

Edited by
Mary Ellen Cavitt, Texas State University—San Marcos

Gender Association with Stringed Instruments: A Four-Decade Analysis of Texas All-State Orchestras

Vicki D. Baker
Texas Woman's University

The violin, viola, cello, and double bass have fluctuated in both their gender acceptability and association through the centuries. This can partially be attributed to the historical background of women's involvement in music. Both church and society rigidly enforced rules regarding women's participation in instrumental music performance during the Middle Ages and Renaissance. In the 1700s, Antonio Vivaldi established an all-female string orchestra and composed music for their performance. In the early 1800s, women were not allowed to perform in public and were severely limited in their musical training. Towards the end of the 19th century, it became more acceptable for women to study violin and cello, but they were forbidden to play in professional orchestras.

Societal beliefs and conventions regarding the female body and allure were an additional obstacle to women as orchestral musicians, due to trepidation about their physiological strength and the view that some instruments were "unsightly for women to play, either because their presence interferes with men's enjoyment of the female face or body, or because a playing position is judged to be indecorous" (Doubleday, 2008, p. 18). In Victorian England, female cellists were required to play in problematic "side-saddle" positions to prevent placing their instrument between opened legs (Cowling, 1983). The piano, harp, and guitar were deemed to be the only suitable feminine instruments in North America during the 19th Century in that they could be used to accompany ones singing and "required no facial exertions or body movements that interfered with the portrait of grace the lady musician was to emanate" (Tick, 1987, p. 327).

In the 1920s and 1930s women orchestras began to burgeon and in 1925 Ethel Leginska had her American premiere as a conductor of the all-male New York Symphony Orchestra (Macleod, 1993). Female composers and performers received support from various women's clubs and music clubs. Scholarship assistance was also available for women pursuing musical training. All-female orchestras were established to provide a venue for the women musicians, since they were denied membership in the male orchestras (Neul-Bates, 1982). With the exodus of so many male musicians during the onset of World War II, women were finally allowed to join established orchestras. However, it was 1997 before the Vienna Philharmonic Orchestra reluctantly accepted its first female into membership—a harpist (Doubleday, 2008).

In the 21st century, males and females in the US have equal access to any instrument, yet instrument gender associations still exist. What has prompted the assignment of instruments to a particular gender? Doubleday (2008) explains that, “an instrument’s look or sound may come to embody gendered meaning. Instruments may be imaged or named as male or female entities, as paired entities combining male-female characteristics, or as gendered members of a family” (p. 29). The concept of instrumental families heralds back to Michael Praetorius, who made reference to the “violin family” in his treatise, *Syntagma Musicum* in 1619 (Boyden, 1984). *The New Grove Dictionary of Musical Instruments* contains a pictorial representation of “the violin family” utilizing a cello, a viola, and two violins made by Antonio Stradivari (Boyden, 1984). This concept of a family of instruments—large to small—conjures an image of the human family unit of father, mother, and babies, with the male automatically being associated with the largest instrument.

Society, parents, and peers may be responsible for perpetuating engrained gender stereotypes that influence instrument choice (Abeles, 2009; Abeles & Porter, 1978; Conway, 2000; Delzell & Leppla, 1992; Fortney, Boyle, & DeCarbo, 1993; Green, 1993; Griswold & Chroback, 1981; Lueptow, Garovich-Szabo, and Lueptow, 2001; Sinsabaugh, 2005). Studies indicate that a student’s formation of gender association with an instrument can be impacted by role models, a supportive environment, and the method in which instruments are demonstrated (Abeles & Porter, 1978; Bruce & Kemp, 1993; Buttu, 2008; Conway, 2000). Teachers can play a key role in helping students set aside gender stereotypes when choosing an instrument (Bayley, 2000; Brophy, 1985; Conway, 2000; Fortney et al, 1993; Green, 1993; Johnson & Stewart, 2004, 2005; Sinsabaugh, 2005).

Research supports the notion that females are more likely to cross gender lines in a band setting than males (Abeles, 2009; Conway, 2000; Delzell & Leppla, 1992; Zervoudakes & Tanner, 1994). Buttu’s study (2008) of a single-sex school reveals that, although female students were aware that gender stereotypes existed, they felt freedom to break social convention and select low brass and percussion instruments (traditionally played by males) due to a safe and supportive environment. Their peers regaled them as being “courageous” and described them as having “an unwavering sense of confidence and pride for their instrument” (Buttu, 2008, p. 31).

Further, students indicated that they believed it was easier for females to cross social barriers in instrument selection because they were viewed as “pioneers” and “forward thinking,” whereas males playing a “feminine” instrument ran the risk of being ridiculed, bullied, and committing “social suicide” (Buttu, 2008, p. 32). Sinsabaugh’s study (2005) supports the contention that males face greater challenges crossing gender barriers in instrumental selection, naming the flute as being the most controversial, due to concerns about teasing by peers. Other research reinforces the perception that males are more subject to social pressure surrounding instrument gender stereotypes (Cramer, Million, & Perrault, 2002; Delzell & Leppla, 1992; Harrison, 2003). Green (2002) examined secondary music teachers’ and students’ views of gender musical practices, abilities, and inclinations. Teachers stated that girls far outnumbered boys in participating in classical music and playing classical instruments, such as violin, flute, and piano. Students underscored their teachers’ view, stating that girls were most likely to play the violin and cello and perform slow, classical music. Green (2002) summarizes gender association with music as follows:

For a boy to engage in vocal or orchestral music, “slow” music, or music that is associated with the classical style in school, involves taking a risk with his symbolic masculinity. If these activities provide a suitable mantle for girls, then they are for boys rather like putting on a dress. Just as girls negotiate a feminine gender identity through

music, so boys negotiate a masculine gender identity; and they are often under a great deal of pressure to appear “macho.” (p. 5)

Peer pressure has been shown to be the primary factor in influencing students’ choice of instruments (Bayley, 2000; Bazan, 2005).

While the majority of studies have addressed gender stereotypes among band instruments, a few studies have included string instruments. Harrison’s study (2003) determined that females are more inclined to play strings or woodwinds than males. Hassinger (1989), in her investigation of US jazz history, found that strings and flute were fixed firmly in the female domain. In their study of stereotypes among high school musicians, Bullione and Lipton (1983) discovered that their peers labeled strings and woodwind players as being “intelligent,” “feminine,” and “introverted.” Musicians in professional orchestras ranked the strings section as being significantly different from the other three sections in terms of being more introverted, not enjoying alcohol, having an inactive sense of humor, being nonathletic, and being insensitive. String players described themselves as “sensitive,” “competitive,” “neurotic,” and “insecure,” while other sections used descriptors including “weird,” “boring,” “quiet,” and “feminine” (Lipton, 1987, p. 89). A study conducted by Abeles and Porter (1978) revealed that the violin was labeled as being feminine, along with the flute and clarinet, whereas the cello and saxophone were considered gender neutral. In 1981, Griswold and Chrobak conducted an instrument gender association study, using a variety of instruments, and found that both the cello and double bass were rated as masculine. Abeles’s study (2009) of current trends in gender instrument association showed that violin and cello were predominantly played by females. However, he added that among the 20% of males crossing instrument gender lines, more than one-half of them played the violin.

Individuals have various reasons for choosing to play an instrument that is traditionally assigned to the opposite sex. Doubleday (2008) suggested that it could be a result of artistic motivation or the desire to experiment, change cultural mores, astonish, or draw attention. She added that regardless of the reason, “such an act has a social impact, since it sets an example that others may follow” (p. 26). Sinsabaugh (2005) found that students who crossed gender lines in instrument choice received strong parental support, were encouraged by their elementary teachers, desired to establish a distinctive identity, and were unaffected by peers’ negative comments. Green (2002) pointed out that “it is a vital aspect of the symbolic power of music, that it enables girls and boys to *cross over*... gender divides. Most particularly when pupils are regarded as exceptionally “talented” do such cross-overs occur” (p. 9).

Whatever the motivation, instrumental choice is critical to a student’s success in performance and longevity as a musician. When students are allowed to freely select the instrument they like or with which they can most closely identify, they will be more motivated to practice, more likely to continue playing, and will be more inspired to strive for excellence in performance (Rife, Shnek, Lauby, & Lapidus, 2001).

The purpose of this study was to track the gender makeup of the five string sections (Violin 1, Violin 2, Viola, Cello, and String Bass) of Texas Music Educators Association (TMEA) All-State Orchestras from 1971 to 2010, to determine if a clear gender stereotype was evident in any of the sections and if there had been a trend towards a change in gender and instrument association over the past four decades.

Method

Data were extracted from the “All-State History Rosters” located on the Texas Music Educators Association website (www.tmea.org). The highest-ranking players in each section were members of the Symphonic Orchestra and the next highest tier played in the Philharmonic Orchestra (originally called the Youth Orchestra). A third-tier orchestra, the String Orchestra, was added in 1999. The list of All-State members was sorted by instrument, ensemble, and year, and then students were categorized by gender based on their names. Androgynous names were omitted. Results were tabulated in percentages and displayed in bar graphs, grouped by decades.

Results

Memberships in each of the Violin 1, Violin 2, and Viola sections are presented below as average percentage of participation per gender across the first three decades of data (1971-2000). Data for 2001-2010, during which majority shifts in these specific sections often occurred, are described separately. Population trends differed for Cello and String Bass sections; data is therefore presented by decade to better illuminate changes from one decade to the next.

Females dominated male populations in the Violin 1 section in two orchestras from 1971 to 2000, making up 65% of membership in the Symphony Orchestra (see Figure 1) and 61% in the Philharmonic Orchestra across 3 decades (see Figure 2). In the last decade, 2001 – 2010, males held the majority of the positions (51%) in the Violin 1 section of both All-State full orchestras. In the Violin 2 section, the female majority was consistent during each of the three decades, 1971 – 2000, averaging 63% in the Symphony Orchestra (see Figure 3) and 67% in the Philharmonic Orchestra (see Figure 4). In 2001-2010 males dominated the Violin 2 section of the Symphony Orchestra (56%) and gained a higher percentage of positions in the Philharmonic Orchestra (45% compared to 33% the previous three decades).

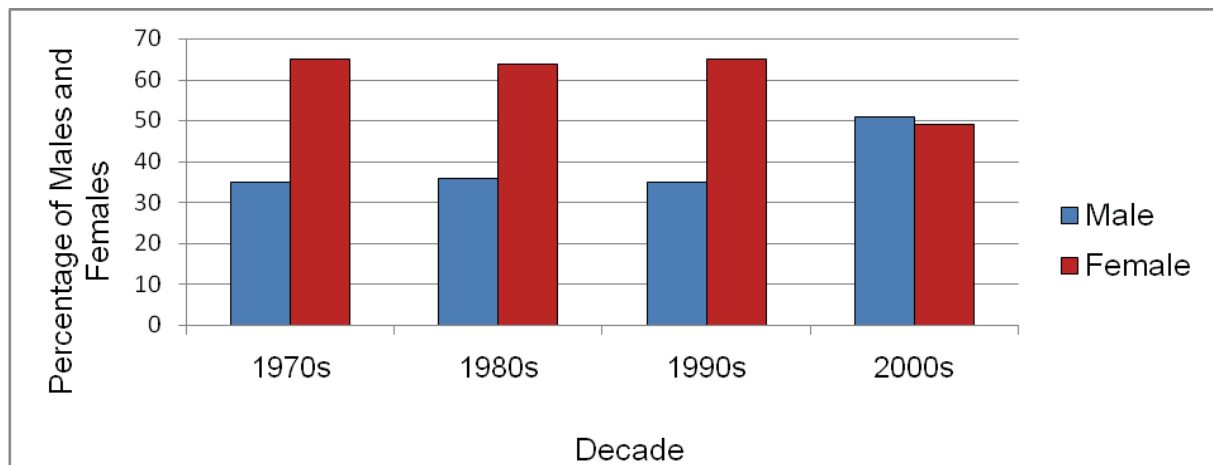


Figure 1. Violin 1 – All-State Symphony Orchestra – 1972 – 2010 by gender.

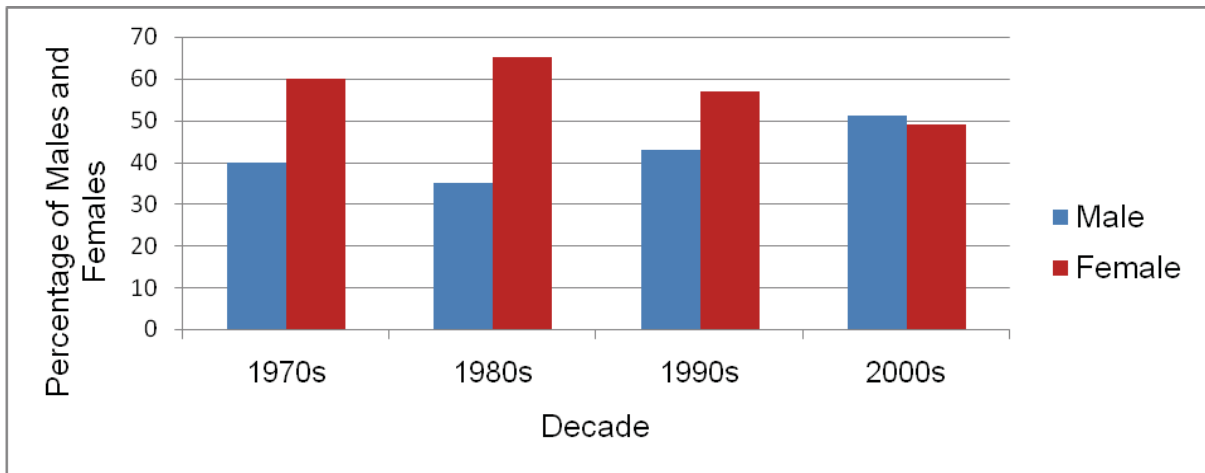


Figure 2. Violin 1 – All-State Youth/Philharmonic Orchestra – 1971 – 2010 by gender.

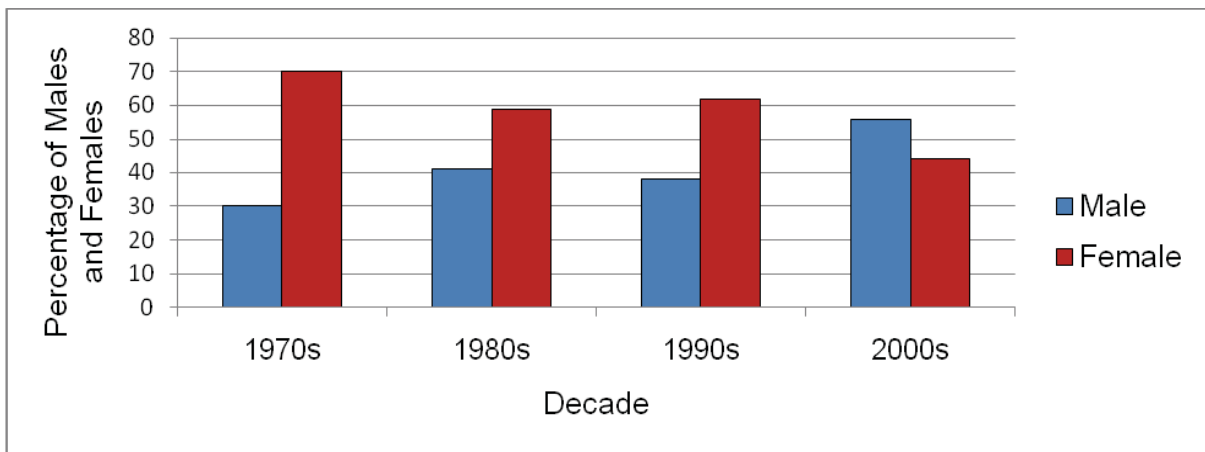


Figure 3. Violin 2 – All-State Symphony Orchestra – 1972 – 2010 by gender.

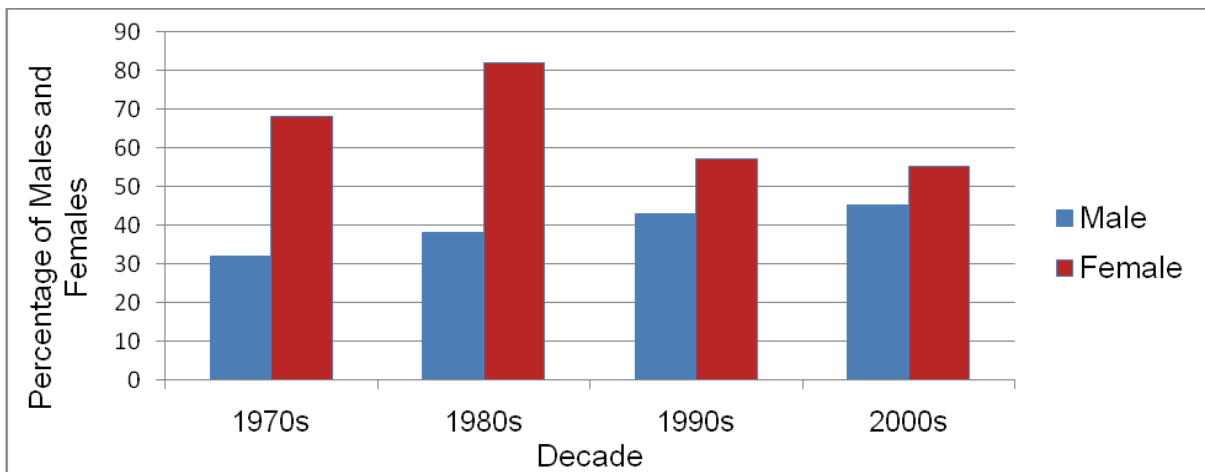


Figure 4. Violin 2 – All-State Youth/Philharmonic Orchestra – 1971 – 2010 by gender.

During the period from 1971 to 2000, female violists held the majority of seats in the Symphony Orchestra (see Figure 5), averaging 58%, as well as in the Philharmonic Orchestra (68%) across three decades (see Figure 6). Most recently, between 2001 and 2010, males acquired a 51% majority among violists in the Symphony Orchestra, and showed a marked increase in participation in Philharmonic Orchestra, with membership at 49% compared to an average of 32% in the previous three decades.

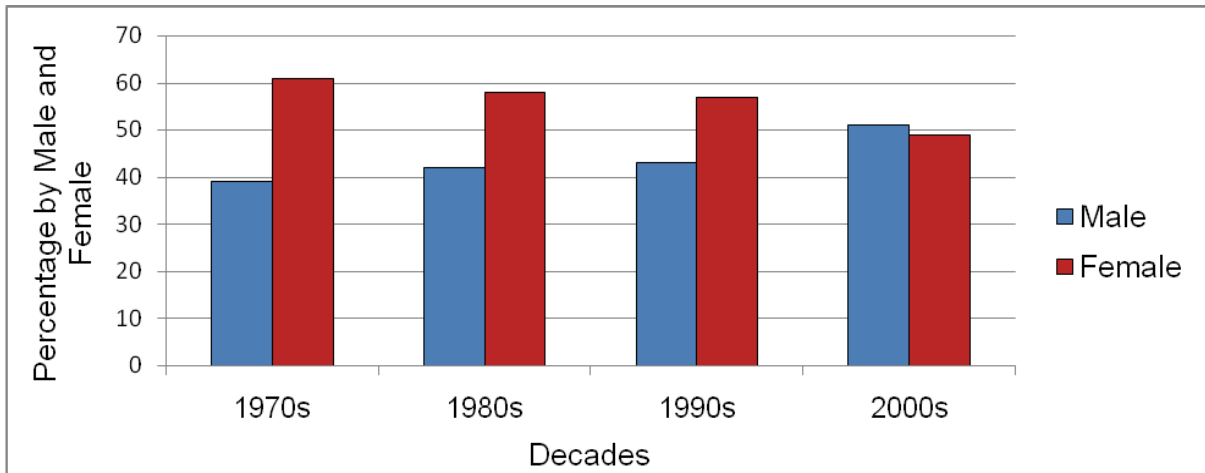


Figure 5. Viola – All-State Symphony Orchestra – 1972 – 2010 by gender.

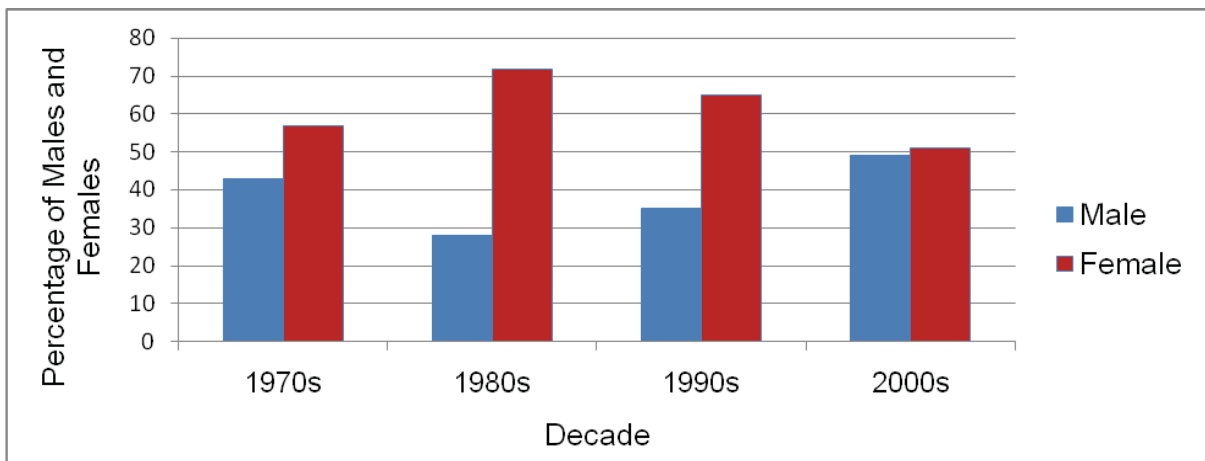


Figure 6. Viola – All-State Youth/Philharmonic Orchestra – 1971 – 2010 by gender.

The Cello section of the Symphony Orchestra (see Figure 7) began with a clear male domination in the 1970s (61%). In the 1980s there was a 50-50 split between the two genders; in the 1990s, females gained the majority (57%); and in the last decade those percentages reversed, with males holding the 57% majority. Likewise, the majority (51%) of cellists in the Philharmonic Orchestra (see Figure 8) in the 1970s were male. Females gained a 55% majority in the 1980s and 1990s, but from 2001 to 2010, membership between males and females was almost split in the section with males averaging 49% of the population.

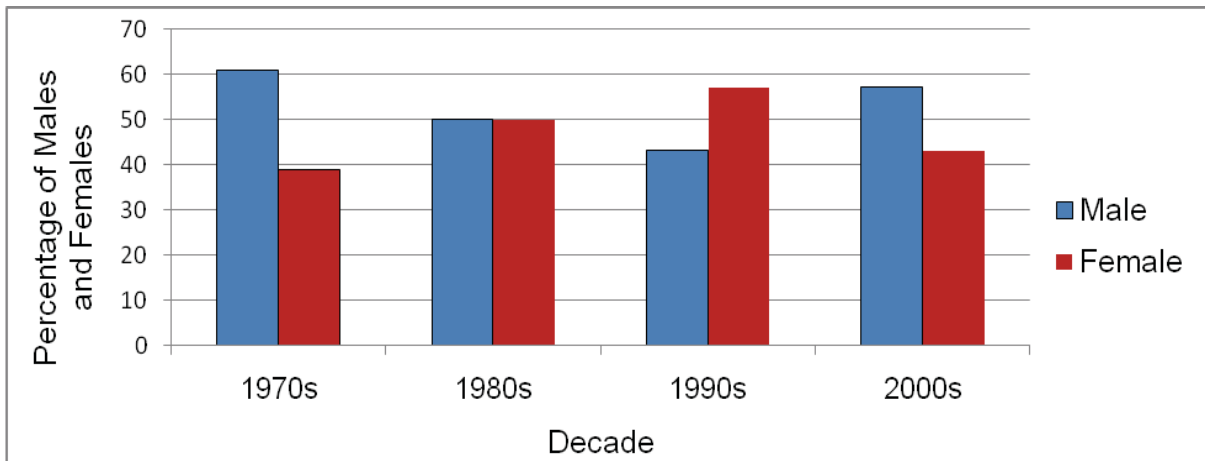


Figure 7. Cello – All-State Symphony Orchestra – 1972 – 2010 by gender.

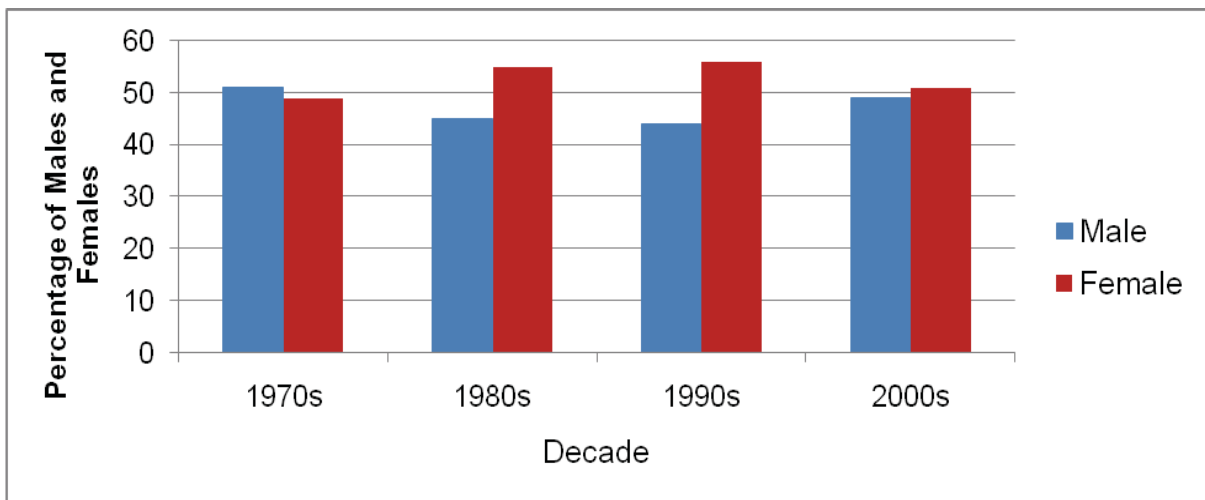


Figure 8. Cello – All-State Youth/Philharmonic Orchestra – 1971 – 2010 by gender.

In the String Bass section of the Symphony Orchestra (see Figure 9), females reached their highest percentage of membership (22%) in the 1970s. During the next three decades the percentage of female string bass players declined to an average of 12%. A higher percentage of female string bass players held membership in the Philharmonic Orchestra (see Figure 10), averaging 29% in the 1970s, 21% in the 1980s and 1990s, then rising slightly to 24% in the last decade.

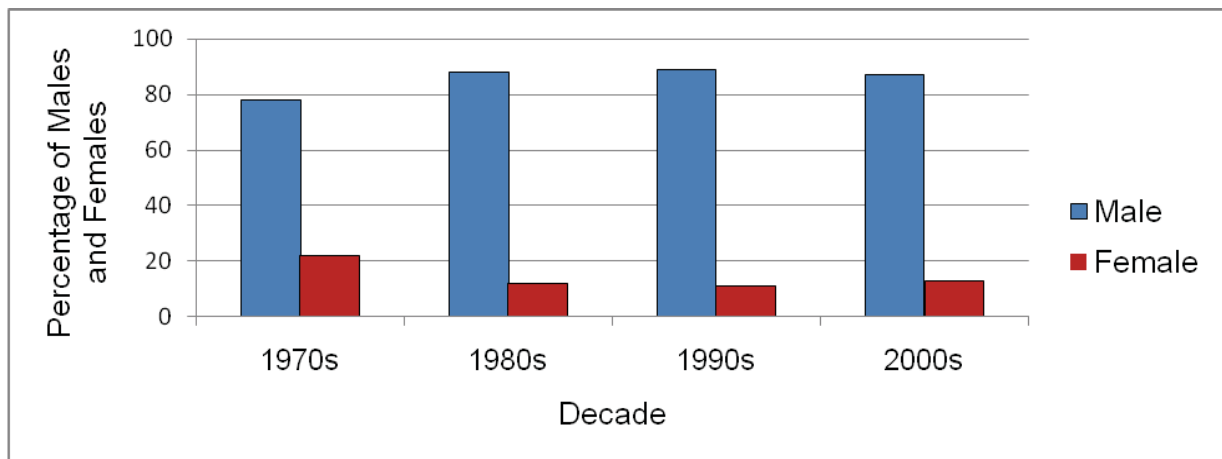


Figure 9. String Bass – All-State Symphony Orchestra – 1972 – 2010 by gender.

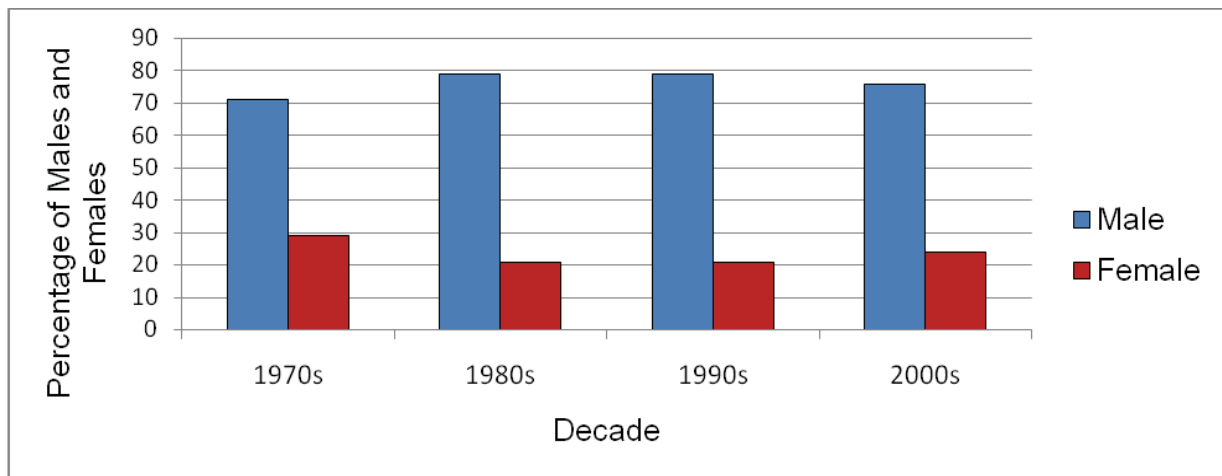


Figure 10. String Bass – All-State Youth/Philharmonic Orchestra – 1971 – 2010 by gender.

Data from the third-tier All-State String Orchestra (see Figure 11) was available from 1999 to 2010. Gender distribution for each instrument for that same period was extracted from the top two All-State orchestras as a basis of comparison. Females held the highest percentage of membership in both the Violin 1 (57%) and Violin 2 (54%) sections of the String Orchestra, whereas males dominated those sections in the Symphony Orchestra (Violin 1 – 51%; Violin 2 – 56%). While males had a 51% majority in the Violin 2 section of the Philharmonic Orchestra, the Violin 2 section was 54% female, which was identical to membership in the String Orchestra. The gender makeup of the viola section was almost identical in all three groups: Symphony Orchestra (51% male), Philharmonic Orchestra (51% female), and String Orchestra (50%). Male cellists had an almost identical percentage in the Symphony Orchestra (57%) and String Orchestra (56%), but numbered less than half (49%) in the Philharmonic Orchestra. Male string bass players held a significant majority in all three orchestras—87% in the Symphony Orchestra; and 76% in both the Philharmonic Orchestra and String Orchestra.

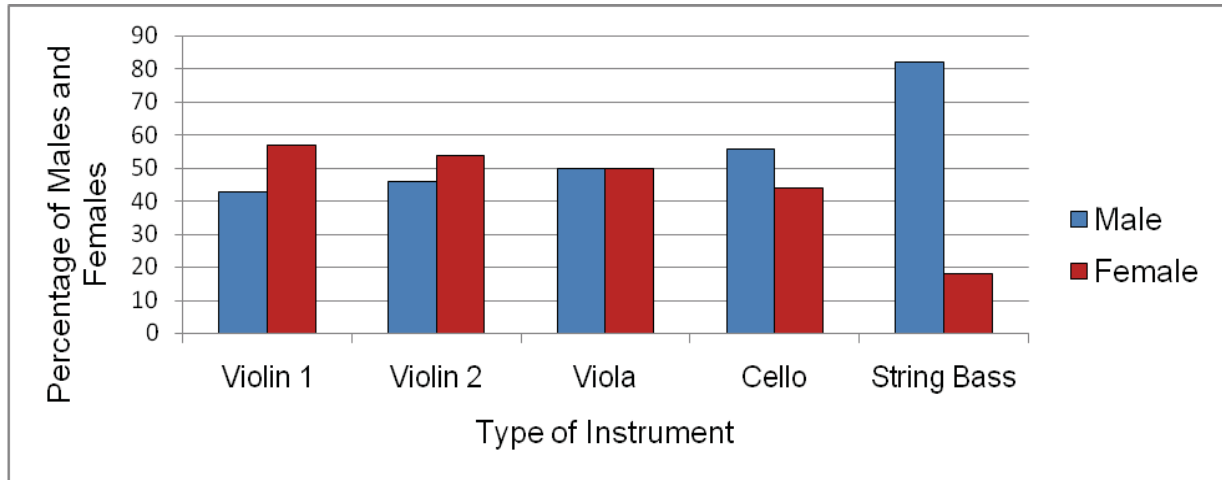


Figure 11. All-State String Orchestra – 1999 – 2010 by instrument and gender.

Discussion

This study indicates that gender and instrument association has changed in some sections but has remained consistent across the past four decades in others. The Violin 1 section demonstrates the greatest amount of change, moving from a clear female majority for a span of three decades before shifting to a male majority since 2001. Likewise, there has been an increase in the percentage of male Violin 2 members over the last decade, claiming a 56% majority in the Symphony Orchestra. While past research concurs that the violin has a “feminine” designation, a recent study conducted by Abeles (2009) pointed out that over half of the males that had crossed gender lines in instrument selection were playing violin.

While females dominated the viola section during the first three decades, the majority has shifted to males since 2001. This seems to follow the same pattern of an increase in male violin players. Although the research studies did not specifically address the viola, one would assume it would have a stronger feminine association since it is considered the “alto” voice of the violin family. Perhaps males no longer view the viola as being as feminine as they have in the past.

The cello has shifted from being male-dominated in the 1970s to being female-centered in the 1980s and 1990s, with a return to being male-dominated this past decade. A similar inconsistency in gender association of the cello is evident in research studies in that it was first deemed gender neutral (Abeles and Porter, 1978), then considered masculine (Griswold and Chrobak, 1981), and most recently shown to be perceived as a feminine instrument (Abeles, 2009).

The percentage of female string bass players was at its height in the 1970s, declined in the 1980s and 1990s, but has begun to raise slightly this past decade. However, males have consistently made up three-fourths of the string bass section. This male domination is supported by research positing that the bass is considered a masculine instrument (Griswold and Chrobak, 1981) or the “father” of the violin family (Boyden, 1984). While strides have been made to diffuse gender stereotypes among the other instruments in the string family, the bass seems to be

irretrievably linked with males. This phenomenon can partially be attributed to the physical characteristics required to play such a large instrument.

These data signify trends among the most gifted string players in the state of Texas and may not be representative of the general student population. It is assumed that earning a seat in a Texas All-State Orchestra requires a high level of musical talent and skill, as well as motivation, discipline, and a strong work ethic. Further, it is important to note that, according to Green (2002), students who possess exceptional music talent are more likely to cross gender lines. These young musicians not only set the standard for a high level of musical performance, but their willingness to play instruments outside of their gender designation may encourage their peers to follow their example (Doubleday, 2008).

Because this study has a limited demographic, it would be beneficial to examine the gender-instrument relationship among All-State orchestras and the general population of string players in other states to determine if the trends noted in this study are consistent in string programs across the US. Results of this investigation provide pre-service and in-service music educators with data demonstrating the trends towards students in orchestra program successfully crossing gender lines in instrument selection, and hopefully diminishing the role gender bias plays in instrumental selection.

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