

THE SMALL BAND PROBLEM:
Exploring the challenges faced by directors of small or limited-instrumentation wind bands

Ryan L. Cox
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Abstract

The purpose of this study was to explore the degree to which band directors of small wind ensembles find section balance, repertoire selection, and ensemble culture a challenge due to band size or missing instrumentation. Although the benefits of music education in K-12 schools, especially instrumental music, have long been studied and demonstrated, a disparity exists between the experiences of smaller ensembles that struggle to program appropriate repertoire and larger, more robust ensembles with the means to consistently program high-level, high-quality literature. A survey of high school band directors in the United States was conducted in March 2025 to gather both quantitative and qualitative data in all three areas mentioned above. Analysis of this data demonstrated widespread balance and repertoire concerns are widespread when directors indicated that they are missing key elements of the standard wind band instrumentation. Potential interventions that directors, composers, and administrators can implement are discussed as well, based on the data collected.

Introduction

Wind bands, regardless of the label—concert band, symphonic band, or symphonic wind ensemble, for example—remain an enduring part of the high school student-musician's experience. Despite this, there is a wide disparity in size, ability, and access in concert bands across the United States (CBDNA, 2021; Elpus/Abril, 2025). The challenge for band directors, then, is providing a quality band experience to their students regardless of the size of the ensemble, finding a way to balance both ability and availability (Elpus/Abril, 2025). For directors of smaller ensembles, this problem seems to be more exaggerated. Although smaller ensembles may find themselves a part of a tighter-knit family, having fewer players but a

wide-ranging ability makes it uniquely difficult to program repertoire and find an appropriate balance across the ensemble. Larger ensembles may still find themselves missing key instrumentation that still makes it difficult to program appropriate repertoire; in other words, an ensemble being larger does not necessarily imply that it is properly staffed. This study aims to explore these challenges with regard to balance and blend, repertoire selection, and ensemble culture, as they relate to ensembles with limited instrumentation, and offer interventions for band directors to help mitigate these concerns.

Background

The benefits of music education have long been studied and demonstrated; student-musicians often perform better academically and are more mature socially than their non-musician peers (Elpus/April, 2025). The rehearsal room of any ensemble provides a safe space for students to explore creative outlets, make friends, and express themselves freely (Regier, 2024). Although band programs are available in K-12 schools nationwide, inconsistent funding and support for these programs from district to district mean that even students in the same state may have a markedly different experience from participating in their respective school band (Regier, 2024; Elpus/April 2025). Access begins with availability; socioeconomic status, race/ethnicity, and gender can play heavily into the makeup of a school band, both in membership and access to funding (Elpus/April 2025). These also influence students' choice in instrument selection, as can stereotypical gender associations and familial attitudes toward certain instruments. Additionally, the sheer availability of certain instruments within a school and the music teacher's ability to demonstrate them effectively may also prevent instrumentation from being a wholly free choice (Martínez Cantero/Jauset-Berrocal, 2017).

These concerns with building a band program are separate to the concerns of running and directing the program. Along with size and instrumentation concerns, the ability level of the musicians in the band may often be inconsistent with the level of the repertoire that best fits the instrumentation in the room (CBDNA, 2021). A rise in “flex” arrangements that are composed for five parts, plus percussion, into which both standard and nonstandard band instruments¹ are grouped has helped to provide programming options to smaller bands. However, the quality of these arrangements are varied. Although “literature quality and its developmental appropriateness should be paramount when making programming decisions” (Silveira/Silvey, 2020, p. 149), this is not always feasible for directors, and this limitation on a director’s ability to program music freely can have larger implications for the ensemble.

Although the school concert setting is typically a forgiving environment, adjudicated performances such as state and regional festivals are less so. A 2020 study by Jason Silveira and Brian Silvey concluded that ratings during adjudicated performances are generally biased in favor of large ensembles and more challenging repertoire due to a visual bias among adjudicators toward smaller groups. According to the study,

“It might also be that the small/easy condition was rated lowest due to an inherent bias that smaller bands are perceived as not as proficient as larger groups and that there is greater willingness for evaluators to ‘be more forgiving’ when bands perform more difficult music because of the greater technical and musical demands” (Silveira/Silvey, 2020, p. 148).

However, this is unfair in the scope of an adjudicated performance in which directors expect to receive fair, consistent feedback that will help develop their ensembles. If smaller bands had access to a greater range of more level-appropriate repertoire built to accommodate their size or potentially unusual instrumentation, some of this bias may be avoided in these settings.

¹ By “nonstandard” band instruments, I am referring to orchestral strings, electric bass, and occasionally guitar. Although these are not part of a traditional wind band, school groups that lack a string or guitar program may often find these instruments present in their ensemble.

Method

A survey was designed on Qualtrics and distributed in March 2025 to high school band directors in the United States via direct messaging, two Facebook groups, and by directly emailing relevant officers in each state's music education association.² The research submission portal through the National Association for Music Education was not utilized because its approval timeline was inconsistent with the length of time given to complete the study. U.S. band directors with a minimum of two years' experience in their current placement were invited to participate, with the two-year limitation in place to account for the time it takes directors to acclimate to a new teaching position. Participants were not directly compensated for their time, but were entered into a drawing for a \$25 J.W. Pepper gift card following the conclusion of the study if they voluntarily provided their email address. The drawing took place on April 17, 2025, by entering the submitted emails into the online drawing tool WheelOfNames, and was screen-recorded for transparency. The winner of the drawing was notified on April 22, 2025. The survey was exempt from IRB review, pursuant to 45 CFR 46.104(d)(2).

The survey was composed of 36 items in a variety of question styles. Likert-type items (LTIs) were given on a 1-to-5 bipolar scale that indicated the participant's level of agreement or disagreement with a given statement (Alkharusi, 2022; Boone/Boone, 2012). Within each major area of interest, LTIs of like connotation (either positive or negative) were summed to create a composite score x on a Likert scale; for n items, the scale was such that $x \in [n, 5n]$. In addition to demographic information, the survey was designed to capture data in three key areas: balance and blend, repertoire selection, and band "family" culture.

² Including the District of Columbia.

When testing the statistical significance of composite Likert scores, the null hypothesis H_0 was established to be $\mu = 3n$, which would indicate that the average response from participants was exactly neutral. The alternative hypothesis H_a was dependent upon the connotation of the LTIs in each section of the survey. For positively-connoted LTIs, $H_a: \mu < 3n$ indicates that respondents disagree that positive traits are present in their ensemble, demonstrating that these traits are a challenge to make prevalent in a smaller band. For negatively-connoted LTIs, $H_a: \mu > 3n$ indicates that respondents agree that negative traits are present in their ensemble, demonstrating that it is a challenge to rid the ensemble of such traits. As is convention, all statistical tests were conducted with significance level $\alpha = 0.05$ (Peck/Short, 2020).

Data and preliminary analysis

Demographics

Out of 44 logged responses, 36 were completed in full. Of the 36, 25 identified themselves as directors of a small ensemble, 9 as directors of a medium ensemble, and 2 as directors of a large ensemble. Respondents were asked to self-identify their ensemble size, and then provide a count of instruments, since no existing research seemed to indicate hard boundaries for defining a band as small, medium, or large. Respondents were typically younger, with the greatest number of respondents identifying themselves within the 25-34 year-old age range; male (63.2%); white (82.9%), and having a master's degree (51.4%). Just less than half (44.7%) of the respondents have spent less than five years in their current placement, which was the greatest proportion of responses, but a mean $\bar{x} = 8.59$ years and standard deviation

$s = 7.76$ years reflects the variability of this statistic. Respondents taught evenly in rural and suburban schools (both 44.7%), and overwhelmingly in public high schools (78.9%).

The ensemble size from the entire sample had a mean and standard deviation of

$\bar{x}_{ovr} = 33.2$ and $s_{ovr} = 15.96$, respectively. For small ensembles, these statistics are

$\bar{x}_{sm} = 25.7$, $s_{sm} = 11.89$. For medium ensembles, $\bar{x}_{med} = 49.9$, $s_{med} = 9.92$. The set of

large ensemble sizes were $\{60, 44\}$.³ As with the length of time spent in the respondent's current position, a high standard deviation here indicates wide variability in the ensemble sizes. This is confirmed visually by the boxplots in Figure 1 below. There was insufficient data to construct a boxplot for large ensembles, given only two data points.

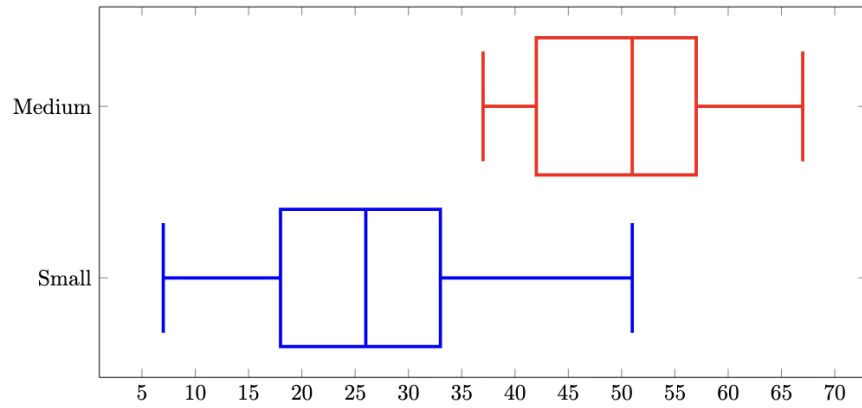


Figure 1. Boxplots of self-identified small and medium band sizes

The spread in size of bands who identified themselves as small is striking. Considering that the lower half of the medium-band data lies within the highest approximately 20% of the small-band data, and that both of the large-band numbers lie within the entire medium-band boxplot, it is abundantly clear that there is not enough evidence here to suggest a series of bounds by which a band can be qualified as small, medium, or large.

³ Given only two elements in this subset, there is insufficient data to calculate a statistically significant mean or SD for self-identified large ensembles.

Balance and blend

Respondents generally indicated that their band was too top-heavy in balance, but no consensus seemed to exist for imbalances in timbre. A chi-square goodness-of-fit test was conducted to validate the significance of the results using the null hypothesis

$$H_0: \text{all categories were answered in an even distribution}^4$$

The observed counts are given below in Figure 2.⁵

Question: "I would describe the balance of my band as..."

	Category	<i>n</i>	Percent
Balance	Too top-heavy	19	52.8%
	Too bottom-heavy	3	8.3
	Too percussion-heavy	5	13.9
	Just right	9	25
	Total	36	100
Timbre	Too woodwind-heavy	11	30.6%
	Too brass-heavy	11	30.6
	Too percussion-heavy	4	11.1
	Just right	10	27.8
	Total	36	100

Figure 2. Observed response frequencies for ensemble balance and timbre

For balance statements, $\chi^2 = 16.9$, yielding a *P*-value of 0.000745 with three degrees of freedom. Since the *P*-value is less than $\alpha = 0.05$, we can safely reject H_0 ; it is statistically significant that directors indicated their bands are generally too top-heavy. For timbre statements, $\chi^2 = 3.78$, yielding a *P*-value of 0.286. Here, $P > \alpha$, so we cannot reject H_0 ; even though the data lean toward bands being too woodwind-heavy or too brass-heavy, there is not enough of a statistically significant difference to conclude that one is more prominent than the other.

Data on the instruments band directors most often lack reinforce this result. Double reeds (oboe and bassoon) were missing most frequently (77.8% and 80.6% of ensembles, respectively).

⁴ For 36 responses and 4 categories, this would mean that each category has an expected frequency of 9 responses when conducting the chi-square test. (Peck/Short, 2020).

⁵ Due to rounding error, percentages given here may not sum to 100%, but are assumed to.

Low voices were the next most frequently missing instruments; 61.1% of ensembles did not have baritone saxophone, 16.6% of ensembles lacked euphonium, and the same percentage were missing tuba.⁶ The widespread absence of these particular low voices supports the survey results that band directors find their ensembles to be topheavy without a consensus on whether the timbre leans too much toward woodwinds or brass.

The responses to five LTIs in this section, given below in Figure 3, were summed to produce a composite score $x \in [5, 25]$. For all responses, this composite score had

$\bar{x}_{ovr} = 18.5$, $s_{ovr} = 2.58$. For small bands, this composite score had $\bar{x}_{sm} = 18.8$,

$s_{sm} = 2.63$.⁷

Statement	Overall		Small	
	$\bar{x}$	s	$\bar{x}$	s
The instruments most present in my ensemble dominate the sound of the band.	3.56	0.94	3.48	0.92
The instruments least present in my ensemble struggle to be heard.	3.72	0.97	3.84	1.03
The members of my band regularly make independent adjustments to even out inconsistencies in the overall band sound.	3.61	1.13	3.92	0.95
I spend a majority of rehearsal time working on achieving an appropriate balance because of unevenness in my band's instrumentation.	3.22	1.12	3.04	1.14
While the band is playing, I can easily identify specific musicians within a section that cause the balance and blend to become uneven.	4.36	0.90	4.52	0.87

Figure 3. LTI statements for balance and blend, with mean and SD by self-identified ensemble size.

In both cases, it would appear that respondents generally agree with the given statements. A t -test was used to determine the significance of these results (Peck/Short, 2020). As stated

⁶ Alto clarinet was included in the survey because of its prevalence in band scores; 100% of respondents indicated that their band did not have alto clarinet. As a result, this figure was left out of the analysis to avoid bias.

⁷ As the focus of this research was on self-identified small bands, data in the body of this paper will work solely with overall and small-band data. With only two large-band responses, there was insufficient data to conduct statistical analysis (Peck/Short, 2020). Medium-band data may be found in digitally-available appendices.

before, we use the null hypothesis $H_0: \mu = 15$ to indicate that our baseline is a true neutral response toward the LTIs. Since these LTIs have negative connotations (i.e., it would be a bad thing to have certain instruments unintentionally dominate the band's sound), we use the alternative hypothesis $H_a: \mu > 15$. For $\bar{x}_{ovr} = 18.5$, $s_{ovr} = 2.58$, $n_{ovr} = 36$, we calculate $t = 8.07$ and an associated P -value of 8.41×10^{-10} . Since P is less than $\alpha = 0.05$ we may reject H_0 in favor of H_a ; balance and blend is a statistically significant concern among respondents. Performing this calculation again for only small bands similarly produces $t = 7.22$, $P = 9.23 \times 10^{-8}$, and we can again reject H_0 .

Qualitative data drawn from open-response survey questions help to support this conclusion. Imbalanced ensembles and significant holes in instrumentation appeared to be the dominant concern in this area, although some band directors identified scheduling concerns (i.e., where their band is split up across multiple class periods) as a contributing factor as well. As ensemble size increased, respondents were more likely to talk about higher-order concerns beyond simply not having enough players to support repertoire or having major gaps in instrumentation. Directors of these ensembles are able to spend more time teaching students what an appropriate band sound should be, technical facility, and having too many musicians to a part. By contrast, directors of smaller ensembles were primarily concerned with simply ensuring they had a strong enough player to carry melody lines, accommodating for varying levels of ability and confidence that are more pronounced in smaller ensembles because players cannot “hide” behind their stronger peers, and finding appropriate literature to suit unique instrumentation.

Repertoire selection

We use the same approach to analyzing the LTIs concerning repertoire selection. In order to maintain the condition of summing LTI scores with similar connotations, the first LTI in this section was removed from scoring because the other statements have a negative connotation, as shown below in Figure 4.

Statement	Overall		Small	
	$\bar{x}$	s	$\bar{x}$	s
The repertoire I select for my band provides an appropriate challenge to the majority of its members.	4.38	0.78	4.35	0.71
Lacking instrumentation in my ensemble limits what repertoire I can program for my ensemble.	4.18	1.17	4.61	0.58
I often arrange or rewrite parts for members in order to cover important missing lines or textures.	4.12	1.09	4.26	0.92
I often arrange or rewrite parts to make them easier for less-experienced band members, in order to program repertoire at an appropriate level for the majority of the band.	2.97	1.42	3.26	1.48
I encourage musicians to switch instruments to even out the instrumentation of the band.	3.44	1.26	3.35	1.27
I force musicians to switch instruments to even out the instrumentation of the band.	1.74	1.19	1.47	0.95

Figure 4. LTI statements for repertoire selection, with mean and SD by self-identified ensemble size.

Without the first item included, composite scores again existed on the interval $[5, 25]$, with

$\bar{x}_{ovr} = 16.4$, $s_{ovr} = 3.58$ for overall responses and $\bar{x}_{sm} = 17.04$, $s_{sm} = 3.15$ for small

bands. The small-band data has a higher $\bar{x}$ and lower s than the overall data, which indicates that

this is potentially a more significant issue for small bands than larger ones. As before, we

conduct a t -test using a null hypothesis $H_0: \mu = 15$ and alternative hypothesis $H_a: \mu > 15$. For

overall data, the statistics above with $n = 34$ and $\alpha = 0.05$ yield $t = 2.35$ and an associated

P -value of 0.0125. For small band data, the statistics above with $n = 23$ and $\alpha = 0.05$ yield

$t = 3.11$ and an associated P -value of 0.00255. In both cases, we can reject H_0 in favor of H_a ;

repertoire selection is a concern for bands of any size, since the overall and small t -tests produce

sufficient evidence. It is worth noting, however, that $P_{ovr} > P_{sm}$, suggesting that repertoire selection is perhaps a greater concern for smaller bands in particular, reinforcing our observation from the mean composite Likert scores.

Qualitative data from open-response questions in this section once again reinforced the significance of lacking instrumentation as a barrier to programming appropriate literature. Some directors attributed this to unstable middle school feeders not adequately preparing students for the music literacy and instrumentation of a high school band, either due to teacher turnover or budgeting. When possible, most band directors already employ a variety of instruments to cover for missing parts. The most frequent coverage was to have alto saxophone play French horn parts, followed by flute covering for oboe and tenor saxophone covering for middle-to-low brass parts such as trombone and euphonium. Others used flex-band arrangements when possible, but noted that there was still a developing catalog of these works in varying levels of quality. Directors with the privilege of having more rehearsal time and self-motivated students assigned chamber music to their strongest students to better differentiate instruction; this was not a widespread solution and seemed to be reserved for either directors with the most flexible schedule or directors whose ensembles are so small that chamber music is the only appropriate repertoire available.

Band culture

We again use the same approach to analyzing the LTIs concerning band culture. For four LTIs in this section of the survey, the composite scores exist on the interval $[4, 20]$, and the null hypothesis is $H_0: \mu = 12$. The statements in this section are positively connoted, as shown

below in Figure 5, and so the alternative hypothesis takes the form $H_a: \mu < 12$, which would indicate that band directors disagree that these positive traits are present in their ensemble.

Statement	Overall		Small	
	$\bar{x}$	s	$\bar{x}$	s
Ensemble members consider themselves part of a close-knit family.	4.41	0.56	4.43	0.60
Ensemble members feel as though their individual music-making contributes to the success of the whole in a tangible, direct way.	4.50	0.51	4.57	0.51
Other student musicians independently offer help to their peers.	4.16	0.92	4.05	1.07
Ensemble members are typically motivated to play well, work hard, and develop a high-quality product during rehearsals.	4.09	0.78	4.05	0.86

Figure 5. LTI statements for band culture, with mean and SD by self-identified ensemble size.

For all responses, $\bar{x}_{ovr} = 17.16$, $s_{ovr} = 2.13$, and for small-band responses, $\bar{x}_{sm} = 17.10$,

$s_{sm} = 2.43$. Performing a t -test on overall responses yields $t = 12.59$ and $P \approx 1$.⁸ For

small-bands, we get $t = 9.62$ and $P \approx 1$ again. In both cases, we do not have enough evidence to reject H_0 ; in other words, we cannot conclude that band culture is a concern to ensembles of any size.⁹

Mixed responses in the open-ended questions generally support this. However, it appeared that directors of bands of less than 20 members were more likely to talk about the overall “tightness” and individual accountability that students felt by participating. As size increased, directors were more likely to talk about a level of competition being present among

⁸ Using the TDIST formula in Google Sheets yields a P of nearly zero; however, this defaults the calculation of P as the area under the curve to the right of t . Since our alternative hypothesis requires values *less than* 12, and the t -curve has a total area of 1, our relevant P is to the *left* of t , using the calculation $1 - (\text{calculated } P \text{ from spreadsheet})$ yields our P of nearly 1.

⁹ Statistically speaking, failing to reject H_0 is not the same as accepting it. “A statistical hypothesis test is only capable of demonstrating strong support for the alternative hypothesis (by rejecting the null hypothesis). When the null hypothesis is not rejected, it does not mean strong support for the null hypothesis—only that there is not convincing evidence against it” (Peck/Short, 2020, p. 511).

band members and being able to give individualized attention less frequently. However, establishing band culture appears to be a product of the directors' intentions, not size alone.

Discussion

The use of LTIs and Likert scales in survey data are inherently biased in three ways that often lead to participants either understating or overstating the degree to which they agree with an LTI:

Likert scales are affected by three types of bias. These are central tendency bias, acquiescence bias, and social desirability bias. The central tendency bias occurs as a result of participants' avoidance of selecting extreme response options. The acquiescence bias occurs when participants agree with the items as presented. The social desirability bias occurs when participants strive to represent themselves in a more favorable way. (Alkharusi, 2022, p. 14)

This suggests that we should expect an average score close to true neutral. The fact that the *t*-tests were so significant with *P*-values extremely close to 0 (or 1, for the culture LTIs) reinforce the significance of these issues to band directors of any size ensemble, but particularly smaller groups.

The use of surveys may be inherently biased as well. This one in particular utilized voluntary response sampling by casting a wide net to music educators and allowing for themselves to decide whether or not to participate. It can be difficult to decide if a voluntary group of participants is representative of the population as a whole (Peck/Short, 2020). For this reason, the demographic section of the survey was rather lengthy in order to ensure that data could be analyzed and extrapolated in a meaningful, significant way. However, it is worth noting that survey respondents were overwhelmingly young, male, white, and held a master's degree or higher, and so this sample of the population plays into gender and ethnic stereotypes about band directors and may not adequately represent the population of band directors as a whole.

Qualtrics' survey design wizard cautioned against the length and number of open-response questions in the survey, citing that a longer survey may deter participants from consistently providing detailed responses (Qualtrics). However, it seemed as though maintaining a consistent survey format from section to section, and explaining the expectations to participants at the start of the survey helped to assuage any such concerns. Most participants who chose to stop completing the survey stopped after consenting to participate, but it did not appear that any stopped midway.

Although it fell outside the scope of the study, further exploration of whether or not there is a definitive small, medium, or large band size may be worthwhile, especially as it pertains to different geographical regions of the United States. Southern schools stereotypically have larger band programs, and so a 50-piece ensemble may very well be considered "small" by these standards. However, in smaller states or districts, a 50-piece ensemble may be one of the largest present at a regional adjudicated festival. Based on this study, however, it seems to be more prudent to talk about ensembles in terms of missing instrumentation or lopsided balance.

Despite no statistically significant backing, anecdotal evidence in open responses from participants suggests that more research could be done to explore the relationship between ensemble size and culture, perhaps from the students' perspective. Shaw et al. note in research on student engagement that smaller or chamber work felt more engaging to students. "Sectionals, smaller chamber pieces, and solo opportunities were naturally more engaging, as were rehearsals where their parts in the music were prioritized" because students felt a greater sense of responsibility to play well when exposed (Shaw et al., 2025, p. 426). Combined with a greater opportunity for individualized attention as noted in the survey, chamber ensembles may be a

powerful tool for large-band directors to reach all of their members and differentiate instruction more equitably.

School and school district attitudes toward music education also fell outside the scope of this research, but nonetheless came up frequently in open-ended responses. Respondents noted that administrators may want to be supportive but may not understand the level of work it takes to recruit, build, and retain high school bands. Student social attitudes and stereotypes toward “band kids” may often prevail as well. Challenges of recruitment, talent development, and performance are often magnified when high schools have middle school feeders that do not adequately prepare their students to play at a high school level. Private schools may lack a consistent feeder program altogether. Budgeting concerns further fuel these challenges, given the sheer cost of instruments, music, and repairs. Factoring in the costs of travel for festival performances, bands with inadequate funding from their schools are at a further disadvantage compared to bands with more robust budgets. As a result, it will take an increased effort in advocacy and education for administrators and community members to recognize the scope and impact of our work as band directors, not simply in pledging verbal support, but in thoroughly understanding the depth of work required of the band to succeed in its goals.

Interventions

Solving the problem of part disparity in bands seems to be the greatest challenge for band directors looking for in-the-moment intervention. When considering repertoire for an ensemble, it is clear from the data and existing research that flexible arrangements work in general (CBDNA), but only up to a certain extent, and these arrangements often lack the intricacies of the original works, or may not always be viable for certain ensembles. If directors are to

prioritize “literature quality and its developmental appropriateness” (Silveira/Silvey, 2020, p. 149), there must exist some balance between quality literature and practical instrumentation. Survey respondents noted repeatedly in open-response questions that music by Randall Standridge, Brian Balmages, John Philip Sousa, and Frank Ticheli were particularly good at striking this balance. Where Standridge and Balmages are particularly skilled at writing cues and parts with the intent of covering often-missing instruments if they cannot be featured, Sousa’s and Ticheli’s catalogs allow for enough space for existing instrumentation to spread out and cover parts that are missing, without being indicated. In Sousa’s *The Black Horse Troop*, for example, a band with a large alto saxophone section can have some players cover French horn parts, since the march only has one written alto saxophone part and leaving the full section to play one part would upset the balance of the ensemble. Respondents also specifically noted Frank Erickson’s ballad *Air for Band* as another such piece that fits well into limited instrumentation. Although other masterworks in the wind band canon may be suitable with rewrites, this should be considered with caution; the aforementioned composers work well because they tend to offer room for part coverage without much sonic sacrifice.

When rewriting parts for existing instruments, care should be taken to maintain octave placement in order to preserve pitch frequency, timbre, and color (Standridge). Significant changes to octave placement or timbre may shift the harmonic function of a chord or the developmental role of a melodic line. In addition to coverages that are already commonly used by the survey respondents, such as alto saxophone for French horn and flute for oboe, synth pad bass can be an effective substitute for tuba and other low voices, since it adds harmonic texture while being fairly easy to balance (Standridge).

Remedying issues of instrument access and middle school preparedness may simply take time, given how variable funding for music programs can be from district to district. But, if preparedness stems from a lack of access or knowledge, more steps should be taken to make a student's instrument selection more of a truly free choice. "In reality when opportunities are limited, children do not get to choose their own musical instrument. They are simply pushed towards one which is readily available" (Martínez Cantero/Jauset- Berrocal, 2017, p. 204). Some kind of an "instrument petting-zoo" program in collaboration with local music stores or the teacher's own network of colleagues may prove useful here, since it is not always possible for the music teacher to demonstrate every instrument effectively and in a way that draws students' attention. Early exposure, such as in K-3 music classes, may also help to drive student agency and choice.

In cases where students play an instrument but do not participate in the school band, directors may be able to take some guidance from choral research. In a study of patterns of music ensemble participation in high schools,

Female students were 58% less likely to be in the always zero choir group¹⁰ than male students. Once students crossed the hurdle from the always zero choir group to the possibly in some choir group, birth-assigned sex was no longer statistically significant... This result suggests that the long-known and researched sex imbalance in choir is a product of the choice of whether to enroll in choral music at all—that is, to move out of the always zero group. (Elpus/April, 2025, p. 34)

The Elpus study did not concretely show a consistent gender disparity in instrumental music, but if it seems to be enough for choirs to recruit by simply getting students in the door, then it stands to reason that the same approach may be applicable to instrumental music as well. In this way, driving recruitment efforts through social activities, including open rehearsals or "Bring A Friend to Band Days" may help draw in students who may not otherwise voluntarily set foot into the

¹⁰ Meaning they had never participated in choir prior to high school.

band room. Martínez Cantero and Jauset-Berrocal also note this, stating that as students reach adolescence, validation and positive reinforcement from peers and media is even more important than family and environmental influences in early childhood (Martínez Cantero/ Jauset-Berrocal, 2017).

Conclusion

This study demonstrated that ensemble balance and appropriate repertoire selection were factors of concern to band directors of self-identified small ensembles. The data show, however, that using the adjective “small” can be misleading, since ensembles of greatly varying size were identified as such. It would be less misleading to describe the ensemble’s problem (too topheavy, too brass-heavy, etc.) when qualifying the band. As shown in qualitative data, even self-described “medium” or “large” bands at times found themselves struggling with missing instrumentation and disproportionate balance. This change may prove useful for composers, who may need to write commissioned pieces for imbalanced groups, and for band directors collaborating with their music colleagues for advice, since it provides more specificity to others about the problem the director is trying to solve.

Ensemble culture did not appear to be statistically related to ensemble size, and was not a concern of smaller ensembles that were surveyed. Although we were not able to find statistical backing for trends in ensemble culture, qualitative data suggested that smaller bands felt a tighter connection between band members and a stronger sense of individual accountability, while larger bands offered more of a chance for students to find friend groups but receive less individualized support from the director. More research would be needed to determine the extent to which ensemble size and culture are related, especially from the high school student’s perspective or

compared to other ensembles. At the collegiate level, existing research indicated that students appeared more engaged in rehearsal when working in smaller settings, and that “the relationship with the director is important for engagement, mirroring general education literature on the importance of teacher/student connection” (Shaw, 2025, p. 434), and it stands to reason that the same relationship would exist in the high school rehearsal room.

Large-scale fixes to lacking instrumentation will require sweeping efforts in improving access, advocacy, and funding for early band programs. However, band directors still have much they can do in the moment to provide a meaningful experience for their students. It may be worth taking a more analytical and creative approach to repertoire selection; instead of simply writing off pieces because it features instruments that the band lacks, directors should look beyond that part to other instruments that may be able to cover (Standridge). This score-study approach, combined with knowledge of band numbers and individual student abilities, may help open doors to a broader library of music than originally considered possible. Flexible arrangements are helpful to a degree (CBDNA), but composers should take more care in both standard and flexible pieces to ensure that options are available for covering the most commonly-missing instruments; namely, double reeds and baritone saxophone. Hence, solving the small band problem requires work from all sides— administrative, compositional, and pedagogical— both individually within these disciplines and collaboratively across them.

Author biography

Ryan L. Cox is an M.M. candidate in instrumental conducting at the University of Rhode Island, freelance musician, and a full-time math and music educator at The Prout School (Wakefield, RI). His teaching work in both disciplines aims to bring a multifaceted approach to the

classroom. His research interests include impostor syndrome in musicians, the role of mathematics in perceptions of tonal harmony, and the role of North American and British Isles folk tunes in wind band repertoire.

Keywords

Concert band, repertoire, ensemble size, instrumentation

Appendices

Appendix A: Summary of survey data ([link](#))

Appendix B: Full text of survey ([link](#))

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