

The Impact of Taylor Swift’s Eras Tour on County Retail Sales

Corinne Sidebottom

Drake University

ABSTRACT

Taylor Swift’s “The Eras Tour” had a large economic influence of United States cities, with football stadiums selling out to tens of thousands of Swifties. This paper analyzes the effects of The Eras Tour on monthly county retail sales. Using data on retail sales from 2021 – 2023 from five different states in which the tour stopped, regressions were run examining how presence of an Eras Tours concert in a county predicted retail sales. The results indicate that counties that hosted Eras Tour concerts had increased retail sales in the month that they hosted concerts.

Subject Area: Economics

Article Type: Editorially Reviewed Journal Article

INTRODUCTION

Large events like concerts and sports games have always provided an economic boost to host cities, especially by bringing in visitors from outside of the city. In addition to buying event tickets, these visitors spend money at restaurants and hotels, bringing a boost to businesses in the area of the event venue.

In 2018, the music industry generated \$170 billion in value annually for the U.S. GDP and supported 2.47 million jobs (Stoner & Dutra, 2020). It was also found that for every dollar of direct revenue within the U.S. music industry, another 50 cents are created in an adjacent U.S. Economy. Pop superstar, Taylor Swift, has been a major player in the music industry for many years, but especially in 2023 with her Eras Tour. The tour visited 20 major U.S cities, before moving on to the international legs of the tour. Many cities have reported boosts in GDP, hotel revenue records, and other economic benefits, thanks to the spending of Swifties (what Taylor Swift fans are called), which is estimated at \$1,327.74 per Eras Tour attendee (QuestionPro, 2023). Taylor Swift reached a record within the first eight months of The Eras Tour, with her tour grossing \$1 billion, the first and only tour to ever achieve this sales total (Gensler, 2023). While the study by QuestionPro calculated \$5 billion in direct spending for The Eras Tour U.S., the United States Travel Association calculated that the total impact exceeds \$10 billion (2023). Swift's tour has been undoubtedly record breaking. This paper aims to investigate the impact of the Eras Tour on retail sales in select US counties.

LITERATURE REVIEW

The economic effects of the Era's Tour has been reported on in mainstream media, however no statistical examinations have been published in the economic literature to date. A few studies on the economics of the music industry and Superstars provide findings that inform the development of the current study.

Rosen (1981) discusses how artists, especially more popular ones, can make a lot more money due to technology like radios, streaming, and video. This is one explanation for Swift's huge revenues. The phenomenon of Superstars allows artists like Swift to dominate their fields, because they can reach so many more people at once, without huge increases in production costs.

Krueger (2005) studied the economics of rock concerts. The average ticket price has increased much faster than the Consumer Price Index. A concert is an "experience good", which means that consumers do not know the utility they would receive from a concert unless they go and as a result they will possibly pay more. This is also why artists' reputations are important to sell tickets. From 1997 to 2003, the concert Laspeyres index rose 64% while CPI for other entertainment events increased 32%. Krueger also discussed how there are many players in the music entertainment industry including musicians, venues, and promoters. The author attributes some of the economic changes in concerts to a prediction superstar David Bowie made, that the only unique thing left will be touring concerts, which is why artists may not feel as constrained increasing prices. The author believes that "the downloading of music will put upward pressure on concert prices and revenue in the near future".

Zehr (2021) examined the economic effects of streaming in response to criticism from Taylor Swift. Swift has criticized streaming services like Spotify in the past for the low profits that artists receive for streams. She has argued that streaming services do not create an industry where the price of music in a streaming model represents its worth. However, this research article looked at streaming services and found that all artists benefit in some way from them. The article emphasized the importance of Generation Z (Roughly ages 14 to 27 as of 2024) in their use of streaming services: 92% of Gen Z uses a streaming service, but

only 22% subscribe to a paid streaming service. Gen Z has unique habits such as listening to music a lot more because of the availability and ease of portable technology, making streaming services an important part of the music industry. Artists like Taylor Swift have had to adjust to streaming to receive its benefits. This article declares that although profit margins may be small for many artists, streaming is still beneficial for smaller artists because it helps them get found and sell concert tickets, which is where most artists get much larger profits. However, the article notes that the fraction of seats sold, tickets sold, number of shows performed, have all trended downward and that this is consistent with the music industry becoming more monopolized.

Zhang (2022) examined music album sales and commercial economic value, with Swift as the specific musician of study. He discussed how Taylor Swift changed her brand over time to appeal to an audience. She has a lot of loyalty from her fans that loved her as children, therefore she has been able to retain a large fan base throughout the years. She does this by building an emotional connection with her female audience through her songs. She has also been re-recording her songs so that she is the sole owner of them as opposed to a music label, and with that releasing new songs on the album as well. This attracts her loyal fans to listen to the re-recorded albums but also to have something new to hold onto as well. The records are otherwise perfect substitutes besides the bonus, but she still increases her profit because of the ownership which indicates how successful Taylor Swift is as a business. Although she is known for being an advocate for artists in the past and has stood up to streaming services before, it can't be denied that the re-releases of the albums have benefited Swift monetarily.

Lintumaki et al (2020) examined event economics from a sports perspective. They studied the economic impact of the Winter World Masters Games (WWMGs) in Tyrol, Austria. The study analyzed economic impact of participant spending, cost-benefit analysis of organizational resource flows, and discussion of impacts with experts in a focus group. The WWMGs were estimated to have had a regional impact of 6.18 million euros. They also determined that event participation positively influences a participant's intention to revisit a location, which is good for economic growth. Overall, this informs the study of the economic impact of large events.

Chung (2018) studied the economic impact of entertainment-based events on retail sales in Kazakhstan and the UAE, particularly events held in shopping centers. In Kazakhstan and the UAE, entertainment events are often held in malls, town halls, or public squares. Chung studied store visits in these stores and found that events brought in more store visitors, especially to large anchor stores. This contributes to the literature of entertainment events as a driver of retail sales.

Gabe and Lisac (2014) studied the economic impact of music-tourism related expenditures. They examined a waterfront concert series in Bangor, Maine from 2010 to 2012. Their regression analysis found spending of \$33.81 to \$52.31 per attendee on restaurant meals, and \$18.92 to \$23.12 on lodging, with about 30 percent of concert attendees staying overnight. The regression found a positive and statistically significant relationship between monthly taxable restaurant sales and the number of concert attendees. Gabe and Lisac did very similar research to this study, the impact of concerts on retail sales, and found a positive impact.

DATA

This study uses county-level retail sales from Arizona, Colorado, Florida, Nevada, and Tennessee. These states were chosen because they all hosted Eras Tour concerts, and they provide a wide range of cities and geographic locations. The data are from a variety of sources: Northern Arizona University (monthly gross sales data), the Colorado Department of Revenue (retail sales), the Florida Office of Economic and Demographic Research (taxable sales), the Nevada Department of Taxation (taxable sales), and the Tennessee Department of Revenue (retail sales). Florida's data used MSA's instead of counties, but for this analysis they will be treated as counties.

This study uses panel data, with the same units (counties) observed over many time periods. The unit of observation is the county retail sales in a particular month. Variables used in the analysis are defined in table 1.

The date range in this study starts in 2021, to avoid effects from Covid-19, and goes through 2023. All Eras Tour concerts took place in 2023. The concerts took place on March 17th and 18th in Arizona (the tour opening shows); March 24th and 25th in Nevada; April 13th, 14th, and 15th in Tampa; May 5th, 6th, and 7th in Nashville; and July 14th and 15th in Colorado. Retail sales data availability varied by state. Complete three-year data is available for Arizona and Colorado. Nevada data goes through October 2023, Florida through July 2023, and Tennessee through June 2023.

There are 6,922 observations in the first analysis and 167 in the second analysis which narrows the data to concert-hosting counties. Observations that were below zero were excluded from the data because negative sales do not make sense. There were only four of these observations, one in the Arizona data and three in the Nevada data. The mean values and ranges are sensible for county-level monthly sales data.

Table 1 shows the variable definitions used. Retail sales in the dependent variable, concert is the independent variable, and time and state-county number are the control variables. Table 2 shows the descriptive statistics of all five states pooled together. The mean county monthly retail sales value is \$459,835,000, with a standard deviation of \$1,169,525,000. Table 3 shows that Arizona had mean monthly county retail sales of \$723,574,000 with a standard deviation \$1,881,086,000. Table 4 shows that Colorado had mean monthly county retail sales of \$378,163,000 with a standard deviation of \$785,439,000. Table 5 shows that Florida had mean monthly county retail sales of \$2,095,293,000 with a standard deviation of \$2,106,064,000. Table 6 shows that Nevada had mean monthly county retail sales of \$407,856,000 with a standard deviation of \$1,191,567,000. Finally, Table 7 showed that Tennessee \$96,795,000 with a standard deviation of \$219,293,000. Note that the number of observations in these tables represents the number of counties and months (counties multiplied by months). The figures in these tables are for all the counties in each of the states.

Figures 1 through 6 show time-series graphs of retail sales in each of the counties where the Eras Tour stopped. Red circles indicate concert dates. Figure 4 of Maricopa County, Arizona and Figure 2 Clark County, Nevada both show spikes in retail sales during the month of their Eras Tour concerts. Figure 1, Figure 3, and Figure 5 did not show spikes in sales during the concert month. The graphs are of retail sales in only of the counties that hosted Eras Tours, over the data months observed.

TABLE 1: VARIABLE DEFINITIONS

Variable	Definition	Formula
Retail Sales	The total retail sales of the county in that month	
Concert	If that county hosted an Eras tour concert	0 = did not host, 1 = did host
Time	The number of months since the beginning of 2021	(Data year – 2021) *12 + month
State - County Number	A variable to identify the state and county of the data point together	State + County

TABLE 2: DESCRIPTIVE STATISTICS OF ALL STATES

	Number of observations	Mean	Standard deviation	Minimum	Maximum
Year	6,922	2021.899	0.789	2021	2023
Retail Sales	6,922	459.835	1169.525	0.964	9241.542
Concert	6,922	0.001	0.027	0	1
Time	6,922	16.857	9.630	1	36
SCNO	6,922	104.599	61.681	1	215

Note: Retail Sales are in Million USD

TABLE 3: DESCRIPTIVE STATISTICS OF ARIZONA

	Number of observations	Mean	Standard deviation	Minimum	Maximum
Year	516	2022.023	0.822	2021	2023
Retail Sales	516	723.574	1881.086	7.511	9241.542
Concert	516	0.002	0.044	0	1
Time	516	18.779	10.448	1	36
SCNO	516	8.337	4.889	1	17

TABLE 4: DESCRIPTIVE STATISTICS OF COLORADO

	Number of observations	Mean	Standard deviation	Minimum	Maximum
Year	2,302	2022.001	0.816	2021	2023
Retail Sales	2,302	378.163	785.439	1.278	6135.174
Concert	2,302	0.000	0.021	0	1
Time	2,302	18.506	10.393	1	36
SCNO	2,302	49.492	18.483	18	81

TABLE 5: DESCRIPTIVE STATISTICS OF FLORIDA

	Number of observations	Mean	Standard deviation	Minimum	Maximum
Year	682	2021.839	0.767	2021	2023
Retail Sales	682	2095.293	2106.064	101.589	8943.406
Concert	682	0.001	0.038	0	1
Time	682	16	8.951	1	31
SCNO	682	92.5	6.349	82	103

TABLE 6: DESCRIPTIVE STATISTICS OF NEVADA

	Number of observations	Mean	Standard deviation	Minimum	Maximum
Year	575	2021.944	0.803	2021	2023
Retail Sales	575	407.856	1191.567	1.124	6148.837
Concert	575	0.002	0.042	0	1
Time	575	17.536	9.815	1	34
SCNO	575	112.016	4.911	104	120

TABLE 7: DESCRIPTIVE STATISTICS OF TENNESSEE

	Number of observations	Mean	Standard deviation	Minimum	Maximum
Year	2,847	2021.799	0.748	2021	2023
Retail Sales	2,847	96.795	219.293	0.964	1646.716
Concert	2,847	0.011	0.019	0	1
Time	2,847	15.487	9.652	1	30
SCNO	2,947	168.004	27.435	121	215

FIGURE 1: TAMPA- ST. PETERSBERG- CLEARWATER MSA, FLORIDA

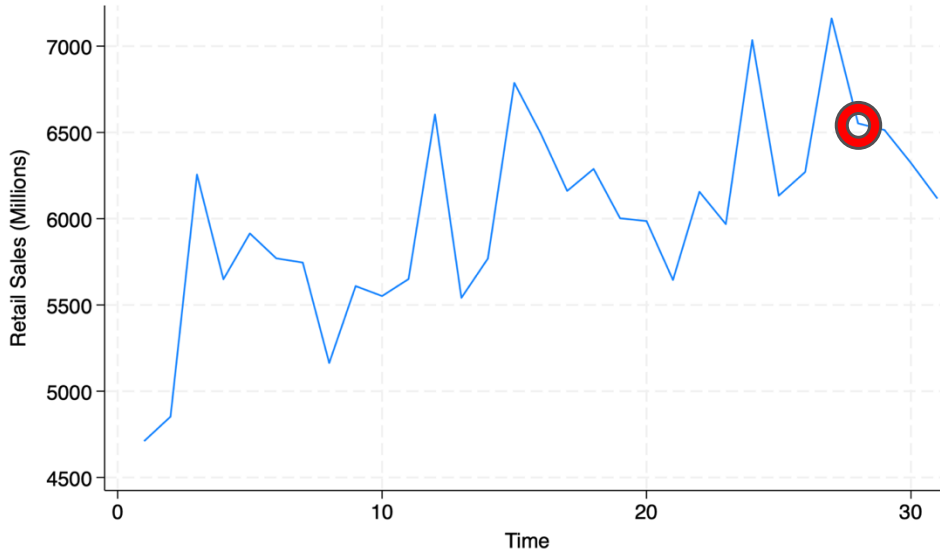


FIGURE 2: CLARK COUNTY, NEVADA

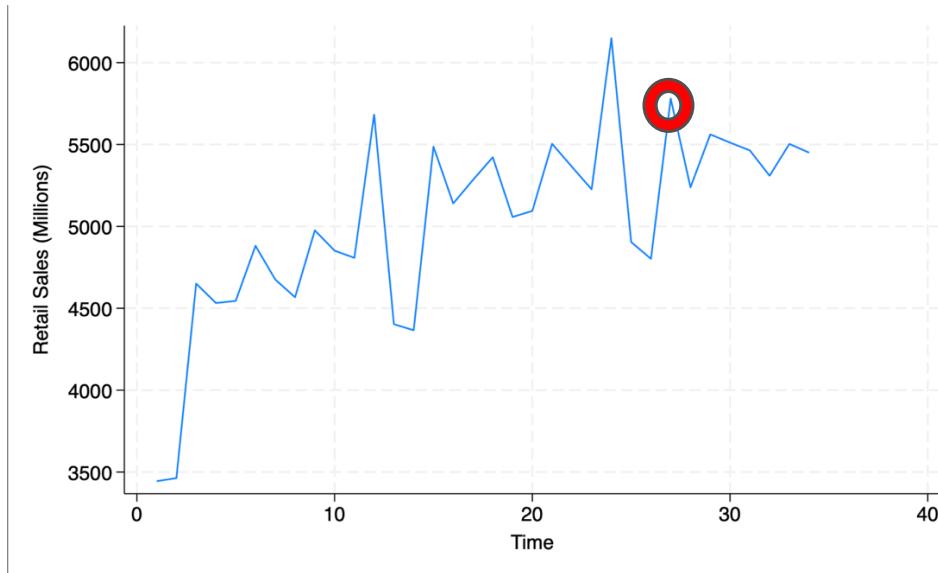


FIGURE 3: DAVIDSON COUNTY, TENNESSEE

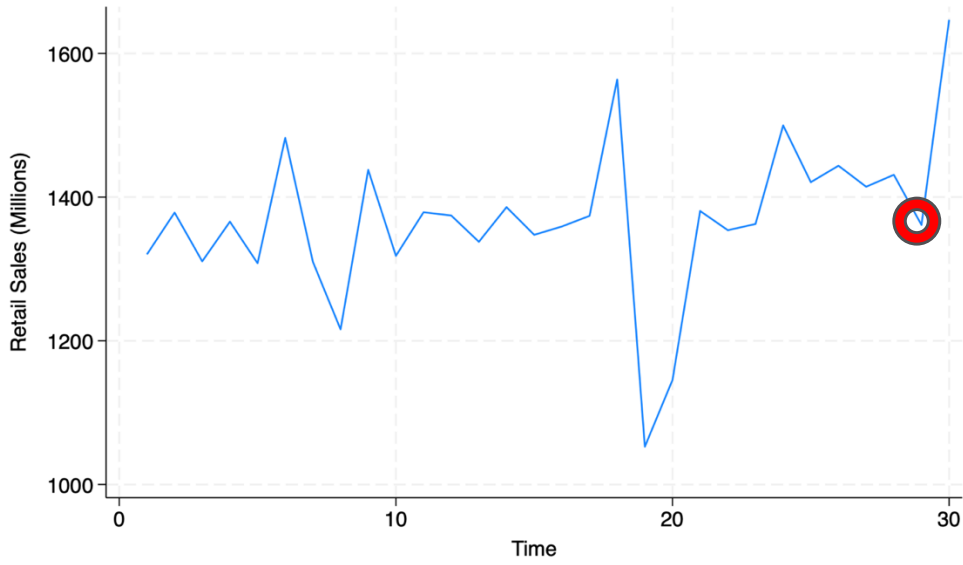


FIGURE 4: MARICOPA COUNTY, ARIZONA

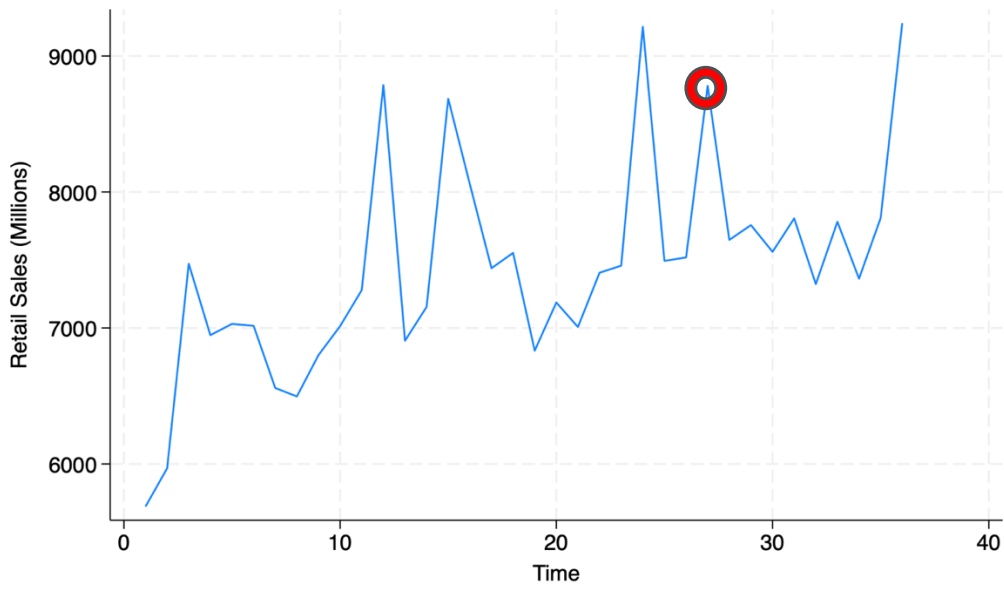
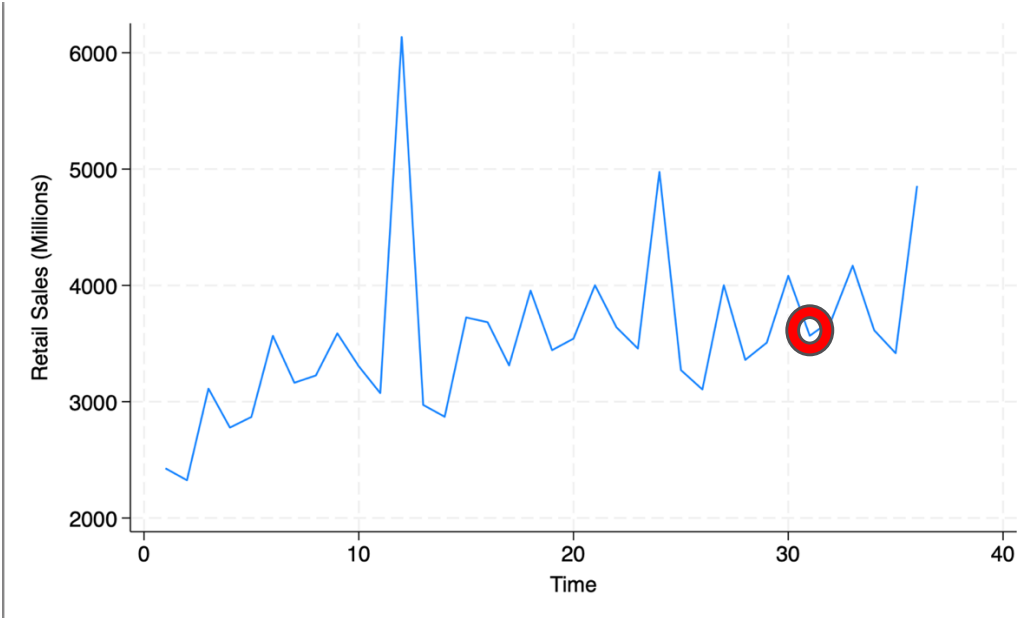


FIGURE 5: DENVER COUNTY, COLORADO



Note that these figures are of the concert-hosting counties over the data months. The axis label “RsalesMill” represents retail sales in millions of dollars. The “mytime” axis label represents months since the start of the data set, January 2021. The red circles on the graphs indicate the month that the Eras Tour occurred in that location.

METHODOLOGY

The equation that this study will be estimating is:

$$\text{Retail sales} = \beta_1 + \beta_2 \text{concert} + \text{time dummy} + \text{SCNO dummy} + \text{error}$$

This equation was estimated twice: once using all of the counties in the data set, and secondly using only the data from the five counties that had Eras Tour concerts.

This study estimates the causal effect of the Eras Tour on local retail sales. The identification method is difference-in-differences. Counties that did not have a concert were used to infer the counterfactual: what would have happened without the Eras Tour. In particular, the coefficient of “concert” will show the effect of the tour on monthly retail sales. There is a risk of omitted variable bias because there could be a variety of factors affecting retail sales such as other concerts, sporting events, and more. However, control variables such as time and county were included to hopefully mitigate any selection bias.

RESULTS:

The Era’s tour was covered by popular media for its economic impact, such as in Time Magazine (Kopstein & Espada, 2023). Articles like the one in Time inspired this research and created expectations for significant and high casual relationship. Other studies that have examined entertainment events on retail sales have found significant results (Chung, 2018; Gabe & Lisac, 2014; Lintumaki et al, 2020). The study by Gabe & Lisac (2014) was very similar to this study. It studied the impact on retail sales of a concert series is main and founf concertgoers spent \$33.81 to \$52.31 per attendee on restaurant meals, and \$18.92 to \$23.12 on lodging in the area. This inspired the expectations for results from this study, however there are some limitations. Gabe & Lisac examined restaurant sales and lodging sales specifically. However, this study uses general county retail sales, which include many different items and are affected by many factors, not just one concert.

The first regression in Table 8 shows that a county hosting Eras Tour concerts would have seen hundreds of millions in retail sales, specifically, 437,400,000 USD was estimated, however with a large standard error. This result makes sense because many cities reported huge increases in sales when the Eras Tour came to town, so large positive results were expected. The 95% confidence interval is \$92,711,710 to \$782,085,200. While it is highly likely that the Eras Tours brought in substantial revenue to the communities hosting concerts, it is unlikely that the concert would generate 400 million alone. One source indicates concert-goers spent an average of \$1,327.74 on the concert (QuestionPro, 2023) and averaged around 54,000 attendees during the U.S. tour (Mitra, 2024).

The second regression, which is limited to the five counties that hosted concerts, showed a positive result, however, it was not statistically significant. The 95% confidence interval is -\$244,418,900 to \$518,414,700.

TABLE 8: ESTIMATES OF THE EFFECT OF THE ERAS TOUR ON COUNTY RETAIL SALES

	(1)	(2)
Concert	437.40 (174.87)	137 (194.6)
Adjusted R-square	0.0044	0.0680
Number of observations	6,922	167

Notes: Dependent variable is monthly retail sales per county (Million USD). Standard errors robust to heteroskedasticity are shown in parentheses. Note that time and county were adjusted for in the regression. Regression 2 only used data from the five concert-hosting counties, lowering the observations to 167.

CONCLUSIONS

The purpose of this study was to examine the casual effect of Taylor Swift’s Eras Tour on retail sales. This paper aimed to estimate a causal relationship between The Eras Tour and retail sales. Findings indicate that The Eras Tour did have a positive impact on retail sales in the counties it visited.

Specifically, the first regression shows that a county hosting Eras Tour concerts would have seen positive boosts in their retail sales when the Eras Tour was in town, ranging from \$92,711,710 to \$782,085,200. In a broader sense, it shows the effect the music industry can have on the economy, and how in-person entertainment events can bring a lot of revenue into cities.

This study did have many limitations. For one, it examined all county retail sales and not more specific categories that would have been impacted greater. Secondly, it examined a handful of stops on the tour, and would be stronger if all stops were examined. Future studies could examine city-level data to be more precise on the effects, or even investigate more specific categories of sales such as ride-shares, hotels, and restaurant sales, which would have all been used by many concertgoers. Future studies could also further the literature by examining other artists and the economics of their tours, or look at specific concert venues.

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APPENDIX A

The data used in this study for each state can be found at the following links:

Arizona:

<https://in.nau.edu/economic-policy-institute/data/>

I used the monthly gross sales data and aggregated the different sale sections together.

Colorado:

<https://cdor.colorado.gov/retail-sales-reports>

I used 2016 county data to date:

<https://docs.google.com/spreadsheets/d/1irLP8K7jREdDgIamgZ2MiTbkeMX5lrM/edit#gid=100713619>

[7](#)

I used the retail sales column.

Florida:

<http://edr.state.fl.us/content/revenues/reports/taxable-sales-and-index-of-regional-economic-activity/index.cfm>

I used the total section for each county.

Nevada:

[https://tax.nv.gov/Publications/Monthly Taxable Sales Statistics/](https://tax.nv.gov/Publications/Monthly_Taxable_Sales_Statistics/)

I used the taxable sales column.

Tennessee:

<https://www.tn.gov/revenue/tax-resources/tax-collections-information/retail-sales.html>

I used total retail sales.