Number of Ohio's vital school professionals dwindling

Student health, career preparation, art exposure suffer

Victoria Jackson

Introduction and Summary

A recent rule change in Ohio is making it easier to limit children’s access to those essential components of a complete education beyond the traditional subjects of reading, writing, science, math, history and civics.

Until last year, Ohio had in place a rule requiring a minimum level of staffing for music, visual arts, physical education, counselors, librarians, nurses, social workers and visiting teachers. School districts had to have at least five of these eight positions for every 1,000 students. In March 2015, the State Board of Education eliminated this so-called “5 of 8” staffing rule. To understand how these positions were staffed in the 10 years prior to elimination of the rule, we analyzed staffing levels from the 2005-06 to 2014-15 school year.

Over the last decade, even after adjusting for declining student enrollment, trends in educator-to-student ratios have been discouraging. Key findings of this report include:

- Ohio schools have experienced a 12.3 percent decline in visual art, music and physical education teachers when adjusted for student enrollment. Teacher-to-student ratios have grown substantially across the state.
- School librarians were especially hard hit with a decrease of 42.6 percent, or 39.7 percent when adjusted for the decline in enrollment.
- School counselors, nurses, and social workers did not see reductions once declines in enrollment were taken into account, but each has an educator-to-student ratio much higher than recommended by national authorities.
- Declines in arts, music and PE teachers along with other education personnel jeopardize student learning. Research consistently finds that these positions improve student outcomes.

Reductions in K-12 funding have contributed to these findings. For more than a decade, school funding in Ohio has been on a rollercoaster, ending up below where it started when adjusted for inflation. Combined state and local, per-pupil funding in Ohio remained 3.8 percent lower in 2014 than in the recessionary year of 2008, adjusted for inflation. Cuts to K-12 education have meant there is less money available to provide students with the education that fosters well-rounded children who...

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are prepared for higher education and the workforce. Rise and fall in funding levels, coupled with many changes in core funding elements, make restoration uncertain.

To reverse these trends, state lawmakers should look for opportunities to increase revenue to invest in K-12 education – providing resources necessary to ensure optimal student-to-teacher ratios and adequate access to educational service personnel, who include school counselors, school librarians, school nurses, social workers, and visiting teachers, across the state. In addition, the State Board of Education and Ohio General Assembly should implement policies that ensure student access to the education and services provided by art, music, and physical education teachers and educational service personnel.

Ohio’s missing educators

Ohio lost 3,269 “5 of 8” educators from the 2005-06 to 2014-15 school year. Budget cuts, decreases in student enrollment, and weak standards have contributed to the decline in educators. Figure 1 shows the large combined reduction of visual art, music, physical education teachers, school counselors, school librarian media specialists, school nurses, social workers, and visiting teachers.

Some of these positions experienced sharp declines, such as the loss of 637 school librarians. Others have had more modest declines. Beyond reducing student’s access to these educators, the decrease of 3,269 educators represents a loss of jobs in Ohio’s economy.
Poor teacher-to-student ratios in music, physical education, and visual arts

Visual art, music, and physical education teachers are essential. These teachers provide critical academic and developmental education. Research consistently finds that art, music, and physical education improve academic achievement and standardized test scores. These positions were declining prior to elimination of the “5 of 8” rule. Between 2005 and 2014 the number of teachers providing visual art, music or physical education fell by 2,383 positions (see Figure 2).

Table 1 shows the drop in visual art, music, and physical education teachers, which were reduced by 14.1 percent collectively. When adjusted for student enrollment, which fell 4.3 percent during this period, the total reduction in these teachers is 12.3 percent. Across subjects there are similar rates of decline.

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Table 1

<table>
<thead>
<tr>
<th>Years</th>
<th>Art Teachers</th>
<th>PE Teachers</th>
<th>Music Teachers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-2006</td>
<td>6,164</td>
<td>5,825</td>
<td>4,889</td>
<td>16,878</td>
</tr>
<tr>
<td>2014-2015</td>
<td>5,170</td>
<td>5,109</td>
<td>4,216</td>
<td>14,495</td>
</tr>
<tr>
<td>Total Change</td>
<td>-994</td>
<td>-716</td>
<td>-673</td>
<td>-2,383</td>
</tr>
<tr>
<td>Percent Change</td>
<td>-16.1%</td>
<td>-12.3%</td>
<td>-13.8%</td>
<td>-14.1%</td>
</tr>
<tr>
<td>Enrollment-Adjusted Percent Change</td>
<td>-14.4%</td>
<td>-10.5%</td>
<td>-12%</td>
<td>12.3%</td>
</tr>
</tbody>
</table>

Source: Policy Matters Ohio; Ohio Department of Education Advanced Reports

Figure 3 shows the visual art, music and physical education teacher-to-student ratios for the 2014-15 and 2005-06 school years. The ratios are higher in 2014-15 than in 2005-06 for every subject. This means that Ohio students now have less access to these educators, even when adjusting for enrollment declines.

Source: Policy Matters Ohio; Ohio Department of Education Advanced Reports

Art Teachers
The “5 of 8” rule for visual art teachers only applied to K-8 schools; we review art teacher staffing for all grade levels. Art teachers declined by 16.1 percent over a 10-year period, as shown in Table 1, a 14.4 percent drop when adjusted for enrollment. This reduction of 994 art teachers means fewer art classes for Ohio students. For example, 49 school districts, or 8 percent, did not report student enrollment in art courses for 1st through 12th grade in 2012-13, and the number of school districts reporting grade levels without enrollment in the arts was increasing. There was one art teacher for every 287 students during the 2005-06 school year. By 2014-15, there was one art teacher for every 326 students, a 13.6 percent spike. Art education is crucial to learning, fostering creativity, relieving stress, and providing enjoyment. Ohio’s children will suffer because our policies have limited this essential subject.

Art is recognized as an important component of 21st century learning by leaders from many areas. In his State of the State speech, Governor John Kasich advocated for inclusion of art education at STEM schools, which are designated by the Ohio Department of Education for specialization in science, technology, engineering, and math; rigorous, inquiry-based learning; and partnerships with colleges. Inclusion of art would lead to a STEAM designation for schools that significantly incorporate arts. Governor Kasich said, “Any student who's going to succeed later in life, including someone choosing a technical career, is going to need creative skills and know how to apply critical thinking… Those skills are best developed by exposure to the arts.” These schools would be known as STEAM, or science, technology, engineering, art, and math.

At the national level, the President’s Commission on the Arts and Humanities, an advisory committee to the White House on cultural issues, did an in-depth research review on benefits of art education and challenges to providing it. The commission found that art education improves academic achievement and creativity, and helps the private sector. A longitudinal study from the 1990s showed that low-income students who participated in art education were four times more likely to have high academic achievement and three times more likely to have high attendance than those who did not. On average, arts-engaged low-income students tend to perform more like higher-income students. Beyond academic achievement, art is a pathway to understanding other cultures for students. Art in schools gives student a way to express themselves and can spark career aspirations in the arts.

Music Teachers

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2 Ohio Alliance for Arts Education. Ohio Alliance for Arts Education, 2013. OAAE’s analysis is based on Education Management Information System data from ODE. Analysis was considered preliminary as the data had not been verified by school districts. OAAE found that some of the data led to further questions that it did not have the opportunity or resources to have answered. OAAE believes its findings about arts courses, enrollment, and number of arts teachers are more accurate than the findings about whether a certain school district provides arts at a particular grade level.


From the 2005-06 to 2014-15 school year, music teachers decreased 13.8 percent, from 4,889 teachers to 4,216, a 12 percent drop after adjusting for enrollment. Figure 3 shows that music teacher-to-student ratios were higher than other positions. Teachers are juggling more students than in the past: One teacher for every 362 students in 2005-6 and one for every 400 in 2014-15, a 38 student spike. Fewer music teachers means less opportunity to learn instruments and to explore other cultures. When less music education is offered, students also miss out on critical developmental and academic benefits.

Music education boosts student ability in heavily tested subjects such as reading. Neuroscience research finds that music training is a predictor of phonological awareness, important to early reading skills.6 Music education has been shown to increase children’s other neurological abilities such as spatial temporal skills, which helps students solve multistep problems in architecture, engineering, math, art, gaming, and computer science.7 In addition to academic benefits, music has personal benefits, allowing students to have fun, be creative, express themselves and build self-discipline.8

**Physical Education Teachers**

During the 10-year period we examined, physical education teachers were reduced by 12.3 percent (10.5 percent adjusted for enrollment) from 5,825 to 5,109, as shown in Table 1. Physical education teachers have the smallest absolute increase in teacher-to-student ratio of 26 students from 1:304 to 1:330, which is an 8.5 percent increase. This means students have less access to physical education and the important role it plays in development and education.

According to the Ohio Department of Education, the goal of physical education is to develop students with the knowledge, skills and confidence to enjoy a lifetime of healthy physical activity.9 Research shows that physical activity for children increases cognitive ability and academic achievement.10 Physical education is important for physical and mental health.11 The U.S. Department of Health and Human Services recommends children and adolescents participate in 60 minutes of physical activity every day.12 Chronic illnesses linked to physical inactivity such as asthma and diabetes are increasing in children.13 For students who can’t do after school sports, exercise during school hours may be their

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6 President’s Committee on the Arts and Humanities, May 2011.
10 Centers for Disease Control and Prevention. The association between school based physical activity, including physical education, and academic performance. Atlanta, GA: U.S. Department of Health and Human Services; 2010
main source of physical activity. Physical education classes are a structured and guided way for students to learn about and gain the significant health benefits associated with physical activity.

Personnel-to-student ratios lag well behind recommended levels

Although educational service personnel are not in front of the classroom, the services they provide are vital to preparing and supporting students for learning. These roles are particularly helpful for students from marginalized backgrounds. The support they provide is shown to increase achievement for all students, but particularly for low-income students, students of color, and students with disabilities.14 The large number of students these professionals are expected to serve is concerning. Standards from education organizations or government agencies show that these educators are being stretched thin.

The educational service personnel (“ESP”) included in the eliminated “5 of 8” staffing rule have all seen drops in staffing levels to varying degrees. Figure 4 depicts the decline. The bulk of the loss is from the plunge of 637 librarians – 71.8 percent of all positions lost.

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http://www.bepress.com/bejeap/contributions/vol5/iss1/art11
Table 2 shows the overall reduction of educational service personnel was 13 percent, 8.7 percent after adjusting for enrollment. The sharp decline in librarians is the major cause of the overall decline in ESPs.

Figure 5 depicts the statewide ESP-to-student ratio for the 2005-06 and 2014-15 school years. The number of students per librarian has increased from 1,186 to 1,969 in just ten years. On the other
hand, social worker- and nurse-to-student ratios have improved slightly. Counselor-to-student ratios are almost the same.

For more context, Figure 6 shows Ohio ratios compared to ratios recommended by government agencies or education organizations. All of the positions exceed recommended ratios.
School Counselors: From 2005-06 to 2014-15, the number of Ohio’s school counselors dropped by 188, or 5.1 percent. Adjusted for enrollment, the decline is 0.3 percent, as shown in Table 2. The American School Health Association recommends a counselor-to-student ratio of 1:250 (see Figure 5). Figure 5 shows a slight increase in Ohio’s school counselor-student ratio from 1:482 to 1:484 -- 1.9 times higher than recommended (figure 6). According to the American School Counselor Association, for the 2013-14 school year, the national school counselor to student ratio was 1:491.

School counselors help students, parents and teachers make plans and decisions about education, career and personal development. Nationally, 68.4 percent of recent high school graduates, enrolled in a 2-year or 4-year college. As demands on counselors increase because of greater emphasis on college and career readiness, it is essential that counselors are able to give all students individual attention.

Because of their training, counselors also play a critical role in addressing disparities in school discipline. Research shows that black students are disproportionately targeted for discipline, despite similar rates of misconduct. A 2012 Children’s Defense Fund report on zero-tolerance policies in Ohio found that black children are 5.2 times more likely to be suspended than white students and

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black students with an emotional disability are more than 10 times more likely to be suspended than white students without disabilities.  

A 2006 study by Susan Carrell, found that when the student-to-counselor ratio was adjusted from 1:544 to 1:250, as recommended, students experienced less exclusionary discipline, which dropped 7.4 percent. For black students in general, black male students, and students eligible for free and reduced lunch, reductions were above 9 percent. The threat that school counselors could be decreased further is worrisome given their already strained ratios.

**School Librarian Media Specialists**

From 2005 to 2015, school librarian media specialists (we’ll short-hand this as “librarian”) decreased by a staggering 42.6 percent (39.7 percent after adjusting for enrollment), shown in Table 2. The National Center for Education Statistics School Staffing Survey found that only 63.9 percent of Ohio schools with library media centers had at least one full-time, paid, state-certified librarian. In the remaining libraries, 16.1 percent had just a part-time paid certified librarian, and 20.1 percent had no paid, state-certified librarian at all. That meant the average librarian served 1,969 students during the 2014-15 school year. Figure 5 shows, this is significantly worse (1.7 times higher) than the ratio of 1: 1,186 for 2005-06.

Librarians play an important role in education, especially in our information-driven economy. Licensed school librarian media specialists are important for student achievement. Schools with full-time licensed librarians have average test scores that are significantly higher than schools without. These professionals help students develop 21st century skills needed for higher education and the workforce – like information retrieval and evaluation. Librarians help students develop skills and interest in reading and play a critical role in building digital literacy and critical thinking skills.

Liz Deskins, Library Media Specialist at Hilliard Bradley High School and current Ohio Educational Library Media Association President, describes the situation in Ohio schools:

> “Over the last few years, Ohio has seen a marked decline is licensed school library media specialists in buildings. Many districts use one licensed person for the entire district, filling in

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https://www.umass.edu/schoolcounseling/uploads/brief5.3.pdf


23 ibid.


Vital school professionals eliminated

with paraprofessionals or even volunteers. Because school librarians are not mandated by the State, districts can decide whether to have a highly qualified school librarian or some other teacher to fill a shortage place. Some counties may not have a single licensed school librarian. It is our students and faculty who suffer by not having someone trained to teach information literacy, recognizing when information is needed and how to locate, evaluate, and use the needed information effectively, efficiently, and ethically.” 27

School Nurses
Table 2 shows over 10 years, the number of school nurses has held nearly steady with a minor reduction of 1.5 percent. Adjusted for enrollment, school nurses have increased by 3.5 percent. Figure 5 shows the nurse-to-student ratio improvement. Still, the nurse-to-student ratio in Ohio was significantly higher than the U.S. Department of Health and Human Services recommended ratio of one nurse to 750 students. 28 Figure 6 shows Ohio’s 2014-15 ratio was 1.9 times higher than recommended. In the Michigan School Nurse Task Force Summary Report 2012, Ohio was ranked 32nd highest in statewide nurse-to-student ratios. 29

The role of the school nurse is important. School nurses, who are licensed as a registered nurse, provide medical care for all students in a school, especially students with chronic illnesses. School nurses are often the healthcare providers that students see on a regular basis. 30 Over recent decades, the incidence of chronic illnesses, such as asthma, diabetes, epilepsy and food allergies, have increased in school-aged children. 31 For example, 8.6 percent of children in the country have asthma, according to the Centers for Disease Control, and the percentage is higher for students of color, low-income students and students in urban areas. 32 School nurses help children manage serious medical conditions. 33 When nurses are stretched thin by serving large numbers of students, it means that insulin and other serious medical treatments are administered by nonmedical professionals. Medical care may not be as consistent, adequately monitored, or timely, if nurses are working in multiple school buildings.

27 Deskins, Liz. Interview with Liz Deskins, Library Media Specialist at Hilliard City School and President of the Ohio Educational Library Media Association, October 27, 2016.
Additionally, nurses improve school outcomes. Student attendance and academic success are better with appropriate staffing of school nurses. A 2012 study found that when a nurse is present a principal gains an hour per day and a teacher gains 20 minutes to focus on education. The same study found that increased school nurse staffing resulted in improved immunization rates, vision correction, and identification of life-threatening conditions for students.

**Social workers**

There are very few school social workers in Ohio - just 377 in 2005-06, and just 372 last year. While the number of social workers fell slightly (1.3 percent), they’ve actually increased slightly (3.7 percent) when adjusted for enrollment. Figure 5 shows that the social worker-to-student ratio improved, from 1: 4,702 to 1: 4,537 between 2005-06 and 2014-15. This is far worse than the American School Health Association’s recommendation of 1 to every 800 students. The 2014-15 ratio was 5.7 times higher than AHSA’s recommendation.

Social workers prevent and solve personal, social and emotional problems with family, school and community relationships. Despite their limited number statewide, social workers provide vital services. Research on childhood and adolescent mental health found that 18 to 20 percent of students have mental health issues significant enough to impair major life functions. School is often the first place where student mental health issues are recognized. For many students, especially students of color, with disabilities, or from low-income families, school social workers are the sole source of mental health services. In a 2008 survey of school social workers, only 11 percent reported that all or most of the students in their caseloads received counseling or therapeutic services outside of school. Childhood trauma now affects the majority of children in Ohio. As measured by the Adverse Childhood Experiences survey, 1.3 million Ohio children have experienced one or more type of traumatic experience. For many of these children, divorce is the main struggle, but others have experienced neglect, violence, and other more troubling events. Social workers are needed to address this trauma.

**Visiting teachers**

Visiting teachers work with pupils experiencing difficulty with school adjustment. They are a vanishing group; there were only 7 during the 2014-15 school year, down from just 45 a decade earlier. It’s an 83.7 percent enrollment-adjusted drop, although this position has not been a huge presence in Ohio. Visiting teachers are included in the data analysis, but we don’t graph this since the numbers are consistently small and most districts do not staff the position.

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35 ibid.
37 ibid.
The overall level in staffing of health and mental health providers is distressing. Research confirms the critical role these educators play in elementary and secondary education. As student challenges and the demands of the 21st century economy increase, it is imperative that Ohio schools meet the needs of students and provide an education that serves the whole child.

Cuts to K-12 education are one culprit behind staffing declines
School funding in Ohio has been weak and inconsistent, rising in 2009 through 2011 and falling sharply in 2012-13. There have been four different funding formulas in four budget periods. A school business official responding to a 2015 Policy Matters Ohio survey observed: “The inability to provide a sound forecast past the current biennium budget is a very poor way to conduct business, yet that is the way we must operate in public schools.”

Today, Ohio’s spending on K-12 education remains slightly below what it was a decade ago in inflation-adjusted numbers. The decrease means there is less money to provide children with the education we know creates a well-rounded child, who is prepared for postsecondary education and the 21st century workforce. Uncertainty around state funding prevents restoration. Combined state and local, per-pupil funding in Ohio remained 3.8 percent lower in 2014 than in the recessionary year of 2008, adjusted for inflation. This is in part because of slow recovery of property values in many places in the state. Schools in places that with weakened economies are not able to rebuild staffing and program to pre-recessionary levels. Restoration in state funding was not sufficient to boost recovery in lagging areas.

For example, in 2014-15, slightly more than a third (35 percent) of schools responding to a Policy Matters Ohio survey reported rehiring non-teaching staff, but 30 percent reported ongoing cuts. At the same time, almost half the respondents were rehiring teachers and 32 percent were cutting. Many districts are faced with deciding which staff students can do without. Staff considered less essential to meeting test standards are not getting restored. School systems are weakened. The longer they remain weakened, the more children are affected.

Policy recommendations
Elimination of the “5 of 8” staffing rule examined in this report is a blow to public education. Without this rule at the state level, local school boards can now decide how many of these positions they want to provide students without any minimum standards. When districts face financial pressures, it is likely they will cut these positions further. As important as the “5 of 8” rule was, the standard was not a high one. Research has consistently shown that these educators improve student outcomes. Ohio generally falls short of national recommendations for staffing these roles. The State Board of Education and Ohio General Assembly should ensure students have access to the education and services provided by art, music and physical education teachers and educational service

40 ibid.
42 ibid.
personnel by creating improved mandates for these positions. The Ohio General Assembly should increase state funding for K-12 education to support new requirements.

- Ohio General Assembly should stabilize the funding formula with an understanding that this one will be in place for a longer period of time than a two-year budget.
- K-12 funding should be increased to better support restoration of teachers and other educators and increase per pupil spending.
- The State Board of Education should implement strong staffing standards requiring school districts to staff visual art, music and physical education teachers. It should also mandate strong staffing standards for licensed school counselors, school librarian media specialists, school nurses and social workers. These standards should ensure, at a minimum, that these positions are not serving any more students than they served in 2005-06.
- Over time, Ohio should increase the number of nurse, counselor and social workers by determining appropriate ratios in consultation with educators and with standards established by national experts. A gradual phase-in accompanied by state funding should be used to increase staffing levels to meet the needs of students. In particular, this applies to the U.S. Department of Health and Human Services recommendation that one school nurse serve no more than 750 students.

Appendix

Methodology
To describe the staffing situation of the “5 of 8” teaching and educational service personnel, we used data on Ohio public schools, including charter schools, from the Ohio Department Education’s Advanced Report Card. The data for visual art, music and physical education teachers is based on courses taught, so one individual teacher is listed multiple times for each course taught. Duplicate records of teachers were removed to count each teacher once. If a teacher is recorded as teaching a course in two or more subjects, the teacher is counted as a teacher in each subject. We calculated the absolute change and percent change for each school year from 2005-06 to 2014-15. To determine the percent change for enrollment, we found the educator-per-100,000 student rate for each position for the initial and final year, and described the change.

In many districts, ESPs do not work full time at one school building; instead they work part time in different buildings. Also, some ESPs are recorded as working more than full time with full-time equivalents of up to four. For instance, a staff member may be counted as having a full-time equivalent of greater than one when multiple buildings count their part-time status as full-time. To account for the multiple records of one staff person at more than one school, each ESP was counted as one person regardless of their number of hours. Whether each individual staff member is counted or the full-time equivalents of all staff members are totaled, the numbers used to describe the number of educators available to students is similar.
Results

We calculated total change and percent change in visual art, music and physical education teachers and counselors, nurses and social workers in both traditional public and charter schools from 2005-06 to 2014-15. The percent change was adjusted for student enrollment, which decreased by 4.3 percent. We combined the teacher groups (art, music, PE) and the librarians, counselors, visiting teachers and nurses in a second category that is often referred to as educational service personnel (ESP). These are the adults who support health, mental health and college and career readiness. We looked at educator-to-student ratios for each position for the entire state, using student enrollment from the Advanced Report Card from 2005-06 and 2014-15 school years. The ratios are used to compare Ohio to best practice standards. Visiting teachers work with pupils who are struggling with school adjustment and help integrate school and community services. There were only seven visiting teachers across the state for the 2014-15 school year. Because of their small number, information on visiting teachers is only included in tables; graphics and ratios were not created for this position. The teacher and educational service personnel-to-student ratios used were the same counts used in the absolute change and percent change calculations.

Enrollment

Over the period analyzed, Ohio’s student population has changed. Ohio Department of Education’s data shows that student enrollment fell 4.3 percent from the 2005-06 to 2014-15 school year. The declines stem from a lower birth rate, especially after the recession, and small net migration out of the state. Ohio has been losing 1,500 students annually since 1995. The share of students in suburban schools grew and the share attending large urban high poverty districts and rural and small town districts fell. Charter schools, included in the analysis, have had rapid and substantial increase in students since their inception in 1998.

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45 ibid.