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Rigidity and Fluidity of the Musical Canon: A Study of Symphony Orchestra Repertoire

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An abstract of
A thesis submitted to the Faculty of the Graduate School of Emory University
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Abstract

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Researchers have long debated the current and future status of symphony
orchestras by studying orchestra repertoire choices. Previous studies identify two distinct
conclusions about the repertoire: rigidity as demonstrated by an increasing reliance upon
the canonic works and fluidity as demonstrated by a move away from the traditional
canon. To provide further clarity, this study addresses the 2005-2006 orchestra season
and expands upon previous literature by defining innovation in a broader way. Using
data provided by the League of American Orchestras, I find that a move towards fluidity
or rigidity depends on numerous organizational factors. Orchestras that perform more
distinct programs throughout the year are significantly more likely to move away from
the canon than their peer orchestras. Likewise, older orchestras are also able to move
beyond the canon and perform lesser performed works. Overall, it appears that
orchestras are increasingly relying upon both rigid (i.e., the canon) and fluid (i.e.,
innovative programming) programming to meet the demands of the 21st century.

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Introduction:

In 2005, an orchestra piece made history. This piece was performed by 65 orchestras, representing orchestras from all 50 states. With over 80 performances during the next two years and crowds of more than 75,000 people coming out to hear this piece, one would expect the composer to be one of the well-known "masters," a male musical genius from Austria or Germany who is long dead, like Beethoven or Mozart. Yet, nothing could be further from the truth. Instead, the piece was composed by a living, female, American composer named Joan Tower. The piece was "Made in America" and was part of the Ford Made in America project (League of American Orchestras 2009). Tower's "Made in America" was the result of cooperation between the Ford Foundation and the League of American Orchestras in an attempt to encourage new music performances and growth within the orchestral realm (League of American Orchestras 2009). As successful as Tower's piece was, most other new works did not enjoy the same attention by orchestras and audiences, if they were premiered at all. In this vein, I want to find out the extent to which orchestras perform certain composers over others.

This project aims to clarify and update the status of the modern symphony orchestra, mainly regarding repertoire choices. Previous research shows the realm of symphony orchestra repertoire to be precariously balanced between two seemingly opposing forces: rigidity as demonstrated by reliance upon the works of a few celebrated composers (i.e., those that lie at the heart of the orchestral canon) and the fluidity caused by innovative choices in concert programming. My goal is to provide empirical research that updates the literature and examines the delicate balance between the two conclusions. On one side of the balance, researchers argue that modern repertoires of

orchestras and other performing arts organizations have become increasingly reliant upon the classical canon due to a variety of reasons, including economic necessity and consumer preferences (DiMaggio and Stenberg 1985, Gilmore 1993, Heilbrun 2001). On the other, researchers posit that innovation and innovative programming has become increasingly common (Castaner and Campos 2002). This dynamic interplay between rigidity and fluidity of repertoire thus defines the modern orchestra's struggle to survive.

Building upon the previous literature, I intend to amend and extend previous research by drawing upon data that encompass the entire gamut of orchestras from major symphony orchestras to collegiate and youth orchestras, thus broadening the scope of symphony repertoire research. Furthermore, I intend to delve into the specific interplay between rigidity and fluidity, examining the broader community context in which each orchestra finds itself, the age and size of the orchestras, and the attributes of their programming that shape the possible repertoire an orchestra is able to perform. Overall, this research project will provide a useful bridge and needed update to previous literature and provide contemporary insight into the condition of symphony orchestra repertoire. To begin, I will review the literature, paying special attention to the theories on the ongoing status of the repertoire. From that point, I will delve into the repertoire challenges that face symphony orchestras today. Lastly, I will discuss how my study aims to add to the literature as a cohesive step towards a better understanding of the modern symphony orchestra.

Literature Review:

Cultural sociologists have long explored the area of the sociology of music to understand better the production, content, and reception of music. Beginning in the late 1800s, they find the music sponsorship scene in Europe was changing. Instead of musicians performing their own compositions and the music of their contemporaries for small private audiences, musicians increasingly gave public concerts featuring the works of past musical geniuses, such as Beethoven, Haydn, and Mozart – thereby consecrating certain composers as timeless (DeNora 1991, Weber 1992). This change held implications for orchestral music in the years to come. For Beethoven's Vienna, the fall of the *Hauskapellen* model of musical patronage provided the structural conditions favorable to consecration[1] (DeNora 1991). Playing for a larger, more public, audience, musical patrons could thus influence the type of music performed at those concerts, with an ear and mind towards educating the public (DeNora 1991).

A few years later, the music scene in the United States experienced similar structural changes, which resulted in the popularization of the non-profit structure as the organizational model for arts organizations. It began in Boston. Feeling threatened by the newly rich, Boston's *old money* used the non-profit structure to assert their cultural dominance by filling the board of directors for these organizations with sympathetic allies (DiMaggio 1982). Using this organizational structure to his benefit, Henry Lee Higginson was able to found the Boston Symphony Orchestra without the constraints of the uncertainties associated with the open market. Such a position allowed him to control

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[1] The *Hauskapellen* model of music patronage was enjoyed by the aristocratic upper and upper middle classes. These concerts were held in salons and often sponsored by the patron of the salon for the enjoyment of family and friends. These concerts were often used as a measure of status or reputation (DeNora 1991).

the content and, to a lesser degree, the reception of the music. The BSO, though not always profitable, was nonetheless free to present music in defiance of the box office with an ear towards art. Such a move allowed the old cultural and social elites of Boston one unique place to exert their power by defining music and art according to their standards, setting it apart from the *new money* and their forms of entertainment, like motion pictures (DiMaggio 1982). By consecrating and, more importantly, maintaining a collection of exalted art works, DeNora's Vienna and DiMaggio's Boston studies have illustrated a move beyond mere consecration towards full canonization[2].

Building and updating these works, Dowd and colleagues (2002) offer much to support the idea of canonization by studying the "supra-organizational" factors that affect the organization and maintenance of the canon – with such factors including changes for orchestras as a whole, as well as for the broader educational system. Examining the conformity and change of the orchestral canon, Dowd and colleagues (2002) found that even as late as 1969, the most performed composers still dominated the performances of major symphony orchestras – albeit less so than a century earlier. For example, between 1842 and 1857, the top five composers garnered 52.3% of all performances, however that number had dropped to just 29.1% between 1954 and 1969 (Dowd et al. 2002).

Of the numerous reasons that the "classics" have become canonized works, some are economic in nature. Orchestras that play the well-known pieces do not have to spend rehearsal time laboring to learn new music, since most musicians would rather spend time

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[2] Like Dowd and colleagues (2002), I define canonization based on the work of Weber (1992: 21), "[The] 'classics' will denote musical works that were revered for their greatness and performed on a continuing basis…'Canon' will refer to the ideas that bound these works together as a set of masterpieces and thereby bestowed authority upon them. In modern musical life, canon has had three main components: repertory, critical judgment, and ideology."

playing music, rather than simply reading music that may be too cerebral to understand on first glance (Baumol and Bowen 1966, Dowd et al. 2002, Gilmore 1987, Zolberg 1980). Dowd and colleagues (2002) also articulate a finding in previous research: the general audience enjoys and can recognize the "classics" and is therefore more inclined to pay to attend concerts featuring the classics, as opposed ones featuring relatively new composers (Baumol and Bowen 1966, Felton 1978, Gilmore 1993). Indeed, research has shown that ticket sales indeed have dropped when unfamiliar works are performed (Baumol and Bowen 1966). For example, I assume one can easily recognize the opening motive from Beethoven's 5th symphony, whereas few can recognize the opening of John Adam's opera, "Nixon in China." The audience appreciates and enthusiastically responds to what it already knows. Lastly, Dowd and colleagues (2002) highlight one final reason for the canon's dominance: copyright fees. Orchestras can often avoid copyright fees by playing works from the traditional canon. Symphonies and other musical works are intellectual property of the composer. However, these copyrights expire after a period of time and the music becomes part of the public domain[3]. When a piece is considered part of the public domain, orchestras and individuals can play, record, and perform it without paying costly royalties and copyright fees (US Copyright Law 2009).

Yes, despite the ever-growing body of literature focused around consecration and canonization, another aspect of this literature studies the increasing diversity in orchestral repertoire in the wake of consecration. DeNora (1991) and Weber (2001) both touch upon the increase in mere number of composers as a result of the structural changes that

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[3] US Copyright Law stipulates that works become part of the public domain 70 years after the artist's death or 95 years after publication, whichever is sooner (US Copyright Law 2009).

occurred in Europe throughout the late 1800s. By performing more than just their own

work, musicians were able to discover and rediscover the masterpieces of composers long

deceased. Such a change contributed to the increase in variety of genres, composers, and

pieces being performed.

Weber (2001) also observes another change: a switch from concerts of miscellany

to concerts featuring similar types of performances. It was not uncommon throughout the

early years of the 1800s to attend a private concert that featured an aria from an opera,

followed by a concerto, followed by a flute duet, followed by a vocal duet (Weber 2001).

Programs such as these were classified as miscellany and were the norm for high-brow

concert goers (like variety shows today), instead of being the exception. Likewise, the

audiences at these concerts were rather lively: characterized by eating and socializing

during the concert (Weber 2001). With the fall of the *Hauskapellen* and other vestiges of

the past concert world, miscellany no longer dominated as the usual style of performance.

Such a break from tradition demanded programming that centered on a particular style,

composer, or instrument, all of which demand an increase in the scope of repertoire to be

performed (Weber 2001). The increasing "diversity" that Weber (2001) saw going along

with this shift resulted in an expanding range of works (in terms of their composition

dates) being featured, that is – works that covered decades if not centuries.

Though this increase in diversity was detailed in Weber's piece (2001) on

historical Europe, recent research also identifies an increase in diversity in modern times.

Building upon the work of DiMaggio (1982), Dowd and colleagues (2002) identify three

causes that increase diversity in orchestral repertoire and promote innovation. First,

increased performance capabilities (i.e., the ability of orchestras to perform more concerts

per year) allowed for increases in the number of composers being performed. Second, an expansion of the resources available for new music allowed for new composers to publicize their music so orchestras were aware of it (e.g. the Internet, magazines, etc.). Lastly, the proliferation of music programs in higher education has provided an institutional vehicle for the dissemination and appreciation of high culture and beyond (e.g., jazz, music cultures of the world). Classes, performance opportunities, and lessons have provided the means for individuals to understand and cerebrally appreciate music for its form and purpose, rather than merely its function as a type of entertainment. By lecturing about and teaching other types of music, rather than just the Western canon, music faculty have increased knowledge about such forms. By fostering an appreciation of other forms of music in higher education, the college curriculum is no longer synonymous with high culture. Judith Becker illustrates how some academics are reluctant to elevate the classics over others in her article "Is Western Art Superior?": "Western music is neither superior nor inferior to other musical traditions. Musical systems are simply incommensurable (Becker 1986: 359). When other music is studied and understood at the same level as the Western canon, the latter loses a bit of its hegemony as other forms of music (i.e., pop, folk) are given equal amounts of study time.

The delicate balance between conformity and diversity of programming poses many questions about the current status of orchestral repertoire in the US. Is the canon still dominant, or has innovation become the new norm? DiMaggio and Stenberg (1985) offer some more recent insight on these questions in their piece on performing theater repertoire. On one hand, DiMaggio and Stenberg offer many critiques pointing to a future reliance on the canon as the driving force of repertoire choices. DiMaggio and

Stenberg (1985) find that resident theaters that are more reliant on box office revenue are much more constrained in their choices and therefore innovate less. Such a reliance on ticket sales and the audience forces theater companies to perform what they know will bring ticket-buying audience members. A small repertoire of well-known plays and musicals becomes the norm, thus stemming innovation and increasing reliance upon the canon. Likewise, DiMaggio and Stenberg (1985) find that theater budget size negatively affects the amount of innovation, due to many of the same reasons as reliance on ticket sales.

Yet the picture is not entirely bleak as DiMaggio and Stenberg offer hope for diversity and an increase in innovation. They find that audiences richer in cultural capital allow the theaters to perform more adventurous works, without a great fear of losing the audience (DiMaggio and Stenberg 1985). The patrons at these theaters have greater cultural capital – or a familiarity with high culture – and are therefore more able to understand and relate to the material being presented, thus encouraging them to attend, even if they are not familiar with the work (DiMaggio and Stenberg1985).

Though DiMaggio and Stenberg's research (1985) focused on theater repertoire, I suspect their predictions can be translated into other art worlds. I suspect the audiences that attend theater and symphony concerts are approximately of the same demographic and are experiencing a similar event (e.g. a live performance without audience participation that is simply an aural and visual event).

Building upon DiMaggio's work, Heilbrun (2004) offers some more direct assessments and predictions about the status of symphonic repertoire. Heilbrun (2004) shows that in modern orchestral repertoires, 20th century composers comprise 35-40% of

all performances. Though this finding could be explained by orchestral increases in diversity or innovation, Heilbrun explains this finding as "lasting power" (Heilbrun 2004). For Heilbrun (2004), the pieces of the nineteenth, eighteenth, and earlier centuries have had more years for the "masterpieces" to rise to the top, during which the average music is culled from the repertoire and simply forgotten. For him, recent music of the 20th century has not had enough time to filter and is still in a period of flux. Eventually, the contemporary masterpieces will rise into favor.

Heilbrun's attribution has much merit, but it is not framed within a broader historical perspective. Based on other findings (Dowd et al. 2002), conformity of orchestral repertoire has indeed decreased since the late nineteenth and early twentieth centuries. According to Dowd and colleagues (2002), the early 1800s were characterized by a higher reliance on canonical composers than later in time. As time went on, the reliance on the canon decreased. For example, as late as 1969, the reliance on the canon was drastically less, with the top five composers garnering less than a third of all performances (Dowd et al. 2002).

Regardless of the patterns documented by others, the current status – and future – of symphony orchestras and composers rests in a balance between strong reliance on canonical works and increased diversity in programming. This balancing act often leaves new composers frustrated with a system that appears to favor the "classics" with little room for innovation and novelty. Charles Wuorinen (1963) reiterates this problem:

> The difficulties young composers face in dealing with large ensembles (of "standard" orchestral size) are not technical, for there is now hardly a young composer who cannot, through lack of technique, handle the largest of ensembles…The problem here is exclusively practical – the economics and ideology of orchestra management prevent the performance of unknown music. (Quoted in Dowd et. al 2002: pg 36)

The economic and ideology choices that Wuorinen speaks of are seen in many previous works (including, but not limited to, Bielby and Bielby 1994, Gilmore 1993, Heilbrun 2001, Heilbrun 2004, and Powell and DiMaggio 1991). Organizations in the arts and media tend toward production of the familiar – especially as they age.

Though new composers are at a disadvantage, previous literature also suggests that many other groups are placed at similar disadvantages[4]. According to work by Dowd (2007) and Heilbrun (2004), living composers are at a significant disadvantage compared to deceased composers. Whether this fact is due to the rise-to-the-top explanation (see Heilbrun 2004) or a mere stylistic difference, the disadvantage appears to be real. In a similar vein, Europeans are also much preferred to American composers, though this fact may be due to the relatively recent advent of celebrated American composing (Dowd 2007). Likewise, women have traditionally been excluded from the ranks of composer elites, and seem to be suffering here as well (Dowd 2007).

Given tendencies described in previous scholarship, my current study aims to study the interplay between the two tendencies that may be at odds: increasing reliance on the canon (rigidity) and increased innovation (fluidity). Though they have provided generous insight, previous studies have often focused on the past. For example, DeNora (1991) and DiMaggio (1982) have provided rich case studies that make clear historical transitions. Likewise, Dowd and colleagues (2002) track more than 80 performances to illustrate the changes in performances across more than a century. This study takes a different approach by studying the present. By doing so, I hope to provide more observations and findings about the current status of the symphony orchestra. Like

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[4] It is important to note that "new" composers are different than "living" composers. There are many "new" composers to the repertoire who have been dead for a considerable amount of time.

Heilbrun (2004), my data set includes repertoires of major, minor, collegiate, and youth orchestras from across the entire United States. Thus, I am well situated to study the canon throughout all tiers of American orchestras to observe changes by orchestra budget size. I will also use multiple measures of innovation and conformity, which should bring together many aspects of previous literature.

Study Groundwork:

As with any research project, it is important to know where your study is situated so that you can best expand, use, and update the previous literature to your advantage. To begin, I turn to Heilbrun's 2004 study of symphony orchestra repertoire from 1995-2001. Heilbrun used the same data source to study from 1995-2001 (i.e., performance records from the League of American Orchestras), and therefore I am well positioned to extend his work from 2001 to 2006. My research will update Heilbrun's research to the present.

In his 2004 study, Heilbrun approached the canon by focusing on the top ten composers. In his work, the percent of all performances garnered by the top ten clearly showed the prominence of the canon, as this figure hovered from 35-40% from year to year. Expanding upon Heilbrun, I trace this pattern for over a decade, starting in the 1995 orchestral season continuing up to the 2005-06 season.

Having briefly defined and identified the composition of the canon (rigidity), I now turn to another way of defining the canon: innovativeness (fluidity). Unlike the canon and rigidity which can be defined rather plainly, innovativeness and fluidity are not as easy. To begin, there are two facets of innovation and each revolves around change. On one hand, innovation can be seen as a departure from the norm, when compared only

with oneself. On the other hand, innovation can also mean a departure from what one's peers are doing. These two definitions are slightly different and therefore both useful in defining innovation and fluidity.

Previous researchers have used two statistical indices that measure these two facets of innovativeness and fluidity: the Herfindahl index and the Conformity index. The Herfindahl index is often used in economics as an indicator of market concentration (Heilbrun 2001). By summing the squared market values of all firms in an industry, the Herfindahl index gauges market concentration, with high values indicating a market dominated by a few large firms and low values indicating a market full of many smaller firms. In the case of repertoire, high Herfindahl values equate with a heavy reliance on a few composers, whereas a low Herfindahl value indicate numerous composers being performed. Employing methods used by previous researchers (DiMaggio and Stenberg 1985, Dowd et al. 2002, Heilbrun 2001), I use the Herfindahl index to describe the amount of concentration in repertoire by a single orchestra. When applied to an orchestra, this measure will allow me to see whether that orchestra departs from the norm by programming many different composers or just focusing on a few. Before moving on, it is important to note that both the Herfindahl and the Conformity index are used to measure innovation *and* rigidity. High scores on both measures equate with rigidity, while low scores are analogous to fluidity, though the specific interpretations vary and will be discussed later.

The Herfindahl is not only applicable to the individual orchestra level of analysis. In the 2002 piece, Dowd and colleagues calculated an overall Herfindahl index for the orchestra industry as a whole for each year from 1842-1962. This index proved

invaluable as it clearly illustrated the repertoire transition from rigid to fluid during that duration of time for the 27 major orchestras that the authors studied. Using the exact same 27 orchestras, I calculate the Herfindahl index for the years 2001-06[5].

The Conformity index helps define the other facet of innovation by understanding how an organization is similar to and differs from its peer organizations[6]. Conceptually, this index identifies whether the repertoire a given orchestra is performing is also being performed by other orchestras; it is a way to understand how one orchestra differs from the overall population. Statistically, the Conformity index is the average number of times that each composer is performed by any given orchestra within the rest of the sample of orchestras (DiMaggio and Stenberg 1985). Like high values for the Herfindahl index, high values for the Conformity index indicate increasing rigidity because that indicates many orchestras are performing the exact same composers. Likewise, low values indicate a move towards fluidity and innovation.

Having conceptually and statistically defined rigidity and fluidity through the canon and innovation, I intend to study orchestra repertoire at the orchestra level of analysis to better understand the forces that drive an orchestra to innovate or rely upon the canon. Like Heilbrun's 2001 article on Opera repertoire, I intend to use both the Herfindahl and Conformity indices since each statistic addresses a different facet of innovation. This dual approach also sets my study apart because much of the existing orchestral research uses only one of the two innovation measures (see Castaner and

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[5] All 27 original orchestras were not included -- some had merged (e.g., New York Symphony and New York Philharmonic) and others were renamed/reconsolidated (e.g., Minneapolis Orchestra to Minnesota Orchestra)

[6] The Conformity index was originally developed by Paul DiMaggio and Kristen Stenberg (1985) when studying theater repertoire. Since then, it has been widely used in repertoire research (see Heilbrun 2001, Castaner and Campos 2002, etc.).

Campos 2002, Dowd et al. 2002, and Heilbrun 2004,). By using both measures, I will gain explanatory power that is lacking when using only a single measure.

Data and Methods:

This study draws entirely upon secondary data analysis. The League of American Orchestras generously provided information about the performances of more than 70,000 pieces, separated by orchestral season[7]. In their original form, these lists contained the dates of the performances, the orchestras, the conductor, the soloists, the composer, the tier of the orchestra, and the number of performances for that particular program.

I proceeded by cleaning the seasonal data from the LAO and then augmenting the LAO list with measures that capture the factors stressed in previous research. During the course of my cleaning, I found discrepancies in size rankings from year to year. For example, the Utah Symphony and Opera was listed as a tier 1 orchestra in one year and then a tier 1 *and* a tier 2 the next year. Furthermore, certain orchestras were missing information on composer as well as tier designation. From these discrepancies, it made most sense to focus on a single orchestra year since this minimized the irregularities and provided a solid data set to analyze. The 2005-06 season was the most complete and error free of the orchestral seasons provided by the LAO. It contains the repertoires of over 330 orchestras and information about over 9400 pieces, not counting concerts that were performed on multiple nights. Furthermore, this data set included 49 youth or collegiate orchestras. Therefore, the 2005-06 season was the best candidate for the in-depth focus of this project.

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[7] Symphony orchestra seasons routinely mirror school timelines, with the beginning of the orchestral season starting in September running until late May or early June. This "traditional" season is often accompanied by a "Pops" season that occupies the summer months. Since the focus of "Pops" is radically different from the usual orchestra season (i.e., entertainment as the objective), the "Pops" orchestras and concerts will not be included in the data set for this project.

From this point, I then calculated the Herfindahl and DiMaggio-Stenberg (1985) Conformity indices, both overall and within tier, as well as the percentages of performances for the top composers. These measures tap the outcomes that I wish to document and explain (i.e., dependent variables).

Having constructed these measures of rigidity and innovation, I turned to explanatory factors mentioned by others (i.e., dependent variables). Starting with the broadest factors, I believe it will be useful to understand how characteristics of the larger community affect the organization itself, in this case the symphony orchestra. Variables like city size and median income have been used in previous literature throughout sociology (DiMaggio and Stenberg 1985, Kelly 2007, Mizruchi 1985, and O'Hagan and Neligan 2005, etc.). Drawing on the techniques of DiMaggio and Stenberg (1985) and O'Hagan and Neligan (2005), for each orchestra, I use its surrounding metropolitan area's size and median household income as indicators since the above-referenced authors indicate that income contributes to cultural capital, which allows the orchestra patrons to enjoy a wider range of music. This, in turn, allows the orchestra to be more innovative in their programming choices.

Information about the metropolitan areas was obtained through the US Census Bureau's American Community Survey and its Canadian counterpart, the Canadian Census. The information collected from these surveys was population and median income within the Standard Metropolitan Statistical Areas, as determined by the US Census. The SMSAs are areas that include the city limits and the surrounding suburbs. This measure, as opposed to a measure of the population and income of the city itself, struck me as more appropriate when gauging the potential audience for a specific

symphony orchestra. These two variables (i.e., population and median income) are found

to have substantial skews that might affect analysis. For this reason, the natural

logarithm of each statistic was used to compensate for the apparent skew. Another

noteworthy point: the median income figures for the Canadian metropolitan areas were

reported in Canadian dollars. These amounts were converted to US Dollars based on the

international exchange rate for September 1, 2005 (the beginning of the 2005-06

orchestra season).

When studying theater in the UK, O'Hagan and Neligan (2005) also used other

community characteristics, such as percentage of students in the local population, as

indicators in their regression model. While it would be beneficial, these characteristics

are not collected for individual metropolitan areas in the United States and therefore are

not included in my study.

Moving to the organization itself, the next predictor for my regression analysis is

orchestra budget size. Budget size directly affects what repertoire an orchestra can

perform. Orchestras more dependent on ticket sales are also more likely to be

constrained in their musical repertoire in order to please their patrons, a contributing

factor to the prevalence of the canon. Empirically and practically speaking, the idea of

orchestra size rankings poses a tough question: how to define the sizes and types.

Luckily, the LAO data set clumps orchestras together in a particular tier in the United

States based on budget size (League of American Orchestras 2009). See TABLE 1 for a

description of LAO tiers based on budget sizes.

The top two tiers provide a unique opportunity for further analysis. The raw

number of performances by the top two tiers far surpasses those of the lower tiers and

offers the best promise for in-depth analysis. Based on budget size (see TABLE 1), these orchestras are in a position unlike that of the lower-tiered orchestras. For this reason, I created a variable dummy coding for inclusion as a tier 1 or tier 2 orchestra. Additionally, the orchestras that are found in the top two tiers are the majority of the 27 orchestras used in the Dowd et al. (2002) piece. By focusing on this subset, I can provide an update to Dowd and colleagues (2002).

The League dataset also includes information on collegiate and youth orchestras, which are often found as embedded arts organizations within larger organizations, such as within academia or a larger artistic non-profit orchestra (DiMaggio 2006). The repertoires of youth and collegiate orchestras, given their levels of embeddedness, would offer a clearer picture as to general repertoire considerations when financial considerations are not taken into account. Yet, due to an overall lack of information on these orchestras and relatively few concerts from which to calculate dependent and independent variables, these orchestras unfortunately cannot be studied as a special case, namely the effect of embeddedness on the arts organization.

In addition to budget size (i.e., its tier), an orchestra's age is the other organizational level factor in my study.   Age of orchestras is public record and therefore easily accessible. Using DiMaggio's argument (1982), older orchestras should have a more solidified audience base and should therefore be able to innovate more often than newer orchestras without fearing that their musical choices will drive away the customers. Essentially, these mature orchestras serve as an educator for their audiences and therefore expose their audiences to more innovative programming and deviations from the canon. Age of orchestras is public record and therefore easily accessible –

especially on their respective websites. Thus, the age of each orchestra was calculated

via the orchestra's website and converted, when applicable, from a founding year (i.e.,

1995) to an age (i.e., 10).

Finally, I constructed measures that assess certain aspects of each orchestra's

general performance approach – factors that could, in turn, shape rigidity and/or

innovation. Orchestras with only two performances will not perform as many composers

and therefore have less of a chance to experiment with contemporary composers. Such a

variation in performance opportunities is bound to limit the types of repertoire choices

that an orchestra can make. This is precisely what Dowd and colleagues (2002) find

using data from the nineteenth and twentieth centuries: expanding performances leads to

greater fluidity. By adding this indicator to the regression model, I will see how the

trends observed by Dowd and colleagues play out in the present. Therefore, I calculated

the number of distinct programs that each orchestra produced in the 2005-06 season.

Moreover, as suggested by other research, orchestras may simply prefer those

composers who are male, European and dead – as well as those composers who receive

some legitimation from critics and scholars (see Dowd 2007; Dowd et al. 2002). That

may be what drives rigidity and/or innovation. I searched the Grove and Oxford

dictionaries for the names of all composers performed during the 2005-06 season. If the

composer was found in the Grove or Oxford dictionary, I recorded the composer's birth

and death years, as well as his/her nationality. If the composer was not found in the

Grove or Oxford dictionary I searched the internet for personal websites or publishing

websites for that information. From these data, I was able to calculate the percent of

composers performed by each orchestra that are living, classified as 20th Century, or American. This process took exceeding long, but provided very useful results.

The last variable for my regression progression deals with the individual pieces that the orchestras are performing. Though each piece was originally conceived by a composer and eventually published not all pieces are given equal opportunities. For this reason, critical recognition plays an important role (see Hicks and Petrova 2006, Lincoln and Allen 2004, Schmutz 2005). Recognition is associated with those who have passed the test of time and qualify as masters. Thus, it is an indicator associated with the canon and rigidity in repertoire. Composers, unlike other cultural producers in the art world, typically do not have the luxury of being able to personally present their artwork to cultural receivers, especially since many of the composers are no longer living. For that reason, they rely upon intermediaries and benchmarks of critical recognition to advance their works; remember – many of the composers are dead.

Two such indicators stem from inclusion in either the Grove Music Dictionary or the Oxford Music Dictionary. These publications are regarded as the preeminent collections of historical musical research and are updated regularly (Oxford Music Online Dictionaries 2009). Inclusion in either such dictionary legitimates a composer's career and endows critical recognition upon the recipient (Oxford Music Online Dictionaries 2009). My project will address inclusion in these two sources, since inclusion in these legitimating sources may very well be a first step to future inclusion in the mainstream canon.

Before proceeding, I culled the possible indicator variables for measures that were highly correlated and would offset others in the regression model. The percentages of

American composers, living composers, 20th Century composers, and those found in Grove or Oxford dictionaries were highly correlated. For the purpose of the regression model, I only included the percent of composers found in Grove or Oxford since that indicator had the strongest theoretical argument.

It is important to note that all variables for this project are measured in relation to the individual orchestras within the sample at the aggregate level. Starting with broad indicators, my regression models becomes increasingly focused in scope and eventually ends with program variables. TABLE 2 outlines this progression.

For the purpose of simplicity, I grouped similar-leveled variables into overarching groups to be run at the same time in the regression progression, all of which I anticipate will have an effect upon the two dependent variables. I first added the metropolitan measures, then added the organizational attributes of size and age, and, finally, added the measures that address performance approach.

One caveat involves the number of program numbers per orchestra. The LAO's data set contained orchestras who have performed as few as one or as many as 43 different concerts throughout the orchestral season Though there were over 330 self-reporting orchestras in the LAO's 2005-06 data set, 49 of these orchestras only performed one program during the entire year. For ease of management and to remove any possible artifacts caused by low performances numbers, all orchestras performing only one program throughout the year were removed from the data set before being analyzed.

Results:

My analysis takes two broad forms. First, I offer descriptive statistics on trends that occur over more than a decade. This allows me to update and extend Heilbrun's

efforts to document the evolving canon (rigidity). Then, I turn to a multivariate analysis

that examines rigidity and innovation in the 2005-06 season. In terms of analysis, I used

many of the same methods used by previous authors (see DiMaggio and Stenberg 1985,

Dowd et al. 2002, and Heilbrun 2004). I used an OLS regression model to analyze the

levels of dominance by certain composers as well as conformity (for a recap of my

analytical approach, see TABLE 2). To measure the dominance by certain composers, I

used the Herfindahl index. In the same way, to measure the conformity, I employed the

DiMaggio-Stenberg (1985) conformity index. These techniques of analysis should

provide substantial data and findings for my thesis. Overall, this regression analysis

deals with the following dependent variables for particular orchestras reporting in that

season:

> 1.) Herfindahl index (total population of orchestras reporting in 2005-06)
>
> 2.) Conformity index (total population)
>
> 3.) Herfindahl index (Tiers 1 and 2 orchestras reporting in 2005-06)
>
> 4.) Conformity index (within Tiers 1 and 2).

Descriptive Trends for the Past Five to Ten Years:

Heilbrun (2004) spends much of his time defining the separate parts of the

orchestral canon, especially how it changes over time. By using the more recent data, I

extend his results. TABLE 3 and CHART 1 show this pattern (both are found in the

Appendix). As the data show, the top ten composers garner approximately equivalent

percentages of the total performances throughout the past decade[8]. Therefore, the canon

appears to be relatively stable, at least when looking at one isolated decade.

---

[8] It is worth noting that a legitimate argument can be made that the chart suggests a slight increase in rigidity throughout the decade, as demonstrated by an increasing percentage for the top ten composers

Having defined the canon broadly, it is important to understand in detail the composition of the canon and how it changes over time. Drawing again on Heilbrun (2004), I have compiled a table of the top ten composers each year from the data I have analyzed (see TABLE 4). Like Heilbrun (2004) finds, I find that Beethoven and Mozart consistently occupy the top two positions. Yet unlike the years profiled by Heilbrun (2004), these two masters trade the top spot on a yearly basis. Like Heilbrun's findings, my results show either Brahms or Tchaikovsky in the second spot, with the exception of the 2002-03 season when Richard Strauss holds that spot. One distinct advantage to my study is the increased numbers of reporting orchestras. The data from the League of American Orchestras consists of self-reporting orchestras, which have been on the rise in recent years, thus creating a larger sample than was available for Heilbrun in 2004. This rise in reporting orchestras has demonstrated a much larger number of performances devoted to Mozart and Beethoven. Yet, despite having more performances to analyze, I find a steep reduction in number of performances after the top two spots just as Heilbrun (2004) did. During 2001-06, the third place composer is never performed even 61% of the top performer in the given year, which underscores the appropriateness of adjectives such as "masters" or "genius" when describing Beethoven and Mozart. TABLE 4 highlights the composers that constitute the core of the canon.

Moving beyond the definition of the canon, I also identify the pattern of contemporary repertoire, in terms reliance upon a few composers (Herfindahl index). As opposed to Dowd and colleagues (2002) who find Herfindahl indices ranging from a high of 240 in the mid nineteenth century to as low as 35 in the mid twentieth century, I find

(especially the 2005-06 orchestral season). However, I believe this increase to only be an artifact of the data as 2006 marks the 250th anniversary of Mozart's birth, an event which saw a significant increase in Mozart concerts.

Herfindahl indices between 2.2 and 3.0 for the 2001-06 period (see TABLE 5). Such a

sharp shift over the past 150 years indicates that orchestras are much more amenable to

playing music that is *not* the canon, essentially becoming more fluid in their

programming.

Regression Analysis:

1.) Herfindahl Index – Total Population:

The regression models in TABLE 6 include all tiers of orchestras and use the

Herfindahl index as the dependent variable. The Herfindahl index typically measures the

level of market dominance by a few firms. In the case of this study, the Herfindahl index

lends insight into how much an orchestra is relying upon a few composers for a given

season. A high value for the Herfindahl index indicates a scenario where only a few

composers are performed and therefore receive many performances. On the other hand, a

low Herfindahl index indicates a scenario where many composers are performed many

times and few, if any, composers dominate the orchestra's repertoire.

TABLE 6 reveals that the R^2 values increase over the course of the four models,

signifying increased explanatory power. Though the metropolitan variables of population

size and median income have no observable impact upon an orchestra's decision to rely

on a few composers, the organizational variables initially have an effect in the second

model. According to the initial regression models, the largest orchestras (Tiers 1 and 2)

are significantly more fluid in their programming, as indicated by the resulting low value

for the Herfindahl index. That is, they favor fewer composers than do their smaller

counterparts. This effect, however, is not lasting. What appears to be a size effect is

actually a programming effect. That is, it is erased once the programming components

are introduced into the regression model (see regression model 3 of TABLE 6). This finding is consistent with previous research (Dowd et al. 2002). They find that when orchestras are performing fewer programs, they rely heavily upon the masterworks, a finding which is replicated here. On the other hand, when orchestras offer more concerts, they are able to play the masterworks, but *also* move beyond the core composers and perform more composers.

In this model, when also considering the number of programs controlling for number of programs, only orchestra age and the number of programs are statistically significant. When considering all variables in the final model, orchestra age and the number of programs are negatively related to the Herfindahl, showing that older orchestras and those playing numerous programs per year are innovating the most. That is, they are less rigid in their repertoires.

2.) Conformity Index – Total Population:

Like the first regression models in TABLE 6, those in TABLE 7 also draw from all tiers of orchestras reporting in the 2005-06 season. However, instead of the Herfindahl index, these models use the DiMaggio-Stenberg Conformity index as the dependent variable. Instead of directly addressing fluidity and rigidity in programming *within* the organization, the Conformity index instead addresses innovation as it compares to other orchestras. Thus, the Conformity index for these models depends upon what all other orchestras are performing. The interpretation of the Conformity index is much the same as the Herfindahl index because high values represent rigidity – the orchestra is playing the same composers as their peers – whereas low values equate with fluidity and

innovation. The explanatory power of the regression models are evident since 25% of all variation in Conformity indices can be explained by the six variables found in the model.

The first model in TABLE 7 shows that orchestras situated in larger populations support innovation because – when compared to those in smaller metropolitan areas- they perform works that fewer other orchestras have performed. Yet as subsequent models show, this population effect is nullified when considering the number of distinct programs. When entering all variables in the final model, three variables are found to be statistically significant: orchestra age, number of programs, and whether the composer is consecrated in the Grove or Oxford dictionary. Albeit only a minor effect, older orchestras are more likely to perform works that many other orchestras are performing as compared with their younger peers. Likewise, orchestras that perform higher percentages of critically acclaimed composers, who are featured in Grove or Oxford dictionaries, are more likely to perform works that many other orchestras are performing. The last finding mirrors that in TABLE 6: Orchestras that perform numerous programs innovate more by performing fewer works that other peer orchestras are performing.

3.) Herfindahl Index – Tiers 1 and 2 Only:

Having analyzed the entire gamut of symphony orchestras, I deemed it useful to run the same regression estimates on the largest orchestras separately (only the top two tiers). Much previous research focused only on the major orchestras, which are found almost exclusively in those tiers[9]. Likewise, large orchestras, as determined by budget size, face different challenges in audience attraction and retention and, therefore, in programming.

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[9] For example, Dowd et al. 2002 focuses on 27 major orchestras (i.e., Tier 1 and 2) detailed by Mueller (1973).

The results from this regression progression can be found in TABLE 8. Using only the metropolitan indicators (see TABLE 2), the first model indicates that a city with a larger population results in higher Herfindahl index for the orchestra within that metropolitan area. That is, orchestras in large cities increasingly rely on fewer composers and are more rigid in their programming than their counterparts in smaller metropolitan areas. Though this effect is barely significant at the .10 level when run only with median income, the effect increases in both magnitude and significance in subsequent models.

Based on the overall results of the regression models, older orchestras innovate by performing the works of more composers than their younger peers. Though this effect decreases in significance when adding more variables to the models, it never slips below the .10 significance level.

When all variables were considered, the number of distinct orchestral programs still has a significant effect on the Herfindahl index. The more programs a symphony orchestra performs over a given year, the more fluid their repertoire – that is, the more it relies on a greater number of composers as opposed to focusing on the canon. This argument is essentially what Dowd and colleagues argued in their 2002 piece: orchestras performing many concerts can move beyond the masterworks to perform various composers, while still giving attention to the masters.

4.) Conformity Index – Tiers 1 and 2 Only:

Most previous literature uses primarily the Herfindahl index to address repertoire composition and changes. For this reason, there is little precedence for using the Conformity index to study repertoire composition for only the major orchestras. Nonetheless, I ran the regression model with the conformity index as the dependent

variable for the largest orchestras because such an analysis provides a comparison for the overall trends in all American orchestras. This method allows comparisons in the same way that the Herfindahl index regression models for the top two tiers can be compared to the overall regression models with all orchestra tiers.

Overall, this model is very similar to the Herfindahl index analysis of the top two tiers (see TABLE 9 and compare to TABLE 8). Conformity in programming is negatively related to orchestra age. That is, older orchestras tend to perform pieces that fewer of their peer orchestras are also performing. This is the same conclusion as the Herfindahl model for the top two orchestras: older orchestras are less rigid in their programming.

In addition to age, the number of programs was also significant. This is a strong finding throughout all regression models. As orchestras perform more programs, they are more willing to innovate. In this case, the orchestras that perform the most programs have the least levels of conformity in their repertoire with their peer institutions.

Overall, older orchestras or orchestras with numerous programs throughout the year see fewer repertoire overlaps with others within the top two tiers, signaling a move towards fluidity.

Discussion:

This project aimed to add a contemporary update to the existing literature on symphony orchestra repertoires. Have the orchestral repertoires become more rigid or more fluid? Have these repertoires balanced both the new (innovation) with the old (canon)? The answer to these questions is a definitive "it depends" – and it depends on many things.

Despite the fact that there is no catch-all answer to the overall question of rigidity versus innovation, it is important to also understand the similarities in the findings before

understanding the intricate differences. Though each measures a different facet of innovation, the Herfindahl and Conformity indices reveal many of the same patterns. The reason why: orchestras that rely upon many composers instead of just a few (e.g., ones with high Herfindahl values) are also likely to perform composers that other orchestras ignore (i.e., ones with high Conformity values).

Building upon the similarities in the Herfindahl index and the Conformity index, three of the four models find similar results despite using different dependent variables. In both models of the Herfindahl regression and the top tiered Conformity index regression model, age and number of distinct programs are significant and in the same direction (see TABLES 6, 8, 9). In all of the cases, the older orchestras are more likely to innovate than their younger counterparts. This finding is explained by viewing older symphony orchestras as education vehicles, rather than museums pushing the canonic masterworks (DiMaggio 1982). The older orchestras, with their established audience bases, are able to perform innovative works as a way to educate their audience on composers and pieces beyond the canon.

This result poses an opportunity for future research and analysis. Building upon this finding and the findings of DiMaggio and Stenberg (1985), research studying the educational backgrounds of the music director (i.e., artistic or organizational) may result in a better understanding of the reasoning behind the pattern of older orchestras pushing innovation more strongly than their younger counterparts. It is possible that older orchestras have artistic directors who see the purpose of the orchestra to be similar to the educational vehicle argument, thus giving more support to the above argument.

Furthermore, it is important to understand how the board of directors and the musicians themselves view their roles within the arts orchestra. While studying the Atlanta Symphony Orchestra strike of 1996, Glynn (2000) observed varying definitions of what it means to be part of an orchestra. Depending upon one's position, an orchestra could be a pragmatic, money-making machine or it could be an artistic and educational vehicle. These varying viewpoints inherently affect how one approaches different aspects of the organization, from management to repertoire selection (Glynn 2000).

The other consistent finding relates to the number of programs the orchestra performs. Unlike the orchestra age, this finding is observed in all regression models, and is very strong in some (see especially TABLES 6, 8). The more programs an orchestra performs, the more likely it is to innovate. This empirical data supports the findings of Dowd and colleagues (2002). They find that orchestras offering many concerts are able to move beyond the masterworks and perform composers outside the traditional canon. The strength and universality of this result in my research fully supports this argument by Dowd et al. (2002).

In addition to the similarities between the Herfindahl index results and the Conformity index results, there are a few similarities between the overall models and those only addressing top two tiers. For the top tiers, age is an advantage towards innovation, and this finding is also found in the overall regression model when using the Herfindahl index. Likewise, the more programs that orchestras perform the more fluid are their repertoires, regardless of their budget size.

Though there are broad overarching patterns (see age and number of performances), the factors that determine innovative or rigid repertoire for a given orchestra depend on a few factors.

First of all, my study makes a distinction about how one defines innovation. As discussed at length earlier in this paper, innovation can be defined as change within an organization or change from the actions of one's peers. In an orchestra, change within an organization can mean that many different composers are being performed, rather than just a select few. In this project, this type of innovation was operationalized with a Herfindahl index, where high values indicated a reliance on few composers most of the time.

The other type of innovation can be described as being different than everyone else. In this project, I operationalized this type of innovation via the DiMaggio-Stenberg Conformity index, which measures the degree to which a symphony's repertoire is similar to peer institutions. This measure quantifies the average number of other orchestras performing the same composers. High values signify repertoire that is common among other orchestras.

This difference in definition is not drastic, but yields vastly differing results in certain places. For example, for the largest orchestras, city size only matters for whether orchestras rely on few or many composers (Herfindahl index), not whether peer institutions are also performing the same works (Conformity index). Likewise, in the whole population of orchestras, older orchestras innovate by relying upon many composers (Herfindahl), whereas younger orchestras innovate by performing works that peer orchestras ignore (Conformity index). In this same case, critical recognition works

against fluidity when thinking about repertoire conformity (Conformity index). Yet,

critical recognition did not affect whether orchestras rely upon a few versus many

composers (Herfindahl).

In addition to the definition of innovation, the answer to my overarching research

question depends on whether the orchestra has a large budget. Different budget sizes, as

operationalized via the LAO tier system, produce different results. For example, using

the entire population of orchestras from the data set, younger orchestras perform fewer

composers that their peers are performing, whereas this finding is reversed as

demonstrated through the regression model from only the top two tiers.

To help conceptualize this process, I have created a flowchart that starts with the

definition of innovation and arrives at some of the indicators or how to arrive at

innovation or rigidity. See CHART 2 for this diagram. Since the indicators all rely upon

the others for the regression models in my data analysis, the orientation of the flowchart

is relatively arbitrary. The method behind organizing the chart as presented is that each

of my four regression models (when all variables are considered) corresponds with two

boxes on the bottom of the chart. While many indicators are tested in this project, it is

worth noting that only a few are included in this chart. It is ultimately these few variables

that proved to be significant in the final models of each table.

Taking a step back, it is important to view these regression results in the

framework of the descriptive results over the past decade. Though the overall patterns

are hard to view in the 2005-06 single-year analysis, the multi-year descriptives show

that, compared to the past, the reliance of a few composers is dramatically reduced.

Therefore, any discussion of rigidity in the present is done within the overall context of increased innovation.

Viewing this project as a whole, my research has not significantly revised previous research, but it has yielded much needed updates to underscore the current status of orchestral repertoire. The most important findings of this project are related to the importance of orchestra age and number of programs throughout their season. My research, therefore, extends the findings of Dowd et al. (2002) and Heilbrun (2004) to the current time. Masterworks are still dominant, yet there are hints of innovation in a variety of ways.

The ideal project would use a greater width of data (more years), more independent variables for those cases and case study data to better address the current trends in orchestra repertoire. There are numerous directions for future research: the education backgrounds of the music directors, percentage of budget from ticket sales (reliance on the box office), percentage of season ticket holders (subscriptions), etc. Even contemporary research offers ideas of future directions, (e.g., O'Hagan and Neligan's 2005 on UK offers similar avenues of research in the US: seating capacity, etc.). Given an unlimited amount of time and money, these indicators may provide useful knowledge that may update the literature and shed light upon the reasons why an orchestra innovates or relies upon the canon.

Works Cited

Baumol, William J., and William G. Bowen. 1966. Performing Arts. Twentieth Century Fund, University, AL.

Becker, Judith. 1986. Is Western Art Music Superior? Musical Quarterly 72, 179-220.

Bielby, William T., and Denise D. Bielby. 1994. "All Hits Are Flukes": Institutionalized Decision Making and the Rhetoric of Network Primes-Time Program Development. American Journal of Sociology 99, 1287-1313.

Castaner, Xavier, and Lorenzo Campos. 2002. The Determinants of Artistic Innovation: Bringing in the Role of Organizations. Journal of Cultural Economics 26: 29-52.

DeNora, Tia. 1991. Musical Patronage and Social Change in Beethoven's Vienna. American Journal of Sociology 97, 310-346.

DiMaggio, Paul. 1982. Cultural Entrepreneurship in Nineteenth-Century Boston: The Creation of an Organizational Base for High Culture in America. Media, Culture, and Society 4, pt. 1, pp. 35-50; pt. 2, pp. 303-322.

---. 2006. Nonprofit Organizations and the Intersectoral Division of Labor in the Arts. In *The Nonprofit Sector: A Research Handbook,* 2nd edition, edited by Walter W. Powell and Richard Steinberg, New Haven, CT: Yale University Press.

DiMaggio, Paul, and Kristen Stenberg. 1985. Why Do Some Theatres Innovate More Than Others? An Empirical Analysis. Poetics: 14, 107-122.

Dowd, Timothy J. 2007. The Ebb and Flow of Success: Musicians in the Fields of Popular and Classical Music. Inaugural Lecture. Erasmus University Rotterdam. Given on 20 November 2007.

Dowd, Timothy J., Kathleen Liddle, Kim Lupo, and Anne Borden. 2002. Organizing the Musical Canon: The Repertoires of Major U.S. Symphony Orchestras, 1842 to 1969. Poetics 30, 35-61.

Felton, Marianna Victorius. 1978. The Economics of the Creative Arts: The Case of the Composer. Journal of Cultural Economics 2, 41-61.

Gilmore, Samuel. 1987. Coordination and Convention: The Organization of the Concert World. Symbolic Interaction 10, 209-227.

---. 1993. Tradition and Novelty in Concert Programming: Bringing the Artist Back into Cultural Analysis. Sociological Forum 8, 221-242.

Glynn, Mary Ann. 2000. When Cymbals Become Symbols: Conflict Over Organizational Identity within a Symphony Orchestra. Organization Science 11.3, 285-298.

Heilbrun, James. 2001. Empirical Evidence of a Decline in Repertory Diversity among American Opera Companies 1991/92 to 1997/98. Journal of Cultural Economics 25, 63-72.

---. 2004. The Symphony Orchestra Repertory: A Research Note. The Journal of Arts Management, Law, and Society 2, 151-155.

Hicks, Alexander and Velina Petrova. 2006. Auteur Discourse and the Cultural Consecration of American Films. Poetics. 34: 180-203.

Kevin, Kevin J. 2007. A Study of a Unified Community: Home Field Advantage in Major League Baseball. The Emory Undergraduate Research Journal. 1.2:14-19.

League of American Orchestra. 2009. www.americanorchestras.org.

Lincoln, Anne E., and Michael Patrick Allen. 2004. Double Jeopardy in Hollywood: Age and Gender in the Careers of Film Actors, 1926-1999. Sociological Forum 4, 611-631.

Mizruchi, Mark S. 1985. Local Sports Teams and Celebration of Community: A Comparative Analysis of the Home Advantage. Sociological Quarterly. 26.4:507-518.

Mueller, K.H. 1973. Twenty-Seven Major American Symphony Orchestras. Indiana University Studies, Bloomington, IN.

O'Hagan, John, and Adriana Neligan. 2005. State Subsidies and Repertoire Conventionality in the Non-Profit English Theatre Sector: An Econometric Analysis. Journal of Cultural Economics. 29, 35-57.

Oxford Music Online Dictionaries. 2009. http://www.oxfordmusiconline.com/

Powell, Walter W., and Paul J. DiMaggio. 1991. *The New Institutionalism in Organizational Analysis*. Chicago: University of Chicago Press.

Schmutz, Vaughn. 2005. Retrospective Cultural Consecration in Popular Music: Rolling Stone's Greatest Albums of All Time. American Behavioral Scientist 11, 1510-1523.

US Copyright Law. Related Laws Contained in Title 17 of the United States Code. www.copyright.gov/title17/.

Weber, William. 1992. The Rise of Musical Classics in Eighteenth-Century England. Clarendon Press, Oxford.

---. 2001. From Miscellany to Homogeneity in Concert Programming. Poetics 29, 125-134.

Wuorinen, Charles. 1963. The Outlook for Young Composers. Perspectives of New Music 1 (Spring), 54-61.

Zolberg, Vera L. 1980. Displayed Art and Performed Music: Selective Innovation and the Structure of Artistic Media. The Sociological Quarterly 21, 219-231.

TABLE 1: League of American Orchestra Tier Guidelines

LAO Tier	Budget Size Range
1	Greater than $14.7 million
2	$5.6 to $18.5 million
3	$2.3 million to $6.3 million
4	$1.2 million to $2.75 million
5	$700,000 to $1.82 million
6	$454,000 to $1.1 million
7	$11,000 to $486,000
8	Less than $11,000

TABLE 1 shows the guidelines that the League of American Orchestras uses to categorize orchestras into tiers. The tiers are comparable in size, budget, and mission. The budget size ranges overlap from tier to tier and ultimately the LAO decides (based on other factors) in which tier the orchestra should belong.

[These are the guidelines for 2005-06 not necessarily other years]

TABLE 2: Regression Models

	Regression Models			
Model #	**1**	**2**	**3**	**4**
Community				
Population	X	X	X	X
Median Income	X	X	X	X
Organization Traits (Size)				
Tier 1 or 2		X	X	X
Age		X	X	X
Program Numbers				
Number of Programs			X	X
Program Focus				
% of Composers found in Grove/Oxford				X

TABLE 2 shows the analystical progression for entering variables into the regression models, starting with broad measures and moving towards increasingly focused variables. By running the models in this order, overarching patterns will be evident.

TABLE 3: Percentage of All Performances by the Top Ten Composers

TABLE 3: Percentage of All Performances by the Top Ten Composers	
	Top ten performances as a percentage of all productions
1995-1996	38.7
1996-1997	36.1
1997-1998	37.7
1998-1999	37.7
1999-2000	35.4
2000-2001	40.5
2001-2002	39.4
2002-2003	38.1
2003-2004	38.2
2004-2005	38.7
2005-2006	42.5

TABLE 3: This shows the percentages of total performances garnered by the top ten composers in each orchestral year. The figures for 1995-2001 are taken from Heilbrun (2004), whereas the recent figures are new additions provided by the recent LAO data in this study.

CHART 1: Percent of Top Ten Composers by Year

Percentage of All Performances by the Top Ten Composers from 1995-2006
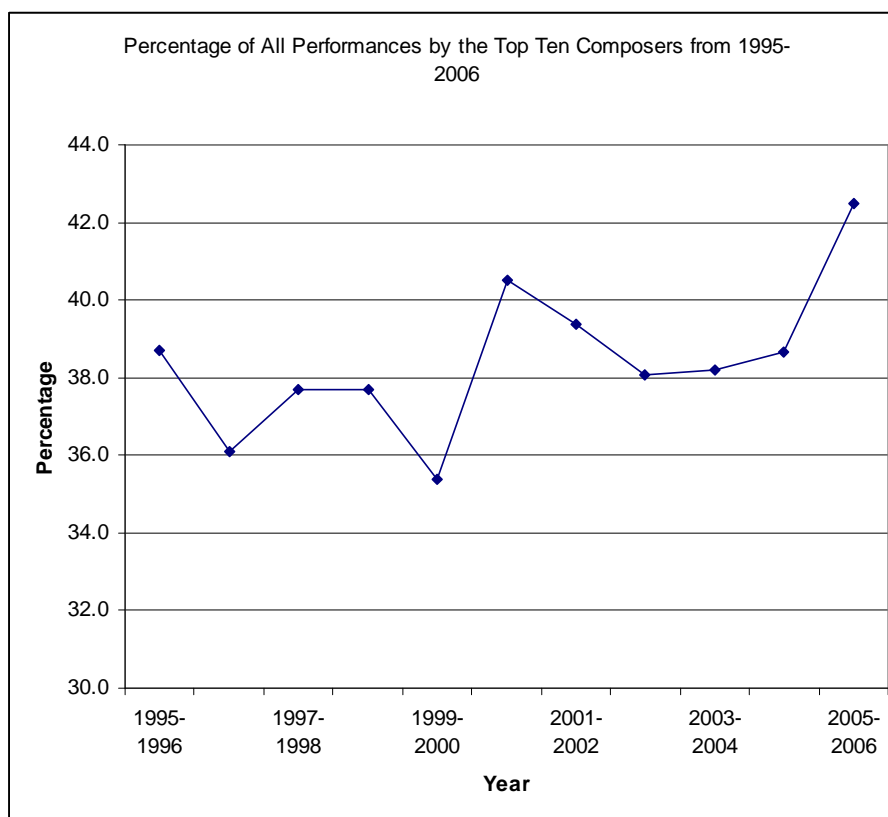
CHART 1: This chart graphs the percentages of total performances garnered by the top ten composers in each orchestral year. The data points for this graph are displayed in TABLE 1 and constitute data from Heilbrun (2004) and the current study

TABLE 4: Ten Most Frequently Produced Composers by Year

TABLE 4: The Ten Most Frequently Produced Composers in Each Season			
Season/Composer	**Productions**	**Season/Composer**	**Productions**
2001-2002		2004-2005	
Mozart	387	Beethoven	329
Beethoven	370	Mozart	329
Brahms	223	Brahms	200
Tchaikovsky	176	Tchaikovsky	193
Strauss (Richard)	165	Dvorak	181
Mahler	135	Haydn	168
Ravel	125	Strauss (Richard)	159
Haydn	107	Ravel	128
Prokofiev	104	Stravinsky	122
Rachmaninoff	104	Prokofiev	121
2002-2003		2005-2006	
Beethoven	365	Mozart	508
Mozart	330	Beethoven	385
Strauss (Richard)	197	Tchaikovsky	176
Brahms	196	Brahms	171
Tchaikovsky	176	Strauss (Richard)	161
Ravel	151	Shostakovich	127
Shostakovich	145	Ravel	126
Sibelius	135	Sibelius	124
Dvorak	134	Mahler	120
Mendelssohn	128	Dvorak	112
2003-2004			
Mozart	358		
Beethoven	351		
Brahms	195		
Berlioz	185		
Tchaikovsky	169		
Prokofiev	159		
Shostakovich	148		
Mahler	143		
Dvorak	142		
Ravel	130		

TABLE 4 shows the top ten performed composers from the LAO data set separated by orchestral season. These data include all productions by orchestras reporting to the LAO.

TABLE 5: Herfindahl and Percentage of Top Five Composers from 2001-2006

Year	Herfindahl Index	Percentage of Top 5	Composers
2001-2002	2.496	27.42	270
2002-2003	2.286	24.60	292
2003-2004	2.319	24.26	280
2004-2005	2.261	24.69	265
2005-2006	3.027	29.61	236

TABLE 5 shows the Herfindahl, percentage of market by the five most performed composers, and the overall number of composers featured by the top 27 orchestras in Dowd et al. (2002).

TABLE 6: OLS Regression Estimates for the 2005-2006 Orchestral Year based on the Herfindahl Index of All Orchestras

Model Number	1	2	3	4
R^2 Value	0.004	0.140	0.196	0.197
Adjusted R^2 Value	-0.004	0.126	0.180	0.177
Indicator				
Population †	-0.587	2.739	4.392	4.427
	(-0.194)	(0.927)	(1.521)	(1.528)
Median Income †	24.397	15.341	15.870	16.468
	(-0.929)	(0.622)	(0.665)	(0.686)
Tiers 1 & 2		-39.486***	-8.305	-8.381
		(-4.275)	(-0.715)	(-0.720)
Orchestra Age		-0.194***	-0.123*	-0.123*
		(-2.877)	(-1.825)	(-1.815)
Number of Programs			-2.745***	-2.765***
			(-4.202)	(-4.198)
% of Composers in Grove/Oxford				0.118
				(0.265)
† = natural logarithm of value				

Note: Unstandardized coefficients; numbers in parentheses are two-tailed t-test values
n = 256   * p < .1   ** p < .05   *** p < .01

TABLE 6 details the OLS regression for the 2005-2006 orchestra year with the Herfindahl index serving as the dependent variable.

TABLE 7: OLS Regression Estimates for the 2005-2006 Orchestral Year based on the Conformity Index of All Orchestras

Model Number	1	2	3	4
R^2 Value	0.025	0.034	0.072	0.275
Adjusted R^2 Value	0.018	0.018	0.054	0.258
Indicator				
Population †	-2.442**	-1.974*	-1.518	-1.170
	(-2.436)	(-1.878)	(-1.456)	(-1.266)
Median Income †	6.622	5.738	5.884	11.887
	(0.757)	(0.654)	(0.683)	(1.552)
Tiers 1 & 2		-4.875	3.735	2.968
		(-1.483)	(0.891)	(0.799)
Orchestra Age		0.012	0.031	0.036*
		(0.494)	(1.292)	(1.655)
Number of Programs			-0.758***	-00.957***
			(-3.216)	(-4.555)
% of Composers in Grove/Oxford				1.185***
				(8.352)
† = natural logarithm of value				

Note: Unstandardized coefficients; numbers in parentheses are two-tailed t-test values
n = 256   * p < .1   ** p < .05   *** p < .01

TABLE 7 details the OLS regression for the 2005-2006 orchestra year with the Conformity index serving as the dependent variable.

TABLE 8: OLS Regression Estimates for the 2005-2006 Orchestral Year based on the Herfindahl Index of Tier 1 and 2 Orchestras Only

Model Number	1	2	3	4
R² Value	0.064	0.248	0.374	0.405
Adjusted R² Value	0.028	0.204	0.324	0.344
Indicator				
Population †	10.905*	11.625**	20.416***	19.924***
	(1.868)	(2.198)	(3.644)	(3.604)
Median Income †	-33.544	-10.333	-2.258	-0.392
	(-0.771)	(-0.259)	(-0.061)	(-0.011)
Orchestra Age		-0.453***	-0.245*	-0.263*
		(-3.535)	(-1.816)	(-1.972)
Number of Programs			-1.933***	-2.057***
			(-3.178)	(-3.403)
% of Composers in Grove/Oxford				2.069
				(1.586)
† = natural logarithm of value				

Note: Unstandardized coefficients; numbers in parentheses are two-tailed t-test values
n = 55   * p < .1   ** p < .05   *** p < .01

TABLE 8 details the OLS regression for the 2005-2006 orchestra year with the Herfindahl index serving as the dependent variable. Only orchestras from LAO tiers 1 and 2 are included in the analysis.

TABLE 9: OLS Regression Estimates for the 2005-2006 Orchestral Year based on the Conformity Index of Tier 1 and 2 Orchestras Only

Model Number	1	2	3	4
R² Value	0.147	0.416	0.456	0.471
Adjusted R² Value	0.114	0.382	0.413	0.417
Indicator				
Population †	-1.007**	-0.934**	-0.519	-0.548
	(-2.153)	(-2.389)	(-1.184)	(-1.252)
Median Income †	-4.773	-2.417	-2.035	-1.927
	(-1.370)	(-0.819)	(-0.706)	(-0.670)
Orchestra Age		-0.046***	-0.036***	-0.037***
		(-4.852)	(-3.425)	(-3.524)
Number of Programs			-0.091*	-0.098**
			(-1.917)	(-2.058)
% of Composers in Grove/Oxford				0.120
				(1.164)
† = natural logarithm of value				

Note: Unstandardized coefficients; numbers in parentheses are two-tailed t-test values
  n = 55   * p < .1   ** p < .05   *** p < .01

TABLE 9 details the OLS regression for the 2005-2006 orchestra year with the Conformity index serving as the dependent variable. Only orchestras from LAO tiers 1 and 2 are included in the analysis.

CHART 2: Flowchart to Predict Avenues of Innovation
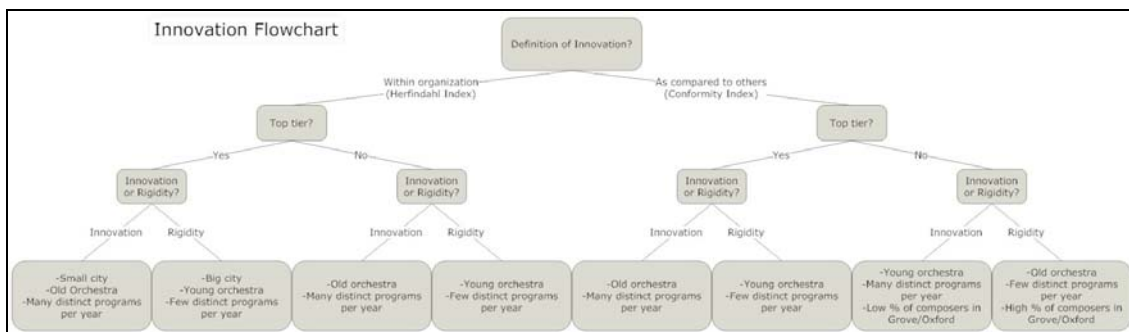
CHART 2 aids in understanding the desirable characteristics for a symphony orchestra with the outcome of innovation or rigidity. Since none of the variables act alone, there are multiple indicators in the bottom boxes that, when combined with the paths through which they were drawn, paint a more complete picture of today's rigidity versus fluidity argument.