



**Social Impact of
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**Artists in the Winner-Take-All Economy:
Artists' Inequality in Six U.S. Metropolitan Areas, 1980 – 2000**

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Introduction

The spread of economic inequality is one of the defining features of American society at the turn of the twentieth century. In their 1995 book, *The Winner-Take-All Society: Why the Few at the Top Get So Much more Than the Rest of Us*, Robert Frank and Philip Cook argue that winner-take-all job markets—industries in which a disproportionate share of economic benefits flow to those recognized as the best in their field—are a major cause of increased inequality.¹ Because the world's best basketball player, opera singer, and litigation lawyer are so much more valued than the tenth or hundredth best, a larger share of the labor force finds itself receiving a diminishing share of the economy's rewards.

Artists serve as an exemplar of winner-take-all labor markets. A few paintings sell for millions while the vast majority goes unsold. The best opera singers are celebrities while most wait on tables. The movie and publishing industries are structured around those stars who guarantee a huge payoff, while most actors and authors cannot support themselves on their arts' income. More than most fields, the arts have been ruled by the winner-take-all logic.

Given the centrality of the arts to the winner-take-all argument, however, there has been surprisingly little work on its implications for the field. The National Endowment of the Arts has regularly sponsored studies of artists' economic status. These studies have provided a general profile of the working conditions and economic realities faced by creative workers. The studies have generally undermined the portrait of the starving artist; on average, artists earn salaries roughly similar to other professional workers.

The topic of income inequality among artists has received less explicit attention. Consistent with the winner-take-all hypothesis, artists' income and work experience tends to be more variable than that of other professionals. In addition, artists are more likely to have multiple jobs and to derive a significant share of their income from non-arts related activities. A 1996 study of artists' working conditions between 1970 and 1990 established that artists have higher poverty rates than most professional workers.² However, there has been little focus on the shape of artists' income distribution and its implications for our understanding of their social position.

This paper addresses the implications of the winner-take-all economy for income inequality among artists. Using the U.S. census public-use samples, as refined by the Minnesota Population Center, it employs the standard measure of income inequality—the Gini coefficient—to examine income inequality among artists in six major metropolitan

¹ Robert Frank and Philip Cook, *The Winner-Take-All Society: Why the Few at the Top Get So Much More Than the Rest of Us*. (New York: The Free Press, 1995).

² Joan Jeffri and Robert Greenblatt, *Who Work With Their Hands: A Trend Report, 1970-1990*. National Endowment for the Arts, Research Division Report #37. (Santa Ana, CA: Seven Locks Press, 1996).

areas between 1980 and 2000. The paper compares income inequality among artists with that of other professional workers and among individual categories of artists. Finally, it examines inequality through the lens of ethnicity and gender.

The paper concludes that artists are an ‘old’ winner-take-all occupation. In 1980 artists displayed an unusually high degree of within-occupation inequality. However, artists’ inequality did not increase as quickly between 1980 and 2000 as that within the rest of the labor force. By contrast, in the general labor force, African American and female workers had a less unequal income distribution than the general population. Among artists, however, income was distributed more unequally among blacks and women.

Finally, the analysis finds significant variation in artists’ income inequality across metropolitan areas. The winner-take-all hypothesis would lead us to expect that metropolitan areas that are ‘global cities’ in the arts world—notably New York and Los Angeles—would have greater inequality than other cities. This is not the case, however. On the one hand, Los Angeles displayed the highest level of income equality among cultural workers. New York, on the other hand—even though income inequality among all workers was generally higher than elsewhere—had among the lowest levels of artist income inequality.

Rise of the Winner-Take-All Society

Winner-take-all markets, according to Frank and Cook, are markets in which the vast majority of *economic value* depends on the effort of only a small number of top performers. As a result, in winner-take-all markets, a few participants reap high incomes from their work while the vast majority receives very little. Entertainment, sports, and the arts are fields in which winner-take-all markets have long been common. Frank and Cook argue that they have become more common in recent decades.

One reason for the expansion of winner-take-all markets is what Hirsch many years ago called ‘positional’ goods in which one’s rewards are based on one’s *relative* position among producers, not on one’s productivity. Because there can only be one ‘best baseball player in the world’ or one ‘best opera singer in the world,’ whoever occupies that position is likely to do much better than the tenth, hundredth, or thousandth best.

Positional imperatives mean that relatively small talent gaps generate gigantic earnings gaps. The authors use the case of Steffi Graff—the former tennis champion—as a case in point. Although Graff was generally a ‘winner’ in a winner-take-all market, in 1993 she enjoyed a particularly rewarding year—in terms of tournaments and prizes—not because her game improved markedly, but rather because Monica Seles, the previous year’s number one player, was stabbed by a deranged person and was unable to compete.

As Hirsch noted, increasing abundance tends to have a contradictory impact on positional goods.³ Because there are absolute limits on desirable vacation homes, high prestige sports cars, and spots at elite colleges, the spread of abundance actually increases the competition for those goods that cannot increase in proportion to GNP. As positional goods become more important, they absorb a higher share of all consumer dollars, but their distribution is likely to remain stable. High prestige vacation homes, as their price

³ Fred Hirsch, *Social Limits of Growth* (Cambridge, Mass.: Harvard University Press, 1976).

risers much faster than the rate of GDP growth, are affordable to a smaller and smaller share of the public.

Recent changes in technology have been a major contributor to the proliferation of winner-take-all markets. What Frank and Cook call ‘production cloning’—the increasingly low marginal costs of reproducing electronic media—has squeezed out all but the most popular performances. As the authors note: “Whenever there are economies of scale in production or distribution, there is a natural tendency for other products, suppliers, or services to dominate the market.”⁴ Winner-take-all economics are further sharpened by the increasing importance of network economies—the dependency of one product on the presence of related products—and the proliferation of new technologies that have sparked battles over standards—DOS versus Apple, VHS versus Beta. Again, marginal advantages can ultimately lead to the triumph of one alternative and the disappearance of the other. The wide set of new choices tends to reinforce a winner-take-all logic. What Frank and Cook call ‘mental-shelf-space limitations’ means that as the number of alternatives grow, consumer are capable of remembering a smaller proportion. If a product or individual is able to reach a threshold of acceptance and recognition, they receive high rewards; if it or he can’t, they fail.

Winner-take-all markets create a number of problems for the economy. First, the high rewards received by winners combined with human foibles (alas, we tend to see ourselves as more talented and luckier than we are and tend to overestimate our chances of winning) encourage overcrowding in winner-take-all markets. Here the case of actors and dancers is compelling. Major arts centers are filled with young actors and actresses waiting for a big break while holding down a ‘day job,’ even though chances are that most of them will never receive that break. At some point, most actors and dancers realize that the big break isn’t coming and make an alternative occupational decision.

The other adverse effect of winner-take-all markets derives from the increasing resources absorbed by positional goods. If the price of an elite college education explodes while the number of persons who can receive one inches up, we have devoted a much higher proportion of our resources to an activity that does not improve our aggregate happiness as a society. The explosion in the price of paintings and other media is a case in point. As the price of each prestigious painting has increased, the number of individuals and institutions that can bid for them has decreased. As a result, a larger share of our civilization’s most highly regarded art is finding its way into private collections instead of public museums.

In fact, recent tendencies in the art world have tended to heighten the impact of winner-take-all logic. Since the 1990s, public subsidies for the arts have declined, increasing the role of market forces in determining winners and losers. The associated decline in subsidies for cultural organizations means that the number of settings in which artists with less than world-class talent (or undiscovered world-class talent) can find work has also declined.

⁴ Frank and Cook, *Winner-Take-All*, 33.

Winner-Take-All Markets and the Arts World

As we have seen, winner-take-all markets are characterized by an extreme disproportionality in economic rewards. Furthermore, the logic of these markets tends to reinforce itself through overcrowding and the bidding up of positional assets. Taken together, Frank and Cook argue, the pressure of winner-take-all markets and their side effects have been a powerful cause of the increased income inequality of American society over the past several decades.

We need to separate two distinct inequality effects. First, winner-take-all markets have become more common, so their effects have become more *general*. Second, within winner-take-all markets, their effects have become more *intense*. Generalization and intensification of inequality are both predicted by the winner-take-all hypothesis.

The implications for artists are a bit more complicated. As we have noted, winner-take-all markets are not new. The arts world, indeed, is one sector that is an 'old' winner-take-all market. Frank and Cook's argument is that what is new is that they have become a more general feature of the economic landscape.

What might we expect to find, then, with respect to inequality among artists? First, because artists are an old winner-take-all market, we would hypothesize that throughout the later twentieth century artists' income would be more unequally distributed than that of comparable professions. Then, as the winner-take-all logic becomes more general, the rest of the labor market would 'catch up' with the inequality of artists. Finally, as a winner-take-all logic became more intense, we would expect inequality to grow in absolute terms among artists. In short, we can formulate three hypotheses about artists and inequality based on the winner-take-all logic:

- Artists would generally have higher rates of inequality than comparable professions.
- In *absolute terms*, over time artists' inequality would increase.
- In *relative terms*, over time artists' higher inequality would decline as winner-take-all markets became more generalized.

The remainder of this paper will test whether these three hypotheses are confirmed by census data on artists' income for American metropolitan areas between 1980 and 2000.

Demographic Overview, 1980 - 2000

Data and Methods

The strengths and weaknesses of using the census to study artists are well known. Because artists are a population that is difficult to track down, the analysis of a very large random sample of the population provides a unique statistical portrait of individuals who identify themselves occupationally as an artist. Yet, from what we know of artists' work patterns, the way the census handles occupation creates difficulty. First, census occupations are self-reported, individuals who identify themselves as artists might not be recognized as such by others. Second, to be so identified, an individual must have earned income through work as an artist during the 'reference' week. The lack of opportunity to identify multiple occupations disadvantages those artists who have a 'day job' to support themselves.

The barriers introduced by these general features of the census were aggravated by the adoption of entirely new systems of occupational classification for the 2000 enumeration. Some categories of cultural workers remained similar in the new system; for example, 'writers and authors' became 'authors,' and musicians and composers did not change. Others changed more profoundly.

We have generally followed Markusen in restricting our attention to six large categories of artists: authors and writers; musicians and composers; actors, directors, and producers; artists (generally visual artists); photographers; and dancers and choreographers.⁵ A summary of our classification system is presented in Figure 1 below.

Category	1980, 1990 Codes	2000 Codes
Author, writer	183—authors	285—writers and authors
Musician, composer	186—musicians, composers	275—musicians, composers
Actor, director, producer	187—actors, directors	270—actors 271—producers, directors
Artist, visual artist	188—painters, sculptors, craft-artists, artist printmakers 194—artists, performers, related workers NEC	260—artists and related workers
Photographer	189—photographers	291—photographers 292—TV/video, motion picture camera operators (partial)
Dancer	193—dancers	274—dancers and choreographers

Figure 1. SIAP artist classification system compared with 1980, 1990, and 2000 census codes

⁵ Ann Markusen, "The Artistic Dividend Revisited" (Minneapolis: Hubert Institute of Public Affairs, 2004).

The analysis is based on the five percent public-use micro-data samples (PUMS) prepared by the census bureau and refined by the University of Minnesota. The bulk of the analysis combines all of the artists' categories and compares them to other professional and technical workers and with all other occupations.

Six metropolitan areas are included in the analysis. The two major centers of the arts and culture—New York and Los Angeles—are supplemented with data on Atlanta, Chicago, Philadelphia, and San Francisco. Metropolitan area boundaries are based on the census definition.

The primary measure of inequality used in the analysis is the Gini coefficient. The Gini coefficient is based on the Lorenz curve of income distribution. If the income distribution of a population is perfectly equal, the Lorenz curve would be a straight line. As the income distribution becomes more unequal, the curve moves away from the line of equality. The Gini coefficient essentially measures the actual area between the line of equality and the Lorenz curve as a proportion of its possible maximum. The Gini coefficient can vary from zero (perfect equality) to one (perfect inequality).

The most straightforward interpretation of the Gini coefficient is that it represents the proportion of total income that would need to be redistributed if perfect equality were to be achieved. If an individual had all of the income for an entire society, the Gini coefficient would approach one. If income were already perfectly distributed, then none would have to be redistributed. A Gini coefficient of .5 suggests that half of the aggregate income would have to be given to other groups to achieve perfect equality.

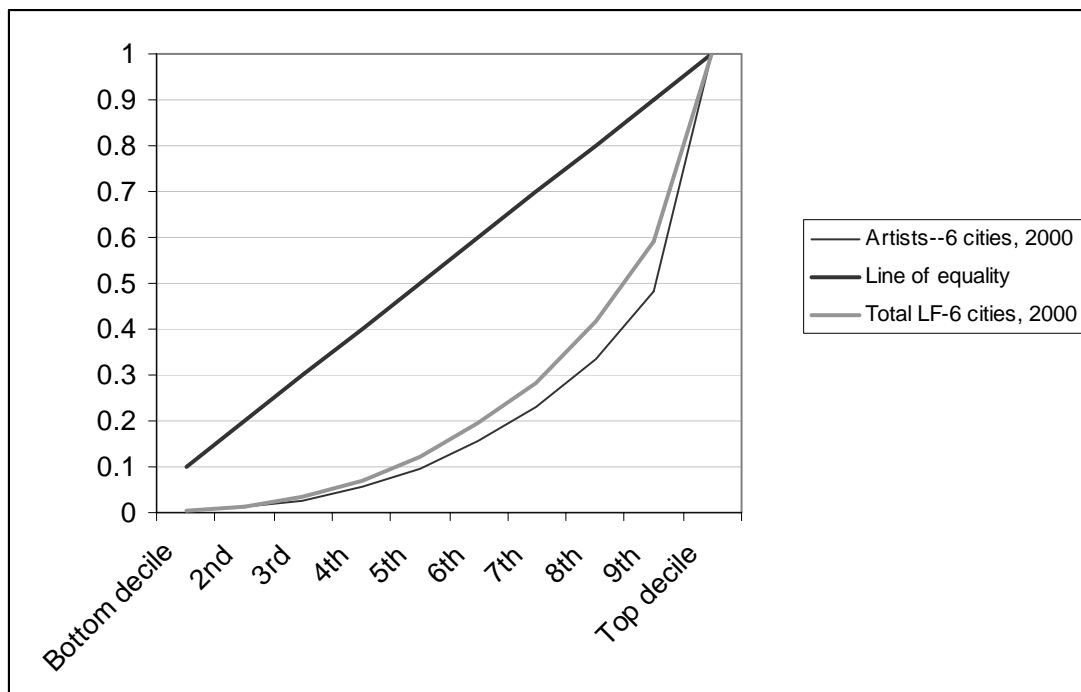


Figure 2. Income distribution of artists compared to that of the total labor force and the line of equality, six U.S. cities, 2000

In Figure 2, the income distribution of artists is compared with that of all workers in the six cities and to the (hypothetical) line of equality. The further the curve bows out, the greater the inequality and the higher the Gini coefficient. In this example, the Gini coefficient for artists is .51 and that for the total labor force population is .49.

Demographics of the Population

Artists, as defined by the census, in 1980 composed just over one percent of the labor force in the six metropolitan areas under study. By 2000 this proportion had risen to 1.2 percent. Los Angeles and New York, as expected, had the highest proportion of artists—1.7 percent and 1.4 percent of the labor force, respectively. In Philadelphia, Chicago, and Atlanta, artists made up between .6 and .7 percent of the labor force.

Across the six cities, actors and directors were the most common category, composing 30 percent of all artists in 2000, while dancers were the least common, representing only 2.3 percent. Los Angeles had the most actors and directors; they composed 40 percent of all artists in 2000. San Francisco led the six cities in the proportion of authors (23 percent) and visual artists (29 percent), and Philadelphia had the highest proportion of photographers (16.5) and dancers (3.5 percent).

Artists are classified as a profession by the census. However, in one critical respect, the artist differs from our usual definition of professional: there is no educational qualification for becoming an artist. Whereas most professions have a specific level of education associated with finding work, artists can learn their craft in a variety of settings or, as in the case of the self-taught artist, in no setting at all.

If we look at other professional and technical occupations as defined by the census, the role of educational qualifications is clear. In the three years examined, between 85 and 91 percent of other professionals had at least some college experience, compared with only about a third of all workers in 1980 and half of all workers in 2000.

Over time artists' educational attainment has converged with that of other professions. In 1980, only 72 percent of artists had some college experience, compared to 84 percent of other professionals. By 2000 this gap had been reduced from 12 percent to only four percent (87 percent of artists to 91 percent of professionals).

Different artistic fields showed considerable variation in educational attainment. Between 1980 and 2000, the proportion of authors and writers with a college degree increased from 71 to 83 percent. In both years, more than half of actors had a college degree. At the other extreme, in 1980 only a quarter of dancers had a college degree, and by 2000 this proportion had fallen to 22 percent.

Although more educationally diverse than other professionals, artists as a whole were less diverse with respect to ethnicity and gender. In 1980, 86 percent of artists were non-Hispanic white compared to only 79 percent of other professionals. By 2000, 78 percent of artists were white, while the proportion of other professionals had fallen to 66 percent. Certain fields were even less diverse. In 2000 African Americans constituted less than 10 percent of authors, actors and directors; visual artists; and photographers. Latin Americans were most common among dancers (16 percent) and were less than 4 percent of authors. However, in contrast to African Americans, in 2000 the proportion of

photographers and artists who were Latin American exceeded their proportion of the entire labor force. Along similar lines, the proportion of all professionals who were female rose from 46 percent in 1980 to 54 percent in 2000, but the proportion of artists who were female increased only from 37 to 42 percent. Among individual fields, musicians were the least likely to be women (30 percent in 2000) and dancers were the most likely (72 percent).

The artist population of the six metropolitan areas aged during the 1980s and 1990s. In 1980, 36 percent were under the age of 30. By 2000 this proportion had declined to only 23 percent. Over the same years, the proportion of artists between 40 and 59 years of age rose from 26 percent to 37 percent. Dancers were by far the youngest field; in 2000, 60 percent were under 30. Authors and writers were the oldest field; in 2000 only 17 percent were under the age of 30.

The relative position of artists' incomes varied from city to city. Its most dramatic change occurred in New York and Los Angeles. In L.A., the median personal income of artists in 1980 was only 64 percent that of other professionals; by 2000 this percentage had risen to 87 percent. Beginning at roughly the same standard, New York artists saw their median income rise to 80 percent that of other professionals. San Francisco, where artists earned only 49 percent the income of professionals in 1980, saw its ratio rise to 74 percent by 2000. Thus, by 2000 the median annual income of artists in those three cities was between 26 and 27 thousand dollars (\$26,000 - \$27,000); while the figures for Atlanta, Chicago, and Philadelphia were all below 22,600 dollars (\$22,600) a year.

Personal Income of Artists

Artists closed the gap between their incomes and those of other professionals between 1980 and 2000. In 1980, artists earned on average 26 thousand dollars (\$26,000), compared to 33 thousand dollars (\$33,000) among other professionals. By 2000, the average income of artists had increased to 40 thousand dollar (\$40,000), just three-thousand dollars less than other professionals.

Changes in average income, however, are a bit misleading. Because of the increasing inequality of income—the topic to which we will soon turn—between 1980 and 2000 average incomes increased more rapidly than median incomes. Although, the gap between the average income of artists and other professionals closed during these years, the gap in median income closed more slowly. Indeed, artists' median income increased more rapidly than that of other professionals, but by 2000 the median income of artists (\$25,944) was still considerably lower than that of other professionals (\$32,110).

Overall, the median personal income of artists in the six metropolitan areas increased between 1980 and 2000 by about 48 percent when inflation is taken into consideration. This increase, however, varied considerably from city to city. Los Angeles and New York maintained their positions as the two cities with the highest average incomes, although New York which was 500 dollars behind L.A. in median income in 1980 was two hundred dollars ahead of L.A. by 2000. Incomes went up most quickly in San Francisco, which had the lowest median income in 1980 and the third highest in 2000; overall personal incomes rose during the two decades by 86 percent. The incomes of Chicago and Philadelphia artists rose the most slowly; 2000 incomes were only 28 percent higher

than they had been twenty years earlier. As a result, in 2000 Philadelphia artists overall had the lowest average income—over three thousand dollars (\$3,000) less than that of the second lowest city—among the six cities.

Income varied, as well, among artists' occupations. Actors and directors consistently had higher median and mean incomes than did artists in other fields. Over the three census years, their incomes averaged 30 percent higher than those of all artists. Authors did nearly as well, earning incomes about 20 to 25 percent above the average. Dancers generally earned only half as much as other artists. If we control for the role of age, educational attainment, and number of weeks worked, the results change considerably. Actors and authors remain at the top of the pile, although the gap between them increases a bit. By contrast, the gap between musicians, visual artists, and dancers largely disappears. Controlling for other factors, all three had average incomes between 25,800 and 27,600 dollars in 2000.

Income and Education

Education has become an increasingly important determinant of income over the past several decades. By one estimate, an additional year of education increased one's annual income by three thousand dollars in 1980 and by nearly six thousand dollars in 2000. Although winner-take-all markets have contributed to this increase, a variety of factors, including the declining importance of gender and race and rising educational qualifications for particular jobs, have also played a role.

Artists have followed this trend. In 1980 an artist with a college degree earned about 29 thousand dollars (\$29,000) while one with a high school degree earned about four-thousand dollars less (\$25,000). By 2000 the income of college-educated artists had increased to 40 thousand dollars (\$40,000) while that of high-school educated artists had only increased to 29 thousand dollars (\$29,000), an 11 thousand dollar (\$11,000) gap. In 1980 an additional year of education translated to an increase of 1,321 dollars in annual income; by 2000 it was worth \$4,369.

Educational qualifications appear to have played a more central role in artists' income in 2000 than they did two decades earlier. Among individual artist occupations, in 1980 only actors received a return of more than two-thousand dollars per year. By 2000 actors had a return of 4,600 dollars per year of additional education while all occupations except authors and dancers earned at least 3,400 dollars per additional year.

Education's importance to income increased more rapidly among artists than among a set of professional occupations with roughly the same annual incomes. In 1980 pharmacists, elementary school teachers, psychologists, and social workers all enjoyed bigger payoffs from additional education than did artists. Only registered nurses—for whom an additional year of education led to 928 dollars in annual income—did worse than artists. By 2000 artists' return on education (\$4,369 per additional year) outstripped all the other occupations.

The increasing importance of education in the work lives of artists can be interpreted in several ways. On the one hand, it suggests that during the last decades of the twentieth century the arts occupations became more professionalized; the skills that artists learned through education improved their productivity and ultimately their incomes. A more jaundiced perspective, on the other hand, would view the increased educational attainment of artists and the higher returns of education as credentialing inflation—a rise in the costs of becoming an artist that did not translate into increasing value.

Trends in Equality, 1980 - 2000

During the last two decades of the twentieth century, the economic conditions within which artists sought to earn a living changed markedly. As the educational attainment of artists increased, education became more tied to income. Combined with increases in their average age and steadiness of employment, artists' average annual income moved closer to that of other professionals.

Yet, many of the same features that increased the average earnings of artists could contribute as well to increases in inequality. Because artists continued to have less regular employment and more varied educational background than other professionals, the potential for income inequality increased over time. In addition, the increased return on education meant that the gap between poorly and well-educated artists widened over time.

As noted earlier, we have asked three questions about inequality. Did artists begin the period with higher than average income inequality? Did artists' inequality increase in absolute terms between 1980 and 2000? Did artists' inequality decrease in relative terms over the two decades? Our answer to all three questions is 'yes.' In this sense, the trajectory of artists during the last decades of the twentieth century fits well with the winner-take-all hypothesis.

Artists' Inequality in 1980

One measure of income inequality is the distribution of individuals across income deciles (tenths). If a group is over- or under-represented at the top or bottom of the income distribution, it tells us something about the level of income inequality. The measure we use here is an index of representativeness: a score of 100 indicates that a particular group's presence in that income decile is equal to the population's percentage. If their index is over 100, they are over-represented; if below 100, they are under-represented.

In 1980 artists were over-represented at both the top and bottom of the income distribution. They were slightly under-represented in the poorest decile but had scores of 118, 123, and 114 in the next three deciles. Their most severe under-representation was in the 70th to 89th percentiles (scores of 83 and 80 for the 8th and 9th deciles), but their score for the top decile (126) indicates that there were roughly a quarter more artists in the wealthiest tenth than across the entire population. As a point of comparison, other professionals were over-represented in the top three deciles and had scores under 70 for the bottom five deciles.

Thus, in 1980 artists' occupations had significantly higher income inequality than other professional occupations. For other professions, the Gini coefficient in 1980 was .373, while among artists the coefficient was .478. In other words, to achieve perfect equality, nearly half (48 percent) of the aggregate income of artists would need to have been redistributed compared to only 37 percent of the income of other professionals.

Although the difference is substantial, it really underestimates the level of income inequality among artists. If we calculate a coefficient for a *group* of occupations, much inequality is attributable to the difference *between* occupations, not to differences *among* members of the same occupation. Because our "other professional" group includes both

physicians and elementary school teachers, much of the Gini coefficient for “other professionals” is attributable to differences between occupations.

The occupational categories adopted for the 2000 census make a systematic comparison of occupations over time more complicated. Here, we adopt two strategies. First, we look at the artists’ occupations compared to all professional occupations in each year, recognizing that the titles for other professionals changed markedly between 1990 and 2000. Then we use a small group of more consistent professional titles to look at change over time.

In 1980 only one occupational title—athletes—had a Gini coefficient higher than that of artists’ professions. Athletes—the quintessential winner-take-all occupation—would have had to redistribute sixty percent of their aggregate income to achieve total equality. Their Gini coefficient of .591 was 59 percent higher than that for all professionals taken as a group.

After athletes, however, artists’ occupations occupied six of the next seven positions. Musicians’ income, with a Gini coefficient of .51, was the most unequally distributed. Yet, even the most ‘equal’ artists’ occupation—painters, sculptors, craft-artists, and artist print-makers—had a Gini coefficient that was 15 percent higher than that of professionals as a whole.

A comparison of artists with a set of occupations having roughly the same average income tells a similar story. This analysis, therefore, ignores health care providers, lawyers, and engineers—who were among the best paid professionals—in favor of teachers, psychologists, social workers, nurses, and pharmacists. Based on these comparable-income occupations, the gap between other professionals and artists grew significantly. Although the average for all other professionals was .37, none of these specific occupations had Gini coefficients this high. Psychologists had the most unequal income distribution, with a Gini coefficient of .335 in 1980, while registered nurses had the least unequal income distribution of .286. By comparison, among the arts occupations, Gini coefficients ranged from .43 among photographers to .51 among musicians. None of the artists’ occupations had a Gini coefficient as low as that of the highest other professional occupation.

Although Los Angeles and New York had the highest artists’ incomes, they did not share the same inequality profile. In 1980 Los Angeles artists had the highest Gini coefficient of .49. By contrast, New York’s Gini coefficient of .46, while the third highest, was within one percent of Philadelphia’s and Atlanta’s. Only Chicago, with a coefficient of .45, was a full percentage point lower than New York’s.

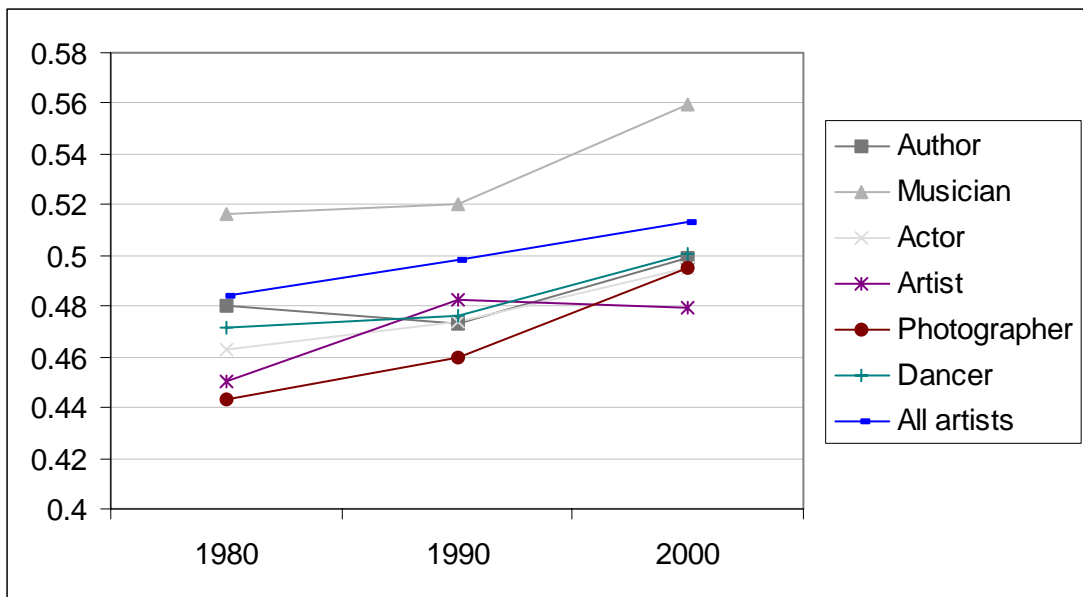
The answer to our first question, then, is a resounding ‘yes.’ As one of the ‘original’ winner-take-all labor markets, artists did indeed have higher income inequality than other occupations even before the generalization of the winner-take-all logic. By 1980 artists already experienced a labor market with unusually high inequality.

Increase in Absolute Inequality

Artists had higher than average income inequality in 1980, and their level of inequality increased between 1980 and 2000. This increase was driven by the proliferation of well-paid artists during the two decades. In 1980 artists were over-represented in the top income decile but under-represented in the next wealthiest five deciles. By 2000, artists were over-represented by 59 percent in the top decile and slightly over-represented in the next two deciles.

Artists' Gini coefficient increased from .478 in 1980 to .501 in 2000, an increase of six percent. In 1980 artists in the top ten percent of the income distribution accounted for 46 percent of the aggregate income of all artists. By 2000, this same group accounted for 55 percent of total income. At the other extreme, artists in the bottom half of the income distribution accounted for 13 percent of all artists' income in 1980 and only eight percent by 2000. By any measure, during these years the income distribution of artists became noticeably less equal.

Figure 3. Gini coefficient, individual artists' occupations, 1980-2000.⁶



The income distribution of all individual arts occupations became less equal between 1980 and 2000. Musicians remained the occupation with the highest Gini coefficient. It rose from .51 to .55 during the twenty years. Photographers experienced the most rapid increase in inequality. In 1980, their Gini coefficient of .43 was the lowest of any artistic occupation; by 2000, their coefficient had increased to .52, second only to musicians. Other artists' occupations experienced moderate increases in their income inequality.

⁶ Steven Ruggles, Matthew Sobek, Trent Alexander, Catherine A. Fitch, Ronald Goeken, Patricia Kelly Hall, Miriam King, and Chad Ronnander. *Integrated Public Use Microdata Series: Version 3.0* [Machine-readable database]. Minneapolis, MN: Minnesota Population Center [producer and distributor], 2004. <http://www.ipums.org>.

In 1980, photographers earned an average of 26 thousand dollars. Among those in the top decile of the income distribution, however, the average income was just over 70 thousand dollars. In aggregate, this top 10 percent accounted for 39 percent of all photographers' income. While an average photographer's income increased from 26 to 33 thousand dollars (\$26,000 to \$33,000) between 1980 and 2000, the income of the top ten percent rose from an average of 70 thousand to 118 thousand dollars (\$70,000 to \$118,000). The top group's share of aggregate photographers' income had risen as well from 39 percent to 47 percent.

Los Angeles remained the least equal city for artists in 2000. Its Gini coefficient increased from .49 to .54 over the twenty years. Chicago, which had had the lowest Gini coefficient of the six cities in 1980, saw its coefficient shoot up from .45 to .51 during these two decades.

To summarize, income inequality increased in absolute terms among artists between 1980 and 2000. Although artists began the period with high inequality, it continued to rise over the two decades. In this respect, the trajectory of artists' income followed that of the rest of the American economy during these years.

Relative Change in Inequality

The occupational incomes of artists became increasingly unequal during the last two decades of the century. Yet, as an 'old' winner-take-all market, it is not surprising that artists began as an unequal field and became more unequal as time passed. The question is: did other fields "catch up" to artists' inequality or, at least, did they close the gap over time?

The answer to this question is not as clear. Between 1980 and 2000, income inequality among other professionals taken as a whole increased more rapidly than among artists. While the Gini coefficient increased by nearly six percent among artists, it increased by 13 percent among other professionals. In 1980, 48 percent of artists' income and 37 percent of other professionals' would have had to be redistributed to create complete equality; by 2000 the artists' figure had increased to 51 percent and the figure for other professionals to 42 percent.

Yet, it appears that much of this increased inequality was a product of increasing differences among professional occupations. Between 1980 and 2000, higher income professions saw average incomes increase faster than the average for all professionals. Between 1980 and 2000, all professionals' personal income increased by 31 percent. The income of many of the highest-paid professions increased more quickly—including physicians (52 percent), dentists (47 percent), lawyers and judges (69 percent), and veterinarians (47 percent). At the other end of the spectrum, many of the lower-paid professions increased at a slower rate—including social workers (16 percent), surveyors (13 percent), and teachers (22 percent).

As a result, the increase in inequality among professionals in aggregate is not as evident as within individual professions. Lower-paid professionals, for the most part, saw a decline in their inequality. For example, the Gini coefficient for pharmacists and social workers fell from .31 to .30. Except for psychologists—whose Gini coefficient rose from

.34 to .38—the general pattern was little or no change in inequality among these lower paid professions. Inequality did appear to increase within some more highly-paid occupations. The Gini coefficient for physicians, for example, shot up from .22 to .29 over the two decades, and accountants saw an increase from .33 to .38 over the same period. Lawyers, by contrast, saw their Gini coefficient hold steady at .29.

As we have noted, artists’ occupations were extraordinary in the level of intra-occupational inequality displayed. Psychologists and accountants were the only two occupational incomes that between 1980 and 2000 appreciably approached artists’ inequality. Still, the highest non-artist Gini coefficient in 2000—accountants at .38—was far below that of the least unequal arts occupation—visual artists at .47. However, when combined with trends in the different professions, the inequality gap between artists and other professionals did close somewhat during these years.

	<i>ENTIRE POPULATION</i>			
	Census year	Artists	Other professionals	All workers
<u>Metropolitan area</u>				
Atlanta, GA	1980	0.454	0.394	0.437
	1990	0.463	0.390	0.451
	2000	0.458	0.410	0.469
Chicago-Gary-Lake, IL	1980	0.449	0.364	0.419
	1990	0.465	0.395	0.453
	2000	0.505	0.420	0.474
Los Angeles-Long Beach, CA	1980	0.489	0.371	0.441
	1990	0.509	0.393	0.470
	2000	0.519	0.438	0.508
New York-Northeastern NJ	1980	0.462	0.368	0.426
	1990	0.463	0.380	0.449
	2000	0.476	0.422	0.490
Philadelphia, PA/NJ	1980	0.455	0.380	0.429
	1990	0.479	0.390	0.447
	2000	0.482	0.412	0.466
San Francisco-Oakland-Vallejo, CA	1980	0.478	0.379	0.429
	1990	0.465	0.377	0.443
	2000	0.474	0.401	0.477
Total	1980	0.477	0.373	0.430
	1990	0.490	0.389	0.455
	2000	0.502	0.422	0.488

Figure 4. Gini coefficients by occupation, six metropolitan areas, 1980 - 2000

In summary, the case of income inequality among artists does fit the winner-take-all model. Artists’ high level of inequality in 1980 suggests that the arts were ‘early’ winner-take-all professions. The intensification of winner-take-all logic means that their

inequality increased over time. Finally, the generalization of this logic means that the gap between artists and other professions closed a bit over time, although not as uniformly as we might expect.

Artists have a reputation for being unique. Yet, this reputation is usually not extended to the sphere of inequality. The evidence presented here, however, suggests that artists are indeed unique in this regard. No other category of professionals remotely rivals artists for income inequality.

What are the implications of the high and increasing level of inequality for individual artists and for the arts in general? Before we turn to this question, we will examine a related empirical issue—the character of inequality by race and gender.

Race, Gender, and Inequality

In our recent book, Michael Katz and I have pointed out that the nature of gender and race-based inequality changed fundamentally during the last third of the twentieth century.⁷ We characterize this change as *the paradox of inequality*—the combination of rapid individual mobility with the preservation of durable structures of group inequality. The core of this process was the increased *differentiation* of income among women and racial minorities. Earlier in the century, when discrimination was more overt and legal, inequality among women and African Americans kept *all* of their incomes low. The primary mechanism of preserving inequality during these earlier decades was *exclusion*. Women and African Americans were prevented, for the most part, from taking up occupations that allowed them to earn higher incomes. Restrictions of admissions to professional schools and overt restrictions on hiring kept women and black Americans from achieving higher incomes.

The 1960s brought a new regime. Civil rights legislation, law suits, and the mobilization of women and black Americans were effective in ending the general exclusion of these groups from more remunerative work. Yet, two processes of sorting continued to influence the rewards reaped by different groups.

First, under-represented groups continued to experience unequal treatment in the preparation for high-paying jobs. For African Americans, the cumulative effects of poverty, poor neighborhoods, weak social networks, and declining schools assured that the new equality they faced in college admissions and the job market would fail to reduce underlying inequality. For women, it was the steering of girls away from certain occupations combined with cultural patterns around marriage, family, and ambitions to preserve economic inequality.

Second, the opening up of new opportunities for women and black Americans occurred during the years in which overall inequality increased substantially for reasons that had little to do with gender or skin color. As a result, the ‘room’ available at the top of the income pyramid became tighter, which limited the number of women and blacks who could enter this stratum and assured that they would face sharpened conflict with white men for the few spots that were available.

⁷ Michael B. Katz and Mark J. Stern, *One Nation Divisible: What America Was and What It Is Becoming* (New York, Russell Sage Foundation Press, 2006, forthcoming).

As a result, during the final third of the twentieth century, women and African Americans as groups became more differentiated. Their increased presence in the higher reaches of the American economic order was accompanied by the persistence of gaps between their overall economic well-being and that of white men.

There is reason to expect these processes to be present among artists but in a heightened form. Because artists' occupations are more unequal than the labor force generally, the opening up of new opportunities for black and female artists is likely to be more restrictive in their economic rewards. Thus, although we might expect a few black and women artists to do well, most are likely to experience substantially lower in economic standing. In other words, the opening up of new opportunities for black and women artists is likely to fuel an increase in economic inequality within these groups.

Between 1980 and 2000, the gap between black and white artists grew noticeably. In 1980 the median income of black artists—15,076 dollars was only 85 percent that of white artists. Over the next two decades, it declined to 81 percent. Latin American artists did even less well. Their median income in 1980 was 83 percent that of whites—roughly the same as black artists—but by 2000 fell to only 64 percent. Average incomes tell the same story. In 1980 black and Latin American artists earned 79 and 76 percent, respectively, as much as white artists; by 2000, these figures had fallen to 76 and 60 percent. However, when we controlled for age, weeks worked, gender, and educational attainment, black artists appeared to be doing significantly better in 2000 than they had two decades earlier. In 1980 black artists earned on average nearly 1,200 dollars less than white artists; by 2000 black artists were earning nearly one-thousand dollars more whites.

Differences between male and female artists remained large and significant throughout the period under study. In 1980 and 2000, male artists earned roughly seven-thousand dollars more than female artists. Even when we controlled for other variables, the gender gap among artists persisted. In 1980—controlling for age, weeks worked, race, and educational attainment—women artists earned about two thousand dollars less per year than male artists. Twenty years later, they earned 2,200 dollars.

Controlling for other variables, whites continued to earn higher salaries than blacks as actors and directors, photographers, and dancers. Indeed, the gap between blacks and whites grew substantially in the last two occupations. Black authors and visual artists, on the other hand, earned substantially more than their white counterparts. Women closed the gender gap in only one occupation; women dancers in 2000 earned over two-thousand dollars more per year than male dancers. Even this result is less notable than it seems because nearly a third of women dancers worked in casinos, restaurants, and bars (as against one-in-six males). Controlling for other relevant variables, women's gender gap was 18-thousand dollars for authors, five-thousand dollars for musicians, and seven-thousand for visual artists.

Generally speaking, due to the legacy of exclusion, overall income inequality has been less pronounced among blacks and women than in the general population. Within professional and technical occupations, for example, the Gini coefficients of blacks and women in 1980—.35 and .36, respectively—were lower than the general rate of .37. Between 1980 and 2000, these increased moderately, rising to .36 for African Americans and .39 for women. Inequality among black and women artists, however, was

consistently higher than for the general population. In 1980 the black and female coefficients were .49 compared to .48 for the general population. By 2000 the female rate of .51 was virtually equal to the population figure, while the black rate was .52. In short, whereas income inequality among blacks and women generally was somewhat lower than that of the general population, among artists it was somewhat higher than the already high general population figure.

The history of income inequality among black and female artists illustrates how the paradox of inequality has played out in a particular setting. In major American cities, like those included in this study, the consciousness of historical exclusion combined with ethnic realities to encourage cultural organizations to assure representation by women and ethnic minorities in exhibits, performances, and companies. Yet, in opening doors that had historically been closed, the gatekeepers of the cultural sector did not leave the doors *too* open. Those few African American and women artists who were able to squeeze through benefited considerably, but the bulk continued to struggle. Thus, while new realities expanded opportunity for African American and women artists, new inequalities continued to widen the distance between the most and the least successful.

Figure 5. Gini coefficients by occupation, women and African Americans, six metropolitan areas, 1980 - 2000

Metropolitan area	Census year	ENTIRE POPULATION			WOMEN			AFRICAN AMERICANS		
		Artists	Other professionals	All workers	Artists	Other professionals	All workers	Artists	Other professionals	All workers
Atlanta, GA	1980	0.454	0.394	0.437	0.474	0.345	0.401	0.512	0.352	0.404
	1990	0.463	0.390	0.451	0.471	0.343	0.409	0.373	0.328	0.403
	2000	0.458	0.410	0.469	0.470	0.374	0.435	0.487	0.348	0.411
Chicago-Gary-Lake, IL	1980	0.449	0.364	0.419	0.469	0.348	0.402	0.493	0.333	0.384
	1990	0.465	0.395	0.453	0.469	0.362	0.423	0.506	0.339	0.412
	2000	0.505	0.420	0.474	0.498	0.394	0.448	0.524	0.364	0.433
Los Angeles-Long Beach, CA	1980	0.489	0.371	0.441	0.488	0.370	0.415	0.500	0.364	0.405
	1990	0.509	0.393	0.470	0.527	0.376	0.438	0.525	0.357	0.406
	2000	0.519	0.438	0.508	0.533	0.415	0.480	0.557	0.404	0.443
New York-Northeastern NJ	1980	0.462	0.368	0.426	0.478	0.356	0.403	0.460	0.332	0.373
	1990	0.463	0.380	0.449	0.468	0.364	0.424	0.457	0.327	0.387
	2000	0.476	0.422	0.490	0.481	0.397	0.467	0.458	0.353	0.419
Philadelphia, PA/NJ	1980	0.455	0.380	0.429	0.491	0.368	0.407	0.467	0.346	0.390
	1990	0.479	0.390	0.447	0.492	0.363	0.419	0.454	0.344	0.405
	2000	0.482	0.412	0.466	0.450	0.382	0.437	0.339	0.350	0.416
San Francisco-Oakland-Vallejo, CA	1980	0.478	0.379	0.429	0.478	0.371	0.408	0.476	0.374	0.397
	1990	0.465	0.377	0.443	0.480	0.358	0.418	0.367	0.365	0.414
	2000	0.474	0.401	0.477	0.474	0.390	0.459	0.449	0.361	0.439
Total	1980	0.477	0.373	0.430	0.487	0.363	0.408	0.487	0.347	0.389
	1990	0.490	0.389	0.455	0.498	0.368	0.427	0.491	0.342	0.403
	2000	0.502	0.422	0.488	0.508	0.399	0.463	0.517	0.363	0.426

The Future of Inequality and the Arts

The arts were one of the original winner-take-all professions. From the popular figures of the nineteenth century stage to present-day rock and movie stars, the organization of commercial culture has always been driven by a few leading lights who received disproportionate compensation for their efforts. In contrast to the ‘new’ winner-take-all markets detailed by Frank and Cook, the story for artists is literally ‘old news.’

Yet, the context within which artists pursue their work is changing. Perhaps most significant is the transformation of the nonprofit cultural sector. Historically, the star system operated most clearly in commercial culture—the motion picture and recording industries, where the mechanical reproduction of performances provided the cash to pay high salaries. With a few exceptions—the cross-over of certain elite performers and visual artists into the ‘middle brow’ market of the mid-twentieth century—artists who worked in the nonprofit sector traded lower salaries for a greater degree of artistic control. Before the 1950s, the limited size of the nonprofit market and the value of live performance—even in elite art forms like the symphony and the opera—prevented a full-blown ‘winner-take-all’ system from developing.

The explosion in institutional support for the arts fomented by major philanthropies and ultimately joined by government changed that. During the early postwar years, large subsidies from foundations and government freed the cultural sector from the limits of its own market appeal.⁸ Although we do not yet have comparable data on income inequality, existing studies suggest that both the number of individuals pursuing careers as artists and their total remuneration expanded during this period.

With the denouement of the cultural wars in the 1990s, we entered a new period in the expansion of winner-take-all markets in the arts. The decline in institutional subsidy has forced a number of changes onto the nonprofit cultural sector. The largest nonprofits found themselves more open to market forces and began to make strategic decisions similar to those made by commercial cultural organizations. As described by a recent Rand study:

The stark distinctions that used to exist between the commercial, nonprofit, and volunteer sectors (and the implicit superiority of the nonprofit sector) are also becoming blurred: organizational “hybrids” straddle both sectors and Americans enjoy their arts experiences in many environments both within and outside the marketplace. Rather than being viewed as separate and distinct, these three sectors are increasingly viewed as different elements of a diversified arts environment. Indeed, the different functions these sectors perform are increasingly considered complementary rather than competitive.⁹

The increased urgency of market forces has caused large nonprofits to act more like large commercial cultural firms and to increase the gap between them and middle and small nonprofits. Looking to the future, Rand sees:

⁸ John Kreidler, “Leverage Lost: The Nonprofit Arts in the Post-Ford Era,” *In Motion Magazine* (February 16, 1996) <http://www.inmotionmagazine.com/lost.html> accessed on 10 October 2005.

⁹ Kevin F. McCarthy, Arthur Brooks, Julia Lowell and Laura Zakaras, *The Performing Arts in a New Era* (Santa Monica, CA: Rand Corporation, 2001), 15.

“... a small number of large nonprofits providing high-quality live performing arts in major metropolitan centers. Like their large commercial-sector counterparts (and for many of the same reasons), these organizations too will seek to maximize their earned revenues from ticket sales and related business income. They will rely on advertising and marketing campaigns promoting celebrity performers and traditional materials designed to attract the broadest share of what appears to be a relatively stable market—those individuals who can pay premium prices to attend the highest-quality live performances.”¹⁰

At the same time, the decline of subsidies has caused the middle-sized nonprofits to face the most uncertain future.

“The biggest challenge we foresee relates to the middle tier of nonprofit arts organizations, particularly those opera companies, symphony orchestras, ballet companies, and theater groups that service small and medium-sized cities across the country. The realities of aging audiences, escalating costs, and static or even declining funding streams will force these organizations into a serious rethinking of their primary mission, the audiences they want to reach, and their organizational structure. Some will choose to pursue increased local funding to keep up professional standards, go for the smash hit and superstar marquee, and aspire to become regional or national brand-name institutions. Others may opt to fill specialized niches based on particular kinds of programming that target specialized markets. Still others will decide to focus on their immediate community, using local talent to keep costs down and targeting programming to encourage participation by local audiences. Finally, some will simply wither away, unable to reconcile conflicts among their various stakeholders.”

Finally, the future will see the proliferation of smaller, participatory cultural organizations. “These organizations will combine professional artists who cater to specialized markets and a large number of volunteers. [T]hese organizations will have little in common with the larger nonprofits in terms of programming, audience demographics, or the professional status of their artists.”¹¹

This new cultural environment—dominated by a few large cultural dynamos and a proliferation of thriving small organizations and sickly middle-sized ones—is likely to accelerate the expansion of winner-take-all markets in the arts. For those few lucky members of a discipline able to crack the elite commercial and nonprofits, rewards are likely to be large and growing. For the remainder of practitioners, however, neither declining middle-sized organizations nor vibrant but unstable smaller, participatory groups are likely to provide a living wage or health benefits or a clear path of advancement.

In short, the changing context in which artists work is likely to increase its winner-take-all logic in the years ahead. Although the Rand study holds out the hope that the nonprofit sector can serve a ‘research and development’ function, as the paths from the lower reaches of the cultural sector to the top narrow, one can imagine that this path will certainly be the road less traveled.

It is time for the cultural sector and those who support it to take a close look at the implications of inequality for the health of the sector and the artists who constitute it. First, there is the question of attracting young artists into the field. There has been broad public debate of the implications of the star system in professional sports for the

¹⁰ McCarthy et al, *The Performing Arts in a New Era*, p. 108.

¹¹ McCarthy et al, *The Performing Arts in a New Era*, p. 109.

educational ambitions of poor youth. As Frank and Cook note, one of the features that sustain winner-take-all markets is that we tend to overestimate the odds that we will be lucky. The tens of thousands young, predominantly minority, males who ignore their school work to sharpen their basketball skills in the unrealistic hope that they will make it to the NBA is a well understood and widely discussed problem. Yet, we continue to romanticize the poor African American who sees art school as her ticket out of poverty even though her odds may be no better than those of the basketball player.

At the same time, the sharpening of economic inequality may discourage talented youths with a more realistic assessment of their future from pursuing arts careers. As inequality sharpens, arts professions are likely to seem more attractive to those who see themselves as stars—*American Idol* or *Fame*—and less attractive to those who seek a job that will pay the bills, sustain a decent life, and provide a measure of health benefits and security. In other words, increased inequality is more likely to attract those who seek the extrinsic rewards of the arts and less likely to attract those motivated by their intrinsic satisfaction.

Whether one is concerned more for the artists themselves or the well-being of the arts, the increased inequality that now characterizes the arts professions should be a topic of concern. Yet, the cultural sector and its advocates have been virtually silent on this issue. Those studies that have found that artists on average earn middle class incomes are likely to be based on a largely illusory ‘middle’ that is simply a statistical melding of a small number of well-paid members.

We live in an era in which runaway inequality is a defining feature of our society. To the extent that the arts play a role in the representation and interpretation of society, the role of increasing inequality within the arts and cultural professions is an issue that can be ignored only at the peril of artists, cultural organizations, and ultimately the society they seek to understand.

Appendix 1.

Artists in the Labor Force, Philadelphia Metropolitan Area, 1980 - 2000

Artists as proportion of labor force in Philadelphia metropolitan area (PA/NJ), 1980 - 2000

<u>Labor Force Category</u>	1980		1990		2000		1980-2000 % Change
	<u>Count</u>	<u>% labor force</u>	<u>Count</u>	<u>% labor force</u>	<u>Count</u>	<u>% labor force</u>	
All artists (total)	11,752	0.5	16,393	0.6	16,907	0.6	44%
Other professional/technical workers	412,155	18.0	567,362	21.6	683,514	25.3	66%
All other workers	<u>1,862,909</u>	<u>81.5</u>	<u>2,040,834</u>	<u>77.8</u>	<u>2,001,585</u>	<u>74.1</u>	7%
Total Labor Force	2,286,816	100%	2,624,589	100%	2,702,006	100%	18%

<u>Artist Category</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>1980-2000</u>
Artist	4,845	5,886	4,392	-9%
Musician, composer	3,044	3,120	3,226	6%
Author	702	1,752	2,978	324%
Actor, director, producer	620	1,437	2,928	372%
Photographer	2,181	3,713	2,789	28%
Dancer	<u>360</u>	<u>485</u>	<u>594</u>	65%
All Artists (total)	11,752	16,393	16,907	44%

Artists as proportion of labor force in city of Philadelphia, 1980- 2000

<u>Labor Force Category</u>	1980		1990		2000		1980-2000 % Change
	<u>Count</u>	<u>% labor force</u>	<u>Count</u>	<u>% labor force</u>	<u>Count</u>	<u>% labor force</u>	
All artists (total)	4,745	0.6	5,641	0.8	4,516	0.7	-5%
Other professional/technical workers	119,859	16.6	150,443	19.8	154,583	21.9	29%
All other workers	<u>599,345</u>	<u>82.8</u>	<u>602,452</u>	<u>79.4</u>	<u>546,151</u>	<u>77.4</u>	-9%
Total Labor Force	723,949	100%	758,536	100%	705,250	100%	-3%

<u>Artist Category</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>1980-2000</u>
Artist	1,740	1,876	944	-46%
Musician, composer	1,423	1,258	1,206	-15%
Author	301	546	816	171%
Actor, director, producer	320	428	511	60%
Photographer	781	1,298	748	-4%
Dancer	<u>180</u>	<u>235</u>	<u>291</u>	62%
All Artists (total)	4,745	5,641	4,516	-5%

Source: U.S. Census 1980, 1990, 2000 (Counts are estimates based on self-reporting of sample of individuals in labor force.)
 Prepared by: University of Pennsylvania Social Impact of the Arts Project (SIAP), July 2005.

Artists in the labor force by category, city of Philadelphia and metropolitan area (PA/NJ), 2000

<u>Category</u>	Metropolitan Philadelphia 2000		City of Philadelphia 2000		<u>City as % Metro</u>
	<u>Count</u>	<u>% All Artists</u>	<u>Count</u>	<u>% All Artists</u>	
Artist	4,392	26%	944	21%	21%
Musician, composer	3,226	19%	1,206	27%	37%
Author	2,978	18%	816	18%	27%
Actor, director, producer	2,928	17%	511	11%	17%
Photographer	2,789	16%	748	17%	27%
Dancer	<u>594</u>	<u>4%</u>	<u>291</u>	<u>6%</u>	49%
All Artists (total)	16,907	100%	4,516	100%	27%
Other professional/technical workers	683,514		154,583		23%
All other workers	<u>2,001,585</u>		<u>546,151</u>		27%
Total Labor Force	2,702,006		705,250		26%

Source: U.S. Census 1980, 1990, 2000 (Counts are estimates based on self-reporting of sample of individuals in labor force.)
 Prepared by: University of Pennsylvania Social Impact of the Arts Project (SIAP), July 2005.