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Characteristics and Accessibility of Loaner Programs Used by Missouri String Teachers

Juliana Marie Georgiades

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**CHARACTERISTICS AND ACCESSIBILITY OF LOANER PROGRAMS
USED BY MISSOURI STRING TEACHERS**

A Masters Thesis

Presented to

The Graduate College of
Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Music

By

Juliana M. Georgiades

July 2015

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CHARACTERISTICS AND ACCESSIBILITY OF LOANER PROGRAMS USED BY MISSOURI STRING TEACHERS

Music

Missouri State University, July 2015

Master of Music

Juliana M. Georgiades

ABSTRACT

The purposes of my study were (a) to describe string instrument loaner programs and associated administrative practices in socioeconomically diverse schools and (b) to analyze the accessibility of string education with respect to school size and socioeconomic status. The research involved the responses to an electronic survey completed by 42 Missouri K-12 string teachers who taught at 119 schools spanning 20 school districts. Findings suggest that lower income schools were more likely to have students using school-owned instruments as their only instrument, more likely to not use loaner instruments that were shared between schools, and more likely to lack the instruments needed to allow interested students with financial need to participate. I conclude that string music education opportunities are not equitable by socioeconomic status and advocate improved funding, resource allocation, and commitment to equity in order to improve access to string education.

KEYWORDS: access, equity, instruments, loaner programs, music education, orchestra, socioeconomic status, strings

This abstract is approved as to form and content

Dr. Daniel S. Hellman
Chairperson, Advisory Committee
Missouri State University

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ACKNOWLEDGEMENTS

I want to thank the Missouri string teachers who took time out of their busy schedule to share their experience with present and future string educators. I appreciate the assistance of Dr. Daniel S. Hellman and am thankful for his patience, his encouragement, and the knowledge he imparted to help me refine this paper. I would also like to thank Dr. Robert C. Quebbeman and Dr. David R. Hays for being inspiring educators and for giving their assistance on my thesis committee. Finally, I would like to acknowledge the loving encouragement and understanding of my family. Without your support I couldn't have done this project.

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INTRODUCTION

String teachers, like other music teachers, are challenged to provide equitable opportunities for students across all income levels. As teachers recruit new students, they may notice that many students do not participate because they cannot afford to purchase or rent their own instruments. Students from low incomes may miss the opportunity to learn music on string instruments. The problem of providing equal access to string education for all students, regardless of socioeconomic status, is a complex, ethical issue worthy of serious consideration (Smith, 1997).

Schools with larger populations of low-income students may have greater difficulty maintaining adequate enrollments because students of low socioeconomic status (SES) are less likely to join and continue in instrumental music programs (Kinney, 2010). Accordingly, the availability of loaner instruments may better facilitate recruitment, participation, and retention of low-SES students. While many mid-and high-SES students may enter music programs on instruments rented from music stores or purchased specifically for them, students from low socioeconomic backgrounds may only get the opportunity to participate if they can borrow an instrument from family, friends, or a school-instrument loaner program (Fu, 2009; Mixon, 2005).

School-owned instrument loaner programs serve students who are prone to economic barriers and affect access to string education throughout the United States (Ester & Turner, 2009). Loaner program management is an integral part of a successful orchestra program. Teachers new to the field can benefit from studying common-practice models of more experienced teachers who successfully recruit and retain low income

students. However, extant pedagogical literature provides little guidance for instructors seeking direction on loaner programs commensurate to the socioeconomic status and financial needs of a community.

Lamb and Cook (2002) suggest that instrument purchases for orchestra loaner programs be based primarily on either of two viewpoints. The first viewpoint is that school districts should only provide instruments that they believe parents will not purchase due to expense or size. The second viewpoint is that schools should provide instruments on which beginners may experiment for a period of time. Then, if they wish to continue they must purchase an instrument from a local music store or borrow one from a friend or relative. Consequently, the later viewpoint may be detrimental to schools with greater populations of low-income students. If stringed instruments are provided only for the beginning year, then low-SES students may lose access to string instruction in subsequent years. Overall, information on specific characteristics of loaner programs in common practice and precisely what management practices are used in schools representing a variety of socioeconomic situations is not readily available.

The purpose of this study is twofold. First, I will describe characteristics of school-owned string instrument loaner programs used by public school orchestras in a number of Missouri schools from diverse socioeconomic backgrounds. Second, I will examine relationships between loaner program characteristics and variables of school size and socioeconomic status. This study will add to the literature on school-instrument loaner programs specific to socioeconomic needs and report on the variety of string programs.

Identifying the types of school-instrument loaner programs may help guide teachers' decisions on fund allocation to better serve students in need of loaner instruments. A study of string instrument loaner programs has practical significance because it investigates a logistical area of music education that is understudied, yet highly relevant for string teachers. This has particular importance because it addresses equitable access to instrumental music and the careful use of music funds.

Research Questions

The following research questions were investigated:

1. What are the characteristics of school-owned string instrument loaner programs in use by orchestra teachers?
2. What is the relationship between school size and the variables of the percentage of the school's students enrolled in orchestra, the percentage of the orchestra using the loaner program, the percentage of the orchestra using only loaner program instruments, the occurrence of transportation conflicts, and the occurrence of annually running out of instruments?
3. What is the relationship between school socioeconomic status and the variables of the percentage of the school's students enrolled in orchestra, the percentage of the orchestra using the loaner program, the percentage of the orchestra using only loaner program instruments, the occurrence of transportation conflicts, and the occurrence of annually running out of instruments?

Assumptions

The following assumptions were made during this study of instrument loaner programs:

1. Teachers value the participation of students from all socioeconomic levels.
2. Teachers have the access and the authority to secure and distribute available instruments for interested students.
3. Teachers objectively communicate student needs to school administrators, parents, and the community.

4. School websites contain evidence of orchestra programs and provide teacher contact information that is correct and current.

Limitations

The following limitations of the study were identified:

1. The study was limited to schools with orchestra programs or teachers identified on official websites.
2. The study was limited to programs participating in officially sanctioned competitive school orchestra events, potentially limiting the diversity of socioeconomics and school size represented in the study.
3. The survey reflected teacher-related perceptions and not the observed, actual practices of participant string teachers.
4. Free and Reduced Lunch (FRL) data from Missouri schools reflected overall populations of each school and were not indicative of the actual students enrolled in orchestra courses or programs (Missouri Department of Elementary and Secondary Education, 2014a).

Socioeconomic Variables

Socioeconomic status (SES) was defined by the percentage of students qualifying for Free and Reduced Lunch (FRL) at each school in the study. FRL data are a commonly used summative measure of school-level poverty, since FRL is fixed to the annual Federal Poverty Level as a measure of school's combined poverty status (Diemer, Wadsworth, Mistry, Lopez, & Reimers, 2013). Students are determined eligible for free or reduced meals if their family's income is within limits determined by the United States Department of Agriculture, as shown on the Income Eligibility Guidelines (Brewer, 2012; United States Department of Agriculture, 2014). (See Appendix A). A precedent for using FRL as an indicator of schools' SES is taken from other studies that also used FRL data to determine school SES (Costa-Giomi & Chappell, 2007; Ester & Turner,

2009; Hoffman, 2013; Kinney, 2008, 2010; Lucio, Rapp-Paglicci, & Rowe, 2011; Nierman & Veak, 1997; Parsad & Spiegelman, 2012).

Although there are imperfections in using institutional FRL data as a measure of SES (Harwell & LeBeau, 2010), this is a common metric used among researchers to determine socioeconomic status of schools in educational research (Costa-Giomi & Chappell, 2007; Ester & Turner, 2009; Hoffman, 2013; Kinney, 2008, 2010; Lucio et al., 2011; Nierman & Veak, 1997; Parsad & Spiegelman, 2012). Additionally, the Missouri Department of Secondary and Elementary Education does not analyze FRL statistics at the per-course level. To clarify SES at the class level, data were collected on the percentage of students serviced through the school's instrument loaner program that do not have a personal instrument and only use a school instrument. This methodology is similar to studies by Brandstrom (2000), Corenblum and Marshall (1998), and Ester and Turner (2009).

Overview of the Study

In the next chapter, I demonstrate the need for a study concerning loaner programs by presenting available research on loaner programs and related issues in the literature review. I will share literature that describes access to string education and decreased instrumental music participation for students of low SES, as well as research supporting how involvement in the arts may be particularly beneficial to students of low SES. Through this thesis, I intend to share the sparse representation of common-practice string instrument loaner programs for public schools found in the current pedagogical

literature. Additionally, I will present string programs that have successfully used loaner programs to meet the needs of low-SES and diverse populations.

Chapter Three will describe the procedures used to procure the data collected in this study. Chapter Four includes the results gained from the research, and in Chapter Five, I draw conclusions for how the research can inform the string teaching profession, and further research that can enhance access to string programs.

LITERATURE REVIEW

Introduction

String instruction is a vital part of public school systems in the United States, and enrollment of string students has increased steadily over the past thirty years (Alexander & Smith, 2009; Orson, 2010). Increased enrollment necessitated an increase in string teaching positions, with 50% of string teachers reporting that their districts sought to hire more string teachers (Alexander & Smith, 2009). Both Smith (1997) and Doerksen and Delzell (2000) found that 16-18% of schools across the country provide access to string programs. The number of school districts offering string instruction expanded by 11%, from 18% in 1997 to 29% in 2009 (Alexander & Smith, 2009; Doerksen & Delzell, 2000; Smith, 1997).

Although string programs have expanded throughout the nation, there are enrollment trends that suggest a lack of accessibility to string music education programs. Smith (1997) gathered research on all fifty states through state departments of education, state music teacher associations, plus mailings and phone calls to individual schools. She found that the percentage of string programs across the United States differed greatly by state, but larger school districts were more likely to provide string instruction, especially in schools near larger cities (see also Gillespie & Hamann, 1998). For example, in the state of Missouri, Smith (1997) found that 6.3% of K-12 schools had string programs. In Indiana, 16.4% of K-12 public schools had string programs (Smith, 1997). Indiana string participation rates at the secondary level were calculated more recently as being 6% (Schmidt, Baker, Hayes, & Kwan, 2006). The grade ranges of access to string education

is reported to vary throughout the country and is not equitably uniform, Doerksen and Delzell (2000) studied starting grade for 100 schools across the country and found that the earliest grade to start strings in public schools was third grade (18%), followed by fourth grade (40%), fifth grade (26%), and sixth grade (11%). Overall, this body of research reveals that string programs typically exist in a small percentage of schools in many states with inequitable uniformity causing challenges to string education access.

Challenges to String Education Access

Access to string education is not only limited by the availability of string programs, but by socioeconomic status, racial background, and instrument availability. Few low-SES schools provide access to string instruction (Alexander & Smith, 2009; Schmidt et al., 2006; Smith, 1997). Most students who join and persist in instrumental music ensembles are from white families of middle and high income (Corenblum & Marshall, 1998; DeLorenzo, 2012; Elpus & Abril, 2011; Jones, 2006; Kinney, 2010; Klinedinst, 1991). Factors impacting access to music instruction because of child poverty create an ethical dilemma, but string educators have successfully increased diversity through securing instruments for student use (Alexander & Smith, 2009; Hamann, Gillespie, & Bergonzi 2002; United States Census Bureau, 2010). The availability of school-owned instruments and fees related to participation in music ensembles are barriers to access for families with economic difficulties, and one reason that participation in elective instrumental music does not reflect the broader K-12 population (Albert, 2006a; Elpus & Abril, 2011; Fitzpatrick, 2008, 2011; Kinney, 2010).

Student Socioeconomic Status. Only about one in every four school districts provides access to string instruction as part of the school day (Alexander & Smith, 2009) and Smith (1997) found that only 4.4% of low-socioeconomic American school districts provide string instruction. Since school SES reflects the rate of child poverty, this result reveals an inequity of access, particularly for poor populations, which make up about one in five children across the country (United States Census Bureau, 2013a). Of the districts that offered strings, 64% were of average socioeconomic level in mid-large sized districts near metropolitan centers. Smith (1997) concluded that there was a “particularly disturbing” relationship between access to string education and socioeconomic level: String students were found to have predominantly mid-high socioeconomic backgrounds and low-SES districts were least likely to have string programs regardless of size or location.

On a broader level, Elpus and Abril (2011) found that most students in elective music ensembles come from mid-high socioeconomic levels and suggested that music educators seek ways to broaden access to include students of lower SES. They examined the demographic profile of high school band, choir, and orchestra students in the United States through an analysis of the Education Longitudinal Study of 2002, a study compiled by the National Center for Education Statistics. They also found that only 17% of students in the lowest quartile of high school students overall enroll in high school music ensembles across the country. They recommended that music educators develop initiatives aimed at diminishing financial obstacles for underserved low-SES students. Elpus and Abril (2011) also suggested that teachers and administrators consider acquiring a set of school-owned instruments and investing in a scholarship fund to help with the

extra costs associated with music ensembles, since it may increase the participation of a more diverse population of students.

Socioeconomic status has been found to relate to instrumental music student retention in band (Corenblum & Marshall, 1998; Elpus & Abril, 2011; Hoffman, 2013; Kinney, 2010). Klinedinst (1991) studied fifth grade, beginning instrumental music students in a suburban district that was over 96% White. The results of the study indicated that math and reading achievement, scholastic ability, self-concept in music, and socioeconomic status could all predict retention in instrumental music students with 97% accuracy. However, socioeconomic status was the strongest predictor of retention, with high-SES students most likely to continue music studies.

Approaches to Measuring SES. Student socioeconomic status is a measurement of childhood poverty, and researchers have used varied approaches to determine SES. The school-district socioeconomic rankings that Smith (1997) used were taken from Market Data Retrieval, Inc., which at the time of her study defined low-SES schools as having 25% or more children below the United States Census poverty line. Klinedinst (1991) and Elpus and Abril (2011) considered students' family income, parental occupational prestige, and parental level of education to determine SES. These variables were similar to the ones used to calculate SES by Catterall (2012) who researched arts involvement for at-risk youth. He used the phrase "at-risk" to refer to students in the bottom quartile of SES levels and chose to focus his study on students from low-SES backgrounds because, on average, higher-income families were apt to provide more arts opportunities. Still other researchers used FRL percentages to determine measurements of childhood poverty in schools (Ester & Turner, 2009; Hoffman, 2013; Kinney, 2008,

2010; Lucio et al., 2011; Nierman & Veak, 1997; Parsad & Spiegelman, 2012). Albert (2006b) considered a school district to be low-SES if 50% or more of the district's entire population was enrolled in the free and reduced lunch program. Hoffman (2013) described the limited opportunities of music students who qualify for free or reduced lunch. Measuring childhood poverty in schools is an important factor in determining equity of access to string education in America because the ethical and moral implications of denying access to the poorest children is a serious consideration. Having access to multiple variables that indicate socioeconomic status provides a broader understanding of childhood poverty, however, access to FRL data is more easily obtained for individual schools.

Racial Background. Elpus and Abril (2011) reported relationships of enrollment in music classes to race, noting strategies for increasing participation among underrepresented students. The racial background of music students represented in the study was reported to be 65.7% White, 15.2% Black, 10.2% Hispanic, 4.3% Multiracial, 3.8% Asian, 0.7% American Indian/Alaskan Native, and 0.2% Native Hawaiian/Pacific Islander. When comparisons were made to the overall populations at the time of the data in the study, 2002, Hispanics were significantly underrepresented, while Whites and Blacks were over-represented. Notably, the United States Census Bureau (2012) reports that the Hispanic population is expected to more than double from 10% in 2012 to 31% in 2060. Based on their results, Elpus and Abril (2011) expressed concern about future enrollments in music classes, especially considering that the Hispanic population in the United States is projected to increase significantly and the population of music teachers is overwhelmingly White and female. Elpus and Abril (2011) thought that more Hispanic

students may participate and continue in music if there were more Hispanic music teachers and better communication with parents.

Bradley (2007) reported likewise that the majority of music students and teachers are affluent and White, with teachers in the music profession needing to do more to promote equity and social justice. In the public school district nearest Bradley's local, Madison, Wisconsin Metropolitan School District, 15% of high school students participated in fine arts courses and 64% of those students were white. Students who are English Language Learners made up 1% of the fine arts students. Additionally, only 13% of low-income high school seniors enrolled in fine arts classes. While the percentage of high school seniors specifically enrolled in strings was not reported in the research, evidence of student involvement in extracurricular string ensembles was found in the district's Newsletter Stories (Madison Metropolitan School District, 2014). Within the newsletter, a student was recognized with a scholarship for being the first African American cellist in the Wisconsin Youth Symphony Orchestra (WYSO). Most string teachers would agree that access to extracurricular activities like youth orchestras provide a definite advantage for students seeking to pursue music as a career. Bradley (2007) recommended that music educators examine enrollment to consider whether classes are operating with social justice.

In partial contrast to the reports from Elpus and Abril (2011) and Bradley (2007), string educators reported an increase in non-white string students (Hamann et al., 2002), with hopes of student diversity eventually spreading to teacher diversity as well (Alexander and Smith, 2009). Alexander and Smith (2009) found that United States string classes were 56.6% White, 13.3% Hispanic, 10.6% Black, 9.8% Asian, and 1.3%

American Indian, results more closely aligned to the overall diversity of the country than in the past (Hamann et al., 2002; United States Census Bureau, 2010). Teachers in their sample were 64.2% female and 91.6% White. Alexander & Smith (2009) anticipate that diversity in the string teaching force will, over time, follow the change in student enrollment.

Other researchers have studied diversity among professional string performers and its relationship with school ensembles. DeLorenzo (2012) pointed out that less than 2% of the orchestral musicians in the Atlanta Symphony Orchestra, the New Jersey Symphony Orchestra, the New York Philharmonic, and the Philadelphia Orchestra were Black or Latino. While these orchestras may hire internationally, they are not representative of the diversity of their communities. For instance, Philadelphia is the fifth largest city in the nation and an example of a diverse city where the White population is 45.5%, Black is 44.2%, Hispanic is 13.3%, and Asian is 6.9% (United States Census Bureau, 2013b). The problem of diversity in string orchestras goes further, Jones (2006) reported that only 45 out of 291 schools (15%) in the School District of Philadelphia offer string instruction. Although string instruction is offered in Philadelphia, DeLorenzo (2012) argued that inequalities found in string education may lead to decreased numbers of Black and Latino students in school ensembles and eventually professional classical music ensembles. DeLorenzo (2012) identified many areas that were inequitable: resources (including instruments), facilities, funding, concert programming, teacher turnover, private lessons, youth orchestras, recitals, and music camps. DeLorenzo (2012) advised teachers to proactively question whether the diversity of their orchestra reflects the population of their school.

Availability of Instruments. While some low-SES students may be excluded from learning a stringed instrument because programs are seldom offered in low-SES schools (Smith, 1997), similar students in schools with string programs may be excluded due to lacking an instrument, making the purchase of an instrument a requirement of participation. Fitzpatrick (2011) found that 90% of Chicago Public School instrumental music students borrowed a school-owned instrument as their only means to participate. Likewise, Albert (2006b) reported 75% of the students used school-owned instruments in the low-SES schools represented in his study. Teachers in those schools acquired many of the instruments through local donations, without which students would not have been able to participate. Fitzpatrick (2008) reported urban teachers' most urgent needs of support. Two needs identified were financial support and a functioning instrument inventory. Sandene (1994) asked teachers to consider whether loaner instruments looked bad, smelled bad, needed constant repairs, or had a makeshift case, because functioning instruments may help retain students.

Even if instruments are available to students, they may be unable to continue in instrumental music ensembles if they lack other resources needed to participate. Kinney (2010) studied sixth and eighth grade band students in a mid-western school district with 19.2% of the student population below the poverty line. Students who did not qualify for free or reduced-priced lunch were almost twice as likely to continue taking band in eighth grade. Kinney (2010) noted that the school district studied provided some school-owned instruments to students who could not rent their own, but that other financial needs such as replacement reeds, valve oil, concert attire, and trips may have created a barrier to continuation. Kinney (2010) recommended that educators seek creative ways of easing

the economic barriers for low-SES students in addition to providing school-owned instruments.

Summary and Discussion of Challenges. Socioeconomics, racial background, and instrument availability all greatly impact the accessibility of string education and deserve consideration from the string teaching profession. Increasing the enrollment of more racially and economically diverse students may mean more schools need to foster string programs throughout the country (Alexander & Smith 2009; Smith, 1997). String educators may need to consider socioeconomic needs and demographics when trying to increase participation, especially where the existence of orchestra programs are most sparse (Alexander & Smith, 2009; Elpus & Abril, 2011; Smith, 1997). Strong relationships between teachers, students, and families may increase participation and retention (Mixon, 2005). Through communication with parents, teachers may understand more fully what is hindering student participation. Gaining the enrollment and retention of diverse and low-SES students will probably require the use of loaner instruments and the reduction of fees (Albert, 2006a, 2006b; Fitzpatrick, 2008, 2011; Hoffman, 2013; Kinney, 2010). Teachers of those students may be challenged to fundraise and acquire instrument donations by collaborating with parents, school administrators, peer teachers, and community organizations (Albert, 2006a; Mixon, 2005).

Benefits to Receiving Access to String Education

Increased access to string education for diverse students and students of low SES could provide several benefits, including attitude, academic growth, and behavior. Participation in music ensembles on loaner instruments has been shown to improve at-

risk students' attitudes with benefits of happiness, self-esteem, and confidence (Devroop, 2012; Ester & Turner, 2009). Students who participated in extracurricular string instruction gained academic growth, focus, and teamwork abilities (Andreassen, 2013). Music participation in high school has a positive influence on at-risk student behavior and GPA (Lucio et al., 2011; Miksza, 2007). Low-SES students who were more involved in arts courses, such as orchestra, tended to earned higher grades, attend college, volunteer, and vote (Catterall, 2012). Benefits to music participation abound, going beyond purely musical outcomes.

Attitude. Instrumental music performance has been found to increase happiness, optimism, perseverance, and self-esteem in research conducted on economically disadvantaged youth (Devroop, 2012). The study was part of the South African Musical Outreach Project that used donated instruments from the United States to give music ensemble opportunities to students with severe economic challenges. Participants were an average age of 13 with no prior musical instrument experience. Additionally, many of the students had social challenges caused by the impact of AIDS, crime, drugs, gangs, and lack of parental involvement. The students were asked to respond to questions using a 5-point Likert scale to rate whether their happiness, optimism, perseverance, and self-esteem was improved through participation in an instrumental ensemble. Results of the study concluded that instrumental music students gained important emotional, social, and personal benefits through participation.

Ester and Turner (2009) noted positive outcomes to attitude for both students who borrowed school instruments and students who used personal instruments, specifically identifying that the benefits of music are not equally available due to instrument

availability. They noted positive correlations between music study and ratings of happiness and intellectual self-confidence for students using school instruments. Based on teachers' responses to the Academic and Personal Growth assessment, Ester and Turner (2009) concluded that low-income students were judged by their music teachers to achieve equally with mid- and high-income students when given the opportunity to participate with school-owned instruments. If given the opportunity to participate on an instrument, students from all socioeconomic levels have the potential to gain happiness, self-confidence, and satisfaction from achievement in the eyes of their instructors.

Academic Growth. Andreassen (2013) showed that students of low income who participate in music programs attain academic and non-cognitive benefits. The research was conducted with middle and high school students who participated in two extra-curricular music programs in Philadelphia, Pennsylvania and Trenton, New Jersey. One program was choral and the other was instrumental. Both served low-income, urban students. The instrumental program met five days a week in classrooms after school and was part of an arts organization that served other orchestras. Ninety percent of the students involved in the instrumental program qualified for free or reduced lunch. Students in both programs were surveyed on how participation had impacted their lives. Results of the survey found that 37.9% of the students said their grades didn't change, while 55.2% of the students said their grades improved. Of those whose grades improved, many cited improved attitude from music involvement as a key reason for their improvement. Almost all of the students felt like they gained focus and teamwork abilities. Other areas of improvement included authority, friendships, perseverance, school connectedness, social skills, study skills, and time management. Students who

qualify for free or reduced price meals have the potential to grow academically when involved in string orchestra classes.

Lucio et al. (2011) found that music was a stronger factor in relation to academic achievement than SES. They studied the impact of school factors on academic achievement to develop and test a comprehensive additive risk index that would predict academic achievement in high school students. Factors significantly correlated to student academic achievement included academic expectations, academic self-efficacy, attendance, grade retention, music instruction, and school behaviors. Lucio et al. (2011) found that students who had lower academic achievement and increased problem behaviors at school had more risk factors: low academic self-efficacy, low academic engagement, low attendance, low homework completion, grade retention, and increased mobility. However, the researchers also noticed a trend in which some students with many risk factors had other non-threatening factors acting to offset their elevated risks. These unique, non-threatening factors were labeled as protective by the researchers because students who possessed the specified protective factors had higher academic achievement and better behavior in school. Music instruction was found to be a protective factor. An implication noted in the research of Lucio et al. (2011) is that schools should target specific areas to reduce student failure. One target explicitly identified was for schools to increase participation in music activities. Miksza (2007) concurs with recommendations in Lucio et al. (2011), regardless of SES, students participating in instrumental music ensembles may reach higher academic marks in math, reading, science, and social studies; over time achieving at a higher level than non-participating students.

Behavior. Catterall (2012) examined the National Education Longitudinal Study of 1988 (NELS: 88), the Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999 (ECL-K), National Longitudinal Survey of Youth of 1997 (NLSY97), and the Education Longitudinal Study of 2002 (ELS: 2002) in order to identify civic and academic behavior outcomes for at-risk teens and young adults who participated heavily in arts education programs in or out of the school day. Students were considered “at-risk” if they were listed among the bottom quartile of SES. Databases varied as to how arts involvement was recorded, but arts involvement included all in-school and extracurricular dance, music, theater, and visual arts activities. At-risk youth with high-arts involvement did better on a wide variety of academic and civic measures than did at-risk youth with low-arts involvement. More low-SES/high-arts involved students had higher GPAs and attended college. Later in life they became active voting and volunteering members of society.

Attitudes, academics, and behavior are benefits from music instruction that can be observed across all socioeconomic levels (Catterall, 2012; Ester & Turner, 2009; Miksza, 2007); however, teachers need to expand access to string education for underrepresented students to receive these benefits (Alexander & Smith, 2009; Corenblum & Marshall, 1998; DeLorenzo, 2012; Elpus & Abril, 2011; Jones, 2006; Kinney, 2010; Klinedinst, 1991; Smith, 1997). Accepting donated instruments and using loaner programs to provide opportunities for underprivileged students to receive music instruction allows those students to receive the benefits of happiness, optimism, perseverance, and increased self-esteem (Albert, 2006b; Devroop, 2012; Ester & Turner, 2009; FAYM, 2012b). Orchestra involvement in and out of school can positively affect the academic outcomes

of at-risk students (Andreassen, 2013; Lucio et al., 2011; Miksza, 2007). By increasing access to string education for low-SES and diverse populations, more students may benefit from the positive attitudes, academic success, and behaviors associated with participation in the arts, such as attending college and civic engagement (Catterall, 2012).

Common-Practice Models from Literature

Creating a functioning instrument inventory is an essential part of the orchestra teacher's job. A review of pedagogical recommendations found in undergraduate teacher-training texts and common practices of public school and extra-curricular programs provides insight into the focus and functioning of loaner programs (Fu, 2009; Hoffer, 1991, 2001; Lamb & Cook, 2002; Mixon, 2005; Walker, 1998). Teacher-training texts and professional organizations make recommendations for loaner programs from the perspective of student access at the beginner level and instrumentation needs (Hoffer, 1991, 2001; Lamb & Cook, 2002; NAFME, 1994; Walker, 1998). While managing the accessibility of instruments for student use has traditionally been an important responsibility of music teachers (Mark, 2008; Rue, 1949), music educators have more recently placed attention on the role of loaner programs in assisting student participation in music courses (Mixon, 2005). Current trends appear to move toward a greater focus on student need, juxtaposing the needs of ensemble instrumentation requirements and transportation challenges.

Teacher-Training Texts. Lamb and Cook's *Guide to Teaching Strings* (2002) recommends purchasing instruments for balancing instrumentation needs and to enable student participation. Included in the section of the book titled "Purchasing Instruments

for Schools” was a chart that recommended a minimum number of stringed instruments per elementary, junior, and senior high school in an average community. Teachers were advised to think about the affluence and needs of their community. Lamb & Cook (2002) also noted that what to purchase is based primarily on two viewpoints; however, neither address providing instruments for students on a long term basis. The first view is that school districts should only provide instruments that they believe parents will not purchase, such as basses for elementary and junior high students. This line of thinking would assume that parents will purchase the instruments by the time students are in high school. Thus, whether or not a student could continue in high school would be based entirely on a parent’s willingness and capacity to supply an instrument. The second viewpoint holds that schools should provide some instruments on which beginners may experiment for a period of time, perhaps six months to a year. Then, if a student decides to continue they must purchase an instrument at a local music store or borrow one from a friend or relative. Ultimately, providing basses at all levels due to the size, cost, and difficulty of transportation was strongly suggested. They also recommended keeping instruments on hand for students to experiment with switching instruments or for better ensemble balance.

The two editions of *Teaching Music in the Secondary Schools* (Hoffer, 1991, 2001) are academic texts used to prepare teachers and cited by other researchers for inclusion of loaner program information (Ester & Turner, 2009). In the earlier edition, more information was geared towards the string teacher. A chart of ideal numbers for balance in small, full, and complete symphonic ensembles is included in the 1991 edition, but not in the 2001 edition. The chart does not give reference to socioeconomic status or

enrollment size of the school. According to the chart, the ratio of recommended violins to violas and cellos was 3:1. The ratio of violins to basses was more dependent upon the size of the group: small ensembles 4:1, full ensembles 6:1, complete symphonic ensembles 5:1. Hoffer (2001) noted that if a loaner program's inventory is organized in this manner and if a student wishes to borrow a more common instrument like the violin, the teacher may guide the student to a less common instrument that is available. The end result would hopefully be a better balanced orchestra. Hoffer (1991) recommended that school districts purchase two different grades of instruments: the first being more rugged for beginners and the second more refined for advanced high school players. Hoffer (1991, 2001) believed loaner instruments help students begin learning, transfer to new instruments, and provide for the less common and more expensive instruments like the double bass through high school. He supported the notion that after one to two years of instruction on a more common instrument, a student customarily purchases the instrument. Hoffer (2001) cautioned teachers about denying access to students who can't afford an instrument, suggesting teachers seek help from parent organizations and the school board.

The textbook *Teaching Music: Managing the Successful Music Program* (Walker, 1998) mentioned school-owned instrument loaner programs in the section of the book dedicated to budget procedures. Walker (1998) was a proponent of assigning fees for the use of school-owned instruments. He recommended fees to cover the annual repair, maintenance, and overhead of the loaner program. Walker (1998) provided a formula for determining usage fees and cautioned teachers about setting fees too low. Walker (1998) recommended beginning by determining how many students borrow instruments. Next,

he calculated the total cost of repairs, maintenance, and overhead; and multiplied this amount by two. Finally, he divided the cost by the number of students borrowing instruments to deduce the fee. All surplus funds were to be used to replace broken or old instruments when needed.

These textbook authors promote enhancing student participation through the loaning of school-owned instruments, but predominantly for beginning programs and larger instruments. As common textbooks, these beliefs expectedly impact practicing teachers' beliefs, once in the classroom. Walker (1998) believed students take better care of instruments when they invest financially. However, like Hoffer (1991, 2001), he noted that teachers should not risk excluding low-SES students by modifying yearly fees to smaller monthly fees or seeking funds for scholarships. The Opportunity to Learn Standards for Music (NAFME, 1994) advised that teachers allot an annual instrument replacement budget equal to at least 5% of the replacement value of the total school instrument inventory. Research on the practices in use at more affluent schools appear to align with these recommended practices, primarily focusing on providing larger instruments to ease the transportation issues associated with larger instruments by assessing student fees (Fu, 2009).

Practices in Public Schools. Fu (2009) studied the practices of the Upper Arlington City schools, a successful, award-winning orchestra program in Ohio. All beginning students were reported to rent instruments from local music stores and over time would own their instruments. While the average family income of the community was \$88,365, above the median American income, the orchestra program allowed sixth through twelfth-grade cellists and bassists to borrow a school instrument in order to keep

their personal instrument at home for practice. In order to use a school instrument, students paid an annual fee of \$40. At the time of the study, \$2000 - \$2500 was spent on instrument upkeep. Overall, high school strings received \$20,000 yearly to repair and purchase instruments, as well as other necessary equipment. Funding was reported to fluctuate yearly for the Upper Arlington City string program, originating from school district funds as well as a community and alumni endowment fund. Fu (2009) recommended that affluent beginning string programs have larger, harder-to-transport instruments like cellos and basses on hand even though parents can supply students with personal instruments. However, a school would not need to provide easily transportable instruments like violins and violas.

Summary and Discussion of Contemporary Practice Models. Fu's (2009) observations align with the recommendations of Lamb and Cook (2002), that teachers model their loaner programs to match the affluence of their community. However, many teachers consider matching the affluence of school community to be a more multifaceted endeavor, particularly in less wealthy communities (Mixon, 2005). The Upper Arlington City schools' loaner program model would not sustain every school orchestra program. Many schools do supply violins and violas (Rue, 1949). In fact, entire orchestra programs have been built on the acquisition of loaner instruments for students to begin instruction and this has been a long-standing practice in music education (Mark, 2008; Rue, 1949). In the next section, early approaches to loaner programs are described, and this is followed by a section describing loaner programs that have the primary focus of assisting students with financial needs.

Early Loaner Programs. Several examples of loaner programs are available from American string education history. In 1918, George Eastman donated \$10,000 worth of instruments to found a school orchestra program in Rochester, New York (Mark, 2008). In another example, Rue (1949) described how Topeka built a string program starting with a set of ten instruments: eight 3/4 violins and two full-sized violins. These ten instruments would be used by twenty students at one building, with one student playing and the other acting like the teacher. After the teacher finished at one building, instruments would be loaded up and taken to the next building. Rue (1949) explained that after six weeks, most students procured their own instruments in order to continue instruction. Consequently, the Topeka school district still offers string education today and has been honored to have students participate in the National Honors Orchestra (Topeka Public School News, 2013). Although this model successfully founded a string program, it required physical labor and a large enough vehicle to transport the instruments. The Rue (1949) model of school-loaner programs suggests beginning students be provided instruments for a short period of time in order to help students decide if they wish to continue and purchase their own instrument.

Loaner Programs Focused on Accessibility. Several common-practice loaner programs appeared to be modeled after the assumption that every family purchases an instrument from the beginning (Fu, 2009) or purchased after a short time of instruction on a loaner instrument (Rue, 1949), which might not meet the needs of contemporary schools. Traditional practices are fostered by the recommendations found in teacher-training textbooks and traditions in the profession (Hoffer, 1991, 2001; Lamb & Cook, 2002; Walker, 1998). Recent studies of school instrumental music programs have found

that loaner instruments were used throughout middle school to sustain enrollment of financially challenged students (Albert, 2006b; Ester & Turner, 2009). Vasil (2013) interviewed fourth grade instrumental music students from an urban school with the majority of students qualifying for FRL and found that half of them communicated financial hardship. One student was limited by what was available through the school loaner program and another student was helped by a need-based scholarship. Since finances can be an issue for attracting and retaining students, Vasil (2013) provided explanations of how to acquire instruments through internet sites such as the Freecycle Network and Craigslist. Some music educators contend that low-SES students would ultimately not be able to continue, implying entire programs may cease to exist due to an inadequate number of instruments and inadequate budgeting to keep existing instrument inventories in a playable condition (Albert, 2006a, 2006b; Costa-Giomi & Chappell, 2007; Fitzpatrick, 2008, 2011).

Mixon (2005) suggested some guidelines for the effective use of loaner programs in low-SES, urban schools that never seem to have enough instruments for interested students. In the case of an instrument shortage, teachers must decide who would get to use school-owned instruments first. He suggests that priority should go to older students who have previous experience. Mixon (2005) reported that schools may have active waiting lists for school-owned instruments when that are in short supply. A problem is that if a student entered the program late due to waiting for an instrument to become available, he may not be able to catch up. Another suggestion was for teachers to assess students' responsibility and trust because lost, stolen, and broken instruments may inhibit others from playing in the future. Mixon (2005) reported that urban schools often have

older instruments with lower funding for replacement or repair, while possibly needing more instruments and other related supplies. In response to this concern, Mixon (2005) recommended teachers learn how to write grants and collaborate with another teachers to seek funding for loaner programs, repairs, and other items not easily accessible for low-SES students.

Fitzpatrick (2008, 2011) studied instrumental music in Chicago public schools and found various inequities, with teachers adjusting loaner programs to meet the context of the school served. The urban teachers represented in the study received levels of funding varying from \$0 to over \$30,000 a year. Teachers also expressed differing responses to questions about fundraising and participation fees, with some teachers noting they were not permitted to fundraise. Fitzpatrick (2008, 2011) found that students who may be excluded from instrumental music were learners whose parents couldn't afford to rent or purchase an instrument. Consequently, teachers adapted the organization of loaner programs to meet student need. Teachers with loaner programs who focused on creating access for low-SES students understood the reality that if a student brought their instrument home it may be stolen. Additionally, teachers at lower-SES schools established loaner programs to serve students until graduation, understanding it may take students one to two years, or even longer to afford their own instrument (Fitzpatrick, 2008, 2011; Hoffer, 2001; Mixon, 2005). By adjusting the organization of school loaner programs to ease the effects of childhood poverty, teachers may be able to better serve lower-SES and diverse populations.

Sadly, more research has found inequity in music program funding and music resources, such as school-owned instruments. Costa-Giomi and Chappell (2007) found

inconsistencies in parental support, resource allocation, and financial assistance for band programs in schools of differing SES and diversity. Schools with higher percentages of low-SES students and more minorities had less parental support, fewer resources, and less available financial assistance. Schools in this category collected less money from fees for instruments and other music participation expenses than higher-SES schools with fewer minorities. Teachers in the underprivileged schools also reported inadequate maintenance of instruments and decreased participation in band over a three-year period, while higher-SES schools with fewer minorities reported no inadequate instruments and enrollment growth. Costa-Giomi and Chappell (2007) lamented that differences of this magnitude persisted in spite of state tax revenue redistribution policies intended to equalize differences in school SES and diversity.

Costa-Giomi (2008) studied schools of a diverse socioeconomic status from a large urban area in Texas and again found a disparity for low-SES schools. General music teachers' opinions were surveyed on a variety of topics, and many teachers had a perception of inequality. They thought the availability of resources were tied to their geographical location in the district, with differences in instruments between the schools in the district. Costa-Giomi (2008) also revealed that music programs of low-SES schools were less likely to receive extra funds from outside the district budget, such as parent supported fundraisers. These schools may require outside support such as grants from local or national organizations.

Summary of Common Model Loaner Programs. The function of loaner programs varies with four main purposes: (a) accounting for instrumental balance in the orchestra, (b) providing larger instruments that are hard to transport, (c) providing

instruments for beginners, and (d) assisting those who cannot afford instruments (Albert, 2006a, 2006b; Costa-Giomi & Chappell, 2007; Fitzpatrick, 2008, 2011; Fu, 2009; Hoffer, 1991, 2001; Lamb & Cook, 2002; Mark, 2008; Mixon, 2005; Rue, 1949; Vasil, 2013; Walker, 1998). Teacher-training texts place the most emphasis on loaner programs for beginning students and proper instrumentation with regards to less-common, larger instruments being kept in inventory. These texts make short cautionary recommendations about providing for potential students who cannot afford instruments (Hoffer, 1991, 2001; Lamb & Cook, 2002; Walker, 1998). Common issues facing teachers serving more racially diverse and low-SES schools are problems of inadequate school instruments, lack of funds for replacement or repairs, and general consequences of childhood poverty (Albert, 2006a; Costa-Giomi, 2008; Costa-Giomi & Chappell, 2007; Fitzpatrick, 2008, 2011; Mixon, 2005). Childhood poverty affects the ability of music teachers to gain parental support and raise funds for needed equipment or maintenance (Costa-Giomi & Chappell, 2007). Loaner programs that focus on accessibility struggle to meet the demands that are placed on the program and often seek donations from outside the school (Albert, 2006a; Devroop, 2012; Mixon, 2010).

Community Based Loaner Programs

Loaner programs have been a foundational component of several community programs that combine making music on stringed instruments and a social mission (Blickenstaff, 2014; Brenner, 2010; Clements, 2006; FAYM, 2012a, 2012b, 2015a; Hamm, 2013). These programs have gone beyond providing equitable music making opportunities to focus on increasing the life chances of students with limited financial

means. By reviewing programs such as *El Sistema*, the Foundation to Assist Young Musicians (FAYM), the Metropolitan Community Program, and the Fairview String Project, public school orchestra teachers may learn new methods of providing instruments, instruction, and other resources.

El Sistema is a world-wide program that uses music making to facilitate social change and improve the life chances of students (Blickenstaff, 2014; Lesniak, 2012). The program began in Venezuela for students of limited means, in order to give them a safe environment where they could experience the joy of making music in an ensemble after school. The result has been reduced drug traffic in youth and more positive social opportunities. Classical music has increased immensely in popularity although previously it was not a robust part of the culture (Downs et al., 2014). In Venezuela, this is a social welfare program made free through government funding (Blickenstaff, 2014; Lesniak, 2012). What began in 1975 in Venezuela has grown throughout the world, including 65 active programs in the United States (*El Sistema* USA, 2015a).

Access to instruments is critical to the operation of *El Sistema* programs. According to the United States *El Sistema* Inspired Programs 2012-2013 Census Report Summary, 16% of United States programs commonly noted instruments as being essential to the functioning of their program (Hamm, 2013). The term “instruments” meant either discounted instruments, instruments, instrument donations, instrument repair/maintenance, or music stands. Active members of the National Alliance of *El Sistema* Inspired Programs have access to shared resources, such as discounts on instruments and supplies from Shar Music. Many organizational resources, such as fundraising and grant ideas, are provided on the *El Sistema* USA website (*El Sistema*

USA, 2015b). For example, the website suggests teachers contact state non-profit centers and look at the resources provided by the Foundation Center (2015). A web-link for the Foundation Center, a directory of international philanthropy, is found on the *El Sistema* USA website. In-school models of *El Sistema* programs require significant variation from the typical format (Lesniak, 2012). However, string teachers benefit from *El Sistema* methods of gaining resources. The use of fundraising and grants has great potential for increasing access to string instruction.

Violins for Kids, as part of the Foundation to Assist Young Musicians (FAYM), provides repurposed instruments and opportunities for students in the Las Vegas area through community support (FAYM, 2012a, 2015a, 2015b; McKee, 2011). It began with a grant to purchase Arturo Ochoa's 75 violins. The violins were originally used to teach kindergarteners in an after-school program where he was principal (FAYM, 2012a). The foundation networks to promote Suzuki-style string education beginning in preschool and kindergarten. To serve children who would not normally have access to string instruction, students received violin lessons and a free instrument for five dollars a month. Additionally, FAYM assists students with scholarships for private lessons, summer music camps, and college. The KNPR program "State of Nevada" interviewed Arturo Ochoa, who emphasized that FAYM was not just to produce musicians, but to provide a pathway to higher education for low-income students (Martin, Ochoa, & Weller, 2011). Ochoa hoped that the program would be an alternative to drugs and gangs, and that someday FAYM students would go on to become doctors, lawyers, teachers, or anything else they chose. The foundation regularly collaborates with prominent musicians and institutions from the Nevada area, including the Clark County

School District, the Las Vegas Youth Orchestras, the University of Nevada, Northern Arizona University, and the Conductors' Guild. One specific example of community support occurred in 2010, when the Las Vegas Northwest Rotary Club made a substantial donation to help beginning kindergarten-aged violinists attend a five-day Suzuki Camp. Repurposing instruments at a low cost and networking with the community holds potential for increasing access and using string education to further social goals.

The Metropolitan Community Program is a program that is designed to increase the diversity of students participating in youth orchestras by providing music instruction and instruments to students of limited financial means (Clements, 2006). In 1998, string instructors in Boston began the Metropolitan Community Program (MCP) as an outreach to underrepresented first and second graders. Membership in MCP was comprised of enthusiastic students whose parents could not afford to rent or purchase an instrument, but showed firm commitment. Consequently, the organization rented instruments from a local shop at a discount and the shop declared the discount as a tax deduction. Students in the Metropolitan Community Program could only borrow instruments until graduation, but support for parents has been explored as a strategy for long term investments in high quality instruments (Clements, 2006). After two years in the program, students had a goal of auditioning for the Greater Metropolitan Youth Symphony Orchestra of Boston. MCP students successfully auditioned and grew to comprise 14% of the Greater Metropolitan Youth Symphony Orchestra string membership. Moreover, the orchestra has grown in diversity from 1% to 21% students of underrepresented youth, who were identified by Clements as being African American, Latino, Hispanic or Haitian (BYSO, 2015b). The Greater Metropolitan Youth Symphony Orchestra changed its name to the Boston Youth

Symphony Orchestra in 2007 and the Metropolitan Community Program is now called the Intensive Community Program (BYSO, 2015a). Notably, the availability of instruments, the involvement of parents, and the use of partnerships to obtain instruments are key resources that can help students with financial need meet high levels of performance.

The Fairview String Project is another example of a string program seeking to raise the life chances of under-represented populations (Brenner, 2010). In 2010, 90% of the student population at Fairview Elementary in Bloomington, Indiana received free or reduced priced lunch unlike the typical participants in Indiana University's precollege String Academy, who were usually from upper-middle class families (Brenner, 2010). Through a partnership with the Indiana University, Jacobs School of Music, the Fairview String Project began providing mandatory violin instruction during the school day to every first grader and within a short time the program added mandatory second grade instruction (Hogan, 2012). Students wishing to continue in third and fourth grade have the option of free after-school group lessons. The program benefits elementary students through the unique opportunity to gain string lessons, and the IU preservice string students gain experience working with a diverse student population. Logistical concerns of the program involve resourcing adequately-sized instruments that are maintained in an effective and efficient storage system. Since students did not take their instruments home in first and second grade, all violins were coded with names and stickers to be stored in a cabinet between classes. This allows an instrument for each student, not only to fit the sizes and shapes of individual students, but also to give students a sense of ownership and pride. The success of instrument loaner programs goes beyond acquiring sufficient funding, to make sure that (a) the resources are tailored to the needs of individual

students, (b) the maintenance requirements of instrument inventories are met, and (c) the procedures for distribution and related loaner program tasks are effective.

All four programs, *El Sistema*, Violins for Kids, the Metropolitan Community Program, and the Fairview String Project, exhibit how instrument loaner programs can open the door to string education and improve the life chances for students of low SES. Efforts to include diverse and underrepresented students are worth the time and energy, producing significant results and giving otherwise unlikely opportunities to many more youth (Brenner, 2010; Clements, 2006; Martin et al., 2011). Networking with community members is an important activity that may uncover resources, such as instruments that are no longer in use or preservice teachers needing experience (Brenner, 2010; FAYM, 2012a). Grants, fundraising, and partnerships are important resources for serving students of high need (Brenner, 2010; Clements, 2006; El Sistema USA, 2015b). In addition, there are important and necessary administrative functions that ensure the success of these programs, such as planning for instrument storage and distribution (Brenner, 2010).

General Summary and Discussion

Many public school and community string programs have used loaner instruments to start or continue the growth of students (Blickenstaff, 2014; FAYM, 2012a, 2012b, 2015a; Fu, 2009; Mark, 2008; Rue, 1949). String education history provides examples of this through George Eastman's donation of instruments to Rochester Public Schools and Rue's (1949) description of the beginnings of a string program in Topeka. Fu (2009) reported on a more affluent school district, Upper Arlington City schools, which

exhibited a loaner program that provided only large instruments, relying on students to rent from local music stores. Other researchers reported on lower-income schools with a greater need for supplying instruments to students from low-socioeconomic families, as well as finding funds to aid students with supplies and other financial constraints (Mixon, 2005; Fitzpatrick, 2008). Recently, research on the efficacy of loaner programs has focused on enhancing the life opportunities for low-SES and diverse populations in addition to providing and enhancing the access, performance, and understanding of orchestral music (e.g. Brenner, 2010; Clements, 2006; *El Sistema* USA, 2015a, 2015b; FAYM, 2012b, 2015a). The systematic organization of a school-owned instrument loaner program should support the key goals of the program and the socioeconomic status of the community it serves in order to enhance the lives of children.

Low-SES students are some of the least likely to take string instrument classes. String programs offered as part of the school day are found mostly in larger school districts throughout the United States (Gillespie & Hamann, 1998; Schmidt et al., 2006; Smith, 1997). Students from low-SES backgrounds are most likely go to schools that do not offer strings, since very few low-socioeconomic school districts provide string instruction (Smith, 1997). Consequently, most instrumental music students in public schools are from mid-high socioeconomic backgrounds (Bradley, 2007; Elpus & Abril, 2011; Hoffman, 2013; Klinedinst, 1991). This results in an ethical dilemma because potential students may not join orchestra due to the difficulties of acquiring an instrument and affording other financial obligations, such as transportation, uniforms, private lessons, and travel (Costa-Giomi & Chappell, 2007; Elpus & Abril, 2011; Fitzpatrick, 2008, 2011; Kinney, 2010).

Opening access to string programs for diverse populations has been a challenge (Alexander & Smith, 2009; Bradley, 2007; DeLorenzo, 2012; Elpus & Abril, 2011; Hamann et al., 2002). Some of the difficulties of opening access to string education may persist due to traditionally held perspectives that loaner programs are useful to balance instrumentation and to aid students who play larger instruments, as recommended in teacher-training textbooks (Lamb & Cook, 2002; Hoffer, 1991, 2001; Walker, 1998). In addition, when teachers enter the teaching field they bring pre-held notions about the purposes for organizing loaner programs and this may also hinder the access to instruments for students under financial constraint (Albert, 2006a, 2006b; Corenblum & Marshall, 1998; Ester & Turner, 2009; Fitzpatrick, 2008, 2011; Kinney, 2010; Klinedinst, 1991; Vasil, 2013). Often through the collaboration of both public school and community resources, successful programs on a large scale, such as *El Sistema*, Violins for Kids, Metropolitan Community Program, and the Fairview String Project improve social outcomes of impoverished students. Researchers have found that including free use of instruments in these programs expanded access to low-SES students and diversified orchestra populations (Clements, 2006; Brenner, 2010; Blickenstaff, 2014). Teachers have enhanced the lives of children suffering from childhood poverty by promoting parental involvement, seeking preservice string teachers as mentors, providing opportunities to attend music camps, offering preparation for youth orchestras, and promoting opportunities after high school (Brenner, 2010; Clements, 2006; FAYM, 2012b, 2015a; Martin et al., 2011).

Although research supports the proposition that the use of loaner instruments increases access to music ensembles for the least advantaged students and provides poor

students commendable opportunities (Albert, 2006a, 2006b; Hoffman, 2013; Vasil, 2013), contrasting professional attitudes persist (Hoffer, 1991, 2001; Lamb & Cook, 2002; Walker, 1998). At this time, there is no known research that examines the scope of loaner program characteristics across an entire state related to the unique socioeconomic needs of schools served. In the next chapter, procedures used to collect data related to this concern are described.

METHOD

String orchestras are found in a significant number of schools across America (Alexander & Smith, 2009; Smith 1997). The majority of schools that offer string classes are larger in size, and the majority of students enrolled in string education are from mid-high economic homes. Consequently, the most underserved students across the country are low-income students (Albert, 2006a; Smith, 1997; DeLorenzo, 2012). In order to reach the underserved populations in our schools, many teachers manage school-owned instrument loaner programs.

Knowledge about the benefits to students, characteristics, and management of loaner programs for underserved populations was found interspersed throughout the literature on school instrumental education (Albert, 2006a, 2006b; Clements, 2006; Ester & Turner, 2009; Brenner, 2010; Devroop, 2012; Lesniak, 2012; El Sistema USA, 2015a, 2015b). However, I could not find a solely descriptive study of school-owned string instrument loaner programs. Data were collected in this study by surveying Missouri orchestra teachers who managed school-owned instrument loaner programs in elementary, middle, and/or high schools. A survey was used to identify various characteristics of school-owned string instrument loaner programs, instruments loaned, and administrative practices safeguarding school property. The research design, sample information, survey tool, and procedures will be discussed in this chapter.

Research Design

The research was designed as a descriptive study to examine characteristics of existing loaner programs by matching teacher reports of classroom loaner practices with publicly available school demographic data. The Missouri State University IRB granted prior approval for this project (February 26, 2015; Notice of IRB Exemption Category 4: existing data, public or deidentified; Study # 15-0353). The characteristics of loaner programs were gathered through a survey of school-owned instrument loaner programs emailed to teachers. (See Appendix B for a copy of survey.) The purpose of this research was to report descriptions of loaner programs in relation to school SES and school size, and to describe how loaner programs were used. These data may be helpful to string educators as well as other instrumental music teachers and administrators who facilitate school instrument loaner programs. Gathering experiential knowledge directly from string teachers through a survey was used because string teachers were directly aware of the structure and use of loaner programs. However, teachers may not be fully aware of the economic and social conditions impacting school orchestra participation, and the actual instruments and policies used in the loaner programs cannot be directly observed. Ideally the results would be collected from a wide variety of programs used by schools of multiple sizes and socioeconomic levels. Responses to the survey may have been impacted by the schedule and scope of teaching responsibilities and the accuracy of contact information.

Sample. The population used in the study was the string educators in Missouri public schools who participate in competitive orchestra events. This set of teachers may have taught any level of string students from beginning studies through high school

ensemble courses during the 2014-2015 school year. The survey participants were either facilitators of school-owned instrument loaner programs or not, depending on the practices within their respective school districts. While not all districts may have loaner programs, I was aware that this is a common practice in many districts in Missouri.

The sampling procedure was to identify string teacher emails by using the Missouri School Directory (Missouri Department of Elementary and Secondary Education, 2014b), accessed via DESE and individual school websites. The teacher email addresses were collected for schools identified as participating in orchestra events listed on websites run by the Missouri American String Teachers Association (MoASTA, 2015) and the Missouri State High School Activities Association (MSHSAA, 2001-2014). (In Missouri, schools with MSHSAA membership may choose to attend State Large Ensembles Festivals without a preceding district event.) Participants in the survey were also encouraged to distribute the survey to other Missouri string teachers.

Procedures

A researcher-designed instrument, called the “Survey of School-Owned Instrument Loaner Programs,” was used to collect classroom-level data on loaner programs. (See Appendix B.) The purpose was to collect information on the characteristics of string instrument loaner programs for elementary, middle, and high school orchestras and then to report descriptions of loaner programs in relation to school SES and school size. Survey development drew upon pedagogical texts on ideal music program characteristics (Hoffer 1991, 2001; Lamb & Cook, 2002; Walker, 1998) and personal experience teaching a wide array of students in a large school district and

facilitating a public school loaner program for string students in grades five through eight. Additionally, the electronic survey was reviewed for content and accuracy of response by my research advisor and another individual with experience collecting electronic data and teaching strings in public schools.

The survey was piloted by two public school string teachers known to the researcher. Pilot participants were asked to respond to the questions about their loaner programs. Based on the results of the pilot, survey items were revised for clarity and accuracy.

The Survey of School-Owned Instrument Loaner Programs contained information on the benefits and risks, permission on Informed Consent, and information for contacting the researcher about the project. The electronic survey prompted information on the number of public schools at which the participant taught and on the details of school loaner programs. The main body of the survey collected information about individual schools and had three parts per school: (a) General School Description, (b) School-Owned Instruments, and (c) Loaner Program Description.

The General School Description section collected the following information about each specific school: school name, grades taught, number of students enrolled in orchestra, whether the school shared loaner instruments with other buildings in the district, and whether students at each school used loaner instruments. The School-Owned Instruments section collected the numbers of each size of instrument provided at the specified school. Instruments and sizes included were: 1/10 – 4/4 violins, 13” – 16 ½” violas, 1/4 - 4/4 cellos, and 1/4 - 4/4 double basses. The Loaner Program Description section of the survey gathered more detailed information about the administration of the

loaner program and whom it served. Teachers responded whether there was a fee, application, contract, waiting list, and enough school-owned instruments to service students in need. The questionnaire also asked how teachers validate the need to borrow an instrument and how teachers determine the trustworthiness of students requesting to borrow a school instrument.

Survey administration was estimated to be five to twenty minutes, depending upon the number of schools and familiarity with loaner instrument program information. The survey required more time for teachers who taught in more schools since I was seeking loaner program information per building. If a teacher taught at more than ten schools, they were asked to complete the survey for ten schools and restart the survey to add additional schools. Once all school information was fully collected, participants supplied an email address in order to receive the study results. Finally, a confirmation page requested that participants distribute the survey to other Missouri string teachers. (See Appendix B for a copy of the survey.)

The sample of Missouri string teachers were emailed a link to the Survey of School-Owned Instrument Loaner Programs, which was then completed online. The survey responses were immediately recorded in a spreadsheet on the researcher's Google Drive. All responses were categorized for likeness of loaner program characteristics and school demographics. In order to more fully show how loaner programs related to school size and school SES, publicly available enrollment and FRL data were collected from the DESE website for each of the schools reported by the participant teachers. In addition to using FRL statistics as a measurement for SES, comparisons were made from responses in the survey. Those responses included the percentage of orchestra students using

school-owned instruments without having personal instruments at home, similar to Corenblum and Marshall (1998), Brandstrom (2000), and Ester and Turner (2009).

RESULTS

Identification and Description of Sample

Since the focus of this research was to study school-owned loaner programs currently used by orchestra teachers in Missouri, MSHSAA (2001-2014), MoASTA (2015), and Missouri School Directory (Missouri Department of Elementary and Secondary Education, 2014b) websites were consulted to find schools with string programs. Subsequently, school district websites were used to gather contact information with the assumption that information on school websites was accurate and current. I found a total of 124 string teacher email addresses to which I emailed an invitation to take the Survey of School-Owned Instrument Loaner Programs with a link to the online survey. (See Appendix C for a copy of the invitation.) A reminder email was sent to all non-respondents when there were two weeks left to take the survey.

The teacher contact list represented 124 teachers from 28 school districts identified as having string programs. Forty-two of those teachers responded to the survey invitation by participating in the study, while three invitations failed to deliver and two respondents replied that they were private teachers instead of public school teachers. This resulted in a response rate of 35.3%. Included in the respondents was a teacher whose email was not on the original list. Perhaps this respondent was forwarded the survey by a colleague, since I asked participants to forward the survey on to other string teachers.

The 42 teachers who participated in the survey were from 119 buildings representing 20 districts throughout the state of Missouri. Sixty-four percent of teachers

taught at one or two buildings. Thirty-six percent of the string teachers taught in three to eleven buildings. Participating schools represented a combination of grade levels from third through twelfth grade (Table 1).

Table 1. Grade Level Categories of Participating Schools

	Elementary			Middle		High	
	Elementary	Fifth Only	Intermediate	Middle	Junior	Freshman Only	High
<i>n</i>	63	1	2	34	1	1	17
<i>%</i>	52.9	0.8	1.7	28.6	0.8	0.8	14.3

The highest grade to be included in elementary schools varied by district, with some districts' elementary schools ending at fifth grade and other districts going to sixth grade. Please note that all future charts will be condensed by including fifth-grade-only buildings and intermediate buildings in the elementary category, junior high buildings in the middle school category, and freshman-only buildings in the high school category. With this clarification in mind, I reported results from 66 elementary schools, 35 middle schools, and 18 high schools with orchestra classes. To see the breakdown of grades taught per building per teacher refer to Appendix D.

The size of each school was determined as the student membership for the last Wednesday in January 2014. This date was set by DESE to gather data for federal funding. Student membership numbers, which I refer to as enrollment, are defined by DESE as being the number of resident students enrolled and in attendance for at least 1 of

the 10 days prior to the count day. Students who are not at school the whole day are represented proportionally. The smallest building to be represented in the survey had an enrollment of 46 and the largest building had 2,066.17. The combined enrollment of all buildings was 70,882.63 with a mode of 462 and an average school enrollment of 595.65.

The total number of string students taught by all teachers participating in the study was 6,608 (Table 2). These orchestra students constitute 9% of the enrollment of all 119 buildings. The number of string students taught per teacher per building varied among schools with the smallest being 6 students and the largest being 350 students at one elementary building, where grades three, four, and five were taught strings. The mode was 40 students per teacher per building.

Table 2. Percentage of Orchestra Enrollment among Students at Participating Schools

Level	Enrollment		% in Orchestra
	Overall	Orchestra	
Elementary	25,031.27	2,604	10.4
Middle	23,395.46	2,820	12.1
High	22,455.90	1,184	5.3
All	70,882.63	6,608	9.3

Method of Determining Socioeconomic Status

Free and Reduced Lunch data (Missouri Department of Elementary and Secondary Education, 2014a) were collected from DESE to provide the average

socioeconomic level of each school SES, similar to the findings of previous researchers (Albert, 2006b; Ester & Turner, 2009; Hoffman, 2013; Kinney, 2008, 2010; Lucio et al., 2011; Nierman & Veak, 1997; Parsad & Spiegelman, 2012). The state does not calculate FRL percentages per course, only per building. The FRL data set is titled Free and Reduced Lunch Percentage by Building and is publically available on the Missouri Department of Elementary and Secondary Education website (2014a). The 2014 FRL data were not available for three buildings due to statewide collecting procedures. The average for all 116 buildings with available FRL data is 50.5% (Table 3).

Table 3. Free and Reduced Lunch Percentages by Academic Level

Academic Level	FRL %			
	Average	Lowest	Median	Highest
Elementary ^a	54.1	10.9	56.0	94.1
Middle ^b	45.1	13.7	40.9	87.5
High ^c	47.2	13.2	48.0	84.7
All	50.5	10.9	50.2	94.1

Note. FRL data were only available for 63 of the 66 participating elementary schools.

^a*n* = 63, ^b*n* = 35, ^c*n* = 18

For the purpose of analyzing these data, three socioeconomic level categories are used to report the results of the schools. When placing schools into categories, school FRL percentages were rounded to the nearest whole number. I chose to define SES tertiles in a conservative manner: FRL percentages at or below 33% were considered

high-SES schools, 34% - 66% were mid-SES schools, and at or above 67% were considered low-SES schools. This rate is higher than the determination made by Albert (2006b) who defined low-SES districts as being 50% FRL or more. Once socioeconomic levels were defined, participating schools were categorized and orchestra enrollment data was analyzed in Table 4.

Table 4. Number of Orchestra Students and Average Percentage of School's Students Enrolled in Orchestra

SES Level	Schools (<i>n</i>)	Orchestra Students (<i>n</i>)	Average Enrolled (%)
High	38	3474	15.1
Mid	42	2087	8.1
Low	36	989	6.2
Total	116	6550	9.3

Note: FRL data were not available for three schools

Loaner Program Availability and Use

Teachers were asked whether or not each building shared loaner instruments with other buildings in their district and whether or not they had students using school-owned instruments at each location. This helped determine whether a loaner program was available and if the school used it. Tables 5, 6, 7 and 8 chart the differences per SES for two groups of schools, the 81 buildings that shared instruments and the 38 buildings that independently had their own loaner instruments or independently reported no one using loaner instruments. By combining the number of buildings in the columns titled 'sharing

using loaner instruments' and 'independent using loaner instruments,' I found that a total of 86 buildings that used loaner instruments, which is 72.3% of all the buildings represented in the survey. Teachers reported twenty buildings that shared school-owned instruments with other schools in their district but did not have any students using loaner instruments, and nine out of twenty were low-SES schools. Only 10.9% of all participating schools neither used loaner instruments nor shared instruments with other schools in their district. One teacher included in the research reported that their school's loaner program does not use school-owned instruments, but instead the school pays the rental and insurance costs for students who qualify for FRL. Free and Reduced Lunch data for that particular school shows the school to be in the higher socioeconomic tertile.

The survey asked how many students used school-owned instruments for each building. Of the 6,608 students reported as enrolled in orchestra studying under the teachers surveyed, 1,451 were issued school-owned instruments. Therefore, 22.0% of all orchestra students represented in the survey use loaner program instruments.

Teachers were asked to specifically indicate how many students per building used a school-issued instrument as their only instrument. This excluded students who borrowed an instrument to avoid transporting their own instrument due to size, such as the bass or cello. Teachers reported that 16% of all orchestra students used school-issued instruments as their only instrument. In order to further define school SES, I compared SES tertiles to the percentage of students using a school-issued instrument as their only instrument (Table 9).

Table 5. Numbers and Percentages of Buildings per Socioeconomic Level with Descriptors of Sharing Loaner Programs and Independent Loaner Programs

SES Level	Sharing						Independent					
	Total		Not Using LI		Using LI		Using LI		Not Using LI		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
High	21	17.6	5	4.2	16	13.5	11	9.2	6	5.0	17	14.3
Mid	28	23.5	4	3.4	24	20.2	8	6.7	6	5.0	14	11.8
Low	29	24.4	9	7.6	20	16.8	6	5.0	1	0.8	7	5.8
No FRL Data	3	2.5	2	1.7	1	0.8	0	0.0	0	0.0	0	0.0
Total	81	68.1	20	16.8	61	51.3	25	21.0	13	10.9	38	31.9

Note: *N*=119. Descriptors are: Total Sharing, Sharing/Not Using Loaner Instruments (LI), Sharing/Using LI, Independent Using LI, Independent Not Using LI.

Table 6. Numbers and Percentages of Elementary Buildings per Socioeconomic Level with Descriptors of Sharing Loaner Programs and Independent Loaner Programs

SES Level	Sharing						Independent					
	Total		Not Using LI		Using LI		Using LI		Not Using LI		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
High	12	18.2	5	7.6	7	10.6	5	7.6	3	4.5	8	12.1
Mid	14	21.2	2	3.0	12	20.2	2	3.0	3	4.5	5	7.6
Low	23	34.8	7	10.6	16	24.2	1	1.5	0	0.0	1	1.5
No FRL Data	3	4.5	2	3.0	1	1.5	0	0.0	0	0.0	0	0.0
Total	52	78.8	16	24.2	36	54.5	8	12.1	6	9.0	14	21.2

Note: $N=66$. Descriptors are: Total Sharing, Sharing/Not Using Loaner Instruments (LI), Sharing/Using LI, Independent Using LI, Independent Not Using LI.

Table 7. Numbers and Percentages of Middle School Buildings per Socioeconomic Level with Descriptors of Sharing Loaner Programs and Independent Loaner Programs

SES Level	Sharing						Independent					
	Not Using						Not Using					
	Total		LI		Using LI		Using LI		LI		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
High	7	20.0	0	0.0	7	20.0	4	11.4	2	5.7	6	17.1
Mid	8	22.9	2	5.7	6	17.1	4	11.4	2	5.7	6	17.1
Low	4	11.4	1	2.9	3	8.6	3	8.6	1	2.9	4	11.4
Total	19	54.3	3	8.6	16	45.7	11	31.4	5	14.3	16	45.7

Note: *N*=35. Descriptors are: Total Sharing, Sharing/Not Using Loaner Instruments (LI), Sharing/Using LI, Independent Using LI, Independent Not Using LI.

Table 8. Numbers and Percentages of High School Buildings per Socioeconomic Level with Descriptors of Sharing Loaner Programs and Independent Loaner Programs

SES Level	Sharing						Independent					
	Total		Not Using LI		Using LI		Using LI		Not Using LI		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
High	2	11.1	0	0.0	2	11.1	2	11.1	1	5.6	3	16.7
Mid	6	33.3	0	0.0	6	33.3	2	11.1	1	5.6	3	16.7
Low	2	11.1	1	5.6	1	5.6	2	11.1	0	0.0	2	11.1
Total	10	55.6	1	5.6	9	50.0	6	33.3	2	11.1	8	44.4

Note: $N=18$. Descriptors are: Total Sharing, Sharing/Not Using Loaner Instruments (LI), Sharing/Using LI, Independent Using LI, Independent Not Using LI.

Table 9. SES Levels Compared to Percentage of Orchestra Class that Uses a School Issued Instrument without a Personally-Owned Instrument at Home

Academic Level	High	Mid	Low
Elementary	5.9	28.2	50.6
Middle	1.6	11.4	28.1
High	5.8	19.2	45
All	4.7	21.9	42.8

Schools categorized as being low-SES tertile had a higher percentage of students without the at-home resource of a personally-owned instrument. There was a 38.1% difference between the high- and low-SES tertiles for the percentages of the class without at-home resources when all orchestra classes were broken down into high-, mid-, and low-SES categories.

Loaner Program Inventory

Teachers reported what inventory of instruments was available through their loaner programs per building. Of all the teachers surveyed, 106 reported sharing and/or using school-owned instruments between buildings within the same school district. However, only 86 schools reported students using loaner instruments. Tables 10, 11, 12 and 13 list loaner program inventories for those 86 schools only.

The size of instruments kept in inventory per school usually reflected the size of the students who would use the instruments. Elementary schools catalogued smaller sizes of each instrument to meet the needs of young learners. Overall, schools were more

likely to own inventories of larger, more expensive instruments that are harder for families to afford and transport. No 1/10 size violins were reportedly used in any of the loaner programs. The tables provide a synopsis of the scope of inventory.

Table 10. Violin Size Data per Academic Level of Schools Using Loaner Programs

	1/8	1/4	1/2	3/4	4/4
<i>M</i> per Building - Elementary	2	5	7	3	2
% Buildings ^a with Inventory	4.7	11.6	32.6	32.6	30.2
<i>M</i> per Building - Middle	0	1	2	3	6
% Buildings ^b with Inventory	0.0	3.7	15.0	81.5	85.2
<i>M</i> per Building - High	0	0	0	3	8
% Buildings ^c with Inventory	0.0	0.0	0.0	33.0	80.0

^a*n* = 43, ^b*n* = 27, ^c*n* = 15

Table 11. Viola Size Data per Academic Level of Schools Using Loaner Programs

	13"	14"	15 - 15 1/2"	16 - 16 1/2"
<i>M</i> per Building - Elementary	1	2	1	1
% Buildings ^a with Inventory	30.2	53.5	14.0	2.3
<i>M</i> per Building - Middle	2	2	3	2
% Buildings ^b with Inventory	22.2	63.0	70.3	26.0
<i>M</i> per Building - High	0	5	3	4
% Buildings ^c with Inventory	0.0	20.0	40.0	53.3

^a*n* = 43, ^b*n* = 27, ^c*n* = 15

Table 12. Cello Size Data per Academic Level of Schools Using Loaner Programs

	1/8	1/4	1/2	3/4	4/4
<i>M</i> per Building - Elementary	1	2	2	2	2
% Buildings ^a with Inventory	2.3	2.3	40.0	56.0	14.0
<i>M</i> per Building - Middle	0	3	2	5	6
% Buildings ^b with Inventory	0.0	7.4	19.0	77.8	92.6
<i>M</i> per Building - High	0	0	0	3	8
% Buildings ^c with Inventory	0.0	0.0	0.0	40.0	93.3

^a*n* = 43, ^b*n* = 27, ^c*n* = 15

Table 13. Double Bass Size Data per Academic Level of Schools Using Loaner Programs

	1/8	1/4	1/2	3/4	4/4
<i>M</i> per Building- Elementary	0	2	2	1	1
% Buildings ^a with Inventory	0.0	20.9	18.6	2.3	2.3
<i>M</i> per Building - Middle	1	2	3	3	2
% Buildings ^b with Inventory	1.2	14.8	66.7	70.4	22.2
<i>M</i> per Building - High	0	0	2	5	3
% Buildings ^c with Inventory	0.0	0.0	26.7	66.7	26.7

^a*n* = 43, ^b*n* = 27, ^c*n* = 15

Characteristics of School-Owned Instrument Loaner Programs

The Survey of School-Owned String Instruments asked teachers to describe the loaner program of each building through a series of questions designed to isolate specific features and administrative practices. To see a complete listing of survey questions

please refer to Appendix B. Teachers who responded as having no students using loaner program instruments were not asked questions about the characteristics of loaner programs. The number of buildings sharing each characteristic and the percentage of all buildings sharing each characteristic were calculated from the responses of the 86 schools that reported one or more students using a school-owned instrument.

Fees, Applications, and Contracts. Although there is a cost to the upkeep and repair of school-owned instruments, not all buildings charged usage fees as reported in Table 14. Some teachers reported charging fees for instruments that would be taken home, but not for instruments that would be kept at school. For example, a student has their own instrument at home, but it is too large to transport. One teacher who charged a usage fee collects a different non-monetary fee for instruments that stay at school: two replacement strings for the instrument being borrowed. Another school that charged a fee to supply an instrument through a local music store covered fees for students who qualified for FRL. Free and Reduced Lunch data for that particular school shows the school to be in the higher socioeconomic tertile. Sometimes teachers waived fees for students that qualified for FRL. A teacher who did not charge fees commented that their fleet of school instruments was getting old and was in need of repairs.

Table 14. Schools Using Loaner Programs with Usage Fee for Use of School-Owned Instruments

	Charge Fee	\$20	\$30	\$40	\$50	\$125	\$150	2 Strings	Waive for FRL
<i>n</i>	27	4	15	5	1	1	1	1	7
%	31.4	4.7	17.4	5.8	1.2	1.2	1.2	1.2	8.1

Approximately one out of every four schools using loaner programs did not to use an official application (Table 15).

Table 15. Schools Using Loaner Programs that Require Applications for Use of School-Owned Instruments

	Use Application	Form Completed By		
		Student	Parent	Both
<i>n</i>	64	7	56	1
%	74.4	8.1	65.1	1.2

The survey results showed a contract to be a frequently used administrative practice. A contract requires the signature of a parent or guardian and some teachers also required a student signature. The contract outlines the terms of use, such as a parent's obligation to repair the instrument if broken, or replace the instrument if lost or stolen. Of the schools surveyed, 84.9% require a contractual agreement. One teacher from a school in the high-SES tertile commented that sometimes parents do not fulfill their contract to repair school instruments. Another teacher who administered contracts said that their school's collection of instruments required numerous repairs due to age, and that they were contemplating a change in loaner program policy.

Safeguarding and Sufficiency of Instrument Inventory. In addition to teachers using an application before issuing school-owned instruments, many teachers use more than one method to verify the need for a school-owned instrument prior to use. One respondent commented that, in the past, parents have applied for school-owned instruments when they were capable of renting or buying on their own. This teacher

mentioned that whether or not a student qualifies for FRL is held in strict confidence and therefore they must look for another way to verify true financial hardship. Other teachers commented that in school districts where the transportation department does not allow cellos or basses on the bus and a student does not own an instrument, a second instrument may be checked out to take home, if one is available.

The survey provided four choices of verifying need: parent or guardian gives sufficient reason, student gives sufficient reason, student qualifies for free or reduced lunch, and/or transportation conflict. However, some teachers had other methods of verifying and provided written responses to a survey prompt requesting “other” ways of verifying need. From analyzing the written comments, I identified two additional methods which are included in Table 16: confirming with teacher or principal and prior knowledge. A complete list of teacher comments are found in Appendix E.

Table 16. Schools Using Loaner Programs that Verify the Need for Use of School-Owned Instruments

		Methods					
		Confirm with			Qualifies for FRL	Transport Conflict	Prior Knowledge
	Verify	Student	Teachers/ Principal	Parent			
<i>n</i>	85	6	15	48	28	38	2
%	98.8	7.0	17.4	55.8	32.6	44.2	2.3

Note. Many teachers use multiple methods of verification. Table is based on forced-choice and open-ended responses.

Verifying which students were trustworthy and responsible enough to be issued school-owned instruments was an additional administrative duty for many teachers. Data

were collected about how teachers accomplished the task of verifying trust and responsibility. Many teachers had multiple ways of verification. Some methods displayed in Table 17 were not selected from the original choices provided in the survey: communicating with teachers and/or parents. Instead, three methods were found in teacher comments left as “other” ways to verify trust and respect: communicating with a secretary or principal, prior knowledge, and signatures. To read the actual comments please refer to Appendix E.

Table 17. Schools Using Loaner Programs that Verify Student Trust and Responsibility to Use a School-Owned Instrument

		Communicate With			Prior Knowledge	Signatures
Verify		Teachers	Secretary or Principal	Parents		
<i>n</i>	55	36	12	34	2	2
%	64.0	42.0	14.0	40.0	2.3	2.3

Note. Many teachers use multiple methods of verification. Table is based on forced-choice and open-ended responses.

The survey prompted teachers whether their school had enough instruments and if the school maintained a waiting list for school-owned instruments. I found the percentage of schools reporting insufficient instrument inventories (Table 18) to be significantly high, with 53.5% of teachers using loaner programs responding that there were usually not enough or sometimes not enough instruments in inventory. Half of the schools with waiting lists reported in Table 19 always had a student waiting and the other half had students waiting part of the school year.

Table 18. Sufficiency of Instrument Inventory for Schools Using Loaner Programs

	Not Enough	Sometimes Enough	Enough	Have Extra	No Response
<i>n</i>	9	37	25	13	2
%	10.50	43.00	29.10	15.10	2.30

Table 19. Prevalence of Waiting List in Schools Using Loaner Programs

	Have Waiting List	Always Name on List	Sometimes Name(s) on List
<i>n</i>	28	14	14
%	32.60	16.30	16.30

Correlations between Schools with Loaner Programs

Pearson Product-Moment Correlational Coefficients were used to examine the strength of association between two variables (Salkind, 2010). Since I was interested in loaner programs opening access to orchestra for more students and meeting the needs of students in low socioeconomic levels, I chose to correlate school sizes and mean school FRL percentages with five variables of the study. Topics found in the literature review which were recognized as crucial to the functioning of loaner programs were the basis of the variables. The five variables were: (a) the percentage of school membership enrolled in orchestra; (b) the percentage of orchestra classes using loaner instruments; (c) the percentage of orchestra classes using loaner as only instrument; (d) the existence of

transportation conflicts due to cello or bass as a need for providing instruments; and (e) the situation of loaner programs annually running out of instruments for students.

School enrollment numbers varied among survey participants. This section of the chapter will report on the strength of association between each of five loaner program variables and school enrollment. Values for the school enrollment variable are taken from the annual census as reported to the Missouri Department of Elementary and Secondary Education (2014a). The following are abbreviations for each of the five variables used in the correlation study (Table 20):

1. Enrollment = January Membership 2014/School Enrollment
2. % in Orch = Percentage of School's Students Enrolled in Orchestra
3. % Using LP = Percentage of Orchestra Using Loaner Program
4. % Loaner Only = Percentage of Orchestra Using Loaner as Only Instrument
5. Trans = Transportation Conflict
6. Runs Out = Annually Runs Out of Instruments

Two purposes for distributing loaner instruments are clarified by three variables. The first purpose is alleviating the transport of larger instruments and is signified by the occurrence of transportation conflicts in the data. Distributing loaner instruments for the purpose of transportation conflicts were associated with larger schools and schools with a higher percentage of the school's students enrolled in orchestra. The second purpose of distributing is to meet financial need denoted by the occurrence of students using loaner instruments as their only instrument and reports of running out of loaner instruments for potential students. Orchestras using loaner-program instruments and students using

loaner-program instruments as their only instrument yielded the highest correlation. In other words, schools with the most students using loaners probably had the most students without their own instrument at home, who were not using a loaner just to ease transportation conflicts. Schools with higher percentages of students using loaner-program instruments as their only instrument had a small correlation to instances of annually running out of loaner-program instruments.

FRL percentages, which were calculated using the 2014 January Membership numbers (Missouri Department of Elementary and Secondary Education, 2014a), were used to determine school SES. School SES was compared to the five loaner program variables to show the degree of strength between schools' socioeconomic status and the five variables. Abbreviations for the variables used in Table 21 are as follows:

1. FRL % = Free and Reduced Lunch Percentage/School SES
2. % in Orch = Percentage of School's Students Enrolled in Orchestra
3. % Using LP = Percentage of Orchestra Using Loaner Program
4. % Loaner Only = Percentage of Orchestra Using Loaner as Only Instrument
5. Trans = Transportation Conflict
6. Runs Out = Annually Runs Out of Instruments

Moderate positive correlations were found between school SES and the percentage of orchestra using loaner-program instruments and the percentage of orchestra using loaner-program instruments only. There also seemed to be a low correlation between low-SES schools and the occurrence of running out of instruments. Two significant negative correlations were found with FRL %. The percentage of the school's

students that were enrolled in orchestra was noted to decrease as the FRL % increased. Additionally, the report of transportation conflicts for cello and bass students seemed to decrease as the FRL % increased.

Table 20. Summary of Pearson Correlations with School Enrollment, Orchestra Enrollment, Loaner Program Usage, Loaner Instrument as Only Instrument, Transportation Conflicts, and Running Out of Loaner Instruments

Variables	1	2	3	4	5	6
1. Enrollment	-					
Sig. (2 -tailed)	-					
<i>N</i>	-					
2. % in Orch	-0.100	-				
Sig. (2 -tailed)	0.281	-				
<i>N</i>	119	-				
3. % Using LP	-0.099	-0.024	-			
Sig. (2 -tailed)	0.287	0.797	-			
<i>N</i>	118 ^a	118 ^a	-			
4. % Loaner Only	0.165	-0.101	0.961**	-		
Sig. (2 -tailed)	0.074	0.277	0.000	-		
<i>N</i>	118 ^a	118 ^a	118 ^a	-		
5. Trans	0.336**	0.264**	-0.052	-0.170	-	
Sig. (2 -tailed)	0.000	0.004	0.573	0.066	-	
<i>N</i>	119	119	118	118	-	
6. Runs Out	0.126	-0.012	0.254**	0.247**	0.077	-
Sig. (2 -tailed)	0.171	0.895	0.005	0.007	0.407	-
<i>N</i>	119	119	118 ^a	118 ^a	119	-

Note: ^a = One school was missing the number of students using the loaner program;
****** $p < 0.01$

Table 21. Correlations between School SES and Orchestra Enrollment, Loaner Program Usage, Loaner Instrument as Only Instrument, Transportation Conflicts, and Running Out of Loaner Instruments

Variables	FRL %		
	<i>N</i>	Sig. (2-tailed)	<i>r</i>
% in Orch	116 ^a	0.000	-0.342**
% Using LP	115 ^b	0.000	0.477**
% Loaner Only	115 ^b	0.000	0.538**
Trans	116 ^a	0.000	-0.379**
Runs Out	116 ^a	0.018	0.219*

Note: ^a = FRL data were not available for three schools; ^b = FRL data were not available for three schools and one school was missing number of students using loaner program; ** $p < 0.01$; * $p < 0.05$

DISCUSSION

Summary

The Survey of School-Owned String Instrument Loaner Programs was used to develop a description of loaner programs in use by Missouri string teachers and to assess the availability of loaner instruments distributed via the studied loaner programs. I identified 28 school districts on the MSHSAA (2001-2014) website with at least one ensemble with a “I” rating for orchestra at a State Large Ensembles Festival in the years 2001-2014, or listed on the Missouri American String Teachers Association website as having a string student in the All-State Orchestra, or listed in the Missouri School Directory and found to have an orchestra page on their website. I invited 124 Missouri string teachers from those districts to take the researcher-designed survey. At the time of this study Missouri had 520 public school districts (Missouri Department of Elementary and Secondary Education, 2013-2014b), and I contacted 5.4% of those districts, all with evidence of string instruction on their websites. For reference, Smith (1997) reported that 6.3% of Missouri public school districts had string programs.

Loaner Program Characteristics. The study was used to develop a description of Missouri string orchestra programs, finding Missouri string trends were reflective of national trends for descriptions of the locations taught, the grades taught, and the percentages of the student body enrolled in orchestra (Doerksen & Delzell, 2000; Elpus & Abril, 2011; Gillespie & Hamann, 1998; Schmidt et al., 2006). Included in the description was the prominence of string programs: finding that programs were less common than the national average (Alexander & Smith, 2009). The results of the survey

are useful for identifying the goals of loaner programs, the administrative practices of loaner programs, the availability of loaner instruments, and the equity of resources in regards to child poverty. Loaner programs were used for all the purposes identified in the literature review, recruiting beginner students, improving instrumental balance, alleviating transportation of larger instruments, and mitigating financial concerns, with limitations found in instrument availability as also described by past researchers (Albert, 2006b; Fitzpatrick, 2008, 2011; Fu, 2009; Hoffer, 1991, 2001; Kinney, 2010; Lamb & Cook, 2002; Mixon, 2005; NAFME, 1994; Walker, 1998). Studying the administrative practices of string teachers also identified several methods that teachers use to disperse loaner instruments effectively and equitably, while meeting the financial needs of low-SES students and providing opportunities that are easily accessible by students in middle-upper income levels (Albert, 2006a; Blickenstaff, 2014; Brenner, 2012; Clements, 2006; Costa-Giomi & Chappell, 2007; FAYM, 2012a, 2012b, 2015b; Fitzpatrick, 2008, 2011; Martin et al., 2011; Mixon, 2005).

Prominence of String Programs and Loaner Program Use. Identifying string programs through the Missouri School Directory imposed a challenge to contacting string teachers across the state. Most websites that I visited through the links provided on the school directory only exhibited the presence of band and choir. From the infrequency of websites found with string programs, the low percentage of schools identified, and previous research into state accessibility (Smith, 1997), I suspect that Missouri still has a lower percentage of schools with string programs than the national average of 29% (Alexander & Smith, 2009). Additionally, the school districts identified as having string programs were located closer to larger population centers, corresponding to past reports

of string programs (Elpus & Abril, 2011; Smith, 1997). The percentage of students enrolled in orchestra for all 119 schools researched was 9.3% of the total population of the schools, with 5.3% of high school students enrolled in orchestra. This finding is comparable to the 6% participation rate for secondary strings enrolled in Indiana public schools (Schmidt et al., 2006). Just as previous research found that socioeconomic status was related to recruiting and retention in instrumental music and arts classes, this study found lower orchestra enrollments for low-income schools (Bradley, 2007; Corenblum & Marshall, 1998; Elpus & Abril, 2011; Kinney, 2010; Klinedinst, 1991). The results of this study show the need to improve access to string instruction throughout the state of Missouri, especially for the least advantaged.

The participants of the study represented elementary, middle, and high schools, and enrollment numbers of each academic level involved in the study were similar with no one level dominating the results. String instruction reported in this study was found to begin in either third, fourth, or fifth grade. The elementary grades reported as receiving string instruction in this research are similar to the findings of Doerksen and Delzell (2000), who found third grade to be the youngest grade to begin string instruction. Loaner programs were used at every grade level from third to twelfth grade. In contrast to these results, the Fairview String Project (Brenner, 2010) and Violins for Kids (FAYM, 2012a, 2015b) utilized earlier start times with the provision of loaner instruments to aid the life chances of low-income students.

String teachers of all grade levels reported using violins, violas, cellos, and basses in their loaner programs to some degree. The sizes in inventory followed what would be expected for each age group. Although smaller violin sizes were used at the elementary

level, about one third of all the elementary loaner programs supplied no sizes smaller than a 1/2 sized violin, either 1/2, 3/4, or full-sized violins, while most of high school loaner programs provided only full-sized violins. Middle school loaner programs reported supplying the most violas. Perhaps this is to help students transition from the violin or to help balance the ensemble (Lamb & Cook, 2002). Cellos were the instrument that was most likely to be provided by loaner programs, with nine out of ten middle and high schools inventorying full-sized cellos. Loaner programs may keep more cellos on hand to help with transportation conflicts and because cellos can be more expensive for parents to purchase (Fu, 2009; Lamb & Cook, 2002). Elementary schools were less likely to have basses in their inventories and if they did the basses were either 1/4 or 1/2 size. Middle schools reported basses in every size, but most prominently 1/2 or 3/4 sized basses. Most high schools used 3/4 basses. This snapshot of Missouri loaner programs corresponds with past research that suggests string teachers desire to have available instruments in a variety of sizes to start beginners, to balance the orchestra, to aid transitions to new instruments, and to attempt to provide more expensive instruments (Fu, 2009; Hoffer, 1991, 2001; Lamb & Cook, 2002; NAFME, 1994; Walker, 1998).

Administrative Practices. Managing loaner programs involves making decisions about whether or not to assign fees, determining who would like to borrow a school instrument, verifying the need and responsibility required to borrow, communicating instrument usage agreements with students and parents, and determining who will get instruments when they become available. The use of fees may cover the annual repairs, maintenance, and replacement costs involved with student use of loaner instruments, plus students may take better care of a financial investment (Fu, 2009; Hoffer, 1991, 2001;

Lamb & Cook, 2002; NAFME, 1994; Walker, 1998). Teachers may use applications to collect information about who would like to borrow an instrument, why they wish to borrow an instrument, and parent contact information; while a contract describes the responsibility of taking care of the instrument with predetermined consequences for damage or loss of an instrument. Once teachers know who would like to use a school instrument, they may communicate with a variety of sources. Sources such as parents and other school personnel may be able to confirm students' trustworthiness and verify students' needs to ensure instruments are being distributed effectively and equitably (Mixon, 2005). The decision whether or not to maintain a waiting list may depend on a teacher's view about whether students have the ability to catch up if starting later than their classmates do (Mixon, 2005).

Teachers may benefit from knowledge of the administrative practices used by their peers. Although most school-owned instruments represented in the study were free to use, about a third of the teachers reported that students paid a fee. It is possible that, due to teachers' beliefs about fees causing undue financial barriers or hardships for their students, most teachers chose not to charge a fee (Albert, 2006a; Fitzpatrick, 2008, 2011; Hoffer, 2001; Kinney, 2010; Mixon, 2005; Walker, 1998). Of those teachers collecting fees from students, there were a variety of rates and most were less than \$50. One teacher explained a fee of two new strings that aided the school's maintenance and repair budget. The procedures for determining fees were not discussed in the survey. However, the relationship between the condition of loaner instruments and fees charged was revealed by a participant's open-ended responses; a non-fee teacher mentioned the poor condition of the old school instruments.

Both applications and contracts were used by the majority of string teachers. Teachers reported that the application were a valuable method of communication with parents and students. In addition to applications and contracts, most string teachers verified the need to borrow a school instrument, as well as the trust and responsibility of students by communicating with principals, peer teachers, counselors, and school secretaries. Assistance from school personnel, parents, administrators, and community members may be valuable resources for teachers who may not be present in the building every day; 33 out of 42 teachers in the study traveled to two or more schools.

Over half of the teachers who used loaner programs indicated that they frequently did not have enough instruments to meet the needs of interested students. Of those teachers who reported too few instruments, some used waiting lists to determine which student received instruments that may become available later in the year. Some did not. Only a third of all the teachers facilitating loaner programs used waiting lists to keep track of students wanting to use school-owned instruments and half of those teachers indicated they always had students waiting. Some teachers may not use waiting lists because they fear students who get instruments later than their peers will not get caught up (Mixon, 2005). More research may be valuable for understanding which instruments were most commonly in short supply, why insufficiencies occurred, and how teachers' thought that their programs were affected by the shortfall.

Instrument availability. Another primary concern of this research was how many Missouri students depended on school-owned instruments and how many of those students did not have a personal instrument at home. Several data in the study were used to examine this phenomenon. First, I examined the correlation of school SES and

participation rate in orchestra. Second, I looked at the number of students participating in loaner programs and then I examined how these data overlapped with school SES and the use of a loaner instrument as one's only instrument or as a second instrument exclusively for at school use. Third, I studied teacher responses on the adequacy of their instrument inventory for the needs of students interested in orchestra at their school in relation to the school's SES. Although each of these data sources have limitations, the combined effect were helpful in forming conclusions about instrument availability for Missouri students.

A few assumptions and limitations were involved in this analysis. Since SES is reported on a school-wide basis, it was not possible to determine if the orchestra students reflected school-wide data, and correlation does not imply that one variable causes another. A limitation was that there was no way to determine if loaner instruments used as secondary instruments for primary instruments at home were used by students with less financial need than students using loaner instruments as their only instruments. However, this is a logical conclusion based on traditional practices in string orchestra programs (Fu, 2009).

In my analysis, I found that almost one in four (1,451) Missouri students enrolled in orchestra used loaner instruments. Of those students, only 398 had an additional personal instrument at home. The remaining 1,053 students did not have an instrument at home, and of those students, 42.8% were from low-SES schools. Logically, I concluded that many Missouri string students relied on loaner programs in order to access orchestra and all the associated benefits of belonging to such a group, with the greatest need concentrated in low-income communities, similar to the observations of other music education researchers (Albert, 2006a; Mixon, 2005; Fitzpatrick, 2008, 2011).

Furthermore, the negative correlations between increasing FRL percentage and decreasing percentage of students enrolled in orchestra may imply a struggle for low-income schools to recruit and retain orchestra students (Costa-Giomi & Chappell, 2007).

The description of Missouri stringed instrument loaner programs and the account of instrument availability may be useful for string teachers planning to establish a school instrument loaner program or for those wishing to reform their current loaner program practices. The examination of how prominent string programs were throughout the state of Missouri, in respect to national data on the subject, was helpful in identifying the need to expand string education to less populated areas (Alexander & Smith, 2009; Doerksen & Delzell, 2000; Schmidt et al., 2006; Smith, 1997). The use of loaner programs by the majority of string teachers at every level of string instruction, verified by need, indicated the importance of providing school instruments for a variety of reasons and the need to continue the practice of loaner programs in general. (Albert, 2006a, 2006b; Costa-Giomi & Chappell, 2007; Fitzpatrick, 2008, 2011; Fu, 2009; Hoffer, 1991, 2001; Lamb & Cook, 2002; Mixon, 2005; NAFME, 1994; Walker, 1998). The results of examining instrument availability show how low-SES students in Missouri were more at risk of not having available instruments and being placed on a waiting list, or possibly not getting an instrument at all. Several concerns related to these findings are discussed later in the chapter.

Implications and Recommendations

Poverty Issues. The results of this study have serious implications for string education in relation to the condition of child poverty in the state of Missouri and other

locations. While the median household income in Missouri is under the national average at \$47,380 and the poverty rate is close to the national average at 15.5% (United States Census, 2015), almost half of Missouri school children qualify for the federal free and reduced lunch program (Arts Education Partnership, 2015; Missouri Department of Elementary and Secondary Education, 2014a; United States Department of Agriculture, 2014). The effect of poverty on children has been growing, the number of homeless students enrolled in Missouri schools (29,680) has more than doubled since the 2007-2008 economic downturn (Missouri Department of Elementary and Secondary Education, 2013-2014a). These figures include some students who may not have transportation to school every day or may not know where they will be staying tomorrow, as well as students with less severe need, yet these are students that deserve the opportunity to enjoy the lifelong satisfaction of playing music on a stringed instrument. I have had the privilege of working with principals who understand that providing school instruments for these students may give them something to be passionate about, may encourage them to attend school more regularly, and may help them feel like they are a part of something great.

Equity. The results of this study further substantiate the findings of previous researchers: Financial status is a relevant factor in recruiting and retaining music students (Kinney, 2010; Corenblum & Marshall, 1998). School-owned instruments are a vital resource for recruiting and keeping students in instrumental music programs (Albert, 2006b; Mixon, 2005; Sandene, 1994; Vasil, 2013). The data in this study revealed that FRL percentages were correlated to the occurrence of orchestra programs without sufficient instruments for students in need. The substantial number of participants in this

study using loaner instruments without personally owned instruments at home demonstrate that student opportunities in string music education are not equitable, without these loaner instruments and necessary supplies, these students may not be able to participate. If a loaner program in a low-income school annually runs out of instruments, it may have a hard time growing and may struggle to retain enrollment (Costa-Giomi & Chappell, 2007).

Teachers who find themselves in the situation of too few instruments have three choices to consider: (a) only recruit students who can afford their own instruments and keep the status quo, (b) make the case for more stringed instruments and equitable access to their principal, music department supervisor, district administration, or school board, or (c) apply for grants, hold fundraisers, and organize instrument drives to grow the instrument inventory. The first choice would be a serious malpractice as it would be unethical to dissuade interested students without financial means and create the false image that string instruments are only for the elite. The two remaining choices are both worthy endeavors for string teachers seeking funding and resources. Making the case for more instruments and equitable access to school administrators may include sharing the list of students who are interested in string classes, but being denied free music instruction because they cannot afford an instrument. Principals may recognize students on the waiting list, often having deeper knowledge of some financial situations. Administrators are usually well aware of the demographics of their school, but it may be helpful to present the demographics in relation to the orchestra enrollment. If a school is not predominately from middle-upper-SES homes, the orchestra should not be either. Teachers may be able to locate resources for grants through local foundations or

universities (Missouri State, 2015), and some courses are even available online (Online Grant Writing Course, 2015). Social media and online forums provide opportunities to network and discuss fundraising ideas with other string teachers. Other creative solutions include being on the lookout for used instruments in the community and online, and collaborating with other teachers. For example, a group of eight horn experts decided to “pay it forward” with a like-new horn for a college bound student that needed to return her school-owned instrument upon graduation (Axelson, 2014). Teachers who know the needs of their community are best positioned to identify, assess, and seek potential resources, and then use their own creativity to match resources and student needs.

Observations on Instrument Distribution. Nearly three out of four orchestra programs in the study used loaner programs, but only one in six stated that they shared instruments with other buildings in the district without using loaner instruments, raising questions about discrepancy and instrument distribution practices. The rate was higher in the elementary buildings, in which a quarter of the buildings reported sharing without using loaner instruments. Why these schools did not utilize loaner instruments that they were reported to share with other schools was not revealed through the survey. Future research could investigate the utilization of existing resources, and whether individual teacher recruiting techniques or under-resourced district loaner programs play a role. However, by making broad comparisons between loaner program correlations and known traditional practices in this study, I found that loaner instruments were distributed for four main purposes, with low-SES schools most often running out of instruments for students in need.

Purposes for Using Loaner Instruments. Four purposes for using loaner instruments emerged from the literature review and tend to guide the distribution of loaner instruments to students: providing for beginners, balancing orchestral instrumentation, transporting large instruments, and meeting financial needs (Albert, 2006a, 2006b; Costa-Giomi & Chappell, 2007; Fitzpatrick, 2008, 2011; Fu, 2009; Hoffer, 1991, 2001; Lamb & Cook, 2002; Mark, 2008; Mixon, 2005; Rue, 1949; Vasil, 2013; Walker, 1998). I found evidence to suggest the need for three distribution patterns, with accommodations for SES levels, as opposed to one “cookie-cutter” loaner program distribution pattern. The first pattern that I observed was that high-SES schools exhibited distribution purposed for (a) instrumentation balance, (b) beginners, (c) financial needs, and (d) transportation concerns. The second pattern I examined was for mid-SES schools that exhibited distribution purposed for (a) instrumentation balance, (b) beginners albeit with slightly more loaner programs used, and (c) transportation concerns. The first two distribution patterns observed seemed to meet the needs of the schools that they were serving because there was no significant correlation to running out of instruments and mid-SES level programs were noted to increase loaner program use to match their needs. The actual use of loaner programs in low-SES schools, however, did not seem to match the expected need to increase loaner program use for the purpose of meeting financial needs.

The third pattern that I identified was for low-SES schools that exhibited distribution purposed for (a) instrumentation balance, (b) beginners with slightly more loaner programs used than both mid- and high-SES schools, which may infer the presence of more severe financial needs, and (c) transportation concerns with no

correlation to low-SES. Despite an expected increase of using loaner programs for beginners in high-need schools, I found less evidence that the needs for school-provided instruments were actually met by loaner programs. One of the most disturbing observations was that teachers in low-SES schools who reported sharing loaner instruments with other schools in their district had almost double the number of buildings not using loaner programs as compared to mid- and high-SES schools. Furthermore, high FRL percentages (low-SES) was positively correlated with students using loaner instruments as their only instrument, a sign of less at-home resources and less cultural capital (Albert, 2006b; Brandstrom, 2000; Ester & Turner, 2009; Hoffman, 2013). Low-SES loaner programs also regularly needed more instruments to serve students. Finally, the percentage of the school enrolled in orchestra was noted to decrease as FRL % increased. The findings corroborate past research that schools without access to well-functioning instrument inventories tend to struggle with recruiting and retention (Cost-Giomi & Chappell, 2007). This suggests the need for a low-SES-sensitive distribution pattern that will adapt to purposefully meet the needs of the under-resourced students whom they are trying to serve.

Evaluating Loaner Instrument Distribution. Drawing on data to intentionally plan for effective and equitable loaner instrument distribution may enhance student participation. Some strategies for using data to evaluate loaner programs include (a) using FRL data as a general parameter for estimating the number of financially challenged students that may need loaner instruments, (b) accounting for the use of loaner instruments by established students, (c) comparing the average number of beginning students who have used loaner instruments or been placed on a waiting list to the

available loaner inventory, and (d) keeping an up to date list of all the loaner program needs. These ideas are not necessarily sequential, and some schools may only benefit from one or two of them.

By understanding FRL rates for their schools (Missouri Department of Elementary and Secondary Education, 2014a), teachers may gain valuable insights into the needs of their loaner programs. School administrators and counselors may be helpful resources in obtaining and understanding this information. Whether individual students qualify for FRL is usually not accessible for music teachers due to privacy issues, but SES is a relevant factor in recruiting and retaining instrumental music students (Albert, 2006b; Kinney, 2010; Corenblum & Marshall, 1998; Vasil, 2013). Utilizing school FRL rates may help teachers recognize the scope of students with financial need who may necessitate the use of loaner instruments for string participation.

Teachers may find it helpful to review the use of loaner instruments by currently enrolled students to determine: (a) whether multiple students assigned to the same instrument may share during the school day since they are not in the same performing ensemble and (b) whether instruments remain to help incoming students with needs. Recording which loaner instruments are used by established students to lessen the transport of larger instruments and which instruments are used by established students with financial needs (Fu, 2009; Lamb & Cook, 2002) clarifies potential inventory shortfalls. After additionally considering that growing students may soon move up a size and incoming students may have financial needs, a teacher may gain a better sense of which instruments need to be added to their loaner program to avoid running out of instruments.

Teachers who have been running low on instruments in the past and usually have a waiting list may evaluate the data on incoming students to clarify which instruments should be added to their loaner programs, especially if they have been struggling to increase slumping participation at the same time. It may be helpful to compare the ratio of loaner instruments to interested students, and whether these data are reasonably similar to the school's FRL %. For example, if the loaner program has only enough instruments to provide for 10% of the interested orchestra students but the school's FRL% is 90%, the teacher may continue to have a waiting list of interested students with financial need and struggle to gain more students. Using past experience of which instruments were more likely to be in short supply and instrumentation guidelines, teachers can determine which instruments are needed to improve access to their class and hopefully raise their participation rates.

An up to date list of needed inventory that includes what instruments would make the loaner program more functional should contain cost estimates for each item in order to focus fundraising goals and to be useful in communicating what is needed to administrators. Additionally, it would be wise to keep loaner instruments in good playable condition in order to extend functional inventory and to be more encouraging for students to play (Sandene, 1994). Repairs for these instruments should be considered and added to the list of needs as well. Once a teacher has created a complete list, it can be used to examine the sufficiency of available funds for serving student needs. Developing a plan for gaining needed instruments and building a school's loaner program is crucial, and a refined list of loaner program needs will help teachers focus on clear goals when asking for additional school support, seeking grants, and fundraising.

Ideas to Gain Resources. Administrators, building principals, arts supervisors, and fellow teachers may contribute valuable resources to the orchestra if they are informed about financial hardships and conditions that deny access to potentially interested students. In order to meet true financial hardship, schools could be more definitive about how students qualify to use school-owned instruments, such as receiving free and reduced lunch or balancing instrumentation on the most expensive instruments (Ester & Turner, 2009). Beyond the resources available in one school, loaner instruments can be divided systematically district-wide according to known school size and free and reduced lunch data instead of first come, first served. Then, teachers could communicate shortfalls and excesses within the district until all instruments are distributed, prioritizing schools with financial challenges. In larger districts, programs from a higher income part of a school district could hold instrument drives for financially struggling programs (Albert, 2006a; Devroop, 2012). If one school upgrades school-owned instruments, district arts supervisors could help relocate the resources that are still in good repair to schools that lack outside financial support such as fundraisers or donations (Costa-Giomi & Chappell, 2007; Fitzpatrick, 2008).

Teachers can gain support for students and string programs through building public awareness, networking, and recognizing the valuable contributions of community members. Public awareness can be developed through concerts used to raise scholarship funds for financially needy students to afford the other items needed for participation (Albert, 2006a), like strings, rosin, shoulder rests, rock stops, cleaning supplies, uniforms, and trip fees. During concerts, it may be helpful to communicate the percentage of students performing on school-owned instruments while the whole ensemble is in front of

the audience so that it is more visual while thanking the community for their support and making mention of the need for more help. Networking in the community takes on a different meaning in this modern age of social media and online forums. Using social media to communicate the loaner program needs may be a strategy for reaching out to people in the community who have the needed resources and who would be interested in placing instruments that are unused into the hands of students. Teachers can also ask parents to help locate instruments in pawnshops, thrift stores, garage sales and on websites such as Freecycle, Craigslist, and EBay. Relationships with people in the community who work at instrument repair shops, music stores, and universities can also result in partnerships that benefit your music program (Brenner, 2010; Clements, 2006; *El Sistema* USA, 2015). These relationships can be strengthened through recognizing the value of donations and other means of support. For example, when someone comes through with financial or material support for enhancing string access, acknowledgement of how their contributions bring better access to students in need builds future support. While these efforts are limited in building long term support, they can be helpful in expanding the reach of programs with limited resources.

Several of the instrumental music researchers and instrumental programs cited in this paper (Costa-Giomi, 2008; *El Sistema* USA, 2015b; Mixon, 2005) recommended grants as a source of funding for loaner instruments and other supplies needed for participation. Grants are an outstanding way to seek funding and enhance the possibilities for funding within school districts and communities, however grants must be applied for and renewed. String teachers may find it helpful to look at all the foundations offering assistance at the Foundation Center (2015) website and to take classes on the

grant writing process at their local university or online (Missouri State, 2015; Online Grant Writing Course, 2015). In order to raise the awareness of string programs online and gain needed music resources, teachers may seek new opportunities to partner with family, friends, and local businesses. For example, FAYM was awarded \$1,000 to boost their program resources from the Super Service Challenge (FAYM, 2015a), an online challenge that promotes corporate teambuilding through fundraising and service projects. As a result, non-profit organizations receive special recognition on social media, in addition to funds for resources, because coworkers share a video about why they served their favorite non-profit organization (Super Service Challenge, 2015). New online opportunities to receive funding and recognition are worth seeking as they may enhance loaner program resources.

These ideas are a vital means of creating better access to string instruction with inherent value for string teachers. These recommendations may not work for every situation, but hopefully serve to explain how string educators can share ideas and actively address problems of access. The Survey of School-Owned String Instrument Loaner Programs did not collect teachers' feelings about the school-owned instruments, funding, or equity; however, this would be a valuable area to research and compare with loaner program characteristics. The research could be modeled after the Costa-Giomi (2008) survey of music teachers' opinions. It would be significant to find how teachers feel about the adequacy of their loaner programs, what methods they use to overcome any shortfalls, and what ways they go about communicating needs to their community. Teaching students how to play stringed instruments uniquely contributes to education and rewards the whole community with musical and non-musical benefits while providing

opportunities for students that will shape their futures for good. String teachers should continue to examine whether teaching practices actively remove barriers to string education and ultimately create more access to orchestral strings in American public schools.

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APPENDICES

Appendix A: Income Eligibility Guidelines (United States Department of Agriculture, 2014)

Appendix A-1. Income Eligibility Guidelines: Federal Poverty Guidelines – 100%

Household Size	Annual	Monthly	Twice-monthly	Bi-weekly	Weekly
48 Contiguous States, D.C., Guam and Territories					
1	\$11,670	\$973	\$487	\$449	\$225
2	15,730	1,311	656	605	303
3	19,790	1,650	825	762	381
4	23,850	1,988	994	918	459
5	27,910	2,326	1,163	1,074	537
6	31,970	2,665	1,333	1,230	615
7	36,030	3,003	1,502	1,386	693
8	40,090	3,341	1,671	1,542	771
Each add'l family member					
Add	+4,060	+339	+170	+157	+79
Alaska					
1	\$14,580	\$1,215	\$608	\$561	\$281
2	19,660	1,639	820	757	379
3	24,740	2,062	1,031	952	476
4	29,820	2,485	1,243	1,147	574
5	34,900	2,909	1,455	1,343	672
6	39,980	3,332	1,666	1,538	769
7	45,060	3,755	1,878	1,734	867
8	50,140	4,179	2,090	1,929	965
Each add'l family member					
Add	+5,080	+424	+212	+196	+98
Hawaii					
1	\$13,420	\$1,119	\$560	\$517	\$259
2	18,090	1,508	754	696	348
3	22,760	1,897	949	876	438
4	27,430	2,286	1,143	1,055	528
5	32,100	2,675	1,338	1,235	618
6	36,770	3,065	1,533	1,415	708
7	41,440	3,454	1,727	1,594	797
8	46,110	3,843	1,922	1,774	887
Each add'l family member					
Add	+4,670	+390	+195	+180	+90

Note. Effective from July 1, 2014 to June 30, 2015

Appendix A-2. Income Eligibility Guidelines: Reduced price meals—185%

Household Size	Annual	Monthly	Twice-monthly	Bi-weekly	Weekly
48 Contiguous States, D.C., Guam and Territories					
1	\$21,590	\$1,800	\$900	\$831	\$416
2	29,101	2,426	1,213	1,120	560
3	36,612	3,051	1,526	1,409	705
4	44,123	3,677	1,839	1,698	849
5	51,634	4,303	2,152	1,986	993
6	59,145	4,929	2,465	2,275	1,138
7	66,656	5,555	2,778	2,564	1,282
8	74,167	6,181	3,091	2,853	1,427
Each add'l family member					
Add	+7,511	+626	+313	+289	+145
Alaska					
1	\$26,973	\$2,248	\$1,124	\$1,038	\$519
2	36,371	3,031	1,516	1,399	700
3	45,769	3,815	1,908	1,761	881
4	55,167	4,598	2,299	2,122	1,061
5	64,565	5,381	2,691	2,484	1,242
6	73,963	6,164	3,082	2,845	1,423
7	83,361	6,947	3,474	3,207	1,604
8	92,759	7,730	3,865	3,568	1,784
Each add'l family member					
Add	+9,398	+784	+392	+362	+181
Hawaii					
1	\$24,827	\$2,069	\$1,035	\$955	\$478
2	33,467	2,789	1,395	1,288	644
3	42,106	3,509	1,755	1,620	810
4	50,746	4,229	2,115	1,952	976
5	59,385	4,949	2,475	2,285	1,143
6	68,025	5,669	2,835	2,617	1,309
7	76,664	6,389	3,195	2,949	1,475
8	85,304	7,109	3,555	3,281	1,641
Each add'l family member					
Add	+8,640	+720	+360	+333	+167

Note. Effective from July 1, 2014 to June 30, 2015

Appendix B: Survey of School-Owned Instrument Loaner Programs

When teachers took the survey they were first directed to give informed consent and then routed to the opening page of the survey where questions begin. The survey was designed to route teachers to new pages with relevant questions based on their previous responses. If a particular question resulted in the participant being routed to a new page during the survey, it was noted in parenthesis on the sample. Also noted in parenthesis were the validations set to increase accuracy.

Informed Consent (Page 1).

Dear Orchestra Colleague,

You are invited to complete a survey on string instrument loaner programs. Knowledge gained from this survey will benefit string teachers as they seek information on school-owned instrument loaner programs. The attached survey was developed to collect data about string instrument loaner programs. Data will be collected and analyzed by the researcher. Minimal risks are associated with participating in this study. No names, schools, districts, or identifying information will be reported in the thesis or any reporting data originating from the study. All responses will be kept confidential and you may omit any question at any time. Results will be available upon request. I appreciate your participation in this study.

Thank you for your time and honesty. Your experience is very important to the study of loaner program common practice models. If you have questions pertaining to the project or survey, please feel free to contact me via email.

Sincerely,

Juliana M. Georgiades

Missouri State University Graduate Student

Juliana932@live.missouristate.edu

If you consent to having your responses used in this research, please enter your name in the box below.

I, _____, consent/agree to participate in this research project.

I have read and understood the consent information provided above.

☐ I agree

☐ I disagree

Let's Begin (Page 2): General School Description

At how many public schools do you teach strings? Please include only public schools where you teach either violin, viola, cello, and/or double bass. (Validation: Must be a whole number)

School #1 (Page 3).

Q 1: Please list the name of the first public school where you teach strings.

Q 2: To what grade(s) do you teach strings at School #1? (It is possible to check more than one box.)

- | | | |
|----------------------------|----------------------------|-----------------------------|
| <input type="checkbox"/> K | <input type="checkbox"/> 6 | <input type="checkbox"/> 9 |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 7 | <input type="checkbox"/> 10 |
| <input type="checkbox"/> 2 | <input type="checkbox"/> 8 | <input type="checkbox"/> 11 |
| <input type="checkbox"/> 3 | | <input type="checkbox"/> 12 |
| <input type="checkbox"/> 4 | | |
| <input type="checkbox"/> 5 | | |

Q 3: How many students are currently enrolled in the orchestra program at School #1?

(Validation: Must be a whole number)

Q 4: Does this school share loaner instruments with other schools in the district? For example, multiple elementary schools share an inventory of instruments which are annually divided between schools, but checked out from a unified location.

☐ Yes

☐ No

Q 5: If you answered "yes" to sharing instruments between buildings, please respond to the survey using the numbers of instruments your students currently have checked out to use at each building.

☐ I understand

Q 6: Do students use loaner instruments at School #1? To clarify, choose "yes" if students have an instrument at home, but borrow a school instrument to avoid transporting the cello or bass for rehearsal.

☐ Yes (Continue to next page)

☐ No. However, I teach strings at another school. (Go to page 9 (School #2))

☐ No and this is the last school on the list of schools where I teach. (Go to page 64 (Email results page))

School-Owned Violins at School #1 (Page 4).

Q 7: Enter the number of loaner instruments for students to use at School #1 for each size below. If it is zero, leave it blank.

1/10 violin (Validation: Must be a whole number)

1/8 violin (Validation: Must be a whole number)

1/4 violin (Validation: Must be a whole number)

1/2 violin (Validation: Must be a whole number)

3/4 violin (Validation: Must be a whole number)

4/4 violin (Validation: Must be a whole number)

School-Owned Violas at School #1 (Page 5).

Q 8: Enter the number of loaner instruments for students to use at School #1 for each size below. If it is zero, leave it blank.

13" viola (Validation: Must be a whole number)

14" viola (Validation: Must be a whole number)

15" – 15 1/2" viola (Validation: Must be a whole number)

16" – 16 1/2" viola (Validation: Must be a whole number)

School-Owned Cellos at School #1 (Page 6).

Q 9: Enter the number of loaner instruments for students to use at School #1 for each size below. If it is zero, leave it blank.

1/8 cello (Validation: Must be a whole number)

1/4 cello (Validation: Must be a whole number)

1/2 cello (Validation: Must be a whole number)

3/4 cello (Validation: Must be a whole number)

4/4 cello (Validation: Must be a whole number)

School-Owned Double Basses at School #1 (Page 7).

Q 10: Enter the number of loaner instruments for students to use at School #1 for each size below. If it is zero, leave it blank.

1/8 double bass (Validation: Must be a whole number)

1/4 double bass (Validation: Must be a whole number)

1/2 double bass (Validation: Must be a whole number)

3/4 double bass (Validation: Must be a whole number)

4/4 double bass (Validation: Must be a whole number)

School #1 Loaner Program Description (Page 8).

Q 11: How many students borrow instruments from the school district at school #1?
(Validation: Must be a whole number)

Q 12: For how many students at School #1 is their school-owned string instrument their only string instrument? Do not include students who borrow a school-owned string instrument but have a personal string instrument at home. (Validation: Must be a whole number)

Q 13: Is there a fee to use a school-owned string instrument at School #1?

☐ Yes

☐ No

Q 14: If there is a fee to borrow a school-owned string instrument at School #1, what is the cost in dollars? (Validation: Must be a number greater than or equal to 1)

Q 15: Is there an application to use a school-owned string instrument at School #1?

- ☐ Yes, students fill out the application.
- ☐ Yes, parents or guardians fill out the application.
- ☐ No

Q 16: How do you verify a student has the need to borrow a school-owned instrument at School #1? You may choose more than one response.

- ☐ Parent/guardian gives sufficient reason on application.
- ☐ Student gives sufficient reason on application.
- ☐ Student qualifies for Free or Reduced Lunch.
- ☐ Student has a cello or bass at home, but due to transportation and large size needs to borrow a school-owned instrument.
- ☐ Other

Q 17: If you chose "Other" in the previous question, please describe how you determine who gets to borrow a school-owned string instrument at School #1. (Space provided to respond in paragraph form.)

Q 18: At School #1, do parents sign a contract to repair or replace the school-owned string instrument if it is lost, stolen, or broken?

- ☐ Yes
- ☐ No

Q 19: How do you verify a student is trustworthy and responsible enough to borrow an instrument from School #1? You may choose more than one response.

- ☐ Communicating with classroom teachers
- ☐ Calling and talking to parents or guardians

☐ No verification is made

☐ Other

Q 20: If you chose "Other" in the previous question, please describe how you determine a student is trustworthy and responsible at School #1. (Space provided to respond in paragraph form.)

Q 21: Do you have enough school-owned string instruments at School #1? Please choose the best response.

☐ Yes, we usually have enough school-owned string instruments for all students in need.

☐ Yes, we usually have extra school-owned string instruments after all students in need receive their instruments.

☐ Some years we have enough school-owned string instruments and some years we don't.

☐ No, we usually run out of school-owned instruments.

Q 22: Do you have a waiting list for school-owned instruments at School #1? Please choose the best response.

☐ Yes, it always has at least one student on it.

☐ Yes, for part of the year, until school-owned instruments become available from students who move or decide to quit.

☐ No

Q 23: Do you teach strings at another public school?

☐ Yes (Go to Page 9 (School #2))

☐ No (Go to page 64 (Email results page))

School #2 (Page 9). From this point on in the survey, all questions are repeated for up to 10 schools. However, where questions stated “School #1” it states the new number of the school being described. How the survey routes the participant on the final question for School #10 (survey page 62) is different from the final questions for all other schools in the survey, as shown below.

Q 24: Do you teach strings at another public school?

- ☐ Yes (Go to Page 63)
- ☐ No (Go to page 64 (Email results page))

Page 63 and page 64. If you have more than 10 schools, please submit another survey for your remaining schools. The resubmit button will appear on the confirmation page.

Q 25: Would you like to have the results of this study emailed to you?

- ☐ Yes (Continue on page 64)
- ☐ No (Go to confirmation page)

Q 26: If you would like to have the results, please supply your email address.

(Validation: Must be a valid email address.)

Confirmation Page. Your response has been recorded. Thank you for your time! Please share this survey with another Missouri string teacher who may be willing to participate. If you teach at more than ten schools and you would like to continue the survey for your other schools, please follow the link provided below.

Appendix C: Sample Email Invitation to Take Survey

Dear (insert teacher name),

My name is Juliana Georgiades and I am an elementary and middle school string teacher in Springfield, Missouri. I am conducting research on instrument loaner programs for my Master's thesis with Missouri State University.

You are invited to take part in a brief survey of school-owned stringed instrument loaner programs. Your expertise in the field of string teaching is essential to gathering a full description of the variety of loaner programs available in our state. Your participation will make sure your school's instrument loaner program is represented in the research. I know this is a busy time of year for everyone, but I hope you will take a little time to participate. Those who choose to participate will have their names entered in a drawing for one of two \$50 Amazon gift cards. The winners will be notified by email.

The survey will take from five to twenty minutes, depending upon the number of schools you serve and familiarity with your loaner instrument program information. Your responses are important and will be kept confidential. All data will be reported without identifiable information such as teacher or school names. At the completion of the survey, you are welcome to request a copy of the results. Simply click on the link below or copy and paste the entire URL into your browser to access the survey. (Insert link to survey and URL.)

Your response to the survey will be greatly appreciated. The survey will close on (insert date). Thank you in advance for participating in this project. If you have any questions about the survey, please feel free to contact me at (insert email address).

Appendix D: Grades Taught by Survey Participants

Grades	Building(s)
3, 4, 5	6
3, 4, 5, 6	2
4, 5	11
5	36
6	12
6, 7, 8	26
7, 8	8
9	2
9, 10, 11	2
10, 11, 12	1
9, 10, 11, 12	12
6, 7, 8, 9, 10, 11, 12	1
Total	119

Note. It is possible that more than one teacher teaches orchestra per building, but only one teacher reported per building.

Appendix E: Teacher Comments from Survey

The teacher comments were coded in an effort to group like comments under one idea. Teacher comments have been reported in the text and tables of the results section of this paper. Some column heads for Tables 17 and 18 were taken from teacher comments and not part of the original survey choices.

Teacher Comments from Survey

Original Comments	Ideas Present
"Although there is no formal application, I trust the students and parents to only come to me if they truly cannot afford to rent or buy."	Application, Confirm with Parent and Student
"We have a district rental program with a local music store to provide rentals for free and reduced program students. District pays for their rental and insurance cost. They do not use school owned instruments."	Qualifies for FRL, Fee
"Anyone can request instrument use. If a student needs the instrument as their only instrument that must be transported back and forth then they must fill out a form. Otherwise, students bring in two strings to use a school instrument and no additional cost."	Transport Conflict, Fee
"Both parents and students sign the application."	Application, Signature
"Communicating with secretaries and principals"	Confirm with Secretary/Principal

Note. Duplicate comments repeated verbatim were not included in this table.

Appendix E (continued). Teacher Comments from Survey

Original Comments	Ideas Present
"We offer all viola/cello/bass students the option to borrow an instrument. However, due to the numerous repairs required due to my aging fleet of instruments, I am seriously reconsidering this policy."	Transport Conflict, Aging Instruments
"They let me know they don't have an instrument. I teach or see them from 4th grade, so I usually know their situation or I talk to their previous teacher."	Prior Knowledge, Confirm with Teacher
"Call the parent's home if students do not have an instrument at the beginning of the year. Depending on the situation, they receive an instrumental rental contract that both the student and the parent have to sign."	Confirm with Parent, Contract, Signatures
"Call home and verify with parents/guardians why they cannot get an instrument at this time."	Confirm with Parent
"In my district, the transportation department does not allow cellos or basses on the bus. Every child that plays those instruments must have an instrument at home to play and one they use at school. There is a fee with these instruments that each child pays unless they are on free or reduced lunch and the parent has made contact with the teacher or counselor. Some kids pay double to check out an instrument to use at home if we have enough at school."	Transport Conflict, Fee, Qualifies for FRL, Parent Contact
"Sometimes the parents do not fulfill the contract to pay for the repairs on school instruments."	Contract

Note. Duplicate comments repeated verbatim were not included in this table.

Appendix E (continued). Teacher Comments from Survey

Original Comments	Ideas Present
"Many students apply and are able to use a school-owned instrument for free if they qualify for free/reduced lunch. In addition, if the child is only using the instrument at school (they have another instrument at home), they do not have to pay the fee."	Qualifies for FRL, Fee
"Knowledge of students from previous year(s)."	Prior Knowledge
"Other teachers tell me there is a need."	Confirm with Teacher
"Other teacher says there is a need."	Confirm with Teacher
"Just want to clarify - We provide violins for all 3rd grade students as they are required to take one year of Suzuki violin. They only use them in school. Fourth and fifth grade cellos borrow school instruments if they ride the bus, but rent their own to practice at home. A few fourth and fifth grade violins and violas are lent out to students who want to be in the program but can't afford to rent. "	Transport Conflict
"Students who play violin or viola who need an instrument fill out an application. So do the bass players who need an instrument at home. Cello players do not need to fill out an application to use a school instrument that doesn't leave the building, nor do the bass players who have an instrument at home that belongs to them."	Application, Transport Conflict
"Verification is by signing the contract."	Signature, Contract

Note. Duplicate comments repeated verbatim were not included in this table.

Appendix E (continued). Teacher Comments from Survey

Original Comments	Ideas Present
"The goal of the principal was to start a program and not charge students. All but one of my schools is Title 1. At this particular school, I have relied on donations and have given some of my own collection to the school. We do not charge the students for using the instruments, but at the other schools the district fee is \$30 per year."	Confirm with Principal, Fee, Qualifies for FRL
"Both parents and students sign the application."	Application, Signature
"Communicating with secretaries and principals"	Confirm with Secretary/Principal
"We don't have access to information on the students qualifying for free/reduced lunch, so we essentially just trust the word of the parent when they tell us they can't afford an instrument. We have had some issues with this, in that some parents have given it as an excuse because they don't WANT [emphasis in original] to buy/rent their own instrument, but can actually afford it. We are currently working on a way to truly determine real need due to financial hardships. The free/reduced lunch list is held in high confidentiality."	Confirm with Parent

Note. Duplicate comments repeated verbatim were not included in this table.