Supply and Demand: Music Teacher Shortage in the United States

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Abstract

Teacher shortage in all subjects, including music, has been an ongoing concern in the United States since the 1980s. The shortage is especially acute in urban and rural schools that serve economically disadvantaged students. This article examines (a) music teacher shortage in relation to P–12 public schools in general, (b) the demand for music teachers in specific states and regions, (c) the declining number of preservice candidates certified in music, and (d) potential strategies for alleviating music teacher shortages and providing equitable instruction for P–12 students. Solutions could involve heightened efforts to recruit music education majors, curricular revision in preservice preparation programs, alternative pathways to certification, and partnerships among universities and school districts.

Supply and Demand: Music Teacher Shortage in the United States

A shortage of teachers has been a periodic concern throughout the history of the United States. Beginning around 1840, numerous young and unmarried women moved West to fill the need for teachers on the American frontier (Quay, 2002). Shortages occurred during World War II when teachers left the classroom for better paying jobs related to the war. As a result, the number of emergency certificates issued to teachers without adequate preparation increased from 2,305 in 1940-41 to 108,932 by the end of the war. A lack of teachers during the "baby boom" era of the 1960s and 70s resulted from dramatic increases in student enrollment from 26 million in 1950 to 46 million in 1972. In the 1990s, shortages occurred when certified teachers proved unwilling to take open positions, especially in high-needs schools and in the areas of math, science, and special education (Tobin, 2012).

An inadequate supply of teachers remains a challenge today. In 2020-21, 47 states, the District of Columbia, Puerto Rico, and other US territories reported shortages in one or more subject areas (US Department of Education [A], 2020). Shortages are especially acute among minority teachers, in urban and rural areas, and for special education, mathematics, science, and bilingual instruction (Berry & Shields, 2017; Cowan et al., 2016; Ingersoll & May, 2011). Several factors contribute to the problem including increased P–12 student populations in the United States and the retirement of "baby boom" generation (b. 1946–1964) teachers (Ludlow, 2011). However, other variables related to working in schools have likely also led to a decline in the teacher work force.

The theory of supply and demand suggests that teachers will enter and remain in a teaching position if it is the most attractive alternative available based on overall compensation. In this context, compensation includes salary and benefits as well as working conditions and

intrinsic rewards (Carlson & Billingsley, 2010). Low pay, inadequate mentoring and administrative support, poor working conditions, and a perceived lack of appreciation for teachers by society discourage people from entering the profession today (Swanson, 2016).

Data related to candidates preparing for the teaching profession provide a partial explanation for current shortages. Among high school seniors in 2018, only 3.8% (*n* = 68,000) taking the SAT and 4.0% (*n* = 76,600) taking the ACT intended to major in education (National Center for Education Statistics, 2019). In addition, the most recent Title II data available from the US Department of Education ([B] 2018-19) reported that the number of educator preparation program completers fell an average of 4.2% per year between 2011-12 and 2018-19. Assuming 2011-12 numbers remained constant, this figure represents an estimated 15.6% decrease in the total number of teachers prepared over the eight-year period. Furthermore, only about half of the graduates from a teacher education program will enter the field and of those who do, a projected 17% will leave the profession within the first five years (Cowan et al., 2016; Gray & Taie, 2015).

State departments of education and the federal government have offered several incentives to increase the number of licensed teachers in critical subject areas and high needs schools including student loan forgiveness, housing assistance, and salary increases (Berry & Shields, 2017). States have also attempted to grow the workforce by introducing alternative routes to licensure. Although these programs vary widely, they often involve an abbreviated curriculum that delivers preservice courses at night, on weekends, or during summers. These brief and often inexpensive options are attractive to second career professionals with a bachelor's degree who wish to enter the classroom quickly or cannot afford a traditional college program (Nichols et al., 2008). College graduates outside the field of education, for example, can join the Teach for America (2020) program and work towards licensure over a one- or two-year period

while teaching in a high needs P–12 school. Similar programs exist to fill shortages in specific urban (e.g., Boston Teacher Residency, 2020; NYC Teaching Fellows, 2020) and rural (e.g., University of New Hampshire, 2020) public schools. Between 2011-12 and 2018-19, 15.2% of new teachers in the United States completed an alternative program based in either a higher education institution or some other entity (US Department of Education [B], 2011-12 – 2018-19).

Research on the effectiveness and retention of alternatively licensed teachers varies and probably depends on the type of program they completed. Alternative certification tends to attract candidates with diverse backgrounds and who are willing to work in high-needs schools. However, teachers licensed through a non-traditional path might be unprepared to manage the tasks of teaching, especially in the under-resourced schools in which they are most likely to serve. As a result, they tend to leave the profession at a higher rate compared to traditionally certified teachers (Ludlow, 2011).

Teacher shortage contributes to the inequality in P–12 education when fully certified professionals migrate from under-resourced schools to positions offering higher salaries and better working conditions. Consequently, these schools often must hire un/under-licensed teachers to fill the gap. Recent data indicate that children in high-poverty schools are more likely to have teachers who (a) hold alternative certification, (b) have fewer than five years of experience, and/or (c) teach outside of their discipline, compared to students in low-poverty schools (Garcia & Weiss, 2019).

Teacher shortage has affected all P–12 subject areas to some degree throughout the United States, including music. The purpose of this article is to examine: (a) music teacher shortage in relation to P–12 public schools in general, (b) the demand for music teachers in

specific states and regions, (c) the declining number of preservice candidates certified in music, and (d) potential strategies for alleviating music teacher shortages and providing equitable instruction for P–12 students. Source material included current data on teacher shortage (US Department of Education [A], 2011-12 – 2019-20) and preparation program completers (US Department of Education [B], 2011-12 – 2018-19) as well as extant research and practitioner literature.

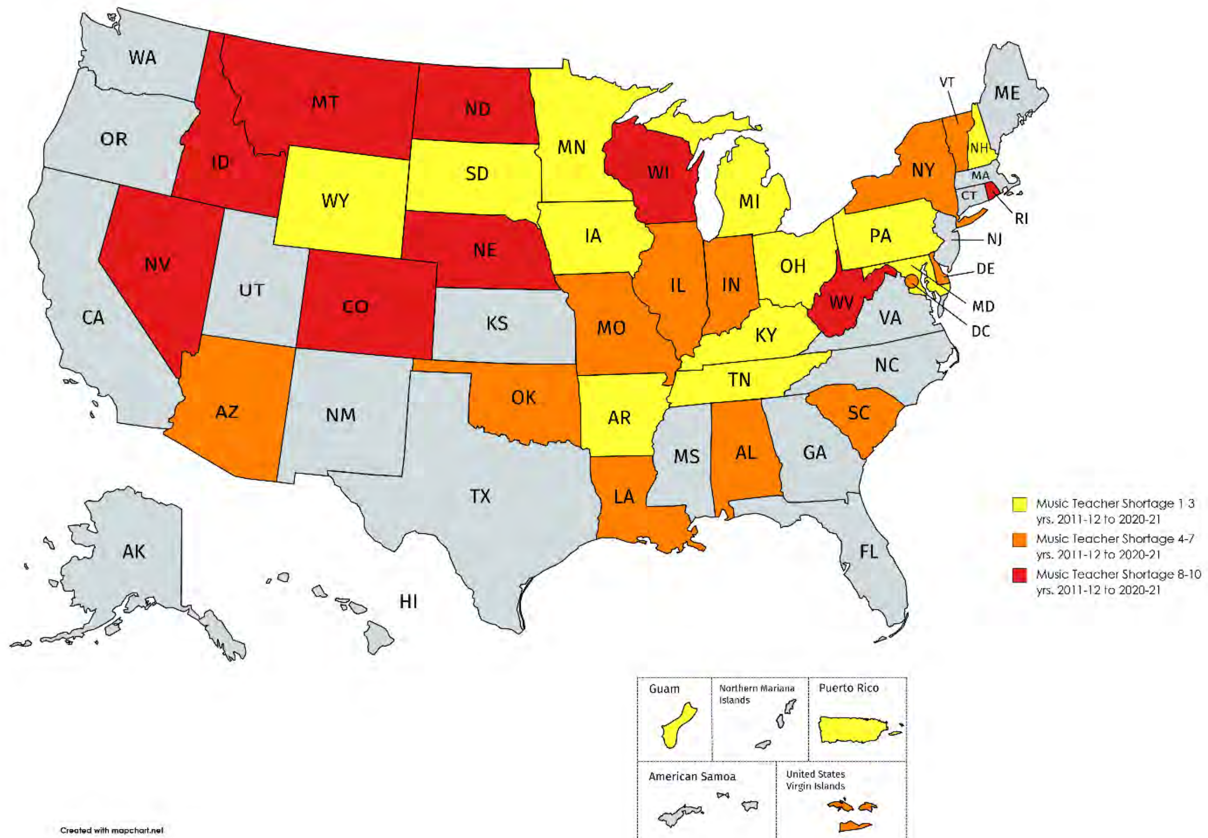
Music Teacher Shortage

State and Regional Demands

A national survey of educator preparation programs (EPPs) (*N* = 203) and public school districts (*N* = 339) during the 2019-20 academic year showed demand for music teachers in the West, Northwest, and Alaska (American Association for Employment in Education, 2020). Although this same report indicated a balance between supply and demand for music teachers in other regions, additional data (e.g., US Department of Education [A], 2019-20) contradicts this claim. Shortages of music teachers were reported between 2011-12 and 2020-21 in 32 states, the District of Columbia, Guam, Puerto Rico, and the US Virgin Islands (see Figure 1). Three states (MT, WV, WI) reported music teacher shortages each year during this period. Seventeen states (CO, ID, IL, IN, KY, MI, MN, MO, MT, NE, OK, PA, RI, SC, TN, WV, WI) and the District of Columbia reported shortages in 2020-21 alone (US Department of Education [A], 2020-21). The extent of music teacher shortages in most states is difficult to ascertain. Public schools in Illinois, however, reported a steady increase in the number of unfilled positions from 23.8 in 2017 to 51.0 in 2020 (Illinois State Board of Education, 2017–2020).

Figure 1

Music Teacher Shortage in the United States, 2011–12 to 2020–21



As with education in general, schools located in urban and rural areas and that serve high needs students experience music teacher shortages to the greatest extent (Robinson, 2018). Some states (e.g., IL, MO, MT, NV) reported specific needs in elementary and secondary general, vocal, and instrumental music (US Department of Education [A], 2011-12 – 2019-20). A lack of string teachers is a particular concern. Recent data suggests that an estimated 3,027 string teaching positions were available between 2016-17 and 2019-20 at a rate of 757 openings per year. Researchers also noted a lack of male and minority instructors in this area (Smith et al., 2018).

Education Preparation Program (EPP) Completers

The number of EPP completers in music also affects teacher shortage. Between 2011-12 and 2018-19, graduates in music teacher education declined nationwide by an average of 1.2% each year. Average annual decreases occurred in the Northeast (−4.7%) and Midwest (−2.4%). The South showed a slight gain (+1.2%), while the West remained stable (see Table 1). A few states (MA, MD, WV) experienced average losses of 7%–11% per year over the eight-year period. Others (e.g., AZ, NC, NH, NM) reported similar gains in the overall number of EPP completers in music during this same time (US Department of Education [B], 2011-2012 – 2018-19). Average annual fluctuations by region ranged from 7.2% in the South and West to 13.2% in the Northeast, suggesting that some states might experience an inconsistent supply of EPP completers in music from one year to the next. Losses of 2%–4% per year might seem insubstantial. However, many EPP completers will likely not enter the profession and thereby exacerbate the shortages (Cowan et al., 2016). In addition, it is unclear how recent circumstances created by the COVID-19 pandemic will affect the number of incoming teacher candidates, graduates accepting positions in public schools (e.g., Horn, 2020), or the number of inservice teachers leaving the field (Kinl, 2020).

Table 1

EPP Completers in Music, 2011-12 to *2018-19*

Region	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Avg Annual % Incr/Decr	Avg Annual % Fluctuation
Midwest	1761	1745	1681	1660	1557	1477	1433	1476	−2.4	8.1
Northeast	1352	1294	1362	1293	1165	1054	1035	960	−4.7	13.2
South	2694	2517	2775	2585	2523	2321	2359	2842	+1.2	7.2
West	763	756	739	823	723	800	890	735	+0.1	7.2
Territories [a]	47	46	38	34	43	30	34	29	−5.0	18.7
Total	6617	6358	6595	6395	6011	5682	5751	6042	−1.2	6.0

[a] Puerto Rico (n = 300) and Guam (n = 1) were the only US territories to report EPP completers in music.

Only 12.9% of EPP completers in music attained alternative certification between 2011-12 and 2018-19. Of this number, 67.7% were granted by government agencies or other organizations not affiliated with a college or university. States awarding twenty or more alternative certifications in music in 2018-19 included Texas (224), North Carolina (158), California (62), and New Jersey (22) (US Department of Education [B], 2011-12 – 2018-19). Although fewer EPP completers in music attain alternative certification compared with the whole profession, this number might increase in states that continue to experience shortages.

Potential Solutions

The ultimate solution to teacher shortage in all fields is to correct the circumstances contributing to inequalities in P–12 education, poor working conditions and inadequate salaries for teachers, and the low regard for teaching as a profession in some sectors of American society. Although difficult to see today, these circumstances might change as the demand for new teachers begins to dramatically outweigh the supply (e.g., Carlson & Billingsley, 2010). One projection estimated that the shortage could reach 200,000 by 2025 (Garcia & Weiss, 2019). In the meantime, music educators, teacher educators, and policy makers might implement several strategies to increase the number of professionals in the field.

Recruiting Future Teachers

The first step in recruiting music teachers is to identify precollege students who would be good candidates, especially from urban and rural school districts. Future teachers from diverse backgrounds will likely be more willing to work in their communities and bring added cultural competence to the classroom compared to their White middle/upper class counterparts (Ingersoll & May, 2011). They will also act as role models for their students and as such, inspire the next generation of music educators (*Declaration on Equity in Music*, 2018). Hamann and Cutietta

(1996), for example, found that 82% of Hispanic American high school students who showed an interest in majoring in music had a music teacher of the same race and/or gender.

Research has indicated that most first-year college students majoring in education had previous experience working with children (West & Brousseas, 1987). Those majoring in music education specifically often chose to enter the field while still in high school and cited music teachers, positive ensemble experiences, opportunities to teach others, competitions, and summer camps as factors that influenced their decisions (Bergee et al., 2001; Miksza & Austin, 2010; Rickels et al., 2013). Thornton (2015) determined that high school music teachers often actively worked to recruit future music educators by (a) encouraging music development, (b) providing guidance, (c) opening leadership opportunities, and (c) speaking with parents. Few participants in this study, however, had received professional development on recruiting music teachers. Perhaps more sessions on this topic at professional conferences would encourage inservice teachers to be partners in the process.

High school students interested in becoming music educators could assist in their home districts by teaching instrumental or vocal sectionals, co-teaching elementary music classes, or helping with administrative duties of the program. These opportunities would allow precollege students to determine if a career in music education is a good fit (e.g., Miksza & Austin, 2010). Chapters of Tri-M (2020), a national music honor society for secondary students, could facilitate these types of activities through various service projects in their home schools or among younger P–12 students. The organization's sponsor, the National Association for Music Education (NAfME), and state music education associations (MEAs) should continue to examine ways that Tri-M could support and encourage future music teachers through special programs, service projects, and awards. Bergee et al. (2001) found that only 3 out of 23 participants in their study

who were Tri-M members cited the organization as a “significant” or “strong” influence on their decision to major in music education.

Applied instructors can be very influential on undergraduates’ decision to become a music teacher (Bergee et al., 2001) and should make current and perspective performance majors aware of career possibilities in the field. Ideally, an undergraduate student could pursue both performance and music education simultaneously, thus maximizing opportunities after graduation. Schools of music could also provide an introductory course on music education where all majors can explore the profession. Similar classes for high school students at summer music camps might also be an effective means of recruiting new teachers.

Music education organizations can affect recruiting through programs designed for high school students interested in teaching. The Indiana Music Education Association, for example, offers the Future Music Educator’s Colloquium as part of their state conference. This intensive workshop engages high school students in discussions about various levels and types of music programs, music teacher preparation, and the climate and culture of school music in relation to other academic disciplines (Indiana Music Education Association, n.d.).

The Illinois Music Education Association, “in an effort to identify and encourage potential future music educators into the profession,” offers a similar program for students in grades 10–12. Applicants must participate in a recognized, sanctioned music class or activity at their school, receive a nomination from their teacher, and create a video in which they answer questions related to their influential mentors, personal qualities, and reasons for wanting to become a music educator. Although students may attend the Future Music Educators Seminar multiple years, preference is given to first time participants (Illinois Music Education

Association, n.d.). Other MEAs also sponsor programs for future music teachers including those in Georgia, North Carolina, Pennsylvania, and Texas (Councill et al., 2013).

Traditional Preparation

Preservice preparation programs should include coursework in teaching and developing music programs in schools with limited resources. Ideally, all music education classes would address these issues rather than simply illustrate ideal programs in typical suburban schools. In addition to practical considerations related to funding, facilities, and programming for unbalanced ensembles, preservice teachers should address issues related to culturally responsive pedagogy, cultural competence, social emotional learning, and social justice (*Declaration on Equity in Music*, 2018; McKoy, 2020). Field placements in diverse settings will provide opportunities for candidates to enact this knowledge in authentic contexts and to confront preconceived notions related to race, culture, and ethnicity (Powell, 2020).

Music teacher educators might consider offering courses focused specifically on urban and rural education. For example, a January interim course on teaching music in urban schools taught by the author at Calvin College involved a combination of on-campus classes and field experience in the Grand Rapids, Michigan, public schools. Likewise, the National Center for Urban Education (n.d.) at Illinois State University supports faculty in redesigning courses to focus on urban education. A general music methods class designed around this framework by Dr. Kimberly McCord included readings and discussions on issues of race, class, and privilege, as well as teaching at a local elementary school that served low-income children. The course culminated in a two-day fieldtrip to the Chicago Public Schools, where preservice candidates explored culturally relevant pedagogy through lessons in ukulele and Hawaiian culture and

applied what they learned when teaching at a multilingual K–8 public school in the city (K. McCord, personal communication, April 29, 2019).

Preservice teachers with an understanding of urban and rural settings and strategies for overcoming obstacles due to a lack of resources will be more likely to accept positions and succeed in high-needs schools (e.g., Lee, 2018). Matsko and Hammerness (2014) found that teacher preparation centered within a specific environment could provide opportunities for candidates to learn about urban education by moving from global to context-specific aspects. Preservice teachers began by examining federal and state policy as related to urban public schools in general, and then explored characteristics of the local geographic and sociocultural environments, the district, classrooms, and students. The authors suggested that knowledge of these aspects may help deter candidates from forming simplistic generalizations about urban settings and enable them to move beyond cultural stereotypes to discover the nuances of local schools and classrooms to inform their teaching. Likewise, Bates (2011) called for preservice education to better prepare candidates for teaching music in rural schools by (a) breaking down biases among faculty and students, (b) acknowledging that emphasis on Western art music privileges specific groups of people, and (c) helping preservice teachers think critically about the musical needs of rural populations.

The field might be more attractive to candidates from marginalized populations if preparation programs were less Western-centric and allowed students to focus on a wider variety of genres. Taggart and Hill (2020) discussed several changes to music teacher education that could increase diversity including (a) accepting performers of non-Western classical instruments (e.g., computers, electric guitar) and genres (e.g., rock, hip-hop), (b) emphasizing aural and improvisation skills in the audition process, and (c) refocusing music theory, history, and

education courses to include the development of abilities needed to study, perform, and teach musics beyond the Western classical tradition. Candidates completing these programs might be in a better position to connect with underserved students in rural and/or urban schools compared to those from institutions with a heavy emphasis on Western art music (e.g., Bates, 2011).

Alternative Preparation

Ideally, all P–12 students would receive music instruction from fully licensed specialists with appropriate endorsements. However, schools unable to attain a licensed music teacher sometimes resort to hiring one without appropriate credentials (Martin, 2018). Music education programs could consider offering courses and inservice workshops for un/under-licensed music teachers and P–5 generalists assigned to teach music in their classrooms. Providing these opportunities online, on weekends, or during summers would help accommodate those working full-time.

Colleges, universities, and other agencies might help alleviate some teacher shortages by offering an alternative certification in music. Alternative pathways include university-based programs leading to licensure only or to graduate degrees with licensure, and non-university-based programs that lead only to licensure. University-based programs often require an initial degree in music and might count prior teaching experience in lieu of coursework. Non-university-based licensure might not require a degree in music and does not typically involve methods courses and field experience under the tutelage of music education specialists (Goodrich, 2020). Due to their accelerated curricula and limited field experience, non-university-based program completers might not be prepared to contend with classroom management, planning, and assessment (Steadman & Simmons, 2007). Nonetheless, the chance to attain licensure through an alternative program of either type could attract a more diverse pool of music

educators who are willing to serve in high-needs schools and better reflect the demographic characteristics of the students they will teach (Dye, 2018; West & Frey-Clark, 2019).

Some stakeholders may express concern with uncertified or alternatively certified personnel teaching music. They might also perceive efforts to support these educators as an enabling and patchwork approach to solving shortages (Martin, 2018). Perhaps we can draw parallels between fully licensed and un/under-licensed music teachers with professional paramedics and volunteer emergency medical technicians (EMTs). Preferably, every community would have access to emergency medical care from fully trained professional paramedics. However, governments in many rural areas cannot provide paramedics and sometimes resort to volunteer EMTs with less training. Although EMTs cannot perform all the procedures that paramedics can, their communities still benefit from their work. Likewise, P–12 students will benefit from competent music instruction, even from teachers with less preparation than those who completed a Bachelor of Music Education (BME) degree and hold a P–12 licensure in the discipline. Arts administrators and music teacher educators should support these professionals while simultaneously advocating for fully licensed music educators in all schools (e.g., *Declaration on Equity in Music*, 2018).

Partnerships

Universities and P–12 school districts should collaborate to alleviate music teacher shortages. Partnerships benefit preservice candidates by providing opportunities to teach P–12 students, interact with inservice professionals, and practice pedagogical strategies from methods courses. P–12 teachers benefit from new ideas brought by college students and faculty, and the opportunity to serve as exemplars and impart their knowledge and experience to aspiring music educators. College faculty benefit by staying connected to P–12 schools, remaining current with

new curricula and pedagogical techniques, and building relationships with local teachers (Brophy, 2011; Kruse, 2011). Partnerships have also become an important component in EPP accreditation. Standard 2 of the Council for the Accreditation of Educator Preparation (CAEP, 2019), for example, requires EPPs to ". . . ensure[ ] that effective partnerships and high-quality clinical practice are central to preparation so that candidates develop the knowledge, skills, and professional dispositions necessary to demonstrate positive impact on all P–12 students' learning and development." The agency expects accredited EPPs to be involved in every aspect of teacher preparation including (a) admission standards, curriculum, and graduation requirements, (b) selection of P–12 cooperating teachers, and (c) expectations for field experiences.

Partnerships may help alleviate shortages in underserved P–12 institutions. The National Center for Urban Education works with schools in Illinois to enculturate preservice teachers into urban education though paid summer internships that lead to student teaching within partnered districts. Similar initiatives such as the Colorado Center for Rural Education at the University of Northern Colorado work to recruit, prepare, place, and support educators for rural communities (Colorado Center for Rural Education, n.d.). These programs benefit all stakeholders by (a) providing ongoing diverse field experiences for preservice teachers, (b) supplying qualified teachers for underserved schools, and (c) increasing employment opportunities for education graduates. In the absence of university-wide programs, music teacher educators might work to develop similar partnerships on a smaller scale. Excellent P–12 teachers in local urban and rural schools could (a) mentor field experiences (e.g., Kruse, 2011), (b) speak to methods classes live or via an online platform such as Zoom™, and (c) work with college faculty to develop curriculum relevant to diverse P–12 institutions (e.g., CAEP, 2019).

Urban and rural school-university partnerships have the potential to accelerate preservice teachers progress and reduce the potential for culture shock as they enter the profession. These experiences can also nurture dispositions that help candidates feel confident, well-prepared, and members of a school community (Abrahams, 2011; Kindall-Smith, 2004). When effective, on-site teaching of underserved P–12 students has the potential to shatter stereotypes and negative assumptions associated with diverse educational settings (e.g., Kruse, 2011; Soto et al., 2009). As a result, partnerships such as these might encourage EPP completers to consider teaching in urban and rural schools and to remain in these positions long term (e.g., Burstein et al., 2009).

Conclusion

Effective music instruction depends on an adequate and consistent supply of qualified teachers. Unfortunately, many schools in the United States must rely on un/under-licensed educators to provide music for their students (Martin, 2018). Worse yet, administrators might decide to eliminate music from the curriculum when they are unable to hire a certified professional.

Further research should continue to monitor music teacher shortages in the United States as well as (a) the number of preservice candidates who complete EPP programs in music, (b) the rate at which they enter the teaching profession, (c) the types of schools they serve, and (d) the length of their careers in the field. Researchers and practitioners should also add to the literature on (a) music teacher recruiting, (b) preparation for underserved schools, (c) alternative licensure, and (d) effective university-school partnerships. The success and perpetuation of high-quality P–12 music education for all students depends on inservice music teachers, school administrators, college faculty, and government agencies working together to recruit and prepare music educators for all of today's classrooms and those of the future.

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