

Spring 2019

Measuring the Financial Health of American Symphony Orchestras

Samantha M. Lulka

Follow this and additional works at: <https://scholars.unh.edu/honors>

Part of the [Accounting Commons](#), [Music Business Commons](#), and the [Nonprofit Administration and Management Commons](#)

Recommended Citation

Lulka, Samantha M., "Measuring the Financial Health of American Symphony Orchestras" (2019). *Honors Theses and Capstones*. 452.
<https://scholars.unh.edu/honors/452>

This Senior Honors Thesis is brought to you for free and open access by the Student Scholarship at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Honors Theses and Capstones by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact nicole.hentz@unh.edu.

MEASURING THE FINANCIAL HEALTH OF AMERICAN SYMPHONY ORCHESTRAS

Thesis

By: Samantha Lulka

Advisor: Linda Ragland, Ph.D. Accounting

Table of Contents

Introduction	1
Literature Review	3
Purpose of a symphony.....	3
Symphonies in the U.S.....	4
Non-profit status for symphonies.....	4
Reasons for the non-profit status.....	5
Should symphonies be profit-driven?.....	5
Research Questions	7
Method of Study	9
Analysis of Results	12
Program service expense ratio.....	12
Net income.....	14
Debt ratio.....	16
Concluding Thoughts	20
Summary of Results.....	20
Further Research.....	21
References	23

Introduction

Symphony orchestras are highly valued in the United States. They provide educational experience for all by giving insight into historical music from different eras and exposure to different genres of music. They create a sense of community by bringing people together to share a common experience that is often times life-changing. They inspire the youth to pursue music. They create culture and influence creativity. The beautiful productions are made possible by extraordinary musicians and conductors who are experts at what they do.

“It’s official: many orchestras are now charities.” This was the title of an article by the New York Times (Cooper 2016). The success of symphony orchestras is an area of interest to Americans whether they attend performances or not. It is important to musicians, arts patrons, educators, and concertgoers and people in general who benefit from the culture and beauty this form of art brings to communities. It is also important to taxpayers and people who don’t engage in the arts. It benefits stakeholders to have more information on the financial position of symphonies.

In this study, I examine the financial health of American symphony orchestras. Today, the terms “symphony” and “philharmonic” can be used interchangeably, so I chose to use symphony for simplification even though the titles of some orchestras are philharmonic. You may also see throughout the paper terms such as “symphony”, “orchestra, or “symphony orchestra.” These are also used synonymously.

For the purpose of this research, “financial health” is measured in multiple ways using different financial indicators. For example, an orchestra’s ability to break even each year or gain a profit is one helpful measure. Breaking even would indicate that the symphony is not hindering or

damaging the surrounding community financially. The primary goal of a symphony is not to create an economic burden. Even though this may occur as a byproduct, the main goal is to make music and provide community benefit (McClintock 2017). The CPA Journal summarizes this: “Ideally, the goal is to break even; revenues should equal costs. If a nonprofit generates too much of a surplus, it may not receive the same funding as last year because contributors feel their support is no longer needed. On the other hand, if it produces a deficit, it may risk survival” (Shim and Constas 1997, 1). As nonprofits, symphonies are not motivated to make a profit, but they still have a responsibility to break even. The worse the deficit, the more that symphony relies on donations. The New York Times states, “They are now charities, relying more, on average, on philanthropy than on the ticket sales that used to buttress them” (Cooper 2016, 1). In general, this reliance worsens the public view of symphonies. According to a Stanford professor, “Orchestras produce a unique product and are often monopolies — usually a recipe for financial success. But no symphony orchestra in the world would be financially viable on its own” (McClintock 2017, 1). An important point to note is that while deficits are alarming for profit-driven companies, this is not always the case for nonprofits. The magnitude of the deficit must be considered; if the deficit is only 1% of revenue, for example, it would not be considered alarming. If the deficit is consistent year to year, this would also be an indication of poor financial health. A symphony is financially healthy if they are breaking even (or gaining a profit year to year) and are not running a deficit with an alarming magnitude year to year.

Stakeholders want to know the main factors in the success of a symphony orchestra, especially because of the decline in popularity throughout the century. Some attribute the failures of symphonies to poor management or low concert profitability. The purpose of this research is to

explore certain factors that may help or hinder the financial health of symphony orchestras. This will include the influence of the board of directors on financial performance and position.

Orchestra concerts play an important role in the culture, economy, and entertainment of the communities they perform in. They also serve as valuable educational tools for youth and adults, which is one of the main reasons they are filed as 501(c)3 organizations. The experience is comparable to visiting an art museum or a science museum. As 501(c)3's, they are tax-exempt, but many orchestras are losing income every year. As non-profits, they should generally be staying close to a net income of \$0, or ensuring their deficits aren't occurring year to year consistently at a high magnitude. It is important to conduct research that analyzes the operational success of symphony orchestras in order to better understand the cost and benefits of symphonies to communities.

Literature Review

What is the purpose of a symphony?

While the purpose of a symphony may be subjective to the listener, they have one objective purpose: to enrich and transform lives through music. Making music brings people together, creates culture, and makes us human. In this process, symphonies happen to serve as a tool for education, help celebrate holidays and events, and benefit the businesses around them (Mathias 2016). That main objective to make music has always been constant for symphonies throughout history, but the increase in subsidization for symphonies has made it difficult to only focus on that purpose. Now that symphonies are more reliant on donors than concert ticket revenues, it is more important than ever for symphony administration to operate effectively and efficiently. If a symphony relies heavily on donors, the donors would not like to see the money being spent

improperly. If symphonies don't operate in a way that is committed to their primary goal of delivering enriching music, donors will be less likely to donate. Intuitively, people will not want to donate to organizations that are not doing what they are supposed to be doing.

How many symphonies are there in the US?

According to a study conducted by the League of American Orchestras, there are 1,224 orchestras in the United States. All of these orchestras are spread out among the fifty states with every state having more than one symphony. Two thirds of these orchestras have “annual expenses under \$300,000” as of 2014, and “those with budgets exceeding \$20 million” represent 2% of all orchestras (Voss, Voss and Yair 2016, 6). These 1,224 orchestras “contributed \$1.8 billion to the US economy in direct payments for goods and services in 2014” and “produced an estimated 28,000 performances, activities, and other events...attracting a total audience of 25 million people” (Voss, Voss and Yair 2016, 6). The scope and impact of these orchestras is quite vast in both monetary and non-monetary terms as they are serving communities in every state of the country.

What is the non-profit status for symphonies?

American nonprofit symphony orchestras are classified as 501(c)3 organizations. This IRS classification is not limited to non-profits; 501(c)3 filings are permitted for corporations, trusts, community chests, LLCs, and unincorporated associations (What is a 501(c)(3), 2018). According to the IRS website, “To be tax-exempt under section 501(c)3 of the Internal Revenue Code, an organization must be organized and operated exclusively for exempt purposes set forth in section 501(c)3, and none of its earnings may inure to any private shareholder or individual” (Exemption Requirements - 501(c)(3) Organizations 2018, 1).

What is the basic reason(s) for the non-profit status?

The exempt purpose of symphony orchestras is education, but many argue it also helps society by creating a sense of community and influencing creativity. In the IRS guide to filing as a 501(c)3, symphony orchestras fall under the same category as museums, zoos, and planetariums (Publication 557 (01/2018), Tax-Exempt Status for Your Organization 2018). The League of American Orchestras justifies the tax-exemption on their website by discussing how orchestras nationwide help improve the quality of life in communities, foster creativity, and engage the public in extraordinary experiences (Tax and 501(c)3 policy 2019).

Symphony owners stress that the tax-exempt status is necessary for them to operate, and revocation of the exemption would significantly harm them. For example, the Gulf Coast Symphony had their tax-exemption revoked, because they failed to deliver their 990s to the IRS. They immediately started experiencing negative effects on operations. The symphony founder and music director Andrew Kurtz said, “The revocation meant a huge headache for the symphony and its fundraising efforts. Any donations accepted after April 11 weren’t considered tax-deductible until the orchestra’s tax-exempt status returned. So the orchestra stopped filing for grants or actively raising money for its MusicWorks educational program for kids” (Runnells 2016, 1).

As a nonprofit, should symphonies be (not be) profit driven?

Most symphony orchestras do not make enough money to be profit driven organizations. The common argument is that concerts simply don’t make enough money. Symphonies rely heavily on donors, and their cash flow doesn’t revolve around the performances anymore. Forbes states, “Orchestras generally cover only between fifty and seventy percent of their operating costs from ticket sales when they sell out every concert. If an orchestra is losing between 30%-50% just

by showing up, that financial gap has to be filled by donors and sponsors” (Gavin 2012, 1). The same source also discusses how the number of donors and sponsors has decreased over the decade due to an aging donor base.

Robert Flanagan, a Stanford University Professor of economics said during an interview that “They [symphony orchestras] all run an operating deficit, in the sense that the money they earn from concerts, records and so forth does not cover their expenses,” (McClintock 2017, 1). Flanagan is not alone in his comments. A New York Times article referenced a report by the American League of Orchestras, saying “While orchestras have always required subsidies — whether from monarchs, the church, governments or patrons — the balance has shifted to the point where they generally get more revenue from donations than from selling tickets” (Cooper 2016, 1). These statements are backed up by recent research, because studies have found in recent years that the majority of revenues orchestras receive has shifted away from earned revenue and toward donations. An article by Inside Philanthropy summarizes this well: “according to a new report by the League of American Orchestras (LAO), classical orchestras now receive a majority of their revenues from donations. The LAO found that in 2014, an average of 43 cents of every dollar orchestras received came from contributions, while 40 cents came from ticket sales, touring, hall rentals, and other sources of income” (Scutari 2016, 1).

The valid view from the public, new sources, and the business community is that symphony orchestras are not capable of surviving without donations and their tax-exemption status. There are also concerns that the demographic of symphony donors is older, and that population is aging. It is uncertain what the future of symphonies will look like if younger generations don’t step up to volunteer or donate to their local symphony orchestras.

Research Questions

This main purpose of this research study is to explore factors associated with the financial health of American symphony orchestras. For the purpose of this research, financial health is defined in financial terms: expense ratio, net income, and debt ratio, etc. The research questions explored in this study are designed to bring insight into whether American symphonies are financially healthy overall or not and whether the board of directors has an impact on this. In particular, this study examines two research questions.

- **Research Question 1:** What is the overall financial health of American symphony orchestras?
- **Research Question 2:** Does the independence of American symphony board members influence the overall financial health of American symphony orchestras?

For the first research question: *What is the overall financial health of American symphony orchestras?* This research question will be approached in three steps. In step one, I look at the basic program service expense ratio (i.e., program service expenses divided by total expenses). The program service expense ratio is a commonly used ratio for assessing the financial health of nonprofits. This will provide insight into whether the expenses of the organization are being primarily allocated to their benefiting activity, which is making music. If the organization is going to be tax-exempt, the majority of their expenses should be spent on their service that benefits society. A healthy ratio between program service expenses and total expenses is 65% or greater, which was set by the Wise Giving Alliance of the Better Business Bureau (Standards for Charity Accountability 2003). This helps donors know whether most of their contribution will be going to the benefitting service or not. If I observe that most symphonies have a high ratio of program

service expenses to total expenses, this will contribute to the argument that they are earning their 501(c)3 tax-exempt status and are financially healthy, and vice versa.

Next, in step two, I look at whether net income is positive or negative. This is intuitive, and if most symphonies are running massive net losses it will be a clear indication that they may be a financial burden to their communities. Although, if a symphony runs a deficit, this is not an automatic indication that it is in poor health. The deficit needs to have a large enough magnitude, say more than 10% of total revenue, to be considered poor. The main goal of a nonprofit is not to gain a profit, it is to break even. This is why nonprofits do not usually see a minor deficit as problematic. This research focuses on the year ended 2016. If the study was expanded to cover multiple years, I could also look into whether the symphonies with deficits are consistent year to year, which would also be an indication of poor financial health. If most symphonies have a positive net income, or if their deficits are minor, it will contribute to concluding that symphonies are in good financial health, and vice versa.

Lastly, in step three, I look at the symphonies debt ratios. This ratio is measured by dividing total liabilities by total assets. This will provide useful information about the financial leverage of the symphonies and how much they rely on creditors. If they have higher ratios, this will show that they rely more on creditors to acquire their assets and have more overall risk as an organization. All of these indicators will provide insight into whether the symphonies are in good financial health.

For the second research question: *Does the independence of American symphony board members influence the overall financial health of American symphony orchestras?* This research question will provide useful information related to whether the board of directors has a large

impact or not on the financial health of orchestras. I will run regression models that examine the associations between the number of independent members on the board of directors and the following for American symphony orchestras: program service revenues, program service expenses, net income, total assets, and total liabilities. These associations will bring us to interesting findings as to how influential the boards of symphonies are. For example, perhaps larger independent boards guide the organization in growing the total assets of symphonies or program service revenues, or maybe they guide the organization to cut costs and attempt to break even.

Method of Study

When assessing the financial health of American symphony orchestras, financial data was collected from the year ended 2016 990s to statistically analyze, with regression models, the associations between different factors (e.g., independence of the board of directors) and financial condition variables (e.g., program service revenues, program service expenses, net income, total assets, and total liabilities). A sample of 47 symphony orchestras was taken to represent the larger orchestras in the industry. As mentioned earlier, there are 1,224 orchestras in the U.S. and only 2% of them have budgets over \$20 million (Voss, Voss and Yair 2016). With my sample of 47 symphonies, I cover all of the larger orchestras in the United States including that 2% and more.

The budget and revenue was also taken into account when choosing the 47 symphonies. None of the orchestras had total revenue below \$1 million for the year ended 2016 in order to represent the population of larger symphonies. Most of them also had budgets ranging from \$10 million to over \$100 million. I wanted to focus on symphonies with larger budgets, because they

have a greater overall impact to the surrounding communities they serve speaking solely in financial terms.

Based on total revenue generated, the smallest observation was the Chamber Orchestra of Philadelphia, and the largest observation was the Los Angeles Philharmonic. The Chamber Orchestra of Philadelphia had a total revenue of \$1,191,340 in the year ended 2016, and they had a net income of \$16,062. This small profit is a sign of good financial health. Their program service expense ratio was 0.79, which is well above the recommended threshold of 0.65, showing another sign of good financial health. Their debt ratio of 0.73, which is considered poor; a ratio of 0.40 is considered generally good, while any ratio above 0.60 is generally considered poor (Benge 2018). The Los Angeles Philharmonic had a total revenue of \$141,253,941 in 2016, and had a net income of \$10,841,699. Once again, the profit is an indication of good financial health. They also had a very good program expense ratio and debt ratio at 0.84 and 0.14 respectively.

The 990s filed by these orchestras contain all of the data that was needed to conduct the research. The complete list of data collect includes: city, state, revenues, expenses, net income, program service revenue, program service expense, total salaries expense, total assets, total liabilities, number of board members and independent board members, top salaries, and independence of salary approvals.

Table 1 below shows the distribution of the sample based on the different regions in the United States. The majority of the symphonies in the sample are located in the Midwest and the South. Overall, the sample is well representative of all geographical areas of the United States. The representation is not surprising, because there are symphonies in every state and the symphonies with larger budgets are also spread out evenly throughout the country.

Sample by Region	Number of Observations	Percentage of Observations by Region
Northeast	8	0.1702
South	14	0.2979
Midwest	14	0.2979
West	11	0.2340
Total	47	1.000

Next, in Table 2, I show the financial descriptive statistics for the group of American Symphony Orchestras in my sample. The financial descriptive statistics provide insight into the size of the symphonies used in my sample. Related, the descriptive statistics are used to address my first research question.

n = 47	Mean	Median	Low	High
Revenue	\$23,978,403	\$14,120,453	\$1,191,340	\$141,253,941
Expenses	\$23,920,106	\$12,267,951	\$1,175,278	\$130,412,242
Net Income	\$58,297	\$(131,766)	\$(14,597,371)	\$23,174,543
Program Service Revenue	\$9,491,203	\$4,533,384	\$302,791	\$95,156,011
Program Service Expense	\$19,384,140	\$10,023,551	\$931,415	\$109,870,985
Total Salaries	\$14,570,592	\$7,988,789	\$642,172	\$67,040,416
Total Assets	\$75,518,194	\$15,310,350	\$383,281	\$558,309,675
Total Liabilities	\$20,399,645	\$4,214,294	\$258,691	\$241,697,456
# Board Members	47	42	10	137
# Independent Members	45	40	10	136
% Independent Members	97%	99%	79%	100%
Top Salary	\$388,726	\$243,285	-	\$1,952,606

The overall financial health of the sample group is generally good. The average total revenue was about \$23 million, and the average total expenses were slightly less than revenues.

The average of net income is positive, and the total assets average is considerably greater than total liabilities average. The low for net income is alarming at approximately -\$14 million, but that is from the Boston Symphony Orchestra, which is one of the largest orchestras in the U.S. Their revenue for the same year was approximately \$85 million, making their deficit roughly 17% of total revenue, which is serious. The Boston Symphony Orchestras, however, seems to be a minority in this case with the average net income being positive.

These statistics were used to answer research question 1 by using the program service expense ratio, net income, and the debt ratio. These three indicators effectively help us discover the overall financial health of American symphonies. By figuring out whether the majority of symphonies have a good (or bad) program service expense ratio, a positive (or negative) net income, and a good (or bad) debt ratio, we will then be able to better understand the overall financial health of American symphony orchestras. If the ratios are good and net income is positive (or zero) for most of the symphonies, we will better understand whether American symphonies have good on average overall health; if the ratios are bad and net income is negative for most symphonies, we will better understand whether American symphonies on average are in bad overall health.

Analysis of Results

Research Question 1: What is the overall financial health of American symphony orchestras?

Program service expense ratio

The program service expense ratio is equal to program service expenses divided by total expenses. It serves as a good indication as to whether the majority of expenditures are being spent on the nonprofit activity that benefits the community. Forty-five of the 47 observations have a

program service expense ratio of at least 0.65 (a ratio of 0.65 indicates that 65% of total expenses are going to program expenses). This is a positive indication of health, because it shows that the majority of expenses are allocated to their main services such as performances and educational programs for students. This contributes to supporting the argument that symphonies are earning their 501(c)3 tax-exempt status.

Nearly all of the symphonies had a healthy program service expense ratio in this year; there were only two symphonies that did not meet the 65% threshold. The two symphonies that did not meet the threshold were the Wisconsin Chamber Orchestra and the Portland Maine Symphony Orchestra. The Portland Maine Symphony Orchestra had a program service expense ratio of 0.61, which just under the threshold of 0.65. The Wisconsin Chamber Orchestra had the lowest ratio at 0.56. As a chamber orchestra, their overhead costs account for more of the total expenses than that of a larger group's. For example, they have less musicians to pay, and therefore less salary expenses within program service expenses. According to their year ended 2016 990, the largest expense out of total expenses was salary expense for program services at \$542,824. If they had more musicians to pay, this would be significantly larger and increase their program service expense ratio.

The symphony with the highest program service expense ratio was Louisville Orchestra at 0.89. This Louisville Orchestra is a well-established organization and it was founded in 1937 (Louisville Orchestra: History 2019). Nonprofits that have been in operation for many years typically have higher program service expense ratios. The Louisville Orchestra also has not had any major renovations on the concert hall they perform in, which might explain why their program service expense ratio was so high.

Net income

Twenty-one of the 47 symphonies have positive net income. Positive net income is a good indication of financial health, because it means that total revenues exceed total expenses. A symphony with a positive net income will most likely have more power to help their surrounding communities. A symphony with a large deficit may be focused on ensuring they cut costs and extra programs, while a symphony with a solidified net income would have more power to spend their resources on extra benefits such as educational programs and youth symphonies.

The NY Philharmonic had the highest net income at \$23,174,543 in the year ended 2016. While this is a good indication of financial health, this could actually be seen as negative too, because nonprofits are not meant in business to make a profit. Regardless, it is not surprising that the NY Philharmonic had the highest net income. Being located in New York City could alone be enough reason for them to be the powerhouse of orchestras. They attract some of the most talented and famous musicians in the country to play for them.

Twenty-six of the 47 symphonies had a negative net income. This means that the majority of the sample cannot be considered to have good financial health, in terms of income, but this is not necessarily detrimental. While it does not look good at first, the magnitude of the deficits can be analyzed to make a full conclusion. The goal is to match revenues to expenses in order to stay as stable as possible and receive as little additional support as possible. A deficit “for a nonprofit organization is not necessarily problematic, but accumulated deficits that recur may prove to be detrimental to its health. Accumulated deficits can be hard for an organization to overcome, especially if the deficits are continually large and cut into the operating reserves of the nonprofit” (Lewis 2019, 1). If the net losses are consistent for symphonies over multiple years, this is more

problematic in comparison to symphonies that only have a net loss every once in a while. The magnitude of the negative net income is important to consider as well. For example, a 40% deficit is viewed as a lot worse than a 1% deficit. By dividing net loss by total revenue, we get the percentage of the deficit. Of the 26 orchestras with a net loss, twelve of them had deficits under 10%, and fourteen of them had deficits over 10%. This leaves a decent portion of orchestras with deficits that are significant. This negatively affects the view that US symphonies are in good financial health *overall*. It is important to mention that this is a snapshot view of one year, not several periods over time. In further studying these orchestras, it could be investigated as to whether the orchestras are continually running deficits year to year or if they are one time deficits.

The lowest negative net income was the Boston Symphony Orchestra, which was mentioned earlier. It is a 17% deficit (\$14,597,371 net loss/\$84,738,790), which is a poor situation to be in. After looking into the prior and post year 990s, this deficit is not occurring year to year. 2017 had a deficit similar to 2016. In the two years prior to 2016, they ran positive net incomes around \$12 and \$15 million each year. The deficits in 2016 and 2017 are new, and could be attributed to different factors. In their annual report, they briefly mention a struggle with the increasing expenses for employee benefit plans, specifically pension expenses. This mostly likely isn't the primary cause of the deficit, but it could be one factor. The BSO is also one of the largest orchestras in the world and they receive much external support. Intuitively, they have an endowment fund, and this is confirmed in Part IV line 10 of their 990. They could be using this extra support to expand their operations or updating their infrastructure with capital projects which is creating deficits.

Debt Ratio

Thirty-nine of the 47 symphonies had total assets greater than total liabilities. The debt ratio is calculated by dividing total liabilities by total assets. Organizations with higher debt ratios acquire their assets through borrowing more, and they rely heavily on creditors which is associated with higher risk. Symphonies with lower debt ratios are in better health, because they can acquire assets using equity and have lower risk in general. A generally good debt ratio is 0.40, while “a ratio above 0.60 is generally considered to be a poor ratio” (Benge 2018, 1). Ten out of the 47 symphonies had debt ratios above 0.60. Based on the general threshold, this is not a good sign. The average debt ratio among the sample was 0.58, so it could be that the acceptable threshold for debt ratios of symphonies is slightly higher than the general threshold. Overall, the majority of orchestras have debt ratios under 0.60 (37/47) and more than half had debt ratios under 0.40 (31/47).

The symphony with the lowest debt ratio was the Cincinnati Symphony Orchestra at 0.04. The lower ratio indicates that they primarily use equity when acquiring assets. Their ratio is so low because, they have such a large amount of assets. According to their 990, they have \$159,802,779 in publicly traded securities, and it looks like it is increasing year to year. They had \$145,401,782 in the year prior. This massive amount of investments makes total liabilities of roughly \$8 million miniscule. The majority of orchestras in the U.S. seem to have very large amounts of assets, and they are predominantly investments. Referring back to Table 2, the average total assets in the sample was \$75 million, which is considerable.

Eight of the 47 symphonies had total liabilities greater than assets. This means that these orchestras rely heavily on borrowing. The higher the ratio usually equates to more risk for the organization, because they are more reliant on creditors. This is still a small portion of the sample,

which means the overall financial health in this area is still good. The symphony with the highest debt ratio was the Hawaii Symphony Orchestra at 3.98. The Hawaii Symphony Orchestra has such a high ratio because, they went bankrupt after the recession. The orchestra was liquidated in 2010 and put up all its assets for auction (Valcourt 2016). After being able to start back up, they did not have the massive amounts of assets most orchestras own. Their total assets for the year ended 2016 were \$383,281, while total liabilities were \$1,524,280. Their ratio in the year prior was 1.86 (total assets of \$519,348 and total liabilities of \$967,785). Their accounts payable went from \$35,925 in the year ended 2015 to \$298,304 in the year ended 2016. Additionally, their notes payable nearly doubled in these two years. After the Hawaii Symphony Orchestra gets back on their feet, their debt ratio will hopefully start to decline.

As mentioned earlier, if most symphonies had good ratios and positive net income, we could imply that the overall financial health of American symphonies is good. After looking at these three indicators, it is clear that American symphonies are in generally good financial health. Almost every orchestra (94%) had good program service expense ratios. The majority of orchestras (83%) had more assets than debt and also ratios under 0.40 (66%). The area of concern is with net income with 55% of symphonies running deficits. This would not be alarming if most of the deficits were only 1-10% of total revenues, but there are fourteen symphonies with deficits that are over 10% of revenues. To summarize, American symphonies are in good financial health in general, but there are a handful orchestras that have alarming deficits.

These statistics were also used to answer research question 2 by running models and using the data as different variables. The independent variable of interest was number of independent board members, and the dependent variables used were program service revenues, program service

expenses, net income, total assets, and total liabilities. The controls used were performance (total revenues-total expenses/total revenues) and debt ratio (total liabilities/total assets).

Research Question 2: Does the number of independent board members influence the overall financial health of American symphony orchestras?

Table 3 Regression Model Results American Symphony Orchestra						
Dependent Variable		Model 1	Model 2	Model 3	Model 4	Model 5
		<i>Program Service Revenue</i>	<i>Program Service Expense</i>	<i>Net Income</i>	<i>Total Assets</i>	<i>Total Liabilities</i>
	Pred. Sign	Regression Coefficient (P-value)				
Intercept		0.8070	0.7363	0.2704	0.6634	0.0323
Independent Variable of Interest						
<i>Independence of board</i>	?	196,410	391,858	-9,455	2,346,758	979,851
		0.0358**	0.0032***	0.6944	0.0018***	<0.0001***
Control Variables						
<i>Performance (Rev – Exp)/Rev</i>	?	8,038,139	8,348,338	25,169,460	14,664,740	7,329,162
		0.5608	0.6623	<0.0001***	0.8913	0.8121
<i>Debt Ratio (Total Liabilities/Total Assets)</i>	?	-773,610	-1,021,509	-337,444	-22,694,212	2,826,402
		0.7865	0.7961	0.6544	0.3098	0.6580
Adj. R ²		0.0495	0.1414	0.5135	0.1927	0.3105
Model F-value		0.1618	0.0227	<0.0001	0.0066	0.0003
Sample size (n)		47	47	47	47	47
*, **, *** indicates significance at p<0.10, 0.05, and 0.01.						

As shown in Table 3, for the first model, I found that an increase in the number of independent board members is not associated with program service revenues. With an F-value of 0.1618, the independent variable did not have enough strength to explain the dependent variable.

This suggests that there is no significant relationship between more independent board members and program revenues. It could be that the board of directors may not be mainly concerned with raising concert revenues. Now that orchestras officially rely more on donations than concert ticket revenue, their efforts could be directed toward bringing in more investors (instead of putting efforts to raise concert attendance). If the majority of revenue comes from donors, that is where the board of directors will put their attention. Program service revenue is the revenue earned from the activity the organization does that benefits society, which is making music. The revenue from putting on concerts is most likely a secondary priority to gaining investors and donors, which is the primary priority to increasing revenues.

In my second model, I found that an increase in the number of independent board members is positively associated with an increase in total program expenses. This makes sense intuitively, because as a nonprofit, the orchestra is less worried about breaking a profit each year. The board of directors for a nonprofit would likely be more willing to spend money than a profit-seeking entity. They will have a higher willingness to spend on activities such as community outreach, repainting the facilities, advertising, and more in order to attract more donors and concertgoers. They are also more obligated to make sure their spending is directed toward their benefitting activity. As a 501(c)3, they tax exempt and need to make sure they aren't spending most of their money on activities other than making music and educating the community.

In my third model, I found no association between the number of independent board members and net income. This is an interesting discovery, because it suggests the net income of symphonies may not be driven heavily by the composition of the board of directors. I originally anticipated there to be an association, but the lack of relationship could be due to the fact that the board is not necessarily focused on net income. As a 501(c)3, the goal of a symphony is not to

make a profit. Their goal is to make music and provide their educational services to the community, so it makes sense that the board is more willing to have higher program expenses as we found in our first model.

In my fourth model, I found a positive relationship between the number of independent board members and total assets. Referencing back to Table 2, symphony orchestras tend to have a large supply of assets. The mean total assets for the sample of 47 was roughly \$76 million. The highest supply of assets was roughly \$558 million. It is clear that symphony orchestras thrive by having a large amount of investments and physical assets such as their concert halls, equipment, and the land they own (typically in large cities). This positive relationship between the number of independent board members and total assets could have to do with the fact that board members want to constantly increase the investments the organization has.

In my fifth model, I found a positive relationship between the number of independent board members and total liabilities. The majority of symphonies had good debt ratios, meaning most of them had less total liabilities than total assets. If the ratios are healthy, the board of directors could be less worried about accumulating debt, because they are in a good position to do so. More members may also bring in diverse expertise and they may be more knowledgeable in debt financing options. If most symphonies had poor debt ratios, board of directors would most likely be less willing to accumulate even more debt.

Concluding Thoughts

Summary of Results

The overall financial health of American symphony orchestras is generally good, and the number of independent board members does impact this. The majority of symphonies showed to have

healthy program service expense ratios and debt ratios. Most of the symphonies did not have positive net incomes. When further investigating this, about a quarter of the sample showed to have alarmingly poor net income. The landscape for symphony orchestras seems to be healthy, but there are definitely areas of concern in terms of net income.

The five models used to assess the impact of the number of independent board members successfully showed us that they do have an impact on financial health in some way. It was interesting to find that they did not show to have an association with program service revenues and net income. This is mainly attributed to the nature of nonprofits and the fact that they are not in business to earn profit. The impact of the number of independent board members was seen with program service expenses, total assets, and total liabilities. Board members seem to be more focused on healthy spending patterns than saving with symphonies, and ensuring valuable concerts are put on is clearly a priority. Symphonies also show to have a strong pool of total assets, and their debt ratios are mostly healthy.

Further Research

Many of the findings during this research raised other questions. When discovering that the Boston Symphony Orchestras had the lowest net income, this was a red flag. What is causing the BSO to have such a large deficit of more than \$14 million? How did they manage to make their annual report avoid this deficit? It would be fascinating to dive into this question and figure out exactly why it is an outlier in the data. If a study was conducted specifically for the BSO, there could be fascinating discoveries.

This research was conducted solely on larger symphonies that have budgets of over \$1 million per year. The majority of symphonies in the United States have budgets that are under

\$300,000 per year. A further study could be to follow the same procedures as this study but for a sample of small symphonies. Is the financial success of smaller symphonies better or worse than that of larger symphonies? Do smaller symphonies also rely more on donations than concert ticket revenue? Does the board of directors have less influence on smaller symphonies? Studying symphony orchestras is an opportunity to learn more about these extraordinary treasures that serve our communities through the enriching experience of classical music.

REFERENCES

- Benge, Vicki A. 2018. "What Is a Good Debt-to-Asset Ratio?" *BizFluent*. October 25. Accessed May 5, 2019. <https://bizfluent.com/info-8057096-good-debt-asset-ratio.html>.
- Cooper, Michael. 2016. *It's Official: Many Orchestras Are Now Charities*. November 15. <https://www.nytimes.com/2016/11/16/arts/music/its-official-many-orchestras-are-now-charities.html>.
2018. *Exemption Requirements - 501(c)(3) Organizations*. November 28. <https://www.irs.gov/charities-non-profits/charitable-organizations/exemption-requirements-section-501c3-organizations>.
- Gavin, Ted. 2012. *Saving American Symphony Orchestras in Four Movements*. January 18. Accessed 2119. <https://www.forbes.com/sites/tedgavin/2012/01/18/saving-american-symphony-orchestras-in-four-movements-2/#76403ccd5ba2>.
- Lewis, Jared. 2019. *Can a Nonprofit Have a Deficit?* Accessed May 5, 2019. <https://smallbusiness.chron.com/can-nonprofit-deficit-38432.html>.
2019. *Louisville Orchestra: History*. Accessed May 5, 2019. <https://louisvilleorchestra.org/about/history/>.
- Mathias, Shari. 2016. *Why Community Orchestras Are Important*. June 27. Accessed April 10, 2019. <https://parkersymphony.org/why-community-orchestras-are-important>.
- McClintock, Alex. 2017. *Why no symphony in the world makes money*. April 3. Accessed April 15, 2019. <https://www.abc.net.au/news/2017-04-04/why-no-symphony-orchestra-in-the-world-makes-money/8413746>.
2018. *Publication 557 (01/2018), Tax-Exempt Status for Your Organization*. January. <https://www.irs.gov/publications/p557>.
- Runnells, Charles. 2016. *IRS reinstates Gulf Coast Symphony tax-exempt status*. August 8. Accessed 2019. <https://www.news-press.com/story/entertainment/2016/08/08/gulf-coast-symphony-irs-tax-exempt-status-runnells-charles-news-press-andrew-kurtz/88074866/>.
- Scutari, Mike. 2016. *Tipping Point: Orchestras Rely on Philanthropy More Than Earned Income. Which Means What?* November 20. Accessed 2019. <https://www.insidephilanthropy.com/home/2016/11/18/tipping-point>.
- Shim, Jae K., and Michael Constas. 1997. "Does Your Nonprofit Break Even? How to Come out Even." *The CPA Journal* 1. Accessed April 2019. <https://www.questia.com/magazine/1P3-23867331/does-your-nonprofit-break-even-how-to-come-out-even>.

2003. "Standards for Charity Accountability." *BBB Wise Giving Alliance*. Accessed April 14, 2019.
<https://www.bbb.org/us/storage/0/Shared%20Documents/Standards%20for%20Charity%20Accountability.pdf>.
2019. *Tax and 501(c)3 policy*. Accessed 2019. <https://www.americanorchestras.org/advocacy-government/tax-and-501-c-3-policy.html>.
- Valcourt, Katrina. 2016. *The Unlikely Story of How the Hawai'i Symphony Orchestra Came Back to Life*. February 10. Accessed May 5, 2019.
<http://www.honolulumagazine.com/Honolulu-Magazine/February-2016/The-Revival-of-the-Hawaii-Symphony-Orchestra/>.
- Voss, Dr. Zannie, Dr. Glenn B Voss, and Dr. Karen Yair. 2016. *Ochestra Facts: 2006-2014*. League of American Orchestras.