

Colorado's Music Industry: A Current Analysis and Look Forward July 2018

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Executive Summary

Colorado's music industry is comprised of regional clusters focused on the production and consumption of music. Statewide, the music industry is responsible for more than 16,000 jobs and just over \$1.4 billion in revenue. The most robust industry components in terms of employment and revenue are musicians, those that facilitate their careers, and activity related to live music events. This combination points to Colorado's strength in creating music and showcasing it live. There are regional variations in the state's music industry. Colorado's Front Range region represents the majority of music industry employment and revenue. The less populous Eastern Plains and Western Slope regions are not nearly as active, but they still contribute significantly to the overall strength of the state's music industry.

Between 2010 and 2016, Colorado's music industry experienced substantial growth while it continued to transform as a result of digital technology. Colorado also experienced substantial growth in population and tourism activity in the same time span. These trends, along with state and national demographic changes, favor Colorado's musical heritage and capacity for promoting, staging, and hosting live music events. Colorado is perfectly positioned to take advantage of a new *experience economy* driven by the millennial generation which is embracing concerts and festivals.

Sustaining and further developing Colorado's music industry requires a holistic approach. Fostering connections amongst music industry participants and those involved in industries from education and tourism to the culinary arts and health care will allow new opportunities, collaborations, and communities to emerge. These connections should be statewide and weave together Colorado's distinct regions when possible.

- Colorado's music industry represents just over \$1.4 billion in revenue and 16,076 jobs.
- The "Musicians, Managers, and Agents" industry subsector represents \$498.6 million in revenue and 7,816 jobs which is 49% of overall employment.
- The "Live Events" industry subsector represents \$489.8 million in revenue and 4,649 jobs which is 29% of overall employment.
- Colorado's Front Range region represents 90% of estimated revenue and 87% of employment for the state's music industry.
- Colorado's music industry experienced a 24% growth in employment between 2010 and 2016.

Executive Summary (Continued)

- Colorado is perfectly positioned to take advantage of the increasing consumption of live music experiences nationwide in a time when a new *experience economy* is emerging driven by the millennial generation.
- Establishing music advisory panels in regions across the state populated and driven by local musicians, educators, promoters, managers, venue owners, and others working within the industry will help sustain and grow Colorado's music industry.
- Cross-pollination of industry clusters such as information technology, health care, education, craft beverage, and outdoor recreation with Colorado's music industry should be formally encouraged in all regions of the state.

Table of Contents

Executive Summary i
Table of Contentsiii
List of Tables and Figuresiv
Introduction1
Defining Colorado's Music Industry1
By the Numbers: Employment
By the Numbers: Revenue 10
Demography is Destiny13
Going Forward15
Conclusion17
Appendix A: Methodology19
Works Cited 23

List of Tables and Figures

Tables

Table 1. Colorado Music Industry Estimated Employment by Region	. 6
Table 2. Denver Regional Industry Clusters by Employment Size: 2016	. 9
Table 3. Denver Regional Industry Clusters by Employment Growth	10
Table 4. Colorado Music Industry Estimated Revenue by Region	12
Table 5. Box Office Summary of Live Music Events: 2016	15
Table A1. NAICS Code Subsectors Included in Analysis	20

Figures

Figure 1. The Seven Regions of Colorado Used for Analysis
Figure 2. Colorado Music Industry Estimated Employment by Subsector 4
Figure 3. Colorado Music Industry Estimated Employment Growth: 2010 – 2016
Figure 4. Colorado Music Industry Estimated Employment Growth
Figure 5. Colorado Music Industry Estimated Revenue by Subsector
Figure 6. Red Rocks Amphitheatre Ticket Sales: 2006 – 2016 14

Introduction

Music is one of Colorado's greatest natural resources and the sound of the state is robust and varied. Trev Rich's beats and rhymes capture the energy of Denver's urban landscape while Leftover Salmon's free-floating mix of bluegrass, rock, and country mirrors the vast stretches of wilderness found in the state's mountainous regions. At the same time, musicians like Clare Dunn grow-up in towns across Colorado's plains documenting in song the state's wide-open spaces. The state's musical heritage is storied with the music of legends like John Denver and Judy Collins recognized worldwide while current phenomes like The Lumineers and Pretty Lights position themselves for equally impactful global careers. All of this activity is part of a natural progression over hundreds of years in the state beginning with indigenous peoples using music as an integral part of ceremonial events and weaving through the successive waves of settlers looking to music as a way to document their new environment, socialize, and remember their roots.

Colorado continues to echo its past as a magnet for settlers and places 8th in the nation in terms of population growth and 7th in terms of the rate of that growth.¹ Between 2015 and 2016, the state gained an estimated 98,200 residents. This growth represents the birth of new residents in addition to 67,000 new residents who moved to the state searching for a future filled with the natural beauty, employment, and active lifestyles Coloradans enjoy.² With this growth, comes more musicians and music industry professionals as well as those who appreciate the venues, concerts, festivals, and recordings a music industry provides. The recent growth of Colorado's music industry has not gone unnoticed – many across the country are now recognizing the state, especially Denver, as a new hotbed of talent and an ideal spot to create and experience music.³

It is important to examine the scale and scope of Colorado's music industry at this time as a better understanding of its dynamics during this period of growth will lend insight into how best to address it for continued growth and sustainability. Like any industry, Colorado's music industry not only drives economic growth on its own but is one in a mix of industries helping to advance the state's overall economy. It is against this backdrop that the University of Colorado Denver College of Arts & Media examines data representing Colorado's music industry and offers insight concerning the results.

Defining Colorado's Music Industry

Almost everyone can recognize a *music scene*. The musicians, venues, record labels, managers, sound engineers, graphic designers, fans and more that work together to enable concerts and careers to take shape is an almost ubiquitous fixture in every city across the nation and in many rural regions as well, but defining a music *industry* is more difficult. In a fluid employment

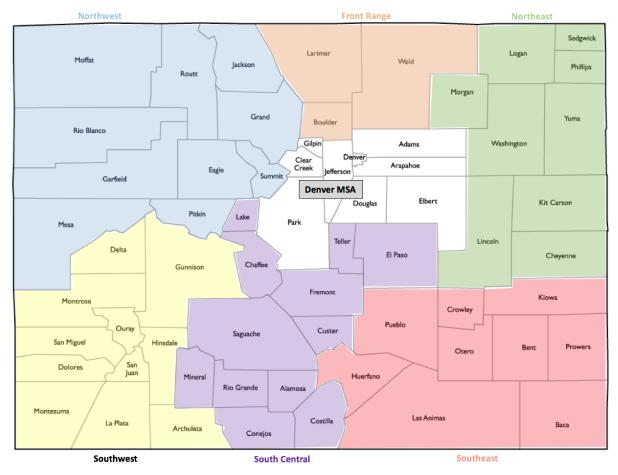
situation where participating in the music industry is not always one's primary job, it can be challenging to capture all of the activity.

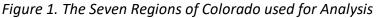
For the purpose of this study, an industrial approach was taken to estimate the scale and scope of Colorado's music industry. The music industry is similar to many other industries like aerospace or biotech in that clusters of like-minded individuals and firms contribute to the production of a set of goods sharing a common theme, in this case the production and consumption of music. This activity is often regionally-based – think Silicon Valley or Napa Valley – and when taken together, these regional clusters comprise a statewide industry.

Data representing the employment and revenue generated by the production and consumption of music within the state were obtained through a number of sources and a full explanation of the methodology behind how the data were selected, estimated, and grouped can be found in Appendix A. The most important thing to keep in mind when taking an industrial approach to analyzing Colorado's music industry is that some participants and revenue are unfortunately overlooked. For example, those who are still developing their skills in basements, living rooms, and garages as band members, promoters, or sound engineers are not captured in the data – nor is any money that may be associated with their efforts. The same is true for the successful freelance graphic designer who counts her friends' bands as clients because they pay her to design posters, websites, and album covers or the filmmaker who shoots music videos in his free time to develop his portfolio. The choir leader who is employed full-time at a church or the composer who works at an advertising agency and their respective salaries are also not counted. However, an industrial approach offers a fair consideration of what comprises Colorado's music industry as it includes not only the primary drivers who have experienced a measurable, economic level of success (musicians, sound engineers, managers, etc.), but also those who may work at music industry-related firms and organizations who are not directly involved in the production or consumption of music, e.g., the office manager working at a booking agency responsible for promoting festivals or the administrative assistant employed by the music department of a university. Despite this detail, it is important to remember that the results contained within this study are still most likely underestimating the size of the state's music industry.

Colorado is a state with distinct geographic regions and an assessment of the music industry within the state should recognize these regions. This study uses a slightly modified version of the Colorado Creative Industries-defined tourism regions as a way to highlight regional differences and offer insight into relative strengths and weaknesses of the industry statewide (Figure 1). The "Denver MSA" region was modified to resemble the "Denver-Aurora-Lakewood, CO Metropolitan Statistical Area" as defined by the United States Office of Management and Budget. With an

understanding of what is assessed and how that assessment is applied across the various regions of the state, it is possible to consider an analysis of Colorado's music industry. The following section will detail the state's music industry by employment and revenue generated by the production and consumption of music. Insight will then be offered concerning how the production and consumption of music in the state may be influenced by demographic and music industry trends. Finally, suggestions are offered regarding how Colorado's music industry may be addressed to ensure its sustainability and continued growth.





Source: Colorado Creative Industries, U.S. Office of Management and Budget.

By the Numbers: Employment

Employment in Colorado's music industry is strong. More than 16,000 people are employed in the production and consumption of music throughout the state. When grouped into six subsectors – "Musicians, Managers, and Agents," "Live Events," "Recording and Product," "Radio," "Instruments," and "Education" – the underlying dynamics of the industry are illuminated (Figure 2).

Colorado's music industry is driven by musicians and those that help them pursue their careers. Just over 7,800 fall into the "Musicians, Managers, and Agents" subsector representing 49% of overall employment. Also robust is the number of people employed in the "Live Events" subsector which represents 29% of all employment. Almost 4,700 people are engaged in the promoting, staging, and hosting of live music events. Their efforts ensure live music permeates the fabric of the state through intimate sets at venues, musical theater productions, large-scale concerts, and multi-day festivals.

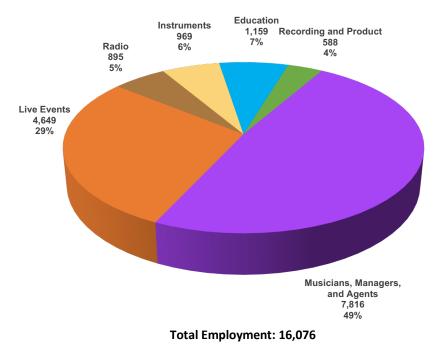


Figure 2. Colorado Music Industry Estimated Employment by Subsector

Source: EMSI, Infogroup, U.S. Census, Bureau of Labor Statistics, Pollstar, audited financial statements, media reports, and information gained from industry representatives

The remaining subsectors of Colorado's music industry are substantially smaller, but no less important. Developing the talent that will eventually help drive the music industry in the state is represented by the "Education" subsector which employs 1,159 or 7% of the total sector. Within this subsector are the teachers, professors, and administrators who are focused on developing the state's future musicians, recording professionals, promoters, and more. This activity is largely found in private programs and schools aimed at primary and secondary students and the university-level programs found at colleges housed in institutions like the University of Colorado, Colorado State University, and Metropolitan State University systems. The making and selling of instruments follows with 6% of the state's music industry dedicated to these craft and retail pursuits.

The sea change that digital technologies brought to the broader music industry are reflected in the final two subsectors, "Radio" and "Recording and Product." Although radio is still one of the leading platforms for the consumption of music, its fortunes are tied to demography. The millennial generation (those approximately 20 to 36 years of age in 2016) is shunning radio in favor of streaming services and as older generations continue to age out of their prime listening years, radio's recent decline in popularity may accelerate.^{5 6} It is estimated that just 5% of overall employment in Colorado's music industry is due to radio.

Digital technologies have radically restructured how music is recorded and distributed. Large recording studios are being replaced by musicians and sound engineers recording, mixing, and mastering in their homes or much smaller, "project" studios on budgets that are a fraction of what they once were.^{7 8} Aside from a recent resurgence of vinyl pressing, physical production and distribution of the resulting product has lost significant ground to digital options in the United States and in most markets globally.^{9 10} These changes are reflected in the "Recording and Product" subsector which employs a comparatively weak 588 people reflecting just 4% of the overall industry in the state.

Examining Colorado's music industry employment profile when divided into the seven regions that closely mirror the Colorado Creative Industries-defined tourism regions offers additional insight. Colorado's "Front Range," the center region of the state beginning at the Wyoming border in the north and stretching south almost to New Mexico is the state's most populous region. It is not surprising that the three study regions comprising this broader region, "Denver MSA," "Front Range," and "South Central" lead the remaining four regions in employment by a wide margin and reflect 87% of the state's total music industry employment (Table 1).

The four regions that represent Colorado's more sparsely populated "Eastern Plains" and "Western Slope" regions, "Northwest," "Southwest," "Southeast," and "Northeast" are still home to music industry activity with a combined total estimate of 2,139 people working to facilitate the production and consumption of music. It is important to note that when examining smaller, less populated regions, the accuracy of data may be slightly compromised due to the small number of individuals in question and associated "masking" of economic activity to protect the privacy of these individuals. Estimations may be made by some agencies and data analysis companies to mitigate the lack of identifiable data points resulting in slight under- or overcounting.

Region	Emp	%	Region	Emp	%	Region	Emp	%
Denver MSA			Northwest			Northeast		
Musicians, Managers, and Agents	4,034	47%	Musicians, Managers, and Agents	530	50%	Musicians, Managers, and Agents	30	26%
Live Events	2,848	34%	Live Events	279	25%	Radio	24	21%
Education	523	6%	Radio	114	10%	Live Events	23	20%
Instruments	446	5%	Instruments	77	7%	Instruments	23	20%
Radio	419	5%	Education	47	5%	Education	16	13%
Recording and Product	299	3%	Recording and Product	18	3%	Recording and Product	0	0%
Total	8,569		Total	1,065		Total	116	
Front Range			Southwest					
Musicians, Managers, and Agents	1,879	52%	Musicians, Managers, and Agents	275	46%			
Live Events	864	24%	Live Events	146	25%			
Education	340	9%	Education	56	9%			
Instruments	243	7%	Radio	55	9%			
Recording and Product	187	5%	Instruments	41	7%			
Radio	124	3%	Recording and Product	20	4%			
Total	3,637		Total	593				
South Central			Southeast					
Musicians, Managers, and Agents	940	54%	Live Events	153	42%			
Live Events	336	20%	Musicians, Managers, and Agents	128	35%			
Education	142	8%	Education	35	10%			
Radio	128	7%	Radio	31	8%			
Instruments	123	7%	Instruments	16	4%			
Recording and Product	62	4%	Recoding and Product	2	1%			
Total	1,731		Total	365				

Table 1. Colorado Music Industry Estimated Employment by Region

Source: EMSI, Infogroup, U.S. Census, Bureau of Labor Statistics, Pollstar, audited financial statements, media reports, and information gained from industry representatives

Reflecting music industry employment statewide, employment in the subsectors "Musicians, Managers, and Agents" and "Live Events" outstrips all others across the seven regions. The "Live Events" subsector is first in one region and second in employment to "Musicians, Managers, and Agents" in five other regions. This speaks to the viability and support of live music events statewide.

Employment growth in Colorado's music industry is impressive. From 2010 to 2016, employment related to music grew 24% with the subsectors, "Live Events," "Education," and "Musicians, Managers, and Agents" registering the most robust additions. Even the "Radio" subsector realized positive growth (Figure 3).

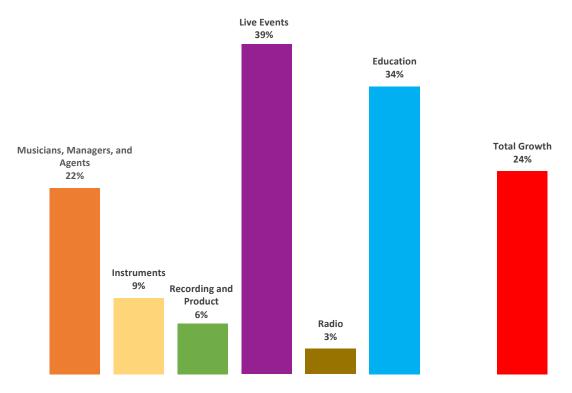


Figure 3. Colorado Music Industry Estimated Employment Growth: 2010 – 2016

Source: EMSI, Infogroup, U.S. Census, Bureau of Labor Statistics, Pollstar, audited financial statements, media reports, and information gained from industry representatives

All seven of regions examined exhibited positive employment growth (Figure 4). Please note that for some of the less populated regions, the data used for analysis may represent only a handful of people; an addition or loss of a comparatively small number of workers over time could result

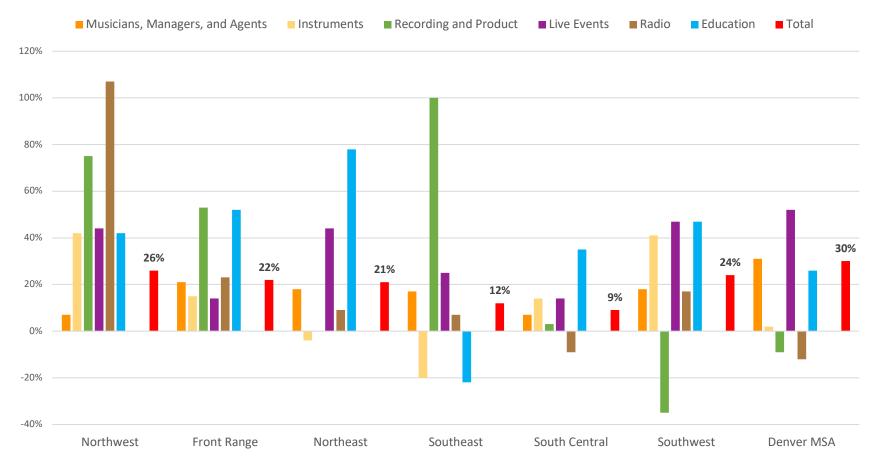


Figure 4. Colorado Music Industry Estimated Employment Growth by Region: 2010 – 2016

Source: EMSI, Infogroup, U.S. Census, Bureau of Labor Statistics, Pollstar, audited financial statements, media reports, and information gained from industry representatives

in a significant gain or loss in employment growth. All regions except two registered employment gains of 21% or higher, peaking at 30% in the Denver MSA region.

It is helpful to compare a music industry cluster to other industry clusters within a region. This offers perspective on the size and capacity for growth the music industry has both regionally and statewide. The Metro Denver Economic Development Corporation (Metro Denver EDC) tracks several industrial clusters within the Denver region.¹ When placed alongside these clusters, the Denver MSA region's music industry is substantially smaller in terms of employment, but still ranks an impressive 10th, only a few hundred jobs behind the next closest cluster "Beverage Production" which includes craft brewing activity (Table 2).

		% Employment
	2016	Growth
Industry	Employment	2011 – 2016
Healthcare & Wellness	214,430	22.8%
Financial Services	98,880	11.9%
IT & Software	54,580	27.5%
Energy	52,850	20.5%
Broadcasting & Telecommunications	42,400	0.2%
Aerospace	20,020	2.3%
Aviation	18,470	22.4%
Bioscience	15,860	4.2%
Beverage Production	9,400	28.1%
Music	8,569	24.2%

Table 2. Denver Regional Industry Clusters by Employment Size: 2016

Source: Metro Denver Economic Development Corporation (except "Music")

The overall growth of the Denver MSA region's music industry between 2011 and 2016 is even more impressive. Once again placed amongst the industry clusters tracked by Metro Denver EDC, the region's music industry comes in third place with an employment growth of 24.2%, only 3.9% less than the leader in growth, "Beverage Production," more than twice as much growth than in "Financial Services," and over five-times as much growth in employment than "Bioscience" experienced in the same time period (Table 3).

¹ The Metro Denver EDC uses nine counties to define the Denver metropolitan region. The counties in question are slightly different than the ten counties included in the "Denver-Aurora-Lakewood Metropolitan Statistical Area" as defined by the U.S. Office of Management and Budget and used in this study. Despite this difference in how the Denver region is defined, the Metro Denver EDC data is appropriate for comparative purposes.

	2016	% Employment Growth
Industry	Employment	2011 – 2016
Beverage Production	9,400	28.1%
IT & Software	54,580	27.5%
Music	8,569	24.2%
Healthcare & Wellness	214,430	22.8%
Aviation	18,470	22.4%
Energy	52,850	20.5%
Financial Services	98,880	11.9%
Bioscience	15,860	4.2%
Aerospace	20,020	2.3%
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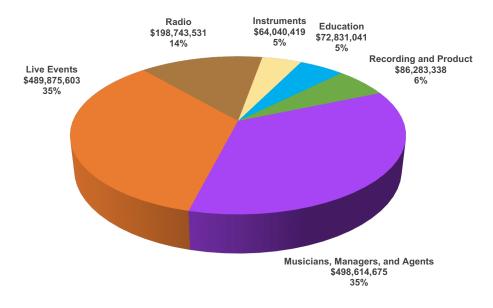
Table 3. Denver Regional Industry Clusters by Employment Growth

Source: Metro Denver Economic Development Corporation (except "Music")

By the Numbers: Revenue

Activity associated with Colorado's music industry generates a substantial amount of revenue across the state. From teaching music to college students to crafting and selling instruments to renting sound systems for festivals, the production and consumption of music in the state generated just over \$1.4 billion in revenue in 2016 (Figure 5).

Figure 5. Colorado Music Industry Estimated Revenue by Subsector



Total Revenue: \$1,410,388,607

Source: EMSI, Infogroup, U.S. Census, Bureau of Labor Statistics, Pollstar, audited financial statements, media reports, and information gained from industry representatives

The "Musicians, Mangers, and Agents" subsector again leads all other subsectors with \$498.6 million in revenue generated in 2016. Similar to employment trends in the industry, the subsector representing the promoting, staging, and hosting of live music events comes in a close second with \$489.8 million in revenue generated during 2016. The continuing economic power of radio – despite its challenges in the digital age – is illustrated by the \$198.7 million in revenue the platform generated in 2016. The remaining subsectors, "Recording and Product," "Education," and "Instruments" are less robust, yet still register revenue of more than \$86 million, \$72 million, and \$64 million respectively.

As the regions representing the "Front Range" region of Colorado – "Front Range," "Denver MSA," and "South Central" – are responsible for the majority of employment, a similar situation exists in terms of revenue associated with music industry activity. The three regions stretching from the state's northern to southern boarders generate the most revenue with the remaining four regions generating significantly less revenue, yet still playing home to varying levels of economic activity (Table 4).

Colorado's music industry revenue highlights the economic strength of musicians and those facilitating their careers and the live music events held throughout the state. The "Musicians, Managers, and Agents" subsector leads all others in four of the seven regions while "Live Events" generates the most revenue in two regions and the second most in four other regions. Although the three regions comprising the state's Front Range region register the overwhelming majority of the revenue generated by both of these subsectors, it is important to note that they still generate a significant amount of revenue in the less populated communities comprising the Western Slope and Eastern Plains regions. The "Radio" subsector also deserves attention as its associated revenue comes in third place in five of the regions and first in the Northeast region. The economic strength of radio should be monitored, however, as the millennial generation's preference for music platforms other than radio may have a significant impact on this subsector's future revenue generation statewide.

The music industry permeates Colorado. The intertwined web of individuals, firms, and catalysts – some easily identifiable in data sources, others less so – is a billion-dollar industry supporting more than 16,000 jobs. It is also fast-growing with 24% growth in employment statewide between 2010 and 2016. It is this last statistic, taken in conjunction with larger demographic trends in Colorado and nationally, which points to the state's music industry as poised for substantial growth in the future. In the following section these trends are discussed and insight is offered to how Colorado's music industry may benefit greatly from them.

Table 4. Colorado Music Indust	y Estimated Revenue by Region
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Region	Revenue	Region	Revenue	Region	Revenue
Denver MSA		Northwest		Northeast	
Live Events	\$328,109,703	Musicians, Managers, and Agents	\$32,769,734	Radio	\$2,753,364
Musicians, Managers, and Agents	\$289,019,125	Live Events	\$20,251,616	Instruments	\$2,726,908
Radio	\$124,816,045	Radio	\$17,109,950	Education	\$1,658,990
Recording and Product	\$38,676,360	Instruments	\$2,737,948	Live Events	\$1,074,955
Instruments	\$37,283,109	Education	\$1,781,641	Musicians, Managers, and Agents	\$828,959
Education	\$24,583,714	Recording and Product	\$1,286,297	Recording and Product	\$C
Total	\$842,488,056	Total	\$75,937,186	Total	\$9,043,176
Front Range		Southwest			
Musicians, Managers, and Agents	\$106,051,222	Musicians, Managers, and Agents	\$15,521,710		
Live Events	\$98,975,884	Live Events	\$7,206,799		
Recording and Product	\$34,903,824	Radio	\$6,750,210		
Education	\$33,767,332	Instruments	\$4,863,171		
Radio	\$21,437,707	Education	\$2,219,600		
Instruments	\$5,516,745	Recording and Product	\$123,163		
Total	\$300,652,714	Total	\$36,684,653		
South Central		Southeast			
Musicians, Managers, and Agents	\$48,778,193	Live Events	\$10,106,761		
Live Events	\$24,149,885	Musicians, Managers, and Agents	\$5,645,731		
Radio	\$23,089,357	Radio	\$2,786,898		
Recording and Product	\$11,098,549	Education	\$2,785,887		
Instruments	\$9,623,806	Instruments	\$1,288,732		
Education	\$6,033,879	Recoding and Product	\$195,144		
Total	\$122,773,669	Total	\$22,809,153		

Source: EMSI, Infogroup, U.S. Census, Bureau of Labor Statistics, Pollstar, audited financial statements, media reports, and information gained from industry representatives

Demography is Destiny

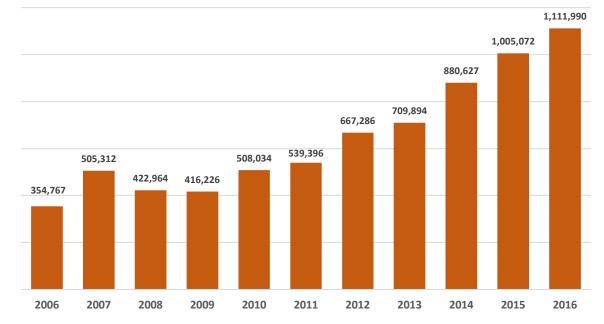
Colorado's music industry is experiencing a shift away from the production and consumption of physical products to the production and consumption of products in both digital and live environments – a trend nationwide. This shift is demonstrated by the comparatively weak (or declining) employment and revenue associated with studios and the manufacturing of physical recordings while significant increases in employment and revenue are observed for musicians, those that facilitate their career development, and the live events which offer everyone an opportunity to experience music. At the same time as the music industry shifts from the physical to the experiential, the section of the population that is a prized demographic for the music industry is embracing that shift.

The millennial generation (those approximately 20 to 36 years of age in 2016) is the biggest generation in the United States since the baby boomers representing just over a quarter of the nation's total population¹¹ The millennials' desire for the experiential over the physical is a defining trait of the generation to the degree that the retail industry is in a state of disruption while ticket sales for concerts, music festivals, and events often offering live music (such as craft beer festivals and themed runs like the "Rock 'n' Roll Denver Marathon") are rising precipitously.¹² ¹³ The trend of millennials spending more on events and travel than physical items is fueling an *experience economy* still in its infancy. As the millennial generation enters their prime earning years, an estimated 72% of them are looking to increase their spending on new events and additional ways to collectively share life experiences.¹⁴

Colorado is perfectly positioned to benefit from where and how the music industry's shift intersects with millennial-driven changes in consumption behavior. The state is already home to a robust millennial population with more than 1.3 million comprising 24% of the state's entire population and over 1.4 million members of Generation Z (ages 0 to 19) following close behind.¹⁵ The state is also a magnet for millennials with the cohort representing the bulk of people migrating to Colorado – a trend expected to continue into the future.¹⁶ Nationwide, the millennial generation is expected to overtake the baby boomers in size by 2019.¹⁷ In addition, Colorado is a prime tourism destination. Between 2009 and 2016, tourism increased 37% in the state which is more than double the increase across the nation. Over 84 million people visited the state in 2016 marking the sixth consecutive year the Colorado Tourism Office has set a record for visitors.¹⁸ As millennials within the state and across the country continue to search for new ways and places to experience life, exploring Colorado will continue to be an attractive option.

Colorado's music industry supports more than 100 festivals either music-based or with an integrated music component in addition to thousands of concerts of all genres. As tourism increases for the state and more millennials live within its borders, the number, types, and

locations of festivals and live music events could expand to meet the demands of the new experience economy. Colorado is no longer a collection of isolated islands in the Mountain West, it is a state of destination islands where residents and visitors alike continue to experience established and emerging music events as a form of recreation. A brief look at attendance figures for Red Rocks Amphitheatre in the Denver metropolitan region offers a glimpse into Colorado's potential as a music tourism hotspot. Red Rocks Amphitheatre is an internationally-known 10,000 seat outdoor musical venue owned and operated by the City and County of Denver, located 20 minutes from downtown Denver. From 2006 to 2016, attendance for events at the venue (the majority are music-based) has grown precipitously. In 2006, 354,767 people attended events at Red Rocks; by 2016 attendance reached 1,111,990 representing a 213% growth in ten years (Figure 6).¹⁹





Source: The Denver Post, Denver Arts & Venues

While the venue is a top draw for those who live throughout the Denver region and the state, it is also a tourist destination for people across the country and internationally. Denver Arts & Venues estimates that a sizeable portion of the tickets purchased for music events at Red Rocks in 2016 were purchased by people visiting Colorado. Much like Austin's South-by-Southwest festival, Red Rocks is a revenue-generating magnet for music-lovers both within Colorado and well beyond its borders.

An important point to keep in mind is these figures are for just one venue in the Denver metropolitan region. Pollstar, the international leader in live music industry analysis, estimates

almost 3 million tickets were sold for 1,288 music-based events throughout the region in 2016 (Table 5).

Table 5. Box Office Summary of Live Music Events: 2016

	Number of Events	Tickets Sold	Gross Revenue
Denver Metropolitan Region	1,288	2,833,702	\$142,839,963
Source: Pollstar, 2017			

While these numbers are substantial, they are likely under representative as Pollstar only publishes results based on data reported by venue owners and promoters. Like other parts of the music industry that remain invisible when gathering data, there were presumably a substantial number of unreported performances at clubs, venues, theaters, festivals, houses, art galleries, and coffeehouses throughout the region in 2016. If considering similar activity throughout the state, this discrepancy becomes exponentially greater.

Going Forward

With a substantial and growing millennial population looking to spend even more on experiential events like concerts and festivals, record levels of tourism, a year-round schedule of live music events throughout the state, a number of university-level programs training students to work in the industry, and strong employment growth of music industry professionals from musicians to promoters, Colorado's music industry has the potential to blossom into one of the leading in the nation. The key is to foster a synergy amongst these dynamics across all regions of the state and genres of music.

The "Education" subsector performed comparatively well throughout the state, but the data largely reflects activity at university-level music programs and private arts schools at the primary and secondary levels. Colorado's current teacher shortage crisis, especially in rural regions, and challenges in funding public schools across the state threaten access to music education for a large swath of Colorado's youth.^{20 21 22} To understand how the challenges facing Colorado's public education system may hamper the overall health of its music industry, a look at Iceland's success as global hotspot for music production and consumption is helpful. Although a largely rural country and an arguably remote destination, Iceland has achieved global recognition due to the success of its artists like Björk, Sigur Rós, and Of Monsters and Men among many others. Additionally, its music industry is leveraged successfully as a platform for tourism.²³ A key ingredient in this success is a long history of music education programming and access at the primary and secondary levels producing a thriving culture of music participation and appreciation across all age groups.²⁴

Colorado is moving in the same direction as Iceland with recently developed programs that will help mitigate the challenges facing music education in public schools. The Colorado Music Coalition-driven "Take Note" initiative seeks to offer access to instruments and instruction to every primary and secondary student in the state while the "Detour" program supported by Colorado Creative Industries facilitates musicians traveling to rural communities in order provide live music events and music education opportunities to residents.^{25 26} These programs should be supported as they will help develop future participants in the state's music industry across all regions while Colorado continues to emerge as a music tourism destination like Iceland for both residents and visitors.

It is imperative that courses and extracurricular programs reflect the needs of a changing music industry landscape at the university level. For example, the digital sea change in the music industry has diminished the value of physical product but has opened numerous new channels for music to be produced, distributed, and monetized online and in other forms of media also radically transformed by digital technologies. Music publishing is now a crucial component of how revenue is generated for musicians and those that facilitate their careers. In all regions of the state examined, employment in music publishing was anemic at best. Universities with music programs should continue and enhance their efforts in this area including offering classes focused on the topic and creating student-run music publishing entities to complement existing student-driven extracurricular programming such as record labels and concert promotion and production organizations.

Colorado is a geographically diverse state. Although the data offers that the state's music industry is densely clustered in the regions comprising the Front Range, it is critical to retain a statewide focus. Employing a regional approach and establishing music advisory panels across the state populated and driven by local musicians, educators, promoters, managers, venue owners, and others working within the industry would help with this focus. These panels will inform local, regional, and state policymakers as to what would help develop the music industry within their specific regions. Similar panels with a tighter geographic focus have met with considerable success in cities such as Seattle, Austin, and Toronto. A central office or center dedicated to the research and development of Colorado's music industry could oversee these panels as well as conduct research and monitor the evolution of the state's music industry, track best practices nationwide and globally, help draft relevant policy initiatives, and develop educational programming for those working directly in the industry and students looking to enter it. The ideal location for such an office or center would be in a university-level academic institution with an established music business program and the capacity for applied research, community engagement, and government relations. A partnership or similar association with the Colorado Creative Industries and other public or private organizations could be established as the

overarching focus of activity would be to help the state's music industry in terms of economic sustainability, development, and growth.

The invisible nature and dynamics of the music industry should also be proactively addressed within Colorado. Many music industry participants are also involved with other industries as employees, entrepreneurs, and students among other roles.²⁷ Industry cross-pollination is already well under way in Colorado and should be formally encouraged. The craft beverage and outdoor recreation industries have tapped the state's music industry as a successful partner for live events; these symbiotic relationships could be expanded thematically and geographically to include industries like information technology, culinary arts, and health care in locations beyond the Front Range. The effect of this cross-pollination will benefit not only Colorado's music industry and its participants but also the other industries involved.

The wealth of music industry activity conducted by emerging or informal participants which is not easily captured through traditional channels is often centered around spaces of incubation known as *all-ages DIY music venues*. These venues are generally driven by volunteers, often have strict policies against drug and alcohol use, are open to all age groups, and foster collaboration. Venues such as these compliment traditional venues by helping bands, artists, label owners, sound engineers, graphic designers, entrepreneurs, and more develop the skills and networks needed for sustainable careers. It is not uncommon for these venues to help industry participants make the transition from the invisible world to a more professionalized role appearing in the data sets used by this study.^{28 29} These venues should be engaged statewide on some level in order to offer insight and contacts concerning issues such as zoning laws and non-profit administration while also disseminating information concerning best practices nationwide.

Conclusion

Colorado's music industry is comprised of regional clusters focused on the production and consumption of music. Statewide, the music industry is responsible for more than 16,000 jobs and just over \$1.4 billion in revenue. The most robust components in terms of employment and revenue are "Musicians, Managers, and Agents" and "Live Events" pointing to Colorado's strength in creating music and showcasing it live. Between 2010 and 2016, Colorado's music industry experienced substantial growth while it continued to transform as a result of digital technology. Colorado also experienced substantial growth in population and tourism activity in the same time span. These trends, along with state and national demographic changes, favor Colorado's musical heritage and capacity for promoting, staging, and hosting live music events. Colorado is perfectly positioned to take advantage of a new experience economy driven by the millennial generation which is embracing concerts and festivals.

Sustaining and further developing Colorado's music industry requires a holistic approach. Fostering connections amongst music industry participants and those involved in industries from education and tourism to the culinary arts and health care will allow new opportunities, collaborations, and communities to emerge. These connections should be statewide and weave together Colorado's distinct regions when possible. By taking these steps, Colorado will continue to mine one of its most exciting natural resources for the benefit of its music industry professionals, those that love music within its borders and beyond, and all of the people who call Colorado "home."

Appendix A

Methodology

The first step in measuring Colorado's music industry was to establish a geographic area for examination. While it is the goal of this study to provide perspective on the music industry at the state level, previous studies demonstrate that music industry activity is propelled by regional clusters comprised of venues, studios, musicians, festivals, fans, and other ingredients. By closely matching how Colorado Creative Industries (CCI) divides the state into regions for the purposes of defining Colorado's tourism industry, a suitable geographic framework for regional analysis was achieved. The state perspective was then gained by aggregating the regional results. The only modification to the CCI parameters concerned using the U.S. Office of Management and Budget-defined "Denver-Aurora-Lakewood Metropolitan Statistical Area" as the geographic definition for the new "Denver MSA" region. This definition includes ten counties opposed to CCI's "Denver Metro" definition which includes only a handful of entire counties and smaller portions of several adjacent counties. The result is a comparatively larger Denver metropolitan region and subtle differences in the CCI-defined "Front Range," "Northeast," and "South Central" regions.

After establishing the area of study, the next step was developing a framework for who should be included. For the purpose of this study, an industrial approach was taken to estimate the scale and scope of Colorado's music industry. The music industry is similar to many other industries like aerospace or biotech in that clusters of like-minded individuals and firms contribute to the production of a set of goods sharing a common theme, in this case the production and consumption of music. This activity is often regionally-based – think Silicon Valley or Napa Valley – and when taken together, these regional clusters comprise a statewide industry.

Taking an industrial approach to analyzing Colorado's music industry unfortunately overlooks some participants and revenue. For example, those who are still developing their skills in basements, living rooms, and garages as band members, promoters, or sound engineers are not captured in the data – nor is any money that may be associated with their efforts. The same is true for the successful freelance graphic designer who counts her friends' bands as clients because they pay her to design posters, websites, and album covers or the filmmaker who shoots music videos in his free time to develop his portfolio. The choir leader who is employed full-time at a church or the composer who works at an advertising agency and their respective salaries are also not counted. However, an industrial approach offers a fair consideration of what comprises Colorado's music industry as it includes not only the primary drivers who have experienced a measurable, economic level of success (musicians, sound engineers, managers, etc.), but also

those who may work at music industry-related firms and organizations who are not directly involved in the production or consumption of music, e.g., the office manager working at a booking agency responsible for promoting festivals or the administrative assistant employed by the music department of a university. Despite this detail, it is important to remember that the results contained within this study are still most likely underestimating the size of the state's music industry.

This study uses the North American Industry Classification System (NAICS) to define which industrial subsectors should comprise Colorado's music industry. (Table A1). Once the NAICS-defined framework was established, the industry-standard economic analyst tool EMSI was used to gather data provided by the Bureau of Labor Statistics, Bureau of Economic Analysis, U.S. Census, and other city, state, and federal organizations. The data represent people who work full-time at music industry-related firms and organizations in addition to those who work either part-time in a freelance capacity or are sole proprietorships.

In some cases, all the firms in a NAICS code subsector are directly involved with the production and consumption of music, in other cases, a NAICS code subsector will include firms that provide similar goods and services, but for entirely different industries. In those cases, it was necessary to adjust results provided by EMSI by using complimentary data sources to estimate how much of the subsector in question is dedicated solely to music – a methodology used previously in an analysis of the music industry in the Seattle, Washington region.³⁰ Of the eighteen NAICS subsectors examined in this study, eight required no additional analysis before inclusion while ten required adjustments made to the EMSI-supplied numbers before inclusion.

	Musicians, Managers, and Agents
711130	Musical Groups and Artists
711410	Agents and Managers for Public Figures*
711510	Independent Artists, Writers, and Performers*
I	Instruments
339992	Musical Instrument Manufacturing
451140	Musical Instrument and Supply Stores
I	Recording and Product
512210	Record Production
512220	Integrated Record Production/Distribution
512230	Music Publishers

Table A1. NAICS Code Subsectors Included in Analysis

NAICS Code	Description
512240	Sound Recording Studios
512290	Other Sound Recording Industries
	Live Events
532229	All Other Consumer Goods Rental*
711110	Theater Companies and Dinner Theaters*
711310	Promoters of Performing Arts, Sports, and Similar Events with Facilities*
711320	Promoters of Performing Arts, Sports, and Similar Events without Facilities*
722410	Drinking Places (Alcoholic Beverages)*
	Radio
515112	Radio Stations*
	Education
611310	Colleges, Universities, and Professional Schools*
611610	Fine Arts Schools*
* Ectimated cul	heartar

Table A1. NAICS Code Subsectors Included in Analysis (Cont.)

* Estimated subsector

Several steps were taken to develop the estimates of music-related activity for the NAICS code subsectors in question across all regions examined. First, a database compiled by Infogroup detailing all businesses within Denver County by NAICS code, number of employees, and revenue was consulted as a guide. Once estimates of music industry employment and revenue for the NAICS code subsectors in question were established for Denver County, extrapolating them to represent the estimated music industry employment and revenue for the Denver MSA region included referencing a number of other data sources including, but not limited to the U.S. Census, the Bureau of Labor Statistics, Pollstar, audited financial statements, media reports, and information gained from industry representatives. A model for the Denver MSA region was finalized representing eighteen NAICS code subsectors including those estimated and ones that needed no additional analysis. This model was used as a framework to examine the other regions in the study. The substantial regional differences that exist were addressed in an additional step. The extended collection of data sources used to develop estimations for the Denver MSA were again referenced with the unique dynamics of each region as a guide. This process helped create estimates appropriate for each region examined. In all regions, conservative estimations were used.

Another crucial element to examine concerning a region's music industry is the vitality of its live performances. For this study, data regarding the number of shows, ticket sales, and revenue generated in the Denver MSA were obtained from Pollstar, which is the industry-leader for data collection regarding live music performances. Pollstar does not report data in terms of official Metropolitan Statistical Areas, so data requests were made for the city of Denver and a twentymile buffer zone surrounding it. Results were checked for accuracy and any venues included outside of the Denver MSA eliminated. It is important to note that data supplied by Pollstar are likely under representative as Pollstar only publishes results based on data reported by venue owners and promoters. Like other parts of the music industry that remain invisible when gathering data, there are presumably a substantial number of performances at clubs, venues, theaters, festivals, houses, art galleries, and coffeehouses that go unreported.

Data concerning live performances at the Red Rocks Amphitheatre were provided by the City of Denver agency, Denver Arts & Venues. Red Rocks Amphitheatre is owned and operated by the City and County of Denver, and Denver Arts & Venues contracts with AXS Digital, LLC to ticket all events at the venue. The agency obtains comprehensive sales records regarding those events and the data regarding Red Rocks contained within this study reflect the data presented in those sales records.

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