build artistic enclaves. We explore this by looking at the interrelationship between one

industry, advertising, and artists to see whether there appears to be a synergy. We do find this, and speculate that in some places, such as Minneapolis-St. Paul, the presence of an artistic pool may be important in generating, attracting and enhancing the productivity of advertising firms, while in Detroit, the presence of the auto industry appears to be more important in the strong advertising sector in that economy.

Self-employment is an important feature of artistic activity in the United States and in most regions we studied. Writers and visual artists are more likely to be self-employed than employed by others, and musicians are quite likely to earn money from their music as a second (and self-employed) activity. Examining writers and authors, we find that some metros – Los Angeles, Houston, Portland – have much higher shares of self-employed authors than do others; only about one in three authors is self-employed in Kansas City, Baltimore, Cleveland and Washington, DC. It is therefore perilous to use employer-based data sources to estimate the numbers of artists who are engaged in their artwork as their major source of income.

Will these trends persist into the future? Several forces appear to be at work. The catapulting of American media into international markets in the 1990s, as people everywhere accepted English as a major form of communication and as the Internet created almost unlimited opportunities for dissemination, favored the super artistic cities, who were able to counter a prior tendency towards dispersion. Our 2000 Census data does not capture the dot.com and telecommunications bust of the last few years that could have eroded the new media edge of these cities and their ability to retain artists. Continued large cost-of-living and congestion differentials between these cities and artist-rich mid-sized American cities suggest decentralization may again assert itself. To the

extent that the Internet renders proximity less important, this will feed the dispersal trend. Yet the complex assembling of media and entertainment products in the super arts cities, reinforced by robust tourism to these cities, should enable them to hold their lead indefinitely.

What can city leaders do to improve their artistic dividend? Our work is designed to distinguish artists from other members of the so-called creative class, a distinction we explore elsewhere (Markusen, 2005). For an artist-centric strategy, we counsel “different strokes for different folks.” In the Big Three, the significance and uniqueness of their artistic pools should be acknowledged and cultivated. Studying what draws artists to their cities, whether it be particular employers, the rich cultural milieu or the region’s natural amenities, should help to craft policies aimed at distinctive artists’ occupational organizations, training institutions and networks. Each may benefit, too, from a deeper understanding of how they compare with the other two and with the more outstanding mid-sized cities. For the artist-rich second tier cities, surveying their artistic pools and identifying their niche would be similarly helpful in constructing a strategy that promotes artists’ organizations and education and nurtures the amenities that attract and keep artists in the region. As we have shown with qualitative work in our previous study, a lower cost of living, less congestion, recreational opportunities, alternative health care, and a diverse artistic culture are among the features that draw artists away from the super arts cities.

What about large cities that currently show a relative deficit of artists? Smaller towns that cannot expect to mount even a single arts center? Because artists are relatively footloose – many choose to live in a particular place to practice their art and

travel or use the Internet and mail to “export” their work out of the region, building an artistic component to the local economy is a reasonable project for many cities and small towns. Artists make less money than most other skilled workers, and an affordable community is important to them. Affordable loft space in historic buildings in an older city’s bar, comedy club and gallery-rich neighborhoods can anchor them there, while a beautiful natural environment beckons to others. Every city and town has some modicum of artistic talent among its residents. Artists can be engaged in thinking through a strategy to market the place to other artists and to figure out how modest amounts of public money and energy can be spent to attract and retain artists and art-loving tourists. Localities can also help artists to market their work through the Internet and art fairs. Public support for space, equipment, and networking opportunities for artists may pay off handsomely (Jackson et al, 2003).

Cities of all sizes can amplify their artistic dividends by working on three fronts. First, diversifying away from strictly “bricks and mortar” subsidies to arts facilities, cities can nurture artistic occupations in several ways. One is through support for artists’ clubhouses – places where artists come together to share their craft and to learn ways of making a living from their art. Publicly-supported artists’ live-and-work spaces have become important anchors for many urban neighborhoods, often revitalizing historic buildings and reversing a process of decline. Public education for the arts and support for arts events helps to raise the visibility of art in a community and generate sales and gigs for individual artists. Cities can also help artists hone their entrepreneurial skills and build businesses (Markusen and King, 2003).

Second, cities can pioneer ways of tightening the connections between an existing corporate community and resident artists. Traditionally, this relationship has been conceived of as philanthropic in nature and has indeed played an important role in artistic development. But artists can also be viewed as talent available to help companies design a better product (designers), write better manuals for workers and consumers (writers), solve management problems through simulation techniques (actors), and prepare better marketing materials (painters, photographers, writers). Few organized channels exist to match one up with the other, and such a “market” might contribute to both firm productivity and profits and artists’ livelihoods.

Third, state and local governments should improve their decision criteria for allocating public dollars to the arts. Currently, large new performing arts facilities tend to receive disproportionate shares of the public dollar, because they are supported by well-organized and energetic elites who lobby effectively. Smaller, more diverse cultural organizations, artists’ live-work space and artists’ clubhouses receive paltry amounts of money in contrast, though they are breeding grounds and experimental stages for future artists and make important contributions to their neighborhoods and the overall diverse character of a city. A broader appreciation for the size and dimensions of artistic dividend will lead to a more diversified approach to arts funding. Better institutional relationships between artists, arts organizations and economic development agencies will facilitate such gains (Walker, Jackson and Rosenstein, 2003).

¹ Among the best of these studies are the two done by Beyers and GMA (1999) on Seattle. Based on an extensive survey of arts organizations and arts patrons, they provide a detailed accounting of arts-related economic impacts for King County. They also compare their methodology and findings with those of a number of recent studies of other major metropolitan areas in the country.

² The only study we have found that attempts to get at some of these larger impacts is an exploratory piece on the New England economy, *The Creative Economy Initiative* (2000). It uses an industry lens to define a “creative cluster” consisting of the applied arts (including graphic, industrial and web design, and advertising), plus the performing, visual, and literary arts, media, heritage (museums) and advocacy and support groups, including funders; it totals up the workers that business establishments in these sectors employ as the measure of the cluster’s size. The excellent Alliance for the Arts/Port Authority of New York and New Jersey study (1993), which attempts to show how its region’s arts complex forms a portion of its economic base, similarly uses industries rather than occupations. Studies of an emerging “culture industry” have an even broader focus; for an excellent overview of European studies on the cultural sector, see MKW Wirtschaftsforschung GmbH (2001).

³ Most economic studies of artists use a similar definition, which parallels government occupational codes. Some arts advocacy organizations also include arts administrators and art teachers, and a minority of studies include designers and architects. For conceptual and operational definitions of artist, see Wassall and Alper, 1985; Mitchell and Karttunen, 1992; Karttunen, 1998; and Filicko and Lafferty, 2002.

⁴ Metropolitan definitions used in this analysis were Metropolitan Statistical Areas (MSA) or Primary Metropolitan Statistical Areas (PMSA) as of 2000, with the exceptions of New York and San Francisco.

⁵ See Markusen, Schrock and Cameron (2004), the appendix, for discussion of changes to occupational coding between 1990 and 2000, and comparability of data between those years.

⁶ The dispersing impulse was evident before 1980 for some artistic occupations. Between 1970 and 1980, visual artists decentralized from centers like New York and Los Angeles while performing artists continued to cluster there. Big city shares of visual artists fell from 43 to 34% while their shares of performing artists rose from 35 to 40% (Heilbrun, 1987: 308).

⁷ See Alper et al, 1996, for an examination of changing employment and earnings by artistic subgroups over the Census years 1970, 1980 and 1990, and Ellis and Beresford,

1994, for a study of socioeconomic trends in artistic occupations over the same two decades. The latter find that the ranks of artists increased much faster in the 1980s than in the previous decade, although the largest contributor to that growth is accounted for by designers, a group not included in our definition.

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Table 1. Artistic Concentrations for the Top 29 U.S. Metro Areas by Employment, 2000

| | Total | Performing Artists | Visual Artists | Authors | Musicians |
|------------------------------|--------------|-------------------------------|---------------------------|----------------|------------------|
| Los Angeles, CA | 2.99 | 5.44 | 2.34 | 2.71 | 1.95 |
| New York, NY-NJ | 2.52 | 3.71 | 2.01 | 2.99 | 1.85 |
| San Francisco-Oakland, CA | 1.82 | 1.85 | 1.83 | 2.51 | 1.12 |
| ALL 29 METROS | 1.34 | 1.60 | 1.26 | 1.45 | 1.12 |
| Washington, DC-MD-VA-WV | 1.36 | 1.51 | 1.01 | 2.27 | 1.08 |
| Seattle, WA | 1.33 | 1.15 | 1.48 | 1.48 | 1.06 |
| Boston, MA-NH | 1.27 | 1.24 | 1.02 | 2.00 | 1.15 |
| Orange County, CA | 1.18 | 1.21 | 1.36 | 0.92 | 0.98 |
| Minneapolis-St. Paul, MN-WI | 1.16 | 1.12 | 1.10 | 1.33 | 1.16 |
| San Diego, CA | 1.15 | 0.90 | 1.27 | 1.10 | 1.25 |
| Miami, FL | 1.15 | 1.48 | 1.05 | 0.82 | 1.28 |
| Portland, OR-WA | 1.09 | 1.12 | 0.99 | 1.50 | 0.87 |
| Atlanta, GA | 1.08 | 1.05 | 1.11 | 0.97 | 1.15 |
| Baltimore, MD | 1.08 | 0.96 | 1.10 | 0.92 | 1.30 |
| Chicago, IL | 1.04 | 0.83 | 1.14 | 1.27 | 0.84 |
| Newark, NJ | 1.02 | 1.07 | 0.97 | 1.24 | 0.83 |
| US AVERAGE | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Dallas, TX | 0.99 | 1.08 | 1.11 | 0.73 | 0.87 |
| Philadelphia, PA-NJ | 0.96 | 0.90 | 1.04 | 0.94 | 0.88 |
| Phoenix, AZ | 0.96 | 0.70 | 1.13 | 0.88 | 0.94 |
| Nassau-Suffolk, NY | 0.93 | 0.83 | 1.10 | 0.84 | 0.76 |
| Kansas City, MO-KS | 0.90 | 0.59 | 1.16 | 0.82 | 0.76 |
| Denver, CO | 0.90 | 1.08 | 0.82 | 0.98 | 0.79 |
| Tampa-St. Petersburg, FL | 0.89 | 0.83 | 0.89 | 0.76 | 1.08 |
| San Jose, CA | 0.84 | 0.75 | 0.95 | 0.95 | 0.61 |
| Cleveland, OH | 0.79 | 0.61 | 0.79 | 0.74 | 1.05 |
| Riverside-San Bernardino, CA | 0.77 | 0.79 | 0.84 | 0.61 | 0.76 |
| Pittsburgh, PA | 0.76 | 0.63 | 0.74 | 0.79 | 0.91 |
| Houston, TX | 0.74 | 0.65 | 0.75 | 0.66 | 0.91 |
| Detroit, MI | 0.74 | 0.61 | 0.82 | 0.73 | 0.74 |
| St. Louis, MO-IL | 0.71 | 0.52 | 0.79 | 0.67 | 0.80 |

Sources: Census 2000 5% PUMS dataset, Integrated Public Use Microdata Sample, Minnesota Population Center, University of Minnesota.

Table 2. Artistic Specializations, Selected Metros, 1980, 1990, 2000

| | 1980 LQ | 1990 LQ | 2000 LQ |
|-----------------------------|----------------|----------------|----------------|
| Los Angeles, CA | 2.39 | 2.31 | 2.99 |
| New York, NY-NJ | 2.60 | 2.42 | 2.52 |
| San Francisco-Oakland, CA | 1.79 | 1.60 | 1.82 |
| Washington, DC-MD-VA-WV | 1.76 | 1.63 | 1.36 |
| Seattle, WA | 1.59 | 1.40 | 1.33 |
| Boston, MA-NH | 1.51 | 1.49 | 1.27 |
| Orange County, CA | 1.15 | 1.26 | 1.18 |
| Minneapolis-St. Paul, MN-WI | 1.20 | 1.27 | 1.16 |
| San Diego, CA | 1.24 | 1.15 | 1.15 |
| Miami, FL | 1.35 | 1.09 | 1.15 |
| Portland, OR-WA | 1.18 | 1.24 | 1.09 |
| Atlanta, GA | 1.31 | 1.08 | 1.08 |
| Chicago, IL | 1.03 | 1.09 | 1.04 |
| Cleveland, OH | 0.82 | 0.83 | 0.79 |

Sources: Census 1980, 1990, 2000 5% PUMS dataset, Integrated Public Use Microdata Series, Minnesota Population Center, University of Minnesota.

Artists are defined as the 2000 Census codes: Authors (285); Musicians and Composers (275); Actors (270); Producers & Directors (271); Dancers & Choreographers (274); Photographers (291), TV, Video, and Motion Picture Camera Operators (292, partial); and Artists & Related Workers (260).

Artists are defined as the 1980/1990 Census codes: Authors (183); Musicians and Composers (186); Painters, Sculptors, Craft-Artists, and Artist Printmakers (188); Artists, Performers & Related Workers (194); Actors & Directors (187); Dancers (193); and Photographers (189).

Refer to Appendix for disclaimers regarding the comparability of occupational codes between Census years.

Table 3. Size and growth rates of artistic occupations for selected metros, 1980, 1990, 2000.

| | 2000 | % Change 1990-2000 | % Change 1980-1990 |
|----------------------------|----------------|-------------------------------|-------------------------------|
| Atlanta, GA | 14,808 | 53% | 64% |
| San Francisco-Oakland, CA | 25,263 | 20% | 39% |
| Los Angeles-Long Beach, CA | 79,781 | 20% | 52% |
| Minneapolis-St. Paul, MN | 12,155 | 13% | 63% |
| Portland, OR | 6,630 | 10% | 66% |
| Seattle, WA | 11,030 | 9% | 52% |
| Cleveland, OH | 5,667 | 7% | 28% |
| San Diego, CA | 10,330 | 4% | 73% |
| New York-Northeastern NJ | 77,216 | 4% | 33% |
| Miami, FL | 7,033 | 3% | 42% |
| Boston, MA | 16,884 | 2% | 73% |
| Chicago, IL | 26,901 | 1% | 50% |
| Orange County, CA | 10,656 | -5% | 87% |
| Washington, DC/MD/VA | 22,925 | -6% | 70% |
| United States | 881,841 | 10% | 53% |

Sources: Census 2000 5% PUMS dataset, Integrated Public Use Microdata Sample, Minnesota Population Center, University of Minnesota.

Artists are defined as the 1980, 1990, 2000 Census codes: Authors (285/183), Musicians and Composers (275/186), Performing Artists (270, 274, 271/187,193), and Visual Artists: Artists and Related Workers (260/194,188).

T4. Migration of artists by metropolitan area, 1995-2000

| | In/out migration ratio | New artists as % of total | Moved into metro | Moved out of metro | Artists 2000 |
|-----------------------------|-------------------------------|----------------------------------|-------------------------|---------------------------|---------------------|
| Los Angeles, CA | 2.16 | 22% | 19,250 | 8,918 | 88325 |
| Phoenix, AZ | 1.56 | 23% | 2,105 | 1,346 | 9247 |
| Portland-Vancouver, OR | 1.48 | 24% | 1,634 | 1,105 | 6876 |
| Orange County, CA | 1.47 | 26% | 2,814 | 1,914 | 10881 |
| New York/Bergen, NY-NJ | 1.44 | 21% | 20,591 | 14,348 | 96,196 |
| Dallas, TX | 1.42 | 27% | 3,064 | 2,162 | 11517 |
| San Francisco-Oakland, CA | 1.37 | 28% | 7,258 | 5,285 | 26071 |
| Riverside-San Bernadino, CA | 1.34 | 22% | 1,519 | 1,135 | 6992 |
| Tampa-St. Petersburg, FL | 1.28 | 21% | 1,406 | 1,100 | 6674 |
| San Diego, CA | 1.25 | 24% | 2,680 | 2,144 | 10961 |
| Atlanta, GA | 1.22 | 26% | 3,971 | 3,255 | 15,282 |
| Kansas City, MO-KS | 1.21 | 23% | 1,236 | 1,021 | 5412 |
| Washington, DC-MD-VA | 1.14 | 24% | 5,436 | 4,749 | 23016 |
| Seattle, WA | 1.11 | 22% | 2,482 | 2,244 | 11428 |
| Newark, NJ | 1.05 | 26% | 1,708 | 1,626 | 6643 |
| Boston, MA | 0.98 | 24% | 3,770 | 3,847 | 15552 |
| Minneapolis-St Paul, MN-WI | 0.97 | 16% | 1,994 | 2,047 | 12,275 |
| Baltimore, MD | 0.95 | 21% | 1,784 | 1,869 | 8608 |
| Pittsburgh, PA | 0.93 | 16% | 872 | 939 | 5550 |
| Detroit, MI | 0.89 | 12% | 1,282 | 1,438 | 10450 |
| Chicago, IL | 0.83 | 16% | 4,379 | 5,288 | 27612 |
| Philadelphia, PA/NJ | 0.82 | 15% | 2,248 | 2,753 | 15498 |
| San Jose, CA | 0.81 | 28% | 1,379 | 1,699 | 4904 |
| St. Louis, MO-IL | 0.63 | 15% | 912 | 1,448 | 6275 |
| Cleveland, OH | 0.53 | 12% | 669 | 1,255 | 5,805 |
| Nassau Co, NY | 0.51 | 12% | 1,034 | 2,034 | 8304 |
| Houston, TX | 0.37 | 21% | 2,008 | 5,388 | 9725 |

Source: Calculated by Ann Markusen and Martina Cameron, Project on Regional and Industrial Economics, University of Minnesota, Calculated from Census 1980, 1990, 2000 5% PUMS dataset, Integrated Public Use Microdata Sample, Minnesota Population Center, University of Minnesota. Note: Outmigration data not available for Denver and Miami metro areas for 2000.

Table 5. Concentrations of Designers, Architects by Metropolitan Area, 2000

| Metropolitan Area | Designers | Commercial | | Architects |
|------------------------------|------------------|-----------------------------|--------------------------|-------------------|
| | | Industrial Designers | Graphic Designers | |
| New York, NY-NJ | 1.83 | 0.67 | 1.62 | 1.80 |
| San Francisco-Oakland, CA | 1.75 | 0.68 | 1.72 | 2.83 |
| Los Angeles, CA | 1.72 | 0.43 | 1.26 | 1.18 |
| Detroit, MI | 1.64 | 9.34 | 0.85 | 0.83 |
| Seattle, WA | 1.63 | 2.22 | 2.11 | 2.53 |
| Boston, MA-NH | 1.60 | 1.94 | 1.45 | 2.49 |
| Portland, OR-WA | 1.57 | 2.00 | 1.16 | 1.84 |
| San Jose, CA | 1.52 | 2.21 | 0.93 | 1.05 |
| Orange County, CA | 1.43 | 0.66 | 1.46 | 1.43 |
| Minneapolis-St. Paul, MN-WI | 1.36 | 1.06 | 1.42 | 1.54 |
| San Diego, CA | 1.27 | 0.44 | 1.20 | 1.21 |
| Dallas, TX | 1.24 | 1.13 | 1.15 | 1.49 |
| Chicago, IL | 1.17 | 0.81 | 1.01 | 1.49 |
| Denver, CO | 1.16 | 0.67 | 1.48 | 1.80 |
| Houston, TX | 1.12 | 1.31 | 1.03 | 1.13 |
| Atlanta, GA | 1.09 | 0.75 | 1.01 | 1.56 |
| Kansas City, MO-KS | 1.09 | 1.43 | 1.58 | 1.49 |
| Nassau-Suffolk, NY | 1.09 | 0.67 | 0.84 | 1.20 |
| Newark, NJ | 1.08 | 1.11 | 1.15 | 1.18 |
| Washington, DC-MD-VA-WV | 1.07 | 0.55 | 1.42 | 1.82 |
| Philadelphia, PA-NJ | 1.07 | 1.08 | 1.31 | 1.19 |
| Baltimore, MD | 1.05 | 0.62 | 1.44 | 1.16 |
| Phoenix, AZ | 0.98 | 1.41 | 1.19 | 1.10 |
| Cleveland, OH | 0.98 | 1.00 | 0.98 | 1.13 |
| St. Louis, MO-IL | 0.98 | 1.20 | 1.29 | 1.14 |
| Pittsburgh, PA | 0.91 | 0.56 | 0.58 | 1.05 |
| Riverside-San Bernardino, CA | 0.70 | 0.19 | 0.57 | 0.46 |

Sources: Census 2000 5% PUMS dataset, Integrated Public Use Microdata Sample, Minnesota Population Center, University of Minnesota.

Architects are defined in the 2000 Census as SOC 130, designers as SOC 263.

Table 6. Artistic Workers in the Advertising Industry, United States, 2002

| Occupational Title | Employment | % total |
|---|------------|---------|
| Graphic Designers | 18,340 | 4.17 |
| Art Directors | 8,150 | 1.85 |
| Writers and Authors | 5,850 | 1.33 |
| Multi-Media Artists and Animators | 4,940 | 1.12 |
| Merchandise Displayers and Window Trimmers | 3,200 | 0.73 |
| Producers and Directors | 2,540 | 0.58 |
| Fine Artists, incl. Painters, Sculptors, Illustrators | 570 | 0.13 |
| Commercial and Industrial Designers | 560 | 0.13 |
| Set and Exhibit Designers | 180 | 0.04 |
| Interior Designers | 30 | 0.01 |
| Actors | 50 | 0.01 |
| Total, Artistic Occupations in Advertising | 44,110 | 10.10 |
| Total Employment, All Occupations | 439,700 | 100 |

Source: BLS, Occupational Employment Statistics, 2002

Advertising is defined as NAICS Code 5418.

Table 7. Advertising Industry Employment, largest 29 metro areas, 200

| Metropolitan Area | Employment | LQ |
|------------------------------|---------------|-------------|
| New York, NY-NJ | 67676 | 3.69 |
| Chicago, IL | 35139 | 2.15 |
| San Jose, CA | 7307 | 1.77 |
| Minneapolis-St. Paul, MN-WI | 11664 | 1.73 |
| San Francisco-Oakland, CA | 14292 | 1.72 |
| Nassau-Suffolk, NY | 7513 | 1.67 |
| Detroit, MI | 13153 | 1.59 |
| Los Angeles, CA | 25266 | 1.58 |
| Seattle, WA | 7939 | 1.54 |
| Tampa-St. Petersburg, FL | 6130 | 1.43 |
| Philadelphia, PA-NJ | 12771 | 1.39 |
| Dallas, TX | 10491 | 1.36 |
| Washington, DC-MD-VA-WV | 12170 | 1.32 |
| Newark, NJ | 4858 | 1.27 |
| Orange County, CA | 7145 | 1.25 |
| St. Louis, MO-IL | 6063 | 1.21 |
| Kansas City, MO-KS | 4337 | 1.17 |
| Boston, MA-NH* | 14705 | 1.17 |
| Miami, FL | 4013 | 1.13 |
| San Diego, CA | 4734 | 1.09 |
| Atlanta, GA | 9052 | 1.04 |
| Portland, OR-WA | 3711 | 1.03 |
| Denver, CO | 4194 | 0.96 |
| Baltimore, MD | 4164 | 0.96 |
| Pittsburgh, PA | 4067 | 0.94 |
| Houston, TX | 6386 | 0.84 |
| Cleveland, OH | 3699 | 0.82 |
| Phoenix, AZ | 4311 | 0.75 |
| Riverside-San Bernardino, CA | 1333 | 0.38 |
| 29 Largest Metros | 318281 | 1.56 |
| United States | 472312 | 1.00 |

Source: US Census Bureau, County Business Patterns

Estimates of nondisclosed data by Greg Schrock, Project on Regional and Industrial Economics, University of Minnesota

Table 8. Self employment trends, artistic occupations, 2002

| Occupational Title | Total Employment | Self-employed | % Self-employed | Primary job | Secondary job |
|---|--------------------|-------------------|-----------------|------------------|------------------|
| Visual artists | 307,254 | 155,159 | 50% | 129,109 | 26,050 |
| Artists and related workers | 148,682 | 80,022 | 54% | 70,731 | 9,291 |
| Arts directors | 50,664 | 27,139 | 54% | 23,988 | 3,151 |
| Fine artists: painters, sculptors, illustrators | 23,192 | 12,866 | 55% | 11,372 | 1,494 |
| Multi-media artists & animators | 74,826 | 40,017 | 53% | 35,371 | 4,646 |
| Photographers | 130,442 | 68,432 | 52% | 54,024 | 14,408 |
| Camera operators, TV/Video/Motion picture | 28,130 | 6,705 | 24% | 4,354 | 2,351 |
| Performing artists | 176,463 | 42,724 | 24% | 38,174 | 4,550 |
| Actors | 63,033 | 10,992 | 17% | 9,754 | 1,238 |
| Producers and directors | 76,125 | 24,995 | 33% | 21,683 | 3,312 |
| Dancers & choreographers | 37,305 | 6,737 | 18% | 6,737 | 0 |
| Dancers | 19,992 | 3,854 | 19% | 3,854 | 0 |
| Choreographers | 17,313 | 2,883 | 17% | 2,883 | 0 |
| Musicians, singers and related | 215,425 | 83,121 | 39% | 56,770 | 26,351 |
| Music directors & composers | 54,271 | 21,354 | 39% | 14,584 | 6,770 |
| Musicians & singers | 161,154 | 61,767 | 38% | 42,186 | 19,581 |
| Writers & authors | 138,980 | 94,377 | 68% | 80,509 | 13,868 |
| Total, arts occupations | 838,122 | 375,381 | 45% | 304,562 | 70,819 |
| Designers | 531,921 | 168,806 | 32% | 132,827 | 35,979 |
| Commercial & industrial designers | 51,823 | 16,088 | 31% | 12,659 | 3,429 |
| Fashion designers | 14,844 | 4,353 | 29% | 3,425 | 928 |
| Floral designers | 103,993 | 33,832 | 33% | 26,621 | 7,211 |
| Graphic designers | 211,871 | 67,422 | 32% | 53,052 | 14,370 |
| Interior designers | 60,050 | 19,325 | 32% | 15,206 | 4,119 |
| Merchandise displayers, window trimmers | 77,221 | 23,881 | 31% | 18,791 | 5,090 |
| Set and exhibit designers | 12,119 | 3,905 | 32% | 3,073 | 832 |
| Architects | 136,378 | 29,678 | 22% | 23,809 | 5,869 |
| Architects, ex. landscape and naval | 113,243 | 24,253 | 21% | 19,457 | 4,796 |
| Landscape architects | 23,135 | 5,425 | 23% | 4,352 | 1,073 |
| Total, all artistic occupations | 1,506,421 | 573,865 | 38% | 461,198 | 112,667 |
| Total, all occupations | 144,013,600 | 11,451,600 | 8% | 9,926,000 | 1,525,600 |

Source: Bureau of Labor Statistics, National Industry-Occupation Employment Matrix

<http://www.bls.gov/emp/emp oils.htm>

Table 9. Writers' employment, self-employment, Resident vs. Workplace Data Sources, 2000

| Metropolitan Area | % Self-Employed | Employment | | | Location Quotient | |
|------------------------------|-----------------|---------------|--------------|------------|-------------------|-----|
| | | Census | OES | Census/OES | Census | OES |
| Los Angeles, CA | 57 | 12970 | 2110 | 6.1 | 2.7 | 1.6 |
| Houston, TX | 57 | 1524 | 210 | 7.3 | 0.7 | 0.3 |
| Portland, OR-WA | 57 | 1647 | 220 | 7.5 | 1.5 | 0.7 |
| Riverside-San Bernardino, CA | 56 | 951 | 130 | 7.3 | 0.6 | 0.4 |
| San Francisco-Oakland, CA | 55 | 6260 | 1075 | 5.8 | 2.5 | 1.6 |
| New York, NY-NJ | 54 | 16443 | 4350 | 3.8 | 3.0 | 2.9 |
| Miami, FL | 52 | 906 | 350 | 2.6 | 0.8 | 1.1 |
| Denver, CO | 51 | 1235 | 400 | 3.1 | 1.0 | 1.1 |
| Orange County, CA | 51 | 1498 | 260 | 5.8 | 0.9 | 0.6 |
| Phoenix, AZ | 51 | 1520 | 270 | 5.6 | 0.9 | 0.5 |
| Philadelphia, PA-NJ | 51 | 2687 | 540 | 5.0 | 0.9 | 0.7 |
| Seattle, WA | 50 | 2208 | 530 | 4.2 | 1.5 | 1.2 |
| Chicago, IL | 49 | 5893 | 1410 | 4.2 | 1.3 | 1.1 |
| Nassau-Suffolk, NY | 47 | 1341 | 230 | 5.8 | 0.8 | 0.6 |
| St. Louis, MO-IL | 47 | 1022 | 300 | 3.4 | 0.7 | 0.7 |
| Atlanta, GA | 47 | 2389 | 1180 | 2.0 | 1.0 | 1.7 |
| San Diego, CA | 47 | 1763 | 280 | 6.3 | 1.1 | 0.7 |
| Tampa-St. Petersburg, FL | 46 | 996 | 260 | 3.8 | 0.8 | 0.7 |
| Detroit, MI | 43 | 1792 | 690 | 2.6 | 0.7 | 1.0 |
| Pittsburgh, PA | 42 | 988 | 230 | 4.3 | 0.8 | 0.7 |
| Boston, MA-NH | 42 | 4207 | 1120 | 3.8 | 2.0 | 1.7 |
| San Jose, CA | 40 | 972 | 370 | 2.6 | 0.9 | 1.1 |
| Newark, NJ | 39 | 1425 | 360 | 4.0 | 1.2 | 1.2 |
| Minneapolis-St. Paul, MN | 36 | 2494 | 1360 | 1.8 | 1.3 | 2.5 |
| Dallas, TX | 35 | 1489 | 480 | 3.1 | 0.7 | 0.7 |
| Washington, DC-MD-VA-WV | 35 | 6877 | 3000 | 2.3 | 2.3 | 3.5 |
| Cleveland, OH | 34 | 948 | 460 | 2.1 | 0.7 | 1.3 |
| Baltimore, MD | 30 | 1361 | 810 | 1.7 | 0.9 | 2.1 |
| Kansas City, MO-KS | 22 | 847 | 310 | 2.7 | 0.8 | 1.0 |
| United States | 47 | 158116 | 41410 | 3.8 | | |

Sources: Census 2000 5% PUMS dataset, Integrated Public Use Microdata Sample, Minnesota Population Center, University of Minnesota; US Bureau of Labor Statistics, Occupational Employment Statistics.

Table 10. Median personal income, employed artists, by metro , cost of living, 2000

| Metro area | Cost | | | |
|--------------------------------|---------------|------------------|-----------|--------|
| | Median Income | Employed Artists | Living LQ | Index* |
| Newark, NJ | 42000 | 6352 | 1.02 | 3.59 |
| Los Angeles, CA | 40000 | 76090 | 2.99 | 4.92 |
| San Jose, CA | 40000 | 4677 | 0.84 | 5.90 |
| Washington, DC/MD/VA | 40000 | 22460 | 1.36 | 2.87 |
| New York, NY-NJ | 38500 | 75746 | 2.52 | 5.38 |
| San Francisco-Oakland, CA | 38400 | 24688 | 1.82 | 5.78 |
| Nassau Co, NY | 35000 | 8022 | 0.93 | 3.09 |
| Boston, MA | 34260 | 14644 | 1.27 | 4.18 |
| Kansas City, MO-KS | 33400 | 5161 | 0.90 | 2.25 |
| Chicago, IL | 32000 | 26231 | 1.04 | 3.19 |
| Detroit, MI | 32000 | 10010 | 0.74 | 2.67 |
| Atlanta, GA | 31000 | 14435 | 1.08 | 2.58 |
| Denver, CO | 30020 | 6180 | 0.90 | 3.44 |
| Baltimore, MD | 30010 | 8179 | 1.08 | 2.67 |
| Cleveland, OH | 30000 | 5609 | 0.79 | 2.81 |
| Dallas, TX | 30000 | 10852 | 0.99 | 2.21 |
| Orange County, CA | 29200 | 10435 | 1.18 | 4.54 |
| St. Louis, MO-IL | 29000 | 5967 | 0.71 | 2.24 |
| Minneapolis-St. Paul, MN | 28000 | 11916 | 1.16 | 2.90 |
| Philadelphia, PA/NJ | 28000 | 14839 | 0.96 | 2.53 |
| Seattle, WA | 28000 | 10888 | 1.33 | 4.16 |
| Miami, FL | 26000 | 6807 | 1.15 | 3.44 |
| Portland, OR-WA | 26000 | 6567 | 1.09 | 3.59 |
| Houston, TX | 25000 | 9302 | 0.74 | 2.02 |
| Phoenix, AZ | 25000 | 8869 | 0.96 | 2.84 |
| Pittsburgh, PA | 24400 | 5146 | 0.76 | 2.29 |
| San Diego, CA | 24170 | 10220 | 1.15 | 4.75 |
| Tampa-St. Petersburg, FL | 22400 | 6404 | 0.89 | 2.50 |
| Riverside-San Bernadino, CA | 20000 | 6449 | 0.77 | 3.23 |
| Correlation with median income | | 0.48 | 0.51 | 0.48 |

* Cost of living index: Median house value / Median household income (both for 1999).

Source: Authors' analysis of data from Census 2000 5% PUMS, obtained from Integrated Public Use Microdata Sample (IPUMS), Minnesota Population Center, University of Minnesota and HUD State of the Cities Data System

Figure 1. Artistic Concentrations for the Top 29 Metro Areas, 2000, listed by size

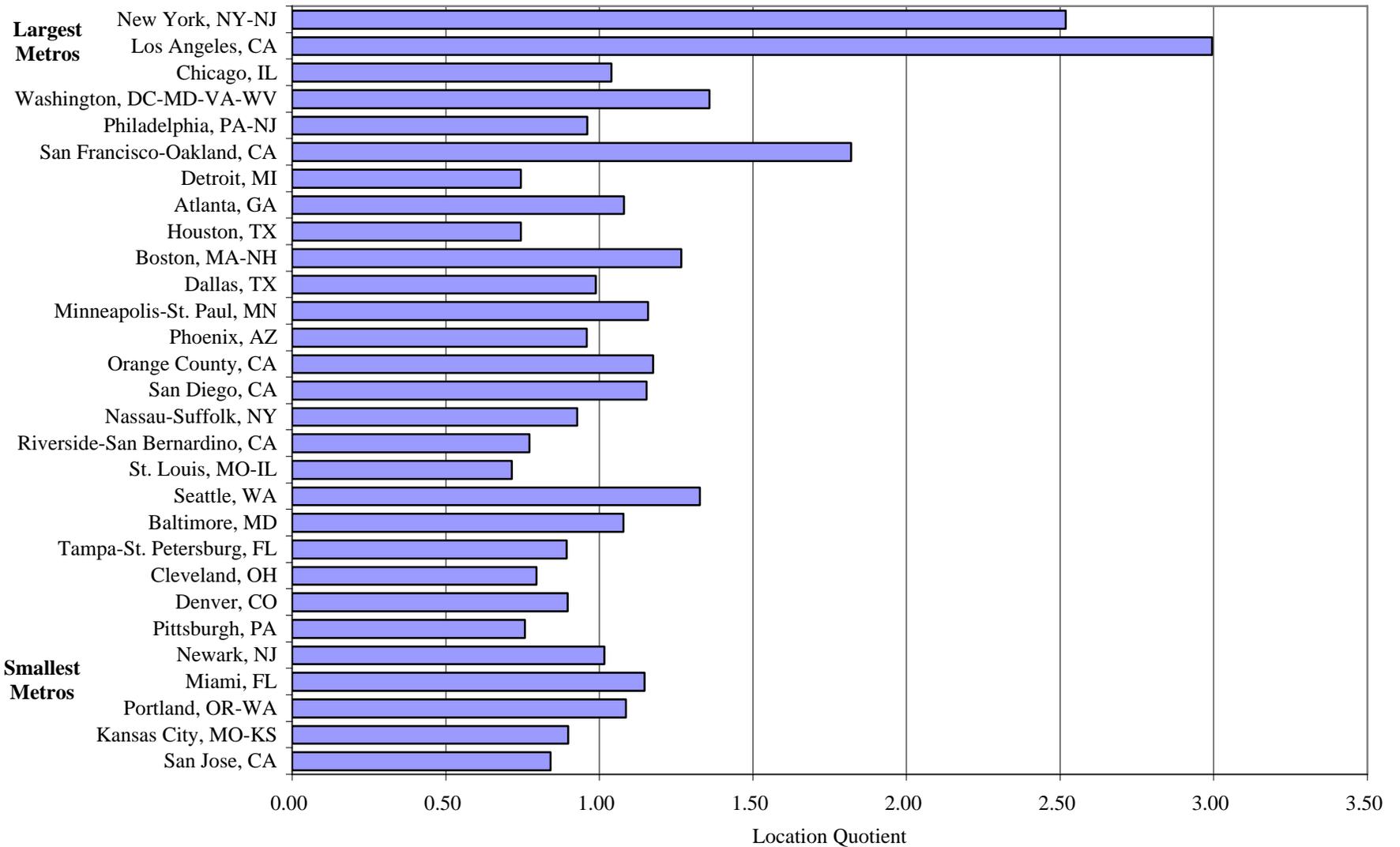


Figure 2. Artistic Sub-Specializations, Selected Metros, 2000

