University Music Unit-Sponsored, Non-Music Major Orchestras in the United States

DISSERTATION

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The purpose of this study was to investigate university music unit-sponsored, non-music major orchestras (NMOs) from across the United States during the 2014-2015 academic year. A sample of 216 four-year universities/colleges was collected by a stratified random selection process that used the National Association for Schools of Music 2014 Higher Education Arts Data Services Data Summary Report. Research questions asked if NMOs existed, if the NMO was a part of the university or music unit mission, how NMOs were administered by providing rehearsal space, funding, and conducting personnel, NMO participant description and motivation for enrollment. Data were collected via administrator and participant surveys and music department website review. Data revealed the existence of 57 NMOs from all regions of the United States. The NMOs satisfied the mission statement of either the university, music department, or both. NMOs functioned budgets less than $1000 a year, they rehearsed in a music building on campus, and were conducted most often by faculty members. Membership to the NMO was open to undergraduates and graduates, most allowing non-student performers to participate. Nearly half of the NMOs did not require an audition to participate. Administrators identified lack of faculty interest and lack of student interest as the primary barriers to establishing an NMO.

Non-music major orchestra participants were typically first and second year Engineering or Science/Technology undergraduates who had experience performing in
school orchestras prior to college. NMO participants took private lessons prior to college.

The NMO participants enrolled to satisfy their social needs but their musical needs were
met better. NMO participants intended to play in an orchestra after college graduation
and encourage other universities to offer a similar ensemble.
Dedication

Because of and for my papa, William Andrew Kerr

“I will instruct you and teach you in the way you should go;
I will counsel you and watch over you” Psalm 32:8-9.
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Chapter 1

Background of the Problem

In the United States many universities and colleges provide opportunities for prospective undergraduates with a desire to teach, perform, create, and analyze music. These institutions range in size, location, cost, and reputation. In the 2014-2015 Higher Education Arts Data Services (HEADS) Report, 628 universities and colleges offered music degrees. Of those, 435 offered Bachelors of Music degree programs or other professional degree programs with a minimum of 65% music content. Five hundred twenty-three institutions offered Baccalaureate degree programs in Music Education, Music Therapy, and Music Performance offer music degrees with at least 50% music content.

Degrees with less of a music focus also existed: five hundred and four institutions offered Baccalaureate Liberal Arts degree programs with at least 30% music content. If a student did not want a four year degree, twenty-six institutions offered Associate’s degrees in Fine Arts with a minimum of 65% music content, nine offered an Associate’s degree in Fine Arts with at least 50% music content, and ten offered Associate degrees with a minimum of 30% music content (National Association of Schools of Music, 2015). Undergraduates could find a school offering some kind of music degree in every state of the country, the District of Columbia, and Puerto Rico. Students who sought to continue their music-related study with graduate work could choose from 472 institutions.
that offered Graduate level non-degree programs including Certificates or Diplomas, Specific Masters, General Masters, and/or Doctoral Degree Programs (NASM, 2015).

Once enrolled in a college or university, undergraduates majoring in music can immerse themselves in a curriculum devoted to music education, theory/composition, history, or performance. A student can surround himself with like-minded undergraduates who aspire to maximize their performance experience within a music ensemble of the highest caliber. Schools, colleges, and departments of music provide resources, enlist professors with advanced skills and terminal degrees, and erect buildings and performance halls to showcase outstanding musical performances of these ensembles.

Music majors, however, are a very small population of the overall American college student body. In the fall of 2014, 10.648 million undergraduates and 3.43 million graduate students were enrolled in American four-year colleges and universities (National Center for Education Statistics, 2015). According to the National Association of Schools of Music during the 2014-2015 academic term there were 108,586 music majors attending accredited music units. This represents .77% of the total undergraduate population.

The college music major has the opportunity to specialize in his/her program of study based on performance auditions, entrance exams, and interest in music. Non-music majors’ options of continuing musical study are much more limited. Depending on the music unit, a non-music major may enroll in a variety of courses including the study his/her instrument or voice in the private studio, or participation in a traditional large ensemble (band, orchestra, or choral) if he/she can successfully pass an audition. The
option to participate without the required audition, which oftentimes places non-majors in competition with music majors, was less common. Therefore, the large ensemble remains an elitist organization, allowing only the best performers to participate. Yet, lifelong music participation is a guiding principle for music education as found in the Tanglewood Declaration and the Housewright Declaration (Appendix A).

Many students arrive on college campuses with a background in school music. There were 3.5 million high school seniors in the United States in the fall of 2011 (National Center for Education Statistics, 2015). In a 2011 study examining high school student in-school music and performing arts participation, approximately 38.9% (1.36 million) high school students participated in music and the performing arts programs. In a 2013 study by Child Trends, 41%, n=557,600 of the 1.35 million high school seniors in 2011 with music performance experience planned to attend a four-year university. According to the 2011 NASM HEADS Report 92,461 undergraduate students majored in music. This leaves 465,139 students with a music background that could potentially enroll in a collegiate large music ensemble.

According to the Gillespie and Hamann’s 1998 landmark study, 93% of responding orchestra teachers (N=652) reported 71% of beginning string students who began to play a string instrument in elementary school continued to play through the end of high school. Furthermore at least 20% of their students matriculated to college but less than 5% majored in music. The data is clear that while many students participate in high school ensembles, few choose to major in music. But the learning and enjoyment should
not end at high school graduation if music education is to fulfill its mission as providing opportunities for lifelong music participation.

In a study by Addeley, Kennedy, & Berz (2003) high school students considered participating in a large music ensemble a welcome refuge from the daily stressors in life. Non-music majors who had such experiences may want to find a similar release from the stress of college life by participating in a large music ensemble. If research reveals that this is the case, then those with previous ensemble experience could seek to join such ensembles as a way to find a personal place on campus and help relieve the stress of college life.

The non-music major ensemble could also serve as a marketing tool for the universities. The college-bound high school senior has more options for obtaining a college degree than ever before with the evolution of online universities. The non-music major ensemble could be a reason why a college student chooses to attend an on-campus university rather than an online version. The personal connection with others of similar interests such as musicians may be a reason an undergraduate chooses to remain in college all four years. Even more impactful for the music unit, concert attendance at performances may increase by including the NMO on a program. The inclusion of non-major orchestra within the curriculum would meet the need for a personal connection with the university ensemble and might motivate non-music majors to perform their instrument even after college, hence bridging the gap from classroom to adulthood.

Considering the time, effort, and dedication that non-music major college students invested in music study prior to college, research is needed to understand the next step of
orchestral instrument playing for non-music majors as they progress through college as a part of the continuum of lifelong music participation.

**Need for the Study**

Historically, music has been taught in K-12 schools to develop individual interests, promote students’ engagement in and creation of a musical culture, promote health, and offer opportunities to participate in expressive leisure activities (Mark, 2007). Activists for maintaining music education in public K-12 schools have fiercely defended the position based on three beliefs: music education is a necessary part of democratic education, music has both intrinsic and aesthetic value, and music provides extra-musical benefits to students.

Irrespective of the philosophical position, there has been a resounding mantra by leaders in music education that the profession’s ultimate goal is to produce musically literate adults capable of participating in the creation or consumption of music (Poulter, 1997). However, there has been a concern that the availability of music performance opportunities has not been implemented for students beyond high school. As far back as 1931 John Finley Williamson, founder of the Westminster Choir and described by the New York Times as ‘the dean of American choral directors’, issued the following challenge to his colleagues in the North Central Music Supervisor’s Conference: “If music is going to stop when our children get their diplomas, what hope is there” (MSNC, 1931). In agreement with Williamson, famed collegiate band director William Revelli in 1937 stated, “…nothing is practical that does not lead to permanent value. If our school music ceases in their [students’] senior year, then, in my opinion, it is not practical”
If music education researchers advocate that music participation should continue throughout a person’s lifetime, there is a need to investigate those NMOs that exist to determine if they are meeting the music participation goals of both the music education profession and those enrolled in them. Research could reveal best-practice strategies for establishing such ensembles and how to assure that they are meeting their mission.

National music education leaders have focused so much on continuing opportunities for music learning that lifelong music participation was a primary topic of the 1974, 1980, 1981, and 1982 Music Educators National Conference (MENC). A common outcome of these sessions as reported by Myers (2008) was the belief that: “Were it not for the lifelong human need for music, there would be little reason for the school-based professional enterprise known today as music education” (Meyers, 2008, p. 52).

The Music Educators National Conference’s (MENC) Tanglewood Symposium of 1967 produced some of the most important documented positions of the national music education association from the twentieth century that described music participation as a lifelong endeavor. The Tanglewood Symposium Project reported that, “The concept of learning as a lifelong process presents responsibilities and opportunities” (Choate, p. 39). Furthermore, music educator participants in the Tanglewood Symposium created eight statements to assist in the philosophical development of music education. The Tanglewood Declaration yielded two statements that directly impact the necessity of non-music major ensembles:
1. Schools and colleges should provide adequate time for music programs
ranging from preschool through adult or continuing education,
2. Greater emphasis should be placed on helping the individual student to fulfill
his needs, goals, and potentials (MENC, 1967, p. 139).

Further, the final report from the Tanglewood Symposium included two
recommendations to institutes of higher learning:
1. continuing education should offer an opportunity to move as far in-depth or
breadth as each [person] can, through a comprehensive program that will equip
him/her to live in the modern world,
2. Music should be offered to adults both for instrumental purposes, to satisfy
psychological, religious, and vocational needs, and for expressive purposes, to
help each individual find means for self-realization, either as creator or as

Vision 2020, a collection of reports from the 1999 Housewright Symposium on
the Future of Music Education authored by a commission comprised of presidents and
executive directors of major music-related organizations, conveyed the importance of
transition as a guiding principle for curricular and instructional decisions. The
commission defined transition as “the movement of individuals across a variety of school
and non-school environments throughout life” (MENC, 1999). The commission also
stated that “when adults participate comfortably, successfully, and as independently as
possible in meaningful music experiences, those for which they were prepared in school,
then the transition from school contexts to adult contexts in communities and homes is
successful” (MENC, 1999). Therefore, this study is needed as an investigation of opportunities available to non-music major orchestral musicians to continue to play during their time of transition in college and eventually during post-graduation.

Leading music and string educator associations such as the National Association for Music Education (NAfME) and the American String Teachers Association (ASTA) have expressed lifelong music participation as a goal for music instruction in schools. NAfME’s position on the importance of music for all students stated in 2011: “We believe that music is for all. Students must have an opportunity to learn and participate in the joy and power that music education brings in uplifting the human spirit and fostering the well-being of society” (NAfME, 2011).

The American String Teachers Association (ASTA) published The Future of Strings: A Green Paper Prepared for Americans for the Arts, which described, in part, ASTA’s vision for continued performance opportunities. The document states, “We must ensure that music, including string instruction, is both adequately funded and accessible from the pre-school classroom to the symphony hall” (p. 3). Logically, this would include secondary education. Furthermore, ASTA acknowledged the importance of including all students not only those college music majors stating in the document that, “While the majority of music students will not become full-time musicians, they will become wholly human and wholly educated. “Where words fail, they will be able to speak through the music”(p. 3). Clearly, the nation’s leading string education association both understands the importance of orchestral performing experiences and attests to the value of such experiences for the individual, as well as society.
The 2016-2017 NASM Handbook stated in its Standards and Guidelines for Accreditation that a college music program has the following responsivities for music in general education:

Institutions that train professional musicians have responsibilities for addressing issues of music in general education. NASM expects member institutions to make significant commitments to these efforts in both human and material resources. The following should be pursued as appropriate to institutional objectives, resources, and locale:

1. Music Education for the General College Student. The institution should provide non-major students with opportunities to develop awareness and understanding of music as an integral part of the liberal education and the human experience.

2. The Education and Training of the Professional Musician. The professional musician should be placed in a learning environment that fosters interest in the development of musical awareness in the general population. Course offerings, experiences, and opportunities should be provided to support such interest.

3. Faculty and Administrative Involvement. Program structures should encourage faculty and administrative involvement in the education of non-majors. Policies for promotion and tenure should recognize the significance of faculty attention to music in general education.
4. The Local Community. The institution should be involved with the local community on behalf of music (NASM, 2016, p. 84).

Furthermore, NASM states that the accredited college music unit must provide a music education for the general college student. The following are direct connections to this investigation:

...2. Participation by qualified non-major students in courses for majors, including performance and composition, should be encouraged as part of the elective portion of their programs…

…3. The music unit should be actively involved in institutional admissions and counseling processes to convey opportunities for participation in music studies and activities…

…6. A variety of participatory ensemble experiences for amateur performers should be provided with leadership being of professional standing. Management and other services for such groups are also important”

…7. An effective program for building audiences among the non-major student population should be maintained, especially for faculty and student concerts (NASM, 2016, p. 240).

According to NASM, there is a connection between ensemble participation and audience development for live musical performances:
When appropriately taught, reflective, technical, and interdisciplinary studies in the arts can promote and enhance the aesthetic appreciation and discrimination of students who, in turn, become audiences and provide leadership in the continuing and various processes of artistic creation, presentation, and education (NASM, 2016, p. 241).

It is unknown, however, if orchestral ensembles exist for the college non-music major to continue to grow as a musician and experience the joy that music professionals can experience. Individuals attending post-secondary schools typically transitioning from young adult to adulthood stages of life are also progressing on the lifelong music participation continuum. Should the progression slow or even stop completely, generations of future advocates for music may be less likely to support live music or music education.

The continued importance of maintaining musical literacy and appreciation from childhood throughout adult years is clearly articulated by the presence of Special Research Interest Groups within the National Association for Music Education (NAfME) dedicated to the education of and opportunities for those individuals beyond K-12 schools. Opportunities need to be provided for the college non-music major to be consistent with the values espoused by music educators. These values cannot be experienced if music study in colleges is limited only to those who wish a professional music career.
The belief that music education experiences should continue into higher education can be found in Leonhard and House’s seminal text, *Foundations and Principles of Music Education* (1972):

Music education has a unique mandate in contemporary American education – to provide a varied, significant, and cumulative musical experience for every American student. The task of the school music program is to create a favorable musical environment, one in which every pupil can undergo the maximum musical growth consistent with his ability and interests…these experiences should be available to all pupils throughout their period of schooling (Leonard & House, 1972, p. 3).

Professional music education associations advocate for lifelong music participation. These associations include the National Association for Music Education (NAfME), The National Association of Schools of Music (NASM), and The American String Teachers Association (ASTA). In addition to advocacy for lifelong music participation by professional associations, there is much research on the positive impact of music learning on K-12 students. However, there is a little research on non-music majors who participates in music ensembles on college campuses.

**Research on University Orchestras**

Banse (1965) first identified a lack of research on university orchestras. Within his investigation he found comparatively few meetings at professional conferences devoted to problems of college orchestras and noticed a scarcity of orchestra conductors at state and national music educator conferences. He postulated that orchestral conductors
were less focused on music education and more driven by high artistic attainment. Can the weakened link in the chain of music participation from the cradle to the grave be attributed to the lack of importance that conductors place on music making for the non-music major as they have not reached the level of artistry as the music major?

**Purpose of the Study**

The purpose of this study was to determine how university music unit non-music major orchestras were established, funded, and supported by music units as prescribed by NASM’s *Guidelines Concerning Music in General Education Mandate* of 1989 and The Tanglewood Symposium. This investigation will identify components common to non-major orchestras (NMO) sponsored by university music units and provide information to those lacking NMO’s. Perhaps the findings in the present study will help non-NMO institutions fulfill the performance standards for non-music majors set by NASM.

A secondary purpose of the study is to determine possible enrollment trends based upon the following demographic data: the participants’ age, college major, instrument type (e.g., woodwind, brass, percussion, strings, keyboard, world instruments), prior school orchestra experience, the total number of enrollments in a non-music major ensemble, and the type of college ensemble in which the person may have already participated. Motivational factors will also be investigated to better understand the primary client of the NMO.

This study will attempt to answer the following research questions:

1. Do collegiate music units offer non-music major orchestras?
2. What resources are needed for institutions to create a non-music major orchestra?
3. What are some of the common challenges that may prevent a music unit from creating an NMO?
4. What motivates students to participate in non-major orchestras?
5. Do members of NMOs plan to participate in an ensemble following graduation?

**Scope of the Study**

In 2013, Gillespie and Hill initiated a study that served as a pilot for the present study. The 2013 pilot study investigated university music unit non-music major orchestras (NMOs) within schools of the Big 10 Academic Alliance (BTAA), formally known as the Committee on Institutional Cooperation (CIC). The 2013 BTAA institutions included in this study were: Indiana University, Michigan State University, Northwestern University, Pennsylvania State University, Purdue University, The Ohio State University, and the Universities of Chicago, Illinois, Iowa, Michigan, Minnesota, Nebraska, and Wisconsin-Madison.

**The BIG 10 Academic Alliance, formerly known as the CIC**

The BIG 10 Academic Alliance (BTAA), formerly known as the Committee on Institutional Cooperation (CIC), is a consortium of currently 15 research universities. These universities include members of the Big 10 Athletic Conference plus the University of Chicago who was a member of the Big 10 until it withdrew in 1946. The BTAA was founded in 1958 as the academic counterpart to the athletic conference and
was initially funded by the Carnegie Corporation. The purpose of the BTAA is to build communities of best practices across the universities and to manage very large scale directed projects.

Members of the Big 10 Academic Alliance are some of the most influential research institutions in the world. The current research portfolio of the 15 universities equals $10.8 billion in funded research, which is more than the University of California system and the Ivy League combined (btaa.org). The key attribute of the BTAA is the shared research infrastructure and shared fiber optic network across the campuses. The BTAA assists its member institutions in the creation and development of very large scale research projects that single universities cannot manage alone. Once a large scale project is funded and the infrastructure is put into place the BTAA removes its governance and allows the membership to continue the project. Such projects include initiating the investigating into traumatic brain injuries and health disparities across the eleven states within the BTAA.

Students within the BIG 10 Academic Alliance have access to the combined libraries of over 110 million volumes. Students are eligible to enroll in and receive academic credit from any member institution for one term at no additional charge. As a major research conglomerate, undergraduate students are actively recruited to participate in summer research institutes. Undergraduates who participate in the institutes are recruited to become graduate research assistants who later may be recruited to become college professors, deans, as well as researchers.
Purpose of the Pilot Study

The purpose of the pilot study was to investigate how university music unit sponsored non-music major orchestras were established, funded, and supported by the music unit. Specifically, survey questions were developed to describe: the type of orchestra (string or full), the rationale and approximate year that the ensemble was started, who conducted the ensemble and how the conductor was chosen, how much funding was available for the purchase of music, the location of the rehearsal space, and who was eligible for participation (graduate students, undergraduate students, faculty/staff, community members), and if membership was based on a successful audition.

Participants in the ensembles were also surveyed to determine possible trends in enrollment based on age, college major, number of non-music major ensembles in which they participated, the type of instrument they performed on (woodwind, brass, percussion, strings, keyboard, or world instruments), and the number of years of prior school orchestra experience. Participants were asked to rate their level of agreement with thirteen potential motivational factors for participating in the NMO. Finally, participants rated the musical and social value of their NMO experience, plans to continue their music participation after graduation, and if they recommended other universities establish NMO’s.

Each university’s website was researched to determine if community outreach was a part of the institutions’ mission and if the music unit included non-music major participation or studies. It was found that each institution mentioned community
outreach/engagement/service to the community at large as part of their mission statement.

This was expected as most universities were land-grant institutions. Below are two examples of university mission statements:

The University of Minnesota, founded in the belief that all people are enriched by understanding is dedicated to the advancement of learning and the search for truth; to the sharing of this knowledge through education for a diverse community; and to the application of this knowledge to benefit the people of the state, the nation, and the world” (University of Minnesota, Mission Statement, 2013, para.1).

Indiana University is a major multi-campus public research institution, grounded in the liberal arts and sciences, and a world leader in professional, medical, and technological education.

Indiana University’s mission is to provide broad access to undergraduate and graduate education for students throughout Indiana, the United States, and the world, as well as outstanding academic and cultural programs and student services. Indiana University seeks to create dynamic partnerships with the state and local communities in economic, social, and cultural development and to offer leadership in creative solutions for 21st century problems. Indiana University strives to achieve full diversity, and to maintain friendly, collegial, and humane environments, with a strong commitment to academic freedom (Indiana University Mission Statement, 2016, para.1).
Additionally, it was discovered that most music units within the BTAA mentioned their commitment to not only music majors, but also those in direct contact with the music curriculum. Below are examples of the mission statements from two schools of music:

The School is dedicated to excellence in research, performance, composition, and teacher education, undertaken in a spirit of collaboration among its own constituents, as well as with those of the College of Fine and Applied Arts and the University at large (University of Illinois, About Us, 2013, para.2).

The Ohio State University School of Music educates students for professional careers in composition, performance, scholarship, and teaching. As an integral part of a major public university with a strong commitment to teaching, research, and service, the school recognizes the relationship that binds music to other academic and artistic disciplines. The school aims to provide, at the highest level, instruction in the study and practice of music and, in so doing, to promote an awareness of music as a humanistic study. The school encourages musical research in all its dimensions by providing students and faculty opportunities for performance, creative activity, and scholarly inquiry. The school is dedicated to sustaining and advancing musical culture in the academy and in the society at large, and it endeavors to meet service obligations to various communities within and beyond the university. Recognizing the dynamic and evolving character of music in contemporary life, the school acknowledges an ongoing responsibility to evaluate its programs and procedures, and to investigate fresh approaches to the
realization of its mission. In keeping with the university’s broader mission, the school is committed to nurturing the best of Ohio’s students, while maintaining excellence and diversity by recruiting nationally and internationally (The Ohio State University School of Music, Mission Statement, 2017, para. 1).

Each of the pilot study’s university and music unit websites contained a similar statement about community outreach both on and off of campus. The pilot study was the first to determine how the music unit was providing large orchestral ensembles for the non-music major. Findings of the pilot study can be found in Chapter Two, Literature Review.

The current study is an extension at the national level of the previous pilot study. The Big 10 Academic Alliance member institutions are similar in student body enrollment and number of music majors. Two institutional members of the BTAA were not accredited by NASM at the time of this study, including one that did not offer music as a major course of study. Also in contrast to the pilot this study examined both public and private universities. Each of the fifty states had at least one university that received a request to participate in this study.

Limitations of the Study

This dissertation was structured based on the following assumptions and limitations:

1) Only universities and colleges that offered a four-year degree in music accredited by NASM were included in the study.
2) The findings from the analysis of the data may only be generalized to the 89 institutions that responded to the survey. Generalizing outside of this limited population may be invalid.

**Definition of Terms**

**Accreditation** is a process by which an institution or disciplinary unit within an institution periodically evaluates its work and seeks an independent judgment by peers that it achieves substantially its own educational objectives and meets the established standards of the body from which it seeks accreditation. Typically, the accreditation process includes 1) a self-evaluative description (self-study) of the institution or unit, 2) an on-site review by a team of evaluators, and 3) judgment by an accreditation decision-making body, normally called a Commission. Accreditation reviews focus on educational quality, institutional integrity, and educational improvements.

**Administrator** is a college music professor who via university website investigation was identified as having either direct contact with the school’s orchestra program or is in a position of oversight of the music unit.

**American String Teachers Association (ASTA)** is a membership organization for string and orchestra teachers and players, helping them to develop and refine their careers. ASTA's members range from budding student teachers to artist-status performers. The organization provides a vast array of services, including instrument insurance, an award-winning scholarly journal, discounts on publications and resources, annual
professional development opportunities, and access to collegial network of colleagues throughout the string profession.

**Music Unit** is a term utilized to describe any music department, College of Music, or School of Music on a university campus.

**National Association for Music Education (NAfME)** is America’s leading music education that specifically addresses all aspects of music education on the local, state, regional, and national level. Established in 1907 as the Music Supervisors National Conference, NAfME. NAfME has also been known as the Music Educators National Conference, MENC: The National Association for Music Education. The name National Association for Music Education was adopted in 2011.

**National Association of Schools of Music (NASM)** is the accrediting association responsible for establishing the national standards for undergraduate and graduate degrees and other credentials.

**Non-Music Major Orchestra (NMO)** is a university music unit-sponsored orchestra that is offered primarily for the non-music major. Music majors may be enrolled or participate on their secondary instruments to gain performance experience.

**Participant** is a member of a Non-Music Major Orchestra (NMO) who was identified by the conductor of the NMO.
Chapter 2

Review of the Literature

Introduction

The purpose of this study was to determine how non-music major collegiate orchestras were established, funded, and supported as prescribed by NASM’s *Guidelines Concerning Music in General Education Mandate* of 1989 and The Tanglewood Symposium. This study was based on the need to understand and encourage the development of orchestral participation opportunities on college campuses to continue the learner on the path of lifelong music participation. Unfortunately, the non-music major orchestral musician has been largely ignored by music education researchers.

There has been much research conducted, especially in the 1960’s and 1970’s, on the reasons for music student attrition (Bergan, 1958; Tate, 1962; Casey, 1964; Lax, 1966; Pruitt, 1966; Farruggia, 1969; Anthony, 1974; Henson, 1975; Rogers, 1989; Sandene, 1994 and Stewart, 2007). However, studies only examined band or ‘instrumental’ music ensemble participants as subjects. There have been a few studies that bestride both sides of the participation issue. These studies focused on college undergraduates’ decisions to participate or not participate in college ensembles (Clothier, 1967; McClarty, 1968; and Milton, 1982). But the literature does not provide any
information for providing opportunities for orchestra participation longevity beyond high school.

The literature that most directly related to this study can be divided into two categories: Orchestras on college campuses and motivation factors for continued participation in music.

**History of Orchestras on College Campuses**

The first reported American orchestra was arguably a collegiate, non-music major orchestra. In 1808, a collection of Harvard University students organized the Pierian Sodality which initially was a six member ensemble of arbitrary instrumentation. The men of the ensemble, as there were no women at Harvard at the time, expressed a desire to perform music together as a means for serenading ladies. Though the ensemble had a precarious beginning and at one time faced dissolution, the Pierian Sodality became the catalyst for the development of music in Cambridge, Boston and even the Boston Symphony Orchestra ("HRO", n.d.). This was the first recorded connection of a non-music major orchestra’s possible influence on professional orchestras.

Music was relatively slow to enter the American college curriculum when compared to orchestra’s origins of Western Europe (Goodman, 1962). Fifty-nine years after the signing of the Declaration of Independence, Oberlin College hired the first university music professor whose title was “Professorship of Sacred Music”, though Harvard University’s John K. Paine in 1875 is also credited as the first to hold a music professorship in America. In the 1850’s, Oberlin College records document the existence of a small orchestra of six to eight members. After 1870, college music departments with
music faculty members were established in American colleges along with the birth of American music conservatories. The first universities to offer orchestra as a course were found between the years 1893-1909. These initial curricular college orchestras were at the universities of Tennessee (1893), Illinois (1887), Cornell (1899), Columbia (1899), Yale (1902), Vassar (1904), North Carolina (1907), and Indiana (1909). The increasing emphasis placed on the National High School Orchestra contests in the late 1920’s and 1930’s provided strong orchestral musicians for college orchestras. According to Goodman (1962), the largest and most influential factor in the evolution of college orchestras is the growth of public high school orchestras (p.145).

Duerksen (1940) was the first to report the status and profile of collegiate orchestras. He surveyed 351 universities and had a 43% response rate (n=152). He found that most (55%) of the directors were graduates of conservatories and 98% were faculty members, department heads, or deans of the university. The majority of the universities responding offered one orchestra, while 20% offered two. The orchestras were comprised of approximately 60 male members studying various academic programs. The annual orchestra budget for music and equipment was $354.20. Sixty-one percent of the orchestras had their own rehearsal room and 42% gave one academic credit per semester for participation (p. 34).

Many collegiate orchestras have relied upon not only the enrolled university student, but also townspeople to fill the ensemble. As reported by Goodman (1962) the American Symphony Orchestra League, now known as The League of American Orchestras, reported that during the 1949-1950 academic year 57% (n=116) of the 204
college orchestras studied were composed of both students and local townspeople. The remaining 43% were comprised completely by students (p, 146).

In Goodman’s 1962 study of collegiate orchestras surveyed all college and university symphony conductors of Music Educators National Conference’s (MENC) Western Division and selected outstanding orchestra directors from each of the other five divisions. He reported 58 of the 72 surveys were completed for an 81% response rate. Significant findings from Goodman’s 1962 study as related to the current study were that the conductors believed that students should receive academic credit towards a degree for orchestra participation, with non-music majors receiving a minimum of four credits. He found that most often the conductor was a full-time college professor but less than half had received any professional training in orchestra conducting. Also, half of the conductors had no public school teaching experience. Finally, the budget for the college orchestras in Goodman’s study was most often a part of the general music unit budget. The average budget for purchasing instruments and instrument repair was $1,600 while the average budget for the purchase or rental of music was $453 (p. 148).

In 1954, B.M. Bakkegard, Assistant Professor of Music Education at the University of Texas, Austin and chair of the Southwestern Division Committee on Music Education in the Community conducted a survey of colleges and universities within the Southwestern Division. The investigation focused on the non-music major recruiting practices and non-major ensemble course offerings by music units. His study revealed that only eight percent of the institutions within the study attempted to find out if an incoming undergraduate had participated in music ensembles in high school. Bakkegard
found that approximately an equal number of music majors and non-music majors participated in college music ensembles. Also, as part of his investigation of ensemble participants Bakkegard found similarities in recruiting practices the college and university music units used. The most common recruiting techniques included: high school Senior Day music programs, personal contacts, letters to each new student, posters about the campus during registration time inviting students to audition for ensembles, orientation week announcements, and required ensemble participation of music majors. Additionally, the study identified the types of ensembles most frequently open to non-music majors: bands, choirs, glee clubs, and orchestras. However, bands, choirs, and glee clubs were offered more often than orchestras. Most of the orchestras within this study recruited non-college players from the community, whereas bands did not. Choral ensembles connected to the community only when performing oratorios or large works that were performed in area churches. Bakkegard suggested that the custom of utilizing community members in college orchestras led to the development of community orchestras. These ensembles could provide adults an opportunity to participate in an orchestral ensemble. He postulated that community bands were not as prevalent in American society because collegiate bands typically did not include community members, thus breaking the participation continuum from high school to adulthood. Colleges and universities could provide the vital, often missing link between high school and adulthood via the college non-major ensemble.

In addition to these two studies, there are many studies that focus on music majors. Some recent inquiries have focused on such factors as curriculum (Hamann &

Studies involving non-music majors have been conducted. Cassidy (1993) examined the effects of various sight-singing strategies to improve pitch accuracy in elementary education majors who took a music appreciation course as part of the required curriculum. Amus and Harrison (1990) defined characteristics of motivation for music and musical aptitude of non-music majors. Smialek and Boburka (2006) studied the effect of cooperative listening exercises on the critical listening skills of college music appreciation students. Price’s published the findings from four studies focusing on music coursework for the non-music major were found. Price, Mann, & Morrison (2016) reported the effect of conductor expressivity on ensemble evaluations by non-music majors. Misenhelter & Price (2001) examined music major versus non-music major’s responses to selected excerpts from Stravinsky’s Le Sacre du printemps. Price & Swanson (1990) outlined changes in musical attitudes, opinions, and knowledge of music appreciation students. And, Price (1988) investigated the effect of a music appreciation course on students’ verbally expressed preferences for composers.

Two dissertations addressed non-music major choral student participation in university choral ensembles (Buchanan, 1998; Poulter, 1997). There were no such studies found that addressed the same factors for non-music major orchestra participants. Therefore, this study’s secondary purpose of identifying the background and motivation of NMO participants to enroll will be significant for future research of that population.
Finally, studies on student participation to date have focused on student retention within the performing idiom as students transition from primary to middle school buildings or middle school to high school buildings (Kinney, 2010, Hartley & Porter, 2009; Hartley, 1996; Solly, 1986; Wolfle, 1969; Lax, 1966). Findings from these studies reported one factor for attrition commonly occurred between buildings such as elementary to middle school or middle school to high school. This trend was attributed to student concerns of adjusting to a new instrumental music teacher, the new social environments, scheduling conflicts—both real and perceived—and continued practicality or utility of instrumental performance.

No studies were found focusing on the transition between high school and college or college to adulthood for non-music major orchestral musicians. Important to note, however, Kinney’s 2010 study on selected non-music predictors of urban students’ decision to enroll and persist in middle school band indicated that students who come from a moderate to high socio-economic status were more likely to value education and as a part of that education, music. Additionally, family structure (two parent homes versus single-parent family) affected the students’ access to music programs as additional costs for membership or transportation to ensemble activities may be more challenging for single-parent families. While Kinney’s study is limited to middle school (Grades 6-8), family socio-economic status and its implication for access to lifelong music participation may persist as the student transitions into college. Especially important to consider is the cost of higher education and additional fees that colleges may charge for music ensemble
participation. Further research into factors why undergraduates choose to not participate in orchestras would enrich this line of inquiry.

Bowles, Duke, and Jellison’s 2007 and Waggoner’s 1972 studies found adult participation in ensembles is more strongly related to college experiences rather than high school. Therefore, it is critical to study college non-music major performing groups to understand what is currently available to students as well as to serve as a bridge between college and adult music making. This dissertation will serve as a crucial starting point for future studies of non-music major orchestra participants’ prior school orchestra experience and musical needs while in college.

Motivation Factors for Continued Music Participation

Motivation is very challenging to quantify. Both intrinsic and extrinsic factors must be considered. Further, sometimes behaviors cannot be considered exclusively intrinsic or extrinsic. In fact, individuals are not always aware what is motivating them to behave in a certain way and therefore find it difficult to answer survey questions completely. College orchestra directors may welcome the non-music major to audition or participate in the orchestra, however, very little is known as to what motivates the performer to join an orchestra when it is not a requirement of his/her degree program. The choral music performance ensembles have had many more studies focusing on motivation.

As reported by Poulter (1997) predictable understanding of motivation to participate in choir ensembles may include improved self-esteem or positive self-concept as reported by Boswell, 1992 and Vispoel, 1995. Maslow (1968) attributed continued
performance of a task as an attempt to recreate a ‘peak performance’. Other non-music major performers may desire to improve their musicianship in an effort to enrich the quality of their life (Schopp, 1992). The social aspect of performing groups may be a deciding factor for some but for others performing may hold spiritual or personal meaning (Hylton, 1980, 1981). Familial traditions, collegiate traditions, or the urging by friends or past music teachers may also influence a student’s decision.

Buchanon (2000) determined that high school choir size and the effectiveness of the high school choir director may have motivated college non-music majors to participate in college choir. He studied motivational factors of 964 non-music majors singing in collegiate choirs among the seven geographical regions of the American Choral Director’s Association. Participants rated their past high school choir director’s effectiveness and the size of their high school choir program using a 5-point, Likert-type scale. The subjects reported that their experiences were positive and their directors were effective. He found that students from smaller high schools rated their choir experiences and their director’s effectiveness lower than those subjects from larger schools. There were no studies describing NMO participants’ perception of high school experience as it relates to continued ensemble enrollment.

The challenge of describing a group’s motivation is that it is at once a very broad heading as well as an individual force compelling a person to behave in a way that is very personal. The rationale for an individual to perform within an ensemble may be due to two or more reasons. These reasons could be considered “good” or “real”.
Frederickson (1997) used Madsen and Kuhn’s 1994 description of “good” and “real” reasons why individuals take on tasks. Frederickson said a “good” reason to continue to participate in music making could be musically centered such as to aesthetically express him or herself, a “real” reason may be more socially driven such as to make new friends or to be part of a group on campus. Because there has been no study on non-music major orchestral musicians and their motivational factors for participation found, McCrary’s study of ‘real’ and ‘good’ reasons students join college choirs is included as a model for this dissertation.

McCrary (2001) studied college aged adults’ “good” and “real” reasons for joining college gospel or traditional choirs at three universities. Participants were enrolled in non-audition based college choirs. This selection helped to capture more non-music majors. The participants (N=278) provided 922 comments that described their motivation to join and what factors they enjoyed about singing in the choir.

McCrary reported the participants’ influences on decision to join the choir: 38% enjoyed singing, 19% of traditional choir members, and 12% of gospel choir members had previous high school choir experience. Many of these members decided to join because they missed singing. Twenty percent (20%) of gospel choir participants wanted to try something “unique” while 12% of gospel choir members joined after hearing a previous gospel choir concert. A similar result was not found in traditional choir responses. Eight percent (8%) of traditional choir participants seemed to want to learn new skills, including some music majors who wanted to learn how to teach gospel choir and some music majors wanted to learn how to teach untrained singers within the
traditional setting. Ten percent (10%) of traditional choir members wanted to make new friends and 29% described the feeling of when the music seemed to “come together” in rehearsal or performance as “it’s a good sensation, the music is “beautiful and uplifting”, or “spiritual”. Fifteen percent (15%) reported choir as a stress reliever. “Good” reasons outnumbered the “real” reasons when describing why the participants chose to stay in the choir, but “real” reasons outnumbered “good” reasons for joining the choir.

The Non-Music Major University Orchestra: A Part of the Mission?

The pilot study by Gillespie and this author investigated how university music department-sponsored, non-music major orchestras were established, funded, and supported by the music unit within the Big 10 Academic Alliance (BTAA) in the 2013-2014 academic term. Thirteen universities within the BTAA were surveyed to determine if an NMO existed on campus, if the use of the NMO was part of the mission of the university, what the administrative structure of the NMO was, the profile its members, and participant’s motivation for enrollment in the ensemble. Data was collected from the surveys completed by music unit administrators or NMO conductors and NMO participants.

Data revealed that 19 NMOs existed within 12 of the 13 member institutions of the BTAA. While one NMO was established prior to 1950, the majority (58%) were founded within the past 40 years, most often (63%) in response to a proposal from a music faculty member. Almost one-third (31%) of the BTAA institutions did not know the original purpose of its NMO but when it was known fulfilling the mission of the music unit or university was cited. Currently, 95% view the NMO as meeting the mission
of the music unit and/or university. The funding source and funding amount for the purchase of music was not certain. Eight (42%) schools did not know how much funding was available. However, when it was known and the conductor was a member of the music faculty (37%) there was significantly more money budgeted for the orchestra than those ensembles conducted by graduate students, though graduate students are more likely to be the conductor (47%). The majority of the orchestras had between $700 and $900 annually to spend on music. The selection of the conductor for the NMO was split closely between the music unit faculty (42%) and the conducting faculty (37%). The head of the music unit chose 21% of NMO conductors.

NMO’s within the BTAA most often (89%) rehearsed in a music unit building on campus. Enrollment was predicated via audition 42% of the time whereas 47% of schools did not require auditions. The NMO’s were comprised of music participants selected via audition (42%) and without audition (47%). Enrolling in the NMO for academic credit was required for slightly more than half of the NMO’s (53%).

The BTAA pilot study also surveyed participants within the NMOs. Seven hundred, thirteen member surveys were completed and returned. From these surveys it was found that most (86%) of NMO participants were between the ages of 18 and 22 and that first year (32%) and second year (22%) students outnumbered other age groups. The balance of the participants was graduate students (9%), faculty or staff members (2%) and non-university participants (3%). Most members were either Engineering or Science majors (65%). The majority (85%) of the members participated in only one non-major
ensemble and had played in orchestras for many years (6-12 years). Two-thirds (67%) of the members had taken five or more years of private lessons.

The NMO participants believed that the ensemble was meeting most (50%) or all (37%) of their musical needs while their social needs were satisfied slightly (44%), mostly (31%), or completely (14%). Most participants valued (50%) or highly valued (43%) their experience in the NMO and over three-fourths (76%) of orchestra members believed other universities should provide an NMO to their students. Most NMO participants (86%) responded probably (46%) or definitely (40%) when asked if they would continue to play in an orchestra after graduation.

Motivation for participants to enroll and perform in the NMO was studied. Participants were asked to rate their level of agreement with 13 provided reasons for participation. The provided reasons included both “good” and “real” motivators as defined by McCrary. The top factors with the highest mean ratings were:

1. Enjoy making music ($M = 4.82, SD = .477$)
2. Enjoy playing my instrument ($M = 4.82, SD = .482$)
3. Like the conductor of my NMO ($M = 4.02, SD = .990$)
4. I want to learn more about music ($M = 3.95, SD = 1.049$)
5. I want to be challenged ($M = 3.84, SD = 1.056$)
6. I need a break from academics ($M = 3.83, SD = 1.166$)
7. I want to be part of a group ($M = 3.74, SD = 1.106$)

Further analysis identified seven trends among the responses:

1. Members who planned to perform their instrument after graduation tended to enroll in an NMO while in college.
2. Members who had taken five or more years of private lessons were more likely to enroll. As the number of years of private lessons decreased, the less likely the members would enroll.

3. First year undergraduates were most likely to enroll. As students continued their university studies after the freshman year, they are less likely to enroll.

4. Members who are the most motivated to play are more likely to recommend other universities provide similar ensemble experiences.

5. The more the participants’ social needs are met the more likely they are to enroll.

6. The more the participants’ musical needs are met the more likely they are to enroll.

7. The more members valued their NMO experience the more likely they are to enroll.

The most significant variable for motivation to enroll in an NMO was how well the ensemble met the social needs of the participant ($p = .044$, social needs only met a little by participating in an NMO, to $p = .001$, social needs mostly met by participating in an NMO).

NMO members were also provided spaces to write in reasons for enrolling beyond the ones provided. Four percent (n=28) of the participants supplied alternate responses. Below are a few of the responses given by participants concerning motivation to enroll in a NMO:

- “It builds credibility for teaching lessons”
- “To hear new music”
- “Keeps me playing”
- “The music is great!”
- “It’s fun!”
• “Socialization and relaxation”
• “I love the oboe”
• “I love playing”
• “The director is my best friend”
• “I had a strong orchestra experience in high school”

Gillespie and Hill found that NMOs were popular among the institutions within the BTAA. The study aligned with Poulter’s study in that participants were more likely to have performed in a non-major ensemble when the member had high school or festival experience. The NMO BTAA study also supported the findings of Buchanan that the ability of participation in a non-major ensemble to meet the social and musical needs of the participant would motivate the member to enroll. The NMO BTAA study furthered the line of research by McCrary that there were both “good” and “real” reasons participants enrolled and continued to perform beyond high school.

The Gillespie and Hill study included suggestions for universities to market the NMO to potential members by focusing recruiting efforts on freshmen and sophomores, students who had taken five or more years of private lessons, students with high school orchestra experience, and Engineering and Science/Technology majors. Finally, it was encouraged to advertise that the NMO experience can fulfill the students’ musical as well as social needs while in college.
Chapter 3  
Research Methods and Design

University music unit-sponsored, non-music major orchestras (NMOs) were found to exist on twelve of the thirteen campuses within the Big 10 Academic Alliance (BTAA) in 2013. The purpose of this study was to extend those findings to include universities across the United States to have a broader view of traditional ensemble performance opportunities for non-major orchestral musicians.

Literature on university music unit-supported non-music major ensembles is sparse. Gillespie and Hill were unable to locate studies focusing on the opportunities for the non-music major orchestral student. Therefore, the methodology for the pilot study is included in this chapter. Furthermore, the method and design of the current study was a direct replication of the pilot study except that respondents were drawn from throughout the country, not just institutions within the BTAA.

Pilot Tests

Gillespie and Hill (2013) initiated a study that served as a pilot for this investigation. The study examined university music unit-sponsored non-music major orchestras (NMOs) within schools of the Big 10 Academic Alliance (BTAA), formerly known as the Committee on Institutional Cooperation (CIC). These institutions included: Indiana University, Michigan State University, Northwestern University, Penn State University, Purdue University, The Ohio State University, and the Universities of
Chicago, Illinois, Iowa, Michigan, Minnesota, Nebraska, and Wisconsin-Madison. Since 2013 other schools have joined the BTAA, however, they were not included in the pilot study.

One purpose of the pilot study was to determine how university music unit-sponsored non-music major orchestras were first established and how they are administrated today. Enrollment trends, factors that motivate students to participate, and staffing were also examined. Survey questions were developed to determine the following descriptive factors: did an NMO exist at the school. If not, what were the perceived barriers to establishing one? If an NMO did exist at the school, what was the type of orchestra (string or full), the rationale and approximate year that the ensemble was started, leadership of the ensemble, administration of the ensemble and, the extent of available funding and its sources. These questions comprised the administrator section of the pilot test survey.

In addition, survey questions were created to examine backgrounds and participants’ motivation for participation in the ensembles. Questions were developed to determine possible trends in enrollment including the variables: age, college major, number of non-music major ensembles in which they participated, the type of instrument on which they perform (woodwind, brass, percussion, strings, keyboard, or world instruments), previous pre-college orchestra experience, and private instruction, if any. Also, rating questions were developed to determine level of agreement among participants on thirteen potential motivational factors for participating in the NMO. Questions also addressed the musical and social value of the NMO experience, plans to
continue to play an instrument after graduation, and if other universities should establish NMO’s.

The website of each BTAA university was examined to determine if 1) community outreach was a part of the institutions’ mission, and 2) if the institution’s music unit offered non-music major participation or instruction. The website examination revealed that community outreach/engagement/service to the community was a large part of the mission statement of each institution. This was expected as most of the universities were land-grant institutions. Below are two examples of university mission statements:

The University of Minnesota, founded in the belief that all people are enriched by understanding is dedicated to the advancement of learning and the search for truth; to the sharing of this knowledge through education for a diverse community; and to the application of this knowledge to benefit the people of the state, the nation, and the world (University of Minnesota Mission Statement, 2013, para.1).

Indiana University’s mission is to provide broad access to undergraduate and graduate education for students throughout Indiana, the United States, and the world, as well as outstanding academic and cultural programs and student services.

Indiana University seeks to create dynamic partnerships with the state and local communities in economic, social, and cultural development and to
offer leadership in creative solutions for 21st century problems” (Indiana University Mission Statement, 2013, para. 2)

Additionally, it was discovered that each music unit within the BTAA mentioned its commitment not only to music majors, but also all in direct contact with the music curriculum. Below are two mission statement examples from two music units within the BTAA:

The School is dedicated to excellence in research, performance, composition, and teacher education, undertaken in a spirit of collaboration among its own constituents, as well as with those of the College of Fine and Applied Arts and the University at large (University of Illinois School of Music Mission Statement, 2013, para. 2).

As an integral part of a major public university with a strong commitment to teaching, research, and service, [The Ohio State University School of Music] recognizes the relationship that binds music to other academic and artistic disciplines....The school is dedicated to sustaining and advancing musical culture in the academy and in the society at large, and it endeavors to meet service obligations to various communities within and beyond the university... In keeping with the university’s broader mission, the school is committed to nurturing the best of Ohio’s students, while maintaining excellence and diversity by recruiting nationally and internationally” (The Ohio State University School of Music Mission Statement, 2016, para. 2)
The university mission statements clearly articulated that a primary purpose of the institutions was to reach beyond the confines of the individual university and include the academic community at large—and in some case the entire state, country, and world. The music units reflect the same mission to reach the entire university as a means of inclusion in the creation and advancement of music. Music units seemed keenly aware that music unit must reach individuals beyond the confines of the music buildings and concert halls. One way to do this is via the non-music major ensemble—specifically for this study, the non-music major orchestra (NMO).

After reviewing universities’ websites, the pilot-test survey instrument was finalized and field tested. Initially, questions to NMO administrators and participants were combined into one survey document. On July 11, 2013, five certified teachers who had enrolled in university-sponsored non-music major ensembles as undergraduates were identified among those attending a workshop at The Ohio State University. They agreed to complete the survey and suggest revisions. They recommended 19 changes, including additional questions, clarification of some existing questions, and to divide the survey into two separate questionnaires, one for administrators of NMOs and one for students enrolled in the ensembles. All changes were made.

On July 18, 2013, one week after the first field test, a second group of six certified teachers representing four states who had enrolled in another string teacher workshop completed the revised survey for participants to serve as a second pilot test. Five of these responders had enrolled in university music-department-sponsored ensembles as undergraduates; one had enrolled as a graduate student. Only participant questions
excerpted and revised from pilot test number one comprised the survey in this second pilot test. Once again, respondents were asked to suggest revisions. Recommendations included only corrections of typographical errors. These corrections were made. The revised participant survey appears as Appendix C.

A third pilot test was administered in the fall of 2013 that included questions only designed for the administrators of NMOs. Questions were excerpted from the first pilot test. This survey was sent to seven music faculty members and/or college orchestra conductors at the following institutions: The Ohio State University, Lawrence University (WI), Capital University (OH), Michigan State University, University of Michigan, Otterbein University (OH), and Penn State University. Selection of these seven people was based on their professional relationship with Professor Gillespie, co-author of the pilot studies prior to the current investigation. They were asked to complete the survey and offer any recommended changes they believed necessary. All seven completed the survey and offered suggestions that included ensuring gender-neutral question formatting, reversing the order of possible ratings from negative to positive, and clarifying the wording of some of the questions. These corrections were made and each member of this third pilot test group commented positively on the potential of the study. It served as the NMO administrator survey in the current study. This revised administrator survey appears as Appendix B.

The finalized administrator survey was sent both electronically and by postal mail to the BTAA music education faculty member or conductor identified with the NMO in
November 2013. SurveyMonkey software was used to administer the survey electronically.

All possible respondents completed the survey for a 100% response rate. Twelve of the thirteen universities surveyed had NMO’s. Contact information of the conductors of the NMO’s at their institution was requested as part of the administrator survey. Then these conductors were contacted via email to determine the number of participants in each NMO. Based on the conductors’ responses participant surveys were postal mailed in early January 2014 to each of the twelve universities with NMOs. Ten of the twelve universities completed and returned the participant surveys. There were 713 participant surveys returned out of 1,022 potential respondents for a response rate of 70%. The response rate was impacted by some universities not allowing students to respond to surveys from other institutions and by limiting responses via electronic surveys only so that class time was not used to complete the survey questions. Results of the BTAA administrator and participant surveys are reported in Chapter 2.

The University Music Unit-Sponsored Non-Music Major Orchestra in the United States

This investigation extended the pilot test of the BTAA schools. This current study included four year, NASM accredited universities and colleges from across the United States, including the BTAA schools already surveyed. There were 644 colleges and universities member institutions of NASM in 2014. According to NASM, these institutions,
…meet Association standards and requirements for music institutions and programs determined as applicable by the Commission on Accreditation, the Commission on Community/Junior College Accreditation, or the Accrediting Commission for Community and Pre-collegiate Arts Schools, and agreeing to abide by the Association’s Code of Ethics, shall be accorded accredited institutional Membership. Institutions eligible to apply are:

- Colleges, conservatories, independent schools, and universities offering baccalaureate degrees, graduate degrees, or both, including any eligible associate, professional non-degree-granting, community, or pre-collegiate programs. These institutions are reviewed by the Commission on Accreditation.

- Conservatories and independent schools offering, at the postsecondary level, only non-degree-granting professional programs, including any eligible community or pre-collegiate programs. These institutions are reviewed by the Commission on Accreditation.

- Community/junior colleges offering associate degrees, including any eligible community or pre-collegiate programs. These institutions are reviewed by the Commission on Community/Junior College Accreditation.
Conservatories and independent schools offering only community or pre-collegiate programs. These institutions are reviewed by the Accrediting Commission for Community and Pre-collegiate Arts Schools” (National Association of Schools of Music, 2016, pg. 5).

To capture a broad representation of universities, it was determined that one-third of the NASM-accredited, four year institutions would serve as the sample. The NASM HEADS report was utilized as the basis from which the sample was collected. The BTAA members that responded to the pilot study were included on this list if they were accredited by NASM. One BTAA university was not accredited by NASM and therefore excluded from this study. The NASM Membership List is alphabetized by the first word in a school’s name. To collect a random sample from the membership list, the researcher numbered each member from one to seven. Every seventh name on the list was then removed from the membership list and placed on the sample list. Once the end of the membership list was reached the remaining schools were then renumbered from one to seven. Again every seventh school was selected from the membership list and placed onto the sample list. This process of numbering the remaining institutions from one to seven and selecting every seventh school was conducted nine times until 216 institutions or one-third of the possible population was collected. These 216 institutions served as the sample for the present study.

Next, the names of the 216 institutions were crossed referenced with the NAfME Regions list (Appendix E). The National Association for Music Education (NAfME) is
divided into six geographical divisions: Eastern, North Central, Northwest, Southern, Southwestern and Western. Each institution in the sample was matched with its NAfME division. For example, The Ohio State University is in the North Central division; the University of Texas, Austin is in the Southwestern division. The sample of 216 universities was found to represent the NAfME Regions list as equally as possible with the understanding that some regions of the United States have more universities than others. The following table shows the representation of the 216 selected sample’s NAfME regions.

**Table 3.1**  
*Distribution of sample institutions within NAfME region*

<table>
<thead>
<tr>
<th>NAfME Division</th>
<th>Number of Institutions in Sample</th>
<th>Percentage of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>32</td>
<td>16%</td>
</tr>
<tr>
<td>North Central</td>
<td>61</td>
<td>28%</td>
</tr>
<tr>
<td>Northwestern</td>
<td>13</td>
<td>6%</td>
</tr>
<tr>
<td>Southern</td>
<td>59</td>
<td>27%</td>
</tr>
<tr>
<td>Southwestern</td>
<td>35</td>
<td>16%</td>
</tr>
<tr>
<td>Western</td>
<td>16</td>
<td>7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>216</td>
<td>100%</td>
</tr>
</tbody>
</table>

Reviewing the university music units’ websites identified the postal mailing address of each of the 216 institutions and one administrator. Selecting the recipient of the administrator survey began with searching each school’s website for any orchestra, either music major or NMO. The conductor’s bio or credentials then was studied.

The most desired potential administrator was the NMO or music major orchestra conductor. Surveys were sent to those conductors that had a background in either music
education or held a doctorate. If the conductor was not found, the second most desired administrator was the music education and applied string faculty. These individuals’ biographies were reviewed to find a person with either a background in orchestral conducting, high school orchestra directing, or string education. Continuing, if someone from the second tier of potential administrators was not found, the third most desirable administrator was the university’s Dean or Director of the School of Music and/or the Music Unit Chair.

Administrator surveys were sent via postal mail. A letter was included requesting participation and the link to the SurveyMonkey electronic form of the survey form was supplied. A copy of the letter appears as Appendix E. The electronic version of the survey was an exact replica of the paper form. This feature provided administrators a second option for completion in hopes of increasing the response rate. The deadline for completing the administrator survey was two weeks after the postal mail date. Following that date, two follow-up emails were sent to administrators to again request participation in the study. A total of 84 follow-up emails were sent two weeks and three days after the paper surveys were mailed. The text of the emails appears as Appendix H.

Eighty-nine colleges/universities responded to the national survey for a response rate of 41%, including eight of the BTAA institutions. Of the 89 colleges/universities, 57 (63%) NMO’s were identified. Within the administrator survey, contact information of the conductor of the NMOs was requested. Each NMO conductor was contacted via email and asked to provide the number of participants within his/her NMO so that paper copies of the participant survey could be mailed. Additionally, the participant survey was
recreated on SurveyMonkey in hopes of increasing the participant response rate. Two hundred sixty paper (n=260) surveys were mailed based on the requests of the NMO conductors. Conductors were asked to return completed participant surveys no later than two weeks after the postal mail date. A reminder email was sent to the 34 nonresponsive administrators two weeks and three days after the due date. Of the 57 identified NMO’s, representatives from 17 NMO’s completed the administrator survey for a response rate of 30%. Of the potential 260 additional participants, 103 surveys were returned for a 40% response rate.

The data from the BTAA institutions that were selected via the NASM accreditation list process for the national study and their NMO participant data was included as part of the total 89 sample institutions. This allowed one-third of the NASM accredited music unit population the BTAA institutions to be included in the selection process. To exclude the BTAA institutions would have negatively skewed the data by potentially not including large, land-grant universities. However, two BTAA pilot study institutions were not included; one was not accredited by NASM and one was not randomly selected. The data from these two non-selected universities were excluded from this study.
Chapter 4

Results

Music units within four-year universities must provide performance opportunities for the non-music major as stipulated in NASM’s Guidelines Concerning Music in General Education (2016). Non-music major orchestras (NMOs) were found to be prevalent among the members of the Big 10 Academic Alliance (BTAA) in 2014. The purpose of this study was to determine if NMOs were common on university campuses across the country, their background and administration, and the experiences of those enrolled in them. Five primary research questions guided the investigation. The questions were designed to provide information for establishing NMOs at universities that do not have them. The questions are listed below:

1. Do collegiate music units offer non-music major orchestras?
2. What resources are needed for institutions to create a non-music major orchestra?
3. What are some of the common challenges that may prevent a music unit from creating an NMO?
4. What motivates students to participate in non-music major orchestras?
5. Do members of NMOs plan to participate in an ensemble following graduation?
It was necessary to determine the profile of the responding universities from the sample of 216 universities randomly selected from the 2014 list of NASM Accredited Institutions. Each university’s website was investigated to determine who the appropriate contact person would be to complete an administrator survey. Professors who had direct contact with the NMO or who potentially supervised individuals who directed the NMO were asked to participate in the administrator survey. Eighty-nine colleges and universities from the sample (N=216) selected from the NASM roster of accredited four-year institutions responded for a 41% response rate. Forty-seven percent (47%) of the administrator respondents conducted a university NMO.

Additionally, NMO participant background data was gathered to understand the primary clients of the ensemble. The 57 NMO conductors identified in the administrator survey were asked to provide the number of students enrolled in the ensemble and to allow the students to take a short survey for the purposes of this study. Seven conductors agreed to have their NMO participants surveyed. The responding institutions had smaller student populations than the members of the BTAA. These seven universities also differed from the BTAA in that they were located on both the east and west coasts of the United States rather than located primarily in the North Central division of NAfME. Responses from these seven administrators were added to the ten administrators who responded in the pilot study for a total of 17 responses from the potential 57 identified NMOs for a response rate of 30%.

Based upon the responses of the NMO conductors regarding the number of paper copies needed for each member of their ensembles to complete, 260 participant surveys
were mailed to three NMO conductors. The other four responding conductors requested their students to respond on-line via a SurveyMonkey website created for the study. The participant survey instrument was the same used in the BTAA pilot study. One hundred and three (39%) NMO participants responded. This new data was combined with 603 participants from the previous pilot study for a total of 708 respondents. The responses from two of the universities within the BTAA pilot study were removed because those schools were not accredited by NASM as required to participate in the study.

The majority (89%) of administrator responses came from the national study; the majority (85%) of the participant responses came from the pilot BTAA study. The participant response rate was much higher for the BTAA pilot study. Therefore, when studying the results of the national study it is important to understand that the NMO participants came mostly from major research institutions at large land-grant universities within the BTAA.

Eighty-nine percent (n=633) of NMO participants attended publicly funded universities/colleges and 11% (n=75) attended private institutions. Sixty-one percent (n=428) performed in a Symphony NMO, 36% (n=257) performed in a String Orchestra NMO, 8% (n=53) performed in a String Quartet NMO, and 2% (n=16) performed in a non-string NMO ensemble. Ninety-seven percent (n=610) of the participants were ages 18-22 with the slight majority of 45% ages 18-19. Eighty-six percent of the participants were undergraduates (n=609): 32% were first year undergraduates, 24% second year undergraduates, 15% third year, and 13% fourth year, and 1% fifth year. Graduate
students comprised 8% of responders and 6% of members were faculty/staff/non-degree-seeking students/community members.

Participants provided information about their future career plans in-part by indicating their college major. These majors were divided into six categories: Fine and Performing Arts, Business, Engineering, Human Services, Education/Liberal Arts, Technology/Science. See Appendix D for a list of college majors and the six categories. Seven hundred and five participants responded. Thirty-nine percent (n=272) of participants identified their major within the Technology/Science general area, 15% of participants were studying Engineering, 9% were Fine Arts general area majors, Business, Education/Liberal Arts and Human Services students equaled 8% each. Undecided majors were found to be 7% of the population. Four percent of participants were non-degree seeking students, and 2% were faculty/staff member/alumni.

Participants were asked about their current and past performance experience. Eighty-five percent of NMO participants performed in only one ensemble (n=604) during the year of the survey. Eighty-percent were string players, 19% were woodwind, brass, and percussionists, and 1% performed on keyboards. Sixty-five percent of participants had taken five or more years of private lessons on their primary instrument. Including the year of the survey, 676 participants answered how many years of school orchestra experience each had. Forty-one percent of participants (n=280) had 9-12 years of school orchestra experience, 32% had 5-8 years, 17% had 1-4 years, and 15% had more than 12 years. Similarly, participants were surveyed about their non-orchestral ensemble performance experience. Three hundred thirteen responses were collected. Thirty-four
percent (n=106) had 5-8 years of non-orchestral ensemble experience, 29% had 1-4 years, 29% had 9-12 years, and 13% of participants had more than 12 years.

**Research Question #1: Do collegiate music units offer non-music major orchestras?**

Fifty-seven NMOs were identified. Sixteen percent of the responding institutions (n=14) had two NMOs. Of the 57 NMOs, 60% (n=34) were full orchestras and 40% (n=23) were string orchestras. Non-music major orchestras were found on college campuses of various sizes. Fifty-one percent (51%) of college/university campuses with NMOs had less than 10,001 students enrolled. Pearson’s Correlation analysis revealed only a small effect between an institution’s total student enrollment and the presence of an NMO. Both private and publicly funded institutions maintained NMOs.

**Table 4.1**

<table>
<thead>
<tr>
<th>NMO university total student enrollment</th>
<th>Number of NMOs</th>
<th>Percent of all NMOs</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Student Enrollment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500-1,500</td>
<td>11</td>
<td>12.4</td>
<td>12.4</td>
</tr>
<tr>
<td>1,501-2,500</td>
<td>6</td>
<td>6.7</td>
<td>19.1</td>
</tr>
<tr>
<td>2,501-3,500</td>
<td>5</td>
<td>5.6</td>
<td>24.7</td>
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<tr>
<td>3,501-5,000</td>
<td>10</td>
<td>11.2</td>
<td>36.0</td>
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<tr>
<td>5,001-7,000</td>
<td>7</td>
<td>7.9</td>
<td>43.8</td>
</tr>
<tr>
<td>7,001-10,000</td>
<td>6</td>
<td>6.7</td>
<td>50.6</td>
</tr>
<tr>
<td>10,001-15,000</td>
<td>12</td>
<td>13.5</td>
<td>64.0</td>
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<tr>
<td>15,001-20,000</td>
<td>4</td>
<td>4.5</td>
<td>68.5</td>
</tr>
<tr>
<td>20,001-25,000</td>
<td>7</td>
<td>7.9</td>
<td>76.4</td>
</tr>
<tr>
<td>25,001-30,000</td>
<td>6</td>
<td>6.7</td>
<td>83.1</td>
</tr>
<tr>
<td>30,001-35,000</td>
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<td>2.2</td>
<td>85.4</td>
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<td>35,001-40,000</td>
<td>2</td>
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<td>87.6</td>
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<tr>
<td>40,001-45,000</td>
<td>6</td>
<td>6.7</td>
<td>94.4</td>
</tr>
</tbody>
</table>

*Continued*
Table 4.1, *Continued*

<table>
<thead>
<tr>
<th>Total Student Enrollment</th>
<th>Number of NMOs</th>
<th>Percent of all NMOs</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>45,000+</td>
<td>5</td>
<td>5.6</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>89</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.2  
*Correlation between total student enrollment and presence of NMO*

<table>
<thead>
<tr>
<th>Total Student Enrollment</th>
<th>Total Enrollment</th>
<th>Has NMO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pearson Correlation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Has NMO</td>
<td>Pearson Correlation</td>
<td>-.270*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.010</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>89</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).

Table 4.2 describes the negative relationship between university size and the presence of an NMO. This result indicates that the presence of an NMO was not predicated by the size of the university. In fact, this table indicates that smaller universities are more likely to have NMOs. This contradicts what some administrators reported as a reason not to have an NMO: a small university population.

Tables 4.3 and 4.4 illustrate the number of NMOs found on private and public university campuses and the size of the music unit. Twenty-four private universities that had NMOs had fewer than 101 music majors and 14 public universities had 100 or less.
Table 4.3
Music major enrollment as outlined by NASM at private universities with NMOs

<table>
<thead>
<tr>
<th>Number of Music Majors</th>
<th>Number of NMOs</th>
<th>Percent of all NMOs</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-50</td>
<td>12</td>
<td>13.5</td>
<td>13.5</td>
</tr>
<tr>
<td>51-100</td>
<td>12</td>
<td>13.5</td>
<td>27.0</td>
</tr>
<tr>
<td>101-200</td>
<td>6</td>
<td>6.7</td>
<td>33.7</td>
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<tr>
<td>201+</td>
<td>4</td>
<td>4.5</td>
<td>38.2</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>38.2</td>
<td>38.2</td>
</tr>
</tbody>
</table>

Table 4.4
Music major enrollment as outlined by NASM at public universities with NMOs

<table>
<thead>
<tr>
<th>Number of Music Majors</th>
<th>Number of NMOs</th>
<th>Percent of all NMOs</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-100</td>
<td>14</td>
<td>15.7</td>
<td>15.7</td>
</tr>
<tr>
<td>101-200</td>
<td>10</td>
<td>11.2</td>
<td>26.9</td>
</tr>
<tr>
<td>201-400</td>
<td>15</td>
<td>16.9</td>
<td>43.8</td>
</tr>
<tr>
<td>401+</td>
<td>16</td>
<td>18.0</td>
<td>61.8</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>61.8</td>
<td>61.8</td>
</tr>
</tbody>
</table>

Description of NMOs

Sixty percent (n=34) of the NMOs were full orchestras while 40% (n=23) were string orchestras. Thirty-seven percent (n=21) of NMO’s were established after the year 2000, 24 (42%) were established between the years 1951-2000, and two NMO’s were founded before 1900. Faculty members most often (82.5%) proposed the establishment of an NMO. Seventy-five percent (75%) of respondents indicated the original purpose of the NMO was at least in part to fulfill the mission of the music unit. Forty-eight percent (48%) indicated the music unit’s mission was the only guiding principle. Thirteen percent of NMOs’ were established to fulfill the university’s mission, while 21% (n=12)
administrators did not know the original purpose. Forty (77%) universities maintain the NMO either in total or part of the music unit’s current mission. Ten administrators (11%) indicated the NMO was maintained in part to provide an opportunity for music majors to play their primary instrument, nine respondents (17%) indicated the NMO’s were maintained at least in part to meet the mission of the university, and five (9%) did not know the current purpose of the ensemble.

Research Question #2: What resources are needed for institutions to create a non-music major orchestra?

Rehearsal Space and Conductor

Of the fifty-seven NMOs included in the study, 90% rehearsed in a music building on campus. Sixty-eight percent of NMOs had a faculty member as the primary conductor. Graduate conducting students were the most common non-faculty member conductor (16%). Selecting the primary conductor was found to be either the responsibility of the head of the music unit (49%) or the music unit faculty (49%). One administrator did not know how the conductor was selected.

Funding

Thirty-two NMO’s (36%) were funded by the music unit’s general funds, 14 (16%) were funded by departments within the unit such as music education, conducting or performance. Seven (7%) were funded by entities outside of the unit. Six administrators did not know the funding source. Forty-four percent (n=25) of the NMO’s received $800+ per academic year for the purchase of music. Five NMO’s were given $601-800, six were provided $401-600, four were granted $201-400, and six were
budgeted at $200 or less. Nineteen percent of administrators did not know how much money was available for music purchase. Eighty-four percent (n=48) of the 57 NMOs did not require additional student fees. If student fees were collected the money was allocated towards an end of term banquet, instrument repair, student helpers, and to pay a stipend for professionals or more advanced musicians that performed with the ensemble.

Other Resources Needed

Other resources investigated beyond financial, physical space, and conductor included the academic level of the student members, procedures for member selection (audition or non-audition), and availability of academic credit. It was found that membership of an NMO was open to undergraduates, graduate students, or both. Fifty-six percent (n=32) allowed undergraduates only, 17% (n=10) enrolled graduate students only, while the remaining 21% (n=12) were comprised of both. Fifty-four percent of NMOs surveyed allowed non-student participants, 39% did not allow non-students, and 7% did not know if non-students were allowed to participate. Forty-nine percent (n=28) of NMOs did not require an audition for membership, 46% (n=26) required an audition. Three administrators did not know if an audition was required. Registering for academic credit was required for participation in 68% (n=36) of the NMOs. Students could receive academic credit at 93% of the universities sponsoring NMOs within this study. Four administrators did not know about academic credit availability.

Research Question #3: What are some of the common challenges that may prevent a music unit from creating an NMO?
In addition to the data collected about the 57 NMOs, 48 administrators identified perceived barriers to establishing an NMO on his/her campus by selecting the options from the survey instrument. The most common barriers identified were: 1) lack of student interest, 2) lack of faculty interest, 3) lack of rehearsal space, and 4) lack of faculty to conduct and oversee the ensemble. Nineteen percent (n=17) selected lack of student interest. Eleven percent (n=10) of administrators indicated lack of faculty interest, 8% (n=7) chose lack of available rehearsal space, and 3% (n=3) did not have conducting faculty available to lead an NMO. A lack of funding for music was not reported as a barrier to establishing an NMO.

In addition, twenty-four percent (n=22) of administrators used open-ended responses to explain why their universities or music units did not offer an NMO. For example, seven administrators (14%) responded that there was only one orchestra on campus and that non-major and music majors have equal opportunity to perform in it, therefore there was not a need to provide an NMO. All of the administrators were from public universities. Specific comments included:

- “We have many non-majors in the same orchestra our majors are in.”
- “We have one orchestra in the Conservatory of Music that is 80-85% majors, 15-20% non-majors.”
- “We have only one orchestra, but non-majors may play in it.”
- “We have one orchestra that is required for string majors and opened for non-majors.”
• “We only have 1 orchestra, and we don’t have enough majors to fill our orchestra. Non-majors play in our only orchestra alongside majors.”
• “We combine NM and Music Majors.”
• “Majors and non-majors have the opportunity to perform in [the] same group.”

Three administrators from public universities indicated that the non-music major performance opportunity was not a priority at their institution:
• “The orchestra’s primary purpose is to provide the orchestral experience FOR MAJORS.”
• “Its mission is not to serve non-major only.”
• “We focus on the music majors.”

Two administrators stated that providing an NMO at their public university would either conflict with orchestras outside of the university setting. Comments included:
• “Creating such an orchestra would conflict with various community ensemble practices.”
• “Huge metro area-plenty of other ‘NMOs’ around us.”

Five private college administrators revealed that their university either did not have an orchestra at all or did not have a non-major ensemble of any kind:
• “For us, mostly we don’t have enough string players at our campus our college is traditionally strong in choral areas, and less so for strings.”
• “[name omitted] has no strings program, and does not have an orchestra of any kind. When the choirs do a major work, we hire a professional orchestra.”
• “We do not have a non-music major orchestra in that we are a small private college and do not have the numbers of non-majors to constitute an orchestra. We do have a campus band that is largely non-majors.”

• “Our school does not offer a non-major ensemble of any kind.”

• “…our program has a focus on contemporary music, and we don’t host a traditional orchestra.”

One public university administrator shared that there was a plan in place to establish an NMO:

• “We will have a new faculty member in the fall with responsibility for developing a NMO, also including younger music majors. We had one several years ago, but a change in ensemble curriculum eliminated it.”

Research Question #4: What motivates students to participate in non-music major orchestras?

Members of the NMOs were asked to rate their level of agreement with 13 statements on the participant survey about their motivation for enrolling in an NMO. A Likert rating scale was created for respondents to indicate their level of agreement, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). These statements and the level of agreement scores are listed in Table 4.5. Statements have been ranked in order of agreement from strongest to weakest.
Table 4.5
Provided motivation statements and level of agreement scores

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoy making music with others</td>
<td>706</td>
<td>4.84</td>
<td>.461</td>
<td>1</td>
</tr>
<tr>
<td>I enjoy playing my instrument</td>
<td>705</td>
<td>4.82</td>
<td>.491</td>
<td>2</td>
</tr>
<tr>
<td>I like the director of the ensemble</td>
<td>704</td>
<td>4.03</td>
<td>.993</td>
<td>3</td>
</tr>
<tr>
<td>I want to learn more about music</td>
<td>704</td>
<td>3.88</td>
<td>1.042</td>
<td>4</td>
</tr>
<tr>
<td>I want to be challenged</td>
<td>704</td>
<td>3.88</td>
<td>1.042</td>
<td>5</td>
</tr>
<tr>
<td>I was to be a part of a group on campus</td>
<td>702</td>
<td>3.75</td>
<td>1.118</td>
<td>6</td>
</tr>
<tr>
<td>I need a break from academics</td>
<td>702</td>
<td>3.63</td>
<td>1.293</td>
<td>7</td>
</tr>
<tr>
<td>I want to travel with a group from school</td>
<td>698</td>
<td>2.65</td>
<td>1.317</td>
<td>8</td>
</tr>
<tr>
<td>I want an easy grade</td>
<td>696</td>
<td>2.50</td>
<td>1.485</td>
<td>9</td>
</tr>
<tr>
<td>I want experience on a secondary instrument</td>
<td>693</td>
<td>2.20</td>
<td>1.326</td>
<td>10</td>
</tr>
<tr>
<td>I am obligated to family or a friend</td>
<td>700</td>
<td>2.10</td>
<td>1.659</td>
<td>11</td>
</tr>
<tr>
<td>I am obligated to a past music teacher</td>
<td>634</td>
<td>2.01</td>
<td>1.208</td>
<td>12</td>
</tr>
<tr>
<td>I need an arts credit</td>
<td>699</td>
<td>1.77</td>
<td>1.200</td>
<td>13</td>
</tr>
</tbody>
</table>
Space was provided for participants to record additional reasons for joining their NMO. Fifty-one open-ended responses were received and fell within the following four categories. Each category is listed and sample responses are given for each:

1) Having a physical or emotional response to playing their instrument or being in an orchestra
   - “Playing is a great stress relief”
   - “I feel a spiritual connection to classical music”
   - “A feeling of nostalgia-I associate it with my childhood because I started at a younger age”

2) Maintaining or sharpening technical skills
   - “To advance more on the violin”
   - “I don’t want to lose my orchestra skills”
   - “I used to be a music major but I switched. Participating is a great way to keep familiar with my instrument”

3) The NMO provides the structure to achieve future goals
   - “Hope to minor in music”
   - “I wanted to continue to play in college but in a less formal setting”
   - “My personal goal was to keep up with my instrument thru college”

4) Social interaction
   - “Meet new people”
   - “To take a class with my friends”
   - “I love interacting with musicians”
Positive Motivation Statement Analysis

On the survey, eight of the 13 statements concerning motivation were positively stated: 1) “I enjoy making music with others,” 2) “I enjoy playing my instrument, 3)“I want to be part of a group on campus,” 4)“I like the conductor,” 5)“I want to be challenged,” 6)“I want to learn more about music,” 7)“I want to travel with a group from school,” 8)“I want experience on a secondary instrument.” These eight statements were combined into one variable for the purpose of analysis. This variable was titled, Positive-to-Orchestra.

Figure 4.1
The distribution of the Positive-to-Orchestra variable

Different variables then were compared to the independent variable Positive-to-Orchestra. Analysis of Variance was run and the results revealed statistically significant
findings at the .01 level ($p=.000$), revealing seven findings. A Pearson’s $r$ was calculated to determine the strength of the relationships between the variables to provide a more detailed analysis. Analysis revealed the following seven findings among participants and their motivation to enroll in NMOs:

1. A significant positive correlation between participants’ likelihood to play his/her instruments after graduation and the positive motivations for joining the NMO was found.

Table 4.6
*Correlation between positive to orchestra and likelihood to play after graduation*

<table>
<thead>
<tr>
<th></th>
<th>Positive to Orchestra</th>
<th>Likelihood to Play After Graduating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive-to-Orchestra</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.248**</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>586</td>
</tr>
<tr>
<td>Likelihood to Play After</td>
<td>Pearson Correlation</td>
<td>.248**</td>
</tr>
<tr>
<td>Graduating</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>581</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

2. A correlation between participants enrolling in the NMO for positive reasons and the likelihood of recommending other universities establish NMOs was weak $R^2 = (.224)^2 = 5\%$. However, it was significant at the 0.01 level.

3. A relationship between how well the NMO met the social needs of the participant and how likely it was for the participants to play their instrument after graduation in orchestras such as community orchestra or church orchestra. The relationship was weak $R^2 = (.172)^2 = 3\%$, but it was significant at the .01 level. However,
there was not a significant relationship between how well the NMO met the musical needs of the participant and how likely it was for the participant to play his/her instrument after graduation.

4. A moderate relationship existed between how well the NMO met the participant’s musical needs and the likelihood that the participant would recommend other universities establish NMOs $R^2 = (.356)^2 = 12.7\%$.

5. A weaker, though significant at the .01 level, relationship existed between how well the NMO met the social needs of the participant and how likely the participant would recommend other universities establish NMOs $R^2 = (.222)^2 = 4.9\%$.

6. A moderate relationship was found between how valuable the participant viewed the NMO experience and his/her likelihood to recommend other universities establish NMOs $R^2 = (.426)^2 = 18.1\%$.

7. A weak, but significant at the .01 level, relationship was found between how valuable the participant viewed the NMO experience and his/her likelihood to play in an orchestra after graduation $R^2 = (.219)^2 = 5\%$.

**Research Question #5: Do members of NMOs plan to participate in an ensemble following graduation?**

Participants were asked if they planned to play their instruments in an orchestra following graduation by recording their level of agreement with the statement: “How likely is it that you will play your instrument in an orchestra after graduation, e.g.
community orchestra, church orchestra?” A Likert rating scale was provided for respondents to record their opinion, ranging from 1 (Definitely Not) to 4 (Definitely). Analysis of responses revealed a mean score of 3.29 out of 4 indicating that the majority of responders planned on playing their instruments following graduation.
Chapter 5

Discussion

Restatement of Purpose

Since 1989 the National Association of Schools of Music’s Guidelines Concerning Music in General Education Mandate asserts that universities are to provide varied performance opportunities for the non-music major. The National Association for Music Education’s Tanglewood Symposium Report of 1967 states that music educators should provide opportunities for individuals to study and perform in a comprehensive music program to help each individual find means of self-realization. The primary purpose of the study was to determine if university music unit-sponsored, non-music major orchestras (NMOs) existed on college campuses across the country. If so, how were these orchestras established, supported, and funded by the music unit?

A secondary purpose of the study was to determine the demographics of the participants in an NMO and to begin to understand their motivation for enrollment in the ensemble. Data was collected using two methods: university unit website investigation and surveyed responses that consisted of both level of agreement and open-ended questions. NMO administrators or music unit faculty members (in the case of schools without NMOs) and NMO participants completed these survey instruments. The data was examined to determine commonalities and differences between NMOs and their participants from across the United States.
A survey of the literature revealed little research on collegiate orchestras and non-music major ensembles. Despite non-major orchestras existing in the United States prior to 1900, no literature prior to the pilot study of this investigation was found focusing on non-music major orchestras or non-music major orchestra participants. This chapter will summarize the finding of the present study and discuss the data and its implications for NMO establishment and management. Limitations of the study and a list of suggestions for future research close the chapter.

**Brief Summary of the Findings**

Non-music major orchestras were found in 41% of the institutions surveyed. Analysis revealed that university student body size was not a barrier to the establishment of NMOs. Colleges with less than 1500 students comprised over 12% of the NMOs reported. Both private and public institutions maintained NMOs. The majority of NMOs were established in the last 65 years; however, NMOs did exist in the country prior to 1900.

**Research Question 1: Do collegiate music units offer non-music major orchestras?**

NMOs were found to exist on college campuses of various sizes across the United States. Total student enrollment was found not to be a factor for the establishment of an NMO. Universities with smaller student populations were more likely to have NMOs than larger schools. The mission of the music unit was most often cited as the only purpose for establishing an NMO. NMOs continue primarily satisfy the music units’ mission statements, though 28% schools use the NMO to provide opportunities for music
majors to perform on their primary instrument or to fulfill the university mission in part. Still other administrators were unaware of why the NMO was sustained within the course catalogue. Surprisingly, almost a quarter of the responding administrators did not know why the NMO at their school had been established in the first place.

**Research Question 2: What resources are needed for institutions to create a non-music major orchestra?**

Nearly half of the found NMO administrators reported that the source of funding for music purchase was the music unit. Only 7% of NMOs were funded by outside entities. Over half of the NMOs received $600+ per academic year to purchase music, though nearly a quarter of the NMO administrators were unaware of the budget for the orchestra. The majority of NMOs did not charge students a course fee for participation.

NMOs commonly rehearsed on-campus within a music unit building led by a member of the music unit faculty. When a non-faculty member was not the conductor of an NMO a graduate student majoring in either conducting or music education was most often the leader. The responsibility for selecting the NMO conductor was the head of the music unit or the music faculty collaboratively.

Membership in the NMOs was found to be available for both undergraduate and graduate students, though a slight majority (56%) of NMOs allowed only undergraduates. More than half of the NMOs included non-student participants, though 39% did not allow non-student members. Nearly half of the NMOs did not require an audition for membership. Nearly all (93%) of NMOs offered academic credit to participants and registration for the course was required for more than two-thirds (68%) of the orchestras.
Research Question 3: What are some of the common challenges that may prevent a music unit from creating an NMO?

If a university did not have an NMO then either a music unit faculty member, area head, or administrative assistant from the music unit provided reasons why. Respondents were asked to either select reasons from a list provided or provide their own. Ten administrators indicated a lack of faculty interest. Seven administrators reported there was one orchestra on campus and if non-music majors wished to perform, they could audition to participate in it. Three administrators expressed their school’s view that the non-music major was not a priority. Five respondents said that their universities, though accredited by NASM, did not offer any orchestra.

Research Question 4: What motivates students to participate in non-music major orchestras?

NMO participants had played their instrument for years. Eighty percent of NMO participants were string players. Sixty-five percent (65%) had taken private lessons for five or more years and 73% had spent at least five years in orchestras prior to college.

NMO participants reported their level of agreement with 13 statements describing why he/she enrolled in the ensemble. NMO participants most strongly agreed with the statements: “I enjoy making music with others”, “I enjoy playing my instrument”, “I like the director of the ensemble”, and “I want to learn more about music”. These statements agreed with the “good” reasons in McCrary’s study, such as wanting as aesthetic experience or expressing emotion in a positive manner (McCrary, 2001).
Participants were asked to further explain their motivation if the provided statements did not reflect their opinions. Many students expressed their emotional or physical response to an instrument in orchestra while others often reported using the NMO as a means for social interactions. These statements aligned with some of the “real” reasons as described by McCrary, such as a desire for social interaction with people of similar interests (McCrary, 2001).

How well the NMO satisfied the participants’ musical and social needs was also measured. Musical needs were slightly more satisfied than participants’ social needs. When asked how valuable the NMO experience was the majority of respondents reported it to be valuable or highly valuable. Furthermore, members indicated they would recommend other universities establish an NMO on campus.

**Research Question #5: Do members of NMOs plan to participate in an ensemble following graduation?**

NMO participants were asked if they intend to participate in orchestras in their community after college graduation. A Likert-type scale was used with 1 labelled as “Definitely Not” to 4 “Definitely”. Results indicated that NMO participants resoundingly plan to perform in community, church, or other orchestras (3.92 out of 4) after graduation. It was also found that there was a relationship between how well the ensemble met the participants’ social needs and their intention of performing in ensembles after graduation. This information provides important indicators that the NMO may serve as a bridge between high school and adult ensemble participation.
Discussion

The results of the current investigation supported those of the pilot study: There were NMOs at public and private universities and at both large and small institutions. These ensembles were being led by professional musicians, supported by university music units, satisfying-in part the mission of the music unit and/or university. Additionally, the orchestras were providing opportunities for personal expression and socialization for non-music majors. However, in contrast to previous research (Bakkegard, 1954) community members were not frequently members of NMOs.

Comments from music faculty members of schools without NMOs revealed that there were other community orchestras in the surrounding geographic areas. Perhaps individuals not associated with the university participate in these community orchestras. More research is needed to determine if this is the case. The point that the majority of NMOs required enrollment supports Goodman’s research (1962): He found college credit was granted to non-music majors who participated though it was unclear if registering for the NMO was required. Deurksen’s (1940) investigation of the status and profile of collegiate orchestras, found that the members of collegiate orchestras at the time were pursuing various degree programs, not just music.

Goodman (1962) found, as did the present study, that NMOs were inexpensive to operate. The current study also found that the majority of the NMO conductors were faculty members. It is unknown whether the conducting ensemble is used to complete a professor’s teaching load or if it is in addition to an already full-time position. Future research needs to address this component of NMOs.
This study supports findings by McCrary (2001) and Poulter (1997), though from the perspective of the non-music major orchestras rather than non-music major choirs. Poulter found that non-music majors participating in non-major choirs were motivated by the desire to improve self-esteem or their musicianship. This aligned with McCrary’s more in-depth discussion of the “good” reasons non-music majors enroll in non-major ensembles. By providing opportunities for the NMO participant to express in open-ended responses, more of the “real” reasons for enrollment in the orchestra surfaced, such as relaxation, wanting to be with friends, stress relief, and fun. Several participants merely reiterated the provided “real” reasons as described by McCrary (2001) and Fredrickson (1994), including needing a break from academics or liking the director of the ensemble. Other participants reported wanting an opportunity to maintain or improve their skills as a means of continuing their years already dedicated time to the art form. In fact, some participants expressed feelings of potential guilt if they did not continue to play; if this happened they feared their previous experience would have been a waste of time. Additional research into the motivations of non-music major participation in both major and non-major orchestras is needed.

Data Revealed by Administrators

NMOs were first established before 1900, though the exact date is unknown. The majority of NMOs in this study were created after 1951. Some faculty respondents felt that their universities were too small to support more than one orchestra. Data from the present study found this not to be an issue —12% of the sample with NMOs had student bodies of less than 1500 Perhaps a future study of successful recruitment strategies for
non-major orchestras would assist other universities in their creation of an NMO, regardless of the size of the institution.

The purpose for establishing an NMO was most often reflected in the music unit/and or university mission statement. Interestingly, there were some faculty members who did not know why their orchestra was established. Perhaps a unit should review the purposes of each class and/or ensemble to ensure that what is being offered is congruent with their academic accrediting association. This may even strengthen their accreditation standing when reviewed.

The vast majority of NMOs rehearse on campus in one of the music buildings. It was suggested by seven administrators that the lack of rehearsal space was a barrier to establishing an NMO their campuses. Scheduling ensemble rehearsal spaces is challenging for any music unit. It may be that the universities without available rehearsal space are lacking other non-major ensembles as well. If so, the schools are not meeting NASM guidelines to provide music participation activities for all institution students.

An investigation of who is responsible for selecting the conductor for NMOs was also a line of research in both the pilot and current study. Surprisingly, the selection process was equally split between the music faculty and the head of the school of music/music unit chair. However, it is clear from the studies that when the music faculty selects the conductor, the position is filled by either a graduate student or a faculty member with a passion for either conducting or teaching non-majors. In future studies questions further defining the conductor’s position are necessary.
Results also revealed surprisingly that funding for the purchase of music for the NMO was larger when the conductor was a faculty member compared to an NMO when conducted by a graduate student. Of course the cost of music does not change depending upon who is conducting it. Therefore, research is needed to determine why NMO music budgets are larger when conducted by regular music-unit faculty.

Perceived barriers to establishing NMOs was also a new line of inquiry established by the pilot and the present study. Unlike motivation factors for non-majors, perceived barriers have not been investigated for band or choral ensembles. Current study data revealed two principal barriers for establishing NMOs. First, it was reported that a music major orchestra was sufficient for a school. However, this may or may not be true based upon the instrument the non-music major plays. A full symphonic orchestra (if one exists on campus) has a limited number of available positions for woodwind, brass, and percussion players due to the musical needs to balance a string section. Additionally, if the university maintains only one orchestra and membership to that orchestra is by audition only, it is likely that the music major will win the position over the non-music major. This competitive process is exclusionary to non-music majors as music majors train to achieve mastery of their instrument as part of their degree. The non-music major may not have the training to develop in the same way as music majors and would likely not have an opportunity to continue to perform in an ensemble. In contrast, an NMO with open membership includes performers that may lack the high level of proficiency of the music major but who have a desire to continue to perform.
The second reported barrier to establishing an NMO was identified by three music faculty members from public institutions who wrote pointed messages about the importance of focusing only on the needs of music majors. One faculty member included that his/her music unit’s mission was to serve only music majors. Is this a common attitude among music faculty? Are faculty members aware of the NASM and NAfME guidelines? Is there a value on providing for the music needs of non-music majors? If not, future research needs to identify why and then determine effective means of alerting faculty to the NASM and NAfME guidelines that specify so.

**Participant Data**

Fifty-seven NMO conductor’s contact information was provided via administrator surveys. Each conductor was asked to distribute the NMO Participant survey to orchestra members. Seven non-BTAA conductors agreed and responses from those seven orchestras were combined with the nine conductors from the pilot study for a 28% (n=16) response rates. Two hundred and sixty survey copies were requested by three NMO conductors. The other four NMO conductors encouraged their NMO participants to complete the survey on line via SurveyMonkey. A total of 103 NMO participant surveys were submitted to the researcher either via mail or internet SurveyMonkey webpage. These 103 surveys were combined with 605 BTAA participant responses from the pilot study for a total of 708 respondents. The administrator and participant response rate was significantly higher when the university was a member of the BTAA. A possible reason for this was the pilot study’s lead investigator, Dr. Robert Gillespie, is commonly known as a leading string pedagogue in the United States who has published landmark studies is
the leading music education journals, and who is a highly sought clinician and conductor internationally. Another potential reason for the skewed response rate may be that universities within the BTAA intensely emphasize the importance of research and the necessity of being actively engaged in research to both faculty and students. Indeed, the main principle of the BTAA is to support universities and their students to lead internationally by research projects in scope and frequency. Perhaps non-BTAA university music unit faculty members do not have the similar philosophies that would ensure the NMO participants complete a five-minute survey.

Participant data also indicated that the majority of NMO participants attended publicly funded universities/colleges. Two-thirds of the NMOs were full symphonic orchestras (includes winds, brass, and percussion along with the string section).

The overwhelming majority of NMO participants were first or second year college students ages 18-22 (97%). Data revealed that the more advanced the student progresses in the student’s desired degree program the less likely he/she will enroll in an NMO. Potential reasons for this trend could be that younger students were attempting to replicate a similar involvement from high school where they participated in orchestra. Another reason could be the students felt pressure to complete all courses within their degree program in time for graduation. Of the 705 students who provided their college major, nearly 40% were found to be majoring in Technology or Science areas with Engineering most often cited. There may be internships in the third and fourth years within the Technology/Science fields that would prevent a student from having the time for a non-required course. Finally, as students mature there may be additional family
responsibilities such as a spouse, children, work, or aging parents that may prevent NMO participation. More research is needed to further verify why NMO participants are most frequently first and second year students.

NMO participants tended to enroll in only one ensemble on campus. The participants were mostly string players, which is typical in a symphonic orchestra. Seventy-three percent (73%) of the participants had five or more years of private lessons and had participated in school orchestras for 5-12 years prior to enrolling in an NMO. These findings further reveal that the NMO participants strongly value music study. One-third of the respondents reported they also performed in non-orchestral ensembles prior to the survey year. This could easily be wind/brass/percussion students performing in their high school band programs or the university band ensembles. Perhaps by contacting high school orchestra or band directors and private lesson teachers the music unit would be able to recruit more NMO participants. Providing links on the music unit’s website with interviews of current NMO participants could also encourage incoming freshmen or members of non-major university bands to join the NMO.

The second half of the NMO participant survey focused on motivation to participate in the NMO, motivation to perform after graduation, and opinions about other universities creating NMOs. Thirteen statements were provided for the NMO participant to rate his/her level of agreement from 1 Strongly Disagree to 5 Strongly Agree. Additionally, space was provided for open responses. “I enjoy making music with others” had the highest mean score (4.84 out of 5). This result tied directly to McCrary (2001),
Frederickson (1997), Madsen and Kuhn’s (1994) “real” reasons theory that humans perform music as a social endeavor.

The second highest mean score was given to the statement, “I enjoy playing my instrument” (4.82 out of 5). This finding was not surprising because of the number of years of prior instrument performance. The third highest mean score statement, “I like the director of the ensemble” (4.03 out of 5), could also be considered a “real” reason as it is more social in nature.

The next two highest rated statements were “good” reasons to enroll in the NMO: “I want to learn more about music” (3.92 out of 5) and “I want to be challenged” (3.88 out of 5). Needing a break from academics (3.63 out of 5) and the desire to be a part of a group on campus (3.75 out of 5) were rated high as well. These too are “real” reasons a person may enroll in a non-required course of study. Some music teachers may not like the idea that students view music study as a break from academics – an implication that music is not academic. However, this may be a linguistic issue. Music performance is indeed academic but different than traditional book and pencil learning. More research is needed to determine if this is actually what NMO participants believe.

The remaining statements were closely scored from 2.65-1.77 out of 5. These statements were provided as other possible motivations for enrollment, including: “I need an arts credit”, “I am obligated to a past music teacher”, “I am obligated to a family member or a friend”, “I want an easy grade”, “I want to travel with a group from school”, and “I want experience on a secondary instrument”. These statements could be considered “real” reasons for participation. For the purpose of establishing an NMO it is
important to note the low level of agreement to these statements because they refer to strategies that would not serve as effective recruiting tools.

Participants were provided space on the survey form to share additional motivations for joining the NMO. Respondents reiterated what was already reflected in the level of agreement statements. Sixteen participants reported having an emotional or physical response to playing their instrument in the orchestra. Nine participants shared the desire to maintain or sharpen their performance skills and that the NMO provided a means to do so. Sixteen participants noted their intentions of performing on their instrument later in life or that they wanted to rekindle a past relationship with performing. These statements reinforce the unique role of NMOs as a bridge between high school ensembles to lifelong music participation.

The final part of the NMO participant survey asked how well the NMO met the social and musical needs of the performer, how valuable of an experience the NMO was, if he/she would recommend other universities provide NMO’s, and the likelihood of the participant to play in an orchestra after graduation. It was found that the participants’ musical needs (3.23 out of 4) were met more than the social needs (2.51 out of 4). This could be due to the nature of an ensemble changing personnel every semester, or that the participants who indicated lower levels of agreement were not interested as much in the social aspects of the experience. More research is needed to better understand this as disagrees with the “real” motivational factors listed earlier.

The participants indicated that the NMO experience was valuable (3.35 out of 4), that they would likely recommend to other universities to establish and NMO (3.76 out of
4), and that they were likely to play their instrument in an orchestra after graduation (3.29 out of 4). This seems to be a starting point for a future line of study to analyze the transition of orchestra participation from high school to post-college graduation. Perhaps where one lives after graduation is an integral factor. There are community orchestras throughout the country, but only few. In the November 2016 report Orchestra Facts: 2006-2014, A Study of Orchestra Finances and Operations Commissioned by the League of American Orchestras there were 1,224 orchestras in the United States (p.4). Perhaps a future study could determine the unique role of community orchestras in providing opportunities for lifelong music participation.

Eight “real” reasons for participation in an NMO were combined into one independent variable: Positive-to-Orchestra. This independent variable was then used to compare to other dependent variables. The comparison led to the discovery of seven trends among participants and their motivation to enroll in an NMO.

A relationship was found between the following two variables: Positive-to-Orchestra and likelihood to play instrument after graduation, and Positive-to-Orchestra and likelihood to recommend that other universities offer NMOs. It seems reasonable that a non-music major participant who sought opportunities to perform in college would also seek opportunities to perform after graduation. And, if the participant approached the ensemble with positive motivational factors then it seemed likely he would recommend other non-music majors be afforded a similar opportunity. This study and its pilot provided data that confirmed this line of thinking.
Implications

Findings from this study contribute to three areas of interest within music education. As described by Bakkegard (1954), little research has been conducted on college orchestras. This study and its pilot are crucial starting points for future lines of research on college orchestras. For example, this is the first study (including the pilot) to address the recommendation of NASM to provide non-music major ensembles, specifically orchestras. Several universities were found that allowed non-music majors to audition for college music-major orchestras. However, the *NASM Handbook, Standards and Guidelines for Accreditation* (2016-2017) recommends music units provide music participation experiences to non-music major students. At no point does the Handbook state that music units are to provide only opportunities for musical growth to those that perform at a level of expertise equal to that of the music major. The results of this study offer music units an opportunity to have an informed dialogue on how best to establish, fund, house, and recruit performers for an NMO.

Another implication is to understand why NMO participants value their experience. If university and college music units add NMOs, more students, faculty members, community members could participate and experience the aesthetic and creative aspect that performing in an ensemble provides. Performing in an NMO has been found to meet some of the social and musical needs of its participants. This satisfaction may provide a smoother transition from high school to adult ensembles. This opportunity could empower the participant to seek continued performance options after college graduation.
NMOs also support professional orchestras. As noted in the Orchestra Facts: the 2006-2014 report by the League of American Orchestras, regular concert attendance has been low for many years and negatively impacts the financial stability of many prominent orchestras (p.18). Viewing this through the lens of Lave and Wenger’s 1991 theory of situated learning, the NMOs are providing an expert/novice relationship within the orchestra community. By learning varied repertoire and performance skills the NMO participant becomes an active part of the local orchestral community that includes K-12 schools, colleges, community orchestras, and professional orchestras. Perhaps by being an active member of the orchestral community while in college may encourage NMO participants to attend professional orchestra concerts in their communities.

As discovered in this study, an NMO benefits the university, music unit, local community, and professional arts organizations. The following graphic illustrates so.
Table 5.1
Benefits of an NMO

| Benefits to the University | 1. Increased student enrollment (revenue)  
|                           | 2. Increased student retention (revenue)  
|                           | 3. Fulfills the mission statement of the university  
|                           | 4. Provides opportunities to connect with surrounding community |
| Benefits to Music Unit    | 1. Fulfilling the mission statement of the music unit  
|                           | 2. Increasing concert attendance (revenue)  
|                           | 3. Lab experience for music education/conducting majors  
|                           | 4. Increasing visibility throughout the university  
|                           | 5. Building a pool of additional alumni for financial donations (revenue)  
|                           | 6. Satisfaction for upholding the tenements of Tanglewood Symposium and Vision 2020 |
| Benefits to the Participant | 1. Providing a lifelong music participation bridge between high school and adulthood  
|                            | 2. Building confidence to seek out opportunities in community ensembles after college graduation  
|                            | 3. Increasing social interaction and enjoyment  
|                            | 4. Having aesthetic musical experiences |
| Benefit to Community      | 1. Opportunity to attend more concerts and make connection to university  
|                           | 2. Opportunity to participate in orchestral ensemble |
| Benefits to Professional Arts Organizations | 1. Increasing audience numbers (revenue)  
|                                               | 2. Increasing funding via donations (revenue)  
|                                               | 3. Increasing number of performers for community orchestras (revenue). |

Limitations

Data gathered from this study has the potential to be useful to college music units. However, it is important to note that data were gathered from across the country, there was still a low NMO participant response rate beyond those of the BTAA. An individual’s academic goal is unique and should not be generalized. This study was limited to four-year universities accredited by NASM. There are two-year institutions that
also are accredited. Those institutions were not included in the present study. Additionally, this study was limited to a survey format. While there were opportunities for respondents to provide additional information, the instrument for data collection did not include all possible motivations for participation.

**Suggestions for Future Research**

Findings from this study revealed several related topics that need to be studied in future research. First, research has shown that NMOs existed in American universities before 1900. Seventy-nine percent (79%) of NMOs within this study were established after 1950, however. Why? Perhaps it was the founding of NASM in 1924 and the beginning of the accreditation process in 1939 that motivated the music units to include such an ensemble. Future research will have to determine if this is true.

A second related topic in need of research is to investigate the misunderstanding of music faculty members on the value that NASM places on the need for non-music major music ensembles, the impact an NMO could have on declining university enrollment, and the way NMO participants could positively affect the number of live-music audience members, music education advocates, and performing arts benefactors in the United States. The number of undergraduate music majors on American campuses is less than 1% and graduate music students account for even less. Music faculty should consider expanding the music curriculum to include NMOs as a means to increase the population of individuals who value live orchestral performances.

The motivation for students to enroll in an NMO is complex and under-researched. Much more research needs to be completed for music units to know how best
to effectively recruit performers and to ensure that the participants’ musical and social needs are met. The open-responses provided by the NMO participants were rich with passion for creating music, playing their instrument, and being with like-minded individuals who also loved music. These factors compel individuals to participate in orchestral ensembles in college and may propel support for music education.

Yet another for future research could focus on the music major who participates within the NMO. The current study found that NMO conductors were most often music education faculty members or graduate teaching associates in music education. Perhaps future research could show the impact on conductors who lead NMOs. Do they learn new rehearsal skills and motivation techniques that they may also apply to music-major ensembles? A longitudinal study of music education majors participating in NMOs who then lead ensembles in the early years of professional teaching could also show the importance of the NMO as a laboratory for the development of best practices for future orchestra directors.

Finally, research needs to be conducted to determine how the non-music major orchestral musician views herself as a member of the orchestra community at large. Is the NMO a bridge that reaches the community orchestra? Do community orchestras in areas where strong NMOs are present have a larger audience base and revenue stream compared to those that do not? More research is needed to understand the role of NMOs and its potential impact on music education’s intended goal of lifelong music participation.
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Appendix A
The Tanglewood Declaration and Housewright Declaration

We believe that education must have as major goals the art of living, the building of personal identity, and nurturing creativity. Since the study of music can contribute much to these ends, we now call for music to be laced in the core of the school curriculum.

The arts afford continuity with the aesthetic tradition in man’s history. Music and other fine arts, largely nonverbal in nature, reach close to the social, psychological, and physiological roots of man in his search for identity and self-realization.

Educators must accept the responsibility for developing opportunities which meet man’s individual needs and the needs of a society plagued by the racial and international tensions, and the challenges of a new leisure.

Music educators at Tanglewood agreed that:

(1) Music serves best when its integrity as an art is maintained.

(2) Music of all periods, styles, forms and cultures belongs in the curriculum. The musical repertory should be expanded to involve music of our time in its rich variety, including currently popular teenage music and avant-garde music, American folk music, and the music of other cultures.

(3) Schools and colleges should provide adequate time for music in programs ranging from preschool through adult or continuing education.
(4) Instruction in the arts should be a general and important part of education in the senior high school.

(5) Developments in educational technology, educational television, programmed instruction, and computer-assisted instruction should be applied to music study and research.

(6) Greater emphasis should be placed on helping the individual study to fulfill his needs, goals, and potentials.

(7) The music education profession must contribute its skills, proficiencies, and insights toward assisting in the solution of urgent social programs as in the “inner city” or other areas with culturally deprived individuals.

(8) Programs of teacher education must be expanded and improved to provide music teachers who are specially equipped to teach high school courses in the history and literature of music, courses in the humanities and related arts, as well as teachers equipped to work with the very young, with adults, with the disadvantaged, and with the emotionally disturbed.

**The Vision 2020 Symposium**

*The Housewright Declaration*

Whenever and wherever humans have existed music has existed also. Since music occurs only when people choose to create and share it, and since they always have done so and no doubt always will, music clearly must have important value for people.
Music makes a difference in people’s lives. It exalts the human spirit: it enhances the quality of life. Indeed, meaningful music activity should be experiences throughout one’s life toward the goal of continuing involvement.

Music is a basic way of knowing and doing because of its own nature and because of the relationship of that nature to the human condition, including mind, body, and feeling. It is worth studying because it represents a basic mode of thought and action and because in itself, it is one of the primary ways human beings create and share meanings it must be studied fully to access this richness.

Societal and technological changes have an enormous impact for the future of music education. Changing demographics and increase technological advancements are inexorable and will have profound influences on the ways that music is experience for both students and teachers.

Music educators must build on the strengths of current practice to take responsibility for charting the future of music education to ensure that the best of the Western art tradition and other musical traditions are transmitted to future generations.

We agree on the following:

(1) All persons, regardless of age, cultural heritage, ability, venue, or financial circumstance deserve to participate fully in the best music experiences possible.

(2) The integrity of music study must be preserved. Music educators must lead the development of meaningful music instruction and experience.
(3) Time must be allotted for formal music study at all levels of instruction such that a comprehensive, sequential and standards-based program of music instruction is made available.

(4) All music has a place in the curriculum. Not only does the Western art tradition need to be preserved and disseminated, music educators also need to be aware of other music that people experience and be able to integrate it into classroom music instruction.

(5) Music educators need to be proficient and knowledgeable concerning technological changes and advancements and be prepared to use all appropriate tools in advancing music study while recognizing the importance of people coming together to make and share music.

(6) Music educators should involve the music industry, other agencies, individuals, and music institutions in improving the quality and quantity of music instruction. This should start within each local community by defining the appropriate role of these resources in teaching and learning.

(7) The currently define role of the music educator will expand as settings for music instruction proliferate. Professional music educators must provide a leadership role in coordinating music activities beyond the school setting to ensure formal and informal curricular integration.

(8) Recruiting prospective music teachers is a responsibility of many, including music educators. Potential teachers need to be drawn from diverse backgrounds, identified early, led to develop both teaching and musical
abilities, and sustained through ongoing professional developments. Also, alternative licensing should be explored in order to expand the number and variety of teachers available to those seeking music instruction.

(9) Continuing research addressing all aspects of music activity needs to be supported including intellectual, emotional, and physical responses to music. Ancillary social results of music study also need exploration as well as specific studies to increase meaningful music listening.

(10) Music making is an essential way in which learners come to know and understand music and music traditions. Music making should be broadly interpreted to be performing, composing, improvising, listening, and interpreting music notation.

(11) Music educators must join with others in providing opportunities for meaningful music instruction for all people beginning at the earliest possible age and continuing throughout life.

(12) Music educators must identify the barriers that impede the full actualization of any of the above and work to overcome them.
Appendix B
NMO Administrator Survey

University Music Unit-Sponsored Non-Music Major Orchestra (NMO) National Research

*NMO Orchestras: Orchestra intended primarily for non-music majors
Survey to be completed by music unit administrators and/or ensemble conductor(s) of NMO Orchestra(s). This survey may also be completed online at https://www.surveymonkey.com/s/3T3MTKR.

Please write the name of your university: __________________________________________
Please write the title of your position at the university: __________________________

Section I: NMO Orchestras
1. NMO orchestras are sponsored by music units. The primary purpose of an NMO orchestra is to offer a performance opportunity for non-music majors. Does your music unit offer NMO orchestras?
   o Yes
   o No

If you answered no to question one, please select the barrier(s) to your institution offering an NMO. Check all that apply.
   o Faculty/Administration Interest
   o Student Interest
   o Available Rehearsal Space
   o Conducting Faculty Availability
   o Other (Please describe):

____________________________________________________________________
____________________________________________________________________

Please email Laura Hill, hill.1435@osu.edu and confirm that your institution does not offer an NMO.

If you answered yes to question number one, please answer the remaining survey questions.

Section II: NMO Orchestras Offered at Your Institution
2. Types of Orchestras. Check all that apply.
   o String Orchestra
   o Full Orchestra (woodwinds, brass, percussion, and strings)

3. How many of each type of NMO orchestras are offered at your institution? Please write the number below.
   String Orchestras: ___________
   Full Orchestras (woodwinds, brass, percussion, and strings): ________________
In each of the following sixteen questions you can provide information for up to two different NMO Orchestras offered at your institution. In the spaces provided below, please identify and write the name and type of each NMO Orchestra. For the rest of the survey, please answer questions for your NMO Orchestra(s) as NMO Orchestra A and NMO Orchestra B.

NMO Orchestra A: __________________________________________
Name and Type (String/Full) of NMO Orchestra
NMO Orchestra B: __________________________________________
Name and Type (String/Full) of NMO Orchestra

4. When was each orchestra established?

<table>
<thead>
<tr>
<th>Orchestra A</th>
<th>Orchestra B</th>
</tr>
</thead>
<tbody>
<tr>
<td>o Before 1900</td>
<td>o Before 1900</td>
</tr>
<tr>
<td>o 1900-1925</td>
<td>o 1900-1925</td>
</tr>
<tr>
<td>o 1926-1950</td>
<td>o 1926-1950</td>
</tr>
<tr>
<td>o 1951-1975</td>
<td>o 1951-1975</td>
</tr>
<tr>
<td>o After 2000</td>
<td>o After 2000</td>
</tr>
<tr>
<td>o Unknown</td>
<td>o Unknown</td>
</tr>
</tbody>
</table>

5. Who proposed to create the orchestra?

<table>
<thead>
<tr>
<th>Orchestra A</th>
<th>Orchestra B</th>
</tr>
</thead>
<tbody>
<tr>
<td>o A faculty member within the music unit</td>
<td>o A faculty member within the music unit</td>
</tr>
<tr>
<td>o A faculty member outside of the music unit</td>
<td>o A faculty member outside of the music unit</td>
</tr>
<tr>
<td>o A division within the music unit, such as Music Education, Conducting, Musicology, Theory, or Performance</td>
<td>o A division within the music unit, such as Music Education, Conducting, Musicology, Theory, or Performance</td>
</tr>
<tr>
<td>o A division outside of the music unit</td>
<td>o A division outside of the music unit</td>
</tr>
<tr>
<td>o A joint venture between community and university</td>
<td>o A joint venture between community and university</td>
</tr>
<tr>
<td>o Other (Please describe):</td>
<td>o Other (Please describe):</td>
</tr>
</tbody>
</table>

| o Unknown | o Unknown |

Section III: Purpose(s) of the Orchestra(s)

6. Original purpose(s).
   Orchestra A
   - To fulfill part of the music unit’s mission
   - To fulfill part of the university’s mission
   - To provide podium time for conducting students
   - To provide an opportunity for music majors to play a secondary instrument in an orchestra
   - To provide an opportunity for music majors to play their primary instrument in an orchestra
   - Other (Please describe):_________________________

   Orchestra B
   - To fulfill part of the music unit’s mission
   - To fulfill part of the university’s mission
   - To provide podium time for conducting students
   - To provide an opportunity for music majors to play a secondary instrument in an orchestra
   - To provide an opportunity for music majors to play their primary instrument in an orchestra
   - Other (Please describe):_________________________

   a. Unknown

7. Current purpose(s).
   Orchestra A
   - To fulfill part of the music unit’s mission
   - To fulfill part of the university’s mission
   - To provide podium time for conducting students
   - To provide an opportunity for music majors to play a secondary instrument in an orchestra
   - To provide an opportunity for music majors to play their primary instrument in an orchestra
   - Other (Please describe):_________________________

   Orchestra B
   - To fulfill part of the music unit’s mission
   - To fulfill part of the university’s mission
   - To provide podium time for conducting students
   - To provide an opportunity for music majors to play a secondary instrument in an orchestra
   - To provide an opportunity for music majors to play their primary instrument in an orchestra
   - Other (Please describe):_________________________

Section IV: Funding

8. What is the source of funding for purchasing music for the orchestra(s)?
   Orchestra A
   Orchestra B
Music Unit:
  • Music Education
  • Conducting
  • Performance
  • Musicology
  • Theory
  • General Funds
  • Outside of the music unit
  • Other (Please describe): ________________________________

Music Unit:
  • Music Education
  • Conducting
  • Performance
  • Musicology
  • Theory
  • General Funds
  • Outside of the music unit
  • Other (Please describe): ________________________________

9. How much money is available for music purchase for each NMO per academic year?

Orchestra A
  • $0 - $200
  • $201-$400
  • $401-$600
  • $601-$800
  • More than $800
  • Unknown

Orchestra B
  • $0 - $200
  • $201-$400
  • $401-$600
  • $601-$800
  • More than $800
  • Unknown

10. Are there any additional fees paid by the students to participate in the orchestra? If yes, what is the money used for and how much is the fee?

Orchestra A
  • Yes
  • No

If yes, what is the money used for?
Please describe:________________________

If yes, and you know the amount, please write the number below.
$ ______________

Orchestra B
  • Yes
  • No

If yes, what is the money used for?
Please describe:________________________

If yes, and you know the amount, please write the number below.
$ ______________

Section V: Rehearsal Site

11. Where does the NMO orchestra(s) rehearse?

Orchestra A
  • On campus, within the music unit building(s)
  • On campus, outside of the music unit building(s)
  • Off campus

Orchestra B
  • On campus, within the music unit building(s)
  • On campus, outside of the music unit building(s)
  • Off campus
Section VI: Conductor(s) of the NMO Orchestra(s)

12. Who is the primary conductor of each NMO orchestra?
   Orchestra A
   - Faculty
   - Staff
   - Graduate student
   - Local teacher from outside of the university
   - Other (Please describe):
   Orchestra B
   - Faculty
   - Staff
   - Graduate student
   - Local teacher from outside of the university
   - Other (Please describe):

13. If a graduate student is the primary conductor of the orchestra, what is his/her major?
   Orchestra A
   - Conducting
   - Performance
   - Music Education
   - Other (Please describe):
   Orchestra B
   - Conducting
   - Performance
   - Music Education
   - Other (Please describe):

14. Who chooses the primary conductor(s)?
   - Director of the music unit
   - Faculty Members
   - Division within music unit
     - Music Education
     - Performance
     - Conducting
   - Other (Please describe):

Section VII: Members of the NMO Orchestra(s)

15. Are both undergraduate and graduate students allowed to play in the orchestra?
   Orchestra A
   - Yes
   - No, only undergraduates
   - No, only graduate students
   Orchestra B
   - Yes
   - No, only undergraduates
   - No, only graduate students

16. Are people who are not full or part-time students at the university allowed to play in the NMO orchestra?
   Orchestra A
   Orchestra B
17. Is membership of the orchestra by audition only?
   Orchestra A
   o Yes
   o No
   o Unknown
   Orchestra B
   o Yes
   o No
   o Unknown

18. May members of the NMO orchestra (s) earn academic credit by playing in the orchestra? If yes, how many credits may be earned per academic term?
   Check all that apply.
   Orchestra A
   o Yes
   o No
   Orchestra B
   o Yes
   o No
   If yes,
   o 1/2 – 1 credit
   o 1 – 2 credits
   o More than 2 credits
   If yes,
   o 1/2 – 1 credit
   o 1 – 2 credits
   o More than 2 credits

19. Are NMO orchestra members required to register for academic credit to play in the orchestra?
   Orchestra A
   o Yes
   o No
   Orchestra B
   o Yes
   o No

Please return the completed NMO survey in the provided prepaid postage envelope.

Thank You.
Appendix C
NMO Participant Survey

**University Music Unit-Sponsored Non-Music Major Orchestra (NMO) Research**

Survey: To be completed by NMO Orchestra participants.

1. Please check the orchestra(s) in which you participate in the 2014-2015 academic year. Check all that apply.
   - String Orchestra
   - Symphony Orchestra (Winds, brass, percussion, and strings)
   - Other String Ensemble e.g. Cello choir, fiddle group, chamber orchestra (Please describe this orchestra type):
     ________________________________________________________________
   - Other ensemble (Please describe this ensemble):
     ________________________________________________________________

2. Please check your age.
   - 18-19
   - 20-22
   - 23-25
   - 26-28
   - 29-31
   - 32+

3. Which of the following best describes your relationship to the university?
   - First year undergraduate
   - Second year undergraduate
   - Third year undergraduate
   - Fourth year undergraduate
   - Fifth year undergraduate
   - Sixth year undergraduate
   - Masters degree student
   - Doctoral degree student
   - Non-degree seeking student
   - Faculty member
   - Staff member
4. If you are a student enrolled in a degree program, please PRINT the name of your college major, e.g. Biology, Pre-Medicine, Engineering, English Literature, etc. If undecided, write undecided.

5. Please check how many non-music major ensembles you are participating in this term, e.g. university sponsored band, choir, other.
   - 1
   - 2
   - 3
   - 4
   - More than 4

6. Please check the instrument you play the majority of the time in an NMO Orchestra.
   - Woodwinds
   - Brass
   - Percussion
   - Orchestral Strings
   - World Instruments (gamelan, Taiko etc.)
   - Keyboard

7. How many years, if any, of instrumental private lessons have you ever received to date?
   - No lessons
   - Less than 1 year of lessons
   - 1-2 years of lessons
   - 3-4 years of lessons
   - 5 or more years of lessons

8. Please write how many years you have participated in a school orchestra or other ensemble prior to the 2013-2014 academic year. (This includes elementary, middle, high school, and collegiate experience).
   Orchestras: _______________ years
   Other: ________________ years
Please rate your level of agreement with the reasons for participating in a University Music Department-Sponsored Non-Music Major Orchestra (NMO). I participate in this NMO Orchestra because (from the list below):

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Somewhat Disagree</th>
<th>Neutral</th>
<th>Somewhat Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>I enjoy making music with others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>I enjoy playing my instrument</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>I am obligated to family or a friend</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>I am obligated to a past music teacher</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>I want an easy grade</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>I need a break from academics</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15.</td>
<td>I need an arts credit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16.</td>
<td>I want to be part of a group on campus</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17.</td>
<td>I like the director of the ensemble</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18.</td>
<td>I want to be challenged</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19.</td>
<td>I want to learn more about music</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20.</td>
<td>I want to travel with a group from school</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21.</td>
<td>I want experience on a secondary instrument</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

22. If there is a reason you participate in a NMO Orchestra that is not listed above please describe:

________________________________________________________________________________________

________________________________________________________________________________________

23. How well does this NMO Orchestra meet your musical needs? Please circle your answer.

<table>
<thead>
<tr>
<th></th>
<th>Not at All</th>
<th>A Little Bit</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

24. How well does this NMO Orchestra meet your social needs? Please circle your answer.

<table>
<thead>
<tr>
<th></th>
<th>Not at All</th>
<th>A Little Bit</th>
<th>Mostly</th>
<th>Completely</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
25. How valuable is the experience of participating in this NMO Orchestra to you? Please circle your answer.

<table>
<thead>
<tr>
<th>No Value</th>
<th>Limited Value</th>
<th>Valuable</th>
<th>Highly Valuable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

26. Based on your experience, how likely is it that you would you recommend that other universities provide NMO Orchestras for students? Please circle your answer.

<table>
<thead>
<tr>
<th>Definitely Not</th>
<th>Probably Not</th>
<th>Probably</th>
<th>Definitely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

27. How likely is it that you will play your instrument in an orchestra after graduation, e.g. community orchestra, church orchestra? Please circle your answer.

<table>
<thead>
<tr>
<th>Definitely Not</th>
<th>Probably Not</th>
<th>Probably</th>
<th>Definitely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Please return survey to your orchestra director.
Thank you for your participation.
<table>
<thead>
<tr>
<th>General Area</th>
<th>College Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>Aerospace, Agricultural, Biological, Biomedical, Chemical, Civil, Computer, Electrical, Industrial, Mechanical, Medical, Nuclear, Systems Engineering</td>
</tr>
<tr>
<td>Human Services</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Communications, Community Health,</td>
<td></td>
</tr>
<tr>
<td>Comparative Human Development,</td>
<td></td>
</tr>
<tr>
<td>Criminal Justice, Diplomacy,</td>
<td></td>
</tr>
<tr>
<td>Environmental Sociology, Family Social Science, Hospitality,</td>
<td></td>
</tr>
<tr>
<td>International Public Affairs,</td>
<td></td>
</tr>
<tr>
<td>International Security, Law,</td>
<td></td>
</tr>
<tr>
<td>Leisure Studies, Political Science,</td>
<td></td>
</tr>
<tr>
<td>Public Affairs, Public Health,</td>
<td></td>
</tr>
<tr>
<td>Social Justice, Social Work</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Science/Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actuarial Science, Advanced Mathematics,</td>
</tr>
<tr>
<td>Animal Sciences, Anthropology, Applied Health Sciences, Astronomy,</td>
</tr>
<tr>
<td>Astrophysics, Biochemistry, Biology, Chemistry, Child Psychology, Cognitive</td>
</tr>
<tr>
<td>Science, Earth Science, Ecology, Environmental Science, Food Science,</td>
</tr>
<tr>
<td>Genetics, Geochemistry, Geoscience, Health and Human Physiology, Hearing</td>
</tr>
<tr>
<td>Sciences, Information Science and Technology, Integrated Science, Kinesiology,</td>
</tr>
<tr>
<td>Life Sciences, Materials Science, Mathematics, Medical Laboratory Science,</td>
</tr>
<tr>
<td>Medicine, Microbiology, Molecular Biology, Natural Resource and Environmental</td>
</tr>
<tr>
<td>Science, Nuclearbiology, Neuroscience, Nursing, Nutrition, Optical Sciences,</td>
</tr>
<tr>
<td>Pharmaceutical Sciences, Physics,</td>
</tr>
<tr>
<td>Physiology, Plant Pathology, Psychology, Sociology, Speech Sciences, Statistics,</td>
</tr>
<tr>
<td>Wildlife Ecology, Zoology</td>
</tr>
</tbody>
</table>
Appendix E
NAfME Regions List

States within the Eastern Region: Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont

States within the North Central Region: Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin

States within the Northwestern Region: Alaska, Idaho, Montana, Oregon, Washington, and Wyoming

States within the Southern Region: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia

States within the Southwestern Region: Arkansas, Colorado, Kansas, Missouri, New Mexico, Oklahoma, and Texas

States within the Western Region: Arizona, California, Hawaii, Nevada, and Utah.
Appendix F
Administrator Recruitment Letter

Dear Professor ________________,

My name is Laura Hill and I am a doctoral student at The Ohio State University. As part of my dissertation I am investigating orchestras that were offered by your institution primarily for non-music majors during the 2013-2014 academic year. The research is based on a pilot study my advisor Dr. Robert Gillespie and I conducted within the membership of the Committee on Institutional Cooperation (CIC) that 1) identified university-sponsored non-music major orchestras, and 2) determined a profile of the history, purpose, funding, rehearsal site, members, and academic credit for the ensembles.

I am asking for your participation in the national study replicating our pilot. For your convenience the survey may be completed on-line at www.surveymonkey.com/s/3T3MTKR. Surveys should be completed by September 15, 2014.

Additionally, I would like to survey participants in the non-music major orchestra(s) to determine their motivation for participation and the likelihood of future participation in orchestras beyond graduation. Please identify the person(s) currently conducting these orchestra(s) at your institution and provide via email their email address.
and telephone number to me at Hill.1435@osu.edu by September 15, 2015. I will then contact them separately regarding the participant survey.

Participation in this study is voluntary and you may withdraw from the study at any time without penalty or prejudice. Because results of this study plan to be published, all identifying information provided will not be used.

If you have any questions about this project you may contact me or Dr. Robert Gillespie, Director of String Education and Music Education Area Head at 614-292-2336. Thank you for considering participating in this research.

Sincerely,

Laura Hill, Ph.D. Candidate
Music Education
The Ohio State University
Hill.1435@osu.edu
317-408-7493
Appendix G
Email Used to Capture the Mailing Address of the NMO Director

Dear ____________.

Thank you for completing the administrator survey for the Music Department-Sponsored Non-Music Major Orchestra (NMO) Research. The second phase of that study is a brief survey of the actual participants of the NMO. Your students may access the survey on-line at www.surveymonkey.com/s/3T3MTKR, or I can mail a set of paper copies to you. If paper surveys are requested, to whom and to what address should I send them? The surveys are VERY brief and should only take 5 minutes to complete. Please email me your preferred address by Monday, September 1.

Thank you for your participation,

Laura Hill, PhD Candidate
The Ohio State University
Appendix H

Email Used to Request Number of NMO Participant Surveys Needed

August 31, 2015

Dear ________________.

Thank you for your participation in the University Music Department-Sponsored, Non-Music Major Orchestra national study. The information you provided about your university is invaluable to this project. Thank you.

As part of the data collection process concerning NMO Participants I need to send you paper copies of the NMO Participant Survey. This very short survey takes five minutes to complete.

I realize rehearsal time is precious. That is why I have also created an online version of the survey. You may access it at:

https://www.surveymonkey.com/r/H9H7MQT.

If you would, please send me the number of paper surveys you need for your NMO. If you would like to use the online survey option please let me know that as well. All participant surveys need to be returned to me either via prepaid postal envelope included with the paper surveys or electronically by September 14, 2015.

If you have any questions or concerns, please contact me at your earliest convenience.

Best wishes,
Laura Hill
PhD Candidate
The Ohio State University