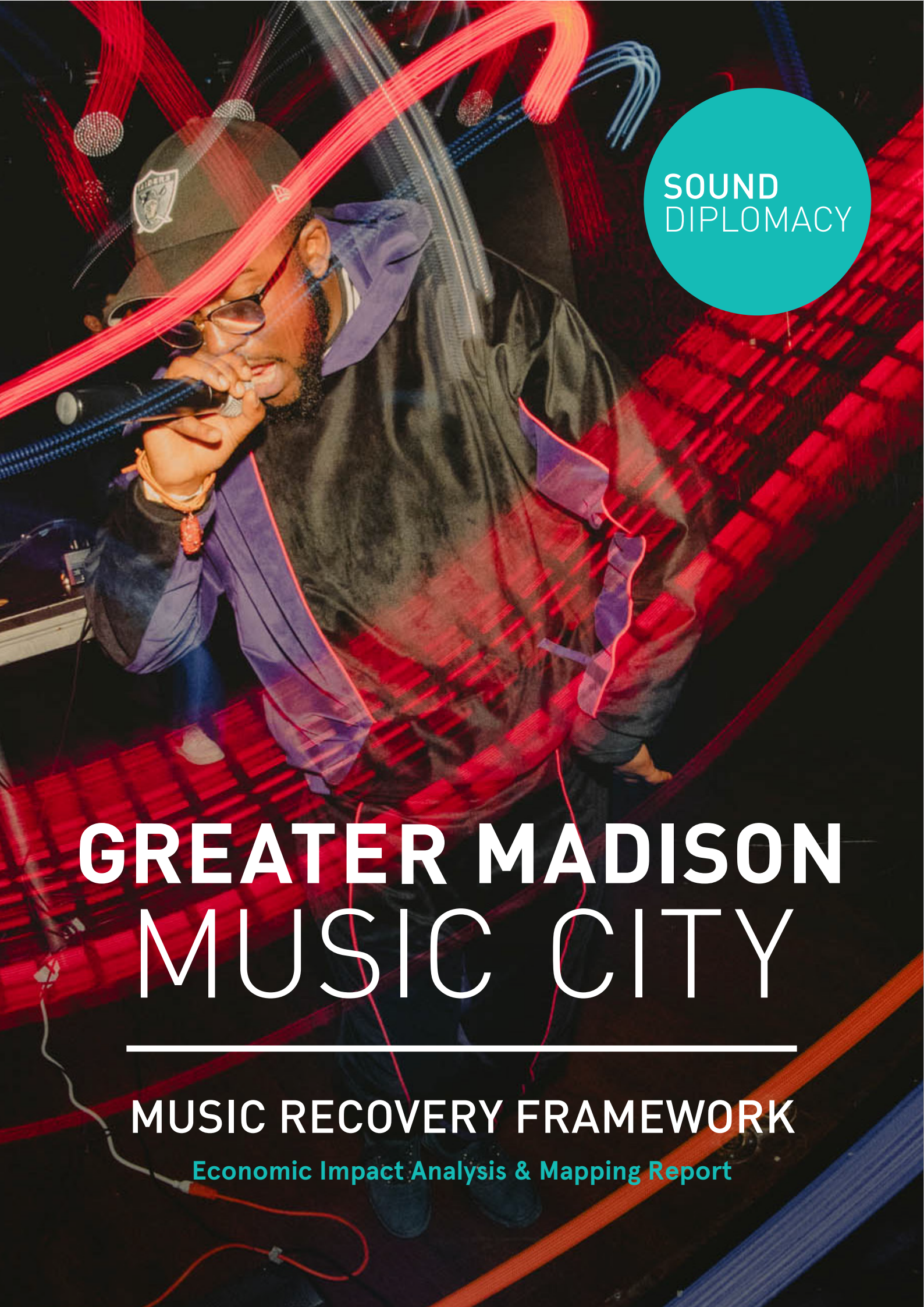


SOUND
DIPLOMACY

GREATER MADISON MUSIC CITY

MUSIC RECOVERY FRAMEWORK

Economic Impact Analysis & Mapping Report

TABLE OF CONTENTS

GREATER MADISON MUSIC CITY
MUSIC RECOVERY FRAMEWORK

1. Introduction

1.1 About the Project

Sound Diplomacy was engaged by The Greater Madison Music City Project to develop a music recovery framework to determine how Madison can build equity in the music industry and guide sustainable tourism and recovery efforts inclusively across all communities and demographics. The impacts of the COVID-19 pandemic world-wide led to significant global changes that impacted local economies and their music ecosystems. As a consequence, communities, like Madison, gained a new perspective on the value of music not just on the economy, but also on the social connectivity, tourism potential and cultural development of a community, when it was paused in response to the pandemic. As a response to this new shift in perspective of communities everywhere, Sound Diplomacy published its *Music Cities Resilience Handbook* which has helped us make a case for music as a driver for economic resilience and equity, converting relief into long-term investment, and all-encompassing support – so music becomes a more economically, socially and culturally impactful sector in cities like Madison and all over the world. With this new focus, building a robust recovery framework for Madison's music ecosystem and its current state requires identifying and analyzing where it can be leveraged to achieve its recovery, resilience and inclusivity goals. For this reason, the work presented in this report is considered not a conclusion, but an initial step towards a sustainable, long-term goal to determine the most effective processes that will create an equitable framework to develop music - in all its forms and functions - across Madison and Dane County.

The project began in January 2021 as the first phase of the study into the local music economy and the first to provide in-depth analysis and insight into the effects of music in the city. The scope of this work focused on Madison's music economic impact, while also analyzing a locally-led mapping exercise to deliver a comprehensive report on Madison's current music ecosystem.

1.2 Building the Case for a Music Strategy in Madison

Music is inherently part of every cities' ecosystem. Like in nature, this ecosystem is formed by a group of participants, a set of resources, and an environment where they develop their activities, connect with each other and interact with other ecosystems. Like in all ecosystems, these relationships are interdependent. The existence of some participants and stakeholders depends on the existence of others, each reliant on a sustainable environment that favors their survival. While this interdependence can be beneficial for the growth and sustainability of some ecosystems, an imbalance of resources or limited diversity amongst the ecosystem's communities can impede development of the ecosystem's potential. This is why assessment of an ecosystem's current state and range of diversity benefits the community in question as well as its surrounding cultural ecology.

In the case of music, the agents that help nourish and sustain a music ecosystem include many categories, starting with the artists and ranging all the way to the audience. Some are more visible, like music venues or labels. Others, like IT suppliers, designers, or government organizations, are less visible and yet still, they are all relevant, and they all play an important role in the chain.

The economy of music can be understood as a segment of the economy of culture. It seeks to explain the phenomena of the music sector by making use of economic and statistical tools with the fundamental purpose of providing insights for public policy and private decision making. This segment of the economy is not limited to the transactional nature of goods and services in the marketplace and it can also be utilized to understand the dynamics of non-monetary resources present within the music ecosystem. With that in mind, this work places a special focus on the economic impact of music in Greater Madison to make the case that investing in and supporting a music city is not about supporting a sector within an ecosystem, but leveraging the economy and sustainability of an entire ecosystem.

1.3 Music Cities Resilience

In May 2020, as a response to the COVID-19 pandemic, Sound Diplomacy published its *Music Cities Resilience Handbook*[1], a helpful toolkit for Greater Madison to consider as it looks toward recovery and building resilience. The objective of the handbook was to demonstrate the value of music not just on local economies, but also on the social and cultural development of a community. At the same time, it proposed a number of cost-neutral

[1] Sound Diplomacy (2020)

strategies, researched and tested from our work around the world, that cities and relative organizations can take to support the stabilization and recovery of the music ecosystem and in doing so, support the wider economic and cultural recovery simultaneously. While the Music Cities Resilience Handbook was written as the COVID-19 pandemic was unfolding, it is important to ensure that the findings are utilized in a manner that makes sense for the time we are in now, rather than before.

Music Cities Resilience is based on a number of key factors. The first is that music must be part and parcel of recovery discussions and decision making and to spur a more equitable recovery, music and cultural representatives must have a seat at the table. The data analyzed in this study is supportive of that shift in recovery discussions and decision making, to better inform the role that music has on the wider economy.

Second, while much relief has been required to support creators and the music ecosystem, there is an opportunity to convert this relief into investment and, in the process, develop greater community resilience around music. Third, all support –be it financial, policy-based or incentive related– must be for all music, all genres and all disciplines.

Finally, the crisis demonstrates a need to produce explicit, intentional and deliberate policies and procedures specific to music, to ensure a wider, more equitable recovery. Speaking more directly to the sector through incentives, planning and licensing regulation, inclusive growth and professional development programs, for example, will involve a wider set of stakeholders, which will bring more music to the surface and more economic and social return to the community.

This is the core of the Music Cities Resilience Handbook and its findings, which are meant to function as a continuum. The data gathered through our work with Greater Madison has been analyzed with these elements in mind –music as a driver for economic resilience and equity, converting relief into long-term investment, and all-encompassing support– so music becomes a more economically, socially and culturally impactful sector in Greater Madison.

1.4 Sound Diplomacy Embraces Inclusion, Equity and Diversity

INCLUSION - Our policy is to be intentional in engaging all voices, all genres, all styles & all disciplines in our stakeholder engagement process. We will work with our clients, and their constituents, to encourage inclusion of all voices across race, gender, style, discipline, age and vocation.

EQUITY - Our objective is to engage with the widest set of music assets, voices and infrastructure in all the cities and places we work. Music is everywhere and it comes in all shapes, sounds and sizes. We embrace all genres, styles, colours, representations and opinions through the research and auditing process, from start-to-finish.

DIVERSITY - Music is our universal language. We all speak it. Our principle is to celebrate diversity throughout our work, in every way it manifests.

1.5 Our Commitment to the Sustainable Development Goals

In 2015, world leaders agreed to 17 goals for a better world by 2030. These goals have the power to end poverty, fight inequality and address the urgency of climate change. Guided by the goals, it is now up to all of us, governments, businesses, civil society and the general public to work together to build a better future for everyone.[2] The SDGs are made up of 17 commitments and 169 targets.

Our work aims to bring together the universal language of music with the universal language of sustainability and development, the UN Sustainable Development Goals. With all countries

[2] https://www.globalgoals.org/

ratifying the UN's SDGs, a code and framework to guide sustainable development has grown to influence development arrangements and contractual obligations of donors and grantees. While culture is not part of the SDGs and seen as transversal - a part of all SDGs - there have been guides produced to better understand the role culture can play in meeting the largest, more serious goals of our time. United Cities and Local Governments' *Culture and the SDGs*, is one example and provides guidance for this report.

There is a role for music to play in each of the SDGs. From its global industry creating stars and packing arenas to the simple act of learning to play an instrument at a young age, to deploying the restorative power of music to support healthy aging, music can help meet the global goals. But we need these languages - music and sustainable development - to communicate. This guide is an attempt to do so - to define, across each of the 17 SDGs and multiple additional targets, specific actions that can be taken to use music more deliberately and intentionally to meet our global goals.

1.6 Methodology

Work Group Roundtable and SWOT Assessment Led by Madison Music City

To complement the work completed by Sound Diplomacy, The Greater Madison Music City Project conducted four work group discussions to complete a SWOT analysis to help inform our data. These work groups were divided into the following categories:

- Tourism and Music Hub
- Equity and Artist Relations
- Partnerships and Business Connections
- Economic Impact

Mapping Template

Sound Diplomacy delivered a mapping template for The Greater Madison Music City Project to use to perform their own local asset mapping. The mapping identified music related assets in Dane County, with a special focus on the City of Madison.

Economic Impact Assessment

Our economic impact assessment methodology assessed the requirements of this work to produce the following:

1. **DIRECT ECONOMIC IMPACT:** Economic value of the activities related to the core of the music ecosystem. Its results are the basis for calculating the indirect and induced impact. Its calculation is made by adding the output, gross value added (GVA), employment and wages of each of the selected economic activities by North American Industry Classification System (NAICS) code.
2. **INDIRECT ECONOMIC IMPACT:** Changes in the values of the output, GVA, employees and wages caused by the agents of the music ecosystem in its relative supply chain. In other words, it is the economic value that involves all economic activities as a result of its relations with the music industry at a local level.
3. **INDUCED ECONOMIC IMPACT:** Economic value (output, GVA, and employment) derived from the spending of wages and incomes produced directly or indirectly by the core of the music ecosystem in the area.

It is important to clarify that for the Economic Impact Assessment completed in this project we narrowed down the definition of the music ecosystem so it could be related to the value of the stakeholders most closely related to music. As part of our analysis, the music ecosystem was divided into two main segments:

- On the one hand, there is the **Artistic and Creative Segment**, which groups the musical artists, musicians, creators, and songwriters.
- On the other hand, there is the **Professional and Supporting Segment**, which includes music-related businesses such as manufacturing, publishing and distribution, managers and agents, music venues, radio broadcasting, and music education.

2. Music Ecosystem Overview

2.1 Work Group Roundtable Discussions

The Greater Madison Music City Project conducted four work group roundtable discussions with members of the music ecosystem to assess the current state of Madison's music

ecosystem from the point of view of its participants. The findings below have been compiled and analyzed by The Greater Madison Music City Project.[3]

Table 1. Madison Music Ecosystem SWOT Conducted by The Greater Madison Music City Project[4]

STRENGTHS	WEAKNESSES

• Free music / live-entertainment and outdoor performance spaces
  ○ Ex. Jazz @ 5, Concerts on the Square, festivals, etc.
• Non-traditional performance opportunities
  ○ Make Music Madison, reserve park shelters, etc.
• Wealth of young creatives (UW-Madison, Madison Area Technical College) who both create and consume music
• High level of musicianship + wide arrange of genres
• Diverse sounds
• "Small" forces within Madison (different organizations, groups, etc. sharing opportunities, promoting equity, etc.)
• Local individuals that have worked directly with the industry on a national level that are willing to share their knowledge
• Local musician work ethic is exceptional
	• No organized ways for young creatives to put their art in front of audiences
	• Event insurance is expensive and required for government grant programs
	  ○ More expensive or unavailable for Hip-Hop genre
	  ○ Expense falls on promoter/band/artist
	• Local pride is not always backed by action such as booking/paying musicians, paying cover charge, or buying music. Audiences are so used to free opportunities that they won't pay for entertainment.
	• Lack of small to mid-sized and locally owned venues
	• Most popular venues owned by one entity, which limits opportunity
	• There's no "spot" for artists and fans of color
	  ○ Musicians of color don't stay in Madison
	  ○ Young professionals of color don't stay in Madison

[3] For the list of questions and a breakdown of the SWOT analysis pertaining to each of the work groups interviewed by The Greater Madison Music City Project, please contact The Greater Madison Music City Project.
[4] Provided by The Greater Madison Music City Project

○ Ready to get out + do the dirty work ● Local *pride* ○ Seen as the place to be, family-friendly ● City is actively growing ● Community-based youth education ● Crowdsourcing initiatives keep money in the community	● No physical, tangible way to access industry ● Lack of community support for arts in general, limited public funding ● City has large and long-standing racial disparities ○ Most local Hip-Hop artists are Black and have limited opportunity due to stereotypes ○ Marginalization of Hip-Hop artists blamed on need to be "Family Friendly" ○ Vast majority of music opportunities cater to majority white residents ● Many hoops to jump through to be part of community spaces / events ● Disconnect between UW-Madison and local communities ● Sense of gatekeeping within the local scene – people work so hard to gain access and are afraid to share access even though they want to support the music community ● Lack of mentors / willingness to give real critique + guidance ● No Madison Cultural Affairs office – Arts Administrator is housed in Planning Department ● Entrepreneurs don't know how to access + use funding ● Lack of opportunity to grow as a professional musician because you

<table>
<tr><td></td><td>have to work multiple jobs to make ends meet (cost of living in Madison)

● Lack of Marketing
○ Bad design, lack of knowledge, etc.</td></tr>
<tr><td>OPPORTUNITIES</td><td>THREATS</td></tr>
<tr><td>● Retain young creatives
o Get ahead of the rest of the Midwest, observe what's working and what's not in competing cities (Minneapolis, Chicago, Milwaukee)

● Greater Madison is not "on the map" yet as a music city so we can build the identity

● Can increase on-traditional opportunities such as open-mics to get artists getting started a chance to network, gain experience, etc.

● Support education
○ Community-led knowledge shared through informal channels/networking
○ Creating workshops on industry-specific topics
○ Target artists that need the knowledge the most as a means to keep them in the area</td><td>● Focusing on one genre could be risky
○ Genre so heavily tied to tourism means if the genre's popularity drops, so does tourism related to that genre

● Media interpretation
○ Selling a story vs. Telling a story means sensationalizing negatives
○ Media demonizing Hip-Hop damaging to the scene
○ Powers-that-be believe media instead of data

● Media as a Gatekeeper
○ Pick and choose who is represented
○ Ignores local art / musicians

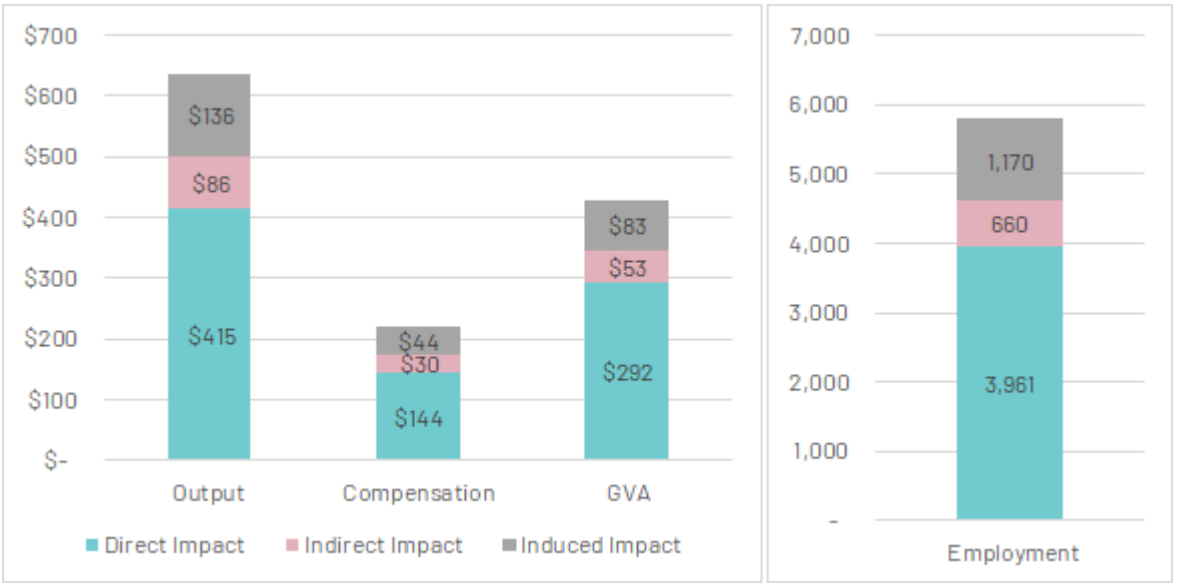
● Local people not checking local media ...
○ Aside from Tone Madison and Madison365, no other outlets seem to provide the right coverage for local art/music</td></tr>
</table>

○ Access points to get radio play, performance opportunities, etc. ● Population is growing, which means more money in the community ● Response to civil unrest makes residents aware of need to create racially equitable opportunities ● COVID-19 recovery allows us to rebuild with an equity focus ● Local arts community is recognizing the power of music as businesses recover from COVID ● Can build infrastructure to retain young musicians ● New large venues such as Youth Arts Center make space for people to keep growing as musicians from youths to adults	● Over-policing of events involving majority Black people and people of color. ● Tight-knit circles within Madison ○ Communal efforts often fizzle out ○ Limits of collaboration ○ Delays forward progress ● Because local Hip-Hop musicians must be booked through 3rd party promoters, people plan events with limited knowledge ○ Creates opportunity to exploit local artists without providing them with what they need or deserve ● Local entertainment policy ○ Licensing accessibility ○ BMI and ASCAP fees ○ Other local policy restriction(s) ● Power in local venue/entertainment to maintain and grow monopoly ● Without change, we will keep losing talent of color ● Lack of music venues owned by Black, indigenous, and people of color causes loss of talent of color and opportunity

2.2 Music Ecosystem Economic Impact Assessment

Figure 1 summarizes the economic impact (direct, indirect, and induced) of the music ecosystem in Dane County for 2018. It generated and supported a total of **5,791 jobs (1.86% of the employment in the county)**. In the same year, the **output** generated by the music ecosystem was **$636 million[5], its total GVA was $428 million** and the total **compensation** of the workers was **$218 million**.

Figure 1. Dane County Music Ecosystem Economic Impact, Output, Compensation, GVA (Million USD) and Employment 2018



Source: County Business Patterns 2018, BEA RIMS II, Sound Diplomacy Research

The following sections give an overview of the direct, indirect and induced impact of the Dane County music ecosystem.[6]

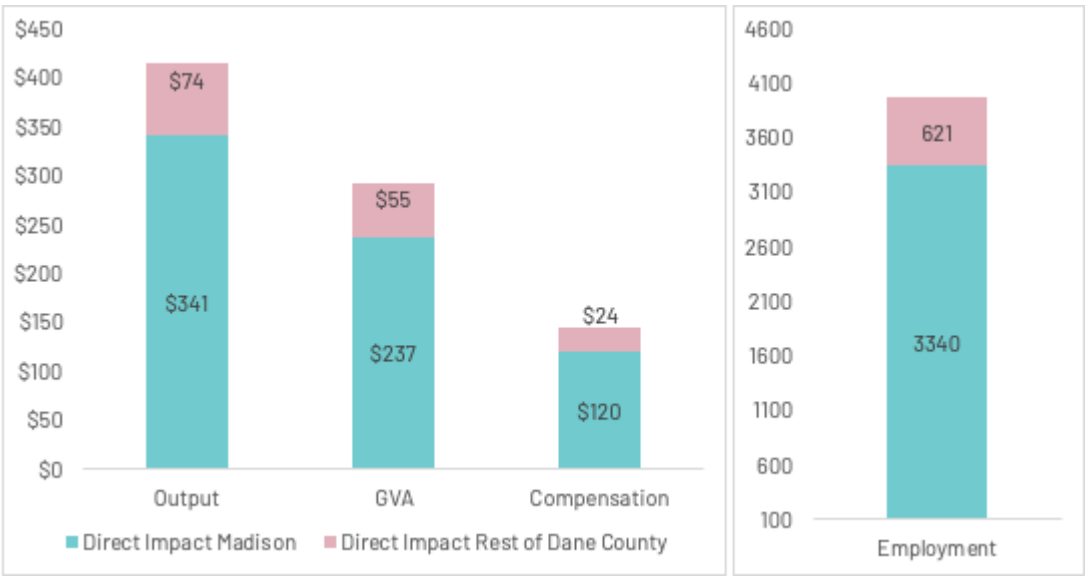
[5] Values are rounded to the nearest whole number. Total output was $636.3 M USD, Direct impact output was $ 415 M USD, Indirect impact output was $ 85.8 M USD and Induced impact was $135.5 M USD.
[6] For a list of music ecosystem definitions used in the economic impact assessment of the strategy, including NAICS codes, RIMS II multipliers, SOC for music ecosystem activities please see Appendix

2.2.1 Direct Impact

The direct impact reflects the economic value created directly by the activities of the music ecosystem. The Dane County music ecosystem produced a **direct output of $415 million** and an estimated **GVA of $292 million**. It was responsible for **3,961 direct jobs**, and the **compensation** of these employees (including both the professional and artistic segments) reached **$144 million**.

Madison's music ecosystem contributes with 84% (3,340) of the County's employment, as well as 82% of the output ($341 million), and 81.29% ($237 million) and 83.13% ($120 million) of the GVA and compensation respectively, which implies that it is the area with the largest economic activity concentration of the music ecosystem in Dane County (see Figure 2). The following figure reflects Madison's economic contribution to the Dane County's music ecosystem.

Figure 2. Dane County and Madison's Music Ecosystem Economic Impact, Output, Compensation, GVA (Million USD) and Employment 2018



Source: County Business Patterns 2018, BEA RIMS II, Sound Diplomacy Research

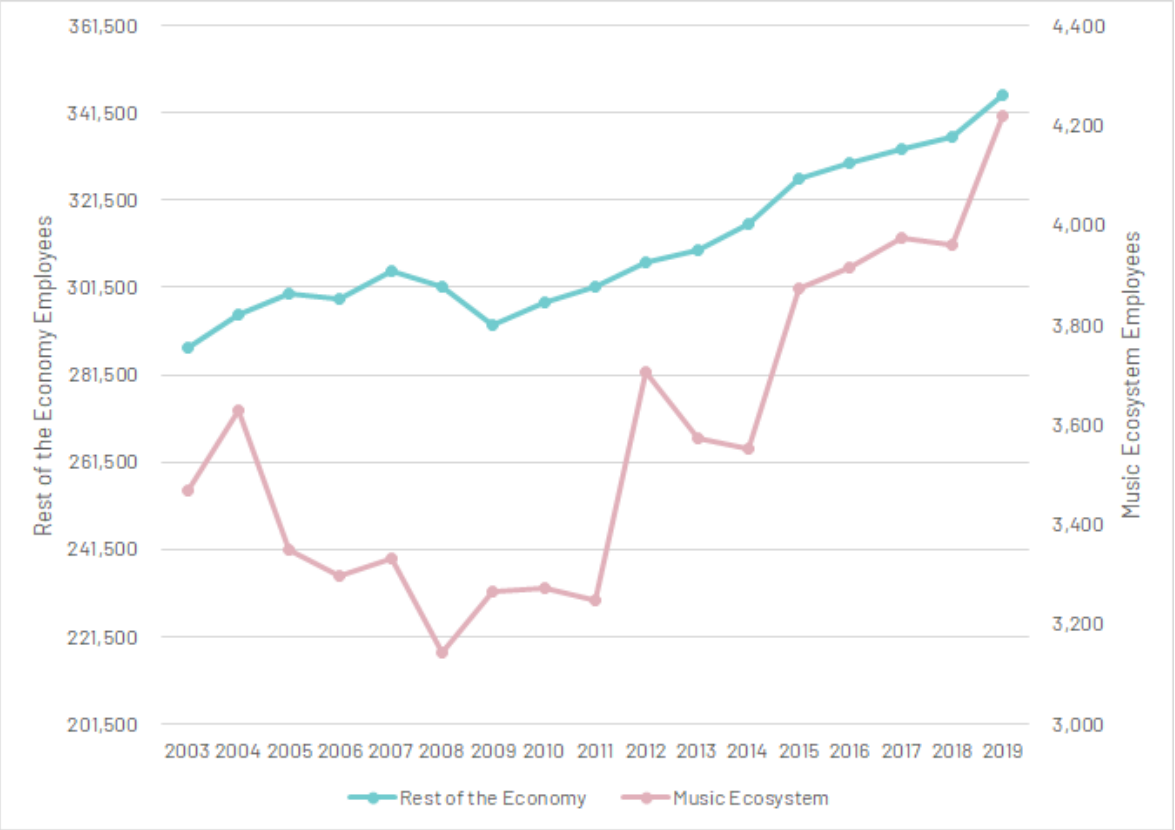
According to our calculations, Dane County's **music ecosystem employment grew** at a similar rate than the rest of the economy between 2003 and 2019, with an average growth of **1.4% for the music ecosystem** and **1.2% for the rest of the economy** (between 2002 and 2019).

On average each year between 2002 and 2019 in Dane County, the employees in both economies constantly grew. However, the **music ecosystem** showed a **stronger variation in employment** within the years. Whilst in the rest of the economy in Dane County the number of employees every year grew steadily (no high increases or decreases), in the music ecosystem there were some years where the number of employees dropped or increased significantly. Specifically during the years 2005, 2012, 2015 and 2019, the **variation** within the **music ecosystem exceeded 5%**, whereas in the rest of the economy, the magnitude of such changes never occurred (all under 3.5%). (see figure 3).

Such **variation** within the **music ecosystem** could be attributed to the **higher vulnerability** of the overall artistic and creative sector towards **economic variations or externalities** such as economic recessions and governmental budget assignment to the sector.[7] Moreover, this could also be attributed to a limitation in the sampling from the Quarterly Census of Employment and Wages (QCEW) survey.

[7] The correlation between the total budget in Dane's County and the employment in the rest of the economy during the period 2002 and 2019 was 0.91% and the correlation of the budget assigned to 'culture, education and recreation' and the total employment in the music ecosystem in Dane County during the period 2003 and 2019 was 0.71%. This means that the correlation between the annual budget assigned and the employment per year is strong (above 0.70%), and as such, they could influence one another.

Figure 3. Dane County Music Ecosystem Economic Direct Employment 2003 - 2019 [8]



Source: Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics, 2004-2019. Sound Diplomacy Research

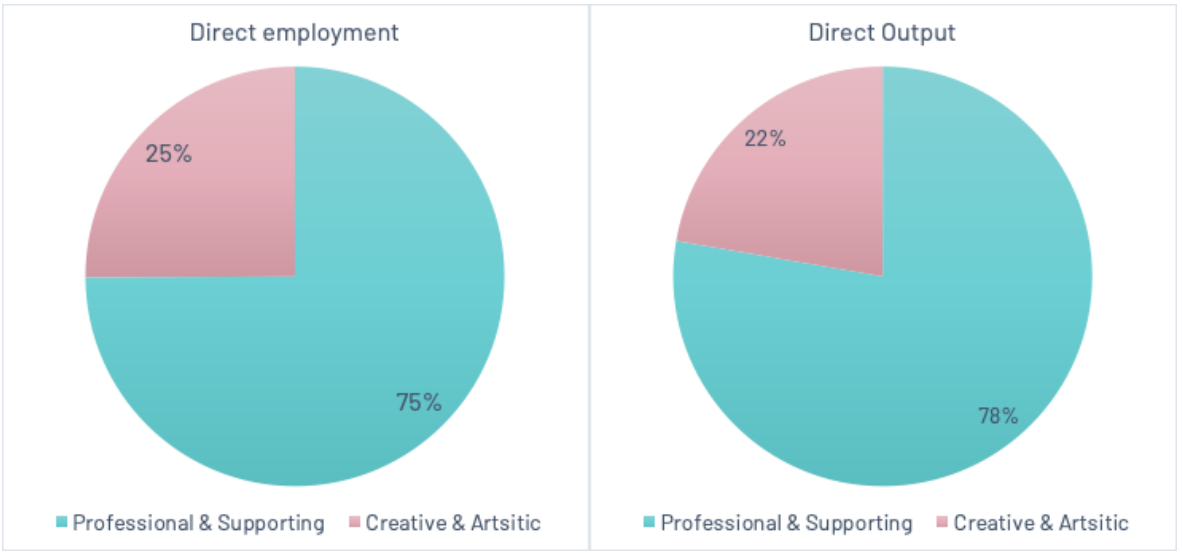
The economic activities related to the **Artistic & Creative Segment** of the music ecosystem[9] represented **22% ($92.5 million) of the direct output of the music sector**, while **Professional & Support activities comprised 78% ($322 million)**. Of the total direct employment created

[8] We excluded the economic activities: '7113 Promoters of performing arts and sports', 'NAICS 7114 Agents and managers for public figures', '45114 Musical instrument and supplies stores', '51224 Sound recording studios', '51229 Other sound recording industries' and '61161 Fine arts schools' when calculating the employment trend from the source Quarterly Census of Employment and Wages. These exclusions were necessary since there was information of employment of those industries only for some of the years in the analysed period. Including them would have generated a distortion in the employment trend.

[9] Artistic segment of the music ecosystem: According to the NAICS 2017, this activity comprises musicians (songwriters, music composers), music groups and performers.

by the music ecosystem, 75% (2,968) exists in the Professional & Supporting segment, while 25% (993) exists in the Artistic & Creative segment (see figure 4).

Figure 4.Music Ecosystem Direct Employment & Output by Segment 2018



Source: County Business Patterns 2018, BEA RIMS II, Sound Diplomacy Research

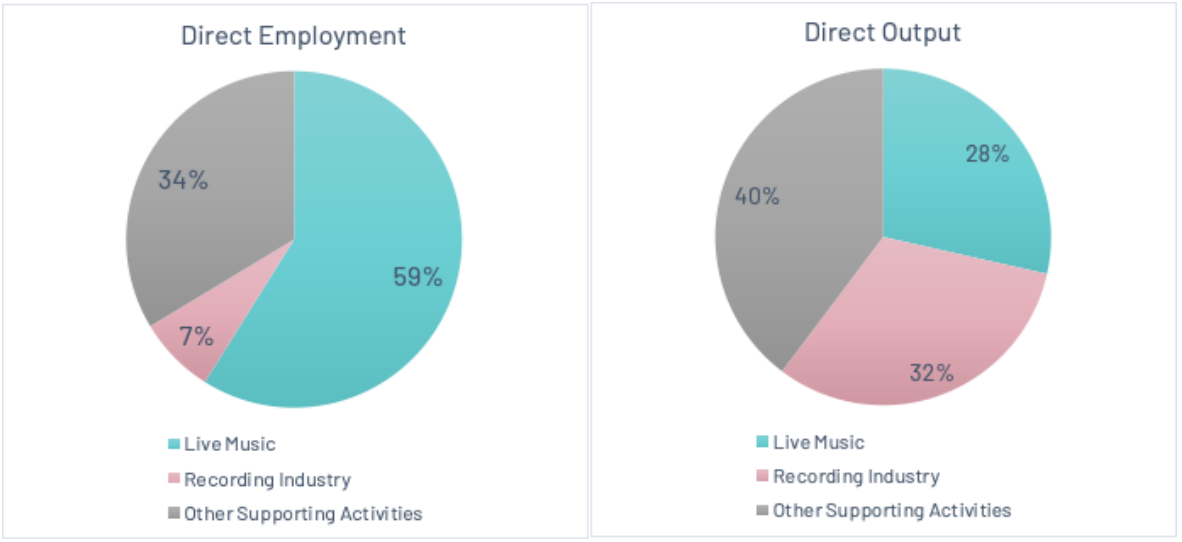
The Professional & Supporting Segment can be analyzed in detail by breaking it down by sub segments (Live Music[10], Recording Industry[11] and Other Supporting Activities[12]). These sub-segments contribute to the direct output of the Professional & Supporting segment differently. The Other Supporting Activities segment contributed 40% of the direct output of the segment, the Recording Industry sub-segment generated 32% of the segment output, while Live Music contributed only 28% (see Figure 5).

When looking at employment, the number of jobs supported by Live Music appears as the main contributor to the segment, generating around 59% while the Other Supporting Activities generates 34% of jobs and the Recording Industry only 7% of jobs in the segment.

[10] Live Music sub-segment include live music promoters, live music bookers, music venues, cafes, bars and restaurants with music, and night clubs.
[11] Recording industry sub-segment groups record labels, recording studios, managers and publishers.
[12] Other supporting activities sub-segment groups instruments and equipment retail and manufacturing, radio broadcasting, music education and music media and magazines.

These differences are due to the variance in the productive scheme of each one of them: the Live Music sub-segment requires more employees to provide its services (bartenders, roadies, promoters, logistics, etc), while the Recording Industry sub-segment needs fewer employees and more capital investment to provide its services, generating a bigger output, that's why the contribution of the Live Music sub segment reaches 1,993 jobs, while Recording Industries generates 253 jobs (see figure 5).

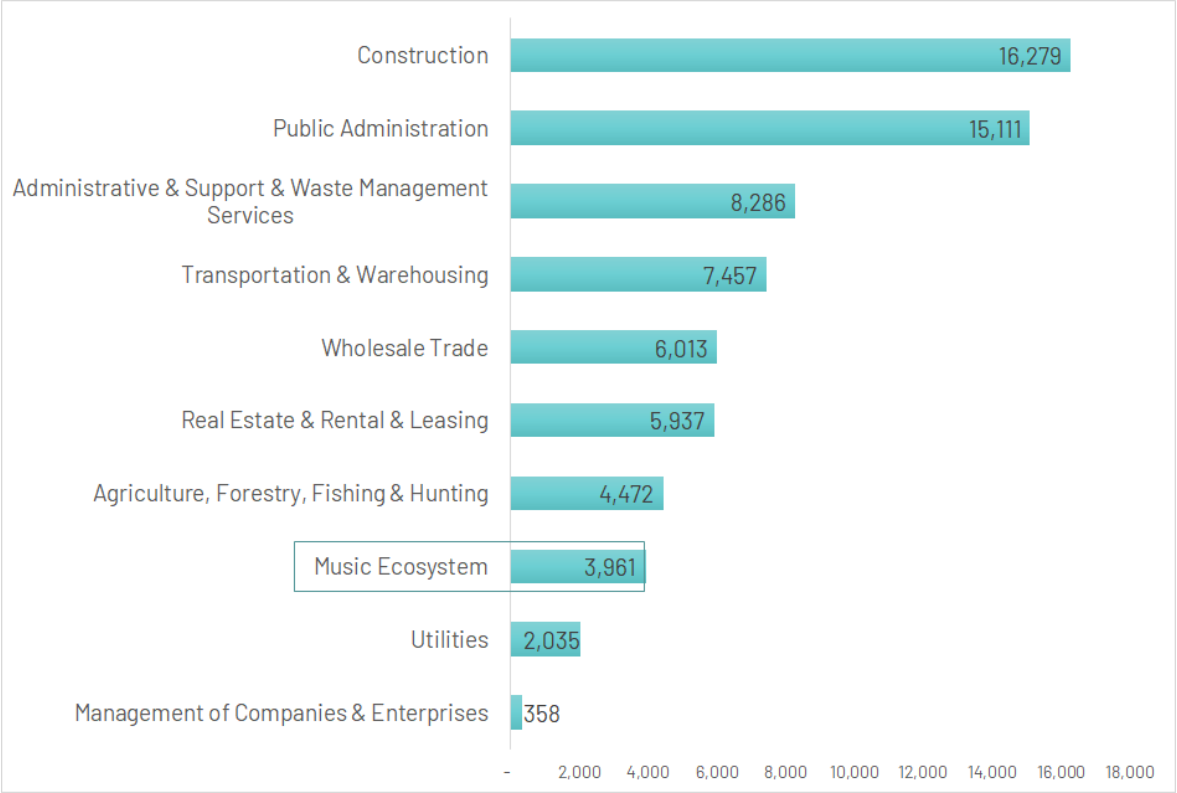
Figure 5. Music Ecosystem Direct Employment & Output, Professional & Supporting Segment, 2018



Source: County Business Patterns 2018, BEA RIMS II, Sound Diplomacy Research

To put the level of direct employment in perspective, the direct employment generated by the music ecosystem is compared with other traditional sectors in the county. The direct employment generated by the music ecosystem in **2018 was 3,961 jobs (representing the 1.27% of the workforce in Dane County)**, whereas traditional sectors such as construction or Public Administration generated 16,279 jobs and 15,111 respectively. Meanwhile, industries like Utilities and Management of Companies & Enterprises supported 2,035 and 358 respectively (see Figure 6).

Figure 6. Employees by Industry, 2018



Source: County Business Patterns 2018, BEA RIMS II, Sound Diplomacy Research

Madison's Music Ecosystem: Average Annual Income

Using the American Community Survey's (ACS) five-year estimates for 2015 to 2019, we compared the annual average income by economy (music ecosystem versus the rest of the economy) and by segment within the music ecosystem ('artistic activities' and 'supporting activities'). The individuals were classified as part of the music ecosystem or part of the rest of the economy, based on the main economic activity they perform in the labor market (see Appendix 3).[13]

[13] The geographical area in scope is Dane County. The information about annual average income for this scope is obtained by selecting the counties as per their categorization in the Public Use Microdata Areas (PUMA), in this case made up from Madison City (Central), Dane County (East) and Dane County (West). This area from hereon is referred to as 'area' or 'area of study' (see Appendix 4).

Description of ACS data

In order to understand the results of the estimates derived from ACS sample, it is relevant to describe the individuals based on several variables: sex, age, race, where they were born, level of education attained and class. However, we recognize the ACS sample falls short in reflecting the nature of Dane County's overall racial and ethnic makeup, notably underrepresenting members of Hispanic/Latinx and Native American communities. The available data for ethnicities and races different from white, black, or asian were very low (1.3%) making it difficult to draw representative analysis and conclusions regarding members of other ethnic and racial categories. More representative data is needed to truly understand the ways that people of varying races and ethnicities contribute to Dane County's music ecosystem.

Based on the classification mentioned above (individuals as part of the music ecosystem or as part of the rest of the economy) and the output of the survey, it is visible that the workforce within Dane County's **music ecosystem** is **mainly composed of women (54.5%)** following the **opposite pattern** as the **rest of the economy (48.9% female)**. If we dissect it by segment within the music ecosystem, people working in 'artistic activities' are mainly men (57.6%) while the people working in 'supporting activities' are mainly women (57.8%).

Moreover, within the **music ecosystem**, there is a higher proportion of men occupying managerial positions than women. On average, **54.2% of managerial roles are occupied by men**. Similarly, the **rest of the economy** has a higher proportion of **men (60.1%) occupying managerial positions** and the remaining 39.9% is occupied by women.

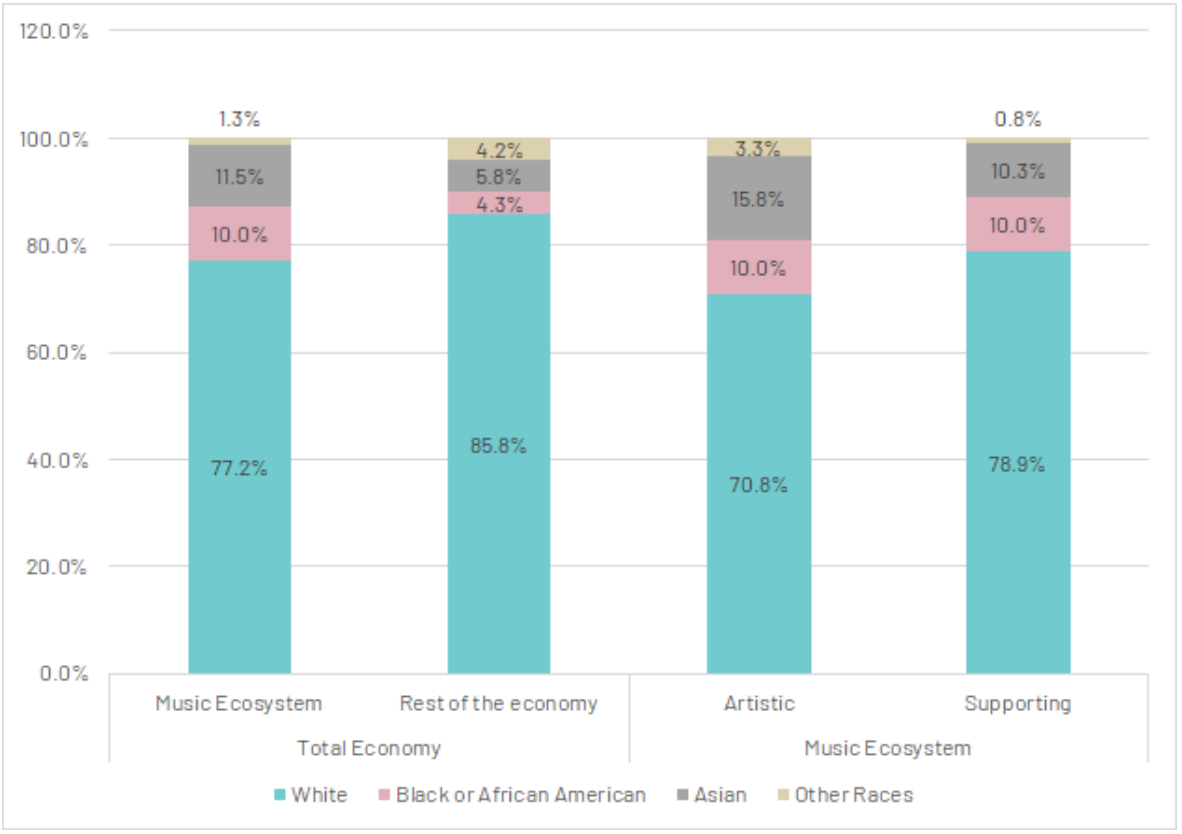
With regards to age, the mean age of workers in the music ecosystem is 38.4 years old, which is slightly lower than workers in the rest of the economy in the area (40.6 years old). This average is slightly higher for the 'artistic' workers in the music ecosystem (43.5 years old) and slightly lower for 'supporting activities' (37 years old).

Figure 7 shows that in general, race diversity in the area's **music ecosystem** workers is concentrated in self-defined White people, some Asian and some Black/African American. There is a **more accentuated proportion** of **White workers** in the **rest of the economy (85.8%) than** in the **music ecosystem (77.2%)**. Deep diving into the music ecosystem, the **'artistic activities'** segment is **more diverse** with **15.8% self-declared Asians and 10% Black/African American**.

Within the **music ecosystem**, most of the **managers are White (70.8%)**, followed by 29.1% of Asian managers. However, based on the sampling from the ACS, no managers in the music ecosystem that are Black/African American were identified, nor were workers from other races. Such distribution of managerial roles, according to races, is similar in the rest of the

local economy, however, it is more diverse, with 92.2% of managers being White, 1.9% Black/African American, 3.9% Asian and 1.7% from other races.

Figure 7. Race diversity by economy



Source: American Community Survey 2015-2019, Sound Diplomacy Research

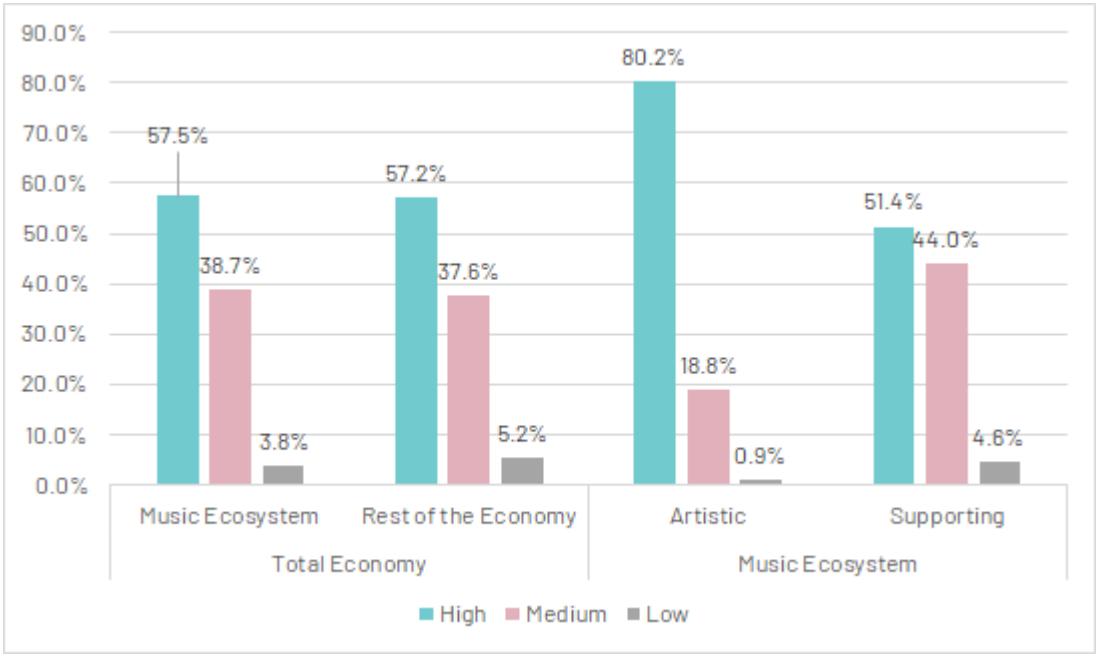
Figure 8 shows that the **maximum level of education attained**[14] in the **music ecosystem** in the area is **mostly high (57.5%)**, followed by a medium level of education (38.7%), where the remaining 3.8% of workers in the segment attained low levels of education. For the rest of the economy there is a similar distribution.

Within the music ecosystem, the **'artistic activities'** segment is in its majority **highly educated (80.2%)**, 18,8% with medium level education and with the lowest proportion of low education

[14] Higher education consists of workers that have attained: associate's degree, bachelor's degree, master's degree, professional degree beyond a bachelor's degree and doctorate degree. Medium education considers workers that have attained: regular high school diploma, GED or alternative credential, some college but less than one year, one or more years of college credit with no degree. Basic education consists of workers that have attained a maximum level of education of 12th grade with no diploma or any lower grade.

level workers (0.9%). In contrast, the **'supporting activities'** segment has a **more similar distribution amongst high and medium level of education**.

Figure 8. Education Level by Economy



Source: American Community Survey 2015-2019, Sound Diplomacy Research

The majority of workers (54.9%) in the area's music ecosystem are employees of a private for-profit business[15]. This also occurs in the rest of the economy (61%). However there are some differences particularly with regards to self-employment. The **14.9% of the music ecosystem is made up of self-employed** people in their own not incorporated business, whilst **only 3.9% of the rest of the economy** fall under this category. This indicates a higher vulnerability in the music ecosystem since freelancers assume higher risks and costs in comparison to employees.

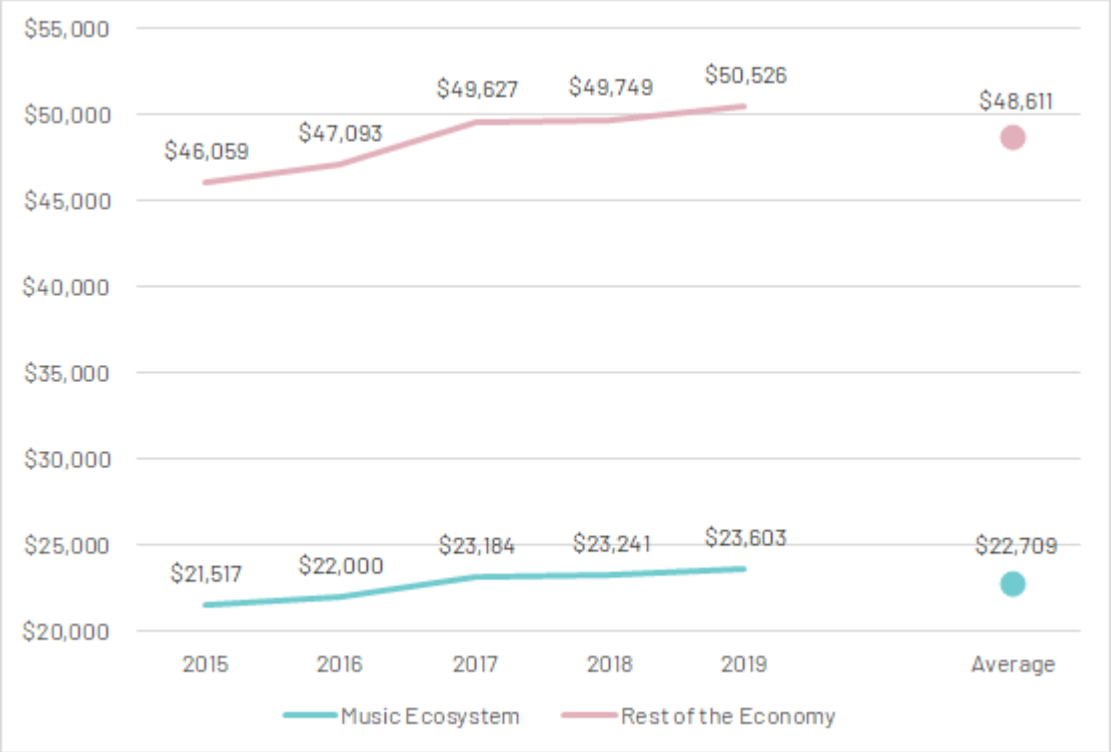
This type of work structure (**self-employed**) is **more visible in** the segment of '**artistic activities**'. Within this segment, the proportion of self-employed people in their own unincorporated business is 26.7%, compared to 11.7% within the supporting activities.

Figure 9 presents the annual average income per worker over time, comparing the music ecosystem to the rest of the economy. Both economies show a substantial difference in their average income, with the **rest of the economy earning $25,902 more** on average **than** the

[15] In ACS the complete description is 'private for-profit company or business of an individual, for wages, salary, or commissions'.

workers in the **music ecosystem per year** (114% more).[16] The vulnerability of the music ecosystem, due to the high proportion of self-employment, is accentuated by the relatively low income of the workers. This creates a higher precariousness for the workers of the ecosystem.

Figure 9. Average Annual Income by Economy



Source: American Community Survey 2015-2019, Sound Diplomacy Research

Based on the same dataset from ACS, we calculated the average income for different subpopulations.[17]

Figure 10 shows the average wage for men and women in the music ecosystem and the rest of the economy in the area. Within the music ecosystem, on average **women earn 11.5% more than men** ($28K vs $25K), opposite to what occurs in the **rest of the economy**, with **men**

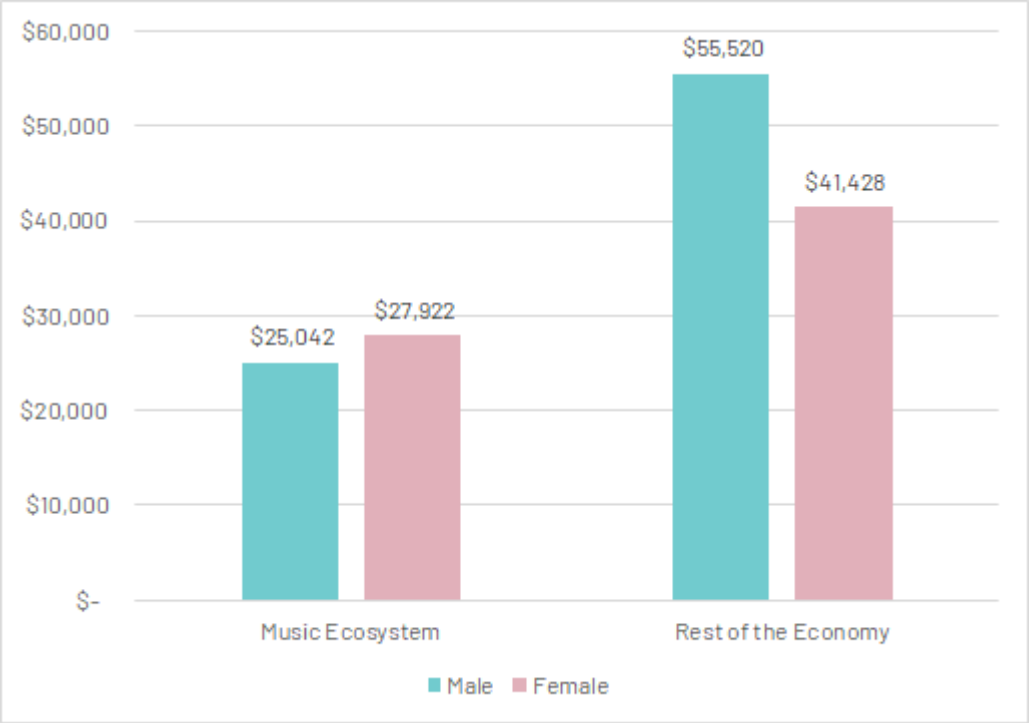
[16]The average annual income for the music ecosystem, obtained from the American Community Survey, had a high volatility, where the annual income from one year to another changed drastically (either increased or decreased significantly). The high volatility could be associated with the reduced sample in ACS for the specific geographic delimitation. For this reason, the annual growth of the music ecosystem was adjusted to the growth of the 'Rest of the economy'.

[17] In order to see whether the differences in income are statistically significant or not, we performed linear regressions per subpopulation and performed an adjusted Wald test (shown as p = x in the text).

earning 34% more than women ($56K vs. $41K respectively). On average, men have a lower income in the music ecosystem ($25k) compared to the income of men in the rest of the economy ($55k), where the latter earns 122% more than the former. The segment gap is less steep for women, who earn 48% more in the total economy than women in the music ecosystem ($41k vs. $28k, respectively).[18]

It is important to note that there are no known statistics available for non-binary gender representations in the music ecosystem.

Figure 10. Music Ecosystem Annual Average Income in USD



Source: American Community Survey 2015-2019, Sound Diplomacy Research

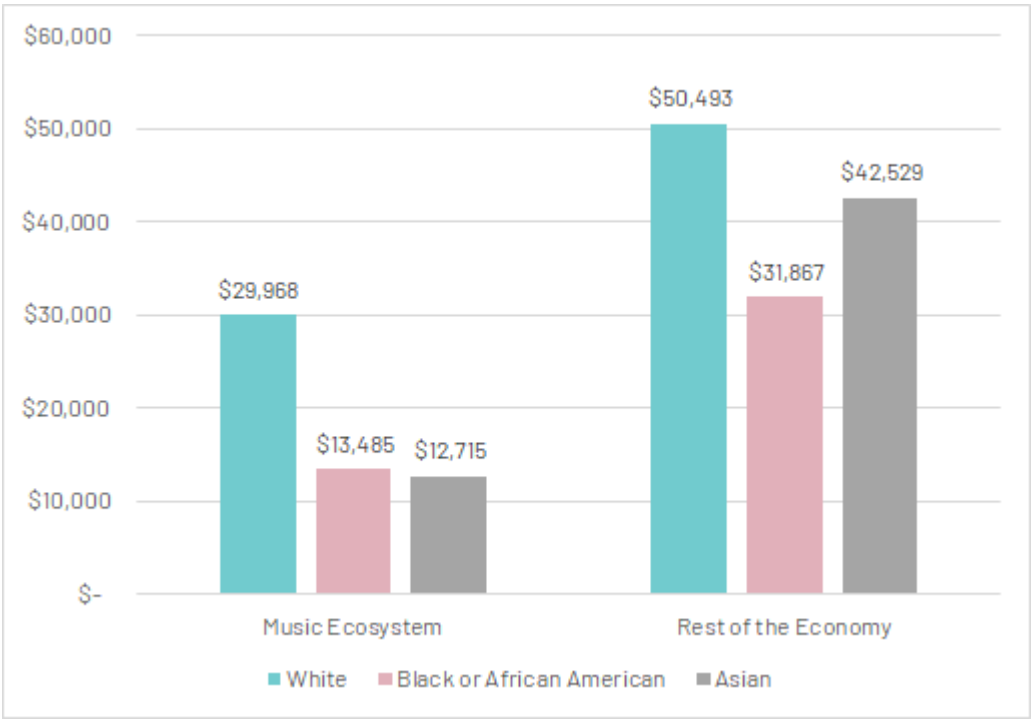
Figure 11 displays the average income by race in the area's music ecosystem and the rest of the economy (White vs. Black or African American vs. Asians). In both cases, White workers earn more than Black and Asian workers. In the **music ecosystem**, **White-identified workers earn 122% more than Black / African Americans and 136% more than Asian workers**. In the

[18] Differences between men and women across segments are both significant (p-value = 0.0003 for male and p-value = 0.0003 for female).

rest of the economy White workers earn 58% more than Black / African Americans and 19% more than Asian workers.[19]

This gap can be further explained by the differences in access to higher-paid positions (ie. managerial). 92% of managerial positions in the rest of the economy are held by White workers, followed by 4%, held by Asians and 2% by Black / African Americans. Similarly, in the music ecosystem white workers concentrate 71% of managerial roles. The data on gender and race found here is atypical compared to studies in other cities. In Dane County Asian workers earn less than African American workers, but Asian workers hold more managerial positions. The data also shows women making more than men, while holding less managerial positions. The limited ACM sample size makes it difficult to draw a definitive conclusion as to why this may be the case. More work needs to be done to accurately reflect the positions and earnings of BIPOC in Dane County's music ecosystem.

Figure 11. Annual Average Income by Race



Source: American Community Survey 2015-2019, Sound Diplomacy Research

[19] Differences of income between White workers with the rest of workers from the music ecosystem is not significant (p-value = 0.0978). However, the differences of income between white workers and the rest of workers from the rest of the economy is significant (p-value = 0.0000)

In Figure 12 it is visible that the average income is superior for workers that have a higher education level attained, both in the music ecosystem and in the rest of the economy. In the **music ecosystem**, **highly educated workers earn 117% more than workers with medium level education and six times more (601%) than workers with basic education**. In the **rest of the economy** workers with higher levels of education earn 96% more than workers with medium level of education and 282% more than workers with basic education.[20]

This shows that the differences in income according to the level of education are more accentuated in the music ecosystem than in the rest of the economy. This could be linked to the income distribution across the workers: there is a higher concentration of workers with lower income ranges in the music ecosystem whereas in the rest of the economy, the workers have a more equitable distribution of income across lower, mid and higher ranges of income.

Figure 12. Annual Average Income by highest level of education attained by economy

Source: American Community Survey 2015-2019, Sound Diplomacy Research

As a conclusion, the studied area displays an **income gap between the music ecosystem and the rest of the economy**, where on average the **rest of the economy has higher annual**

[20] The differences of income between highly educated workers and the rest of workers both for the music ecosystem and the rest of the economy, are significant (p-value = 0.0000).

income. The gap in income within the music ecosystem is more visible across workers with different types of education levels. The **higher educated workers earn significantly more than the workers with medium or basic level of education**. Moreover, the **music ecosystem** is highly **informal, with self-employees** making up most of the workforce in the area. This informality, as previously mentioned, leads to a higher vulnerability which is accentuated in the 'artistic activities' segment.

2.2.2 Indirect Impact

The indirect economic impact is calculated by looking at the changes in the values of output, employment and compensation driven by suppliers of the music ecosystem. So it represents the jobs and output generated by local businesses that supply goods and services to the Dane County music ecosystem. To calculate it, it is necessary to include the measurement of economic exchanges with suppliers that do not necessarily belong to the music ecosystem, such as advertising, video production, and even legal services, communication and transportation[21].

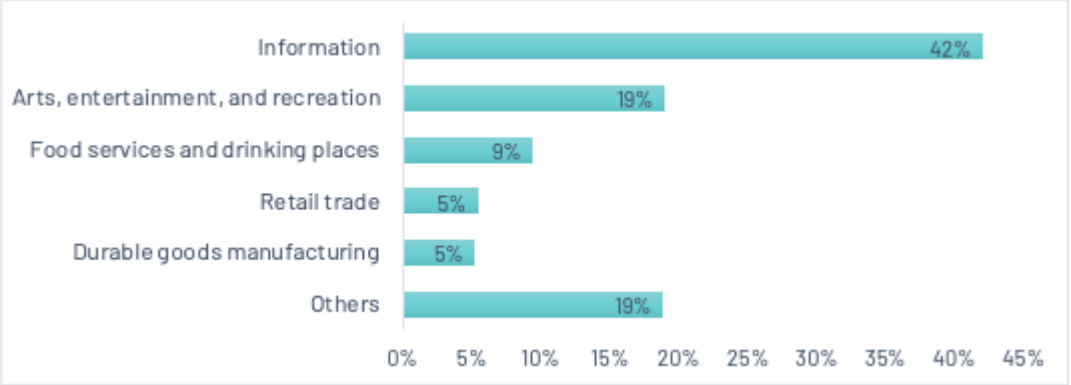
In 2018, the i**ndirect economic impact** of the music ecosystem in Dane County **reached an output of $86 million and a GVA of $53 million. The sum of the indirect earnings (compensation) reached $30 million.** At the same time, it is estimated that **660 jobs** in Dane County were indirectly supported by the music ecosystem in 2018. Madison concentrates around 83% of the indirect effect generated by the music ecosystem in the County.

To give an idea of the size of the indirect effect of the music sector on the local economy, i**t was estimated that $1,000 of output from the music sector is indirectly supporting $206 of the output of other industries in the city.**

Figure 13 displays the output breakdowns of the industries impacted indirectly by the music ecosystem. It was estimated that 42% ($36 million) of the indirect output effect of Dane's music ecosystem impacted the information sector,[22] 18.98% ($16.3 million) impacted the arts and entertainment sector, 9.45% ($8.10 million) impacted food services and drinking places, 5.46% ($5.09 million) impacted the retail trade sector, among other industries.

[21] This process is carried out using the Type I Multipliers, available in the BEA, RIMS II model for 2018.
[22] The main components of this sector are: the publishing industries, including software; motion picture and sound recording industries; broadcasting industries, telecommunications industries; web search portals, data processing industries, and the information services industries.

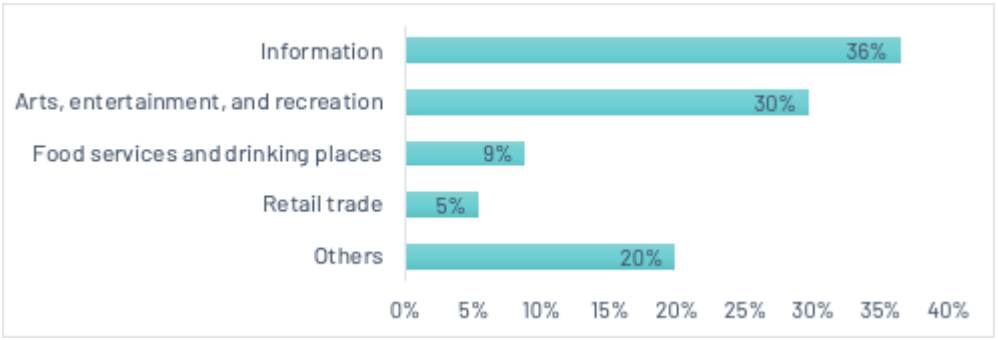
Figure 13. Indirect Impact Output Breakdown, 2018[23]



Source: County Business Patterns 2018, BEA RIMS II, Sound Diplomacy Research

When assessing the breakdown of indirect employment, 36% (240 jobs) of the indirect jobs belonged to the information sector, 30% (195 jobs) to the arts, entertainment, and recreation sector, and 9% (58 jobs) to the food and services sector, among other sectors (see figure 14).

Figure 14. Indirect Impact Employment Breakdown, 2017



Source: County Business Patterns 2018, BEA RIMS II, Sound Diplomacy Research

[23] Values are rounded up to the nearest whole number. Information represents 42.03%, Arts, entertainment, and recreation accounts for 18.98%, Food services and drinking places is 9.45%, Retail trade is 5.46%, Durable goods manufacturing is 5.24% and Others accounts for 18.84%.

2.2.3 Induced Impact

The induced economic impact is the economic value (output, compensation and employment) derived from "the spending of workers whose earnings are affected by a final-demand change, often called the household-spending effect."[24] In other words, this impact is derived from the spending of workers whose wages are supported directly and indirectly by the Dane County music ecosystem. This includes, for example, the money they spent on services, food, entertainment, transportation, etc. **The induced output of the music ecosystem in the region reached $136 million, a GVA of $83 million in 2018, and supported 1,170 jobs**, with a compensation of $44 million. **The data shows that $1,000 of the music ecosystem output is generating an induced effect of $326 on different industries of the economy.**

2.2.4 Dane County In Comparison

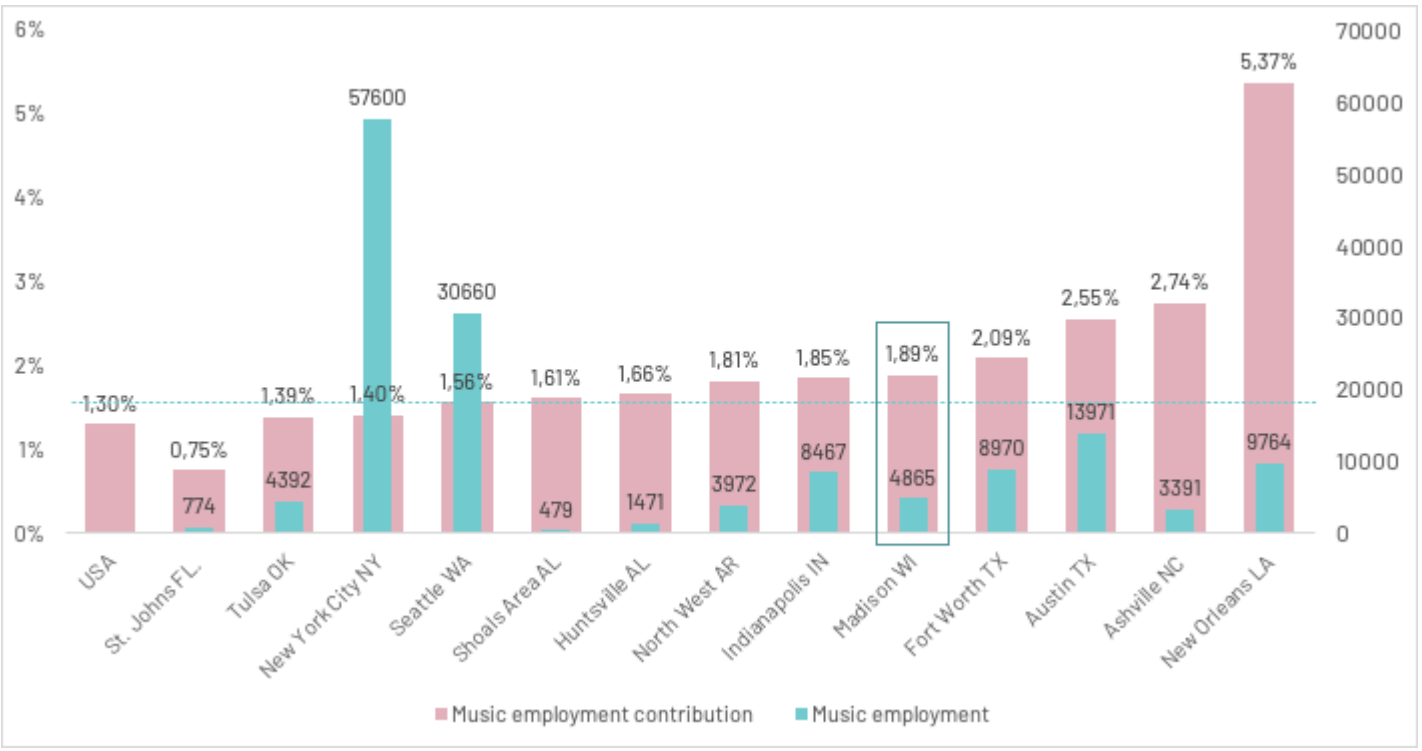
Contribution to Local Employment

A variable that allows for comparing the development of the music ecosystem in different cities is the contribution of music employment to the local economy. This variable is represented in figure 15 for cities that also have music economic impact reports.[25]

In the case of Madison, the music sector supports 1.89% of the city's employment, more than the national average contribution of music to national employment (1.3%). Madison ranks below other places with a strong music industry tradition, such as Austin or New Orleans, where the music sector supports 2.55% and 5.37% of the local employment respectively.

[24] RIMS II: An essential tool for regional developers and planners, page 53.
[25] The figures in the graph come from different sources with different methodologies and different years as reference. We use them to compare the dimension of the music sector in different locations. Sources: TXP, Inc. (2016); Asheville Area Chamber of Commerce (2016); The Boston Consulting Group, Inc. (2017); Musicians' Association of Seattle (2015); and Siwek, Stephen E. (2018).

Figure 15. Music Ecosystem Total Employment, US Cities

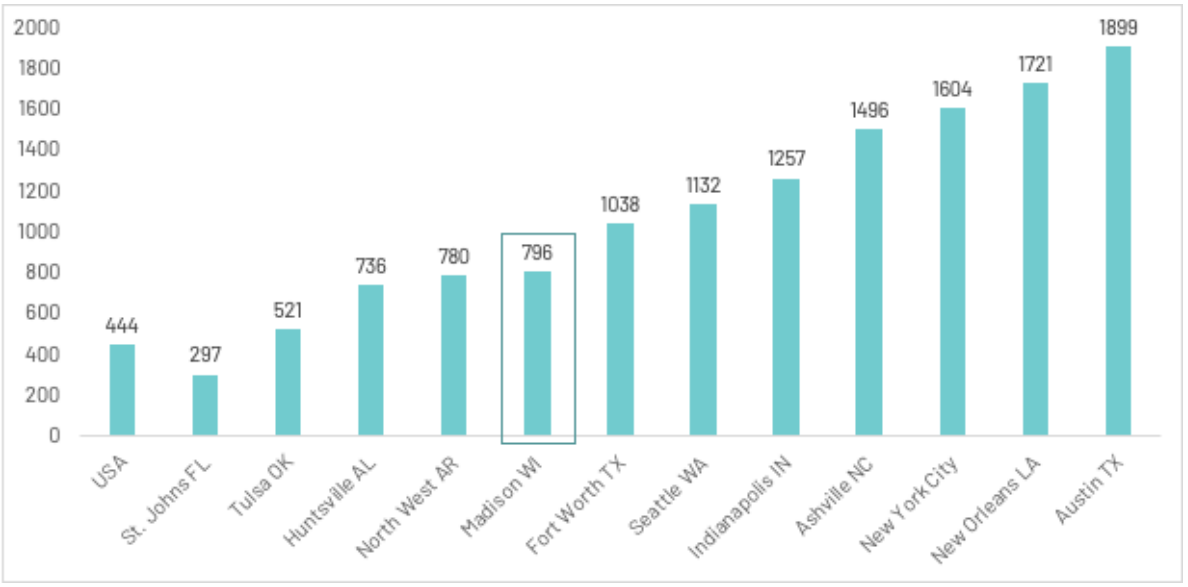


Music Output Per Capita

Another variable that allows for comparing the level of industrial development of local music ecosystems is the music output per capita since it represents the economic resources generated in relation to the size of the population of a city, county or region. This variable is calculated by dividing the output of the music sector by the total number of residents in each of the locations that also have music economic impact reports.

The music output per capita of the United States is $444, while in Madison this figure reaches approximately $796. In cities such as Austin, New Orleans and New York, which have high flows of music tourism and strongly consolidated industries, this figure is $1,899, $1,721 and $1,604, respectively (see figure 16).

Figure 16. Music Ecosystem Output-Per Capita Comparator USD



Music Ecosystem Output per Segment

When looking at the music ecosystem output contribution per segment of these local ecosystems, we found that the Artistic & Creative segment in Dane has a relatively higher contribution to the overall music ecosystem than other cities previously studied by Sound Diplomacy.

In Madison, the contribution of the Artistic & Creative segment to the music ecosystem output is 22%, while in cities such as Huntsville AL or New Orleans LA this figure reaches 26% and 15%, respectively (see figure 17). This figure reflects a wide participation of artists and creatives in the County, compared to other cities or areas.

Figure 17. Music Ecosystem Output by Segment Comparator

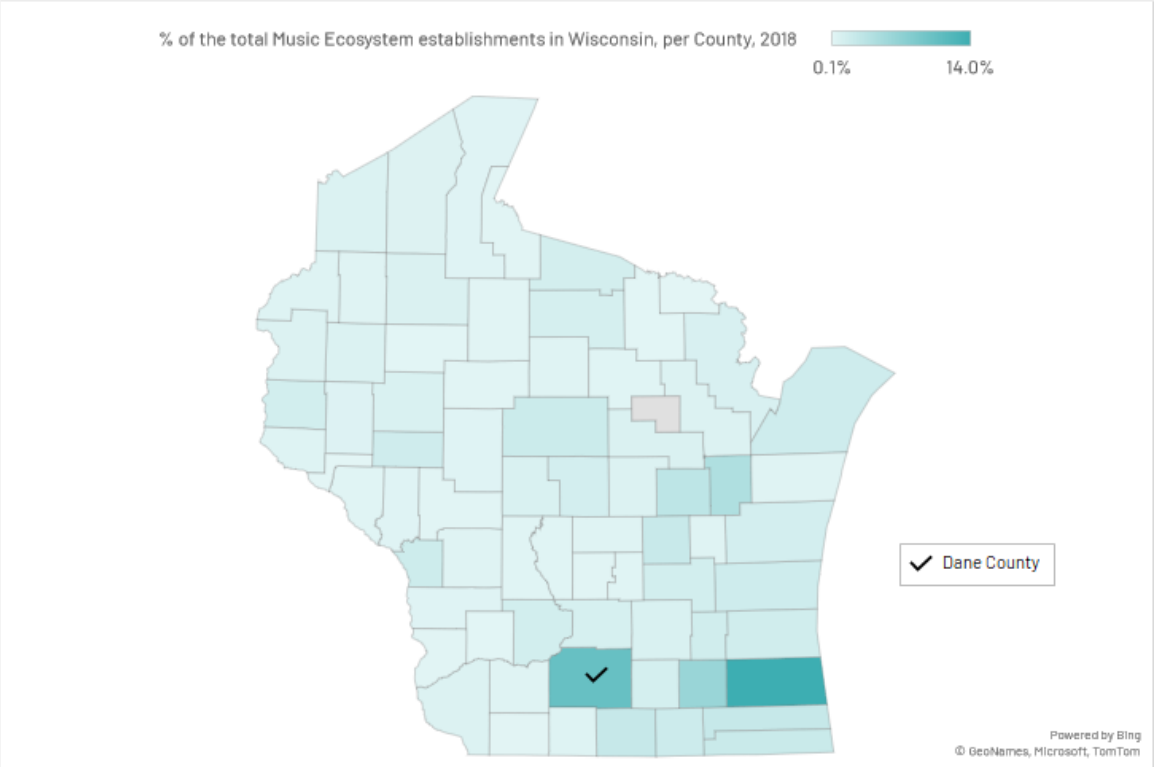
Music Ecosystem Establishments

Map 1 shows the percentage of the total number of music ecosystem establishments in the state of Wisconsin, according to the County Business Pattern 2018.[26] The darker the color of the area, the higher the percentage of establishments in the specific County, within the total establishments in the state. For the grey colored counties there is no data available.

Out of the 71 counties in Wisconsin, with available data, **Dane County ranks number 2**, having **10.5% of the total music ecosystem establishments in the state**. The number one county is Milwaukee County, with 14% of the music ecosystem establishments in the State. The counties that follow Dane are Waukesha County (6.3%), Brown County (4.5%) and Outagamie County (3.3%). From the top 3, we can see a high concentration of establishments in the counties in the southern part of the state, making this the state's biggest music cluster.

[26] County Business Pattern is an official source of information, however it does not include some establishments that might be classified in the incorrect NAICS (standard to classify economic business activity). To offset the gap, Sound Diplomacy performed a mapping of establishments.

Map 1. Percentage of the Total Music Ecosystem establishments in Wisconsin, per County, 2018[27]



Source: County Business Patterns 2018, Sound Diplomacy Research

It is also important to understand such distribution by relativizing it with the population per county. In many cases, a bigger state in size (population) could be expected to have more establishments than a smaller state. However, this doesn't provide insights on the availability of such establishments per individual, meaning, how many establishments are in the county, per person. The more establishments per person, the more availability. This availability can be measured by calculating the number of establishments that are in the county, per inhabitant.[28]

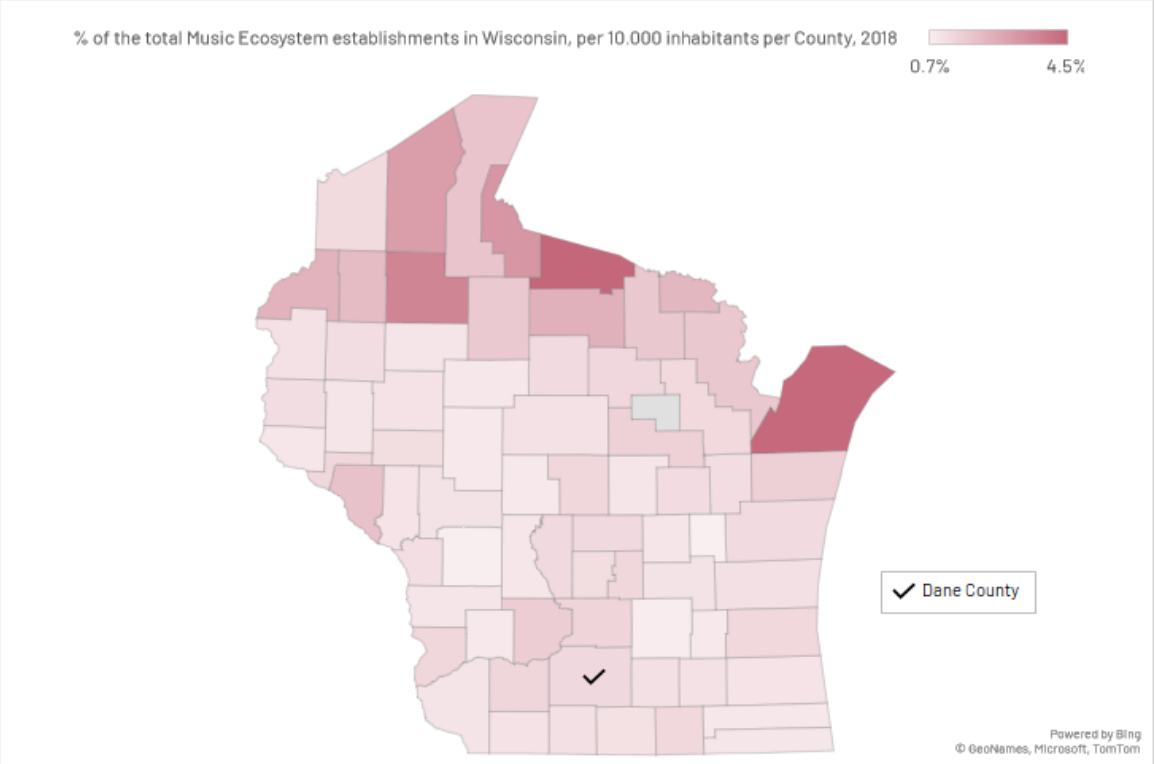
When looking at the **total number of establishments per 10,000 county inhabitants**, the distribution of establishments in the music ecosystem shows a different cluster. Instead of being located in the south, it is visible that the north of the county has more availability per

[27] Source: County Business Patterns (CBP), 2018
[28] In this case, the availability is measured per 10,000 inhabitants.

inhabitant. Using this indicator, **Dane County is no longer among the top five counties, being now in the 27th position and concentrating only 1.3% of the establishments in Wisconsin per 10,000 inhabitants**. In this case, Vilas County is the lead, concentrating 4.5% of the establishments in the state, per 10,000 inhabitants. Others in the top 5 are Door County (4.5%), Sawyer County (3.7%), Iron County (3.2%) and Bayfield County (3%). See Map 2.

None of the counties in Wisconsin appear in both rankings from Map 1 and Map 2. This shows that Dane County, while concentrating a high percentage of music ecosystem establishments within Wisconsin, has room for growth that can mirror the supply of other counties in the north of the state.

Map 2. Percentage of the Total Music Ecosystem Establishments in Wisconsin, per 10,000 Inhabitants per County, 2018[29]



Source: County Business Patterns 2018, Sound Diplomacy Research

[29] Source: County Business Patterns (CBP), 2018

3. Music Asset Mapping

The mapping was produced using a database provided by The Greater Madison Music City Project and georeferenced with our proprietary mapping tool. Moreover, the music assets were cross-referenced with the Aldermanic Districts, in the City of Madison and the rest of the territory of Dane County.

Interactive Music Asset Map

The categories listed below have been mapped on this Interactive Map tool developed specifically for Madison. On this zoomable tool, users can see a heat map of assets, Aldermanic District boundaries, city and county boundaries, and click on individual assets to see more information about each one. Each asset category is color-coded and can be singled-out or aggregated for a wider view.

The interactive map can be filtered by asset category, clicking on the category name in the menu on the right. If you want to filter categories that do not appear on that menu (grouped as “other”), please click on "search in 14 categories" and then type the name of the category you want to filter, it is also possible to filter several categories simultaneously.

The interactive map contains three types of heat maps and each of them can be activated on the check box:

- **Cluster Heat Map:** This is a visual aid that shows the clusters or groups of assets across the map.
- **Aldermanic District Heat Map:** Shows the concentration of assets by Aldermanic District, the darker the blue, the higher the concentration of assets in the Aldermanic District.
- **Aldermanic District Density Map**: Shows the concentration of assets per square Miles of each Aldermanic District. This allows us to compare the density in the districts regardless of their size, the darker the red, the higher the concentration of assets in the Aldermanic District based on its size.

The interactive Map also contains a Zoning Map, in which the areas of Madison can be delimited according to its land usage groups[30].

[30] Madison, Wisconsin - Code of Ordinances available in https://library.municode.com/wi/madison/codes/code_of_ordinances?nodeId=COORMAWIVOIICH20--31_CH31SICOOR

- **Group 1:** The zoning districts in Group 1 include all zoning districts classified as Residential, and the Agricultural (A), Urban Agricultural (UA), Campus Institutional (CI) and Conservancy (CN) districts.
- **Group 2:** This group includes the neighborhood-serving commercial uses, pedestrian-oriented corridors, smaller-scale development and park and recreation areas.
- **Group 3:** The zoning districts include higher-volume motor vehicle transportation corridors, larger-scale development, and primarily auto-oriented commercial and employment uses.
- **Group 4:** Zoning Districts not listed in Groups 1, 2 or 3 are addressed as Districts of Special Control for Purposes of Signs by Madison Code of Ordinances.

Music Asset Definitions

Venues

- **Arenas -** large capacity venues (over 2,000 seats) that primarily host sports and live music
- **Art venues with music** - galleries, museums and other 'art' spaces that occasionally host live music
- **Bars, cafés, restaurants with music** - establishments where live music is performed regularly although their prime function is the sale of food and beverages
- **Dedicated live music venues** - establishments where live music performance is the main focus and with dedicated live music programming
- **Multi-purpose venues** - venues for hire, performing art theatres, corporate event spaces, smaller sports facilities that host music at least two times a year
- **Nightclubs** - nightlife establishments with regular DJ nights and occasional live music performances

Music Business

- **Artist development, live production** - organizations that present and/or produce artistic performances and events
- **Music PR & marketing** - registered, tax-paying businesses working in music marketing and social media
- **Consulting, other music businesses, publishing, law** - individual music companies ranging from accounting or content creation, to photography, event production, sync, publishing and licensing
- **Dance companies and other music businesses**

- **Music associations and nonprofits** - associations of artists and/or music industry, music nonprofits and charities, based out of Dane County
- **Booking & promotion** - registered, tax-paying businesses working in music talent booking and event promotion
- **Record labels** - music labels with physical presence in Dane County

Festivals - ticketed or free to attend special events and concert series focusing on, or featuring live music programs and happening over one or multiple days

Orchestras & Choirs - professional and community bands and orchestras, professional and community choirs and singing groups, including church choirs

Music Education - public and private music schools

Radio stations - public, community and commercial music radio stations

Record and equipment stores - music instruments, equipment and record stores, including rentals

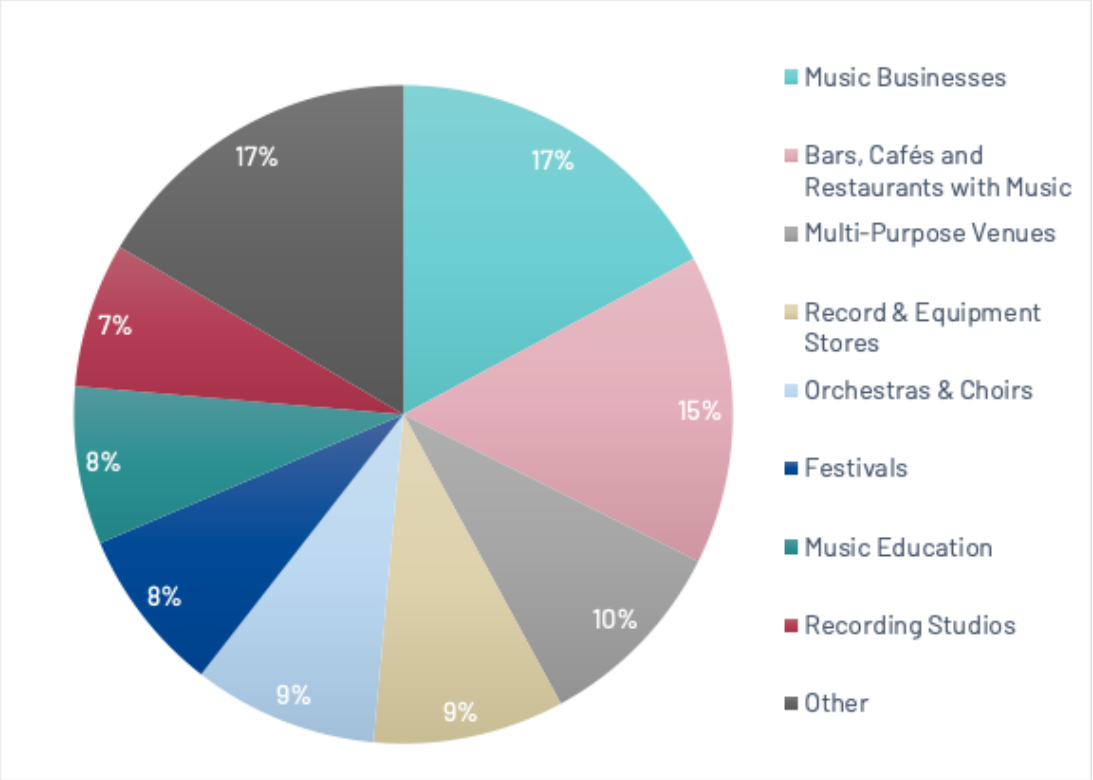
Publication & news paper - publications, magazines and periodicals specialized in music based out of Dane County

Recording studios & rehearsal rooms - registered, music and audio studios offering music recording, mastering and rehearsal services

3.1 Overview of Music Assets in Dane County and City of Madison

According to the mapping and geo-referencing exercise, there are 309 music assets in Dane County. Of these assets, 236 (76%) are located in the City of Madison, which consists of 20 Aldermanic districts and the Town of Madison. The remaining 24% are located outside of the City of Madison but are in Dane County. Music business is the category with the highest number of observations within Dane County with 53 (17%) assets mapped. There are 34 of these establishments located in the City of Madison. The second category with the most presence in the county is Bars, Cafés and Restaurants with Music, that reaches 47 (15%) assets, with 38 located in the City of Madison. Of the assets mapped, 80% are concentrated in the eight categories listed in figure 18[31].

Figure 18. Distribution of Music Assets by Category in Dane County



[31] Other: Includes Music Radio Stations, Publications & Newspapers, Dedicated Live Music Venues, Night Clubs, Arenas, Art Venues with Music.

Figure 19. shows the concentration of the music assets in Dane County and the City of Madison. In all categories, Madison has the highest number of assets in the County. However, the “Music Education” and “Publications & Newspapers” assets are distributed more evenly amongst Dane County and the City of Madison.

Figure 19. Overview of Music Assets in Dane County and City of Madison

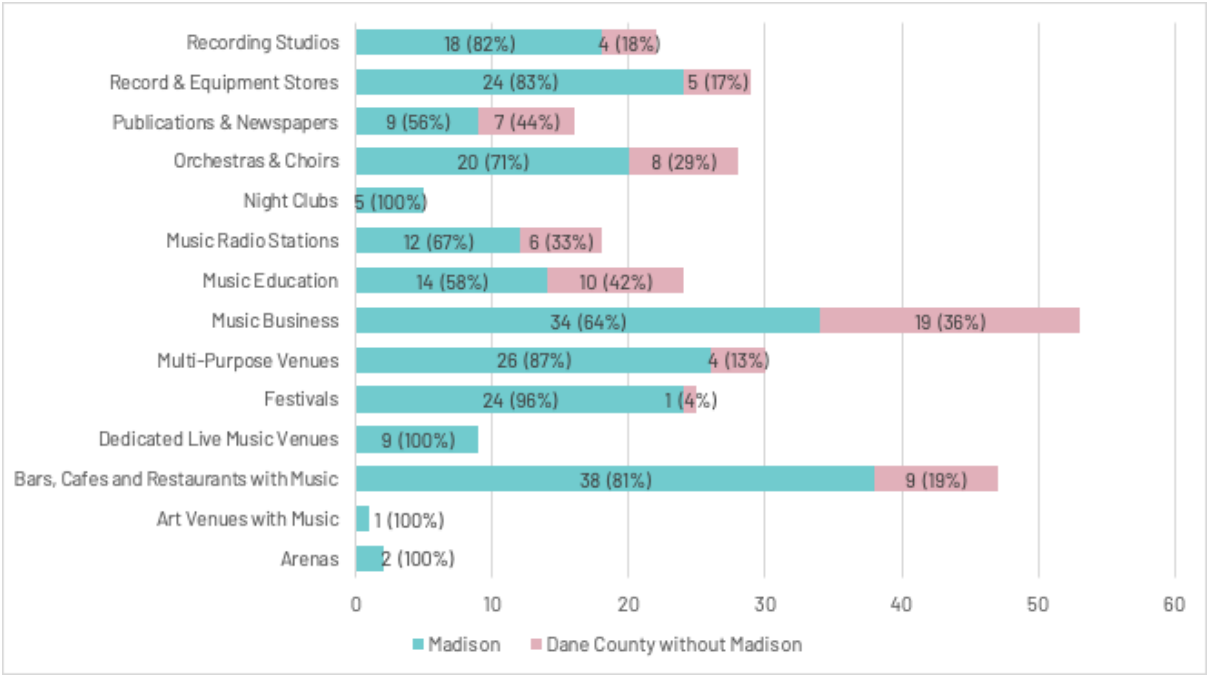
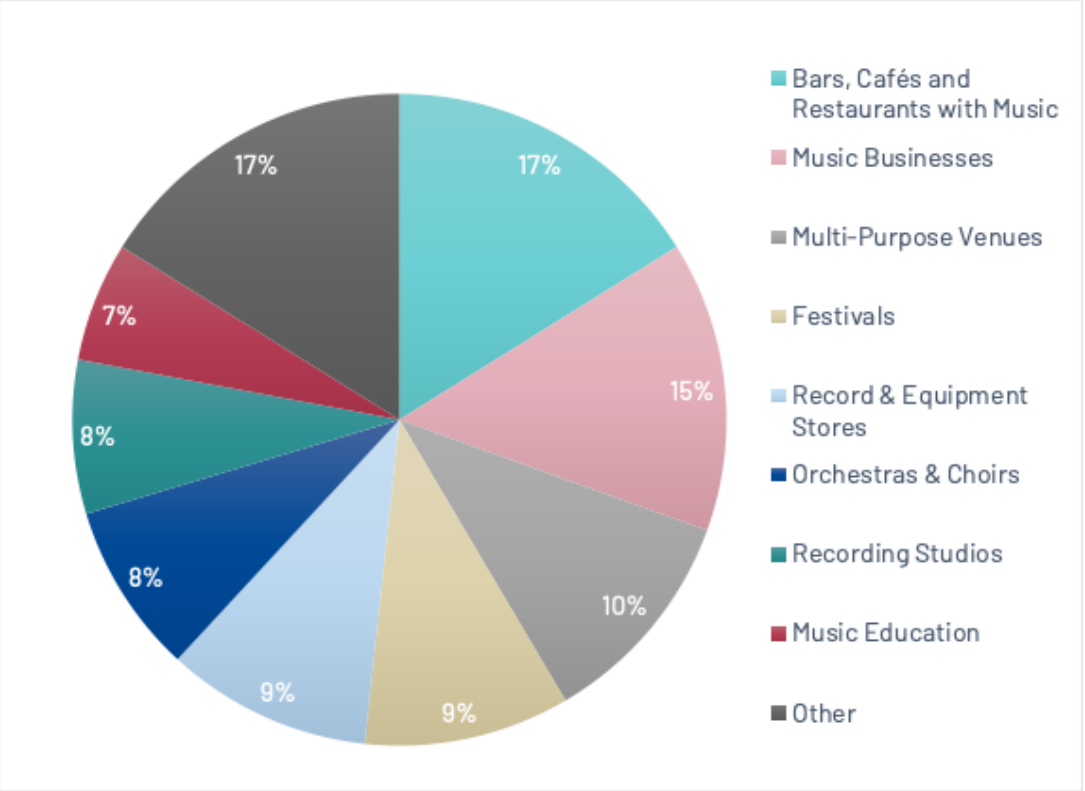


Figure 20. Distribution of Music Assets by Category in Madison



When focusing on the City of Madison, it is found that the distribution of assets is similar to the one of Dane County, with the same categories accounting for 80% of the assets. However, the top eight categories[32] have a more uniform distribution than the county as a whole and the top category changed from Music Business to Bars Cafés and Restaurants with Music, representing 17% in both cases (see Figure 20) .

[32] Other: Includes Music Radio Stations, Publications & Newspapers, Dedicated Live Music Venues, Night Clubs, Arenas, Art Venues with Music.

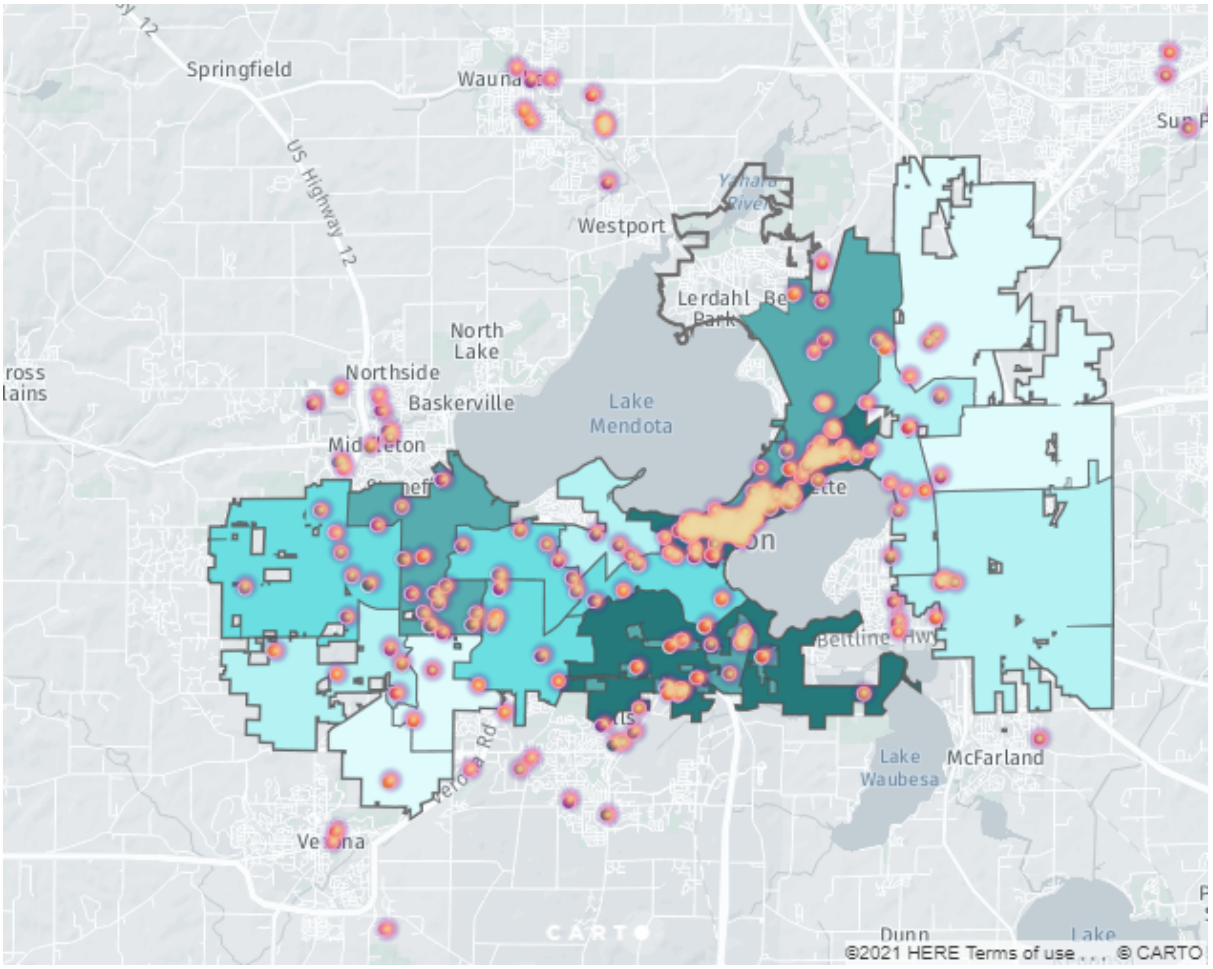
3.2 Spatial Distribution and Clusters of Music Assets in the City of Madison

According to our geolocation exercise, it was found that the spatial distribution of the music assets is the following (see Map 3, and interactive map):

- Of all music assets located in the City of Madison, 80% are concentrated in nine Aldermanic districts (out of 20 Aldermanic districts)
- Only two of the nine Aldermanic districts (Districts 4 and 6) concentrate 41% of the total assets in Madison. District 4 covers the Mifflin West, Bassett, and First Settlement areas, while District 6 includes the Marquette, Elmside and Schenk-Atwood neighborhoods).
- District 8 (which includes the State Street and the South Campus area) is the third highest district in concentration of music assets in Madison with 21 assets (8.9%) and it is adjacent to District 4.

Below you will find a brief analysis of the categories that have visible patterns of concentration and have some type of spatial concentration.

Map 3. Spatial Distribution of Music Assets in Madison



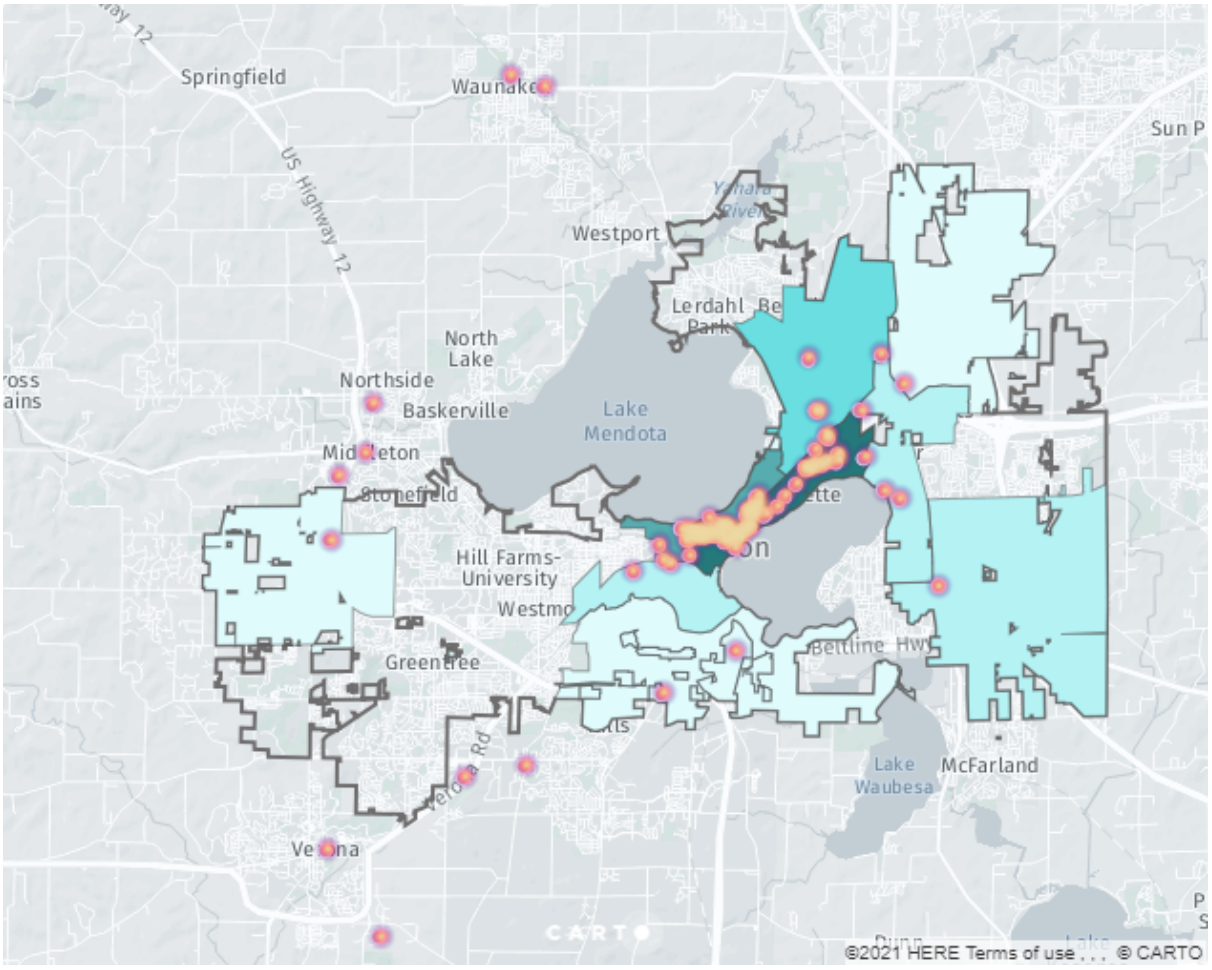
Venues

When assessing the macro category of venues[33], a total of 94 venues were mapped in Dane County, of which 81 are located in the City of Madison. It is observed that Districts 4 and 6 concentrate a total of 51 venues (54% in Dane County and 62% in the City of Madison). The

[33] Venues macro category: Arenas, Art Venues with Music, Bars, Cafés and Restaurants with Music, Dedicated Live Music Venues, Multi-Purpose Venues Night Clubs.

venue categories with the highest representation in these districts are Bars, Cafés and Restaurants with Music and Multipurpose Venues (see Map 4).

Map 4. Spatial Distribution of Venues in Madison



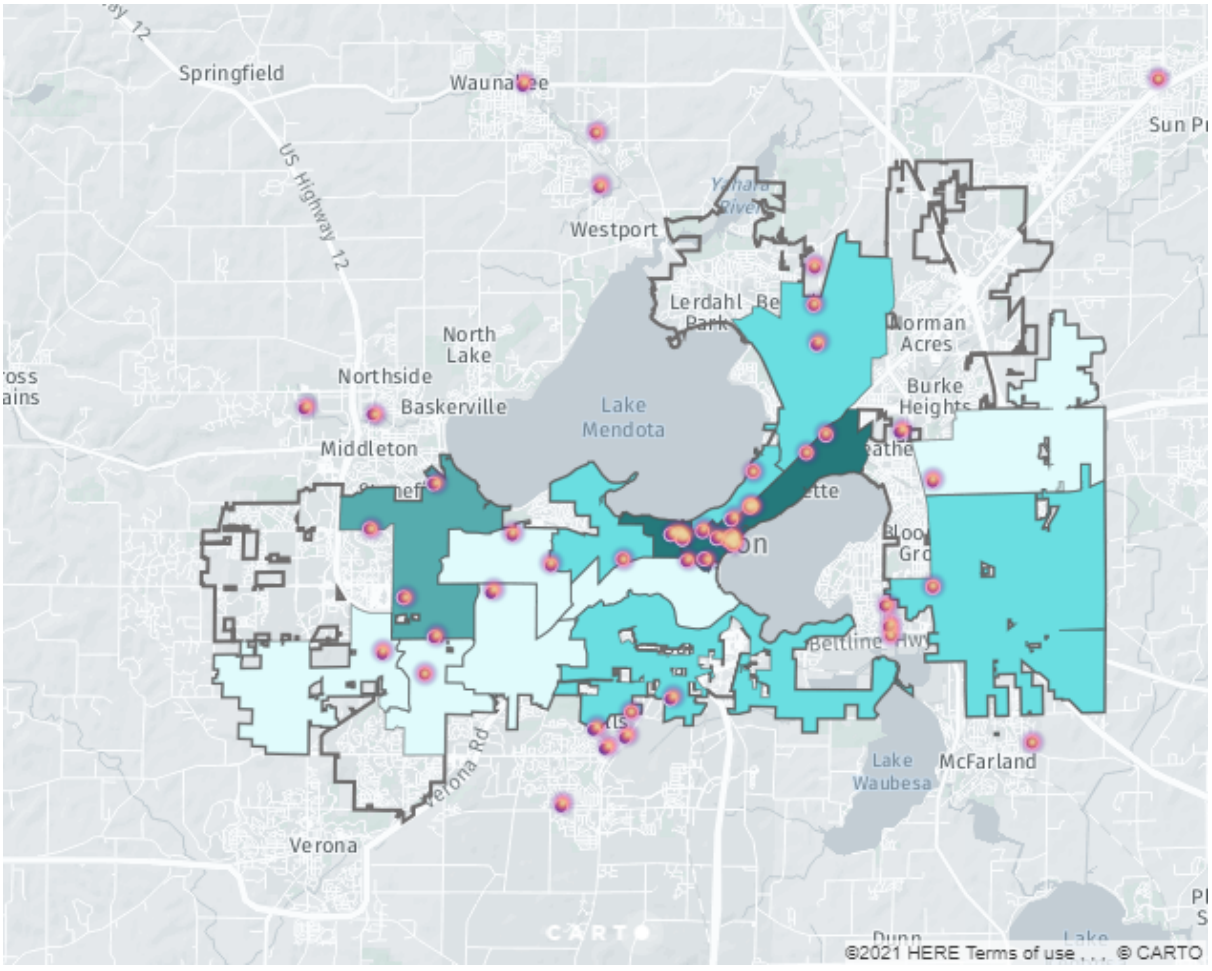
Music Businesses

A total of 53 Music Businesses were mapped in Dane County, of which 34 are concentrated in the City of Madison. The spatial distribution of the Music Businesses within the City of Madison is concentrated in Districts 4, 6 and 8. In these districts a single cluster is identified,

which is made up of: Dance Companies, Publishing and Law, Music Non-Profit Organizations and Music PR (see Map 5).

However, Music Business is one of the categories with the greatest presence throughout the territory since it has at least one asset in every district (except for Districts 9, 15, 17, and the Town of Madison).

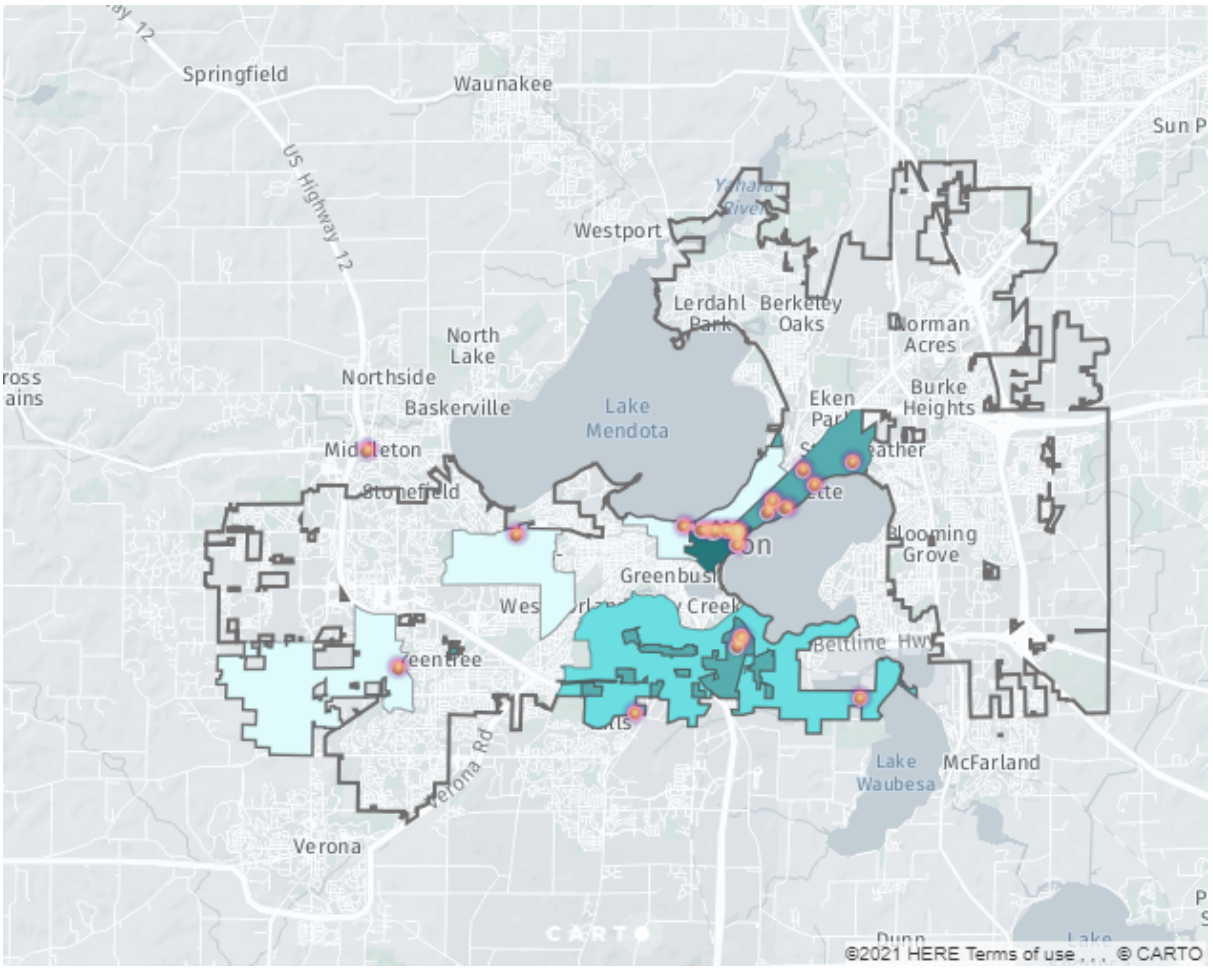
Map 5. Spatial Distribution of Music Businesses in Madison



Festivals

In Dane County there are 25 festivals a year, all of which are concentrated in the City of Madison except for one, which is celebrated in the City of Middleton (Good Neighbor Festival). In addition three clusters of festivals were identified in the City of Madison, specifically in the Districts 4, 6, and Madison Town which have 8, 7 and 3 festivals respectively out of a total of 24 festivals. Though this study is non-exhaustive and does not represent all festival locations or performances, the Greater Madison Music Project recognizes that festivals play a significant role in the music ecosystem.

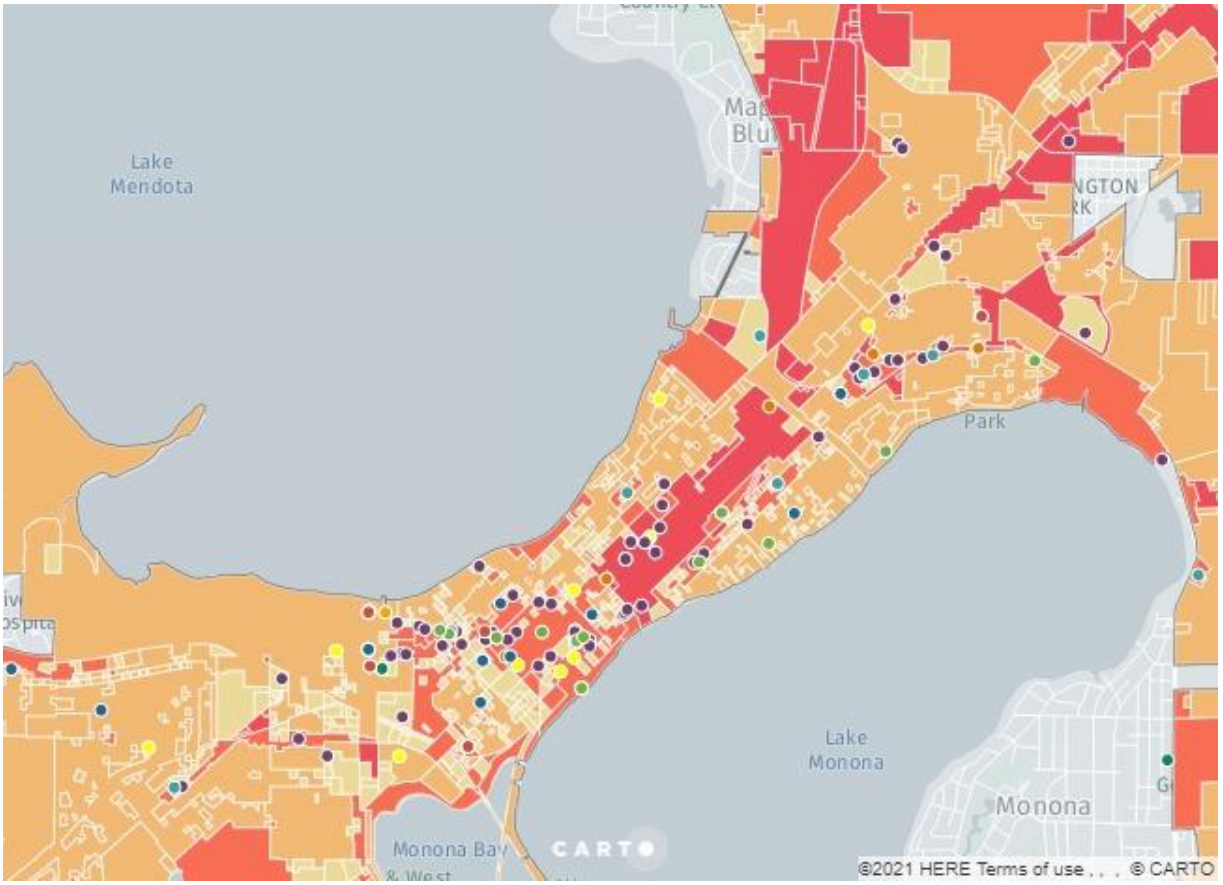
Map 6. Spatial Distribution of Music Festivals in Madison



Zoning

When assessing the location of the assets according to the zoning groups, it is observed that most of them are located in Group 2 (orange) and Group 3 (red)[34], which are the categories that allow commercial land use and high traffic. In contrast, there is a low concentration of assets in Group 1, which is primarily residential.

Map 7. Spatial Distribution of Music Assets in Madison by Zoning Groups

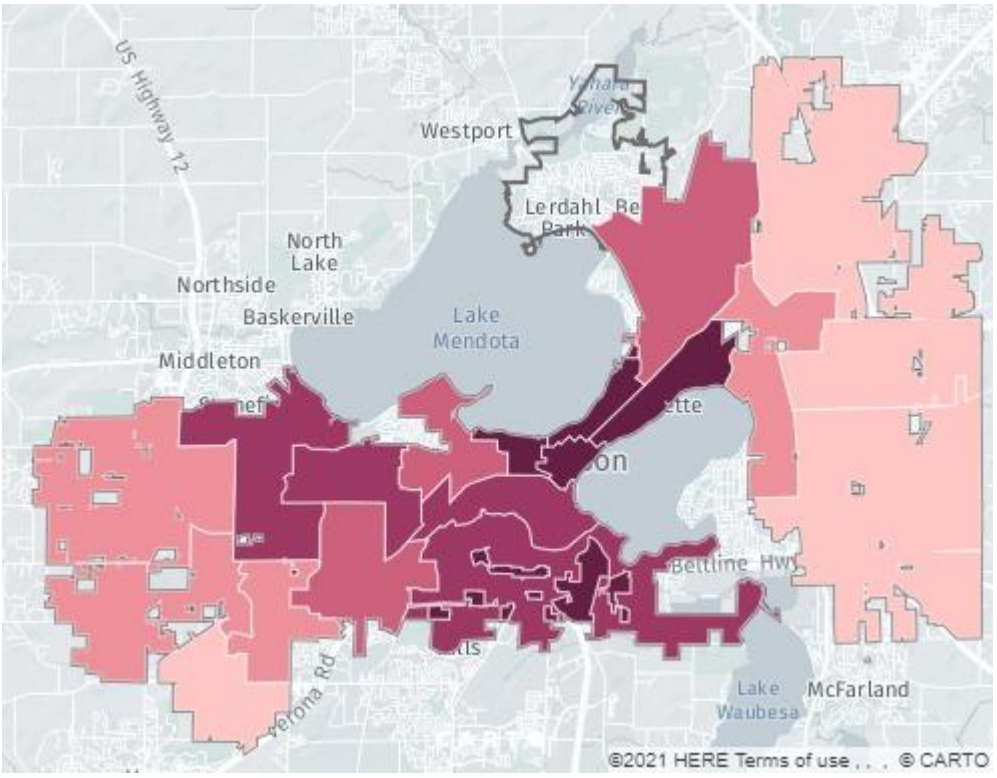


[34] Group 1: The zoning districts in Group 1 include all zoning districts classified as Residential, and the Agricultural (A), Urban Agricultural (UA), Campus Institutional (CI) and Conservancy (CN) districts.
Group 2: This group includes the neighborhood-serving commercial uses, pedestrian-oriented corridors, smaller-scale development and park and recreation areas.
Group 3: The zoning districts include higher-volume motor vehicle transportation corridors, larger-scale development, and primarily auto-oriented commercial and employment uses.
Group 4: Zoning Districts not listed in Groups 1, 2 or 3 are addressed as Districts of Special Control for Purposes of Signs by Madison Code of Ordinances.

District Density (Assets by District size)

As a complementary analysis, the density of assets per square mile was evaluated in each District. It was found that in addition to districts 4, 6 and 8 that concentrate around 50% of the Madison assets, District 2 and the Town of Madison gain relevance when we evaluate them according to their size and the amount of assets they contain, with 14 and 8 assets respectively.

Map 8. District Density (Assets by District size)



Mapping Findings

It is noteworthy that within the macro category of venues (with a total of 94), the category with the most observations is that of Bars, Cafés and Restaurants with Music with 50% (47)

observations, followed by Multipurpose Venues with 31.9 % (30) while Dedicated Live Music Venues add up to 9.6% (9). This implies that the live music in Dane County falls primarily In venues not exclusively designed for live music.

In general terms, the existence of three clusters within the City of Madison is observed. The first is located in Districts 6, 4, and 8, which is the corridor between the two lakes, with a total of 118 music assets that represents 50% of the total in the City of Madison. The second is located in District 14, which has 17 assets concentrating 7.2% of the total assets, and finally District 19 that has 16 assets that represent 6.78% of the total.

Excluded Observations

The Music Asset Mapping uses the database provided by The Greater Madison Music City Project but excludes observations without a provided address and closed venues. Observations without addresses belong partially or totally to the following categories:

- Independent Artists, Performing Groups: 361 observations excluded without an address, out of 361[35]
- Orchestras & Choirs: 2 observations excluded without an address, out of 30
- Publications & Newspapers: 4 observations excluded without an address, out of 20
- Closed venues: 12 observations excluded

4. Conclusion

This first phase of the Madison Music City Recovery Framework is the result of four months of research and analysis in collaboration with The Greater Madison Music City Project. The work aimed to provide an understanding of Madison's current standing as a music city economically through its contributing assets in relation to Dane County, the state of Wisconsin, and at the national level. This assessment focused on the economic impact of the music ecosystem in Madison and an inventory of its assets to serve as a starting place in understanding how Madison can identify the most effective processes to achieve a sustainable, supportive and diverse music ecosystem that works to benefit all communities.

The data captured in this report shows that Madison contributes 84% of the County's music employment, implying that it is both the area with the largest economic activity concentration

[35] None of the observations from the category 'Independent Artists, Performing Groups' had an identifiable address.

overall and the highest concentration of economic activity specifically within the music ecosystem of Dane County. With this existing level of activity, it can be assumed that Madison has an opportunity to take the lead in becoming an even more vibrant music city, all while offering opportunities for growth and promoting greater inclusion among its neighboring communities. Knowing the existing assets in Madison's music ecosystem and their economic impact is a solid first step towards the development of an effective and resilient recovery music strategy as well as a great tool to benchmark Madison with other cities and to assess what requires amendment, optimization, or reform through a regulatory assessment and literature review.

Following a robust comparative analysis and regulatory assessment, deeper engagement with the community through surveys and stakeholder interviews is necessary to ensure the widest breadth of feedback so that recommendations in the developed framework are actionable and equitable and address the goals of leveraging sustainable tourism, but also an inclusive and diverse music ecosystem for all.

It is our hope to continue this work to help the Greater Madison Music City Project and the City of Madison develop its advocacy, infrastructure, education, promotion, and tourism to fully leverage their music ecosystem and benefit more from the opportunities music can bring to the city.

5. Bibliography

Asheville Area Chamber of Commerce (2016) “Music Industry, Asheville-Buncombe County Economic Impact”. Online at https://www.ashevillechamber.org/wp-content/uploads/2018/01/Music-Study-Infographic-for-Buncombe-County_2016.pdf

The Boston Consulting Group, Inc. (2017) “Economic Impact, Trends, and Opportunities Music in New York City”. Online at https://www1.nyc.gov/assets/mome/pdf/MOME_Music_Report_2017_DIGITAL.pdf

Bureau of Economic Analysis (2019) “Regional Accounts (GDP) by Metropolitan Area”. Online at https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1

Bureau of Economic Analysis (n.d.) “RIMS II, An Essential tool for Planners, Section C-1”. Online at https://apps.bea.gov/regional/rims/rimsii/rimsii_user_guide.pdf

Bureau of Economic Analysis (2018) “Arts and Cultural Production Satellite Account, U.S. and States 2018”. Online at https://www.bea.gov/news/2019/arts-and-cultural-production-satellite-account-us-and-states-2016

Data USA (2019) [Website]. Online at https://datausa.io

Musicians’ Association of Seattle (2015) “Seattle’s Working Musicians”. Online at https://www.afm.org/wp-content/uploads/2018/10/FTM-Report.pdf

Siwek, Stephen E. (2018) “The US Music Industries: Jobs & Benefits”. Online at http://www.riaa.com/wp-content/uploads/2018/04/US-Music-Industries-Jobs-Benefits-Siwek-Economists-Inc-April-2018-1-2.pdf

SOC Occupation code - SOCP from ACM: (https://www2.census.gov/programs-surveys/acs/tech_docs/pums/data_dict/PUMS_Data_Dictionary_2017.pdf?).

TXP, Inc. (2016) “The Economic Impact of Music”. Online at https://www.austintexas.gov/sites/default/files/files/EGRSO/TXP-Austin-Music-Impact-Update-2016-Final.pdf

U.S. Bureau of Labor Statistics (2018) “County Business Patterns”. Online at https://www.census.gov/programs-surveys/cbp.html

U.S. Bureau of Labor Statistics (2019). Online at https://data.bls.gov

U.S. Census Bureau (2017) “American Community Survey”. Online at https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2018/

U.S. Census Bureau (2018) “American FactFinder”. Online at https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk

6. Appendix: Methodology and Sources

Economic Impact Methodology

The economic impact analysis is macroeconomic research, which is based mainly on official secondary sources and statistics, complemented by primary research conducted by Sound Diplomacy. It provides a reliable measure of the economic importance of the music ecosystem in Dane County's economy on three different scales: direct, indirect, and induced impact.

The results contained in this report correspond with data from 2018 and previous years. This is because most of the official data sources used have a three-year delay. For instance, during the research process, the most updated version available for the County Business Patterns and RIMS II multipliers was data from 2018.

ECONOMIC IMPACT	DEFINITION
Direct Economic Impact	The direct impact is the economic activity directly connected to the music ecosystem, such as musicians, agents and venues.
Indirect Economic Impact	The indirect impact is supportive activity of the suppliers of the music ecosystem and is related to local businesses that provide goods and services, such as advertising, transportation and legal affairs.
Induced Economic Impact	Induced impact is created when the workers of the whole music ecosystem spend their wages on food, transportation, entertainment, etc. in their daily life.

Table 2. Economic impact definitions

The variables evaluated as part of the Economic Impact Assessment are: music ecosystem output, employment, gross value added (GVA), workers' compensation or wages, and the average income of music ecosystem workers.

VARIABLE	DEFINITION

The music ecosystem output[36]	All produced goods and services of the music ecosystem in Dane County. For example, concert ticket sales, recording studios services, etc.
Music ecosystem employment[37]	The number of active jobs in the production of music ecosystem goods and services.
Music ecosystem compensation[38]	Remuneration (including wages and salaries, as well as benefits such as employer contributions to pension and health funds) payable to employees in return for their music ecosystem work during a given year.
Gross value added (GVA)[39]	The music ecosystem output minus music ecosystem intermediate consumption (the costs of all inputs – for example, equipment rented by a live music promoter).
The annual average income of the music ecosystem workers	Describes the average income of the music ecosystem workers based on several variables such as sex, age, race, etc.

Table 3. Variables definitions

Classifications

In order to define and frame the music ecosystem according to the official data available we use two standard classifications:

The Classification of Economic Activities of the North American Industrial Code 2017 (NAICS) is the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. It was used to calculate the economic activity in Dane County that is attributable to the definition of the music ecosystem (see Appendix 1).

The 2018 Standard Occupational Classification (SOC) system is a federal statistical standard used by government agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. It was used to calculate the average income of the music ecosystem workers in Dane County.

[36] Bureau of Economic Analysis (2017)
[37] Ibid.
[38] Ibid.
[39] Ibid.

Geographical Scope

The geographic scope of this assessment is limited to Dane County and specifies the contribution of Madison Wisconsin to the county's music ecosystem.

Data Sources

Six main data sources have been used to conduct the economic impact analysis in Dane County:

DATA SOURCE	DETAILS
County Business Patterns: 2018	This source allows the calculation of the number of establishments and employees in Dane's music ecosystem by detailed industry. It also allows calculating the share of music ecosystem establishments within the state of Wisconsin.
BEA Regional Economic Accounts GDP by State 2001 - 2018	This source provides GDP data according to the big industries at the state and metropolitan levels.
Regional Input-Output Modeling System (RIMS II) [40]	RIMS II provides both Type I and Type II regional input-output multipliers to estimate the indirect and induced economic impact of the NAICS economic activities at the county level. Type I multipliers account for the direct and indirect impacts based on the economic dynamics of the music ecosystem supply chain. Type II multipliers account for both indirect and induced impacts based on the purchases made by employees of the music ecosystem.
The American Community Survey 2015 - 2019	This source allows for identifying the average income of the different workers in the economic activities associated with the music ecosystem.
Quarterly Census of Employment 2001-2019	This source provides the employment information per North American Industry Classification System, NAICS activity. From the latter, the details used are for the activities associated with the music Ecosystem.[41]
Sound Diplomacy primary data	This data, collected through roundtables and the mapping of agents, enables us to identify missing data and data that does not necessarily correspond to the music ecosystem but that was found in the official databases.

Table 3. Data sources

[40] See definitions in Appendix 2
[41] See Appendix 1

Appendix 1: Music ecosystem activities – NAICS Codes

DESCRIPTION	NAICS CODE
Artistic and creative segment	
Other Performing Arts Companies	71119
Independent Artists, Writers, and Performers	7115
Musical Groups and Artists	711130
Professional and support segment	
Agents and Managers for Artists, Athletes, Entertainers, and Other Public Figures	71141
Drinking places (Music Venues)	72241
Drinking Places (Alcoholic Beverages)	72241
Promoters of Performing Arts, Sports, and Similar Events without Facilities	71132
Radio Broadcasting	51511
Record Production	51221
Fine Arts Schools	611610
Sound Recording Industries	5122
Sound Recording Studios"	51224
Other Sound Recording Industries	51229
Musical Instrument and Supplies Stores	45114

Appendix 2: RIMS II Multipliers definition

“RIMS II is based on a set of national input-output (I-O) accounts that show the goods and services produced by each industry and the use of these goods and services by industries

and final users. Like most other regional I-O models, RIMS II adjusts these national relationships to account for regional supply conditions."[42]

Type I Multipliers: "Multipliers that account for only the interindustry effects (direct and indirect) of a final-demand change."[43]

Type II Multipliers: "Multipliers that account for both the interindustry effects (direct and indirect) and household-spending effects (induced) of a final-demand change"[44]

Appendix 3: American Community Survey (2015-2019) 2017 NAICS activities for the music ecosystem

DESCRIPTION	NAICS CODE in ACS
Artistic and creative segment	
Performing arts companies	7111
Independent Artists, Writers, and Performers	7115
Professional and support segment	
Promoters of performing arts, sports, and similar events, agents and managers for artists, athletes, entertainers, and other public figures	711M
Drinking Places (Alcoholic Beverages)	7224
Sound recording industries	5122
Other schools and instruction, and educational support services (incl. Fine Arts Schools)	611610
Musical Instrument and Supplies Stores	45114

[42] Ibid 21.
[43] Ibid, Page 62
[44] Ibid, Page 62

Appendix 4. NAICS activities from the Music Ecosystem from the Quarterly Census of Employment

Due to the level of aggregation in the Quarterly Census Employment, below are the NAICS activities used to define the Music Ecosystem:

Artistic & creative segment

- 7111 Performing arts companies
- 7115 Independent artists, writers, and performers

Professional & supporting

- 45114 Musical instrument and supplies stores
- 51222 Integrated record production and distribution
- 51223 Music publishers
- 51225 Record production and distribution
- 51229 Other sound recording industries
- 51511 Radio broadcasting
- 61161 Fine arts schools
- 7113 Promoters of performing arts and sports
- 7114 Agents and managers for public figures
- 7224 Drinking places, alcoholic beverages.