

The objective of this study was to identify teacher strategies for attracting school orchestra students to string teaching. Full-time string music education professors at 17 universities surveyed their music education students who were principally string players. Students were asked to describe their background, reasons for choosing teaching, and recommendations of approaches for teachers to use to interest students in string teaching. Results of the 153 completed surveys revealed that the majority of string music education students are female undergraduates who previously participated in school orchestras. Students chose string education because they liked teaching, music, children, playing their instrument, and being a role model for children. To attract others to teaching, respondents suggested that teachers be teaching role models for their students by showing their love for music and teaching, relating positively to students, giving special teaching opportunities and support to students interested in teaching, discussing the rewards of string teaching, and challenging students musically.

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Career Choice among String Music Education Students in American Colleges and Universities

A shortage of teachers for school orchestra programs has been a topic discussed at the five symposia on string education in the schools held in the United States during the past 35 years, beginning with the Tanglewood String Symposia of 1963 and 1964. Participants at each symposium identified a shortage of string teachers for school orchestra programs as an issue critical in string education (Gillespie, 1997). Recent studies have shown that, since the 1980s, there has been a

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continual increase in the number of students participating in school orchestra programs (Gillespie & Hamann, 1998; Leonhard, 1991). As a result, discussions have intensified over the last decade regarding how best to attract orchestra students to the string teaching profession.

In 1987, an MENC Ad Hoc Committee on String and Orchestra Education was formed to address national concerns in the string teaching profession. Among its activities was the production of a videotape for use by teachers to interest students in teaching. In 1996, participants at the national Wichita State University String Symposium drafted ideas for attracting string students to teaching, including recommendations that teachers present a positive image of teaching to their students and that colleges and universities begin offering string education scholarships. In 1997, the American String Teachers Association produced a brochure designed to interest students in choosing a career in school orchestra teaching.

Much research has been conducted regarding students' choice for a career in music. Family influences and the support and encouragement of a music teacher have been identified as integral to a student's career decision process (Bergee, 1992; Bernstein, 1986; Burgstahler, 1966; Jones, 1970). However, the influence of the teacher is indirect. Burgstahler (1966) found that students choosing music as a career received little or no career counseling from their teachers. Correspondingly, Fishburn (1962) found that secondary school teachers did not consider career counseling an important role in their teaching. Almost 20 years later, in a study by Ploumis-Devick (1983) of undergraduate music education majors, results showed once again that students who had chosen music education as a profession received little career counseling from their music teachers while in high school. In a survey of music education majors by Bergee (1992), two-thirds of the respondents reported they had received negative remarks from their teachers about becoming professional music educators.

Other influencing factors have also been identified. Bernstein (1986) and Jones (1970) found that students who were confident of their music talent were more likely to choose music as a career. Results of investigations by Ploumis-Devick (1983) and Clinton (1991) revealed that high school music teachers and private teachers were the most influential people in the career decision process of university music education majors. The university music education majors also indicated that their private lessons and ensemble participation during high school were the most important musical reasons for choosing music education as a profession.

Researchers in numerous studies have also investigated the influence of role models on students' career choice in music (Clark-

Lempers, Lempers, & Ho, 1991; Cox, 1994; Darling, 1987; Galbo, 1986; Hamann & Cutietta, 1996; Hamann & Walker, 1993; Hendry, Roberts, Glendinning, & Coleman, 1992; Lackovic-Grgin & Dekovic, 1990; L'Roy, 1983; Ploumis-Devick, 1983). These researchers found that a particular person perceived as an adult role model significantly influenced students' career choice, especially during adolescence. If students decided to major in music education, the role models outside of the family most frequently identified were high school ensemble directors, in addition to private teachers. L'Roy (1983) also found that students valued opportunities given to them by their high school music teachers to instruct fellow students.

Studies to determine when music students chose a career in music that relate to the current study have also been conducted. Results of studies by L'Roy (1983), Ploumis-Devick (1983), and Bergee (1992) indicated that most undergraduate music education majors decided to major in music education either during high school or their early college years.

In a study closely related to the present investigation and involving only string students, Frink (1997) surveyed undergraduate string majors at Big Ten universities regarding their opinion of their high school orchestra experiences, instructors, and string teaching in general. Of the respondents, 83% ($n = 156$) were majoring in performance, and 17% ($n = 31$) were majoring in music education. Data revealed that the majority of students decided on their degree program while they were in high school. Students also reported that they enjoyed their high school orchestra experience and believed it helped them become better players and musicians. The majority, however, indicated that their high school orchestra experience was not challenging.

Most students believed that their high school directors were excellent teachers and seemed to enjoy their jobs. Over two-thirds of students highly respected their directors, but the majority did not consider them musical role models.

Sixty percent of students surveyed in the Frink study reported that their teachers had not encouraged them to pursue careers in music teaching. However, most of the students had positive attitudes toward teaching. Eighty-six percent believed that they had the potential to be excellent string teachers, although 62 percent were interested only in teaching privately. Almost all students (96%) were aware of a shortage of string teachers for school orchestra programs, but only 65 students (36%) had any interest in teaching in the schools.

Frink (1997) also compared music education students' attitudes toward their high school orchestra experience to those of the performance students. Analysis revealed that attitudes of the students majoring in music education were significantly more favorable

toward their high school experiences and string teaching as a profession.

Although much research has already been done on career choice of music students, a corollary area for additional investigation is the development of strategies to recruit additional students to the music teaching profession. This is a critical issue for strings because of the concern about shortages of string teachers. The purpose of the current study was to identify methods that teachers could use for attracting their school orchestra students to the string teaching profession. These methods would be based on the career choice factors cited and strategies recommended by current university string music education majors.

An ancillary purpose of the study was to gather descriptive information on the students currently majoring in string music education. This information could be used as baseline data for decision making when school districts, universities, and professional music education associations are trying to decide how best to meet the future teaching needs of orchestra programs in the schools. For example, data on current string education majors' year of graduation, immediate teaching plans following graduation, and level of teaching position preferred—elementary, middle school, or high school—could help school districts plan their efforts to hire string teachers in the future. These data also could help professional music education associations determine the level of resources needed to guide colleges and universities in their string student recruitment programs and teacher preparation curricula.

Furthermore, data on the extent of involvement of university string music education students in school orchestras while they were enrolled in elementary, middle school, and high school could help determine how best to identify students who might be interested in teaching in the schools. If it were found that a large percentage of current university string education students were not involved in their school orchestra programs but were studying privately, perhaps that would mean that more effort should be made to help private teachers identify students potentially interested in becoming string teachers in the schools.

PROCEDURE

A survey instrument was written consisting of questions regarding students' profile, influences on career choice, and recommendations for teachers. The profile questions asked students to indicate when they anticipated graduating, their immediate teaching plans after graduation, their principal instrument, and their degree of school orchestra participation prior to college.

The remaining questions were devised based on responses and advice from university string education majors, elementary and secondary teachers, and university string instructors. Two questions asked students for their reasons for selecting string teaching as a career and their recommendations ways in which teachers could interest students in becoming string teachers. The final two questions asked respondents to indicate their preferences for types of school music classes they would like to teach—orchestra, band, choir, and/or general music—and the ages of students they would prefer to teach.

Once constructed, the survey was pilot-tested. The survey was administered to 24 university instrumental music education majors, including 11 string education majors. Wording was changed to make some questions clearer based on input provided from the pilot test. The survey was then administered again as a second pilot test to 17 university graduate music education majors and three university music education faculty members. Wording of the survey questions was revised and finalized for the study based on the input of this pilot test.

Seventeen colleges and universities across the country were identified that had full-time string music education faculty members whose primary responsibility was string/orchestra teacher preparation. Universities were identified by talking with leaders of the American String Teachers Association (ASTA) and MENC, as well as by reviewing the roster of participants at the 1997 national ASTA symposium on string teacher preparation. The universities represented all MENC districts in the United States—Eastern, North Central, Northwest, Southern, Southwestern, and Western. The majority of institutions surveyed were located in the North, with the next most prominent location being the South, followed by the East and then the West.

Survey forms were mailed to the string music education faculty member at each institution. Instructors were asked to distribute the survey forms to their undergraduate and graduate music education degree students whose principal performing instrument was the violin, viola, cello, or double bass. Instructors were asked to return the forms once their students had completed the survey.

RESULTS

All seventeen universities returned forms for a total of 153 completed surveys. From information provided by the individuals assisting with survey completion at each of the 17 universities, it was determined that the overall return rate was approximately 85%. Returns ranged from a low of 4 to a high of 24 surveys from individual uni-

versities, representing all of the string education majors at an institution or at least a substantial portion of them. Descriptive statistical procedures were used to analyze survey responses. The following results were obtained.

String Music Education Students' Profile

Ninety-five percent of those responding to the survey planned on graduating between the years 1998 and 2001: 17% in 1998, 29% in 1999, 27% in 2000, and 22% in 2001. Regarding teaching plans, 69% of respondents revealed they were planning on immediately teaching in the schools following graduation. Those who were not planning to teach were planning to pursue graduate degrees (68%), seek a university position (17%), perform professionally (11%), travel (2%), or teach privately (2%).

Results of a question about the involvement of string education majors in their school orchestra programs revealed that 89% participated at the high school level, with 66% playing for all 4 years. Eighty-two percent were enrolled in their middle school/junior high school orchestra, with 71% playing for 3 years. Sixty-three percent played in their local elementary string classes. The majority of students were involved for either 1 (25%) or 2 (44%) years. By far, the majority (88%) of those responding played in some type of nonschool orchestra, including youth orchestras or community college orchestras, during their precollege years.

Students could indicate more than one first choice when asked to rank-order preferences for music teaching area—strings/orchestra, band, choir, and general music. Therefore, the total percentage of their responses often exceeded 100%. Data revealed strings as respondents' first choice (94%), followed by general music (14%), band (5%), and choir (3%). String music education majors indicated their first choice for teaching level as high school (52%). Forty-three percent indicated elementary as their first choice, whereas 39% chose middle/junior high school.

Reasons Students Chose String Music Education

Reasons given by respondents for choosing to major in string music education were initially recorded and categorized. A total of 28 distinct responses was noted. Totals for each response were then tallied. The respondents provided a total of 648 responses. Responses were then ranked by frequency of citation. Percentage totals were also computed. While a cutoff percentage of 75% was desired, the last three items were tied. Each of the last three items received 24 response citations, or 3.7% each of the total citations.

Table 1
Factors Influencing Decision to Major in Strings/Orchestra Music Education

Rank	%	Frequency	Factor
1	10.8	70	Liked teaching as profession; rewarding work
2	10.6	69	Enjoyment and love of music
3	9.4	61	Desire to enrich and share joy of music with others
4	9.1	59	Love of children, people, working with groups
5	7.2	47	Influence of school orchestra teacher
6	6.8	44	Job market security: String teachers are needed
7	6.2	40	Performing and desire to keep involved with music
8	4.6	30	Enjoyment of teaching experiences
9	3.9	25	Desire to be a role model for children and positively influence them
10	3.7	24	Desire to promote a noble image of strings in the schools
11	3.7	24	Influence of private teacher
12	3.7	24	Love of the sound of stringed instruments

Table 1 summarizes the 12 most frequently cited factors (reasons) students gave for becoming a music education major interested in teaching strings/orchestra in the schools. The cumulative total of the 12 response items listed in Table 1 represents approximately 80% of all responses collected. As can be seen, those factors that motivated most students to choose music education included a love and enjoyment of music and the sound of string instruments, and the view that teaching was a rewarding profession. Also, students indicated that they were influenced by their previous school orchestra directors and private teachers. In addition, they cited their desire to work with children and people (especially in groups) and to help them develop a more positive image of school orchestras as noble and valuable.

Table 2
Recommendations for Teachers to Interest Students in School Orchestra Teaching

Rank	%	Frequency	Recommendation
1	17.7	61	Serve as a role model: relate positively to students by showing your love for teaching and creating a positive learning environment
2	16.9	58	Give students teaching and conducting opportunities
3	13.4	46	Talk to students about the values of a career in orchestra teaching, including personal satisfaction and job security
4	8.4	29	Focus on the positives of school orchestra teaching, not the negatives
5	6.7	23	Challenge students with a variety of music
6	5.5	19	Take a personal interest in students who express a desire to teach
7	4.9	17	Make students' orchestra and music experience enjoyable and fun
8	4.7	14.5	Talk with students about your personal growth as a musician and teacher as a result of being an orchestra teacher in the schools

Recommendations for Attracting Students to School Orchestra Teaching

Respondents were asked to recommend strategies for use by current string/orchestra teachers to encourage their students to consider becoming future string/orchestra teachers in the schools. Responses were recorded and categorized. Eighteen distinct responses were noted. Totals for each response were tallied. A total of 344 responses was provided by the respondents. Responses were then ranked by frequency of citation, and percentage totals were computed. While a cutoff percentage total of 75% was again desired, 8 items represented approximately 78% of the 344 responses collected. These 8 items, along with their frequency of citation, percentile rat-

Strategies most often recommended by the respondents centered around the attitude and activities of the teacher. Recommendations included having string/orchestra teachers act as role models for students; creating a positive learning environment; showing a love for teaching, music, and orchestras; giving students opportunities to conduct and teach; discussing the rewarding aspects of teaching; challenging students musically; and taking a personal interest in those who express a desire to teach.

CONCLUSIONS

The following conclusions summarize the findings of the study:

1. The majority of students enrolled in string music education plan to teach in the schools immediately following graduation.
2. Most current string education students participated in their school orchestra programs from elementary through high school and also played in additional orchestras outside school during their precollege years.
3. String students most often chose a career in school orchestra teaching because they liked teaching, music, children, and playing their instrument; enjoyed their previous teaching experiences, and desired to be role models for children. Students also were influenced to become string teachers by their school orchestra directors and by the availability of string teaching jobs in the schools.
4. According to string music education majors' recommendations, in order to attract other string students to the teaching profession, school orchestra directors should become teaching role models for their students by
 - (a) showing their love for music and teaching,
 - (b) relating positively and making learning to play orchestral music enjoyable,
 - (c) giving those students interested in teaching encouragement and opportunities to teach,
 - (d) talking with students about the rewards, values, and positive (not negative) aspects of school orchestra teaching,
 - (e) discussing their personal, musical, and professional growth as a part of their career in string teaching, and

- (f) challenging students musically.

DISCUSSION

Returned surveys from the 17 universities ranged from a low of 4 to a high of 24. This may have skewed the findings and is a limitation to the study. However, in many cases the completed surveys represent, the total number of university string music students of a given university, or at least a substantial portion of them. Thus, it was determined that the vast majority of university music education majors at each of the 17 universities had completed the survey forms and that implications could be suggested based on the findings.

The factors that influence string students to choose a teaching career are often not the same factors that influence other music students. Previous research identified factors for career choice, which included family, music teachers, role models, self-confidence in musical talent, opportunities to teach, and high school participation. Results of the current study indicated that string education students were influenced, as are other students, by role models, music teachers, the chance to teach fellow students while in high school, and their school orchestra experience. However, respondents also identified unique factors, such as their love of music and teaching, desire to enrich others, love of children, perceived job market security as a string teacher, and desire to promote the image of strings in the schools.

Respondents did not indicate that they were influenced by family members or perceived musical talent as in previous studies. In fact, in earlier research, the role of the family was identified as integral to the career decision-making process of high school music students (Bergee, 1992; Bernstein, 1986; Burgstahler, 1966; Jones, 1970). However, in the present study, only 1.1% of respondents indicated that family influence was a factor in choosing string teaching as a career. Future research is needed to determine if string education students are independent of parental influence regarding their career choice for string teaching. If it is found that students are independent, it may not be necessary for school orchestra teachers to spend significant time discussing the values of a string teaching career with the families of students who express an interest in becoming string teachers.

Practical strategies for those currently teaching strings in the schools can be made based on the recommendations of the respondents in the study. Students identified their teachers as role models, as in other studies, but suggested specific activities for teachers to emphasize, including being careful to focus on the positives rather than the negatives in their interaction with students, presenting their

students with a wide variety of challenging music, and so on. Those surveyed also suggested that teachers should take time to review the values of a career in orchestra teaching (including personal satisfaction and job security) and discuss their personal growth as a musician as a result of being an orchestra teacher in the schools. Respondents also recommended that teachers take a personal interest and spend time with those students who express a desire to teach, including providing them with the chance to teach short segments of a class, as previous studies have found.

Results of the study also have implications for school systems, colleges and universities, and private string teachers. For example, school systems may need to plan to intensify their hiring efforts of string teachers. Almost one-third (31%) of those surveyed were not planning on teaching immediately following graduation. To help school systems, colleges and universities may want to increase their recruiting efforts aimed at prospective string education students, since such a large percentage of their current students do not plan on immediately entering the teaching profession upon graduation.

The survey results suggest that private teachers are also a factor in attracting students to school orchestra teaching. The data indicate that slightly over one-third (37%) of current string music education students did not play in their first- or second-year elementary school orchestra. Perhaps future research could investigate more closely the role of private teachers who do not teach in the schools and their effect on the attitude toward teaching of young students who did not participate in the early years of school orchestra programs.

Additional research is necessary to help clarify the role that associations and universities can play in recruiting string students to the teaching profession. The primary purpose of this study was to conduct research on the role of the certified string teacher in the career decision-making process of their current school orchestra students. Correspondingly, studies to determine strategies appropriate for colleges, universities, and professional associations to use to attract prospective students to school orchestra teaching need to be conducted. Also, current string teachers' ideas for attracting students to teaching need to be assessed. Perhaps by investigating strategies suggested by all four populations—current string education students, string teachers in the schools, colleges and universities, and professional music associations—effective collaborative methods for attracting more string students to school orchestra teaching can be found.

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Submitted December 14, 1998; accepted June 17, 1999.

Announcements

**Sessions and Events
of Interest to Music Education Researchers
at the Upcoming
National Biennial In-Service Conference of
MENC—The National Association for Music Education
Washington, D.C., March 8–11, 2000**

The following sessions and events at MENC's upcoming National Biennial In-Service Conference may be of special interest to music education researchers and other *JRME* readers. (Please check the final conference program on site for locations of these sessions.)

<i>Date</i>	<i>Time</i>	<i>Title</i>
SRIG = Special Research Interest Group		
March 9, 2000	9:15 A.M.	SRIG—Creativity
March 9, 2000	10:30 A.M.	SRIG—Early Childhood
March 9, 2000	10:30 A.M.	SRIG—Gender Research
March 9, 2000	3:15 P.M.	SRIG—Affective Response
March 9, 2000	3:15 P.M.	SRIG—Social Sciences
March 9, 2000	4:30 P.M.	SRIG—Perception and Cognition
March 9, 2000	4:30 A.M.	SRIG—Learning and Development
March 10, 2000	8:00 A.M.	SRIG—History
March 10, 2000	8:00 A.M.	SRIG—Community and Adult Music
March 10, 2000	9:15 A.M.	General Session/Annual Meeting/ Society for Research in Music Edu- cation (SRME) Senior Researcher Award Presentation
March 10, 2000	2:00 P.M.	Research Poster Presentation, Session I