

AN EXTRA MEASURE OF SUCCESS: THE RELATIONSHIP BETWEEN EXTRACURRICULAR FUNDING AND SCHOOL PERFORMANCE

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Abstract

Extracurricular funding is an increasingly contentious topic in education policy. With tightening school budgets and an increasing emphasis on specialization, many districts have begun to cut extracurricular activity funding in order to preserve their core curricula. Though testimonial evidence and academic studies indicate that extracurricular activity leads to improved performance in school, the question of funding still remains. This study examines whether an increase in extracurricular funding leads to improved school performance. The initial hypothesis was that extracurricular funding is positively correlated with school performance; however, this study ultimately finds that large gaps in the data and research make it impossible to prove or disprove the hypothesis. The study concludes with a call for further research and improved data gathering in this area.

Introduction

The 1955 movie *Mr. Holland's Opus* tells the story of a traveling musician and aspiring composer who turns to teaching to pay the bills for his growing family. The movie follows his thirty-year career of teaching music classes, directing bands, and working individually with students to help them with their musical pursuits. During this job, Mr. Holland tries to find time to pursue his true passion: composing a symphony. However, most of his time is spent investing in young musicians and helping them to hone their craft. When the school's principal decides to cut the music program in response to a new reduction in the school's budget, Mr. Holland is forced to retire. He leaves feeling as though the decades spent at the school were a waste because he was never able to finish the symphony he had always wanted to compose.

On his way out of the school for the last time, Mr. Holland finds his way to the school's gym, where students and faculty have organized a surprise retirement party. Current students and alumni alike have found their way to this gathering to celebrate all that Mr. Holland had done for them. One of the first students he ever helped individually, Gertrude Lang, is now governor of the state. She takes the stage and gives a touching speech about the impact Mr. Holland had made on her life and how her time working with him on the clarinet helped her in more ways than just musical performance. She then invites Mr. Holland to the stage to direct an orchestra composed of both his current and past students, all of whom have learned the symphony he was composing all the years he was a teacher. This touching gesture suggests that his opus was not the piece of music itself—but the lives he impacted (Cort et al., 1995).

This movie perfectly reflects the debate over extracurricular funding. An exchange between Principal Wolters and Mr. Holland near the end of the movie synthesizes the arguments on both sides of the issue. While explaining his decision to cut the music program, Principal Wolters states, "I care about these kids as much as you. If I'm forced to choose between Mozart and reading and writing and long division, I choose long division." Mr. Holland responds, "Well I guess you can cut the arts all you want, Gene. But sooner or later these kids aren't going to have anything to read or write about" (Cort et al., 1995). As the movie infers, extracurricular activities have been positively linked to improved school performance (Craft, 2012; National Center for Education Statistics, 1995). As Gertrude Lang and the other students attested, Mr. Holland helped them in ways core classes could not by building confidence and giving them something to care about in school. But who can blame Principal Wolters for prioritizing core subjects such as reading, writing, and arithmetic when making difficult budgeting decisions.

Many school administrators are faced with the same predicament as Principal Wolters when setting their budgets for the school year. When considering the question of extracurricular funding, schools should seek to determine which programs are most effective. This study examines whether an increase in extracurricular funding leads to an improvement in school performance, specifically in K-12 education. The hypothesis of this study is that an increase in extracurricular funding leads to improved school performance. To test the hypothesis, this study will quantitatively analyze primary and secondary data gathered by school districts and the National Assessment of Educational Progress (NAEP) and will qualitatively analyze the argument for the benefits of increased accessibility.

Literature Review

The literature addressing the relationship between extracurricular activities and school performance is relatively uniform in its conclusions. Participation in extracurricular activities has been positively associated with nearly all traditional indicators of successful school participation (attendance, academic achievement, aspirations to continue education past high school, etc.) (Craft, 2012; National Center for Education Statistics, 1995). Freeman (2017) reached such a conclusion in his study measuring academic achievement through composite American College Test (ACT) scores and cumulative grade point averages throughout high school. Lamborn, Brown, Mounts, and Steinberg (1992) similarly found that the more extracurriculars students participated in, the more academic success they enjoyed.

There are many theories as to the cause of this correlation. Some authors contend that extracurricular activities teach discipline and work ethic that can be applied to school. Combined with the close contact and relationships created with teachers and advisors who participate as coaches or faculty sponsors, this helps to create “positive academic orientations among participants” (Lamborn et al., 1992, p. 167). Other authors say that, while discipline and commitment may be positive side effects of extracurriculars, a more significant, necessary, and practical benefit is the fact that extracurriculars fill up time when students are likely to act irresponsibly and get into trouble (Snellman, Silva, & Putnam, 2015). This school of thought says extracurriculars keep students from doing drugs or making other compromising decisions that may lead to poor performance in school and put them at a disadvantage in life (Snellman et al., 2015).

Most of the studies on this issue are aimed towards furthering the debate over extracurricular funding; however, they do little more than demonstrate a relationship between participation in extracurricular activities and improved school performance on the part of the student (Craft, 2012; Snellman et al., 2015). While these studies may have been intended to provide evidence of the importance of

funding extracurricular activities, they did not successfully demonstrate that an increase or decrease in budget would alter the relationship between extracurriculars and academic success. They merely demonstrated the value of extracurricular activities to the individual. Instead of performing a cost-benefit analysis of School District X's spending on extracurricular activities, they studied the relative success of students who engage in extracurriculars as compared to those who do not. This distinction makes the current research less compelling for budgetary action, as it does not necessarily demonstrate a return on investment.

Some studies cited accessibility as a crucial aspect of extracurricular activities and showed that students of lower socioeconomic status were less likely to participate in extracurriculars (National Center for Education Statistics, 1995; Snellman et al., 2015). Accessibility is generally determined by budget, as a school may decrease extracurricular offerings or increase the cost of the offerings in order to compensate for the lack of funding. This disproportionately affects students of a lower socioeconomic background (often minorities) and therefore deprives some students of the potential benefits of extracurricular activities (Snellman et al., 2015). The argument of accessibility can be inferred from the National Center for Education Statistics's (NCES) 1995 study on extracurriculars as well, which shows that less affluent schools have slightly less engagement in extracurriculars and that students of lower socioeconomic status also participate less in extracurriculars.

No study appears to address the question of whether the amount of funding for extracurriculars in a school's budget affects school performance; the studies only show that extracurriculars in general have a positive effect on performance in school. Thus, most of the research on this issue provides the theoretical foundation for the hypothesis that extracurricular funding is positively related to school success but does not actually address it. The existing research on extracurricular funding demonstrates only that the hypothesis of this research paper is plausible. It does not, however, specifically address the issue of funding as it pertains to school success.

Data and Methods

The working definition of extracurricular activity is any activity offered by a school or school district, academic or non-academic, that is not a part of the core curriculum or offered for credit. Extracurricular activities can include band, choir, sports, various clubs, and more. In order to operationalize the concept of school performance, this study will analyze the Nation's Report Card scores of 8th graders. This study seeks to specifically address K-12 education, so the 8th grade is an appropriate year for a sample, as students have completed just over two-thirds of their K-12 education at that point. This study will compare the variation in extracurricular funding found in school districts' budgets to the average 8th grader's

score on the math and reading tests on the Nation's Report Card. This study will also assess the qualitative argument from accessibility.

The difficulties with this study lie in the budgets themselves. Many schools do not have a category for extracurricular activities in their budgets. Others dedicate funds to specific categories of extracurriculars, such as the Chicago Public School district's appropriation for Sports Administration and Drivers Education (Chicago Public Schools, 2015). This makes it difficult to gain an accurate picture of extracurricular funding trends as a whole. This study will consider appropriations like the one made by the Chicago Public Schools as representative of extracurricular funding as a whole in the district. Additionally, it will compare extracurricular funding to the funding of "essential programs" such as math and science in order to account for other significant variables that may impact school performance.

The Chicago Public Schools and Houston Independent School District will serve as case studies. These districts were chosen for their geographic diversity, size of enrollment, and size of budget. These districts' geographic differences, combined with their size, will allow for greater socioeconomic and ethnic diversity. The districts' budget sizes will allow for larger variations in funding which, if the hypothesis is correct, should lead to noticeable variations in school performance.

Research

Chicago Public Schools

The Chicago Public Schools' budget does not include an appropriation for "extracurricular activities" across the board. They break down their budget by departmental spending in their Department Narratives Overview. In 2013, the Chicago Public Schools allocated \$16,340,222 to the Sports Administration and Drivers Education department. In 2014, they appropriated \$11,617,733, and in 2015, they appropriated \$17,023,724 (Chicago Public Schools, 2015). Over the same three-year period, the Department of Science received \$910,403 (2013), \$826,702 (2014), and \$744,513 (2015) and the Department of Mathematics received \$1,767,253 (2013), \$1,604,724 (2014), and \$1,454,218 (2015) (Chicago Public Schools, 2015).¹ Funding for the Departments of Math and Science consistently decreased over these three years, while extracurricular funding increased (with the exception of 2014). The Department of Literacy's budget increased over the same three-year period, going from \$2,831,643 in 2013, to \$3,533,243 in 2014, to \$5,057,121 in 2015 (Chicago Public Schools, 2015).

¹ The departments of science and math were separated in 2015. The numbers in this study are approximate numbers except for the ones in 2015.

On the NRC, Chicago's 8th grade math scores steadily increased from an average of 254 in 2003 to a score of 270 in 2011 (The Nation's Report Card, 2018a). Between 2013 and 2015, the average math score spiked from 269 to 275 (The Nation's Report Card, 2018a). Over the three-year period of decreasing funding for math and science and somewhat consistent funding for extracurricular activities, the test scores actually increased by 6 points (The Nation's Report Card, 2018a). This spike in performance coincided with an erratic spending trend for extracurriculars. Notably, the budget for extracurriculars increased from 2013 to 2015, thus correlating with the increase in success. On the reading portion, Chicago's 8th grade scores went from 248 to 259 from 2003-2017, with the largest jump (253 to 257) coming between 2013 and 2015 (The Nation's Report Card, 2018a). This data correlates perfectly with the sharp spike in funding that was observed for their Department for Literacy. The budget nearly doubled during the spike in average reading score, a trend that most researchers would expect (The Nation's Report Card, 2018a).

Chicago's Public Schools run a deficit every year and are deeply in debt. This affects the way the district spends money (The Nation's Report Card, 2018a). The district cut math and science budgets every year for three years, but their scores on the NRC continued to increase. One of the only budget items during this period that did not sustain consistent cuts was the Department of Sports Administration and Drivers Education. However, the average scores on the NRP reading tests increased alongside a significant increase in the Department of Literacy's budget. This correlation supports the theory that programs improve with increases in funding. If extracurricular funding plays a significant role in school success, the average scores on the reading portions should be even higher. The correlation of extracurricular funding and literacy funding should have super-charged the improvement. There is, however, a weak correlation between extracurricular funding and school success in the Chicago Public School system.

Houston Independent School District

The Houston Independent School District includes co-curricular and extracurricular activities as a line item (Houston Independent School District [HISD], 2016). This can be contrasted with the money designated for "Instruction." HISD appropriated \$11,697,384 for extracurricular expenditures in 2016-17, \$15,478,434 in 2017-18, and \$16,157,960 in 2018-19. For "Instruction," they appropriated \$1,010,583,212 in 2016-17, \$1,047,496,903 in 2017-18, and \$1,000,417,027 in 2018-19 (HISD, 2016; HISD, 2017; HISD, 2018). Extracurricular funding steadily increased over the three-year period while instruction remained relatively even.

On the NRC, Houston's 8th graders increased 16 points in math (from 264 to 280) between 2003 and 2013; however, they declined in 2017, going from 280 to 273 (The Nation's Report Card, 2018b). Although the data from 2017-2019 is still

being collected, it is worth noting that this drop came during a major increase in extracurricular funding combined with steady instructional funding. While there is incomplete data about extracurricular activity funding prior to 2016, a trend is apparent. This trend does not correlate with the available data on school performance in math.

In reading (8th grade), from 2003 to 2007 scores jumped from 246 to 252. The scores stayed at 252 from 2007 to 2015, then dipped back down to 249 in 2017 (The Nation's Report Card, 2018b). As with the math scores, these drops came during a time of increased extracurricular spending and steady instructional spending. Extracurricular funding is not correlated with performance on this test either.

A Qualitative Approach: The Argument from Accessibility

Another argument for increased funding is based on accessibility. Some children's families cannot afford to pay for involvement in extracurricular activities. This disproportionately affects students of a lower socioeconomic background, depriving some students of the potential benefits of extracurricular activities (Snellman et al., 2015). Thus, some say more funding is needed to ensure that those students of lower socioeconomic status can also benefit from extracurricular activities. For instance, if a club or sports team charges a fee of \$50 for equipment, transportation, and other miscellaneous needs, some children may be unable to participate.

The lack of participation by students in lower socioeconomic brackets leads to worse school performance overall. Excluded students are less able to build discipline and to foster relationships with teachers and are left with a potentially dangerous amount of unsupervised time (Snellman et al., 2015; Lamborn et al., 1992). Children with lower socioeconomic status do not engage in extracurriculars as much as those from higher socioeconomic backgrounds, and they also do not perform as well in school (National Center for Education Statistics, 1995; Snellman et al., 2015).

Essentially, the argument is that increased extracurricular funding mitigates this disparity in involvement and performance by allowing students of lower socioeconomic status to participate in extracurricular activities more easily. An increase in participation from those students would lead to an improvement in school performance (Craft, 2012; National Center for Education Statistics, 1995). This would improve overall school performance because students from higher socioeconomic backgrounds already participate in extracurriculars, and those from lower socioeconomic backgrounds would be improving in the same way. This increase from the lower performers would raise the average, and thus make the school perform better as a whole.

While this theory is coherent, it does contain flaws. The argument assumes that accessibility necessarily translates into participation; however, this is not necessarily

the case. There is no guarantee that making clubs and extracurricular activities less cost-prohibitive will lead to greater engagement. Another counter argument posits that socioeconomic status has more impact on school performance than any other factor and thus serves as an intervening variable. Under such an argument, both school performance and extracurricular activities would merely be functions of socioeconomic status, not of each other. Others object that the accessibility argument is based on an atomistic fallacy. Indeed, the argument for accessibility contends that the results of increased (or decreased) funding that are observed on an individual level will carry over to the aggregate level.

Conclusion

This study set out to examine the effect of extracurricular funding on school performance. Unfortunately, there are many factors that make it difficult to arrive at an accurate, valid, and representative conclusion. Only two school districts published data on the amount of funding dedicated to extracurricular activities. Such a small number of available case studies calls into question the validity of any possible findings, and holes in the argument from accessibility leave that hypothesis unverifiable.

Another factor that makes it difficult to reach a definitive conclusion is the multiplicity of variables that contribute to school success. Extracurricular funding is merely one of many important variables that lead to improved school performance. There is no way to control for all of the possible intervening variables, making it impossible to infer causality from any of the observed correlations. Some variables have a larger impact than others and can be directly correlated to this success, but extracurricular funding has not been demonstrated to be one of these variables. While extracurricular involvement has been shown to lead to significant improvement in school on the individual level, an increase in extracurricular funding cannot be attributed with the same success. Whenever a spike in extracurricular funding coincides with a spike in school performance, there are typically a bevy of other variables that could just as likely claim responsibility for the success. That is not to say that extracurricular funding has no effect on success; rather, there may be other variables that have a more significant effect on success. It is nearly impossible to isolate extracurricular funding and contrast it against other budget items, as it generally fluctuates at the same rate as other line items. The vast amount of variables and the lack of readily available data lead to a high degree of uncertainty when discussing extracurricular funding's impact on school success.

Additionally, many school districts do not make a separate designation for extracurricular funding, which suggests that extracurricular activities are not a priority for the school boards and officials in charge of education policy. This gap

in data leads to a chicken-or-the-egg dilemma, in which it is unclear whether extracurricular activities are largely disregarded in budgeting because they are unimportant or whether they are viewed as unimportant simply because they are disregarded. The lack of research on the issue suggests that it may be the latter. Either way, the lack of funding designated to extracurricular activities in school budgets unfortunately means that no thorough answer can be concluded based on this research.

The accessibility argument is somewhat attractive given the state of statistical research on this topic. If extracurricular activities have been shown to lead to increased school success on an individual level (Craft, 2012; National Center for Education Statistics, 1995), then making extracurricular activities more accessible should lead to an increase in school performance in general. This argument can especially be applied to students of lower socioeconomic status. Those students who are not financially capable of engaging in costly extracurricular activities would benefit from increased funding because they would not have to pay for the activities. Increased funding and decreased costs would encourage them to participate in these extracurricular activities, allowing them to reap the same benefits as other students. That being said, the flaws discussed earlier make this theory somewhat unstable and unreliable for public policy discussions.

Ultimately, reaching a conclusive answer would require further research to fill the gaps in the data. Extracurricular funding may be a factor in school success, but the existing data cannot determine the extent to which it is a driving factor. The argument from accessibility is similarly unconvincing due to the lack of supporting data. But while the question of extracurricular funding's impact on school performance may not be answerable with the existing data, the impact of extracurriculars on individual lives will be felt forever. As *Mr. Holland's Opus* demonstrates, sometimes the value of the most meaningful moments simply cannot be measured.

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