The Symphony Orchestra in the Time of COVID-19: Will American Orchestras Rise from the Ashes?

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Abstract: The finances of performing arts organizations are sensitive to economic recessions. We use data from the "Great Recession" to provide a window into the problems that symphony orchestras will need to circumvent during and following the COVID-19 recession. We estimate that for every 1 percent increase in unemployment, attendance will decrease by 2.4 percent. With audiences who will be slow to return to concert halls, orchestras should expect years of diminished numbers of ticket buyers. Symphony orchestras will need to practice cost-cutting measures, while reinventing themselves through innovative programs, including increased streaming platforms, in order to prosper post-COVID.

Key Words: symphony orchestra, COVID-19, recession, performing arts

Introduction

Three severe shocks have struck the U.S. economy in the first two decades of the 21st century. The 2001 recession and September 11th attacks, the subprime mortgage crisis in 2008, and the COVID-19 pandemic in 2020 have each introduced a recession, each one more damaging than the last. The recession from March to November 2001 led to unemployment that reached a peak of 6.3 percent in June 2003, and the recession from December 2007 to June 2009 – known as the Great Recession - led to a peak of 10.0 percent unemployment in October 2009. Unemployment from the 2020 recession reached 14.7 percent in April, the highest rate since the Great Depression. While damage from each recession was widespread across all industries, we focus on how symphony orchestras (SOs) were affected. In the past two decades SOs have experienced increasingly challenging financial circumstances, which have been exacerbated by the recessions.[1] The COVID-19 impact will be much more severe than the impacts of the other recent recessions.

The cultural arts – of which SOs are an important segment - will be a crucial factor in the revitalization of cities and regional economies following the pandemic (Florida 2014). In 2017, for example, the cultural arts employed 5 million wage-and-salary workers and contributed $877.8 billion to the national economy, which was 4.5 percent of the nation's Gross Domestic Product (National Endowment for the Arts 2020). Downtown restaurants and other businesses will be dependent on the cultural arts to draw people to the area.

The pandemic has created significant financial challenges for SOs. The Los Angeles Philharmonic, for example, canceled its 2020 seasons at the Hollywood Bowl and The Ford, which usually run from June to September. The Philharmonic estimates that revenues lost from the canceled concerts, as well as a portion of the orchestra's spring season, will result in a roughly $80 million budget shortfall (LA Philharmonic 2020). The Philharmonic is taking various actions to address the budgetary impact caused by the pandemic including furloughing approximately 25 percent of its full-time non-union workforce and the Hollywood Bowl Orchestra, laying off seasonal Hollywood Bowl employees, as well as reducing all non-essential expenses, laying off its part-time employees, instituting salary reductions of 35 percent, and drawing from its endowment (Bowley and Jacobs 2020). Other SOs and performing arts organizations such as the Lyric Opera of Chicago and New York City Ballet are drawing down their endowments, which are important for the long-term financial health of SO and not considered to be rainy day funds (Bowley and Jacobs 2020). As cancelled performances continue into early 2021 and beyond, additional drastic adjustments will need to be undertaken.

We will examine the effect of the Great Recession (GR) on SOs in order to provide insights into what can be expected from the current recession. We used OLS to estimate a single equation to determine that SO attendance declined by 2.4 percent during the "Great Recession" for every 1 percent increase in unemployment. We discuss how the pandemic recession will be different for SOs in the short-term, what will change in the long-term, and what SOs can do in order to weather what will be a serious challenge to survival for many SOs. In the following section we provide a literature review of how recessions impact SOs, followed by sections on the data, model, and results. Sections on how COVID will create special challenges and actions that may help SOs adapt, precede the conclusion.

How Recessions Affect SO: Literature Review

SO finances are sensitive to economic fluctuations for several reasons. SO revenue is derived from four sources: performances, private donations, interest from endowments, and government funding. Recessions will depress all four sources of revenue due to diminished audiences (lost ticket revenue), lost income for donors (fewer donations), diminished investments (lower endowments), and less tax revenue for governments (less government funding). More troubling for SOs is the fact that revenues are more sensitive than costs when the economy contracts, which makes the gap between revenues and expenses even worse during a recession (Flanagan 2008, 27). Flanagan (2008, 28) found that private philanthropy was most sensitive to economic fluctuations, although revenue and investment income decreased in recessions as well. With all sources of income negatively impacted in a recession, SOs often have little choice but to use endowments to a greater extent.

Salamon, and others (2009), who surveyed nonprofit organizations between September 2008 and March 2009, (when pressure from the GR intensified), report that SOs are more likely than most nonprofits to experience financial difficulties during a recession. They report that "theaters and orchestras were particularly hard hit from the GR, with 73 percent of the former and half of the latter reporting “severe” or “very severe” stress” (Salamon 2009, 1).” The greater stress is partially due to the fact that SOs rely more on donations, which diminish substantially during a recession. In addition, SOs were more likely to experience increasing costs from the recession (health benefits and wages, e.g.), than most other nonprofits (Salamon 2009, 5, 7). Twenty-four percent of SOs expressed a concern about survival, second highest only to theatres at 34 percent (Salamon 2009, 20).

SOs take longer than most industries to recover from the recession. Kushner and Cohen (2016, p. iv) created a National Arts Index that measures the health and vitality of the entire arts sector in the U.S.[2] The score indicates a contracting arts sector when the economy is in recession, but with the arts lagging the nation’s recovery. Some estimates suggest that the arts take over 4 years to rebound from the average recession. In part, this is because attendance lags the changes in the economy. Flanagan (2008) analyzed data from the 1987 to 2003 seasons for 32 SOs. He (2008, 36) documented the decline of SOs median annual attendance from a peak of about 215,000 in 2000 to almost 199,000 in the 2003 season when unemployment peaked for the 2001 recession, almost two years after the 2001 recession, a decline of 7.4 percent. The 2001 recession had an adverse impact on SO attendance and finances, as Flanagan showed. However, the GR, which lasted from Dec 2007 to June 2009, will be more indicative of what effect the current recession will have on SOs. Ushered in by the subprime mortgage crisis, the GR was the worst economic slump since the Great Depression – until the Coronavirus Pandemic.

Data

We collected data on 23 Group 1 and 22 Group 2 SOs from the 2007 to 2012 seasons, in order to examine how the GR affected SOs. SOs voluntarily provide annual financial and attendance data to the League of American Orchestras (LAO), which provided the data for our study. Group 1 SOs, such as the New York Philharmonic and Boston Symphony, have annual budgets of $20 million or more, are in larger cities, and are more established. Group 2 SOs, such as the New Jersey Symphony or Fort Worth Symphony, have annual budgets of $5 to $20 million and are in smaller cities. Both groups have similar business structures, and all rely on the same four principal sources for revenue. In 2017, private donations, performance revenue, endowments, and government provided 43, 36, 10, and 3 percent, respectively, of total revenue (League of American Orchestras 2020a). The remaining revenue is produced by performance fees that SO earn when they perform outside their concert hall, and other sundry items.

In Table 1 we show the change in average annual attendance of Group 1 and Group 2 SO, from the 2007/08 to 2012/13 seasons, for regular season concerts.[3] This period tracks attendance from the beginning of the GR in December 2007 through its end in June 2009 plus the following four seasons. Attendance, for this group of largest SOs decreased by 7.9 percent by the end of the 2008/09 season which was approximately the end of the recession. Attendance dropped another 4.2 percent in the 2009/10 season beyond the end of the recession, and only modestly recovered in the subsequent two seasons. Attendance declined by 10.4 percent from the 2007 season to the 2011 season, two years beyond the recession. Unemployment peaked at 9. 6 percent in 2010, an increase of 3.8 percent from 2008. The 2012/13 season showed an increase of 6.2 percent, but was still 4.8 percent less the 2007/08 season, before the recession.

In Tables 2 and 2a we show the percentage of ticket sales that are annual subscriptions for Group 1 and Group 2 SOs. Unlike overall attendance, subscriptions, which decreased by 5.4 and 5.1 percent from the 2007 to 2012 season, for Group 1 and Group 2, respectively, and unlike the rebound in attendance following the recession, subscription ticket sales did not recover. The percentage of subscription tickets sold are within a few percentage points for both Group 1 and 2, suggesting that both groups have a similar business model and affected in similar ways by recessions. Subscription ticket sales, which are an essential element of SO management planning, are likely to be impacted by economic fluctuations, but other factors have contributed to declining audience interest in purchasing an annual subscription. Desai (2015) states that ticket sales for a sample of 45 SOs from the 2005 to 2014 seasons declined by 2.4 percent annually, but subscription sales declined more rapidly.

Model to Estimate Impact of the Great Recession on SO Attendance

As in the past, we believe that higher unemployment rates will decrease attendance. We estimate how much attendance was affected by the GR, which will provide some approximation of how much the current recession will impact ticket sales. We collected data on Group 1 and Group 2 SOs for the 2007/08 to 2012/13 seasons. We estimate the impact of the recession on attendance with the following model:

$$TICKETS_{it} = f\,(PRICE_{it}, UNRATE_{it}, CHAMBER_{it}, NUMBSUB_{it}, AD_{it}, BROAD_{it}, DONATE_{it}, INC_{it}, POP_{it}, YEAR_{t},)$$

We list the descriptions and transformations of the variables used in the model in Table 3, and the descriptive statistics are in Table 4. The dependent variable is total regular season tickets (TICKETS) sold by the ith SO in season t. We expect that a higher price for a ticket (PRICE) will decrease the quantity of tickets sold. We estimate the average price of a ticket by dividing total concert revenue by the total number of ticket sales. The average price for a ticket increased from $41.11 in 2008 to $44.10 in 2013, an increase of almost 7.5 percent.

We include the local unemployment rate (UNRATE) for the city that the SO is located in, in order to examine the impact the recession had on ticket sales. UNRATE is a proxy for the overall economy, as unemployment will increase during a recession.[4] Therefore, we expect an inverse relationship between UNRATE and TICKETS. Flanagan (2008, 36) found, “Changing business conditions exert a powerful influence on concert attendance; a one percentage point increase in the local unemployment rate (say, from five to six percent) is associated with a loss of eleven thousand patrons annually for the average orchestra.”

We include a dummy variable for the two chamber orchestras (CHAMBER), the Los Angeles and St. Paul Chamber Orchestras, in our sample. Although the chamber groups are relevant for this study, they have fewer musicians and perform a somewhat different repertoire than a full SO. For our sample, the number of tickets sold annually for chamber orchestras and SOs averaged 60,162 and 84,984, respectively. Therefore, we expect an inverse relationship between TICKETS and CHAMBER.

We include a variable for broadcast revenue (BROAD), which we expect to be positive. We expect that broadcasting regular season concerts, as many SOs do, increases interest in attending concerts, although alternatively, this could act as a substitute for live music and decrease attendance. As our data set goes from the 2007 through 2012 seasons, which is before broadcasts were streaming, the SOs are producing either radio or television broadcasts. We expect advertising spending (AD) to increase ticket sales, thus displaying a direct relationship. NUMSUB should be positive as more subscription concerts will increase ticket sales. Cities with larger populations (POP) would have a larger audience base and be positively related to attendance. We expect (INC) to be positive as individuals with higher incomes are more likely to attend SO concerts.

Previous studies have found an inverse relationship between donations (DONATE) and ticket sales (Seaman 2005, 60). This relationship is due to the fact that SO management is likely to price tickets lower, other things being constant, in order to receive more private donations. If management increases ticket prices, although ticket revenues would increase if demand were inelastic, donations could decline and the sum of ticket revenues and donations could be less. Therefore, we expect DONATE, which is defined as the sum of all private donations divided by attendance, to be inversely related to TICKETS. We include five dummy variables for the year (YEAR) in order to account for factors that occur during a particular season that may not be accounted for by other variables. Year 6 is excluded.

Results

We used ordinary least squares to estimate a single-equation model and using a Box-Cox test determined that the double-log functional form performed better than the linear and semi-log forms. We chose to use a single-equation model as do many studies that examine SO attendance with price included as independent variable. Seaman (2005, 91), in an extensive study of numerous models dealing with attendance concluded that more complex models were not superior. The results, shown in Table 5, indicate that the model predicts ticket sales well, as indicated by the high R^2 of .90. The significance level is greater than 90% for YR5, greater than 95% for YR4 and UNRATE, and greater than 99% for PRICE, DONATE, INC, AD_NUMBER, BROAD, AND YR3. The model passed the Ramsey Reset F test and link test, indicating that the model is correctly specified and there is no omitted variable bias. We plotted the residuals versus fitted values which showed no influential outliers. We created an interactive variable between AD and NUMBSUB because the two variables are interrelated.[5]

In the correlation matrix, variables that were strongly correlated with TICKET were AD_NUMB (.92), BROAD (.57), and INC (.56). The other correlated variables were YEAR1 and UN (-.54), INC and POP (.55), INC and AD_NUMBSUB (.59), and BROAD and AD_NUMBSUB (.58). To test for problems of multicollinearity between the variables we examined the Variance Inflation Factor (VIF), which showed no individual variable with a VIF above 3.12 and a mean VIF of 2.23. The VIF values suggest that multicollinearity is not a concern in our model.

UNRATE is negative as expected and significant. Our model predicts that for every 1 percentage increase in unemployment there is a 2.4 percentage decrease in ticket sales. In Table 1 we showed that average attendance for our sample of SOs decreased by more than 10 percent during the GR and the additional two years after recovery. This relationship between unemployment and attendance appears to be a reasonable expectation for American SOs during a typical recession.

Using the current information for the COVID recession suggests that SO should expect a much higher decline in attendance. The national unemployment rate for 2019 was 3.5 percent. With an 8.1 percent rate of unemployment for 2020, indicating an increase of 4.6 percent in unemployment from the previous year, expecting a decline in attendance of more than 11percent is possible. However, the effects of the COVID recession on ticket sales are likely to be much worse than the effects of the GR, given the high rates of unemployment. In addition, with audiences expected to cautiously return to the concert hall following the pandemic, SOs should plan for several years of depressed audience numbers. If ticket sales lag the economy as Kushner and Cohen (2016) find, the recovery of audience numbers will likely take even longer.

Other variables performed as expected. Ticket price is inversely related to attendance, and demand is insensitive to price changes.[6] That is, for a 10 percent increase in price, ticket sales will decrease by 3.1 percent. INC, which is affected by recessions, is significant and positive. For every 10 percent decrease in income during a recession, ticket sales will decrease by 0.66 percent. This reinforces the negative impact of the recession as falling incomes will decrease the number of ticket buyers. In addition, decreased incomes will lead to fewer donations, further decreasing SO revenues. DONATE is significant and negative, and price elasticity becomes more elastic when DONATE is excluded from the model. This suggests that management chooses to price tickets lower to encourage more private donations.

BROAD is positive, which indicates that broadcasting performances is complementary with live performances. However, the coefficient is small, suggesting a modest increase in ticket sales. This suggests that streaming performances, which will be an important addition for SO during and following the pandemic, may also increase attendance. As would be expected, increases in AD_NUMBSUB would increase ticket sales, and it is a significant predictor of TICKET. When AD_NUMBSUB is removed from the regression, the R^2 falls to .64, or 29 percent. Other variables are of the expected signs and significant, except for CHAMBER and POP, which are not significant. POP is correlated with INC, which may be responsible for the insignificance.

The year variables for years 3, 4, and 5 are significant at greater than the 90% level and positive. This suggests that factors specific to a given year caused ticket sales to increase. However, removing the year variables from the regression equation does not affect the predictability of the equation, as the R^2 is approximately the same. We tested the age of the orchestra, expecting that more established SOs would have greater ticket sales, but did not include it because it exhibited multicollinearity with other variables and was insignificant. Removing it did not affect regression results significantly.

The COVID-19 Pandemic Recession is Different from Previous Recessions

Although we quantify the relationship between unemployment and ticket sales in our model, we realize that many other factors will make the prediction of lost ticket sales due to the recession imperfect. We expect the effects of this recession will be worse for some of the reasons we discuss below. Alternatively, there may be some factors, which we discuss in the following section, that may benefit SO finances. In addition, some management policies, which we discuss in the following section, may also mitigate the negative effects of the COVID recession. Therefore, the decline in ticket sales due to unemployment for the current recession that we estimated in the previous section, although useful, is only a rough indication of how much SOs can expect ticket sales to be affected.

A crucial difference, of course, with the COVID recession is that SOs cancelled performances through the spring, summer and fall of 2020, and in most cases through the summer of 2021. The Toronto Symphony and Indianapolis Symphony, for example, as early as the summer of 2020, cancelled all of their programs until August 2021. Many other SOs have made similar decisions, especially since social distancing would require partially filled auditoriums, which is not a financially feasible solution. Both Group 1 and 2 SOs will be affected by COVID in similar ways because ticket revenue is such an essential element of total revenues. It is likely that some SOs may be unable to recover from this pecuniary loss, as so many SOs have been operating with diminished financial balances. Flanagan (2012), in an extensive review of the economic health of the 63 largest US SOs between 1987 and 2006, concluded that government support decreased, the performance income gap widened, and performance expenses tended to grow faster than inflation.

The pandemic will exacerbate the troubling trends of declining attendance and subscription ticket sales in recent years. A recent publication by the National Endowment for the Arts (2019, 8) reports that of all performing arts attendance, classical music is the only art form that experienced falling attendance over all 4 survey years (2002, 2008, 2012, and 2017). A more troubling trend is the declining number of season ticket holders, on whom SOs depend. Voss, and others, report (2016, 4) that beginning in 2013 single ticket revenues and group sales exceeded subscription revenues for the first time. With fewer attendees at live concerts the amount of private donations, a significant percentage of SO revenues, will diminish, perhaps dramatically. This is likely to lead to fewer subscriptions, which are so important to the financial well-being of SOs. Desai (2015, 14) found that previous or current subscribers contributed 88 percent of SO's private donations.

Although the COVID recession was surprisingly short[7], the effect on the economy may be worse than previous recessions in terms of scale and scope. Many jobs may not be coming back even after a recovery, which will require adjustments by workers. University of Chicago economists estimate that 32 to 42 percent of the job losses during the pandemic will be permanent (Barrero, and others, 2020). In addition, the number of people working at home will increase. Barrero, and others (2020), estimate that even after the virus has been brought under control, the full days working from home will triple from 5 percent of all workdays in 2019 to more than 15 percent *after* the pandemic ends (Barrero, and others 2020). With fewer workers commuting to city centers and consumers increasingly purchasing products on the internet, many restaurants and other downtown businesses will not return after the pandemic is over.

Some SOs may be more likely than others to weather the challenges of a severe recession. Mosly, et al., (2012, 296) examined human service nonprofits responses to the 2001 recession. They found that larger organizations were able to implement adaptive strategies better than smaller organizations in response to the recession, such as adding new programs, reducing programs, expanding advocacy, and pursuing earned income. Larger SOs may have more resources available, such as larger endowments, board members with greater influence. and better electronic media platforms. However, some factors may offset any benefits size creates. For example, larger SOs may have more costly real estate that will not be utilized during the pandemic, creating a significant drag on finances. However, considering SOs that have shut down in recent decades - some of which are listed in endnote 1 - we suspect smaller SOs will be more likely to fail as a result of COVID-19 and may be forced to shut down and not reopen even after the pandemic subsides.

The recession will cause donations to diminish for several reasons, but an additional factor is the 2017 Tax Cut and Jobs Act (TCJA). The TCJA which decreased the tax subsidy on charitable giving by increasing the standard deduction and limits on itemized deductions, will decrease SO donations. This will create an additional post-pandemic burden for SOs as charitable giving will decrease by an estimated five percent (Gleckman 2018). The TCJA caused the number of households who claim a deduction for charitable contributions to fall from 37 million to 16 million in 2018, or from 21 percent of tax units to 9 percent (Gale, and others 2018, 21). Donations by low- and mid-level taxpayers will diminish by the largest percentage. The share of middle-income households claiming the charitable deduction will fall by two-thirds, from about 17 percent to just 5.5 percent (Gleckman 2018). In addition, the TCJA doubles the estate tax exemption to $22.4 million for couples, which reduces the value of charitable bequests, and will reduce charitable giving by upper-income households.

The high job loss from the recession will cause private donations to diminish. After holding relatively steady for decades, the percentage of households giving to secular charities dropped from 56.5% at the start of the GR in 2008 to 47.1% in 2014. (Osili, and others, 2015). With private donations already trending downward in recent years SOs should expect this trend will be exacerbated by the TCJA. Nonprofits that relied on private donations suffered the most during the GR (Morreale 2011). SOs rely on donations more than any other revenue source. During the period when concert halls are closed and remote performances are the best alternative for SOs, fund raising will be especially challenged because face-to-face meetings are much more likely to lead to successful outcomes.

Government funding could offset some of the decline in private donations. The Federal government provided substantial support during the pandemic. A survey of nonprofits, revealed that approximately 52 percent of arts and culture groups received emergency government grants from the Paycheck Protection Program, including Economic Injury Disaster Relief Loans (Mason and Kim 2021). However, funding support for SOs from government is a small portion of total revenues, and it is likely that the amount of support will be even less in coming years, given the strain that the pandemic has created on government finances at all levels. In order for SOs to recover from the COVID recession, the support of local communities, state and federal governments, philanthropic foundations, and the private sector will be necessary.

Changes That Could Help SOs Survive

SO management will need to be very proactive if they wish to survive through 2021, as well as in the following years as the economy continues to recover. Voss and Robinson (2020) estimated that the pandemic is responsible for an aggregate net effect on the nonprofit cultural arts industry of $6.8 billion, which would equate to a 26 percent annual deficit for the average organization. The estimate was based on the assumption that most organizations would be able to open October of 2020, which did not occur. Conditions will be much worse for SOs than this dire estimate suggests because SOs and other leisure activities will be competing for returning consumers' attention, in a much different world, with audiences that have changed, as well. As the pandemic abates there will be the opportunity for audiences to return to the halls. The question is - how many will?[8]

SOs have debated for decades on what to do to reinvigorate the concert experience in order to expand audience numbers. However, very little has been implemented, and what has been implemented has been only modestly applied. SOs need to finally realize what has only been discussed. The Covid crisis may be the catalyst that can encourage management and musicians to collaborate on changes that reimage, innovate, and modernize the SO and the concert experience for audiences.[9] While some of the following policies have been discussed in recent years, they are especially relevant for the post-Covid period.

In addition to curtailing short-term costs with layoffs, etc., long-term costs will have to be carefully examined, and minimized wherever possible. Musician's wages, for example, are a sizable portion of SO costs, and have increased significantly in recent decades, in part due to the negotiating power of International Conference of Symphony and Opera Musicians. The average salaries of musicians increased more rapidly than consumer prices and the average wages of U.S. workers, between the 1987 and 2003 concert seasons (Flanagan 2008, vii). Although in the past decade there have been some notable examples of SO musicians accepting pay cuts,[10] if SOs are struggling after the pandemic, musicians may need to be more flexible, perhaps by modifying wage and benefit packages. Additionally, because more senior members of the orchestra receive the highest wages and benefits, in general, it may be time for SOs to consider early retirement for musicians to help curtail labor costs.

Another way for SOs to curtail costs would be to have a smaller core of full-time musicians, say forty or fifty, and supplement the core component with part-time musicians when the need arises. The Wolf Report concluded that SO financial circumstances were poor and noted that too many SOs were trying to maintain ninety to one hundred full-time members (1992 A17). In addition, musician collectives, such as the Orpheus Chamber Orchestra, The Knights, and the International Contemporary Ensemble may be a valuable alternative to the SO structure.[11]

SO management should carefully consider ticket prices and their effect on returning audience members. The regression model indicates that ticket prices are an important determinant in determining the attendance at concerts. For the six years of the data set in this model, ticket prices increased by 7. 5 percent. During this period inflation averaged only 2 percent per year. In recent years, many SOs have increased ticket prices substantially to offset lost revenue, due in part to declining audience numbers. However, lower ticket prices will draw larger audiences, and likely lead to more donations, which could offset the lost revenue from lower ticket prices.

SOs can exploit ticket prices in other ways to increase revenues. The Chicago Symphony, along with other SOs, utilizes price discrimination to increase revenues (Ravanas 2008). By charging higher prices for those seats, such as front row seats, for which ticket purchasers are insensitive to price, and less for those seats that are not as desirable, SO can increase revenues.

Improved marketing and fundraising strategies can help decrease financial shortfalls and increase revenue diversification. SOs continue to experiment with different marketing techniques, which is imperative given the aging audiences and challenging demographic changes. Management should continue to experiment with innovative marketing programs. For example, membership programs that are separate from ticket buying, but offer valuable benefits, such as access to a VIP lounge in the orchestra hall or preferred access to single tickets, could increase the number of ticket buyers (Desai 2015). The Detroit Symphony has enjoyed some success with marketing programs that have led to several years of increased subscription ticket sales (Moro 2015). Detroit utilizes software that provides detailed results on current data, allowing decisions to be made based on key data, which leads to more efficient marketing.

Another management decision that SOs should consider is programming, which too often consists of a small number of European composers (Beethoven, Mozart, and Tchaikovsky, e.g.) who wrote pre-twentieth century; these works are known as "the standard repertoire."[12] Performing challenging musical compositions and attempting new formats can help draw in new audiences. COVID provides an opportunity for SOs to move away from performing predominantly the standard repertoire that has changed little since the early 20th century. Some SOs are integrating and even featuring popular music on programs and series. Including quality movie scores, for example, in orchestral performances, along with standard symphonies and concertos on non-Pops concerts, can be a wise strategy. For example, in their 2013 season, the New York Philharmonic included a series on music in the movies that Music Director Alan Gilbert explained will help people "understand more about the creative process behind choosing the music.…" (Isacoff 2013).

Encouraging more community engagement as recommended in the Elephant Task Force Report (2008) is an additional change that SOs can implement. Musicians, who can be excellent communicators about music, can create enthusiasm for classical music in the community. This could include increasing the number of performances that are away from the concert hall, such as outdoor venues and other locations within a region. The Detroit Symphony, for example, has implemented a "Neighborhood Series" that has twenty-five percent of the performances taking place in suburban venues (Teachout 2013). Greater service flexibility will open new sources of revenue that will benefit the organization and artists within the organization. Such changes will be important to draw in new concert attendees. Kolb (2001) found that low attendance by young and minorities was due to the concert setting and suggested that the place and manner in which concerts are presented need to change.

During the pandemic, music listeners have become accustomed to streaming music performances, and likely will be expecting to continue streaming concerts, along with seeing live concerts. The success of SOs such as the Berlin Philharmonic and the Detroit Symphony Orchestra have paved the way for a hybrid concert series that have various combinations of recorded and live performances, which is more suited to the lifestyle of the 21st century rather than 18th century. The Detroit Symphony, for example, provides great accessibility to their music by streaming, with music categorized in numerous ways, such as by women composers. Streaming live concerts may be an excellent means to increase the reach of SO. Gabriel Van Aalast, the President and CEO of the New Jersey Symphony Orchestra stated: "Typically the orchestra serves about 160,000 people in NJ every year. Now there is a far larger reach. We have videos that have been seen by more than 160,000 people (Newark School of the Arts 2020)." SO could perform more concerts online, both for free and pay. The Berlin Philharmonic, for example, sells subscriptions to live stream performances by the month, much as Netflix does.[13]

More streaming may be a positive outcome from the COVID pandemic. Online offerings should be continued and expanded because benefits, such as reducing barriers to SO concerts and providing marketing benefits, can be significant. In addition, SOs can recognize financial benefits as the LAO suggests "…while [streaming] may never obviate the need for fundraising, the net financial benefits could reduce pressure to raise ticket prices, increase contributions and reduce expenses (League of American Orchestras 2020b)." Opera companies have recognized the benefits of streaming, as well. Opera Philadelphia, unlike most opera companies, is producing new material for its subscription series during the pandemic (Walls 2021). Opera Philadelphia is producing innovative programs such as operatic performances in cinematic form, which places equal importance on camera work and sound fidelity.

In addition, this may be the opportunity for American SO administrations to finally make meaningful progress in the audio/visual agreements with their musicians. Although this has been an incendiary issue in the past, when concerts restart, SO will need to include all types of digital audio recording as part of the performance and at no additional cost to audience members. In order to decrease costs, Integrated Media Agreements and the Audio/Visual Agreements, which are the agreements that provide compensation to musicians for radio and television performances, should be renegotiated. The current agreements are not suited for the digital age, either for musicians or the orchestras in which they perform. The agreements are not financially viable, nor, in general, do they have the capacity to disseminate orchestral performances in today's digital world. A temporary agreement, which amends the Integrated Media Agreement that had been in effect, has been reached and is intended to enhance flexibility for streaming performances. This is a temporary agreement due to COVID-19, but one that might be a harbinger for greater flexibility following the pandemic.

Salamon, and others (2009), reported that in the nonprofit field, arts organizations are the least protected by government funding and therefore suffer the greatest economic pressures during recessions. Unfortunately, there will be a greater need than before COVID for governments to enact policies and provide emergency support for SOs beyond 2021. Although increased funding by government may not be likely during the recession, government policies can help revitalize SOs. For example, policies that create incentives that encourage private donations would be helpful. Revising or revoking the 2017 Tax Cuts and Jobs Act, which was discussed earlier, would be a policy change that could increase private donations.

Following the pandemic, the percent of workers who work from home will increase, which may have an additional adverse impact on future attendance as well as subscription ticket sales. Implementing some of the management changes discussed above, such as lower ticket prices, innovative marketing, and new programming may reinvigorate attendance at SO concerts.

Conclusion

Using data for SOs during the period of the GR, we find that for every 1 percent increase in unemployment there was a 2.4 percent decrease in ticket sales. Based on this relationship, expecting attendance to decrease during the current recession by more than 11 percent is a reasonable supposition. With unemployment rates that peaked at 14.7 percent in April of 2020, a larger decrease in attendance is likely. Unlike a typical recession, the current one was caused by a natural disaster – COVID-19 - that caused the closure of concert halls for an extended period. And as audiences are likely to be slow to return to concert halls, the foreseeable future is murky at best for SOs, with the possibility of years of diminished numbers of ticket buyers. Concerns about the Delta variant and other new coronavirus variants will continue to make society and performing arts organizations vulnerable. Other performing arts groups should expect similar adverse outcomes for the same reasons that make the current pandemic so challenging for SO.

After COVID-19 subsides SOs will have to adapt quickly. People are not walking away from the arts, but they are changing how they participate in the arts, and SOs will need to evolve in ways that have been talked about – but not executed - in recent decades. The GR was extremely challenging for SOs but the recession caused by the COVID-19 pandemic is different from any previous recession. Indeed, this recession is likely the biggest challenge that most SOs will have encountered, and a challenge that may create insurmountable obstacles that some SOs will not be able to survive. SOs canceled concert seasons and although most will be back on stage for the fall 2021 season, many questions remain. After a year or two hiatus, will audiences return to the concert halls? Will the core of SO audiences, older individuals, feel safe attending concerts? Will musicians on stage be safe performing with wind players?

It has been suggested that COVID accelerated today's society by 10 years, in effect moving society to 2030 (Galloway 2020). This requires institutions to evolve quickly to keep up with changes that have occurred since early 2020. SO management, for example, will need to innovate and modernize rapidly, while adapting to new performance restrictions initially, and afterwards to new platforms. However, change is a skill that has eluded this intensely traditional institution. SOs have experienced significant financial struggles in recent decades, and the Covid-19 pandemic offers a unique opportunity for the institution to revolutionize a model that has become calcified. Future research should examine a greater range of policy initiatives, perhaps even radical changes such as deinstitutionalizing SOs, as one reviewer suggested.

Something positive may come out of this challenging time if the institution can resurrect itself, not by implementing incremental change, but by creating innovations that inspire a new generation of concertgoers.

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[1] Financial difficulties have caused some SO to close in recent years including the San Jose Symphony (2002) The Tulsa Philharmonic (2002), the Colorado Springs Symphony (2003) and the San Antonio Symphony (2003) Other SOs have ceased operations, including Honolulu (2010), New Mexico (2011), Syracuse (2011), and Green Bay (2015). Some have been reorganized and were performing in 2020 before the pandemic.

[2] "The National Arts Index is composed of 81 national-level indicators of arts and cultural activity. The four key dimensions that comprise the model are financial flows, capacity, arts participation, and competitiveness (Kushner and Cohen 2016).

[3] The number of SO reporting information varies from year to year. A SO's concert season begins in the fall and extends through the spring, generally, although for major SOs, concerts are performed year-round.

[4] Although senior citizens and many audience members - many of whom may have higher incomes - may not affected directly by unemployment, recessions will cause fewer ticket sales. For example, with a declining stock market during a recession, investments will fall, which is likely to cause some to reduce entertainment spending. Other employed attendees who may not lose jobs, could see falling wages during the recession, which could cause less attendance. For example, a dentist's patients may put off dental procedures if they become unemployed. Other factors are likely to contribute to this relationship. For example, even if one is job secure, one might cut back on discretionary purchases.

[5] We used the ladder command to test for the best variable transformations.

[6] Seaman (2005, 66) notes that econometric evidence, theoretical expectations and non-econometric survey, and casual statistical evidence generally agree that demand is inelastic for performing arts tickets. One possible explanation is that consumers of events that are an "acquired taste" that result from the "accumulation of knowledge and experience" will be sensitive to the quality of the event, rather than the price.

[7] Although the recession was deep, it was brief – lasting from February to April in 2020 -thanks in large part to government economic stimulus.

[8] Although the number of audience members returning to concert halls is not certain until performances begin again, surveys have offered some insight. WolfBrown (2021), for example, reported In July 2021, that 85% of audiences are ready to go out if their pre-conditions for going out are met, while between 17% and 21% do not anticipate returning to live events until January 2022 or thereafter.

[9] The discussion to "reimagine, Innovate, and modernize" SOs was begun in the mid-1980s and culminated with several publications by the Elephant Task Force. The effectiveness of the plans that resulted from the discussions is debatable.

[10] In the past decade, however, amidst financial struggles, some SOs have seen cuts in salaries. For example, musicians in the Detroit Symphony Orchestra and Pittsburgh Symphony Orchestra accepted pay cuts of 25 percent (in 2010) and 7.5 percent (in 2017), respectively.

[11] Unfortunately, musicians are likely to fare poorly from the recession. Woronkowicz (2015) examined the effect of the GR on artists, which included musicians, and found that artists were more disproportionately, adversely impacted – either unemployed or underemployed – than other types of workers. Many artists changed occupations to non-arts-related work, left the workforce altogether, or became self-employed.

[12] The standard repertoire will always remain an important part of concerts, and there are many in the institution believe that much "new music" will turn away many in the audience.

[13] An anonymous reviewer makes the point that streaming could benefit well known SOs to the detriment of less well known SOs; i.e., a winner-take-all scenario. It is likely that some orchestras, such as Berlin and Philadelphia, will earn sufficient revenue directly through streaming. Less well known SOs, such as Detroit, can create niches,

and expand their audiences. SOs will need to consider the benefit/cost ratio of streaming and what their goal is. For example, if the marginal cost of streaming is not too high, the increased exposure for Detroit, e.g., may make it a profitable undertaking. Bronson and Kluger (2021) discuss some of factors that SOs should consider in order to make the best use of streaming.