ABSTRACT

Title of Thesis: A DEMOGRAPHIC ANALYSIS OF MIDWEST CLINIC PERFORMING ENSEMBLES FROM 2015 TO 2024

Rose Alon, Master of Arts in Music Education, 2026

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This study examined the demographic and institutional characteristics of the high school bands, string orchestras, and full orchestras that performed at The Midwest Clinic International Band & Orchestra Conference between 2015 and 2024. Although The Midwest Clinic is widely recognized as one of the premier music education conferences in the United States, little research has examined the demographic characteristics of the schools represented on its performance stage. Using publicly available data sourced from The Midwest Clinic, the National Center for Education Statistics, the U.S. Census Bureau, and the ProPublica Nonprofit Explorer, this study compiled a dataset of 114 performing ensembles. Variables examined included school type, geographic location, school size, racial and ethnic composition, socioeconomic status, and the presence of music booster organizations. Descriptive statistics, linear regression, chi-square tests,

multivariate analysis of variance (MANOVA) and analysis of variance (ANOVA) were used to examine demographic patterns, changes over the time period of this study, and comparisons among school and ensemble types.

Results indicated that Midwest Clinic performances were predominantly large public high schools concentrated in the Southern United States, particularly Texas. Performing schools generally came from economically advantaged communities and often had music booster organizations. Demographic characteristics remained largely stable across the study period. Comparisons by school type revealed that public arts magnet schools differed significantly from traditional public schools on measures of community wealth. National comparisons demonstrated that Midwest Clinic performing schools were substantially larger and more affluent than U.S. High Schools overall. These findings contribute to the literature on music education professional development and high school music by providing the first comprehensive demographic profile of high school ensembles performing at The Midwest Clinic. The study offers new insight into representation, equity, and access within elite performance spaces in secondary instrumental music education and establishes a foundation for future research on music education conferences and performance selection.

A DEMOGRAPHIC ANALYSIS OF MIDWEST CLINIC PERFORMING ENSEMBLES FROM 2015 TO 2024

by

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Dedication

This paper is dedicated to my students of the past, present, and future. You constantly remind me that music is at its most beautiful when everyone can make it together.

Acknowledgements

Pursuing this degree while teaching full time has been both an extremely challenging and rewarding part of my professional career. I have many who I'd like to thank for their support, partnership, and patience throughout this process. First, my family – especially my parents, for their endless encouragement and support of both my musical and academic journey. To my colleagues and friends throughout PGCPS and Maryland, thank you for being there to hear my ideas, narrow my thinking, and give me the freedom and flexibility to complete the requirements of this degree. And to my partner, Isa, thank you for your constant motivation, reassurance, and care. You have been there with me through some of my highest highs and lowest lows, and I would not have made it to this point without you.

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Gooooo music education!

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Chapter 1: Introduction

As a practicing music teacher, I have been an audience member at a number of music education conference performances. At The Midwest Clinic, one of the United States' preeminent gatherings for band and orchestra directors, I have been truly amazed and inspired at the musicianship displayed on stage. However, aside from the technical and repertoire gleanings I reaped, these performances also sowed a curiosity to learn more about the students and schools selected to perform in these elite spaces. These wonderings followed: What resources does it take to get a school ensemble to a stage like that at The Midwest Clinic? Are these performing ensembles a fair representation of schools across the country? Is it possible for my own students to perform on this stage? This study provides insight into these questions, as well as whether The Midwest Clinic provides equal opportunities to perform for all.

Background

In the field of instrumental music education, an ensemble's performance at a conference can represent a significant achievement for the director, students, and school community. These opportunities, whether local or national, take the ensemble beyond the classroom and school onto a wider stage to be recognized by colleagues and the music education field. Often, these performances are an honor granted by application or special invitation. As part of their own professional development, teachers might attend conferences in order to gain new resources, ideas, and inspiration to bring back to their own teaching locales. Therefore, conference performances are moments that showcase excellence and best practices in music education.

One of the most prominent music education conference stages in the United States is The Midwest Clinic. The Midwest Clinic was established in Chicago in 1946 as a modest gathering of band students, directors, and professionals. Now called The Midwest Clinic International Band & Orchestra Conference, the conference has expanded from a small local meeting to an annual four-and-a-half-day conference and clinic held at McCormick Place in Chicago. The Midwest Clinic features educational sessions, conducting clinics, reading sessions, rehearsal labs, and "world class performances" for both band and orchestra (The Midwest Clinic, n.d.). The conference is geared toward a wide range of attendees, from high school music students to collegiate musicians, teachers, ensemble directors, and music administrators. One of the largest music education conferences in the country, The Midwest Clinic is unique because it is not sponsored by a specific music education association or organization.

Each year, there are more than fifty performances at The Midwest Clinic, including those by bands, string orchestras, full orchestras, jazz ensembles, and chamber music groups. Performing groups may come from elementary, middle, or high schools, as well as youth orchestras and community ensembles. As of 2016, there is a special application process for small schools with enrollment less than 650 (The Midwest Clinic, n.d.). After performing, groups must wait four years before applying again to the conference (The Midwest Clinic, n.d.).

Directors who wish to have their groups perform at The Midwest Clinic must go through an extensive application process (Zabanal, 2021). This includes a 30-minute audio recording of the ensemble performing (to be reviewed anonymously), as well as a video recording of the ensemble performing the same material. For bands, there is a specific requirement to perform a march. Directors auditioning to perform must also submit ensemble rosters, concert programs

from the previous two years, photos of the ensemble and director(s), and ensemble and director biographies. Directors are also asked to list three evaluators (professionals in the field of music and music education) who can speak to the longevity of excellence in the ensemble. Each large ensemble application costs $300. Due to the highly selective nature of the committee and rigorous submission process, performing at Midwest is considered an extreme honor (Messinetti, 2017; Sheldon & Hartley, 2012).

Positionality Statement

I am a White woman who serves as a high school orchestra teacher and orchestra program director at a public arts magnet school. The overwhelming majority of my students are Black and Latine, and our school has a high incidence of poverty. However, due to magnet funding, I have been extremely fortunate to have my school district sponsor my attendance at The Midwest Clinic multiple times. It is inspiring to see schools at The Midwest Clinic that have been able to establish a culture of musicianship at the highest level. In some cases, I have seen high school directors invite their middle school colleagues onto the stage to conduct certain pieces, suggesting that support for music education is consistent across many years and deeply entrenched in the school community at large. Simultaneously, I wonder if schools with weaker networks of support and less resources receive invites to perform. I designed this research question to interrogate whether racially and economically disadvantaged students like mine are represented in the most elite music performance spaces.

Purpose and Need for Study

Despite being long considered a premiere performance opportunity for high school bands and orchestras, there is little research examining the institutional demographic characteristics of

the student groups that perform at The Midwest Clinic. As a result, there are gaps in the literature about representation, access, and potential patterns in the attributes of schools featured at The Midwest Clinic. The purpose of this study is to create a demographic and geographic profile of the high school large ensembles (bands, orchestras, and full orchestras) that performed at Midwest Clinic between 2015 and 2024. In this thesis, I investigated the following traits of each performing school: location (state/region), school enrollment, school racial/ethnic makeup, presence of a parent music booster organization, and overall socioeconomic status of the school community.

On their website, The Midwest Clinic provides a statement of their commitment to access, opportunity, and engagement. In this statement, they assert an intention to "commit time and resources to expand diversity within our board, staff, committee, volunteer, and participant populations" and "advocate for and support board-level awareness and discussion about how systemic inequities impact our organization's work and how best to address that in a way that is consistent with our mission" (The Midwest Clinic, n.d.). Using the results of this study, I aim to illustrate how well The Midwest Clinic is fulfilling their commitment to diversity in their participant populations, and whether systemic inequalities impact who is performing at the conference.

The Midwest Clinic is considered by music educators to be a preeminent conference in the field and a valuable resource in teacher professional development (West, 2020; Schneckenburger, 2014; Sheldon & Hartley, 2012). Understanding more about this conference helps music educators and researchers to understand representation in elite performance spaces. The findings of this research may also provide insight for directors wishing to perform at The

Midwest Clinic. For the organizers of Midwest and similar conferences, this research can be used in evaluating conference performance selection practices, in order to better reflect their organization's commitment to access and opportunity for a diverse group of performers.

Structure of Thesis

Chapter two reviews relevant literature on music education conferences, The Midwest Clinic, and demographic trends of music students in the United States. Chapter three outlines the methodology of building my dataset and analysis. Chapter four presents the main findings of this study, focusing on the demographic and geographic characteristics of performing ensembles from 2015 to 2024. Chapter five discusses my findings relative to existing research, considers implications for music education, and offers recommendations for future research.

Chapter 2: Literature Review

To better understand The Midwest Clinic and its intersection with music education across the United States, I conducted a review of the relevant literature. In this chapter, I first discuss research that establishes The Midwest Clinic and conference performances as professional development activities, followed by research more generally on The Midwest Clinic. Then, I consider factors that might influence a school's ability to perform at a conference, namely travel and parental support. Lastly, I review the literature relating to music student demography in the United States.

The Midwest Clinic and Conference Performances as Professional Development

Due to its size and influence, The Midwest Clinic has been valuable to many teachers nationwide as they seek out professional development experiences. In a 2020 study, Justin West interviewed Midwest Clinic attendees in order to investigate the impact that Midwest Clinic sessions (among other conferences) had in the classroom. This research also looked into how teachers apply what they learn at conferences. Midwest Clinic attendees represented 10 of the 60 participants in the study. All were middle and high school band directors, while some taught orchestra and general music in addition to band. The teachers were from a variety of teaching locales (rural, suburban, and urban), and nine out of 10 identified their race as White; one identified as White and Asian. One teacher, Bonnie, shared an anecdote about trying to integrate a practice log strategy/requirement that she learned about from a Midwest session. Bonnie reported that this practice log intervention did not work because many of her students live in apartments and do not have the same access or resources that the Midwest clinician students might have. While this is just one attendee's experience, it is possible that it points to a larger

trend of sessions at The Midwest Clinic being geared to a more suburban, affluent audience similar to that of the presenters.

While The Midwest Clinic's performances have not been studied, scholars have explored the impacts of other conference performances on music teachers' professional development. Daniel Taylor's 2025 dissertation investigated music teachers' sensemaking at and after attending the Texas Music Educators' Association Conference (TMEA). TMEA, which the author remarks is similar in size to The Midwest Clinic, similarly contains a multitude of offerings including clinics, performances, exhibits, and business meetings. Like The Midwest Clinic, TMEA is nationally renowned for its exceptional performances by both student groups and professional ensembles. Taylor found that music teachers who attended TMEA greatly anticipated hearing the student performances, and some found inspiration in them. Another participant shared that hearing these exceptional ensembles "recalibrated" her brain to what a "good band sound" is. Hearing a live performance at a conference also led to spontaneous gleanings, like "it is okay to have fun during a performance." Due to similarities to TMEA, it can be inferred that attendees at The Midwest Clinic look to performances for inspiration in their teaching as well. Exceptional performances at conferences like TMEA and The Midwest Clinic are valuable to music educators because they have the power to reinvigorate directors to make beautiful music.

Music Education Conferences and the Midwest Clinic

In 1999, Price and Orman conducted one of the first longitudinal studies of music education conferences. The authors analyzed the Music Educators National Conference (MENC, now NAfME) national biennial in-service conferences and their sessions from 1984 through

1998. They created a database of each session from each conference using printed programs. Due to the vast nature of the music education conference, each session was analyzed by category/purpose, then by subject area within that category, and then by a specific focus within the subject area. An example of this would be a session about strategies for teaching high school guitar. This session would be listed as "educational" in the program, with its subject area being general music, and focus within that being high school. From 1984 to 1998, the largest proportion of sessions at MENC conferences was educational. Overall, the proportion of performance sessions, including concerts and clinics, saw a decline over that same time frame. A follow-up study looking at the 2000 MENC biennial conference reflected similar trends (Price & Orman, 2001).

In their subsequent 2007 study, Orman and Price compared the content and attendance of the 2002 and 2004 Midwest Clinic, American Choral Directors Association (ACDA), and Orff-Schulwerk Conferences alongside MENC. Using conference programs, the authors created a database of the titles, descriptions, and sponsors (if applicable) of each session at each conference in 2002 and 2004 (n = 2,302). Sessions were classified into categories as stated in each program (educational, concerts, business, receptions, other), and then further classified into specific areas of focus (e.g., elementary band). Orman and Price found that The Midwest Clinic had the fewest number of sessions (n = 402) of all four conferences, and also had the highest average attendance per session when calculated based on total attendance/total number of sessions (69.1 attendees per session). The predominant subject area for The Midwest Clinic's educational sessions was performance. While there are multiple conferences that offer

educational sessions and exhibit halls, findings suggest that The Midwest Clinic has a unique emphasis on performing ensembles.

More recently, researchers have sought to have an updated understanding of trends in educational session content at The Midwest Clinic specifically. In 2025, Richter and Zabanal conducted a study to analyze the content of The Midwest Clinic's educational sessions from 2000 to 2019.The authors used program booklets from each conference to code sessions according to the dominant themes of each session in order to observe trends in session content and presenter demographics. Instrument techniques, teaching/rehearsal strategies, and conducting/musicianship were the most commonly coded sessions, while arts integration/interdisciplinary, research, and inclusion were the least coded. While many sessions are intended for a general audience, more conference offerings in this sample were geared for band directors than orchestra directors, mirroring band/orchestra availability nationwide (Elpus & Abril, 2019). Presenters at The Midwest Clinic in this timeframe were mostly male and employed at collegiate institutions. Due to the presenter demographics, Richter and Zabanal establish that the conference may not always be authentic to the experiences of K-12 music educators.

Scholars have also conducted research in order to better understand The Midwest Clinic's performing ensembles. In 2015, Sheldon and Hartley reviewed concert programs from The Midwest Clinic between 1947 and 2008 to gather names of primary conductors of each performance. Sheldon and Hartley reviewed the names of each conductor to verify their gender, using Internet searches to confirm when necessary. Of the 602 conductors who appeared at The Midwest Clinic, 7.56% were women and 92.44% were men. The first woman conducted an

ensemble at The Midwest Clinic in 1955. Of the 52 conducting appearances by women, 35 (or 67%) were performances by junior high school bands. These data reflect a lack in representation of women in band directorship in elite performance spaces like The Midwest Clinic, especially at the high school and collegiate levels.

Another study investigated the geographic representation within orchestra performances at The Midwest Clinic. In Zabanal's (2021) examination of the participating orchestras from 1990-2019, he considered basic identifying information such as performance year, school or organization name, ensemble name, and geographic location. Zabanal found that Texas, Georgia, Illinois, Nevada, Michigan, Missouri, and Kansas were the most represented states at Midwest Clinic over that time span, with 73 orchestras from Texas performing. Using the National Association for Music Education's geographical regions, Zabanal also found that the Southwestern and North Central regions of the country were most represented, positing that Texas and the Southwest is so highly represented due to the culture of competition that exists within those states. Zabanal also suggests that the North Central region's numbers were due to proximity to Chicago, where The Midwest Clinic takes place. This research indicates that while The Midwest Clinic is an international conference in name, many of its performers are from specific geographic regions of the United States.

One look into the culture of performances at conferences comes from a comparative analysis of concert programs from ASTA, ACDA, and The Midwest Clinic. Freer (2019) found that Midwest Clinic programs, which are individually distributed by each performing ensemble, were extremely elaborate, containing many full-color photographs, award details, and other program information about the ensembles. Each Midwest Clinic program reviewed for this study

also “prominently acknowledged” the parent organizations (e.g. music boosters) that supported the music program. Freer suggests that these booster groups likely played a large role in funding the travel and handling the logistics that go into attending a large conference like The Midwest Clinic. The elaborate concert programs at The Midwest Clinic signify that performing is not only a musical achievement, but also a reflection of a program's ability to leverage community wealth and organized parental support.

Factors Influencing School Music Travel

Freer’s 2019 research points to a need to review the school music travel literature to determine the factors that might influence a group’s ability to physically attend their performances. While much of this work does not relate to travel to conferences specifically, it is a good insight into what considerations Midwest Clinic ensemble directors might have to make in their planning processes.

Helsel furthered understanding of school music travel by conducting his dissertation in 2019. He surveyed 745 secondary music educators in order to examine their perceptions of travel experiences for their band, choir, and orchestra programs. Of these teachers, 51.7% were band directors, 41.2% were choir directors, 19.7% were orchestra directors, and 8.6% responded “*other”* with some teachers working with multiple ensembles (e.g. band and choir). The survey respondents, regardless of locale or percentage on free or reduced lunch, reported that parents and fundraisers were the primary sources of funding for music trips. Helsel’s paper also included a qualitative interview component, where he focused on nine of these respondents. These teachers described many challenges when coordinating school trips, including lack of administrative and parent support, and students’ inability to attend due to cost or other

obligations. There was also a theme among orchestra teachers that it was more cumbersome to travel because of the difficulty and expense of safely transporting large instruments like cellos and basses. Special considerations must also be made for trips that involve performances, because depending on who attends the trip, musical balance of instrumentation might become an issue. When considering traveling for a conference performance like The Midwest Clinic, it would be imperative that every student in the group be able to afford the trip so as not to sacrifice any musical quality.

Helsel's 2015 paper examined the advantages and disadvantages of school music travel by interviewing three music educators in Western Pennsylvania. Each teacher represents different perspectives of band, choir, and orchestra at three different high schools in the region. The band and orchestra directors travel every other year. The range in per-student cost of trips is $500-600 for band and $720-800 for orchestra trips. All directors rely heavily on fundraising to make their trips possible, and all three point to parent booster groups as integral in carrying out each trip. Boosters not only contributed financial assistance, but some organizations also played a role in planning trip logistics to alleviate the stress on the ensemble's director. Jimmy, the choir director, saw trip participation tie very closely to parent booster participation - in a year where parent involvement was low, trip participation lowered to 45%, whereas it is usually much higher (around 80%). Like Freer's article about conference travel, this research points to a direct link between school music travel and parent booster organizations.

In 2019, Elpus and Grisé explored the financial impacts of music booster organizations across the United States. Using publicly available information from IRS nonprofit tax return filings, researchers created a dataset of 5,575 music booster organizations, which they define as

"a school-supporting nonprofit organized to benefit the music program of one or more local public schools, regardless of the name of the organization" (2019, p. 9). In 2015, music booster groups raised at least 215 million dollars to support music education in school communities. The median household income in ZIP codes with music booster groups was $63,198, considerably higher than the 2015 national average of $55,755. Overall, Elpus and Grisé found a significant association between music booster revenue and median household income in a particular ZIP code. By documenting these financial disparities, Elpus and Grisé demonstrate that parental fundraising success and financial support of music programs is deeply intertwined with the existing wealth of a school's surrounding community.

High School Music in the United States

There has been ample nationally representative research on high school music education in the United States. On behalf of the National Center for Education Statistics, Parsad and Spiegelman studied the availability of arts education across the United States in 2012, using school-level and teacher-level surveys to gather data. One thousand six hundred two public secondary schools were included in the sample. Their investigation included the extent to which students received music instruction, facilities and resources available to them, and instructional practices within music education. Parsad and Spiegelman found that in the 2008-2009 school year, 91 percent of schools overall offered music education. In schools where more students were eligible for free or reduced-price lunch, availability dropped, ranging from 96% of schools offering music in the lowest quartile of free lunch eligibility to 81% in the highest quartile. Schools with higher concentrations of poverty reported less access to dedicated rooms and specialized music equipment, with a smaller number of course offerings. Music teachers at

schools with a higher incidence of poverty also reported having less planning time per week. These findings suggest that even though music education is widely available across the country, there may be differences in quality depending on socioeconomic status.

Researchers then conducted a more localized analysis in 2007 to better understand their band programs' status and quality. Costa-Giomi and Chappell gathered data from 25 of 27 middle and high school band programs in a central Texas school district. Band teachers at each school completed a questionnaire to assemble data on the number of students in the program, taking private lessons, participating in competitions and honor ensembles, and the associated fees and budget of the program as a whole. In this questionnaire, teachers were also asked to document their perception of parental and administrative support to their programs. All schools were classified into three economic status (ES) groups (high, medium, and low) based on the number of students receiving free or reduced lunches according to the Texas Education Agency. Schools were also classified into three groups to signify the level of minority representation (MR). Parental support, as perceived by band directors, was more prevalent in schools of higher ES and lower MR. Most of the high ES schools went on out-of-state performance trips, and directors described parents as active in fundraising and volunteering activities. The authors concluded that despite legislation in Texas that attempts to equalize differences between wealthy and poorer schools, there still may be a gap in financial support due to parent-teacher organizations and booster clubs. Consistent with Parsad & Spiegelman's work on a national scale, these findings also point to a difference in music education quality depending on economic status.

In 2011, Elpus and Abril sought to create a nationally representative demographic profile

of high school music students in the United States. They did so using survey data from the Educational Longitudinal Surveys of 2002 and 2004, administered to seniors in the graduating class of 2004. In this 2004 senior class, there were 621,895 band, orchestra, and choir students, totalling about 21% of the overall enrollment. The majority of music students went to schools in the suburbs over urban or rural areas, similar to national splits of these teaching locales. Nationwide, the authors found that students in the lowest economic quartile were significantly underrepresented among music students, and that the wealthiest students were significantly overrepresented. White students were overrepresented in this sample, and Hispanic students were significantly underrepresented. Elpus and Abril suggest that the underrepresentation of Hispanic students might be related to the lowered rate of music participation in the Western region of the United States, which also reports the highest concentrations of Hispanic students. These findings overall suggest that high school music in the United States is more available to students in White, affluent communities.

In 2019, Elpus and Abril published an updated demographic profile of high school music students across the United States. Using restricted-use data from the NCES High School Longitudinal Study (HSLS) as well as HSLS participants' transcript data, the authors were able to paint a clear picture of the music students in the class of 2013 in terms of sex, race/ethnicity, socioeconomic status, parental education, family composition, native language, and standardized math test scores. The authors found that 11% of the class of 2013 enrolled in a band course during their high school years, only 2% enrolled in orchestra. Unlike their choral music counterparts, band and orchestra enrollment was tied to race and ethnicity. African American and Latino students were significantly underrepresented in both bands and orchestras, and White and

Asian/Pacific Islander students were overrepresented in orchestra programs. Students of higher socioeconomic status were more likely to be enrolled in band and orchestra classes. These findings are consistent in showing evidence that music education thrives in high income and White communities.

Access to arts education, and music education more specifically, is also influenced by school characteristics (Elpus, 2022). Using data from the nationally representative HSLS, Elpus analyzed the availability of music, dance, theater, and visual arts classes across several school-level factors, including school control (Public, Private), school type, urbanicity, region, school size, school schedule, and socioeconomic profile. Elpus found that public high schools have greater availability of arts courses than private schools overall. Schools with a greater proportion of students on free and reduced lunch were less likely to offer music courses for credit. With regard to racial composition of schools, there was a statistically significant association between the number of White students in a school and the likelihood of music courses being offered at the school. Elpus notes that there is significant leveling of this rise once the racial composition of the school reaches 70%. Larger public high schools were more likely to offer music courses for credit; for every additional 1,000 students enrolled in a school, students were 17% more likely to enroll in music. Elpus attributes this in part to the greater likelihood of large high schools to have more facility and faculty resources available to students, and thus more ability to offer a wider variety of arts courses.

Literature Review Conclusion

Existing literature has examined Midwest Clinic educational content, presenter demographics, conductor gender representation, and geographic trends among orchestras.

Research has also established inequities in access to music education nationwide. However, no known study has systematically examined the demographic and institutional characteristics of high school ensembles selected to perform at the conference. The present study seeks to address this gap, and in turn better understand if elite music education spaces reproduce broader inequities related to wealth and race.

Chapter 3: Method

The purpose of this study is to create a demographic and geographic profile of the high schools that sent bands, orchestras, and full orchestras that performed at Midwest Clinic between 2015 and 2024. To address this purpose, I ask the following research questions:

1. What are the characteristics, including school type, location, school size, racial/ethnic makeup, music booster organization presence, and socioeconomic status of the high schools that performed at The Midwest Clinic between 2015 and 2024?
2. How do these demographic characteristics (school type, location, school size, race/ethnicity, socioeconomic status) compare between years of this study?
3. To what extent does school demography vary by school type and ensemble type?
4. Are the schools that have performed at The Midwest Clinic nationally representative in terms of school size, race/ethnicity, and socioeconomic status?

This study is a secondary analysis of existing data, and is descriptive and quantitative in nature.

Sample Population

I designed this study in order to describe The Midwest Clinic's high school large ensembles in recent years. While The Midwest Clinic also invites chamber ensembles and percussion ensembles each year, the present study focuses on bands and orchestras because their overall demographics have previously been explored in the literature (Elpus & Abril, 2011; 2019). Middle school and collegiate ensembles were beyond the scope of this study. For the purpose of this study, "performing ensembles" denotes bands, string orchestras, and full orchestras that performed at The Midwest Clinic.

I chose to investigate the years 2015-2024 because it provides a nearly ten year span of conference data through which I can analyze trends. The recency of these conferences also helps illustrate the demographics of The Midwest Clinic at the time of this study. Due to the COVID-19 pandemic, The Midwest Clinic did not hold a conference in December of 2020 (The Midwest Clinic, 2020). No new performance applications were accepted for the 2021 conference, and all of the 2020 ensembles were re-invited to perform (The Midwest Clinic, 2021). Therefore, the year range of 2015-2024 actually only includes nine Midwest Clinic conferences.

Data Sources

To create my dataset, I assembled a comprehensive list of all of the schools that performed at The Midwest Clinic over the nine meetings between 2015 and 2024. I did so using the archive of performing organizations on The Midwest Clinic's official website. For each performance year, I recorded the ensemble name, ensemble type, city, and state of every high school band, high school string orchestra, and high school full orchestra (n = 115). In most cases, the name of the high school was in the name of the ensemble (e.g. Flower Mound High School Wind Symphony). In cases where the school name was truncated or unclear, I ran a keyword search including the city and state to confirm. One ensemble, the Chicago Youth Symphony Orchestra, is a youth orchestra and not a high school, therefore it was excluded from the sample. Some schools performed multiple times or sent multiple ensembles between 2015 and 2019. Each of these schools is counted as a unique ensemble for every time they perform. This leaves the total number of ensembles in the sample at N = 114.

School type was determined for each school using the NCES resources as well as school websites. The NCES categorizes schools as public or private schools. To determine whether

schools were magnet schools, I consulted each school website. Each performing school described as a magnet school in this study (n = 11) was an arts magnet school. No other magnet programs (e.g. those for engineering, mathematics, career and technical education) were apparent in the dataset.

Additional information about each high school comes from the National Center for Education Statistics (NCES). Using the School Search feature, I determined whether each school was public or private. In order to determine magnet status of public schools, I looked at each school website. NCES also maintains a web application called the Elementary/Secondary Information System (ElSi), which allows users to view the NCES Common Core of Data and generate custom tables using specific filters. Using ElSi, I was able to compile school level data on school population, racial/ethnic composition, and number of students on free/reduced lunch for each school's performance year.

Aside from free/reduced lunch eligibility, I sought to further understand each school's socioeconomic status (SES) using data from the surrounding school community. I chose to look at two additional measures of SES - median family income and the School Neighborhood Poverty Estimate. Using the U.S. Census Bureau's American Community Survey (ACS) data, I compiled the median family income for each school's ZIP Code in the calendar year in which the school performed. I chose to use median family income over median household income because this measure captures household units of related people, rather than any people living together in the same household (e.g., roommates). The median family income of the school's ZIP code can provide a snapshot of the amount of wealth in a school's immediate surrounding community.

The School Neighborhood Poverty Estimate (SNP), which was developed by the NCES,

uses income data from the ACS to measure the percentage of family income in a school boundary that is above or below the federal poverty line. SNP "uses geographic and statistical modeling to provide estimates of neighborhood poverty around specific locations," i.e., schools (Geverdt, 2018). For this study, I am using the 2020-2021 SNP Estimates, which come from income data from ACS years 2017-2021. I chose this year of the SNP for my analysis because the ACS years fall closer to the middle of the 2015-2024 range of the Midwest dataset. The income to poverty ratio (IPR) produced by the SNP is a number from 0 to 999. A value of 100 indicates a family with income at the poverty threshold. A higher IPR number indicates a school whose family incomes are higher. In order to compare my sample's SNP to high schools nationwide, I used ELSi to gather NCES ID numbers for all schools in the country in the school year 2019-2020, which is the midpoint year of this study. In order to narrow this nationally representative dataset to only high schools, I kept any school with students in Grade 9-12. In some cases, data were missing from the NCES databases used in this study. Sample sizes might vary across analyses in order to accommodate for missing data.

To determine whether schools had a music booster organization, I used the ProPublica Nonprofit Explorer, an online repository of annual returns filed by tax-exempt nonprofit organizations. Using the keyword search feature of the Nonprofit Explorer, I looked up each school using all or part of the school name. I identified music booster organizations using common names such as "band booster", "music booster", or "friends of music" (Elpus & Grisé, 2019). If I was not certain if a group was a music booster group, I looked at the mission statement on the tax return and/or the music booster organization website to confirm.

In order to compare the public and public magnet schools that performed at the Midwest Clinic to high schools nationwide, I assembled a dataset of high schools using ElSi for the 2019-2020 school year. NCES used codes to label school levels. To examine high schools nationwide, I kept every school coded as a "High" school, as well as some "Secondary" and "Middle" schools that included 9th grade. Less than 2% of this dataset were schools coded as something other than "High" schools (N = 23,442). One school in the Midwest dataset, Jordan High School in Fulshear, TX, was founded in the 2020-2021 school year and thus not a part of this national dataset. For comparative analysis, there are only 92 schools in this national dataset that performed at the Midwest Clinic from 2015-2024. I use these data in school size, race/ethnicity, and School Neighborhood Poverty estimate comparisons to answer Research Question four.

Variables and Analysis

Research Question 1: Midwest Performing School Data

This section reviews the variables selected for this study and how I will analyze them. I will report school locations, derived from the location of the school's physical address, by number in each state. To understand any regional patterns, I used the U.S. Census Bureau's regions to categorize each performing ensemble. Use of the U.S. Census regions allowed for comparisons of these Midwest Clinic performers to high school music students overall using the nationally representative Elpus and Abril study (2011).

I analyzed school size using total school enrollment during the ensemble's performance year. However, to provide context for Midwest ensembles relative to their national counterparts, I categorized each as small, medium, or large schools. A small school is defined as one with fewer than 650 students, consistent with The Midwest Clinic's definition of a small school (The

Midwest Clinic, n.d.). I defined a medium school as one with a population between 650 and 1,600 students, and a large school as having an enrollment greater than 1,600. In the midpoint years of this study period (2019-2020), a small school by this definition made up about 66% of schools nationally (National Center for Education Statistics, 2019). Schools enrolling up to the 1,600-student threshold represented the 88th percentile of high schools overall (National Center for Education Statistics, 2019). This isolates the largest schools, with over 1,600 students, as serving exceptionally large student populations.

To understand the racial and ethnic representation of The Midwest Clinic's performing schools, I examined the percentage of students in each NCES race/ethnicity category. These categories include White, Black or African American, Hispanic or Latino, Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and students who identify as two or more races (National Center for Education Statistics, 2026). I also reported race/ethnicity in terms of underrepresented minorities (URM) (Black/African American, Hispanic/Latino, and Native American/Alaska Native) versus non-URM (White, Asian/Pacific Islander, Native Hawaiian/Other Pacific Islander, and Two or More Races). I used descriptive statistics to identify overall demographic trends and then compared these findings to previous research on high school music participation (Elpus & Abril, 2011; 2019, Costa-Giomi & Chappell, 2007).

I analyzed the socioeconomic status of each performing school using several measures. These include free/reduced lunch eligibility (expressed as a percentage of total student population), median family income, and School Neighborhood Poverty Estimates. Median family income was collected from the American Community Survey in dollars of the year of

performance. After adjusting for inflation using the appropriate Consumer Price Indexes (U.S. Bureau of Labor Statistics, 2026; U.S. Census Bureau, 2025), median incomes are reported in this study in 2024 dollars. These four metrics provide a robust portrait of each school's socioeconomic situation, allowing for captures of need on the individual student level, school level, and an assessment of the broader school community's wealth.

Lastly, I analyzed each school's presence or absence of music booster organizations to understand their prevalence in elite ensembles. This variable may help to illustrate patterns of parental support among Midwest's performing ensembles and may further the notion that music booster organizations enhance opportunities for the students they benefit (Elpus & Grisé, 2019; Freer, 2019; Helsel, 2015).

Research Question 2: Midwest Clinic School Demographics Over Sample Period

In order to investigate research question two, I conducted analyses that test if Midwest school characteristics changed from 2015-2024. For school type, I used bi-variate linear regression to determine if there was a significant change in the number of traditional public schools represented at the Midwest Clinic from 2015-2024. For location, I used bi-variate linear regression to determine if there was a significant change in the number of appearances by schools from the Southern United States. For school size, I used bi-variate regression to measure if there was change in representation of large schools. For the race/ethnic composition of schools, I used the proportion of White students in my bi-variate regression. I also analyzed trends For socioeconomic indicators, I conducted bi-variate regressions for median family income of the school ZIP code over time, as well as free and reduced lunch proportions for performing schools over time. Median family income was adjusted for inflation using and

reported in 2024 dollars. I excluded school neighborhood poverty from this analysis because it was only captured once for each performing school, and doesn't accurately represent a school's financial profile in the year that they perform.

Research Question 3: Internal Midwest Comparisons

Research question three compares race/ethnicity and socioeconomic factors across Midwest performing school type and ensemble type. For race/ethnic representation questions, I conducted a multivariate analysis of variance (MANOVA) twice, once for school type and once for ensemble type. For the school type MANOVA, I excluded the private school (n = 1), because it is unwise to draw comparisons based on such a small sample. Following MANOVA, I conducted follow up one way ANOVAs to understand changes in each racial category (e.g. White, Native Hawaiian). I used one way ANOVAs to understand median family income across school type, median family income across ensemble types, and School Neighborhood Poverty estimates across school type and ensemble type.

Research Question 4: National-Level Comparisons

National median family income data is from the U.S. Census Bureau data search tool. The data for nationwide free and reduced lunch registration comes from the National Center for Education Statistics. I also utilize data from Elpus & Abril (2011) to draw comparisons between race/ethnicity of music students nationally and students who attend schools that performed at The Midwest Clinic. For analysis of free and reduced lunch and analysis of race/ethnicity (expressed both in terms of individual race categories as well as URM vs. non-URM), I use a

chi-square test of homogeneity to determine if Midwest Clinic schools are significantly different from their national counterparts.

Limitations

This study relies on publicly available data and secondary analysis of those data, which presents several limitations. The foremost limitation of this study is that it relies on data at the school and community level, rather than at the music student level. In addition, NCES and ACS data may contain inconsistencies based on the reporting practices of different schools and districts. Lastly, median family income of each ZIP code may not perfectly reflect the school population, especially in schools or districts with school choice systems or large boundary areas. Additionally, my nationally representative dataset is not definitively a list of all high schools in the country; similarly, some schools may be on that list that are not actually high schools (e.g., a junior high school serving grades 7-9). Due to varying grade distributions of schools in my Midwest sample (i.e., a school that only serves grades 9-10 and another that only serves 11-12), I found it appropriate to use a wider definition of "high school".

Identifying music booster organizations may also present some challenges. Some booster groups may not be formally registered as nonprofit organizations and therefore would not appear in the ProPublica Nonprofit Explorer database (Elpus & Grisé, 2019). It is also possible that some booster organizations use names that are difficult to identify through keyword searches. Therefore, this study is limited in its ability to definitively identify all music booster organizations for The Midwest Clinic's performing ensembles.

This study is not causal in nature and will not be able to explain why certain schools are selected to perform at The Midwest Clinic. Rather, it analyzes trends among recent schools that have performed to identify patterns in representation.

Chapter 4: Results

This chapter reports the findings of this study, beginning with descriptive statistics answering research question one. Then I report the results of my analyses to answer research questions two and three, before situating my findings on Midwest schools within a national context.

Research Question 1: Characteristics of Midwest Performing Schools

School Type

From 2015-2024, there were 114 high school performing ensembles featured at the Midwest Clinic. There were 48 performances by bands, 23 by full orchestras, and 43 by string orchestras. At the Midwest Clinic, full orchestras are distinguished from string orchestras as groups that contain winds in addition to the traditional string orchestra. Performing schools were predominantly conventional public schools (n = 102), however there were also a number of public magnet schools (n = 11) and one private school. Traditional public schools compose 89.4% of the sample, magnet schools 9.6%, and private schools 0.8%.

Ensembles from 18 schools performed at The Midwest Clinic twice. One school, Johnson High School from San Antonio, Texas, performed at The Midwest Clinic three times: in 2016 as a string orchestra, 2019 as a band, and 2022 as a full orchestra. Accounting for schools with multiple performances, there were 94 unique schools (85 public, seven public magnet, and one private). Among schools with multiple performances, the most frequent ensemble combinations were two string orchestras (n = 6) and band and full orchestra (n = 5).

School Location

The Midwest Clinic hosted performing ensembles from 18 U.S. states between 2015 and 2024. Table 1 shows the distribution of performing ensembles in each state and Census region by ensemble type. Figure 1 displays this distribution on a map of the United States. Texas had the most performances at the Midwest Clinic (n = 56), followed by Georgia (n = 11), and California (n = 9). When grouped by U.S. Census region, the majority of performing ensembles came from the Southern region of the United States (n = 82), followed by the West (n = 19), Midwest (n = 12), and Northeast (n = 1). When accounting for schools with multiple performances, schools from Texas made up 48 of 94 total schools in the sample, or 51.6% of schools that performed at The Midwest Clinic between 2015 and 2024.

Figure 1

Geographic Distribution of Midwest Clinic Ensembles Across the United States, 2015-2024

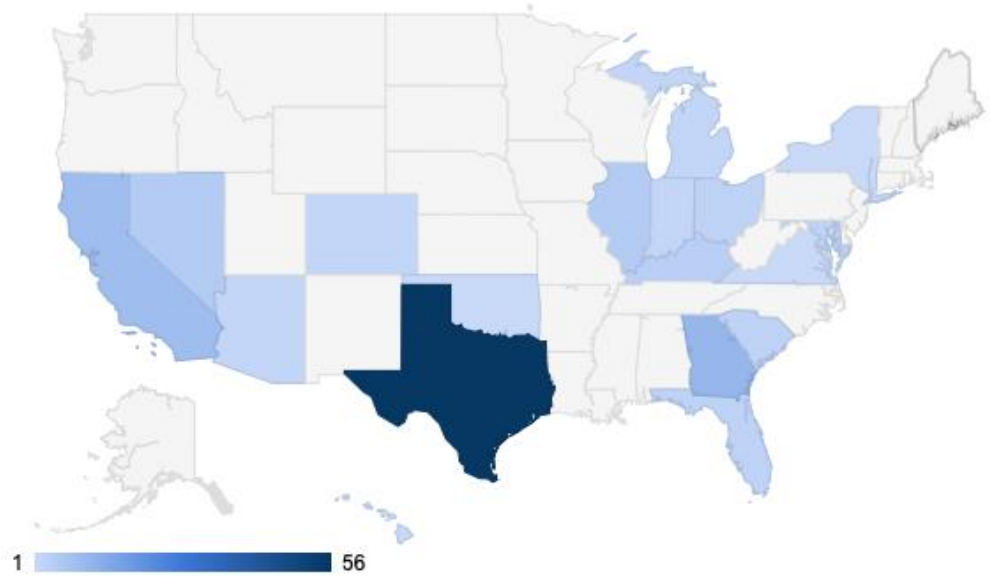


Table 1

Frequencies of Performing Ensembles by U.S. Census Region, State, and Ensemble Type

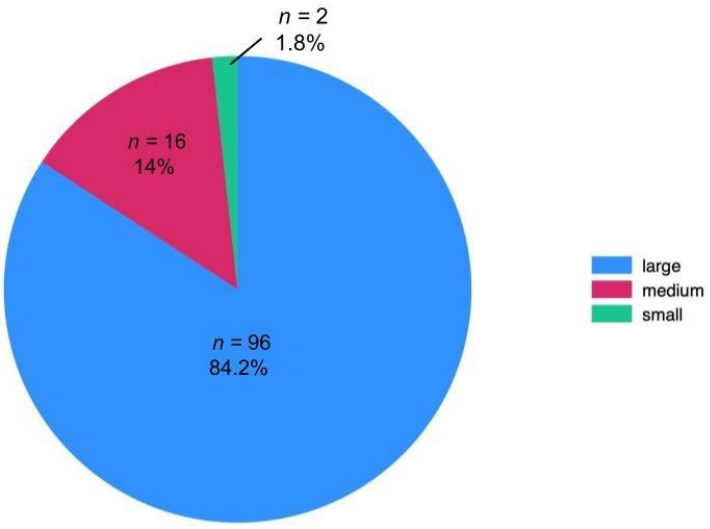
U.S. Census Region: State	Band	Full Orchestra	String Orchestra	Total	%
Midwest	**5**	**5**	**2**	**12**	**11%**
Illinois	3	1	1	5	4%
Indiana	0	2	0	2	2%
Michigan	0	2	0	2	2%
Ohio	2	0	1	3	3%
Northeast	**0**	**0**	**1**	**1**	**<1%**
New York	0	0	1	1	<1%
South	**40**	**16**	**26**	**82**	**72%**
Florida	3	0	0	3	3%
Georgia	2	0	9	11	10%
Kentucky	3	1	0	4	4%
Maryland	1	0	2	3	3%
Oklahoma	1	0	0	1	<1%
South Carolina	1	0	2	3	3%
Texas	28	15	13	56	49%
Virginia	1	0	0	1	<1%
West	**3**	**3**	**13**	**19**	**17%**
Arizona	0	0	2	2	2%
California	2	0	7	9	8%
Colorado	0	1	1	2	2%
Hawaii	0	0	1	1	<1%
Nevada	1	1	3	5	4%
All	**48**	**23**	**43**	**114**	**100%**

School Size

The Midwest Clinic's performing ensembles come from predominantly larger schools. Small schools (enrollment less than 650) had two performances. These two performances were both by the Charleston County School for the Arts in North Charleston, SC, a public magnet school. Medium schools with enrollment between 650 and 1600 made up 16 performing ensembles. The remaining 96 performances were by groups from large high schools (enrollment greater than 1600). Figure 2 conveys this distribution as a pie chart.

Figure 2

Distribution of School Size Across Midwest Clinic Schools, 2015-2024



Accounting for duplicates, there was one small school, 13 medium schools, and 79 large schools. The average number of students enrolled in a high school that performed at The Midwest Clinic was 2,583 (*SD* = 975). The distribution of small, medium, and large schools

represented at The Midwest Clinic is nearly opposite to the distribution of U.S. high schools overall, a point I will discuss in further detail under Research Question 4.

Race/Ethnicity

I observed wide variation by race and ethnicity in the high schools that performed at The Midwest Clinic from 2015-2024. Most racial categories (White, Black, Hispanic, and Asian) had large standard deviations apparent in the data suggesting that there is wide variation in racial characteristics of performing schools. On average, schools in this sample had 43% White students, 21% Hispanic students, 20% Asian or Pacific Islander, 11% Black students, 5% Multiracial students, and less than one percent each of American Indian/Alaska Native and Native Hawaiian/other Pacific Islander students. Table 2 displays race/ethnicity statistics for all Midwest performing schools in this sample.

Table 2

Race/Ethnicity in All Midwest Performing Schools, 2015-2024

Race/Ethnicity	M (%)	SD (%)	Min (%)	Max (%)
White	43	19	4	83
Black	11	9	<1	46
Hispanic	21	16	2	93
Asian or Pacific Islander	20	19	<1	83
American Indian/Alaska Native	<1	<1	0	8
Native Hawaiian	<1	1	0	14
Multiracial	5	2	<1	14

Socioeconomic Status

Results show that the performing ensembles in this study come from economically advantaged areas. The average median family income of the ZIP codes of Midwest Clinic performing ensembles was $138,759 (*SD* = $49,998), expressed in 2024 dollars. The median of the median family incomes was $141,364 (in 2024 dollars). About 53% (*SD* = 30%) of students attending schools in this sample received free or reduced price lunch. In my response to Research Question 4, I compare these numbers to the national averages.

The School Neighborhood Poverty ratio (SNP) measures poverty in a school area using a number from zero to 999 using school boundary areas. A SNP of 100 means that a school community's average income is at the poverty line, and higher SNP values indicate lower poverty. These data

were not available for the private school in this study, as the school does not have clearly defined boundary areas. The remaining 113 schools had an average SNP of 512 (*SD* = 219), meaning that the average family attending a school that performed at The Midwest Clinic had an income 5.12 times greater than the federal poverty threshold. Figure 2 is a histogram containing values for Midwest performing schools, as well as their national counterparts, and is located under Research Question 4. Controlling for schools that performed multiple times (because this study only uses one year of SNP data), the mean SNP was 528 (*SD* = 211).

Music Booster Organizations

Among the *n* = 113 performing ensembles from public schools, I identified *n* = 104 (91%) that had active parent booster organizations. The one private school in the study was excluded from analysis, as parent organizations serving private schools do not fit the Elpus & Grisé (2019) definition of music boosters.

Table 3

Socioeconomic Characteristics of Midwest Performing Schools by Ensemble Type

Socioeconomic Characteristic	*n*	All Ensembles *M* (*SD*)	Band *M* (*SD*)	Full Orchestra *M* (*SD*)	String Orchestra *M* (*SD*)
Median Family Income ($)	114	138,759 (49,998)	139,201 (46,777)	133,800 (36,027)	140,919 (59,822)
Free and Reduced Lunch (%)	104	53 (30)	58 (30)	55 (25)	46 (32)
School Neighborhood Poverty (0-999)	113	512 (219)	483 (199)	492 (199)	556 (247)

Note: Median Family Incomes are expressed in 2024 dollars.

Research Question 2: Trends Over Sample Period (2015-2024)

In this section, I answer research question two: Do any of these demographic characteristics (school type, location, school size, race/ethnicity, socioeconomic status) change over the time period of this study? Overall, the demographic profile of Midwest Clinic performing schools stayed relatively stable. Analyses in this section test whether variables described above change in statistically significant ways between 2015 and 2024.

School Type

The schools that performed at the Midwest Clinic between 2015 and 2024 were predominantly conventional public schools. To analyze whether there were significant trends in school type over this study's sample period, I used bi-variate linear regression to determine if the proportion of public schools performing at the Midwest Clinic changed meaningfully over the study period. There was no statistically significant change in school type over the sample period, and public school representation remained fairly constant (β = -.001, *SE* = *.009, p* = .905).

School Location

From 2015-2024, a large proportion of schools that performed at The Midwest Clinic were from the state of Texas and the Southern region of the United States more broadly. Using linear regression, I found no significant variation in region of origin for performing schools over the time period of this study (β = -.013, *SE* = .014*, p* = .336). There was no linear trend, therefore the high frequency of performances by Southern schools was consistent throughout the study period.

School Size

In research question one, I found that large schools were overwhelmingly represented at The Midwest Clinic. In order to understand whether that pattern was consistent from 2015-2024, I used linear regression. There was no linear relationship between school size and year, as as the results were not statistically significant (β = .022, SE = .012, p = .076).

Race/Ethnicity

I used linear regression to understand changes in racial composition of schools represented at The Midwest Clinic from 2015-2024. Table 4 contains data describing the trends in proportions of each racial group at schools that performed at the conference between 2015 and 2024. There were slight changes in representation for Multiracial students, Native American/Alaska Native, and a more modest increase (1.4%) in representation from Asian students within their school populations. After a Holm correction, only the .2% rise in representation for Multiracial students is statistically significant (p = .004). Overall, representation was stable among each racial group.

Table 4

Regression Analysis Results for Race/Ethnicity Over Study Period

Race/Ethnicity	β	*SE*	*p*	*Adjusted R^2*	*N*
White	-.003	.006	.651	.002	114
Black	-.005	.003	.068	.021	114
Hispanic	-.007	.005	.199	.006	114
Asian	.014	.006	.02	.039	114
American Indian	-.001	<.001	.027	.035	113
Native Hawaiian	-.001	<.001	.227	.004	113
Multiracial	.002	.001	.004	.062	114

Note: Input values were proportions of Midwest ensembles. A coefficient of .01 represents a 1% change per year in racial representation within a school performing at the Midwest Clinic. Each row of this table is a separate regression.

Socioeconomic Status

I used linear regressions to understand changes in economic indicators from 2015-2024. The median family income in Midwest performing school ZIP codes rose an average of $3,772 (*SE* = $1,561, *p* = .017). The percentage of students at each school in the dataset receiving free or reduced lunch remained stable throughout the sample period. As School Neighborhood Poverty estimates were only captured once for this dataset and not yearly, that measure is excluded from this portion of the analysis.

Table 5

Regression Analysis Results for Socioeconomic Variables Over Study Period

SES Variable	β	*SE*	*p*	*Adjusted* R^2	*N*
Median Family Income ($)	3,772	1,561	.017	.041	114
FRPL	-.012	.007	.085	.029	103

Music Booster Presence

I observed no significant association between music booster presence and performance year in this sample ($\chi^2(8, N = 113) = 7.224$, $p = .513$).

Research Question 3: Patterns Across School Type & Ensemble Type

Research question three (To what extent does school demography vary by school type and ensemble type?) investigates whether racial and socioeconomic characteristics of Midwest schools differ according to school type (public and public magnet) and ensemble type (band, string orchestra, full orchestra). Due to the small sample size, private schools were excluded from the school type analyses.

School Type & Race/Ethnicity

I conducted a multivariate analysis of variance (MANOVA) in order to understand differences in racial/ethnic representation in Midwest Clinic schools based on school type. Due to its small sample size (n = 1), I excluded the private school from analysis. The effect of school type was statistically significant, Wilks' $\lambda = 0.859$, $F(7, 103) = 2.42$, $p = .025$, indicating that there were differences in race/ethnicity proportions between public and public magnet schools. I

then conducted follow-up univariate (ANOVA) analyses to determine which race/ethnicity variables were most different among Midwest schools.

Table 6

ANOVA Results for Race/Ethnicity by School Type

Race/Ethnicity	Public *M (SD)*	Magnet *M (SD)*	*F*	*p*	R^2
White	.415 *(.189)*	.546 *(.142)*	4.93	*.028	.043
Black	.111 *(.095)*	.126 *(.059)*	.29	.593	.003
Hispanic	.214 (*.162)*	.167 *(.108)*	.87	.354	.008
Asian	.210 (*.185)*	.094 *(.063)*	4.19	.354	.036
American Indian	.004 (*.007)*	.003 *(.002)*	.11	.742	.001
Native Hawaiian	.002 (*.003)*	.005 (*.004*)	3.16	.078	.028
Multirace	.045 (*.022)*	.059 (*.025*)	4.39	*.038	.038

The results of the individual ANOVA analyses are in Table 6. Because all of these ANOVAs interact with one another, I performed a Bonferroni correction. At the Bonferroni threshold of $p<.007$, no singular ANOVA is statistically significant. These findings can be interpreted to mean that overall there is a different racial profile between public and public magnet schools that performed at The Midwest Clinic; however, specific racial and ethnic representation differences should be interpreted more cautiously.

School Type & Socioeconomic Measures

This study also sought to compare socioeconomic characteristics among school types. As mentioned in chapter three, the lone private school in this study is excluded from analysis due to its small sample size.. I then used one-way ANOVA to illustrate the patterns in public and public magnet schools' median family income, free and reduced meal status, and School Neighborhood Poverty. Results of these analyses are in Table 7. ANOVA indicates that public and public magnet schools that performed at The Midwest Clinic had statistically significant differences in both median family income and School Neighborhood Poverty. Adjusted for inflation, the public schools that performed at the Midwest Clinic in this time period had over $57,037 higher median family income in their school ZIP codes than their public magnet school counterparts, however this relationship was not statistically significant ($p = .076$). The public schools that performed at The Midwest Clinic had School Neighborhood Poverty Estimates about 275 points higher than the performing magnet schools. The difference between groups was statistically significant ($p < .001$) The public schools' mean SNP of 543 suggests that families in the school community live 5.43 times above the poverty line, whereas magnet schools have a SNP estimate of 268, only 2.68 times the poverty threshold.

Table 7

ANOVA Results for Socioeconomic Indicators by School Type

Socioeconomic Indicator	Public *M (SD)*	Magnet *M (SD)*	*F*	*p*	R^2
Median Family Income ($)	144,817 (*46,874*)	87,780 (*49,968*)	1.85	.076	.125
Free and Reduced Lunch	.241 (*.194*)	.283 (*.28*)	.36	.551	.004
School Neighborhood Poverty	543 (*202*)	268 (*174*)	18.92	<.001	.146

Note: Median Family Income is reported in 2024 dollars.

Ensemble Type & Race/Ethnicity

Overall, race/ethnicity trends were consistent regardless of ensemble type. Using MANOVA, I found that there was no statistically significant relationship between ensemble type and race/ethnicity representation in schools that performed at The Midwest clinic, Wilks' $\lambda = 0.866$, $F(14, 206) = 1.1$, $p = .36$. Table 8 shows the variance of school racial composition across different ensemble categories at The Midwest Clinic.

Table 8

ANOVA Results for Race/Ethnicity by Ensemble Type

Race/Ethnicity	Band *M (SD)*	String Orchestra *M (SD)*	Full Orchestra *M (SD)*	*F*	*p*	R^2
White	.467 (*.174*)	.377 (*.207*)	.431 (*.174*)	2.66	.075	.046
Black	.126 (*.108*)	.089 (*.061*)	.123 (*.097*)	2.13	.123	.037
Hispanic	.206 (*.133*)	.202 (*.190*)	.223 (*.148*)	0.14	.866	.003
Asian	.150 (*.144*)	.277 (*.231*)	.173 (*.105*)	6.27	.003	.102
American Indian	.004 (*.011*)	.003 (*.004*)	.004 (*.002*)	.35	.708	.006
Native Hawaiian	.002 (*.003*)	.006 (*.021*)	.002 (*.003*)	1.11	.334	.020
Multirace	.045 (*.020*)	.047 (*.025*)	.044 (*.025*)	.17	.844	.003

Ensemble Type & Socioeconomic Measures

There was no statistically significant relationship between ensemble type and socioeconomic measures. However, string and full orchestra schools had lower mean proportions of students on free and reduced lunch. Additionally, string orchestras had higher mean median family income and higher School Neighborhood Poverty estimates, indicating a higher income in their school communities. Table 9 shows these means and ANOVA results.

Table 9

ANOVA Results for Socioeconomic Indicators by Ensemble Type

Socioeconomic Indicator	Band *M (SD)*	String Orchestra *M (SD)*	Full Orchestra *M (SD)*	*F*	*p*	R^2
Median Family Income ($)	139,201 (*46,777)*	140,919 (*59,822*)	133,800 (*36,027*)	0.15	.859	.003
Free and Reduced Lunch	.274 (*.215*)	.224 (*.213*)	.224 (*.147*)	0.78	.463	.015
School Neighborhood Poverty	482 (*199*)	569 (*234*)	492 (*199*)	2.05	.134	.036

Research Question 4: Comparing Midwest Schools to National Counterparts

In this section, I report findings that answer research question four: Are the schools that have performed at The Midwest Clinic nationally representative in terms of school size, race/ethnicity, and socioeconomic status?

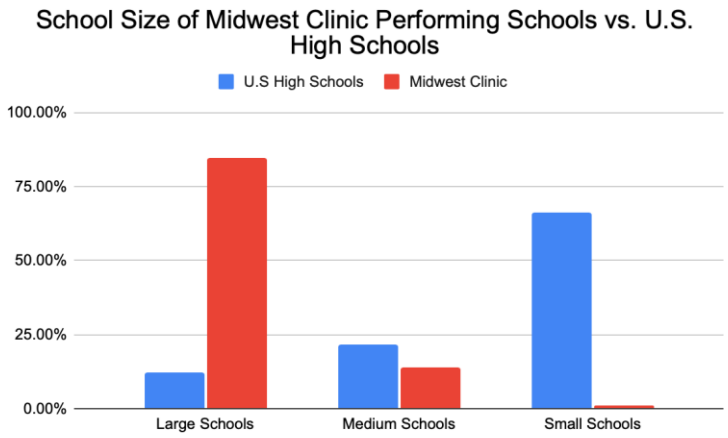
School Size

In 2019-2020, 66% of U.S. high schools fit this study's definition of a small school with enrollment less than 650. Medium schools with enrollment between 650 and 1600 made up 22% of schools, and large schools made up 12% of all high schools. This is a stark difference from Midwest performing schools, where small schools made up 2% of all performances, medium schools 14%, and large high schools 84%. Figure 3 compares school size for the Midwest Clinic

sample to schools across the United States. Using a chi-square test of independence, I found that this difference was statistically significant ($\chi 2$ (2, N = 114) = 534.4, p < .001).

Figure 3

School Size of Midwest Clinic Performing Schools Compared to U.S. High Schools



Race/Ethnicity

In order to understand the schools that performed at The Midwest Clinic relative to music students nationwide, I compared these schools to a nationally representative sample of high schools (n = 23,360), as well as empirical findings on high school music student race/ethnicity nationwide (Elpus & Abril, 2011). Table 10 compares mean race/ethnicity proportions in Midwest performing schools to schools nationwide, as well as the cohort of high school music students in Elpus & Abril's study. The present study's underrepresentation of White students (43% in Midwest Clinic performing schools and 53% nationwide) was statistically significant (p = .02). There was also significant overrepresentation of Asian students (20% in Midwest Clinic performing schools and 3% nationwide), with p < .001. Black and Hispanic students were

underrepresented at the Midwest Clinic, however, these differences were not statistically significant.

Table 10

Race/Ethnicity of Midwest Clinic Schools, U.S. High Schools, and High School Music Students Nationally

Race/Ethnicity	Midwest Clinic Schools *M (%)*	U.S High Schools *M* (%)	HS Music Students *M (%)* (Elpus & Abril, 2011)
White	*43	53	66
Black	11	15	15
Hispanic	21	29	10
Asian	**20	3	4
American Indian/Alaska Native	<1	2	<1
Native Hawaiian or Other Pacific Islander	<1	<1	<1
Two or more races	5	3	8

Note: * = $p < .05$. ** = $p < .001$. Totals may not equal 100 due to rounding.

When compared to music students nationwide, the present study's sample of Midwest performing schools saw dramatically higher representation from Asian students, a difference of four percent in Elpus & Abril to 20% in Midwest Clinic Schools. Hispanic students were also more represented in the Midwest Clinic schools sample, averaging 21% of students in each school compared to 10% of high school music students. Conversely, representation decreased for White students from 66%to 43%. Using Pearson's chi-square, I found these proportions to be

statistically significantly different from one another ($\chi 2$ (6, N = 114) = 20.69, p=.002.) However, these results should be treated cautiously because they use different units of analysis.

Median Family Income

Table 11

Median Income for Family Households, Midwest Clinic Performing Schools and Nationwide, 2015-2024

Year	National Median Family Income	Midwest Performing Schools	Difference (Midwest - National)
2015	90,641	134,007	+43,366
2016	93,158	104,093	+10,935
2017	94,850	117,079	+22,229
2018	95,734	164,372	+68,638
2019	99,680	161,210	+61,530
2020	97, 248	137,291	+40,043
2022	98,768	157,452	+58,684
2023	99,233	120,997	+21,764
2024	101,265	162,586	+61,321
		Average Difference	+ 43,168

Note: All values reported in US Dollars ($), rounded to the nearest dollar. All values are in 2024 dollars.

In order to compare schools represented at the Midwest Clinic to the country as a whole, I compared the medians of the median family income of Midwest Clinic schools to the national median. Table 11 presents the Midwest schools' median and the national median for every year

of this study. Year over year, Midwest performing schools were consistently located in ZIP codes with higher median family incomes, with a mean annual difference of $43,168 compared to the national median.

Free and Reduced Lunch

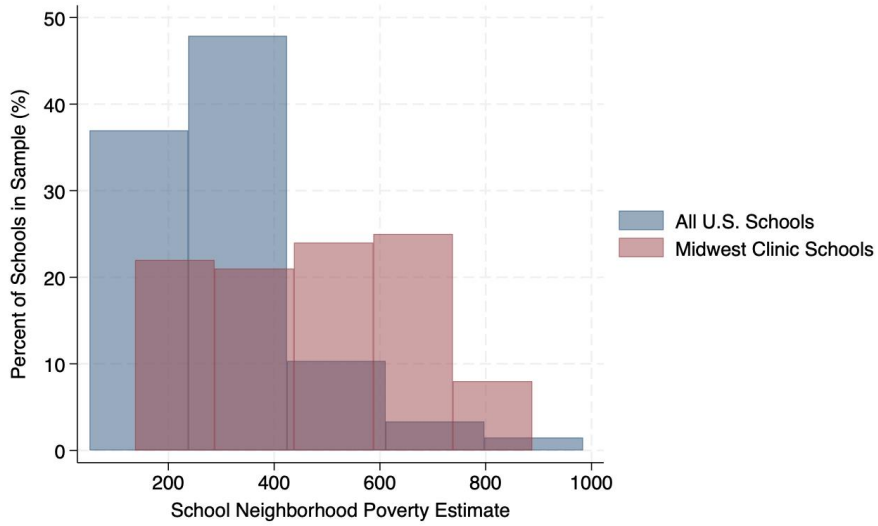
In the midpoint year of this study, 2019-2020, 52.1% of U.S. students received free or reduced lunch (NCES, 2021). This metric closely resembles the average percent of students on free and reduced lunch for schools that performed at the Midwest Clinic, which was 53 percent.

School Neighborhood Poverty

To compare the School Neighborhood Poverty for schools that performed at the Midwest Clinic to schools nationally, I used the same sample of high schools that I used to understand school size. U.S. High Schools had an average SNP of 304, considerably lower and closer to the poverty threshold than the Midwest Clinic School average of 512. This is consistent with my finding that Midwest Clinic ensembles tend to come from ZIP codes with higher-than-typical incomes. Figure 4 shows the distribution of SNP estimates for Midwest Clinic schools and high schools across the United States.

Figure 4

School Neighborhood Poverty Estimates of Midwest Schools and U.S. High Schools



Chapter 5: Discussion

Summary of Key Findings

A central finding of this study is that The Midwest Clinic has a high frequency of repeat appearances by a select group of schools. While 114 ensembles were featured at Midwest over the sample period, they represented only 94 unique schools. Nearly 20% of high school ensembles that performed at The Midwest Clinic were repeat performers. This finding suggests that certain programs have established a unique culture where travel experiences and elite performances are the norm. These schools likely also possess various resources, such as music booster groups, numerous course offerings, and additional staffing, that may give the school an advantageous position in The Midwest Clinic applciation and acceptance processes (Elpus & Grisé, 2019; Elpus, 2022). Nearly all of the performing ensembles came from public high schools.

Geographically speaking, performing schools were highly concentrated in specific areas. These findings align with Zabanal (2021) regarding the heavy representation of the Southwestern United States at the Midwest Clinic. The overrepresentation of Texas schools reinforces the notion presented by Zabanal that a culture of competition and robust funding disproportionately prepares Texas ensembles for selection to the conference. Conversely, representation from the Northeast United States was nearly non-existent. This highlights a stark disparity in representation across the country.

School size emerged as a pattern in Midwest performers. Despite The Midwest Clinic's small school initiative launched in 2016, only one unique school was invited perform, suggesting that the initiative has not been successful in its mission. Large schools with an enrollment over

1,600 comprised an overwhelming majority of performers, 96 of 114. The lack of small school representation suggests that larger institutions may benefit from greater faculty resources or specialized facilities that allow groups more quality and consistency in their rehearsal and preparation for an opportunity like The Midwest Clinic.

Another finding is that schools performing at The Midwest Clinic generally came from wealthier communities. This result was evidenced by the median family income of their surrounding ZIP codes, as well as School Neighborhood Poverty estimates, which both averaged far above the federal poverty threshold. However, there were stark differences based on school type. Public magnet schools often had much lower median income and SNP than their traditional public school counterparts. Over 90% of schools in this sample had active music booster organizations, indicating that their communities have the ability to leverage resources in order to support their programs financially.

The overall profile of Midwest Clinic schools remained fairly consistent throughout the study period, suggesting that schools selected to perform at the Midwest Clinic share some common characteristics. A majority of performing schools were from large public high schools, located in the Southwestern United States, organized parent support, and had substantial financial resources in their communities.

Discussion and Implications for Future Research

Institutional Resources Shape Opportunities in Music

The findings of this study contribute to a growing body of literature examining equity and access within music education. Previous research has documented disparities in music participation based on race, socioeconomic status, school resources, and parental support (Costa-

Giomi & Chappell, 2007; Elpus, 2022; Elpus & Abril, 2011, 2019; Elpus & Grisé, 2019, Parsad & Speigelman, 2012). The present study suggests that many of these broader inequalities are also reflected, if not magnified, among schools selected to perform at one of the nation's most prestigious music education conferences.

Institutional resources play a large role in supporting the nation's most recognized instrumental music programs. Large schools and affluent communities appear disproportionately represented among Midwest Clinic performers. Larger schools naturally provide directors with broader pools of students from which to recruit, and may allow them to differentiate ensemble instruction and create ability-based ensembles of exceptional talent. This notion is supported by previous literature that found that large high schools are more likely to offer comprehensive music programs (Elpus, 2022). Wealthier communities often possess stronger tax bases, greater fundraising capacity, and increased access to private lessons, instruments, travel opportunities, parent volunteers, and music booster programs (Elpus & Grisé, 2019).

The fact that only one unique small school (also a magnet school) successfully navigated The Midwest Clinic's application process highlights the steep demands of building a music program that can compete with larger schools. Future research should critically evaluate the specific structural barriers that small school directors may face during the application process to The Midwest Clinic. Identifying these hurdles is a necessary step in assessing whether selection criteria can be adapted to better fit the realities of smaller music programs.

The near-universal presence of music booster organizations further underscores the importance of community support. While this study cannot determine whether booster organizations directly increase a school's likelihood of performing at The Midwest Clinic, their

prevalence suggests that organized parental involvement is a common characteristic of elite music programs. Previous research has shown that booster organizations often provide financial assistance, volunteer labor, travel planning, and advocacy that extend well beyond what school districts alone can provide (Freer, 2019; Helsel, 2015). Together, these findings suggest that excellence at the highest levels of school music performance is supported not only by exceptional teaching and student achievement, but also by extensive institutional and community resources.

Further, the cost of participation itself represents a large, still unexamined barrier. Simply getting an ensemble to Chicago to perform, including travel, lodging, transporting large instruments, and performance fees, requires large school expenditures. Future research should investigate the actual financial expenses associated with performing at The Midwest Clinic or similar conferences, examining how these costs are distributed between school district budgets, booster organizations, and individual student families. Documenting these costs would offer valuable insight into the economic barriers that may prevent under-resourced schools from applying to the conference in the first place.

Racial diversity at The Midwest Clinic presents a more nuanced picture. In terms of race and ethnicity, the average performing school population differs from schools nationwide as well as national music student profiles. Asian students were significantly overrepresented relative to their national counterparts, and White students were underrepresented. These findings differ from Elpus & Abril (2011; 2019) which found that White and Asian students were both overrepresented in music compared to their non-music counterparts. However, the underrepresentation of Black and Hispanic students relative to their presence in the U.S.

population persists in this sample. This suggests that elite music performance spaces may have different demographics than general music enrollment.

Magnet Schools Break the Pattern

An unexpected finding of this study involved the public magnet schools in the sample. Although magnet schools represented only a small portion of Midwest Clinic performers, they differed significantly from traditional public schools. Compared with conventional public schools, the magnet schools that performed at The Midwest Clinic came from communities with substantially lower median family incomes and significantly higher neighborhood poverty. This suggests that the relationship between community wealth and elite representation in music spaces may be more complex than the overall findings of this study suggest.

Unlike traditional neighborhood schools, magnet schools often draw students from across an entire district rather than serving only those who live nearby. As a result, neighborhood measures based on ZIP code or School Neighborhood Poverty may not accurately reflect the students enrolled in the school or in the music program. Students attending a magnet school may come from many different neighborhoods with very different socioeconomic characteristics. Specialized arts programming, district-level support, and selective admissions may also provide opportunities that are less dependent on the resources of a school's immediate neighborhood.

The magnet schools in this study also differ from traditional public schools in their racial composition, enrolling significantly higher proportions of White students and lower proportions of Asian students. Although the number of magnet schools in the sample was small, these differences suggest that magnet schools may represent a distinct pathway to performing at The Midwest Clinic. Future research should examine magnet schools separately from traditional

public schools to better understand how their admissions practices, funding structures, and student populations shape opportunities in music education.

Complexities in Representation

Previous national studies have shown that White students and students from higher socioeconomic backgrounds are overrepresented in school music programs (Elpus & Abril, 2011, 2019). The findings of this study present a somewhat more complicated picture of how this extends to elite spaces in music education like The Midwest Clinic. Schools represented at The Midwest Clinic were less White than their national counterparts, but significantly overrepresented Asian students. This presents a more nuanced picture of how race is represented at the conference.

However, these findings should be interpreted carefully due to the design of this study. This study examined school demographics rather than the students who actually performed at The Midwest Clinic. A school with a diverse student population may not have an ensemble representative of that diversity. Future research examining ensemble membership directly would provide a more complete and accurate understanding of representation on the Midwest Clinic stage.

Conclusion

The Midwest Clinic represents the pinnacle of instrumental music student achievement, celebrating decades of exceptional teaching and performance. However, the findings of this demographic and geographic profile suggest that elite performance spaces do not exist in a vacuum. Instead, the pathway to selection is heavily related to institutional size, community wealth, and regional music education culture. The disproportionate representation of large,

affluent public schools with music booster programs suggests that systemic and community resources are a critical factor in arriving to the national stage.

Acknowledging these patterns does not diminish the pedagogical and musical excellence of the selected ensembles; rather, it highlights structural inequalities inherent in competitive music spaces. As a leading professional development organization for band and orchestra teachers, The Midwest Clinic is uniquely positioned to address these disparities. The Midwest Clinic has an opportunity to lead the field by demonstrating that artistic excellence and demographic equity are not mutually exclusive. By providing financial assistance to smaller schools (i.e. waiving the application fee), The Midwest Clinic could potentially increase the number of schools that apply to and are admitted to the conference. Conference organizers could also explore ways to make navigating the conference application and travel process easier for schools with more limited financial resources in their communities. Analyzing and acting on these findings represents an essential step towards understanding and addressing the systemic barriers that limit access to high level opportunities in music education.

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