Economic Impact, Trends, and Opportunities

Music in New York City

Commissioned by Julie Menin, Commissioner, New York City Mayor's Office of Media and Entertainment







Julie Menin Commissioner, New York City Mayor's Office of Media and Entertainment

About the Mayor's Office of Media and Entertainment

The Mayor's Office of Media and Entertainment (MOME) is comprised of two divisions. The Office of Film, Theatre and Broadcasting encompasses film, television, radio, theatre, music, advertising, publishing, digital content and real estate as it relates to the creation of creative content. It serves as a one-stop shop for the entertainment industry, which has seen explosive growth over the last year in New York City. The Office promotes New York City as a thriving center of creativity, issuing permits for productions filming on public property, and facilitating production throughout the five boroughs. The Agency also oversees NYC Media, the City's official broadcast network and media production group, which has a reach of over 18 million people and provides programming for six local cable stations, including award-winning programs on the popular NYC Life (channel 25), as well as one radio station.

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Executive Summary

New York City has played a pivotal role in music history, and remains at the forefront of the music industry today. Some of the most famous names in the business – Billie Holiday, Miles Davis, Leonard Bernstein, Ahmet Ertegun, Jay-Z, and Madonna, to name a few – have called the city home. So, too, have thousands of other artists and producers: the unknown, the well-regarded, and even the infamous. It's not just the people, either. With world-renowned venues lining its streets, major record labels perched in its office towers, and digital music services startups emerging, New York City is the center of the music industry.

Indeed, New York City is home to one of the world's largest - if not the largest - and most influential music ecosystems, supporting nearly 60,000 jobs, accounting for roughly \$5 billion in wages, and generating a total economic output of \$21 billion (in business revenues and self-employment receipts). This music ecosystem is composed of four key pillars: local artist communities, mass music consumption, the global record business, and infrastructure and support services. One of the main reasons New York City's music ecosystem remains strong, is that these pillars are interrelated and mutually reinforcing. For example, the city is a hub for the global record business precisely because of the presence of so much local talent. That talent, in turn, exists in large measure because of the communities, support services, and distribution channels that help develop new and emerging artists. A disruption in one pillar would impact the others, underscoring how critical it is to take a holistic view across all four pillars of the ecosystem.

This report takes a closer look all four pillars of the music ecosystem and how economic impact is created. Among its findings:

 The four key pillars of New York City's music ecosystem – local artist communities, mass music consumption, the global record business, and infrastructure and support services – are *directly* responsible for approximately 31,400 jobs, \$2.8 billion in wages, and \$13.7 billion in economic output.

- Through transactions with suppliers and vendors to the music business (such as professional services, IT, and telecom), New York City's music industry has an *indirect* economic impact amounting to approximately 10,100 jobs, \$900 million in wages, and \$3.4 billion in economic output.
- The induced economic impact created when those employed within the industry, or in jobs indirectly supported by it, spend their wages in New York City amounts to approximately 16,100 jobs, \$1.0 billion in wages, and \$3.9 billion in economic output.
- The music industry's ancillary economic impact

 tourism spending that can be attributed

 solely to attending music-related events –

 amounts to \$400 to \$500 million.
- Total music ecosystem jobs and wages are slightly outpacing the broader New York City economy, growing at annual rates of 4 and 7 percent, respectively (by comparison, total city jobs and wages are growing at annual rates of 3 and 5 percent, respectively).
 Jobs and wages in the mass music consumption pillar grow the fastest, with 5 and 12 percent, respectively.

Over the last decade, digital technologies and innovation, especially Internet-based distribution, have disrupted the music industry and local music ecosystems across the world. This disruption is felt in New York City too, and brings both opportunities and challenges. This report explores the effects of these trends, including broader macro-economic trends of New York City. Among the key findings are:

 Music companies in New York City enjoy locationbased synergies that set it apart from other cities: the



57.5 k

jobs

\$4.7B
wages

\$21B
output



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proximity to other industry hubs such as advertising, media, and finance, make it easier to do, and grow, business here. As a result, New York City outperforms national trends. For example, while the nation sees an overall decline in record business jobs, NYC experiences growth of 2 percent per year since 2010.

- The growing role of technology in the music business has opened an important new door for New York City, enabling it to position itself as a center of digital music innovation and services. More musicrelated digital services companies – such as digital publishing, online royalty accounting, and virtual collaboration – have gotten their start in New York City than in any other city. With over 70 start-ups involved in digital music services, NYC has the largest concentration of such businesses in the world.
- Marquee live performances, broadcasting, and streaming not only bring music to fans, these segments also form the economic heart of New York City's music economy. They represent the largest and most productive share of total ecosystem wages and output: approximately 30 percent. Already leading globally with over 5 million annual tickets sold at major music events, economic impact could be boosted still. In New York City it is essentially standard operating procedure for major shows to sell out in minutes. This high demand for live performances suggests that the concert and festival market has not hit its saturation point.
- The city's local artist communities composed of upand-coming musicians along with the small venues, the collaboration spaces, and all of the resources that support and nurture talent, including music education institutions – are most vulnerable to current economic

and industry trends. Forming the foundation for music in New York City with over 20 percent of total ecosystem jobs, artist communities provide the raw talent and material to the industry. Yet rising real estate prices, high cost of living, and the global disruption ushered in by digital services and technologies are cause for concern. Many smaller venues have closed their doors in recent years, and many artists are seeing their income from record sales decrease and the competition for live performance slots increase.

Overall, New York City's music ecosystem is healthy and thriving. Yet there are clear opportunities for local government to make it even stronger. Guided by analysis of local music trends and interviews with key stakeholders, this report outlines four key areas of opportunity for New York City government initiatives:

- Support and help to build thriving local artist communities.
- Create more performance opportunities for local artists.
- Increase the economic impact of mass music consumption.
- Harness and expand the presence of digital music services.

Focusing efforts on the local artists and small venues so vital to New York City's music landscape, while sparking further growth in mass music consumption and emerging digital music services, helps foster a brighter future not only for New York City's music industry and workforce, but for local audiences and enthusiasts, as well.

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"I was born and raised in New York City, and it has always been a place that cherishes all artistic pursuits – especially music. I was fortunate enough growing up to be able to visit all the jazz clubs on 52nd Street, which fostered my life-long love for this American-made musical genre. No matter what your artistic passion, there is no better place to discover it, experience it, or develop it than right here in New York City."

- Tony Bennett

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Introduction

A Brief Overview of New York City Music History

New York City has played a storied role in the history of music. It is a focal point of music innovation, consumption, and commerce; a revered cultural hub – diverse and everchanging – where music is created and performed. At the same time, the music industry has played a major role in the history, and the growth, of New York City. Music has not only helped shape New York City over the past century, but has also driven significant local economic impact. And as the industry evolves, new opportunities beckon: new ways to grow talent, grow business, and grow New York City's position as a premier 'music city.'

What drives New York City's music DNA? Start with the extraordinary level of cultural diversity. Across the five boroughs, a melting pot of cultures has been the lifeblood of musical innovation, making New York City the city where entire genres have been created and defined. Salsa rhythms were conceived in El Barrio in the 1960s. Punk rock got off the ground at CBGB's and other Bowery Street music clubs in the 1970s – the same decade when the disco took its first beats in New York City dance clubs. Hip-hop came to life on Sedgwick Avenue in the Bronx in the 1980s. Add renowned music landmarks like Carnegie Hall, The Apollo Theatre, Strawberry Fields, and The Village Vanguard, and the result is a rich tapestry of musical tradition.

Today, too, New York City's music scene is vibrant and diverse. World-renowned artists perform to thousands of fans at the city's iconic live music venues, from Madison Square Garden to the Blue Note Jazz Club. Up-and-coming artists innovate, collaborate, and even rise to fame at the city's smaller, but often highly influential, spaces. Take for instance the duo "A Great Big World", who met in college at New York University, won a Grammy and collaborated with superstars like Christina Aguilera, yet still comes to New York City to play local venues like Le Poisson Rouge.

With all the artistic activity, and innovation within the city, it's no surprise that New York City has also attracted the business side of the industry: major record labels, music publishers, and music promoters, along with an array of essential supporting players, such as recording studios and talent agencies. Large and small, music-related businesses have put down roots, building on each other and leveraging New York City's rich infrastructure of media, marketing, and advertising companies to grow on a global scale.

Why this New York City Music Industry Study?

In June 2016, when Mayor Bill de Blasio appointed Julie Menin as Commissioner of the Mayor's Office of Media and Entertainment, he added music to the office's portfolio. This is the first time a New York City agency became responsible for supporting the industry. To gain insight into industry dynamics,

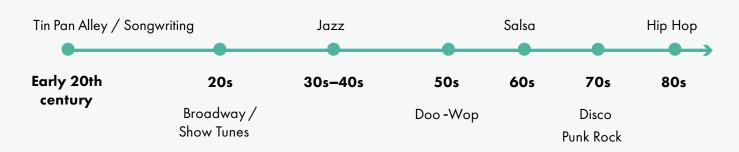


Exhibit 1: 20th century timeline of New York City music genre innovation

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Commissioner Menin launched this study to provide a detailed assessment of the size and trends of the New York City music ecosystem. In conducting this analysis, The Boston Consulting Group performed various primary and secondary research, including:

- An economic analysis of jobs, wages, and output of the music ecosystem, utilizing data from the United States Bureau of Labor Statistics and the United States Census Bureau.
- A literature review of economic impact studies for other music cities, in order to contextualize global trends in the industry, as well as best practices for local government policies.
- Interviews with over 40 key stakeholders in New York City's music ecosystem.
- A contextual quantitative analysis of key components of the music system ecosystem (such as venues and live performance attendance), in order to analyze trends in New York City and other music cities.

This report, consisting of five chapters, presents the results of this research. This current chapter introduces the core pillars, or framework, of the New York City music ecosystem. The following chapters take a deep dive into economic impact; the operating environment, trends, and challenges of each individual ecosystem pillar; and the broader indirect, induced, and ancillary economic impact of the music ecosystem. The final chapter provides a highlevel overview of opportunities for New York City's local government: ways in which it can help address some of the challenges discussed in the report.

Music Ecosystem Framework

To zero in on the dynamics, trends, and impact of music in New York City, this report is framed around four key sectors, or pillars, of the music ecosystem. Together, these pillars encapsulate the full lifecycle of music, from creation to consumption.

 Local artist communities: The artists and musicians, small performance venues, rehearsal spaces, and educational institutions that call New

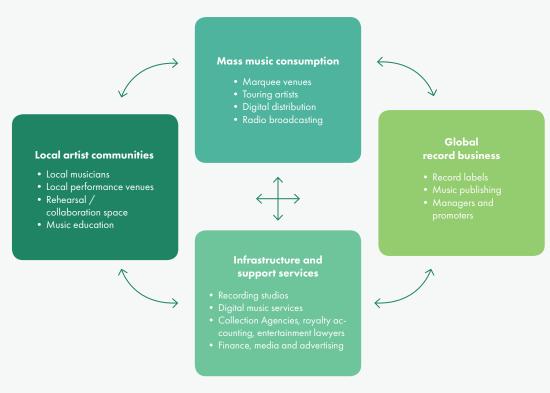


Exhibit 2: The modern New York City music ecosystem

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York City home. The small venues included are those where the local artists play live shows (as opposed to larger venues that host major-label touring artists).

- Mass music consumption: The major music venues, concerts, festivals, and professional performing groups such as orchestras that bring live music to large audiences, as well as the radio broadcasts, digital streaming, and retailers that make recorded music consumption possible.
- Global record business: The record labels, ranging from global firms to local independent players, music publishers, and talent managers and promoters that drive the commerce of music.
- Infrastructure and support services: The broad range of services that facilitate music production and the overall execution of the music business, including recording studios, digital music technology services, royalty accounting and collection agencies, entertainment lawyers, and related industries such as media, advertising and financial services.

One of the main reasons New York City's music ecosystem remains strong – providing significant economic and cultural value – is that its pillars are interrelated and mutually reinforcing. For example, the city is a hub for the global record business precisely because of the presence of so much local talent. That talent, in turn, exists in large measure because of the communities, support services, and distribution channels that help develop new and emerging artists. A disruption in one pillar would impact the others, underscoring how critical it is to take a holistic view across all four pillars of the ecosystem.

For purposes of economic analysis, the four pillars of the music ecosystem are broken down into the 13 sub-sectors outlined in Exhibit 3.

Types of Economic Impact

The economic impact of the music industry has four components:

• **Direct impact.** The jobs, wages, and output generated within the four core music ecosystem pillars.

- Indirect impact. The jobs, wages, and output of the suppliers of goods and services to the core music ecosystem.
- Induced impact. The jobs, wages, and output generated as a result of employees in direct and indirect sectors spending their wages in New York City.
- **Ancillary impact.** The downstream tourism spending that can be attributed to live music consumption.

The chapters that follow will dive deeper into these various types of economic impact, while Appendix II provides further details on the economic impact sizing methodology.

Exhibit 3: Music industry core and sub-categories

Category	Sub-category
Global record business	Record labels
	Publishing and copyright
	Commercialuse
	Talent management
Infrastructure & support services	Recording
	Instruments
	Media
Mass music consumption	Broadcast and streaming
	Retail
	Venues / concerts / festivals
	Performing groups
Local artist communities	Artists
	Music education



Total Economic Impact

Total Economic Impact

New York City's music ecosystem – the jobs, the wages, and the economic output of music-related industries – make it one of the largest, if not the largest, music cities in the world. Music in New York City supports approximately:

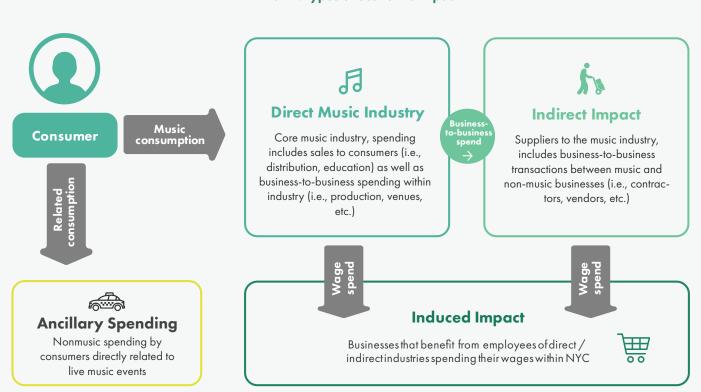
- 57,500 jobs
- \$4.7 billion in wages
- \$21.0 billion in economic output

Music-related jobs and wages are growing at an annual rate of 4 and 7 percent, respectively, outpacing the broader New York City economy, where overall jobs and wages are growing annually at 3 and 5 percent, respectively.

Indeed, the core music industry – providing work for artists as well as those employed by record labels, performance venues, and other music-related businesses – outpaces other major New York City industries with respect to job growth. For comparison, jobs within the city's finance and healthcare sectors are growing at an annual rate of 1 and 2 percent, respectively.



Exhibit 4: Types of economic impact



Music-related jobs and wages are growing at an annual rate of 4 and 7 percent, respectively, outpacing the broader New York City economy, where overall jobs and wages are growing annually at 3 and 5 percent, respectively.



Exhibit 5: Total economic impact of New York City music ecosystem – 2015



Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, National Economic Census 2007, 2012 IMPLAN 2014 New York City economic multipliers, BCG analysis



Exhibit 6: Direct economic impact of New York City music ecosystem – 2015

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, National Economic Census 2012, BCG analysis

Direct Economic Impact

Total Direct Economic Impact

The core, or *direct*, music industry is composed of the four pillars of the music ecosystem: local artist communities, mass music consumption, the global record business, and infrastructure and support services. Direct music output consists of revenues attributable to these core pillars, including sales to consumers and business-to-business spending within the industry (for example, spending by artists and record labels on production and venues).

Together, the direct sectors are responsible for approximately:

- 31,400 jobs
- \$2.8 billion in wages
- \$13.7 billion in economic output

In 2015, the average annual wage in the direct music industry was \$90,000, up from \$85,000 in 2014. The takeaway from this is two-fold: the music industry helps to create thousands of well-paying jobs for New Yorkers; and overall, the income for these jobs is growing faster than

the city-wide average – at 6 percent growth in average wage/job for the music industry between 2014 and 2015, compared to 2 percent growth in average wage/job citywide.

Taking a deeper look at the different pillars reveals that each sector of the ecosystem contributes in a distinct way to New York City's music economy, and each has its own defining characteristics. These traits and impacts are explored next.



Local Artist Communities

"Venues, musicians, education, and rehearsal spaces together form the minimal viable ecosystem for any local music community," says one city venue owner. And there is nothing minimal about New York City's artist communities. Diverse and innovative, they have long been home to musicians looking to perfect their craft. In New York City,

experimental groups and informal assemblages can be found alongside some of the finest formal music education opportunities in the world. Indeed, according to various school-rankings¹, New York City conservatories such as the Juilliard School, Manhattan Schools of Music, and Mannes College – The New School for Music are consistently ranked as the top music schools of the nation.

Local artist communities are responsible for approximately:

- 12,000 jobs
- \$600 million in wages
- \$800 million in economic output

Local artist communities represent more jobs than any other core sector. And it is a wide-ranging mix of occupations: freelance musicians, band members, educators, to name a few. Yet while these jobs are vital to the continued success and vibrancy of local artistic communities – and, in turn, to the success and vibrancy of New York City's music industry – annual wages rank lowest among the four sectors, averaging some \$50,000 a year. And there is an important caveat about that average wage, too: it includes the ultra-high incomes of music megastars living

in New York City; performers who may earn up to \$100 million a year². Median wages shed additional light on this distribution – the American Community Survey data suggest that median wages for 'musician, singers, and related workers' may be around \$30,000 a year³.

While the wages in the 'artists and musicians' subcategory – the primary component of this sector – may not be high, for most performers, they are on the rise. Both jobs and wages have seen moderate growth between 2010 and 2015, increasing at annual rates of 2 and 4 percent, respectively, which implies that average wage growth just outpaces New York City's inflation rate of 2 percent per year.

These trends in jobs and wages suggest that the city remains a draw for artists and musicians. "Musicians are still coming from around the world," says one New York-based artist, adding that the city "is a major center of the music industry and that hasn't changed." But at the same time, it can be hard to pay the rent while paying one's dues. A lot of friends have also left," says this same musician, "because of the challenge of making a living."

Average wage per job (\$K) 200 \$126K \$116K \$96K \$50K 154.3 150.5 146.2 150 120.3 108.7 103.8 101.5 96.9 100 91.7 64.5 51.7 497 50 37.2 Publishing Recording Instruments Record Comm Broadcast Perf. Concerts / Retail Music Artists / Mgmt / !publications Festivals / Labels Use / Stream Groups Education Musicians Copyright Venues Global record business **Local** artist Mass music consumption Infrastructure & support communities

Exhibit 7: Average wages per New York City direct music sector job - 2015

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2015 Nonemployer Statistics 2014, BCG analysis

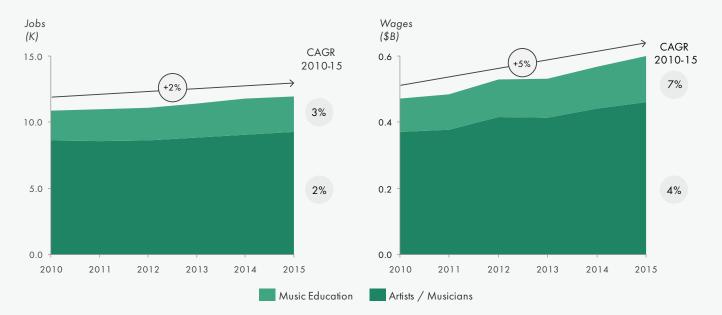


Exhibit 8: 'Local artist communities' jobs and wages over time

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, BCG analysis

Importance of small performance venues

When an artist community thrives, it serves two crucial functions: it enables musicians to hone their skills by practicing and collaborating in a tight-knit setting; and it gives them an opportunity to make a living by performing music. With local artists more reliant than ever on live performances to generate income - since proceeds from record sales are generally down - that second prong has never been more important. Small venues⁴, in particular, play a crucial role. While they represent just 4 percent of overall audience capacity in NYC, they serve as incubators for talent and as the primary performance setting for upand-coming artists. Yet small venues are far more at risk than their larger counterparts. In the past 15 years, more than 20 percent of New York City's smaller venues have closed, among them some of the industry's most prominent and revered locations. CBGB, the East Village venue that showcased artists like Blondie, The Ramones, and The Police, closed in 2006; Wetlands Preserve, the Tribeca nightclub that hosted artists such as Pearl Jam, Sublime and Counting Crows, closed in 2001.

The reasons for these closures – the rising real estate prices, zoning pressures, increasing operating costs and financial risks, noise complaints, and licensing problems that small

venue owners face – are, if anything, more acute and more worrisome today. A high concentration of closed venues have been located in areas like the East Village and Williamsburg – neighborhoods whose burgeoning popularity has been matched by burgeoning rents, and where the creation of new residential units has amplified quality-of-life disturbances. While new venues in the outer boroughs are opening their doors, music label and talent executives contend that it will be difficult for these spaces to replicate the concentration of talent and the level of community of the city's historic music clusters.

Moreover, these new venues are replacing only some of the closed sites. High setup costs and regulatory hurdles make it difficult to open a venue today. According to estimates from an experienced entrepreneur behind several venues in the city, "it costs upwards of \$1 million to open a 100- to 300-person venue in New York City and as much as \$5 million to open a 500- to 1,000-person venue, due to construction costs, license complexity, regulatory scrutiny, and the resources required to pass inspections."

For local artists, fewer venues mean fewer performance opportunities. That means more competition for the slots that are available and a tougher time making a living and

Exhibit 9: New York City venue ladder and total daily venue capacity

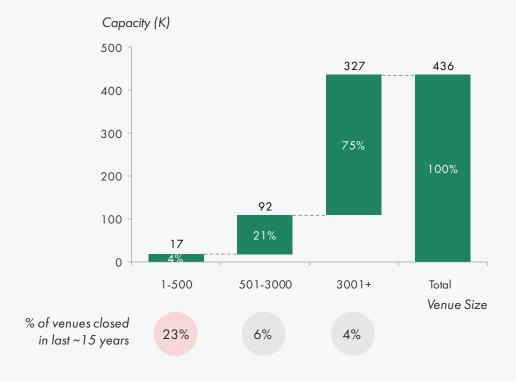
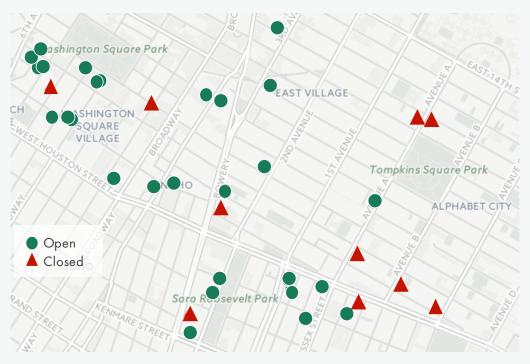


Exhibit 10: Venue map in East Village / Washington Square area



 \sim 25% of music venues in the East Village / Washington Square neighborhoods have closed over the past \sim 15 years (based on Pollstar data)





honing skills. "There just aren't enough viable showcase and development opportunities for the small local artist," explains a live music executive. But there is a cascading effect, too. In order to compete for gigs, musicians need to focus more on the business end of their work, leaving them less time to focus on their artistic development.

To complicate things further, as artists look to develop their business skills, the resources to help them do so are scarce. Educational programs – including those that teach artists how to run a music business or how to generate alternative revenue streams – are often limited to top music students or those who can afford classes. Also in short supply, but facing increasing demand, is subsidized artist housing and collaboration space.

In many ways, local artist communities comprise the most unique and remarkable pillar of the city's music ecosystem. The communities face challenges, but not insurmountable ones. Indeed, there is an opportunity to reinforce the links, interdependencies, and mutual successes among artists, venues, and the broader music ecosystem. In the process, New York City can not only sustain its position as a preeminent and vibrant music city, but enhance it.

Mass Music Consumption

For major concerts, festivals, and artist tours, there is, literally, no place like New York City. More tickets to top or major live music performances are sold in the city than anywhere else in the world – some 30 percent more in 2015 than runner-up London. The city's legendary music halls and arenas are household names. "New York City music venues have an unparalleled legacy," says a global talent manager. "Every artist across the globe wants to play here," adds a live music executive. So it's little wonder

that mass music consumption – a category that covers major live performances, record sales, broadcasting, and streaming services – is a clear area of strength for New York City.

Mass music consumption is responsible for approximately:

- 11,500 jobs
- \$1.3 billion in wages
- \$6.8 billion in economic output

This sector of the industry is music to economists' ears. It is the financial engine of the city's music industry, contributing nearly 50 percent of all direct economic output (the result of high-value revenue streams like ticket sales, music streaming subscriptions, radio air time, and retail music sales).

Exhibit 11: 2015 ticket sales at "top selling"⁵ music venues

New York	5.4M
London	4.2M
Los Angeles	1.7M
Chicago	1.6M
San Francisco	1.4M
Nashville	1.4M
Seattle	1.2M
Toronto	1.1M
Austin	0.9M

Source: Pollstar 2015 Year End Report





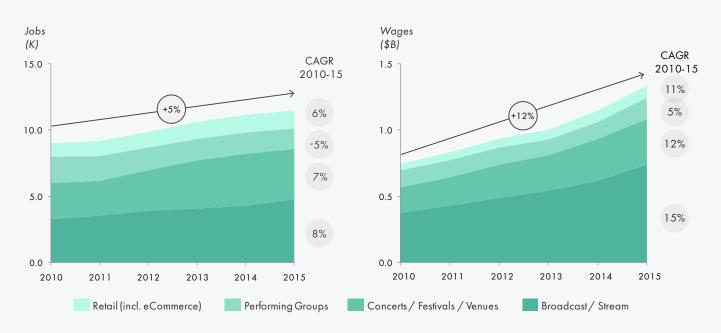
"Venues, musicians, education and rehearsal spaces together form the minimal viable ecosystem for any local music community."



"New York City music venues have an unparalleled legacy. Every artist across the globe wants to play here."

— Global talent manager





The average wage is comparatively high, at \$116,000 – a figure driven by highly paid positions within the sector, though sub-category averages did vary:

Broadcast and streaming: \$154,000
Professional performance groups (e.g. orchestras): \$104,000

• Concerts / festivals / venues: \$92,000

• Retail: \$64,000

Another high note: both job and wage growth have been strong, at annual rates of 5 and 12 percent, respectively (compared to city-wide job and wage growth of 3 and 5 percent, respectively). Credit for these numbers can largely go to the 'broadcast and streaming' segment, which has benefited from the increasing presence of digital music streaming services in New York City, and has averaged annual job growth of 8 percent since 2010. "New York is a very important city for us," says one digital music services executive, "and we want to play a prominent role in [its] cultural landscape."

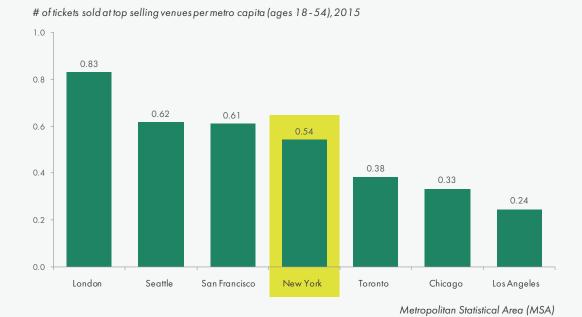
Jobs at the city's major music venues are also seeing robust growth, increasing at an average annual rate of 7 percent since 2010. A key contributor:

the creation and expansion of larger venues – most notably the opening of Barclays Center in 2012.

Upside potential in mass live performance consumption

Even as New York City leads the way in mass live music consumption, there is an opportunity for growth - and greater economic impact. On a per capita basis (for metropolitan statistical area, or MSA), the city's major venues sells 0.54 tickets per year to 18- to 54-year-olds. For comparison, London sells 0.84 tickets; San Francisco, 0.61. These numbers suggest that New York City has not yet reached its saturation point for live music, and, in fact, that capacity for large-scale live performances could be increased by at least 10 percent (making that case even stronger: New York City's per-capita figure does not include the large tourist population that visits the city every year, further increasing demand). To put it simply, adding more marquee venues in New York City would not cannibalize existing ticket sales, but help to grow the market - and satisfy the city's high demand for live music.

Exhibit 13: 2015 music event ticket sales per metropolitan capita, comparison by metropolitan statistical area



Source: Pollstar 2015 Year End Report, U.S. 2010 census, London 2011 Official Labour Market Statistics, Toronto 2011 census, BCG Analysis

Total festival consumption (festival length * daily attendance, in 000s) 1,000 875 800 594 600 450 400 400 182 165 200 150 0 Glastonbury'15 Coachella'15 Austin City Limits '15 Lollapalooza '16 Bonaroo '16 Governors Ball '15 (NYC, NY (Glastonbury, (Indio, CA) (Chicago, IL) (Nashville, TN) Festival '15 (Miami, FL) (Austin, TX) 5 6 6 3 length (days) Daily attendance 50 (000s)

Exhibit 14: Consumption of major music festivals

Source: Press Articles, BCG analysis

Festivals are another promising area for growth. There is a consensus among many music industry executives that New York City is underserved in the global music festival market and that more events could – and should – be supported. The city's largest pop music festival, the Governors Ball, takes place over three days, with a daily capacity of 50,000 attendees. By contrast, Chicago's Lollapalooza festival lasts four days with a daily capacity of 100,000 fans (and has expanded globally to cities such as Paris and Berlin).

Festival expansion would require a concerted effort, as space and safety considerations come into play. But it could represent a significant economic opportunity for the city. Adding smaller events, particularly during the non-summer months when festival frequency tends to lag, would furthermore provide more opportunities to local artists. Instead of requiring large open spaces, these smaller festivals could utilize existing facilities and infrastructure, much as Fashion Week events do.

Global Record Business

For the record labels, music publishers, and talent managers that comprise the global record business, New York City isn't just a focal point for music, but a hub for the industry. The city houses the headquarters for the lion's share of major and independent record labels and music publishers. Indeed, two of the three world's largest record companies are based in New York City, as are five of the top ten independent labels⁶. Their presence in such numbers is significant in another way, too: it is the best indicator of healthy local artist communities. As one record company executive puts it: "Creative talent is the lifeblood of the record industry – music businesses will gravitate towards wherever creative talent is located."

The global record business is responsible for approximately:

- 3,800 jobs
- \$500 million in wages
- \$4.7 billion in economic output

This is a well-compensated sector of New York City's music ecosystem, contributing about 10 percent of direct music jobs, yet accounting for nearly 20 percent of direct music wages. Indeed, of the four ecosystem pillars, the global record business ranks first on average wage, at \$126,000. This sector also contributes more than a third of the direct economic output, indicating the relative high productivity – output per job – of this sector.

Shifts in the record business

The global record business is also a sector undergoing profound shifts, not just in New York City, but worldwide. New trends – in particular, the disruption unleashed by Internet-based streaming and digital recording technologies - are fundamentally reshaping the business. In the U.S., recorded music revenues are down significantly from where they were a decade ago, with the absolute low in 2010 (lost over 35 percent when compared to 2005). The rise of digital and streaming music - now the largest sub-category of total recorded music revenues – has helped to offset declines in physical music sales over the last 5 years (from 2010 through 2015, digital music revenues increased on average 10 percent per year). In fact, total recorded music revenues even started to rise slightly between 2010 and 2015. But they are still well off the levels seen in the heydays of the 1990s and early 2000s.

Amidst all the sea changes within the industry, record businesses in New York City seem to have weathered the storm better than peers in other music cities. This sector has outperformed the national decline in jobs, seeing positive, if tepid, growth of 2 percent per year since 2010. And it retains a strong reputation within the industry. "I

stay in New York," says one independent label owner, "because of the spirit, hustle, and grit here. I can walk to major distributors, publishers, and talent agencies. I just love the beat of the city." Yet even if the number of jobs is growing, income, on the whole, is not. Since 2010, the average wage for global record businesses has fallen 2 percent annually in New York City – in contrast to a national average wage increase of 1.5 percent.

Still, the sector's overall resilience in New York City – something not seen in many other cities – raises a question: what is New York City's secret? The answer is one that can be applied to many aspects of New York City's music scene: advantages that most other cities do not possess. Besides the great local talent pool, New York City offers proximity to other local industries – such as advertising, media, and finance – that have also made the city a hub. This makes it easier to do, and grow, business - on all sides. Advertising companies help promote artists and labels, which not only boosts revenue for the agencies, but also brings new revenue to the artists and labels; for example, through licensing fees to place music in TV shows, movies, and video games (such "music synchronization" revenues amount to roughly \$200 million a year in the U.S., of which approximately 20 to 30 percent is generated in New York City). These location-based



Exhibit 15: 'Global record business' jobs and wages over time

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, BCG analysis





"Creative talent is the lifeblood of the record industry – music businesses will gravitate towards wherever creative talent is located."

— Senior record label exec

"I stay in New
York because of
the spirit, hustle,
and grit here. I
can walk to major
distributors,
publishers, and
talent agencies.
I just love the
beat of the city."

synergies, where different industries reinforce each other, is a selling point for New York City – something that truly sets it apart from other music cities.

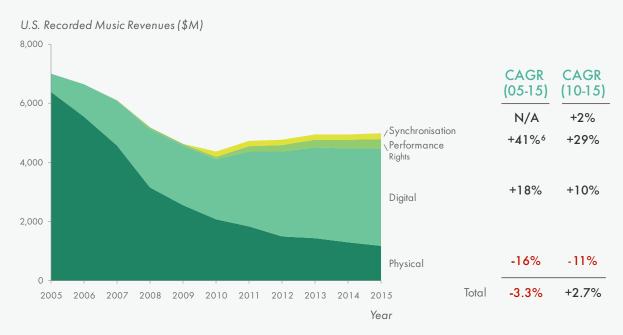
These advantages will be especially crucial in the near-term. The record businesses in New York City are not immune to market forces and operatingcost pressures. These factors, which impact businesses in all industries, do create a risk that they could leave the city. So far, there are no indications that a mass exodus is looming. And in any case, it is something that can be prevented. By strengthening the other ecosystem pillars and leveraging the interdependencies between the different segments, New York City can strengthen the already firm bond between the music business and the city. It can keep the players playing here for years to come.

Infrastructure and Support Services

A broad range of services is needed to support local artist communities, mass music consumption, and the global record business. These include recording studios, digital music services companies (in areas of digital rights management, digital royalties collection, social distribution and collaboration platforms, etc.), instrumentrelated businesses, royalty accounting and collection agencies, and dedicated music publications (for example, Billboard and Rolling Stone) among others. Businesses in critical adjacent industries – such as media, advertising, and finance – also fall under the broader infrastructure and support services banner⁷. Infrastructure and support services are responsible for approximately:

- 4,100 jobs
- \$400 million in wages
- \$1.3 billion in economic output

Exhibit 16: U.S. recorded music industry revenues, 2005-2015



Source: IFPI Reports 2008, 2012, 2016, BCG analysis

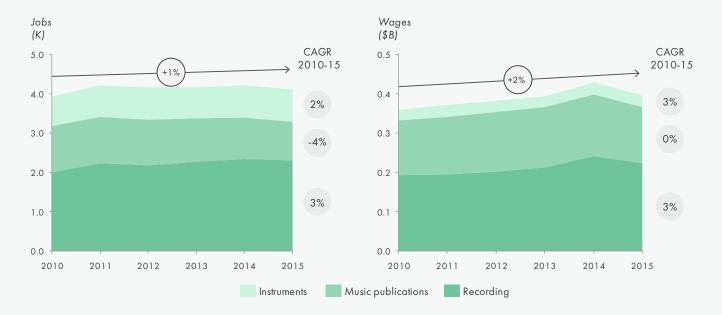


Exhibit 17: Infrastructure and support services' jobs and wages over time

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, BCG analysis

This segment of the ecosystem accounts for a relatively small portion of direct jobs, wages, and economic output (roughly 10 percent or less for each of these metrics). It has also been experiencing modest to no growth. The culprit: industry trends. Traditional print media and studio recording have been impacted by new digital technologies and preferences.

Recording studios in New York City

The growth of 'do-it-yourself' recording, for instance, has contributed to declines at the city's recording studios. As one record label executive notes, "anyone with a MacBook Pro and a soundproof room can make a record today."

Yet, overall, New York City's traditional recording studios have fared better than their counterparts in other music cities. Local demand for recording podcasts, TV voice-overs, Broadway albums, and other types of sound recording work has helped stem – to a degree – the declines.

Rise of digital music services start-ups⁸

Digital trends are also bringing opportunities to the city's music industry. The growing role of technology in the business has opened an important new door for New York City, enabling it to position itself as a center of digital music innovation and services. More music-related digital services companies have gotten their start in New York than in any other city. Indeed, research suggests that New York City is home to more than 70 companies involved in digital music services – such as publishing, royalty accounting, and virtual collaboration – the largest concentration of such businesses in the world.

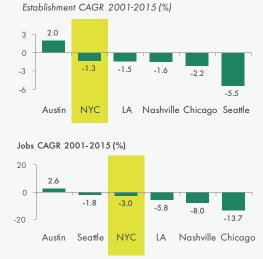
Digital music businesses are putting down stakes in New York City. And they're doing so largely because of the resources and the related businesses that can be found in the region. This trend is all the more significant because it belies the popular belief that global music businesses need to migrate to the West Coast in order to be close to technology hubs. Many businesses have been under pressure to do just that; often citing the need to follow moves of major technology players (such as Apple's music business setting up shop in Los

⁸ Digital music services startups are broadly represented across all sectors of the New York City music ecosystem. The economic impact of digital music startups is estimated to be relatively small between sectors given the generally low employment and output levels for most startups. For purposes of this study, challenges and opportunities for digital music services startups are positioned as part of "infrastructure and support services."

Exhibit 18: Recording studio establishment and jobs trends, comparison by city



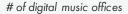


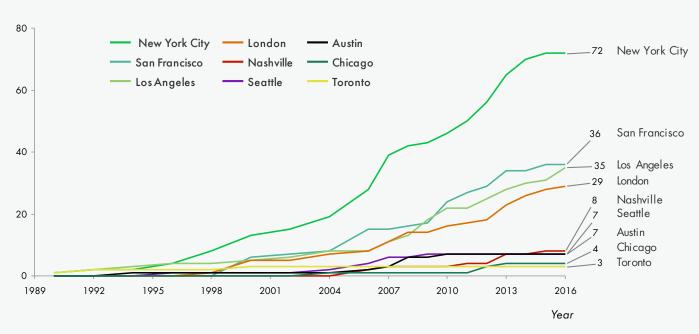


Source: Bureau of Labor Statistics – Quarterly Census of Employment and Wages 2001-15, Non-employer Statistics 2001-15, BCG Analysis

Year

Exhibit 19: Digital music services office count, comparison by city





Source: Capital IQ, BCG analysis

Angeles). Yet experts point to New York City's strong talent pool – combining both creative and engineering skills – as a key trigger in creating what has become a robust music services startup environment in the city. "Engineering talent," says one music label executive, "is better in New York City than in other music cities."

That talent pool – and the advantage it gives New York City – is further enhanced by the presence of the marquee names of the digital era. As one music executive with startup experience puts it: "Anchor technology companies such as Google and Facebook provide New York City with a talent base and credibility." Harnessing this local talent base is essential if New York City is to remain the leader in digital music services.

Broader Economic Impacts

Not all of the music industry's economic impact is captured directly by its four core sectors. These sectors also engage with suppliers of goods and services in New York City. At the same time, individuals working within the music ecosystem spend their wages locally, and thus support thousands of other city jobs, primarily in the retail and services industries. Finally, the presence of top-tier concerts and other music-related events contribute to the vibrant tourism industry in New York City. In the next chapter, we explore these broader economic impacts.







"More music-related digital services companies have gotten their start in New York than in any other city."

Broader Economic Impact

Broader Economic Impact

Indirect Economic Impact

The music industry doesn't work in a vacuum. Talent managers and record labels, for instance, will call upon entertainment lawyers when drafting contracts; venues will require electricians and carpenters to help put on shows. In transactions such as these, the music industry has an indirect economic impact on other industries – and on New York City. The core music sectors generate jobs, wages, and output for the suppliers, professionals, and contractors they rely on in the course of business.

Overall, the indirect impact of New York City's music industry amounts to approximately:

- 10,100 jobs
- \$900 million in wages
- \$3.4 billion in economic output

The largest share of indirect benefits is captured by the 'professional services' sector – a category that includes employment services, advertising and public relations, legal services, and consultants.

Average wages vary widely across the indirectly impacted sectors, a finding that is a direct reflection of the variety of sectors involved, in terms of both what they do and what employees are generally paid. Some, like professional services, financial services, and IT and telecom, are

relatively high-wage jobs. Indeed, these three industries alone represent 47 percent of indirectly supported jobs but nearly 65 percent of the wages generated. By contrast, another group of sectors – office services; transportation, lodging, and entertainment; and facilities and equipment – represents 35 percent of the jobs but just 22 percent of the wages indirectly created by the music industry.

Of course, the four core music sectors don't create indirect economic impact equally. Here, the key sector is mass music consumption, which generates the majority – more than 60 percent – of the jobs, wages, and output. Within mass music consumption, the 'broadcast and streaming' and 'concerts, festivals, and venues' subcategories contribute most to that total.

Local artist communities, on the other hand, generate relatively little indirect economic impact. Individual artists typically have few business expenses that fall outside the direct music industry, relying instead on venue operators, talent managers, and others to handle such costs.

Induced Economic Impact

A third kind of economic impact from New York City's music industry is what is known as induced impact. Induced impact is created when those employed within the direct music sectors – or in jobs indirectly supported by the industry – spend their wages within the five boroughs (and by doing so, support jobs and generate economic output).



Exhibit 20: Indirect economic impact of New York City music ecosystem – 2015

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2015 Nonemployer Statistics 2014, National Economic Census 2012 IMPLAN 2014 New York City economic multipliers, BCG analysis

of indirect economic impact is generated by mass music consumption

The induced impact of New York City's music ecosystem totals approximately:

- 16,100 jobs
- \$1.0 billion in wages
- \$3.9 billion in economic output

On average, the jobs supported by induced impact pay less than those that are indirectly created by the music industry: \$60,000 a year versus \$90,000 a year. The reason: most induced jobs are generated in lower-paying sectors, such as hospitality and retail.

As with indirect impact, mass music consumption is the key contributor to induced economic impact. It generates more than 50 percent of all induced jobs, wages, and output.

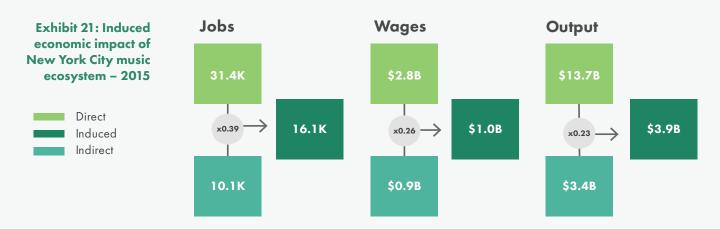
Ancillary Economic Impact

Each year, well over 5 million music event tickets are sold across New York City's stadiums, arenas, clubs, and theaters (excluding Broadway musicals). These events trigger a fourth and final economic impact: tourism spending attributable solely to the music ecosystem. This ancillary impact, as it is called, includes the hotel, local transportation, food, and other

expenditures that result only because an individual visits New York City to attend a music-related event.

This impact adds up. According to one major events organizer in New York City, "approximately 25 percent of audience members for our events come from zip codes outside of the tri-state area." Taking a conservative approach, this report assumes that between 10 and 25 percent of event attendees are tourists. These tourists can be divided into two groups: 'general tourists,' who are in New York City primarily for non-music purposes and just happen to see a show; and 'music tourists,' who are in town specifically for a live music event. For general tourists, the miscellaneous costs associated with their ticket – such as taxi fare and drinks near the venue – are included in the ancillary impact. For music tourists, the full cost of the visit to the city – such as average hotel stay costs – is included.

The result: a total ancillary impact of \$400 to \$500 million in tourism spend. While this is a small fraction of total visitor spending in New York City (a sum that exceeded more than \$42 billion in 2015, as reported by NYC & Company), it is a high-profile and productive fraction, with music tourists helping to cement New York City's reputation – and future – as a premier music city.



Opportunities for New York City Government

New trends and challenges are changing the landscape of the music industry – not just locally but across the globe. Yet at the same time, opportunities are arising. For New York City, the changes within the music ecosystem present both a chance and need to take important new steps – moves that can support the industry and create more jobs, while bringing more music to more people and adding to local culture.

Guided by analysis of local music trends and interviews with industry stakeholders, we see four key areas of opportunity for local New York City government:

- Support and help to build thriving local artist communities.
- Create more performance opportunities for local artists.
- Increase the economic impact of mass music consumption.
- Harness and expand the presence of digital music services.

By enacting measures to help musicians make a living, the city government would be making an important – and welcomed – show of support for local artist communities. "New York (City) has been special for developing young talent," says one live music executive, "but it can do more today to help, especially with young artists." In particular, city government can sponsor educational programs that teach business and entrepreneurial skills to local musicians – thus helping them be more successful in the competitive and expensive landscape of New York City.



of Festivals 20 Staten Island 17 Queens Brooklyn 15 15 Manhattan 13 13 10 10 6 5 3 3 3 0 Jan Feb Jul Oct Nov Dec Mar Apr May Jun Aug Sep Month 68 festivals (70% of total annual festivals)

Exhibit 22: Annual music festivals held in New York City

Source: Everfast.com, BCG analysis

take place between May and September



Expanding support for local area festivals is another useful step – one that not only helps meet the city's high demand for live music (while boosting economic impact), but also helps local artists by giving them more opportunities to perform. While there are already close to 100 live music festivals held in New York each year, our analysis suggests that many more could be supported. The key is to reduce the red tape associated with live music events. Simplifying the bureaucratic processes that surround music festivals – making it easier to secure permits, licensing, and space – could reduce the upfront costs of staging these events, and give producers more incentive to get the ball rolling.

Local government can also support the music ecosystem by wooing special industry events, such as awards shows and industry conferences, to the city. Such events bring together key players in the music business, offering a chance to showcase investment opportunities within the five boroughs and to give a firsthand look at all New York City has to offer. Finally, as digital music services continue to grow, the city can leverage its existing base of technology companies

and professionals to provide mentorship and funding to local engineering talent and promising music start-ups.

So how to get started? Collaboration between the city and ecosystem stakeholders is essential. To that end, a music advisory task force can guide programs and initiatives, ensuring that the 'local voice' is heard in planning and execution. As many other music cities have discovered, such organizations can be effective in framing the music discussion and ensuring that it is on the radar of local government. And the great thing about New York City is the broad array of talent, expertise, and backgrounds to be found – and harnessed. There is no shortage of influential music organizations and leaders in the city. A task force that represents the breadth and diversity of New York City's music ecosystem won't just seize new opportunities, but fully unlock their potential.



Appendix I - Acknowledgments 36

Appendix I - Acknowledgments

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Appendix II – Notes on Economic Impact Sizing Methodology

To fully appreciate the importance of the music industry in New York City, it is essential to understand its local economic impact. The general approach taken by studies of other 'music cities' – and adopted by this report, as well – is to quantify impact in terms of the employment (jobs, as well as self-employment), wages, and economic output (business revenues and self-employment receipts) the industry generates.

Our study does differ from most other music city studies in one key respect: the set of industry sectors used. Most of the studies conducted for other cities focus on sizing the 'core' music industry, or sectors that clearly are fully attributable to the music industry. To the extent that other cities include 'peripheral' industries as part of the economy, generally 100 percent of these sectors are included, potentially inflating the impact of music to a local economy. To ensure results that are as complete and comprehensive as possible, this study of New York City's music industry uses an expanded set of industry sectors and for each of these sectors assesses the applicable 'music share': for example, the portion of the 'independent artists' sector (less than 100 percent) that is representative of music artists.

For data on local industry employment, wages, and output, this study turns to two key sources. The Quarterly Census of Employment and Wages (QCEW), produced by the United States Bureau of Labor Statistics, covers 98 percent of U.S. jobs. It does not, however, account for individuals who are self-employed; those who generate revenue in the form of receipts but have no additional employees. Data on such 'non-employers' is captured by a publication known as Nonemployer Statistics (NES), produced annually by the United States Bureau of the Census.

By utilizing both of these sources, this study is able to tally the total jobs in the music industry, whether the positions are full-time, part-time, or temporary. Since it is possible that a single individual can work at multiple jobs at a time – whether salaried (and thus part of the QCEW data) or as an individual artist (and part of the NES data) – the jobs metric is not equivalent to the number of individuals or full-time equivalents (FTEs).

Types of economic impact

The core or *direct* music industry is composed of the four pillars of the music ecosystem – local artist communities, mass music consumption, global record business and infrastructure and support services. Direct music output consists of revenues attributable to the core pillars, including sales to consumers (i.e. distribution, education) as well as business-to-business spending within the industry (i.e. production, venues, etc.)

For any industry – music or otherwise – the overall economic impact is not limited to the jobs, wages, and output directly created by that industry's core or *direct* sectors. There is an *indirect* component, as well. For example, in the music industry, *direct* sectors like artists, performance venues, and recording studios generate jobs and revenues for suppliers and professionals outside the music business – such as electricians, carpenters, lawyers, and even caterers. The music industry's economic impact must also include these indirect benefits, realized by non-music sectors.

There is an *induced* economic impact to consider, too. Employees in both *direct* and *indirect* sectors will invariably spend their wages at New York City businesses, such as restaurants and supermarkets. This, in turn, helps to generate local jobs and wages. Since this flow of money is attributable to, or at least enabled by, the music industry, it also is part of the broader economic impact. The caveat is that the induced impact will not necessarily vanish if the *direct* music sectors disappear. At least some individuals who had worked in those music-related sectors are likely to take jobs in other sectors in New York City, continuing to collect – and spend – their wages locally. The *induced* benefits they generate remain; they are simply attributable to a different industry.

Finally, there is a downstream economic impact that stems from the music industry. Industry activity and events – such as a concert or festival – spark ancillary tourism spending that benefits the local economy. Consider, for example, a concert-goer who travels to New York City to hear a favorite band and, while in town, stays at a hotel, rides the subway or hails cab, and buys gifts for friends and family back home. This ancillary impact from music tourism will be analyzed separately as it requires a distinct methodology.

Exhibit 23: NAICS code to New York City music sector mapping

	Sub-category	NAICS mapping	Sub-category	NAICS mapping
ess	Record labels	Integrated record prod./dist. Record production	Broadcast/	Radio stations Internet publishing, broadcasting
busin	Publishing	 Music publishers Software, other prerecorded CD, 	stream -	Data processing/hostingCable/subscription programming
Global record business		tape, record reproducing	Retail	 Electronics stores Electronic shopping
bal re	Commercial use	Misc. durable goods wholesaler	Venues /	
ဗိဗ	Talent management • Agents/managers for artists, etc.	Music publishers Software, other prerecorded CD, tape, record reproducing Misc. durable goods wholesaler Agents/managers for artists, etc.	concerts / festivals	Promoters of performing arts, etc.
	Recording	Sound recording studios	Performing groups	Musical groups and artists
support		 Other sound recording industries Motion picture and video prod. 	Artists	
nfrastructure and services	Instruments	 Motion picture and video prod. Musical instrument mfg. Audio/video equipment mfg. Instrument/music supply stores Other consumer goods rental 	Artists	Independentartists, etc.
astruct S		Instrument/music supply stores Other consumer goods rental	Music	• Fine artschools
Infr	Media	Periodical publishers	education	Colleges, universities

Source: BCG analysis

Direct Economic Impact of the Music Industry

The most important step in quantifying the economic impact of New York City's music industry is identifying the appropriate sectors that make up the core – or 'direct' – components of the industry.

Economic data sources use the widely accepted NAICS industry codes when reporting data. Doing so allows for consistent reporting and comparison across various sources. Yet no single code captures the entirety of the music industry. Instead, a list of relevant sectors must be produced. Some of these are obvious, such as "Record Production" (NAICS code 512210) and "Music Publisher" (code 512230). But others – like "Fine Arts Schools" (611610) or "Independent Artists, Writers, and Performers" (711510) – are only partially relevant. Not all independent artists, after all, work in music.

The approach taken by economic impact reports prepared for several other music cities has been to limit the set of sectors to those that are obviously relevant. But this presents two problems. First, it overstates the impact of sectors that are not, in fact, fully relevant to the music industry. For in-

stance, including 100 percent of "Radio Stations" (NAICS code 515112) wrongly assumes that talk- and news-only radio contributes to the economic impact of the music industry. Second, this approach omits entirely the impact of less obvious but relevant sectors. By excluding "Colleges, Universities, and Professional Schools" (code 611310), studies miss the employment that music conservatories contribute to the local music ecosystem. To the extent that other cities do include 'peripheral' industries as part of the economy, generally 100 percent of these sectors is included, potentially inflating the impact of music to a local economy.

This report takes a different approach. To avoid the problems above, it utilizes a broader, more complete set of sectors while applying a so-called 'haircut' to each – adjusting a sector's data so that it reflects only the share that is relevant to the music industry. To accurately calculate these haircuts, this study relies on sector analysis, expert opinions, and primary research. To ensure that indirect and induced impacts are not overstated, the haircuts are applied consistently across the entire economic impact analysis.

While an extended list of NAICS codes provides a more comprehensive picture of the music industry, it also complicates any attempt to reduce the music value chain to its core components. Therefore, this study maps each NAICS industry code to a simpler framework, structured around four core sectors that more concisely describe the music ecosystem as a whole.

For each of the four core sectors, jobs and wages data for the relevant NAICS codes – post-haircut – is then allocated at the local (New York City) level. However, for deriving economic output at the local level, the same approach would be inaccurate. This is because of the self-reported nature of the data (for example, how could one know Google's output in New York City if the company reports only global and regional output?). Often, output data is significantly suppressed, too, for confidentiality (if a sector consists of a handful of privately-held companies, disclosing output could disclose competitive insights).

This study relies on a different method to calculate output at the New York City level. It assumes that for each sector, the city's share of total U.S. wages is a good proxy for its share of national output. In other words, this method assumes that local output is roughly proportional to local wages. Thus, if New York City accounts for 25 percent of U.S. wages in musical instrument manufacturing and that sector has a national output of \$100 million, the city's share of output would amount to \$25 million.

Indirect Economic Impact of the Music Industry

To model indirect economic impact, one needs to know which non-music sectors provide goods and services – such as telecommunications technology or legal services – to the core music sectors, and at what levels. Music publishers in New York City, for example, invariably require the services of attorneys. If those services are sourced locally, the music publishers are effectively creating jobs, wages, and economic output in the city's legal industry.

Economic 'input-output' models (an area pioneered by Nobel laureate economist Wassily Leontief) zero in on these cross-industry effects by using historical data to predict how different sectors relate to one another, and how output from one sector serves as input to another. Several commercial models exist, with IMPLAN being the most widely used for local-economy-level modeling.

Using IMPLAN, we are able to identify two key factors at a city-wide level:

- The non-music sectors that provide inputs to the core music sectors – and therefore comprise the spectrum of indirectly impacted sectors.
- The quantity of input required from each indirect sector to generate one unit of output in the core sector (this is known as the economic multiplier).

Once core sectors and their corresponding metrics (jobs, wages, and economic output) are modeled, IMPLAN multipliers help to estimate the same metrics for all relevant indirect sectors. This effectively provides the total indirect impact of the music industry.







Induced Economic Impact of the Music Industry

A similar approach is used to model induced economic impact. The difference is that economic multipliers are now used to model the jobs, wages, and output metrics resulting from economic activity in the direct music and indirect (non-music) sectors. The key here is to include all sectors previously identified as either direct or indirect. Both types contribute to the induced impact.

Ancillary Spending Attributable to the Music Industry

Quantifying the ancillary tourism spending attributable to the music industry is more of an art than a science, since intent – not economic needs or inputs – is the critical criteria. For instance, did a tourist spend a night in a New York City hotel specifically because they wanted to attend a music event, or because they would be on vacation in the city, anyway?

Given this backdrop, one has to take an assumption-based approach to quantifying the spending that is attributable to music tourism. The first step is to take the attendance figures for major music festivals, concerts, conferences, and so on, and tabulate the entire population of music event attendees. Next, existing research on New York City tourism is used to estimate the share of this population that comes from outside the city. Further assumptions are then made to segment this 'visiting population' into different groups: those who are visiting the city for the day; those who would be staying in the city regardless of any music event; and those who come to New York solely for the purpose of attending a concert, festival, or other music happening (pure music tourists). For each of these groups, assumptions must be made in order to characterize spending behavior – and to determine what spending is related to, but outside of, the music event itself (such as transportation to and from the

venue; meals near the venue; and overnight accommodations, if applicable).

Limitations and Notes on the Methodology

While no single methodology can perfectly capture the size of an industry, we believe that the approach this report takes balances simplicity and reproducibility with a complete and holistic view of New York City's music ecosystem. At the same time, all methodologies have limitations, and the following considerations should be noted:

- NAICS sector data is collected in a self-reported manner, at the individual company or establishment level. This can introduce human error; for instance, a particular company may be associated with an incorrect industry sector.
- While businesses may, in practice, operate across several NAICS categories, this study associates them with a single NAICS code. This means that for multisector businesses, all employment data is counted in one single sector.
- Sector haircut assumptions cannot be based on music-related activities at an individual business or establishment level. This is due to the unavailability of reliable data at such a granular level. The data is either not fully captured, suppressed for confidentiality, or modeled based on historical data.
- With a geographic focus on New York City's five boroughs, our model does not account for economic impact in – or from – the broader metropolitan area.
- Bureau of the Census output data is published once every five years, with the most recent release occurring in 2012. We therefore used annual growth in wages as a proxy for estimating growth in economic output in the intervening year.

Appendix III – Economic Impact Detail Tables

Table 1: Direct economic impact – jobs

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	8,895	10,209	10,899	11,959	2.0%	1.6%	1.9%
Artists / musicians	7,262	8,336	8,614	9,257	1.6%	1.1%	1.5%
Music education	1,633	1,873	2,285	2,702	3.4%	3.7%	3.4%
Mass music consumption	8,029	8,360	9,011	11,487	2.4%	3.2%	5.0%
Broadcast / stream	2,617	3,067	3,289	4,783	4.1%	4.5%	7.8%
Concerts / festivals / venues	2,208	2,436	2,689	3,776	3.6%	4.5%	7.0%
Performing groups	2,357	2,038	2,004	1,551	-2.8%	-2.7%	-5.0%
Retail	848	819	1,029	1,376	3.3%	5.3%	6.0%
Infra & support services	4,544	4,029	3,926	4,110	-0.7%	0.2%	0.9%
Recording	2,270	1,788	1,998	2,302	0.1%	2.6%	2.9%
Music publications	1,545	1,408	1,185	975	-3.0%	-3.6%	-3.8%
Instruments	729	834	743	832	0.9%	0.0%	2.3%
Global record business	5,001	4,148	3,467	3,811	-1.8%	-0.8%	1.9%
Record labels	2,834	1,799	1,124	1,323	-5.0%	-3.0%	3.3%
Management / services	906	1,029	1,048	1,227	2.0%	1.8%	3.2%
Publishing & copyright	1,157	1,136	1,117	1,090	-0.4%	-0.4%	-0.5%
Commercial use	104	184	178	171	3.3%	-0.7%	-0.8%
Grand total	26,469	26,747	27,304	31,366	1.1%	1.6%	2.8%

Table 2: Direct economic impact – wages (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	291.0	398.8	470.5	599.3	4.9%	4.2%	5.0%
Artists / musicians	238.9	327.1	371.4	459.7	4.5%	3.5%	4.4%
Music education	52.1	71.7	99.1	139.6	6.8%	6.9%	7.1%
Mass music consumption	538.9	599.6	746.9	1,334.2	6.2%	8.3%	12.3%
Broadcast / stream	246.1	299.5	374.5	738.3	7.6%	9.4%	14.5%
Concerts / festivals / venues	149.5	159.8	193.8	346.1	5.8%	8.0%	12.3%
Performing groups	104.4	100.7	126.2	160.9	2.9%	4.8%	5.0%
Retail	38.9	39.6	52.3	88.8	5.7%	8.4%	11.2%
Infra & support services	337.9	336.5	358.2	396.5	1.1%	1.7%	2.1%
Recording	150.2	156.1	192.1	222.9	2.7%	3.6%	3.0%
Music publications	161.8	149.9	139.8	142.6	-0.8%	-0.5%	0.4%
Instruments	25.9	30.5	26.3	31.0	1.2%	0.1%	3.3%
Global record business	662.8	618.2	482.3	481.0	-2.1%	-2.5%	-0.1%
Record labels	441.1	348.5	188.0	199.1	-5.2%	-5.4%	1.1%
Management / services	72.4	86.5	109.1	133.4	4.2%	4.4%	4.1%
Publishing & copyright	141.0	165.3	166.3	131.2	-0.5%	-2.3%	-4.6%
Commercial use	8.4	17.9	18.8	17.4	5.0%	-0.3%	-1.5%
Grand total	1,830.6	1,953.1	2,057.8	2,810.9	2.9%	3.7%	6.4%

Table 3: Direct economic impact – output (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	364.3	508.1	668.5	837.6	5.7%	5.1%	4.6%
Artists / musicians	321.5	448.8	514.4	624.8	4.5%	3.4%	4.0%
Music education	42.9	59.4	154.1	212.8	11.3%	13.6%	6.7%
Mass music consumption	2,100.6	2,347.1	2,889.8	6,833.2	8.2%	11.3%	18.8%
Broadcast / stream	898.3	1,113.2	1,482.6	3,534.5	9.6%	12.2%	19.0%
Concerts / festivals / venues	702.8	727.9	951.4	1,800.7	6.5%	9.5%	13.6%
Performing groups	260.4	251.2	284.3	368.4	2.3%	3.9%	5.3%
Retail	239.1	254.8	171.5	1,129.6	10.9%	16.1%	45.8%
Infra & support services	1,266.8	1,249.7	1,377.7	1,323.7	0.3%	0.6%	-0.8%
Recording	436.9	451.8	643.9	730.1	3.5%	4.9%	2.5%
Music publications	723.3	670.1	610.2	464.3	-2.9%	-3.6%	-5.3%
Instruments	106.6	127.8	123.6	129.3	1.3%	0.1%	0.9%
Global record business	9,462.5	8,331.2	6,278.0	4,679.3	-4.6%	-5.6%	-5.7%
Record labels	7,826.5	6,312.3	3,844.0	2,583.2	-7.1%	-8.5%	-7.6%
Management / services	157.6	182.2	243.8	299.7	4.4%	5.1%	4.2%
Publishing & copyright	1,293.8	1,631.3	2,013.3	1,684.6	1.8%	0.3%	-3.5%
Commercial use	184.6	205.4	176.9	111.8	-3.3%	-5.9%	-8.8%
Grand total	13,194.2	12,436.1	11,214.0	13,673.7	0.2%	1.0%	4.0%

Table 4: Indirect economic impact by Direct category – jobs

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	560	640	694	754	2.0%	1.7%	1.7%
Artists / musicians	394	453	468	503	1.6%	1.1%	1.5%
Music education	166	187	227	251	2.8%	3.0%	2.1%
Mass music consumption	3,599	3,478	4,048	6,534	4.1%	6.5%	10.0%
Broadcast / stream	2,202	2,090	2,562	4,758	5.3%	8.6%	13.2%
Concerts / festivals / venues	706	779	860	1,207	3.6%	4.5%	7.0%
Performing groups	593	512	504	390	-2.8%	-2.7%	-5.0%
Retail	98	97	122	178	4.1%	6.3%	7.9%
Infra & support services	1,717	1,548	1,420	1,326	-1.7%	-1.5%	-1.4%
Recording	617	503	527	575	-0.5%	1.3%	1.8%
Music publications	953	868	<i>7</i> 31	601	-3.0%	-3.6%	-3.8%
Instruments	147	177	162	150	0.1%	-1.7%	-1.6%
Global record business	1,866	1,641	1,390	1,499	-1.5%	-0.9%	1.5%
Record labels	1015	644	402	474	-4.9%	-3.0%	3.3%
Management / services	290	329	335	392	2.0%	1.8%	3.2%
Publishing & copyright	414	407	400	390	-0.4%	-0.4%	-0.5%
Commercial use	148	261	252	243	3.4%	-0.7%	-0.7%
Grand total	7,742	7,306	7,552	10,112	1.8%	3.3%	6.0%

Table 5: Indirect economic impact by Direct category – wages (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	41.2	56.5	66.5	84.6	4.9%	4.1%	4.9%
Artists / musicians	34.3	47.0	53.4	66.1	4.5%	3.5%	4.4%
Music education	6.9	9.5	13.1	18.5	6.8%	6.9%	7.1%
Mass music consumption	178.5	182.2	261.2	586.1	8.3%	12.4%	17.5%
Broadcast / stream	87.7	88.9	146.2	400.5	10.7%	16.2%	22.3%
Concerts / festivals / venues	48.0	51.2	62.2	111.0	5.8%	8.0%	12.3%
Performing groups	35.1	33.9	42.5	54.1	2.9%	4.8%	5.0%
Retail	7.7	8.2	10.4	20.5	6.7%	9.6%	14.6%
Infra & support services	97.3	96.4	98.8	101.3	0.3%	0.5%	0.5%
Recording	34.6	35.5	41.3	42.5	1.4%	1.8%	0.6%
Music publications	55.2	51.2	47.7	48.7	-0.8%	-0.5%	0.4%
Instruments	7.5	9.7	9.8	10.2	2.1%	0.5%	0.7%
Global record business	265.6	256.7	190.9	176.3	-2.7%	-3.7%	-1.6%
Record labels	147.4	116.4	62.8	66.5	-5.2%	-5.4%	1.1%
Management / services	23.2	27.7	35.0	42.8	4.2%	4.4%	4.1%
Publishing & copyright	83.8	88.6	68.0	43.8	-4.2%	-6.8%	-8.4%
Commercial use	11.2	23.9	25.1	23.2	5.0%	-0.3%	-1.5%
Grand total	582.6	591.9	617.5	948.4	3.3%	4.8%	9.0%

Table 6: Indirect economic impact by Direct category – output (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	71.8	100.1	136.3	172.0	6.0%	5.6%	4.8%
Artists / musicians	61.4	85.7	98.2	119.3	4.5%	3.4%	4.0%
Music education	10.4	14.4	38.2	52.7	11.4%	13.8%	6.7%
Mass music consumption	603.3	626.6	830.4	2,327.5	9.4%	14.0%	22.9%
Broadcast / stream	252.0	266.2	407.9	1,376.7	12.0%	17.9%	27.5%
Concerts / festivals / venues	220.7	228.7	298.8	565.6	6.5%	9.5%	13.6%
Performing groups	63.5	61.3	69.4	89.9	2.3%	3.9%	5.3%
Retail	67.0	70.5	54.3	295.3	10.4%	15.4%	40.3%
Infra & support services	268.8	266.7	271.0	236.9	-0.8%	-1.2%	-2.7%
Recording	41.5	42.7	60.6	68.4	3.4%	4.8%	2.4%
Music publications	189.4	175.5	159.8	121.6	-2.9%	-3.6%	-5.3%
Instruments	38.0	48.5	50.6	47.0	1.4%	-0.3%	-1.5%
Global record business	1,246.5	1,157.1	920.3	687.0	-3.9%	-5.1%	-5.7%
Record labels	823.7	664.4	404.6	271.9	-7.1%	-8.5%	-7.6%
Management / services	49.5	57.2	76.6	94.1	4.4%	5.1%	4.2%
Publishing & copyright	136.2	171.7	211.9	177.3	1.8%	0.3%	-3.5%
Commercial use	237.1	263.9	227.2	143.6	-3.3%	-5.9%	-8.8%
Grand total	2,190.4	2,150.5	2,158.0	3,423.4	3.0%	4.8%	9.7%

Table 7: Indirect economic impact by impacted category - jobs

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Professional services	2,629	2,409	2,528	3,551	2.0%	4.0%	7.0%
Facilities / equipment	930	892	948	1,283	2.2%	3.7%	6.2%
Transportation / lodging	988	920	949	1,263	1.7%	3.2%	5.9%
Office services	823	722	739	1,026	1.5%	3.6%	6.8%
Financial services	505	487	501	641	1.6%	2.8%	5.1%
IT / telecom	556	460	449	636	0.9%	3.3%	7.2%
Other	1,312	1,418	1,440	1,712	1.8%	1.9%	3.5%
Grand total	7,742	7,306	7,552	10,112	1.8%	3.3%	6.0%

Table 8: Indirect economic impact by impacted category - wages (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Professional services	210.3	210.0	230.8	376.8	4.0%	6.0%	10.3%
Facilities / equipment	37.4	38.7	44.6	73.0	4.6%	6.5%	10.4%
Transportation / lodging	33.6	33.9	37.7	61.1	4.1%	6.1%	10.1%
Office services	42.8	41.8	45.9	77.4	4.0%	6.4%	11.0%
Financial services	91.7	93.6	98.1	142.2	3.0%	4.3%	7.7%
IT / telecom	60.7	56.5	55.1	89.0	2.6%	4.7%	10.0%
Other	106.2	117.3	105.2	128.8	1.3%	0.9%	4.1%
Grand total	582.6	591.9	617.5	948.4	3.3%	4.8%	9.0%

Table 9: Indirect economic impact by Indirect category – output (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Professional services	601.6	580.8	596.7	1,025.2	3.6%	5.8%	11.4%
Facilities / equipment	309.6	309.7	332.0	615.2	4.7%	7.1%	13.1%
Transportation / lodging	133.5	128.9	139.1	239.5	4.0%	6.4%	11.5%
Office services	118.6	111.9	112.5	193.5	3.3%	5.6%	11.4%
Financial services	301.1	295.4	302.6	475.1	3.1%	4.9%	9.4%
IT / telecom	319.4	288.0	253.0	354.4	0.7%	2.1%	7.0%
Other	406.8	435.7	422.2	520.5	1.7%	1.8%	4.3%
Grand total	2,190.4	2,150.5	2,158.0	3,423.4	3.0%	4.8%	9.7 %

Table 10: Induced economic impact – jobs

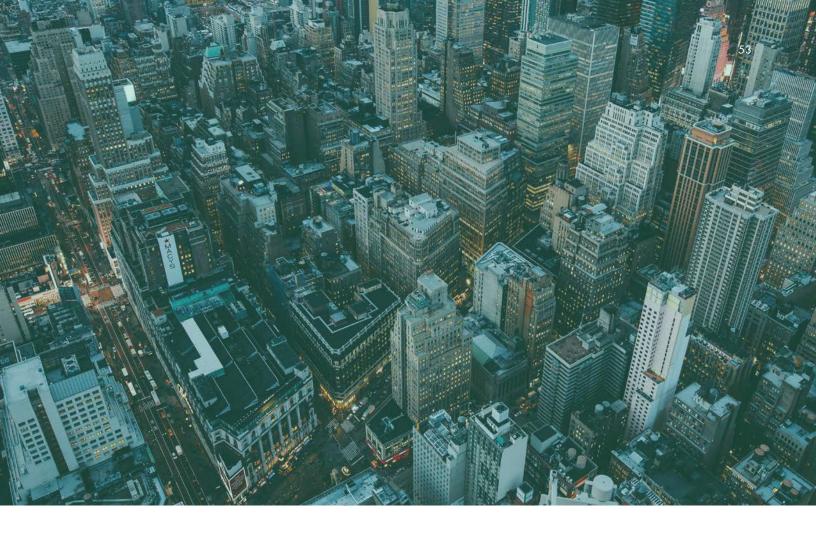
	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	1,359	1,555	1,667	1,813	1.9%	1.5%	1.7%
Artists / musicians	1,062	1,219	1,260	1,354	1.6%	1.1%	1.5%
Music education	296	336	407	459	3.0%	3.2%	2.4%
Mass music consumption	4,495	5,428	5,792	7,701	3.7%	3.6%	5.9%
Broadcast / stream	2,855	3,811	4,058	5,663	4.7%	4.0%	6.9%
Concerts / festivals / venues	771	851	939	1,319	3.6%	4.5%	7.0%
Performing groups	<i>7</i> 11	615	605	468	-2.8%	-2.7%	-5.0%
Retail	157	151	190	251	3.2%	5.2%	5.7%
Infra & support services	2,035	1,747	1,705	1,729	-1.1%	-0.1%	0.3%
Recording	1,018	800	899	1040	0.1%	2.7%	3.0%
Music publications	918	836	704	579	-3.0%	-3.6%	-3.8%
Instruments	98	111	101	109	0.7%	-0.2%	1.6%
Global record business	2,100	1,715	1,417	1,552	-2.0%	-1.0%	1.8%
Record labels	1,236	784	490	577	-5.0%	-3.0%	3.3%
Management / services	316	360	366	429	2.0%	1.8%	3.2%
Publishing & copyright	504	495	487	475	-0.4%	-0.4%	-0.5%
Commercial use	43	76	74	<i>7</i> 1	3.3%	-0.7%	-0.8%
Total - Induced impact from Direct	9,988	10,446	10,581	12,795	1.7%	2.0%	3.9%
Plus - Induced impact from Indirect	2,523	2,395	2,455	3,259	1.7%	3.1%	5.8%
Grand total	12,511	12,841	13,036	16,054	1.7%	2.3%	4.3%

Table 11: Induced economic impact – wages (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	69.2	94.9	111.3	141.2	4.9%	4.1%	4.9%
Artists / musicians	58.7	80.4	91.3	113.0	4.5%	3.5%	4.4%
Music education	10.5	14.5	20.0	28.2	6.8%	6.9%	7.1%
Mass music consumption	148.5	163.0	209.9	391.5	6.7%	9.2%	13.3%
Broadcast / stream	67.8	80.4	107.6	228.9	8.5%	11.0%	16.3%
Concerts / festivals / venues	40.6	43.4	52.7	94.0	5.8%	8.0%	12.3%
Performing groups	31.8	30.7	38.4	49.0	2.9%	4.8%	5.0%
Retail	8.3	8.5	11.2	19.6	5.9%	8.7%	11.9%
Infra & support services	80.5	80.1	85.1	93.8	1.0%	1.6%	1.9%
Recording	36.1	37.5	45.9	52.9	2.6%	3.5%	2.9%
Music publications	38.7	35.8	33.4	34.1	-0.8%	-0.5%	0.4%
Instruments	5.7	6.7	5.8	6.8	1.2%	0.1%	3.3%
Global record business	166.0	155.1	122.1	122.5	-2.0%	-2.3%	0.1%
Record labels	109.6	86.6	46.7	49.5	-5.2%	-5.4%	1.1%
Management / services	19.7	23.5	29.6	36.2	4.2%	4.4%	4.1%
Publishing & copyright	34.6	40.7	41.2	32.6	-0.4%	-2.2%	-4.6%
Commercial use	2.0	4.3	4.5	4.2	5.0%	-0.3%	-1.5%
Total - Induced impact from Direct	464.2	493.1	528.4	749.0	3.2%	4.3%	7.2%
Plus - Induced impact from Indirect	131.5	133.5	138.7	212.3	3.2%	4.8%	8.9%
Grand total	595.7	626.6	667.1	961.3	3.2%	4.4%	7.6%

Table 12: Induced economic impact – output (in \$M)

	2000	2005	2010	2015	Annualized growth 2000-15	Annualized growth 2005-15	Annualized growth 2010-15
Local artist communities	157.2	219.3	279.4	348.2	5.4%	4.7%	4.5%
Artists / musicians	140.4	196.0	224.7	272.9	4.5%	3.4%	4.0%
Music education	16.8	23.3	54.7	75.3	10.5%	12.5%	6.6%
Mass music consumption	650.9	742.9	891.0	1,901.2	7.4%	9.9%	16.4%
Broadcast / stream	312.1	398.2	469.4	1,042.5	8.4%	10.1%	17.3%
Concerts / festivals / venues	202.9	210.1	274.7	519.8	6.5%	9.5%	13.6%
Performing groups	66.0	63.6	72.0	93.3	2.3%	3.9%	5.3%
Retail	70.0	70.9	74.9	245.6	8.7%	13.2%	26.8%
Infra & support services	245.5	243.1	258.9	245.3	0.0%	0.1%	-1.1%
Recording	64.0	67.0	96.6	111.7	3.8%	5.2%	2.9%
Music publications	151.6	140.5	127.9	97.3	-2.9%	-3.6%	-5.3%
Instruments	29.9	35.7	34.4	36.2	1.3%	0.1%	1.1%
Global record business	926.8	830.6	650.0	504.8	-4.0%	-4.9%	-4.9%
Record labels	719.3	580.2	353.3	237.4	-7.1%	-8.5%	-7.6%
Management / services	45.5	52.6	70.4	86.5	4.4%	5.1%	4.2%
Publishing & copyright	118.9	149.9	185.0	154.8	1.8%	0.3%	-3.5%
Commercial use	43.1	47.9	41.3	26.1	-3.3%	-5.9%	-8.8%
Total - Induced impact from Direct	1,980.4	2,035.9	2,079.2	2,999.5	2.8%	4.0%	7.6%
Plus - Induced impact from Indirect	561.1	550.2	552.5	871.7	3.0%	4.7%	9.5%
Grand total	2,541.5	2,586.1	2,631.7	3,871.3	2.8%	4.1%	8.0%



Appendix IV - Data Sources for Exhibits

Exhibit 1/2/3/4: BCG analysis

Exhibit 5: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, National Economic Census 2007, 2012 IMPLAN 2014 New York City economic multipliers, BCG analysis

Exhibit 6: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, National Economic Census 2012, BCG analysis

Exhibit 7: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2015 Nonemployer Statistics 2014, BCG analysis

Exhibit 8: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, BCG analysis

Exhibit 9/10: Pollstar New York City venue database, BCG analysis

Exhibit 11: Pollstar 2015 Year End Report

Exhibit 12: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, BCG analysis

Exhibit 13: Pollstar 2015 Year End Report, U.S. 2010

census, London 2011 Official Labour Market Statistics, Toronto 2011 census, BCG Analysis

Exhibit 14: Press Articles, BCG analysis

Exhibit 15: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, BCG analysis

Exhibit 16: IFPI Reports 2008, 2012, 2016, BCG analysis **Exhibit 17:** Bureau of Labor Statistics Quarterly Census of Employment and Wages 2010-2015 Nonemployer Statistics 2010-2014, BCG analysis

Exhibit 18: Bureau of Labor Statistics – Quarterly Census of Employment and Wages 2001-15, Non-employer Statistics 2001-15, BCG Analysis

Exhibit 19: Capital IQ, BCG analysis

Exhibit 20/21: Bureau of Labor Statistics Quarterly Census of Employment and Wages 2015 Nonemployer Statistics 2014, National Economic Census 2012 IMPLAN 2014 New York City economic multipliers, BCG analysis

Exhibit 22: Everfast.com, BCG analysis

Exhibit 23: BCG analysis

About the Authors

Sushmita Banerjee is a partner and managing director in the New York City office of The Boston Consulting Group. A core member of the firm's Technology, Media & Telecommunications practice, she previously supported the New York City Mayor's Office of Media and Entertainment with publications on the filmed entertainment sector, including Industry Retrospective: 50 Years of TV and Film in NYC. You may contact her by email at banerjee.sushmita@bcg.com.

Tim Mank is a principal in BCG's New York City office and a core member of the firm's Technology, Media & Telecommunications practice. He has helped media and entertainment organizations grow their business through strategic and operational initiatives, including digital innovation. You may contact him by email at mank.tim@bcg.com.

Greg Curreri is a consultant in BCG's New Jersey office and an active member of the firm's Consumer practice, where his expertise includes strategic transformation projects. An avid musician, he has performed with vocal ensembles at New York City's Carnegie Hall and Lincoln Center. You may contact him by email at curreri.gregory@bcg.com.

Roshan Ray is an associate in BCG's New York City office. His expertise in media and entertainment includes supporting film studios, TV networks, and print media companies on corporate development, digital growth, and strategic planning topics. You may contact him by email at ray.roshan@bcg.com.

John Rose is a senior partner and managing director in BCG's New York City office. A core member of the firm's Technology, Media & Telecommunications practice, as well as its Technology Advantage practice, he was formerly Executive Vice President at EMI Music, responsible for building and managing the company's digital music business. Vice Chair of New York Public Radio, and also aspiring musician. You may contact him by email at rose.john@bcg.com.

Tim Nolan is a partner and managing director in BCG's New York City office. A core member of the firm's Corporate Development and Technology, Media & Telecommunications practices, he previously led BCG's support of the New York City Mayor's Office of Media and Entertainment in the filmed entertainment sector. You may contact him by email at nolan.tim@bcg.com.

Martin Kon is a partner and managing director in BCG's New York City office and a core member of the firm's Technology, Media & Telecommunications practice. He has previously advised the world's leading media and entertainment companies, including music labels, on a range of topics, as well as supported the New York City Mayor's Office's MediaNYC2020 initiative. You may contact him by email at kon.martin@bcg.com.



