



LOST ART:

**Measuring COVID-19's
devastating impact on
America's creative economy**

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Executive summary

The COVID-19 crisis hits hard at arts, culture, and the creative economy. This study estimates the effects of the COVID-19 crisis on the creative economy, comprised of industries such as film, advertising, and fashion as well as creative occupations like musicians, artists, performers, and designers. We estimate losses in sales of goods and services, employment, and earnings for creative industries and creative occupations at the national, state, and metropolitan levels over the period of April 1 through July 31, 2020.

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- Based on our creative-industry analysis, we estimate losses of 2.7 million jobs and more than \$150 billion in sales of goods and services for creative industries nationwide, representing nearly a third of all jobs in those industries and 9% of annual sales. The fine and performing arts industries will be hit hardest, suffering estimated losses of almost 1.4 million jobs and \$42.5 billion in sales. These estimated losses represent 50% of all jobs in those industries and more than a quarter of all lost sales nationwide.
 - Based on our analysis of creative occupations, we estimate losses of more than 2.3 million jobs and \$74 billion in average monthly earnings for the creative occupations. These losses represent 30% of all creative occupations and 15% of total average monthly wages. Again, creative occupations in the fine and performing arts—which include the visual arts, music, theater, and dance—will be disproportionately affected, representing roughly a third of wage employment losses.

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- While all regions, states, and metropolitan areas of the country will be seriously impacted, the effects of the COVID-19 crisis will hit some places harder than others. The South is estimated to suffer the most losses in employment for both the creative industries and creative occupations, followed by the West and the Northeast, respectively. The West and the Northeast will be hit hardest in terms of estimated losses of sales revenues for the creative industries.
 - Of the 50 states, California will be hit hardest in terms of absolute losses for creative industries and occupations, followed by New York and Texas. But these are all large states; when we look at the share of losses, the biggest losses occur in smaller states, including Alaska, Nevada, New Mexico, Louisiana, and Hawaii.
 - The 53 metropolitan areas with populations over 1 million are estimated to account for more than three-quarters (80%) of total estimated losses in sales and two-thirds (68%) of all estimated job losses in creative industries across the United States. New York and Los Angeles will suffer the worst absolute losses, but smaller metro areas such as Las Vegas, Nashville, Tenn., New Orleans, Orlando, Fla., Memphis, Tenn., Baltimore, Jacksonville, Fla., Tucson, Ariz., and Austin, Texas will suffer larger losses in percentage terms.
 - The creative economy is one of the sectors most at risk from the COVID-19 crisis. Arts, culture, and creativity are one of three key sectors (along with science and technology as well as business and management) that drive regional economies. Any lasting damage to the creative sector will drastically undercut our culture, well-being, and quality of life.
 - Small, stop-gap measures will not undo the damage; a substantial and sustained national creative-economy recovery strategy is required. This strategy must be bottom-up, but supported across the board and led by local public-private partnerships between municipal governments, arts and cultural organizations, economic development and community groups, philanthropy, and the private sector, with support from federal and state levels of government, national philanthropy, and large corporations.
 - In addition to financial support, technical support is also needed (especially for smaller organizations) on how to conform with health and safety requirements as well as how to adapt their business models in light of a protracted period of restrictions on live performances.
 - With reduced demand for large cultural events as a result of social distancing, there is an opportunity for communities to shift to locally sourced culture. Communities can develop strategies to hire local creatives and create online portals and platforms to allow residents and businesses to hire local artists, musicians, and performers for smaller-scale, local events.

Introduction

The creative economy is comprised of industries and workers in fields such as art, music, film, fashion, and design, which are central to our culture and quality of life. It is also a key factor in talent attraction, and along with science and technology, acts as a key contributor to the knowledge economy.

The creative economy consists of two key components and can be looked at in two ways.¹ The creative industries include firms and establishments that produce goods and services relating to arts and culture. These industries—which span arts, culture, and design—employ 8.8 million workers and generate over \$1.7 trillion in sales annually, which represents 4% of annual sales of goods and services in the United States.

Creative occupations are the second component of the creative economy. These occupations reflect workers who are employed in creative occupations regardless of industry type. Creative occupations employ 7.6 million people nationwide, paying almost \$42 billion in monthly average earnings. These figures represent 4% of total employment and 15% of monthly average earnings nationwide.

The COVID-19 crisis has hit the U.S. economy hard, with an estimated 4.8% reduction in GDP that has resulted in a current-dollar loss of \$191.2 billion in the first quarter of 2020. Over 21 million jobs in March and April were lost, translating to a 14.7% unemployment rate. Although the entertainment, leisure, hospitality, and retail industries suffered the biggest initial losses in employment, the COVID-19 crisis has left no industry untouched. It is the biggest shock to the U.S. economy since the Great Depression.²

This is not the first time a global pandemic has impacted the creative economy. The Spanish flu pandemic of 1918 disrupted the production and consumption of various art forms. From widespread cancellations of public events to the deaths of artists, the effects of the pandemic impacted plays, concerts, operas, and paintings.³ On a far greater scale, the Black Death raged through Europe during the early days of the Renaissance in the 14th century, challenging artists and patrons alike.⁴ Still, arts, culture, and creativity persevered through these and other great crises.

To get at the economic impacts of the COVID-19 crisis on the creative economy, we constructed a model to estimate the initial effects the crisis will have on creative-economy employment and revenues in the United States. This model uses employment and revenue data provided by Emsi, according to industry and occupation definitions by the North American Industry Classification System (NAICS) and the Standard Occupational Classification (SOC) system. Our analysis covers the period of April 1 to July 31, 2020. (The Appendix provides fuller detail on our methodology and data.)

The following section of the report looks at COVID-19's overall impact on creative industries and occupations across the entire United States. We then turn to the impact of the crisis at different levels of geography. First, we look at the crisis' impact on the four broadly defined U.S. census regions (the Northeast, South, Midwest, and West) and examine the effects in each. We then turn to the impact of the crisis on the 50 states. After that, we look at the impact on the 53 largest metropolitan areas. We conclude by summarizing our key findings and discussing their implications for policies that can help mitigate the effects of the crisis on the creative economy and further support those industries going forward.

The impact on creative industries

We begin with the impact of the COVID-19 crisis on the creative industries, which are comprised of firms and establishments that produce goods and services relating to music, film, design, advertising, fashion, art, and more. This definition of creative industries includes all employees within the industries whether they are in creative occupations or not—e.g., receptionists, accountants, graphic designers, and music promoters—and whether they work full time, part time or freelance.

All told, we find that the COVID-19 crisis will result in estimated losses of more than 2.7 million jobs and more than \$150 billion in sales for creative industries between April 1 and July 31 (Table 1). To give some perspective on these losses, a sample month for creative industries in the United States shows them supporting an estimated 8.8 million jobs and \$142 billion in sales. We estimate these industries will sustain a loss of nearly a third (31%) of all employment and 9% of sales from April through July.

Table 2 shows the breakdown across creative industries. Not a single creative-industry cluster is spared. The hardest-hit sector is fine and performing arts, which will suffer estimated losses of almost 1.4 million jobs and \$42.5 billion in sales. These losses represent 50% of all jobs

and 27% of all sales in that sector. This is not surprising, as the cluster primarily includes musicians, dancers, actors, promoters, booking agents, and others for whom live performances are the driving force of their work and income.

The design and advertising cluster is a distant second for employment losses. The estimated 365,334 jobs lost in this sector points to how thoroughly design is integrated across the broader economy, as it is integral to the manufacturing and promotion of products in a number of industries.⁵ Firms in advertising and design are especially reliant on the health of the entire economy.

The motion picture, television, and radio cluster represents only 7% of all jobs lost in the creative industries, but is second in terms of percentage of total losses in sales of goods and services, at 21.1%. The film industry has ground to a halt in both production and exhibition, and will not be back in full swing for several months. But comparatively, employment in this sector is small for the revenue it generates. At the same time, large swaths of the television industry will not feel substantial employment losses immediately, but vanishing advertising revenues are already being felt.⁶

Table 1. Estimated cumulative losses for the creative industries, April to July 2020

Month	Job losses (millions)	Sales losses (billions)
April	1.76	\$27.70
May	2.79	\$71.20
June	2.96	\$118.30
July	2.76	\$157.10

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Table 2. Estimated cumulative losses for the creative industries by cluster, April to July 2020

Cluster	Jobs	% of Total Jobs Lost	Sales (billions)	% of Total Sales Lost
Fine and Performing Arts	1,383,224	50.00%	\$42.50	27.00%
Design and Advertising	365,334	13.20%	\$18.70	11.90%
Publishing	252,820	9.10%	\$16.30	10.40%
Crafts	232,429	8.40%	\$12.00	7.60%
Motion Picture, Television, and Radio	193,550	7.00%	\$33.10	21.10%
Creative Technology	164,108	5.90%	\$22.00	13.90%
Architecture	77,069	2.80%	\$3.40	2.20%
Fashion	69,271	2.50%	\$4.50	2.90%
Culture and Heritage	29,978	1.10%	\$4.60	3.00%

Source: Estimates by authors based on data from Emsi (see appendix for further detail)



The impact on creative occupations

Analyzing creative occupations regardless of what industry they work in can provide a complementary lens into the creative economy. A good example of this is Detroit's automotive industry. An industry definition would classify everyone who works for an automotive company as an automotive worker, but an occupational definition classifies workers as management, designers, engineers, etc. An occupational definition for the creative economy includes all workers who work in arts and culture regardless of the kinds of firms that employ them.

Looking through the lens of creative occupations, we estimate losses of more than 2.3 million jobs and \$74 billion in average monthly earnings between April 1 and July 31 (Table 3). This amounts to 30.3% of all jobs in creative occupations and 15.1% of total average monthly wages. Creative occupations in the fine and performing arts are again disproportionately affected, representing an estimated 34.1% of all employment losses and 35% of all earnings lost.

Table 4 shows the impact of the COVID-19 crisis on the 20 largest individual occupations that make up the creative economy. These 20 occupations account for three-quarters of estimated job losses and 80% of estimated losses in average monthly earnings for all creative occupations between April and July.

Photographers of all types will suffer the largest employment losses due to COVID-19. Social distancing complexities will initially affect portrait photography, while the summer months will presumably see the postponement of larger events such as weddings. Commercial photographers will see job and earnings losses as retail and other industries that need product photography grapple with the effects of COVID-19. Finally, print and online publications will also be shedding jobs, which will impact photographers. All of this activity results in estimated losses for photographers equaling 16.8% of total employment losses and 21.4% of total average monthly earnings losses across all creative occupations.

Of the 20 largest creative occupations, occupations in the fine and performing arts combine for 26.6% of all estimated losses in employment and 28.8% of total estimated losses in average monthly earnings for all creative occupations. Musicians and singers are estimated to be hit hard, followed by writers and authors, actors, and fine artists. Occupations in design and advertising combine for estimated losses of 13.9% of total employment and 11% of total average monthly earnings for all creative occupations.

Table 3. Estimated cumulative losses for creative occupations, April to July 2020

Month	Jobs (millions)	Average Monthly Earnings (billions)
April	1.71	\$16.90
May	2.98	\$39.10
June	2.76	\$59.00
July	2.31	\$74.70

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Table 4. Estimated cumulative losses for the 20 largest creative occupations, April to July 2020

Occupation	Jobs	% of Total Jobs Lost	Average Monthly Earnings (millions)	% of Total Average Monthly Earnings Lost
Photographers	390,416	16.80%	\$16,232	21.40%
Musicians and Singers	253,349	10.90%	\$11,427	15.10%
Writers and Authors	176,416	7.60%	\$5,920	7.80%
Actors	149,422	6.40%	\$4,480	5.90%
Fine Artists, Including Painters, Sculptors, and Illustrators	123,639	5.30%	\$1,707	2.20%
Entertainers, Performers, Sports and Related Workers, All Other	92,003	4.00%	\$4,282	5.60%
Graphic Designers	76,838	3.30%	\$1,740	2.30%
Advertising and Promotions Managers	67,101	2.90%	\$3,411	4.50%
Public Relations Specialists	58,550	2.50%	\$1,686	2.20%
Producers and Directors	52,215	2.20%	\$2,127	2.80%
Editors	46,813	2.00%	\$894	1.20%
Art Directors	41,999	1.80%	\$1,106	1.50%
Merchandise Displayers and Window Trimmers	39,985	1.70%	\$509	0.70%
Advertising Sales Agents	38,532	1.70%	\$986	1.30%
Architects, Except Landscape and Naval	37,553	1.60%	\$945	1.20%
Designers, All Other	26,339	1.10%	\$692	0.90%
Tailors, Dressmakers, and Custom Sewers	25,410	1.10%	\$420	0.60%
Cabinetmakers and Bench Carpenters	25,307	1.10%	\$274	0.40%
Librarians	18,850	0.80%	\$1,675	2.20%
Media and Communication Workers, All Other	15,282	0.70%	\$544	0.70%
Totals	1,756,020	75.40%	\$61,067	80.50%

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Economic impacts on census regions

The creative economy is more concentrated in some parts of the country than others.⁷ Turning to COVID-19's impacts on regions, states, and metropolitan areas, we begin with the effects on the four broad regions defined by the U.S. census: the Northeast, South, Midwest, and West (Illustration 1).⁸

The South is estimated to suffer the worst job losses, followed by the West, Northeast, and Midwest. These results are due in part to how the states are grouped into regions; e.g., the South contains 16 states while the Northeast consists of only nine. But when examined more closely, the size of the states' respective creative economies comes into play. The South has four states with more than 250,000 employed in the

creative industries and three states with more than 200,000 in creative occupations. The West has only two states with more than 250,000 employed in the creative industries and only one with more than 200,000 in creative occupations. Of note are the robust creative economies in Florida, Georgia, and Texas, which are often overlooked in relevant discussions.

A different picture emerges when we look at sales and earnings. The West takes the hardest hit here. This is largely due to California's sizeable creative economy, with significant concentrations of film, radio, and television industries representing 25% of all the job losses and 42% of all sales losses for that industry cluster nationwide.

Table 5. Estimated cumulative losses for creative industries and occupations by census region, April to July 2020

Creative Industries				
Region	Jobs	% of Total Jobs Lost	Sales (billions)	% of Total Sales Lost
South	852,979	30.60%	\$35.10	22.10%
West	797,624	28.60%	\$58.30	36.60%
Northeast	612,905	22.00%	\$43.60	27.40%
Midwest	504,291	18.10%	\$20.10	12.60%
Creative Occupations				
Region	Jobs	% of Total Jobs Lost	Average Monthly Earnings (billions)	% of Total Average Monthly Earnings Lost
South	757,368	32.50%	\$22.20	29.20%
West	650,721	27.90%	\$22.60	29.70%
Northeast	479,102	20.50%	\$18.00	23.70%
Midwest	423,066	18.10%	\$11.70	15.40%

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Economic impacts on states

Table 6 shows COVID-19's impact on the creative industries by state. California leads all others in estimated losses of jobs (453,332) and sales (\$43.1 billion) in the creative industries between April and July. New York comes in second place, with a loss of almost 280,000 jobs and \$26.8 billion in sales. Texas follows in third with estimated losses of just over 190,000 jobs and \$7.3 billion in sales.

Of course, these large losses reflect the large size of these states. To control for this, we looked at the percentage of job and sales losses in each state rather than the number. In this scenario, New York drops to 21st place, California to 46th, and Texas to 31st. The hardest-hit states by percentage are all smaller states, including Alaska, Nevada, New Mexico, Wyoming, Maryland, and Vermont.

All in all, 20 states have losses higher than the national average of 32% (Table 7). Many of these states are not only smaller but have higher concentrations of creative industries that are more exposed to losses, such as fine and performing arts.

A different picture emerges when we look the losses as a share of states' creative occupations. Louisiana, New Mexico, Hawaii, Nevada, and Tennessee are projected to suffer the largest losses in this metric. There are 22 states that have job losses greater than the national average of 30.3% (Table 9). These include states with both small and large creative economies. As creative occupations are spread throughout a state's entire economy, creative or otherwise, they are subject to the impacts of the COVID-19 crisis on a variety of industries.



Table 6. Estimated cumulative losses for the creative industries by state, April to July 2020

State	Jobs	Sales (millions)	State	Jobs	Sales (millions)
California	453,332	\$43,129	South Carolina	32,161	\$1,239
New York	279,787	\$26,821	Louisiana	27,709	\$923
Texas	190,082	\$7,305	Nevada	26,104	\$1,282
Florida	151,954	\$6,062	Alabama	25,211	\$791
Illinois	104,618	\$5,315	Kentucky	22,722	\$742
Pennsylvania	97,130	\$4,387	Iowa	20,567	\$672
Georgia	86,244	\$4,504	Oklahoma	19,504	\$606
Massachusetts	85,062	\$4,627	Kansas	19,332	\$574
North Carolina	81,069	\$3,359	New Mexico	15,086	\$493
Ohio	80,328	\$3,311	Mississippi	15,064	\$434
Washington	78,402	\$5,151	Arkansas	14,737	\$452
New Jersey	73,640	\$3,866	Nebraska	13,766	\$522
Michigan	64,389	\$2,358	New Hampshire	13,049	\$534
Virginia	63,132	\$2,583	Hawaii	13,164	\$592
Tennessee	61,577	\$3,594	Maine	12,812	\$385
Colorado	59,179	\$2,430	Idaho	11,091	\$290
Minnesota	56,190	\$2,215	Rhode Island	10,077	\$436
Wisconsin	50,400	\$1,880	Montana	9,014	\$223
Arizona	46,948	\$1,707	Vermont	8,090	\$216
Maryland	49,424	\$2,202	West Virginia	6,911	\$172
Oregon	43,332	\$1,607	South Dakota	6,269	\$205
Missouri	43,083	\$1,558	Delaware	5,478	\$198
Indiana	40,537	\$1,289	North Dakota	4,812	\$147
Connecticut	33,258	\$2,357	Alaska	4,968	\$130
Utah	32,872	\$1,188	Wyoming	4,131	\$116

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Table 7. Estimated cumulative losses for the creative industries by state, April to July 2020

State	Jobs	Sales	State	Jobs	Sales
Alaska	35.7%	12.4%	New Jersey	31.8%	10.2%
Nevada	34.8%	12.9%	Kansas	31.8%	9.5%
New Mexico	34.4%	12.4%	Nebraska	31.7%	9.2%
Wyoming	34.1%	11.8%	Massachusetts	31.7%	8.1%
Maryland	34.0%	10.0%	Connecticut	31.7%	9.1%
Vermont	34.0%	10.6%	Texas	31.6%	9.9%
Maine	33.7%	11.5%	Colorado	31.6%	8.9%
Delaware	33.3%	10.0%	North Dakota	31.6%	8.2%
Montana	33.3%	10.6%	Michigan	31.6%	9.6%
Louisiana	32.6%	11.3%	Missouri	31.5%	9.9%
West Virginia	32.6%	9.8%	Oklahoma	31.5%	10.1%
Tennessee	32.6%	12.5%	Indiana	31.5%	9.5%
Minnesota	32.5%	9.3%	Wisconsin	31.3%	8.4%
South Dakota	32.5%	10.8%	Illinois	31.3%	9.5%
Arizona	32.3%	10.0%	Rhode Island	31.3%	10.5%
Iowa	32.2%	9.9%	South Carolina	31.1%	9.9%
Idaho	32.2%	10.0%	Ohio	31.1%	9.9%
Oregon	32.2%	8.9%	Alabama	30.8%	9.5%
Hawaii	32.1%	13.2%	Arkansas	30.8%	9.9%
Florida	32.1%	10.0%	Kentucky	30.6%	10.2%
New York	32.0%	10.1%	California	30.4%	8.6%
Utah	31.9%	8.1%	Georgia	30.2%	9.2%
New Hampshire	31.9%	9.3%	North Carolina	30.2%	8.5%
Virginia	31.9%	9.6%	Washington	29.3%	5.5%
Pennsylvania	31.8%	10.0%	Mississippi	28.0%	8.2%
New Hampshire	31.90%	9.30%	North Carolina	30.20%	8.50%
Virginia	31.90%	9.60%	Washington	29.30%	5.50%
Pennsylvania	31.80%	10.00%	Mississippi	28.00%	8.20%

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Table 8. Estimated cumulative losses for creative occupations by state, April to July 2020

State	Jobs	Average Monthly Earnings (millions)	State	Jobs	Average Monthly Earnings (millions)
California	365,839	\$14,195	South Carolina	26,671	\$755
New York	204,445	\$8,254	Utah	25,709	\$657
Texas	174,734	\$5,519	Alabama	23,502	\$608
Florida	137,384	\$3,638	Nevada	22,320	\$753
Illinois	86,671	\$2,783	Kentucky	20,444	\$530
Pennsylvania	80,153	\$2,660	Oklahoma	20,037	\$543
Georgia	75,406	\$2,075	Kansas	17,664	\$458
Massachusetts	67,423	\$2,624	Iowa	17,663	\$436
Ohio	66,320	\$1,810	New Mexico	13,041	\$338
New Jersey	62,495	\$2,241	Arkansas	12,610	\$334
North Carolina	61,776	\$1,766	Mississippi	11,953	\$311
Virginia	59,842	\$1,878	Nebraska	11,676	\$290
Michigan	57,370	\$1,514	Hawaii	11,596	\$348
Washington	56,100	\$1,764	Idaho	10,919	\$277
Colorado	51,031	\$1,551	New Hampshire	10,641	\$384
Tennessee	49,074	\$1,742	Maine	10,410	\$277
Minnesota	46,149	\$1,359	Rhode Island	8,413	\$270
Maryland	44,645	\$1,487	Montana	7,995	\$202
Arizona	41,015	\$1,279	Vermont	6,901	\$195
Missouri	37,130	\$1,008	West Virginia	6,747	\$187
Wisconsin	36,567	\$928	South Dakota	5,858	\$158
Oregon	36,430	\$1,048	Delaware	5,428	\$163
Indiana	35,480	\$892	Alaska	4,622	\$129
Connecticut	28,221	\$1,113	North Dakota	4,518	\$120
Louisiana	27,115	\$704	Wyoming	4,104	\$117

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Table 9. Percentage change in estimated cumulative losses for creative occupations by state, April to July 2020

State	Jobs	Average Monthly Earnings (millions)	State	Jobs	Average Monthly Earnings (millions)
Louisiana	32.8%	16.3%	Utah	30.1%	14.5%
New Mexico	32.5%	16.3%	Missouri	30.1%	14.9%
Hawaii	32.3%	15.9%	Texas	30.0%	14.9%
Nevada	32.0%	16.2%	Wisconsin	30.0%	14.6%
Tennessee	31.8%	16.7%	Minnesota	30.0%	14.3%
Georgia	31.4%	14.8%	Massachusetts	29.9%	15.0%
California	31.3%	15.4%	Idaho	29.9%	14.9%
Alaska	31.1%	15.5%	Oklahoma	29.8%	15.3%
Maryland	31.1%	15.6%	West Virginia	29.8%	15.5%
Florida	30.7%	15.0%	Kentucky	29.8%	15.0%
New York	30.7%	15.1%	Illinois	29.8%	14.5%
Oregon	30.6%	15.0%	Vermont	29.8%	15.4%
Montana	30.5%	15.6%	Ohio	29.7%	14.5%
South Carolina	30.5%	15.6%	South Dakota	29.7%	15.7%
Wyoming	30.5%	15.9%	Mississippi	29.6%	15.5%
Colorado	30.5%	15.1%	New Hampshire	29.6%	15.7%
Arizona	30.4%	15.3%	Michigan	29.6%	14.4%
Virginia	30.4%	14.9%	Arkansas	29.5%	14.6%
Rhode Island	30.4%	15.3%	Delaware	29.4%	14.1%
Pennsylvania	30.4%	15.4%	Nebraska	29.4%	14.3%
North Carolina	30.3%	14.9%	Kansas	29.4%	14.5%
Washington	30.3%	14.7%	Alabama	29.4%	15.0%
New Jersey	30.3%	14.5%	Indiana	29.4%	14.8%
Maine	30.1%	15.3%	North Dakota	29.1%	14.8%
Connecticut	30.1%	15.1%	Iowa	28.9%	14.3%

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Economic impacts on metropolitan areas

We now turn to COVID-19's economic impact on metropolitan areas, where creative industries are highly clustered. We focus on the 53 U.S. metropolitan areas with populations over 1 million.⁹

Table 10 shows the metropolitan-level pattern for the creative industries. The 53 metropolitan areas account for more than three-quarters (80%) of total estimated losses in sales and greater than two-thirds (68%) of all estimated job losses across the United States. The top 10 metro areas combined account for 55% of all losses in sales and 37% of all jobs lost in the creative industries nationwide. The New York and Los Angeles metro areas will suffer the greatest estimated losses, with \$50 billion in lost sales and over 500,000 lost jobs, representing 34% of all losses in sales and 18% of all lost jobs across the country.

The pattern changes considerably when we look at the percentage change in estimated losses for the creative industries (see Table 11). Now, smaller metro areas suffer the worst losses. Topping this list are Las Vegas, Nashville, Tenn., Tucson, Ariz., New Orleans, Baltimore, Jacksonville, Fla., Richmond, Va., and Buffalo, N.Y. New York City falls to 28th place and Los Angeles to 45th.

The metro areas that suffer the smallest estimated losses are the tech hubs of San Jose, Calif., Seattle, and San Francisco. This reflects their high concentration of creative-technology industries, which support the development of software and online platforms related to gaming, social media, sports, news, and lifestyle content.

Table 12 shows the pattern for estimated losses in creative occupations. The 53 metro areas are projected to sustain more than two-thirds (67%) of estimated job losses and almost three-quarters (72%) of lost earnings across the entire country. The top 10 metro areas account for 36% of all lost jobs and 42% of all lost earnings nationwide. Together, New York and Los Angeles will lose an estimated 400,000 jobs and more than \$15 billion in average monthly earnings.

Table 13 offers insight into the percentage change in estimated losses for creative occupations. Again, smaller metro areas take the biggest hits. New Orleans and Nashville, Tenn. will suffer the most in terms of the share of job loss, with Los Angeles in third place, followed by Las Vegas, Orlando, Fla., Tucson, Ariz., Memphis, Tenn., Baltimore, Atlanta, Jacksonville, Fla., Austin, Texas, and San Diego. New York falls to 13th place on this metric.

Table 10. Estimated cumulative losses for the creative industries by metropolitan area, April to July 2020

Metro Area	Jobs	Sales (millions)	Metro Area	Jobs	Sales (millions)
New York City	283,857	\$27,956	Las Vegas	20,803	\$1,059
Los Angeles	225,986	\$25,249	Pittsburgh	18,973	\$970
Chicago	86,825	\$4,692	Cincinnati	17,641	\$771
San Francisco	74,404	\$7,438	Kansas City	17,499	\$639
Boston	66,018	\$3,996	Cleveland	16,970	\$887
Atlanta	63,071	\$3,779	Milwaukee	16,832	\$681
Dallas-Ft. Worth	62,485	\$2,768	Indianapolis	16,011	\$600
Washington, D.C.	62,147	\$3,877	Columbus	15,895	\$684
Seattle	57,144	\$4,596	Sacramento	15,810	\$674
Miami	50,861	\$2,687	San Antonio	15,639	\$552
Philadelphia	50,253	\$2,507	Providence	14,128	\$604
Minneapolis	42,722	\$1,816	Raleigh	13,616	\$590
Houston	42,587	\$1,621	New Orleans	12,651	\$469
Phoenix	33,501	\$1,338	Virginia Beach	11,171	\$448
Denver	32,464	\$1,550	Richmond	10,872	\$387
Nashville	30,925	\$2,290	Hartford	10,373	\$817
San Jose	30,223	\$5,575	Jacksonville	10,265	\$331
Portland	29,983	\$1,214	Memphis	9,426	\$359
Detroit	29,932	\$1,392	Louisville	9,281	\$332
San Diego	29,701	\$1,469	Salt Lake City	9,281	\$332
Austin	28,852	\$1,260	Oklahoma City	8,889	\$281
Baltimore	23,705	\$1,115	Buffalo	8,347	\$376
Tampa	22,198	\$859	Rochester	8,182	\$335
Orlando	22,160	\$846	Grand Rapids	7,983	\$266
St. Louis	21,598	\$861	Birmingham	7,721	\$285
Riverside	21,292	\$763	Tucson	7,281	\$224
Charlotte	20,994	\$1,125			
			Totals	1,877,427	\$128,620

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Table 11. Percentage change in estimated cumulative losses for the creative industries by metropolitan area, April to July 2020

Metro Area	Jobs	Sales	Metro Area	Jobs	Sales
Las Vegas	35.7%	13.6%	New York City	31.8%	10.1%
Nashville	34.7%	14.4%	Portland	31.8%	8.7%
Tucson	34.6%	10.2%	Louisville	31.8%	10.0%
New Orleans	33.9%	13.1%	Salt Lake City	31.8%	10.0%
Baltimore	33.8%	10.3%	St. Louis	31.8%	9.8%
Jacksonville	33.6%	10.2%	San Diego	31.6%	9.3%
Richmond	33.3%	10.6%	Indianapolis	31.6%	9.6%
Buffalo	33.1%	10.8%	Phoenix	31.6%	9.7%
Minneapolis	33.0%	9.2%	Chicago	31.6%	9.4%
Cleveland	33.0%	12.4%	Columbus	31.5%	9.5%
Milwaukee	33.0%	9.9%	Cincinnati	31.4%	9.9%
Riverside	32.9%	10.7%	Grand Rapids	31.4%	10.0%
Orlando	32.8%	9.3%	Birmingham	31.3%	9.5%
San Antonio	32.8%	11.0%	Boston	31.2%	7.7%
Rochester	32.6%	10.7%	Dallas-Ft. Worth	31.1%	9.5%
Austin	32.6%	9.2%	Providence	31.0%	10.2%
Memphis	32.5%	11.3%	Raleigh	30.8%	6.9%
Houston	32.5%	10.6%	Los Angeles	30.8%	12.0%
Philadelphia	32.5%	10.1%	Denver	30.8%	8.7%
Washington, D.C.	32.5%	9.5%	Detroit	30.8%	9.6%
Tampa	32.4%	10.2%	Miami	30.6%	9.8%
Oklahoma City	32.3%	10.7%	Atlanta	30.3%	9.1%
Sacramento	32.2%	9.5%	Charlotte	30.3%	8.6%
Virginia Beach	32.1%	9.9%	San Francisco	29.2%	6.1%
Kansas City	32.1%	9.6%	Seattle	28.0%	5.2%
Pittsburgh	32.0%	9.6%	San Jose	24.6%	4.6%
Hartford	31.8%	7.9%			

Source: Estimates by authors based on data from Emsi (see appendix for further detail)

Table 12. Estimated cumulative losses for creative occupations by metropolitan area, April to July 2020

Metro Area	Jobs	Average Monthly Earnings (millions)	Metro Area	Jobs	Average Monthly Earnings (millions)
New York City	208,391	\$8,546	San Jose	16,101	\$701
Los Angeles	182,294	\$7,371	Pittsburgh	15,740	\$537
Chicago	70,283	\$2,325	Kansas City	15,665	\$418
Washington D.C.	64,714	\$2,398	San Antonio	14,470	\$425
San Francisco	57,289	\$2,399	Sacramento	14,246	\$480
Dallas-Ft. Worth	55,797	\$1,837	Cincinnati	13,981	\$400
Atlanta	54,257	\$1,535	Columbus	13,826	\$394
Boston	51,883	\$2,090	Indianapolis	13,732	\$378
Miami	46,515	\$1,268	Cleveland	13,697	\$380
Philadelphia	42,604	\$1,459	Salt Lake City	12,472	\$328
Houston	40,243	\$1,337	Providence	11,468	\$378
Seattle	36,956	\$1,229	Milwaukee	11,227	\$293
Minneapolis	34,893	\$1,057	New Orleans	10,609	\$283
Phoenix	29,368	\$945	Raleigh	10,323	\$300
Denver	27,711	\$869	Virginia Beach	10,102	\$281
San Diego	27,086	\$934	Richmond	9,713	\$305
Detroit	25,510	\$695	Jacksonville	8,922	\$240
Portland	25,213	\$742	Oklahoma City	8,709	\$232
Nashville	24,558	\$984	Hartford	8,330	\$317
Austin	24,418	\$840	Memphis	8,043	\$240
Orlando	21,059	\$546	Louisville	7,935	\$203
Baltimore	20,923	\$665	Grand Rapids	7,376	\$181
Riverside	19,420	\$611	Rochester	6,978	\$257
Tampa	18,705	\$478	Birmingham	6,893	\$194
St. Louis	18,324	\$523	Tucson	6,172	\$186
Las Vegas	17,648	\$593	Buffalo	6,073	\$224
Charlotte	17,175	\$555			
Totals			1,546,040		\$53,412

Source: Estimates by authors based on data from Emsi and the U.S. Census Bureau (see appendix for further detail).

Table 13. Percentage change in estimated cumulative losses for creative occupations by metropolitan area, April to July 2020

Metro Area	Jobs	Average Monthly Earnings	Metro Area	Jobs	Average Monthly Earnings
New Orleans	34.2%	16.6%	St. Louis	30.2%	14.9%
Nashville	33.2%	17.4%	Portland	30.2%	14.6%
Los Angeles	32.6%	16.1%	Miami	30.2%	14.6%
Las Vegas	32.5%	16.3%	Phoenix	30.2%	15.1%
Orlando	31.9%	15.2%	Minneapolis	30.1%	14.1%
Tucson	31.6%	16.5%	Raleigh	30.1%	14.7%
Memphis	31.3%	16.1%	Indianapolis	30.1%	15.0%
Baltimore	31.3%	15.4%	Sacramento	30.1%	15.0%
Atlanta	31.2%	14.5%	Kansas City	30.1%	14.2%
Jacksonville	31.0%	15.4%	Seattle	30.1%	14.3%
Austin	31.0%	15.4%	Buffalo	30.0%	16.0%
San Diego	30.9%	15.4%	Milwaukee	30.0%	14.1%
New York City	30.7%	14.8%	Dallas-Ft. Worth	29.9%	15.0%
Rochester	30.7%	16.3%	Oklahoma City	29.9%	15.0%
Philadelphia	30.6%	15.3%	Chicago	29.9%	14.4%
Richmond	30.6%	15.3%	San Francisco	29.9%	14.5%
Riverside	30.6%	15.6%	Cincinnati	29.8%	14.6%
Tampa	30.6%	14.8%	Boston	29.8%	14.9%
Louisville	30.6%	14.7%	Birmingham	29.8%	15.0%
Pittsburgh	30.5%	15.8%	Cleveland	29.6%	14.6%
Charlotte	30.5%	15.1%	Detroit	29.5%	13.9%
Virginia Beach	30.4%	15.4%	Hartford	29.4%	14.6%
Denver	30.3%	14.7%	Columbus	29.4%	14.1%
Providence	30.3%	15.3%	Grand Rapids	29.3%	13.8%
San Antonio	30.3%	14.7%	Washington D.C.	29.3%	13.5%
Houston	30.3%	14.7%	San Jose	27.8%	13.2%
Salt Lake City	30.3%	14.4%			

Source: Estimates by authors based on data from Emsi and the U.S. Census Bureau (see appendix for further detail).

Conclusion and implications

The COVID-19 crisis poses significant losses to the creative economy. Creative industries will lose an estimated 2.7 million jobs and more than \$150 billion in sales of goods and services, amounting to nearly a third of creative-industry jobs and almost 10% of annual sales. Creative occupations are estimated to lose more than 2.3 million jobs and \$74 billion in average monthly earnings, representing 30% of the industry's jobs and 15% of its total average monthly wages. The COVID-19 crisis will hit hardest in the fine and performing arts, which includes the visual arts as well as music, theater, and dance, which depend on live performances.

On the state level, California and New York will be hit hardest in terms of absolute losses, but Alaska, Nevada, New Mexico, Louisiana, and Hawaii will suffer the largest losses in percentage terms. Similarly, on a metropolitan level, New York City and Los Angeles will suffer the largest absolute losses, but smaller metro areas such as Las Vegas, Nashville, Tenn., New Orleans, Orlando, Fla., Memphis, Tenn., Baltimore, Jacksonville, Fla., Tucson, Ariz., and Austin, Texas will suffer larger losses in percentage terms. The 53 metropolitan areas with populations over 1 million will account for more than three-quarters of total estimated losses in sales and greater than two-thirds of all estimated job losses in the creative industries nationwide.

The creative economy is one of the sectors most at risk from the COVID-19 crisis, and the damage will have reverberating effects. Arts, culture, and creativity are one of three key sectors (along with science and technology as well as business and management) that drive regional economies.¹⁰ And the creative sector's role in our life and well-being extends far beyond its direct economic function. Lasting damage to the creative economy will drastically undercut our culture and quality of life.

There have been some sources of relief for the creative sector. The philanthropic sector has stepped up its funding. The federal government's CARES Act allows self-employed creative workers to access federal assistance. And states and cities have provided assistance in the form of grants to creative workers.

But for the creative economy to survive, this nation, its states, and its cities need a large-scale recovery strategy. This strategy must be bottom-up, but supported across the board. It should be led locally by public-private partnerships of municipal governments, arts and cultural organizations, economic development and community groups, philanthropy, and the private sector, with support from government and philanthropy at the state and federal levels as well as large corporations.

Federal recovery measures should include more substantial support for arts, cultural, and creative organizations, as they do for other impacted industries. While larger organizations such as the Kennedy Center, the Metropolitan Opera, Lincoln Center, and the Cleveland Orchestra have significant financial support, most of the creative economy is made up of much smaller nonprofits and business enterprises that have virtually no cushion at all.

Greater support for creative workers, many of whom are self-employed or freelancers, is also required. The initial round of federal COVID-19 relief funding did include money for artists and creatives who are paid wages, but not for those who earn income through royalties. It is time to consider direct stipends for artists, something that the National Endowment for the Arts is not permitted to do. Any additional infrastructure funding should also include artists and creatives in ways similar to the New Deal-era Federal Art Project of the 1930s and 1940s.

In addition to financial support in the form of loans and grants to creative organizations, businesses, and workers, technical support is also needed—especially for smaller organizations—on how to conform with health and safety requirements, as well as how to adapt their business models in light of a protracted period of restrictions on live performances.

Reduced real estate prices—stemming from COVID-19’s impact on retail and commercial real estate—may create a window of opportunity in which cities and urban centers become somewhat more affordable for artists and creatives.

Cities and urban commercial business districts can support artists and creatives by making studio, gallery, and small-scale performance spaces available to them in neighborhoods and districts where there is increased vacancy due to COVID-19. This would benefit cities beyond the walls of the spaces, as places such as independent music venues often also double as incubators for entrepreneurship, help strengthen community bonds, attract and retain creative workers, and serve as nexuses for a region’s creative economy.¹¹

Local economic development organizations can help by developing skills assessments and needs analysis, which would enable certain creative-economy workers to use their talent and skills in other industries, such as designers making masks.

With reduced or nonexistent demand for large mass culture events as a result of social distancing, there is an opportunity for communities to shift to locally sourced culture. Communities can develop strategies to hire local creatives and create online portals and platforms to allow residents and businesses to hire local artists, musicians, and performers for smaller-scale, local events. Cities can also hire creatives on their own and form interdisciplinary teams comprised of designers, artists, architects, and others to work on projects like animating streets and parks as reopening and recovery begins.

The creative economy—which is so critical to our overall economy, our society, and our culture—is under grave threat from the COVID-19 crisis. Imagine our cities and communities devoid of arts and culture, with no concerts, no theaters, and no art galleries. For the creative economy to survive and thrive again, a broad-based recovery strategy is needed. This strategy should draw from the passion and on-the-ground knowledge of local communities, while leveraging the resources of the federal and state governments, philanthropic foundations, and the private sector.

Appendix: Methodology and data

We examine the creative economy across two dimensions. The first is the creative industries which produce goods and services relating to music, film, design, advertising, theater, and more. These industries are comprised of firms and establishments and include all employees whether they are in creative occupations or not (e.g., receptionists, accountants, graphic designers, and promoters at concert promotions companies). Additionally, graphic designers who are self-employed with their own practice or who freelance part time are also captured within the data defining the creative industries. Examining this part of the creative economy is referred to as taking an “industrial approach.”

The second dimension is creative occupations, reflecting workers in creative jobs regardless of industry. Workers in this definition include, for example, graphic designers employed in creative industries, graphic designers employed in another industry like aerospace or insurance, self-employed graphic designers, and graphic designers freelancing part time.

We estimate the impacts of the COVID-19 crisis on the creative economy for the period spanning April 1 to July 31, 2020. Our model incorporated a predicted 24% contraction in the United States GDP taking hold in April and progressing through the second quarter of 2020, with unemployment averaging 14% over the same period.¹²

Our model further assumed stay-at-home or safer-at-home orders (or some variation thereof) remaining in place in the majority of states until mid-May or June 1 at the latest, most nonessential businesses remaining closed until mid-May, and there being fairly easy access to

federal stimulus funds for firms, establishments, and the self-employed. The model also assumed all live performance events being prohibited until fall of 2020 at the earliest. Estimated job losses include those that are furloughed and laid off, and as such, some may resume their jobs over time.

Data on creative industries and occupations were provided by Emsi. This data set is comprised of data concerning creative-economy industries and occupations from the Bureau of Labor Statistics, the Bureau of Economic Analysis, and the Census Bureau, among others. The data includes those who work in full-time positions, those who are self-employed, and those who work part time in a freelance capacity. The industries and occupations used to define the creative economy are based on the Office of Management and Budget’s North American Industry Classification System (NAICS) and Standard Occupational Classification system (SOC). A full listing of specific creative industries and occupations used in the analysis is detailed in Appendix Tables A1 and A2.

Our model reflects a conservative approach to estimating the extent of losses to the creative economy. In addition, many creative-economy workers are either self-employed or work in a freelance capacity, and may depend on income from sources outside the official creative economy. This portion of economic activity eludes official definitions and classifications; for example, a graphic designer who accepts cash off-the-books for designing a website for a new band or a commercial photographer who is paid in cash for taking headshots for an aspiring actor. Our estimates do not include such activity.

Table A1: List of creative industries

NAICS Code	Industry	NAICS Code	Industry
238150	Glass and glazing contractors	337121	Upholstered Household Furniture Manufacturing
238340	Tile and terrazzo contractors	337122	Nonupholstered Wood Household Furniture Manufacturing
238390	Other building finishing contractors	337125	Household Furniture (Except Wood and Metal) Manufacturing
313210	Broadwoven Fabric Mill	337212	Custom architectural woodwork and millwork manufacturing
313220	Narrow Fabric Mills	339910	Jewelry and silverware manufacturing
313310	Textile & Fabric Finishing Mills	339992	Musical instrument manufacturing
313320	Fabric Coating Mills	423410	Photographic equipment and supplies merchant wholesalers
314910	Textile bag and canvas mills	423940	Jewelry, watch, precious stone, and precious metal merchant wholesalers
314999	All other Misc. Textile Mills	424920	Book, periodical, and newspaper merchant wholesalers
315190	Other apparel knitting mills	448310	Jewelry stores
315210	Cut and Sew Apparel Contractors	451130	Sewing, needlework, and piece goods stores
315220	Men's and boy's cut and sew apparel manufacturing	451140	Musical instrument and supplies stores
315240	Women's, girl's, and infant's cut and sew apparel manufacturing	451211	Book stores
315280	Other cut and sew apparel manufacturing	451212	News dealers and newsstands
315990	Apparel accessories and other apparel manufacturing	453110	Florists
316210	Footwear Manufacturing	453920	Art dealers
316992	Women's handbag and purse manufacturing	511110	Newspaper publishers
322230	Stationery product manufacturing	511120	Periodical publishers
323111	Commercial printing (except screen and books)	511130	Book publishers
323113	Commercial screen printing	511191	Greeting card publishers
323117	Books printing	511199	All other publishers
323120	Support activities for printing	511210	Software publishers
327110	Pottery, ceramics, and plumbing fixture manufacturing	512110	Motion picture and video production
327120	Clay Building material and refractories manufacturing	512120	Motion picture and video distribution
327212	Other pressed and blown glass and glassware manufacturing	512131	Motion picture theaters (except drive-ins)
332323	Ornamental and architectural metal work manufacturing	512132	Drive-in motion picture theaters

512191	Teleproduction and other postproduction services	541890	Other services related to advertising
512199	Other motion picture and video industries	541921	Photography studios, portrait
512230	Music publishers	541922	Commercial photography
512240	Sound recording studios	611610	Fine arts schools (private)
512250	Record Production and Distribution	711110	Theater companies and dinner theaters
512290	Other sound recording industries	711120	Dance companies
515111	Radio networks	711130	Musical groups and artists
515112	Radio stations	711190	Other performing arts companies
515120	Television broadcasting	711310	Promoters of performing arts, sports, and similar events with facilities
515210	Cable and other subscription programming	711320	Promoters of performing arts, sports, and similar events without facilities
519110	News syndicates	711410	Agents and managers for artists, athletes, entertainers, and other public figures
519120	Libraries and archives	711510	Independent artists, writers, and performers
519130	Internet publishing and broadcasting and web search portals	712110	Museums
541310	Architectural services	712120	Historical sites
541320	Landscape architectural services	712130	Zoos and botanical gardens
541340	Drafting services	811420	Reupholstery and furniture repair
541410	Interior design services	812921	Photofinishing laboratories (except one-hour)
541420	Industrial design services		
541430	Graphic design services		
541490	Other specialized design services		
541810	Advertising agencies		
541820	Public relations agencies		
541830	Media buying agencies		
541840	Media representatives		
541850	Outdoor Advertising		
541860	Direct mail advertising		
541870	Advertising Material Distribution Services		

Table A2: List of creative occupations

SOC Code	Occupation	SOC Code	Occupation
11-2011	Advertising and Promotions Managers	27-2041	Music Directors and Composers
11-2031	Public Relations Managers	27-2042	Musicians and Singers
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	27-2099	Entertainers, Performers, Sports and Related Workers, All Other
17-1011	Architects, Except Landscape and Naval	27-3011	Radio and Television Announcers
17-1012	Landscape Architects	27-3012	Public Address System and Other Announcers
17-3011	Architectural and Civil Drafters	27-3021	Broadcast News Analysts
25-4011	Archivists	27-3022	Reporters and Correspondents
25-4012	Curators	27-3031	Public Relations Specialists
25-4013	Museum Technicians and Conservators	27-3041	Editors
25-4021	Librarians	27-3042	Technical Writers
25-4031	Library Technicians	27-3043	Writers and Authors
25-9011	Audio-Visual Collections Specialists	27-3099	Media and Communication Workers, All Other
27-1011	Art Directors	27-4011	Audio and Video Equipment Technicians
27-1012	Craft Artists	27-4012	Broadcast Technicians
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	27-4013	Radio Operators
27-1014	Special Effects Artists and Animators (formerly Multimedia Artists)	27-4014	Sound Engineering Technicians
27-1019	Artists and Related Workers, All Other	27-4021	Photographers
27-1021	Commercial and Industrial Designers	27-4031	Camera Operators, Television, Video, and Motion Picture
27-1022	Fashion Designers	27-4032	Film and Video Editors
27-1023	Floral Designers	27-4099	Media and Communication Equipment Workers, All Other
27-1024	Graphic Designers	39-3021	Motion Picture Projectionists
27-1025	Interior Designers	39-3092	Costume Attendants
27-1026	Merchandise Displayers and Window Trimmers	39-5091	Makeup Artists, Theatrical and Performance
27-1027	Set and Exhibit Designers	41-3011	Advertising Sales Agents
27-1029	Designers, All Other	41-9012	Models
27-2011	Actors	43-4121	Library Assistants, Clerical

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27-2012	Producers and Directors	43-9031	Desktop Publishers
27-2031	Dancers	49-9061	Camera and Photographic Equipment Repairers
27-2032	Choreographers	49-9063	Musical Instrument Repairers and Tuners
51-5113	Print Binding and Finishing Workers		
51-6052	Tailors, Dressmakers, and Custom Sewers		
51-7011	Cabinetmakers and Bench Carpenters		
51-7021	Furniture Finishers		
51-9071	Jewelers and Precious Stone and Metal Workers		
51-9123	Painting, Coating, and Decorating Workers		
51-9151	Photographic Process Workers and Processing Machine Operators		

Endnotes

- 1** See, Richard Florida, *Rise of the Creative Class*, (New York, NY: Basic Books, 2002); John Howkins, *The Creative Economy: How People Make Money from Ideas* (London, England: The Penguin Press, 2001).
- 2** *Gross Domestic Product, 1st Quarter 2020 (Advance Estimate)* (Washington, D.C.: Bureau of Economic Analysis, April 29, 2020); *Job Cuts Break Single-Month Record in April* (Chicago, IL: Challenger, Gray, and Christmas, Inc., May 7, 2020); Andrew Soergel, "'Second Wave' of Job Losses Prompts Comparisons to the Great Depression," *US News and World Report*, May 8, 2020; *Commissioner's Statement on the Employment Situation* (Washington, D.C.: U.S. Bureau of Labor Statistics, May 8, 2020).
- 3** Joe Lynch, "Billboard's Coverage of 1918 Pandemic Reveals Eerie Similarities," *Billboard*, 2018, <https://www.billboard.com/articles/news/9365515/billboard-1918-pandemic-coverage>; Michael Lobel, "Close Contact: Michael Lobel on Art and the 1918 Flu Pandemic," *Artforum*, April 21, 2020, <https://www.artforum.com/slant/michael-lobel-on-art-and-the-1918-flu-pandemic-82772>.
- 4** See, Norman F. Cantor, *In the Wake of the Plague: The Black Death and the World it Made* (New York, NY: Free Press, 2001).
- 5** See, Andy Pratt, "The Creative and Cultural Economy and the Recession," *Geoforum*, 40(4), (2009), 495-496.
- 6** Stacy Perman, Wendy Lee, and Anousha Sakoui, "Hollywood Production has Shut Down. Why Thousands of Workers are Feeling the Pain," *Los Angeles Times*, March 17, 2020, <https://www.latimes.com/entertainment-arts/business/story/2020-03-17/hollywood-production-has-shut-down-what-that-means-for-thousands-of-workers>; Andrew Pulver, "At Least 170,000 Lose Jobs as Film Industry Grinds to a Halt Due to Coronavirus," *The Guardian*, March 19, 2020, <https://www.theguardian.com/film/2020/mar/19/loss-of-jobs-income-film-industry-hollywood-coronavirus-pandemic-covid-19>; Georg Szalai, "Entertainment Industry's Coronavirus Hit Estimated at \$160 Billion Over 5 Years," *The Hollywood Reporter*, May 21, 2020, <https://www.hollywoodreporter.com/news/entertainment-industry-coronavirus-hit-160-billion-5-years-1295429>.
- 7** See, Richard Florida, *Who's Your City?* (New York, NY: Basic Books, 2008).
- 8** *2010 Census Regions and Divisions of the United States* (Washington, D.C.: United States Census Bureau, August 2018).
- 9** *Annual Estimates of the Resident Population for Metropolitan Statistical Areas in the United States and Puerto Rico: April 1, 2010 to July 1, 2019*. (Washington, D.C.: United States Census Bureau, March 26, 2020).
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