

A Report by

THE CENTER FOR ARTS EDUCATION

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STAYING IN SCHOOL

Arts Education and New York City
High School Graduation Rates



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About

The Center for Arts Education is committed to stimulating and sustaining quality arts education as an essential part of every child's education in the New York City public schools. CAE provides tools and resources to deliver quality arts learning for all children. Our innovative teaching and learning programs—fostering collaboration with teachers and school leaders, cultural and community organizations—help build arts-infused school communities. Our advocacy initiatives educate policymakers and the public about the value of arts education as an essential ingredient in a quality education and a fundamental part of children's overall health and well-being.

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EXECUTIVE SUMMARY

In New York City, the cultural capital of the world, public school students do not enjoy equal access to an arts education. In fact, in schools with the lowest graduation rates—where the arts could have the greatest impact—students have the least opportunity to participate in arts learning.

This report takes the first ever look at the relationship between school-based arts education and high school graduation rates in New York City public schools. The findings, based on data collected by the New York City Department of Education (DOE), strongly suggest that the arts play a key role in keeping students in high school and graduating on time.

In several national studies over the past decade, students at risk of dropping out cite participation in the arts as their reason for staying in school.

The failure of public high schools to graduate students in four years has been a persistent problem in New York City and is a central concern for educators and policymakers across the nation. Once the worldwide leader in education, the United States is falling behind other countries in a number of educational categories, none of which is more troubling than high school graduation rates.

In several national studies over the past decade, students at risk of dropping out cite participation in the arts as their reason for staying in school.¹ Research has also shown that arts education has had a measurable impact on at-risk youth in deterring delinquent behavior and truancy problems while also increasing overall academic performance.² **Despite these known benefits, as the findings of this report confirm, New York City public school students at schools with the lowest graduation rates have the least access to instruction in the arts.**

Analyzing data from more than 200 New York City schools over a two-year period, this report shows that schools in the top third in graduation rates offered their students the most access to arts education and the most resources that support arts education.³ Schools in the bottom third in graduation rates consistently offer the least access and fewest resources. This pattern held true for nine key indicators that convey a school's commitment to arts education. The findings are summarized below.

Summary of Findings

Certified Arts Teachers

High schools in the top third of graduation rates had almost 40 percent more certified arts teachers per student than schools in the bottom third—or, on average, one additional arts teacher per school.

Dedicated Arts Classrooms

High schools in the top third of graduation rates had 40 percent more physical spaces dedicated to arts learning per student than schools in the bottom third.

Appropriately Equipped Arts Classrooms

High schools in the top third of graduation rates had almost 40 percent more classrooms appropriately equipped for the arts than schools in the bottom third.

Arts and Cultural Partnerships

High schools in the top third of graduation rates had fostered 25 percent more partnerships with arts and cultural organizations than schools in the bottom third.

External Funds to Support the Arts

High schools in the top third of graduation rates were 45 percent more likely to have raised funds from external sources to support the arts than schools in the bottom third.

Coursework in the Arts

High schools in the top third of graduation rates had almost 35 percent more graduates completing three or more arts courses than schools in the bottom third.

Access to Multiyear Arts Sequence

High schools in the top third of graduation rates were almost 10 percent more likely to offer students a multiyear sequence in the arts than schools in the bottom third.

School Sponsorship of Student Arts Participation

High schools in the top third of graduation rates were more likely to have offered students an opportunity to participate or perform in one or more arts activities than schools in the bottom third.

School Sponsorship of Arts Field Trips

High schools in the top third of graduation rates were more likely to have offered students an opportunity to attend an arts activity, such as a theater performance, dance recital, or museum exhibit, than schools in the bottom third.

These findings suggest that increasing students' access to arts instruction in schools with low graduation rates can be a successful strategy for lifting graduation rates and turning around struggling schools, not just in New York City, but nationwide.

And while the central focus of the report is arts education at the high school level, the benefits that participating in arts learning imparts to students are just as pronounced in the lower grades. In fact, for students to benefit fully from high school arts instruction, it is critical that they acquire the increased level of knowledge and understanding that comes with coursework in earlier grades.

Thirteen years ago, the New York State Education Department (NYSED) established a set of rigorous learning standards and regulations that confirms the value of instruction in the arts—music, dance, theater, and visual art—for all students, K through 12.

According to data provided in the New York City Department of Education's *Annual Arts in Schools Reports*,⁴ however, the great majority of schools in New York City are out of compliance with these state mandates—in fact, only 8 percent of elementary schools and less than half of middle schools make the grade.

This study also points to unequal access to arts education in city high schools based on socioeconomic background, race, or ethnicity. Schools with the lowest graduation rates had a higher percentage of poor, black, and Latino students than schools with the highest graduation rates. This secondary association could be an indication of an inequitable system that sustains educational and income disparities and is worthy of further study.

Our analysis, which associates arts education and graduation rates by school rather than by individuals, buttresses our ongoing argument that arts education is an essential component of K through 12 public school education. The recommendations in this report reflect our vision of quality arts education for all students and the glaring need to address the deficiencies and inequities that exist throughout the system.

In addition to calling on high school principals to expand course offerings in all four arts disciplines so that students can at least meet the minimum graduation requirements, the report urges the New York State Education Department to ensure compliance with the state standards and regulations currently in place.

The recommendations also call for the city to restore Project Arts, a policy initiative created in 1997 that guaranteed a minimum amount of funding for arts education in every school. Restoring this initiative could once again serve to catalyze the hiring of certified arts teachers at schools, the purchasing of instruments and supplies, and the fostering of arts education partnerships with the city's rich array of arts and cultural organizations at all schools.

These and other key arts-friendly policies summarized on the following page and presented in detail in the Recommendations section can help ensure greater access to an arts education for New York City public school students and play a key role in addressing the city's graduation crisis.

Summary of Recommendations

Expand Course Offerings in the Arts

- High school principals should expand course offerings in the four arts disciplines.
- The New York State Board of Regents and the State Education Department should review the graduation requirements and examine the benefits of increasing the minimum requirement to three arts courses.

Expand Student Access to the City's Cultural Arts Sector

- The city should implement policies and dedicate resources to ensure that all students have access to the city's cultural arts sector.

Ensure All Schools Have Certified Arts Teachers

- Every school should have at minimum one certified arts teacher on staff.
- The city should expand to arts teachers the existing financial incentives to attract and retain certified teachers in high-needs areas.
- The city should support and expand approaches for sharing arts teachers and teaching artists among small high schools.
- The New York State Education Department should create an expedited certification program for non-arts subject area teachers to attain certification in any the four recognized arts forms.

Require Adequate Classroom Space for Arts Instruction

- The city should require that all schools provide adequate space for arts instruction. The formula used for determining a school's capacity should reflect this requirement.
- The city should conduct an inventory of classrooms utilized for arts instruction, including a survey of the number and former use of arts spaces that have been repurposed. These spaces should be reclaimed for arts instruction.
- Arts spaces should be incorporated into the design and construction of all future school facilities.

Dedicate Resources to Support Arts Instruction

- Principals should be held accountable for spending funds received through the Project Arts budget line exclusively on arts education.

Ensure School Compliance with Existing State Regulations for Arts Instruction

- The New York State Education Department should conduct a thorough and periodic audit of compliance with the New York State education regulations for the arts and develop a comprehensive intervention program for districts and schools out of compliance.
- The New York State Education Department, City Comptroller, or other government entity should conduct an investigation and issue a public report on New York City high school compliance with graduation requirements.

INTRODUCTION

The national graduation crisis has reached epidemic proportions.⁵ More than one million students across the United States drop out of high school each year.⁶ Moreover, nearly one third of all high school students, and nearly half of all African Americans, Latinos, and Native Americans, fail to graduate from public high school on time.⁷

The crisis is especially pronounced in New York City, where the four-year graduation rate for the class of 2008 was a dismal 56 percent. Of that class, the graduation rates for Latino and African American students were 49 percent and 51 percent, respectively. In contrast, White and Asian students graduated with rates of 72 percent and 74 percent, respectively.⁸

While students fail to finish high school for myriad reasons—ranging from socioeconomic issues to a lack of interest in the curriculum—in a recent national survey of ethnically diverse high school dropouts, more than half of the respondents said that the major reason for dropping out of high school was that they felt their classes were uninteresting and irrelevant.⁹

It should be noted that some students who do not graduate in four years eventually receive their diploma. On the other hand, more than 20 percent of the class of 2007 were “discharged”—that is, removed from the city’s enrollment rolls without officially dropping out or graduating.¹⁰

The consequences of the graduation crisis are both painful and sustained. Dropouts are much more likely than graduates to be unemployed or living in poverty, in prison or on death row, unhealthy, divorced, or single parents with children who drop out of high school themselves. These outcomes are particularly evident in New York City, where one in every five young people is out of school and out of work.¹¹

Studies attest to the success of strong arts programs as a means to prevent the disengagement that usually predicts dropping out.¹² Arts education has a measurable impact in deterring delinquent behavior and truancy problems, and students at risk of not successfully completing their high school education cite their participation in the arts as a reason for staying in school. The opportunity for students to engage in the arts—through bands and choruses, dance and theater productions, exhibitions of their original art, and publications of original literary and visual work—has always been a strong motivator for students and can play a key role in tackling the graduation crisis.

The findings in this report reinforce the observation that the arts help keep students interested in school and on the path to graduation.

In a recent national survey of ethnically diverse high school dropouts, more than half of the respondents said that the major reason for dropping out of high school was that they felt their classes were uninteresting and irrelevant.

The Economic Benefits of Graduation

By virtually every economic measure, high school graduates are better positioned to lead successful adult lives than those who fail to receive their diploma.¹³ According to *Cities in Crisis 2009*, a comprehensive analysis of the economic impact of the graduation crisis, earning a diploma increases the likelihood of steady employment by 30 percent and cuts the chances of experiencing poverty in half. The median income for someone without a high school diploma was slightly more than \$17,000 annually in 2005, compared to the median income for high school graduates of almost \$27,000.¹⁴ Over their lifetimes, graduates earn an estimated \$1 million more than high school dropouts.¹⁵

High school graduation impacts not only individuals but also the nation and the economy as a whole. Graduates contribute more to the tax base and take less public assistance than students who drop out.¹⁶ The Alliance for Excellent Education, a national policy and advocacy organization that works to increase graduation rates, estimates that if the students from the class of 2009 who dropped out had graduated, the nation's economy would have benefited from nearly \$335 billion in additional income over the course of their lifetimes.¹⁷

The Power of Arts Education

According to U.S. Secretary of Education Arne Duncan, “The arts can help students become tenacious, team-oriented problem-solvers who are confident and able to think creatively. These qualities can be especially important in improving learning among students from economically disadvantaged circumstances.”¹⁸

There is growing evidence that the arts contribute to learning across disciplines and to the thought process itself. In March 2008, the Dana Foundation released a series of studies, conducted by leading neuroscientists from six prestigious universities, demonstrating a “tight correlation” between exposure to the arts and improved skills in cognition and attention for learning.¹⁹ At a symposium in May 2008 at Johns Hopkins University, several scientists showed evidence of the “near transfer” from one part of the brain to another of measurable learning and attention abilities attained through arts learning experiences.²⁰

These recent findings are reinforced by a body of work that highlights the positive impact of arts learning on student achievement and academic success.²¹ In a well-regarded U.S. Department of Education study that

examined data for 25,000 middle and high school students, students who were highly involved in the arts performed better on standardized achievement tests than those with little or no involvement in the arts.²² Moreover, the students involved in the arts participated in more community service, watched fewer hours of television, and reported less boredom in school.²³ The College Board found that students engaged in arts learning for all four years of high school scored substantially higher on the SAT than students with six months or less training in the arts—58 points higher on verbal and 38 points higher on math.²⁴

“The arts can help students become tenacious, team-oriented problem-solvers who are confident and able to think creatively. These qualities can be especially important in improving learning among students from economically disadvantaged circumstances.”

— Arne Duncan, U.S. Secretary of Education

Engaging At-Risk Youth

Studies show that access to arts education in school offers distinct benefits to economically disadvantaged youth and students at risk of dropping out.²⁵ An 11-year national study that examined youth in low-income neighborhoods found that those who participated in arts programs were much more likely to be high academic achievers, be elected to class office, participate in a math or science fair, or win an award for writing an essay or poem.²⁶

According to a multicity U.S. Department of Justice study, arts programming not only increased academic performance of those students involved in the project, but also decreased juvenile delinquency and drug use, increased self-esteem, and led to more positive interactions with peers and adults.²⁷

Students themselves have attributed many of the benefits realized through arts education to the increased interaction with caring and supportive arts instructors and educators, as well as to an increase in self-esteem and sense of achievement gained through the learning opportunities.²⁸ Once students experience success in arts classes, they are better able to understand the benefits and the process of the hard work that goes into all learning.

THE STATUS OF ARTS EDUCATION IN NEW YORK CITY PUBLIC SCHOOLS

At the beginning of the 2007–08 school year, the New York City Department of Education introduced *ArtsCount*, an initiative aimed at enhancing arts education in New York City public schools. A centerpiece of this initiative was the development of a series of metrics on the arts education taking place in city schools. As part of this effort, in spring 2007, the DOE released the first ever citywide *Annual Arts in Schools Report* for the 2006–07 school year,²⁹ along with individual reports for each school. That was followed by a second *Annual Arts in Schools Report* for the 2007–08 school year several months later.³⁰

The reports, based on surveys completed by principals toward the end of the school year, have provided the most comprehensive reporting on arts education in New York City public schools in recent memory. They make clear that access to arts education in public schools is far from universal. While some schools offer enviable arts programs, many have little to no arts education whatsoever—no art teachers on staff, no classrooms dedicated to the arts, no partnerships with arts or cultural organizations, and minimal student participation in any of the four required art forms.

The DOE's Office of the Arts and Special Projects has been actively providing information and resources to help schools that are underserved in the arts. While many schools have made great strides, comparing data from the two *Annual Arts in Schools Reports* reveals year-over-year declines in several key arts education areas:

- Nearly 30 percent of schools had no certified arts teacher on staff in 2007–08—up from 20 percent the previous year.
- Principals allocated a smaller percentage of their budgets to arts education in 2007–08—shrinking to less than 2.9 percent on average.

- Principals spent more than half a million dollars less on services provided by art and cultural partners in 2007–08 compared to the previous year.
- There was a 63 percent decline in spending on arts supplies and equipment in 2007–08 over the previous year—a reduction of nearly \$7 million.

These year-over-year declines correspond to a decision by the current administration to all but eliminate a successful program that ensured that a minimum level of arts funding was being allocated at all schools on a per-pupil basis. The program, Project Arts, created in 1997, was a catalyst for hiring certified arts teachers, purchasing supplies, securing services of arts education providers, and encouraging private contributions to match public dollars. In 2007, categorical funding provided through Project Arts was folded into a school's overall budget and principals were no longer required to spend these funds on the arts.

Perhaps most troubling, the *Annual Arts in Schools Reports* revealed that the great majority of the city's public schools were failing to meet the minimum state requirements for arts education as set by the New York State Education Department and outlined in Part 100 of the Regulations of the Commissioner of Education.³¹

The regulations require that all elementary schools offer instruction in four arts disciplines (visual arts, music, theater, dance) to every student; that middle school and high school students complete a least one full unit of study (two courses/credits) in the arts; and that each public school district provide high school students the opportunity to complete a three- or five-unit arts sequence.

These requirements are complemented by recommended guidelines, developed by NYSED to ensure that students receive a balanced curriculum,³² and *New York State Learning Standards* for the arts that express the educational goals for dance, music, theater, and the visual arts.³³

The state requirements for arts instruction have **the effect and power of law**, yet lack of compliance with these educational mandates is widespread throughout the New York City public school system. According to the *Annual Arts in Schools Reports*, at the **elementary and middle school levels**, for example:

- Only 8 percent of elementary schools reported providing annual arts instruction in all four arts disciplines as per state requirements, an improvement from 4 percent the previous year (2007–08 report).
- Only 29 percent of middle school students met the state arts education requirement (completion of two half-unit arts courses) (2006–07 report).
- Less than half of middle schools reported that all students had met state education requirements for the arts (2007–08 report).

The lack of compliance reported by the DOE was confirmed by the New York City Public Advocate's office through a 2008 survey of 100 randomly selected public elementary and 50 randomly selected public middle schools.³⁴ The Public Advocate's survey results show that:

- Only 7 percent of elementary schools surveyed offered instruction in all four arts disciplines as required by state regulations.
- Sixty-eight percent of elementary schools and 47 percent of middle schools surveyed offered only one or two arts disciplines.

- Seven percent of elementary schools and 9 percent of middle schools surveyed had no arts education at all.

The state requirements for arts instruction have the effect and power of law, yet lack of compliance with these educational mandates is widespread throughout the New York City public school system.

Arts in New York City High Schools

The NYSED high school graduation requirements are minimal for the arts: the completion of one unit (two credits) in the arts over the course of a student's high school career. In New York City, one unit is defined as 180 minutes per week throughout the school year, or the equivalent. It is recommended that the instruction be provided by a teacher certified to teach the particular subject area.

State regulations also require that each school district offer the opportunity to complete a three- or five-unit sequence in the arts. As of 2009, students who complete five units in a single art form and successfully complete the exit exam in that art form are eligible to receive a Regents Diploma with Advanced Designation in the Arts.³⁵

While providing New York City students with the minimum of two courses over four years should not be onerous, neither the 2006–07 nor the 2007–08 *Annual Arts in Schools Report* states explicitly whether or not schools were meeting the requirements. The two reports do, however, provide the following information, which tracks the regulations most closely:

- Seventy-nine percent of high schools offered instruction in two arts disciplines, 38 percent in three art forms, and 27 percent in all four arts disciplines (2007–08 report).
- Twenty-nine percent of high schools offered at least one three- or five-year sequence in the arts (2006–07 report).

- Forty-six percent of students in 2006–07 and 32 percent in 2007–08 exceeded the state requirements by completing three or more arts courses (2006–07; 2007–08 reports).
- Eighty-two percent of high schools had at least one certified arts teacher on staff (2006–07 report).

The following section takes a more in-depth look at the data for high schools in the two *Annual Arts in Schools Reports* issued to date. Specifically, it looks at the relationship between the data provided on the arts in schools and graduation rates at city high schools.

Review of the reports and data presented above raised additional questions pertaining to city high schools that fall outside the scope of this report but are worthy of further study. Specifically, how are schools without certified arts teachers on staff ensuring that the *New York State Learning Standards*, requirements, and guidelines are being met? To what degree are students meeting the requirements through the “credit recovery” process, whereby students are given credits that count toward graduation for special projects or work done in lieu of coursework? Also worth examining is the steep decline (33 percent year-over-year) in the number of graduates who completed three or more arts courses.

OUR STUDY: ARTS EDUCATION AND NEW YORK CITY GRADUATION RATES

This section examines the relationship between graduation rates at more than 200 New York City public high schools and the arts education provided at those schools.³⁶ It is based on an independent analysis of data compiled by the New York City Department of Education for the *Annual Arts in Schools Reports* for the 2006–07 and 2007–08 school years and graduation rate data provided separately by the DOE as part of the reporting on school *Progress Reports*.

The schools in the analysis are those for which data were available from both the arts reports as well as on graduation rates. The schools were not identical for both school years, as data for some schools were not available for both periods.³⁷ The analysis included a total of 189 New York City high schools from the 2006–07 school year and 239 from the 2007–08 school year. Because the *Annual Arts in Schools Reports* do not report on after-school, weekend, or summer arts education, all data are based on arts instruction offered during the school day.

Each year's set of schools was grouped into three tiers according to graduation rates—low, middle, and high—with roughly equal numbers of schools in each tier.³⁸ We then looked at the relationship between graduation rates and the nine arts education indicators described below. Due to the wide variation in the size of high schools in New York City, we present the data for several of the indicators as a ratio of the indicator per 1,000 students, a number that roughly corresponds to the average student population of 1,152 at the schools analyzed in this report.³⁹

Arts Indicators

The following nine arts education indicators are key components of the DOE's *Annual Arts in Schools Reports* and were selected for analysis in this report because they are fundamental measures of a school's ability and inclination to deliver arts education to its students.⁴⁰

We report the indicators—divided into two categories, Resources and Access—as follows:

Resource Indicators

- **Certified Arts Teachers** (reported as full-time certified teachers per 1,000 students)
- **Dedicated Arts Classrooms** (reported as dedicated arts rooms per 1,000 students)
- **Appropriately Equipped Arts Classrooms** (reported as appropriately equipped arts rooms per 1,000 students)
- **Arts and Cultural Partnerships** (reported as average number of partnerships per school)
- **External Funds to Support the Arts** (reported as percentage of schools raising any outside funds to support the arts)

Access Indicators

- **Coursework in the Arts** (reported as percentage of graduates per school who completed three or more arts courses)
- **Access to Multiyear Arts Sequence** (reported as percentage of schools where any arts sequences were offered)
- **School Sponsorship of Student Arts Participation** (reported as percentage of schools that offered an opportunity for students to participate in one of the reported activities)
- **School Sponsorship of Arts Field Trips** (reported as percentage of schools that offered an opportunity for students to attend one of the reported activities)

Results and Discussion

The findings for all nine indicators analyzed here are summarized in [Table 1](#). For each indicator, schools in the high graduation tier showed a greater commitment to arts education than schools in the low graduation tier. Schools in the middle tier also provided greater access and more resources to support arts education than schools in the low graduation tier across all indicators.

For two indicators (school sponsorship of arts participation and sequential arts offering), schools in the middle tier were slightly more arts-friendly than schools in the high tier.

Following is a more in-depth look at the data and results for each of the nine indicators, with a brief discussion of the findings as well as the significance of the measure. Results are reported for both the 2006–07 and 2007–08 school years, and also a two-year average.

An expanded table with additional information (e.g., average school size, attendance rates, demographic information, etc.) can be found in the [Appendix](#).

Resource Indicators

Certified Arts Teachers

The presence of certified arts teachers on a school's staff is a key indicator of a high school's commitment to arts education. Arts teachers provide students and the school with the expertise necessary to provide quality instruction in the arts and create a school community that values arts education.

In addition to traditional classroom arts learning, many schools deliver arts instruction through interdisciplinary, or integrated, learning opportunities that utilize the talents of a wider array of school staff. While this approach has great value and has long been supported by The Center for Arts Education, the hiring of certified arts teachers signals a school's engagement with arts education, and the arts teachers are often the locus of interdisciplinary teaching in school.

Many small high schools do not have the resources, space, or size of student population to support a full-time certified arts teacher on staff, or an adequate array of faculty in general. This is a continuing challenge faced by the city's small schools. To a limited degree there already exists a sharing of staff amongst schools, and artist

Table 1.

ARTS EDUCATION INDICATORS AND HIGH SCHOOL GRADUATION RATE COMPARISON

(Two Year Average: 2006–07 and 2007–08)

Arts Indicator	Graduation Tier		
	Low	Middle	High
Full-time Certified Arts Teachers/ 1,000 Students	2.9	3.9	4.0
Dedicated Arts Classrooms/ 1,000 Students	3.5	4.6	4.9
Appropriately Equipped Arts Classrooms/1,000 Students	4.2	5.4	5.8
Average Number of Arts and Cultural Partnerships	2.0	2.3	2.5
Schools that Raised External Funds to Support the Arts (%)	38.5	53.0	56.0
Graduates Who Completed Three or More Arts Classes (%)	38.0	47.5	51.0
Schools Offering Multiyear Arts Sequence (%)	39.0	44.0	42.5
School Sponsorship of Student Arts Participation (%)	92.0	96.5	96.0
School Sponsorship of Arts Field Trips (%)	92.5	94.0	95.5

residencies have been used in many schools to great effect. However, the development of flexible staffing structures to further address these challenges is necessary and should be encouraged.

High schools and middle schools are required to provide students with arts instruction by a certified teacher, and NYSED recommends that those teachers be certified in the art form they are teaching. As reported by the DOE, in 2006–07 only 82 percent of New York City high schools had certified arts teachers on staff.⁴¹ Additionally, according to NYSED arts is considered to be a shortage area for teachers statewide, with New York City being the area with the highest needs in the state.⁴²

Due to the variation in high school size in New York City, for this report we looked at the number of full-time certified arts teachers at each school for every 1,000 students. A higher ratio of teachers to students can enhance learning in the arts, as in other subject areas, by allowing for more focused efforts by the teacher and one-on-one interaction between teachers and students. The city's larger high schools require multiple certified art teachers, perhaps one in each art form, to provide the requisite instruction to all their students. While part-time certified teachers are also an important part of a school's arts program, the DOE provided school-level data related to part-time instruction for only one of the two school years, so this measure was not included in our analysis.

As illustrated in **Figure 1**, schools in the high graduation tier had more full-time certified arts teachers on staff per student than schools in the low graduation tier. This holds true across both school years surveyed. The high tier had four certified arts teachers for every 1,000 students and the low tier had fewer than three certified arts teachers for every 1,000 students. According to the two-year average, schools in the high tier had 38 percent more arts teachers than those in the low tier—or one additional arts teacher for every 1,000 students.

Dedicated Arts Classrooms

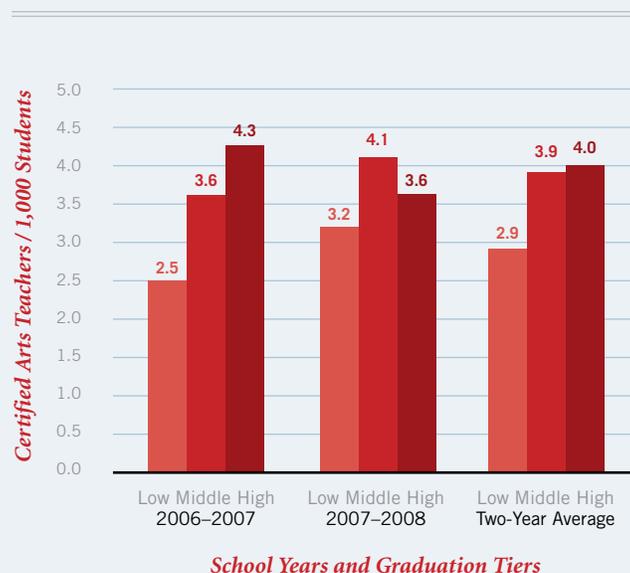
High-quality equipment in arts classrooms, as in libraries, gyms, and science labs, supports quality teaching and learning. It is nearly impossible for an arts teacher to deliver quality arts programming if required to move from room to room with supplies in a cart, which is the reality in many schools across the city. Likewise, inadequate facilities hamper quality teaching and learning and lead to substandard student learning.

Based on the 1997 test results of the National Assessment of Education Progress (NAEP), widely considered the “gold standard of educational assessment,” the U.S. Department of Education found that students performed better in the arts when they were taught in proper arts spaces.⁴³

The size, configuration, specialized equipment, and features required for art classrooms are unique for each art form. Dance requires open space for movement. Visual arts require space for students to create, view, and store projects, as well as access to sinks and water. Music and theater require rehearsal and performance space, as well as proper storage space for instruments, sheet music, lights, and props. These particular needs

Figure 1.

CERTIFIED ARTS TEACHERS AND GRADUATION RATES



make it essential to design and furnish appropriate facilities during school construction and renovation. Leaders in the field of arts education, as well as school design experts, have recommended that each school have at least one dedicated arts space for every 400 to 500 students.⁴⁴

“The spaces and facilities available in schools to teach the arts are good indicators of the level of commitment to arts education.”

—U.S. Department of Education,
1997 NAEP Arts Report Card

A dedicated arts classroom is a classroom used solely for arts instruction or performance. The DOE recognizes that “the ideal physical environment for arts learning is one that is dedicated to the arts discipline and appropriately and comfortably equipped with the specific equipment and supplies needed to optimize students’ experience.” According to the 2007–08 *Annual Arts in Schools Report*, however, 59 percent of school leaders reported the lack of available in-school arts space as a challenge to providing arts education—the most frequently cited challenge after funding (75 percent).⁴⁵

As illustrated in **Figure 2**, students in the schools with the lowest graduation rates had the fewest rooms dedicated to arts learning. More specifically, according to the two-year average, schools in the high tier had one and a half more dedicated arts rooms per 1,000 students than schools in the low tier, or 40 percent more classrooms dedicated to the arts.

While our data-reporting method is not designed to compare different school years, from **Figure 2** it appears that schools reported having more dedicated arts spaces in 2007–08 than they did in 2006–07. The anomaly could be due to the slightly larger sample size in 2007–08, which could have included schools with more arts classrooms, or a data or reporting inconsistency between the two years. With principals reporting the need to convert dedicated spaces for the arts and other subjects to general classroom use due to school overcrowding,⁴⁶ it is unlikely, although not impossible, that the data reflect an actual growth in the number of spaces dedicated to the arts.

Appropriately Equipped Arts Classrooms

In the absence of dedicated spaces, rooms equipped to serve the art form but shared with other subject areas can be effective uses of space and resources, and if tailored appropriately, can be adequate substitutes for many, but not all, arts classes. The DOE classifies classrooms that have the materials and equipment needed to teach the art form as appropriately equipped classrooms, whether or not they are used for this purpose or are shared with non-arts subject areas. According to the DOE, dedicated and appropriately equipped spaces are not mutually exclusive; the *Annual Arts in Schools Reports* survey advised school leaders that rooms can be both dedicated and appropriately equipped.

As demonstrated in **Figure 3**, schools in the high tier of graduation rates had 38 percent more appropriately equipped classrooms than those in the low tier. There were 4.2 appropriately equipped classrooms for every 1,000 students in schools in the low graduation tier compared to 5.8 for every 1,000 students in schools in the high tier, according to the two-year average.

Figure 2.

DEDICATED ARTS CLASSROOMS AND GRADUATION RATES

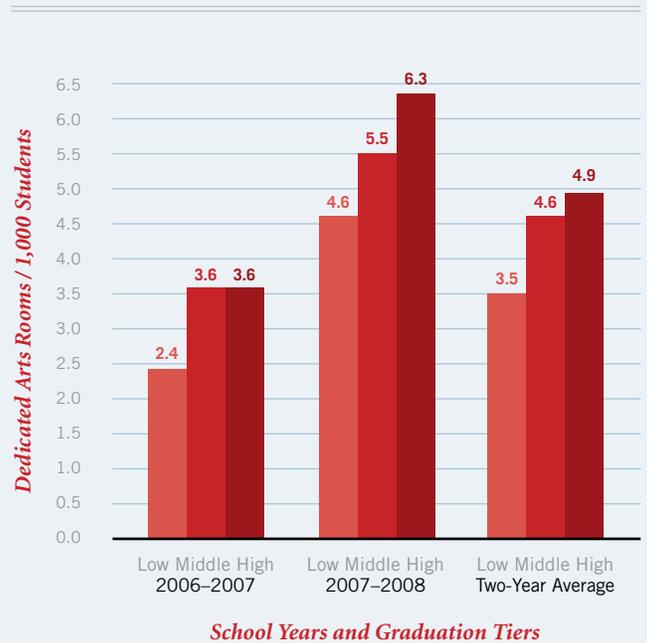
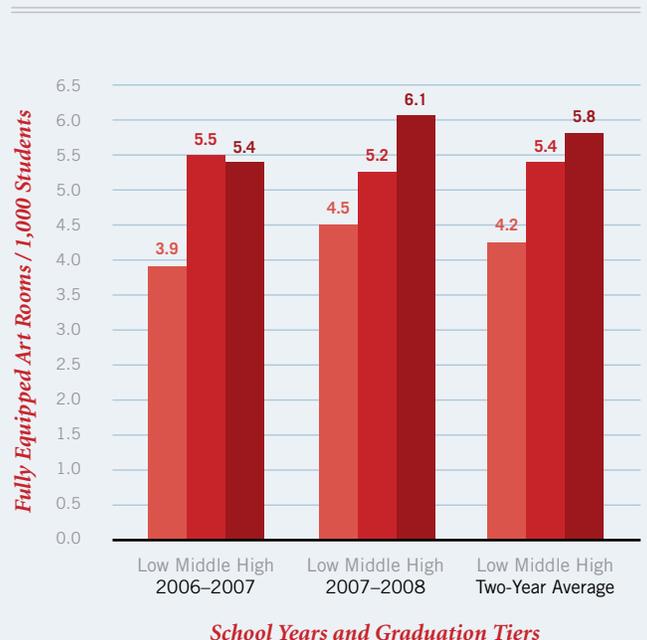


Figure 3.

APPROPRIATELY EQUIPPED ARTS CLASSROOMS AND GRADUATION RATES



Arts and Cultural Partnerships

One of the benefits of living and attending school in New York City is access to its vibrant arts and cultural sector. In addition to having opportunities to see live performances and visit museums, many students attend schools that partner with arts or cultural organizations.

Partnerships between schools and outside arts and cultural organizations deepen not only arts learning opportunities for participating students but also learning across curriculums. Often the school and cultural partner collaborate to design and implement programs where the partner comes into the classroom to lead sequential sessions around a particular theme that enhance and enrich the classroom curriculum.

When such partnerships become an integral part of a school's vision, learning through experiences with arts and cultural institutions becomes an energizing force in the school community. Successful partnerships also echo beyond the school walls as students and staff are connected to community resources in new and engaging ways. Unfortunately, not all students have equal access to these partnerships.

It is commonly understood that such partnerships vary widely, from a single workshop serving a single class to a yearlong, multifaceted design that serves multiple classes in multiple grades. While the DOE provided information to help describe the nature of these partnerships on an individual school basis, the information was either not suitable for the type of analysis conducted in this report or the data provided were not consistent over the two years.

Figure 4 displays the results of the analysis of the number of cultural partnerships into which each school has entered. As the figure illustrates, schools with the highest graduation rates on average forged 25 percent more partnerships with cultural organizations per school than those with the lowest graduation rates.

External Funds to Support the Arts

School expenditures for arts education are often augmented by contributions from external sources, such as parents, local businesses, government agencies, or corporate or private foundations.⁴⁷ The funds raised from external sources can be spent in many ways, including hiring additional part- or full-time teachers and teacher's

Figure 4.

ARTS AND CULTURAL PARTNERSHIPS AND GRADUATION RATES



aides, creation of school-based after-school programs, financing school trips to museums and other cultural centers, or helping to subsidize partnerships with arts organizations, to name a few. While the ability of schools to raise outside funds is partly dependent on the ability of parents to contribute, it also reflects the resourcefulness and determination of school leadership to engage outside entities to support the arts in school.

According to the *Annual Arts in Schools Report* for 2006–07, on average schools raised \$12,650 from external funding sources, with the highest percentage coming from Parent-Teacher Associations (20 percent). As there were significant flaws in the school-by-school reporting of the dollar amount raised, this analysis focuses solely on whether or not any funds were raised from outside sources.

As illustrated in Figure 5, schools in the high graduation tier were 45 percent more likely to have raised funds from external sources to support the arts than schools in the bottom tier. According to the two-year average, only 38.5 percent of schools in the low tier raised any outside arts funding, while 56 percent of schools in the high tier raised outside funds during that time frame.

As mentioned above, the level of money raised from outside sources in many ways reflects parental engagement and wherewithal to make financial contributions. Schools with students from wealthier backgrounds generally raise more money and have more resources at their disposal to supplement their budgets. In poorer communities, parents generally raise less. This disparity in what schools can offer students ultimately translates into more limited in-school and after-school programming and instruction for low-income students—pointing to the importance of minimum requirements and funding mechanisms to ensure that the mandates are met *during the school day*.

Some view such minimums as unwarranted bureaucratic hurdles or restrictions on principal autonomy. The inequities evident throughout the city testify to the critical necessity of minimum requirements and dedicated funding lines, because they establish an equitable floor for minimum student participation in the arts and ensure the accountability of school leaders for providing balanced, standards-based arts education for all students.

One third more students took three or more arts classes at schools with high graduation rates than did students in schools with low graduation rates.

Access Indicators

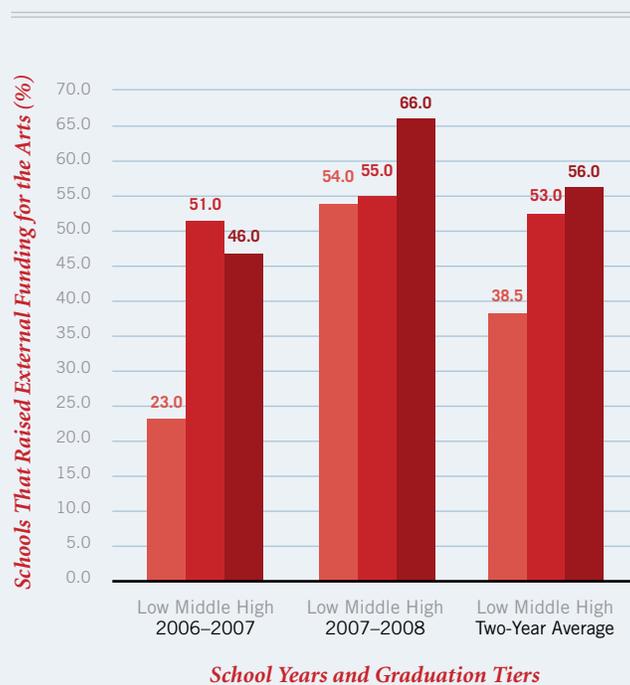
Coursework in the Arts

A variety of arts courses signals a robust high school arts program. While smaller schools face limitations, the city's larger high schools are expected to offer students multiple classes in most disciplines. New York State regulations require one unit of credit, the equivalent of two classes (108 total instructional hours), in the arts in order to graduate, but many students choose to exceed those requirements when, and where, offered the opportunity.

As illustrated in **Figure 6**, on the following page, students in schools in the low graduation tier are significantly less likely to have taken three or more arts classes before they graduated than their peers in schools in the high tier. Specifically, over the two-year average, one third more students (34 percent) took three or more arts classes at schools with high graduation rates than did students in schools with low graduation rates.

Figure 5.

EXTERNAL FUNDS TO SUPPORT THE ARTS AND GRADUATION RATES



This gap in the number of arts courses being taken by graduates is significant in that it ties directly to individual students' coursework over their high school years and is perhaps the most unambiguous sign of the disparity in student participation in the arts for the schools analyzed.

It could be argued that students in the low tier are choosing not to take coursework in the arts; however, based on the overall findings in this report, it more likely signals a lack of opportunity at schools in the low graduation tier. While the DOE provided no data on the number of arts courses offered at individual schools, it is commonly recognized that many schools offer only the bare minimum, so their students have no opportunity to exceed the requirement. In fact, the 2007–08 data revealed that 21 percent of high schools were offering coursework in only one arts discipline or less—limiting student course options.

Given the national studies in which at-risk students cite arts participation as their reason for staying in school, increasing course offerings in the arts in the low-graduation schools is likely to be an effective way to improve student engagement at those schools.

Access to Multiyear Arts Sequence

An arts sequence is a set of sequential courses that build upon each other in any of the four main artistic disciplines (dance, theater, music, visual art). Sequential coursework allows interested students to pursue advanced learning in the offered arts disciplines and provides students with a pre-professional and/or academic track in the arts.

New York State education regulations require that each school district offer students the opportunity to complete a three- or five-unit sequence in any of the four recognized arts disciplines beginning in grade nine. Because New York City is considered a single school district, the state requirement is technically satisfied. In light of the size of the district, however, the DOE has made a commitment to ensure that every community school district, of which there are 32, offers a sequence in each of the four arts disciplines.

Beginning with the class of 2009, students are now able to earn a Regents Diploma with Advanced Designation in the Arts by completing five units in a single art form and successfully completing the exit exam in that art form. This is a welcome development, yet a student's opportunity to earn this advanced designation will be largely dependent on whether or not their school offers a multiyear sequence.

According to the two-year average in **Figure 7**, schools in the high graduation tier were nine percent more likely to offer an arts sequence than those in the low tier. For the 2007–08 school year, however, a greater percentage of schools in the low tier offered an arts sequence, the reverse of the results from the previous school year. This is the one data point in the analysis that was inconsistent with all others. While it is possible that the schools in the low tier increased their offerings in relation to those in the high tier, it is more likely that reporting inconsistencies were at play, as is likely with a system of self-reporting.

Figure 6.

COURSEWORK IN THE ARTS AND GRADUATION RATES

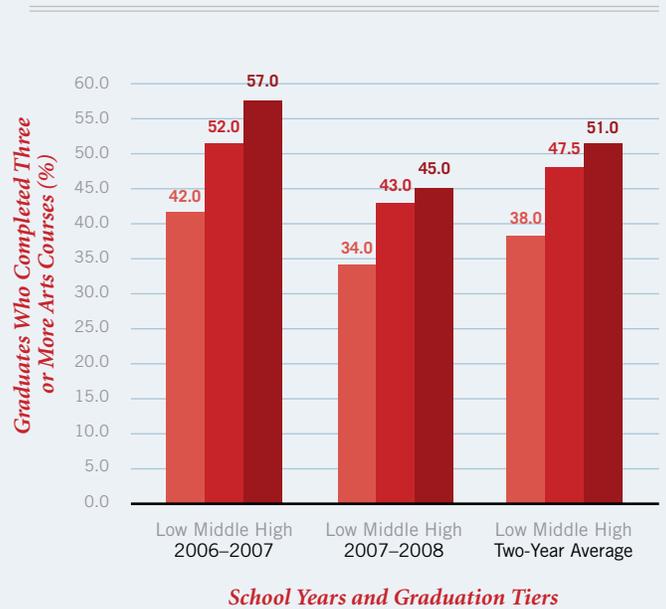
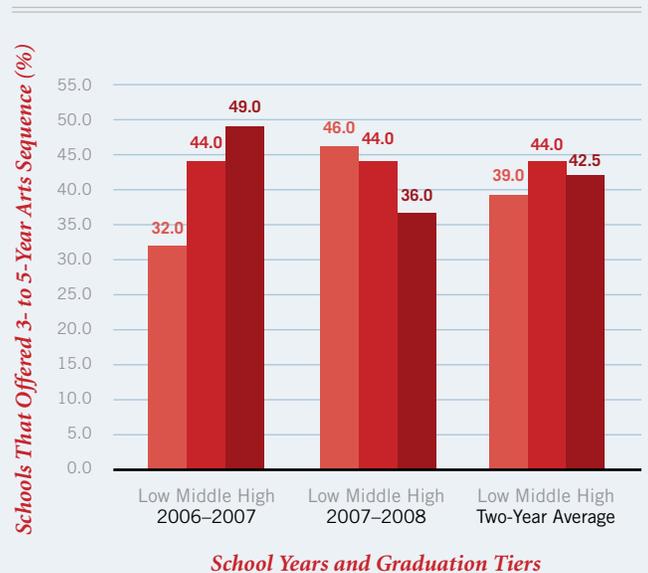


Figure 7.

ACCESS TO MULTIYEAR ARTS SEQUENCE AND GRADUATION RATES



School Sponsorship of Student Arts Participation

Whether performing in a school play, singing in the choir, or contributing work to an exhibit, the active engagement of students in the processes that constitute creation and performance in the arts is invaluable to student learning in the art form.

To measure student participation for the two *Annual Arts in Schools Reports*, principals were asked to indicate with a “yes” or “no” the types of arts activities that the school sponsored from a list of activities provided by the DOE on the *Arts in Education Survey*.⁴⁸

As the survey did not request actual student participation rates, this indicator is not an accurate measure of true student participation; it should be refined by the DOE in the future to more accurately capture this critical information.

For the purposes of this analysis, we grouped together all the activities reported by the DOE and distinguished solely between schools that had any student participation in an arts activity and schools that had none.

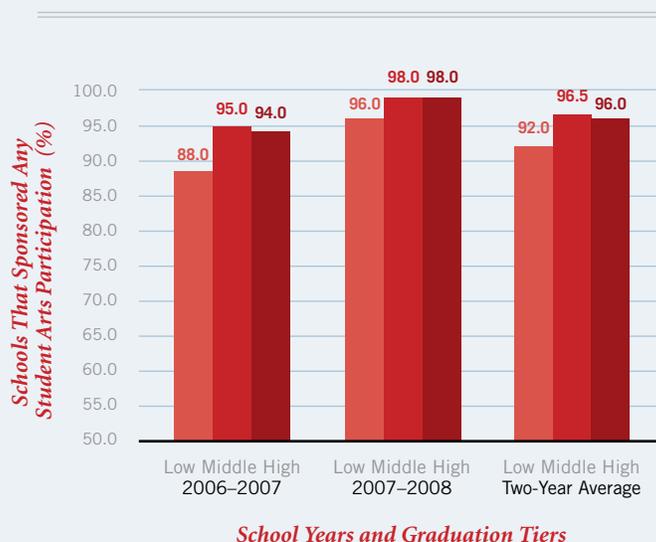
Student attendance at arts activities is not only a way to build an appreciation of the arts, it can also give high school students new ideas about future career paths and reasons to stay in school.

As illustrated in **Figure 8**, a high percentage of schools in every tier had some student participation in an arts activity. Despite a slight difference between schools in the high and low tiers, the graph would imply that even those schools with low graduation rates were providing students with ample opportunity to participate in an arts activity. As mentioned above, the reporting on this measure is misleading, because the DOE gave schools credit for student participation irrespective of how many students actually participated.

Also worthy of note is that the data for the 2007–08 school year included additional categories of student participation (participated in concert performance, showed student-made film) that were not reported in the previous year, which most likely explains the increased level of participation for that

Figure 8.

SCHOOL SPONSORSHIP OF STUDENT ARTS PARTICIPATION AND GRADUATION RATES



school year over the previous one.

School Sponsorship of Arts Field Trips

Taking students to concerts, theater performances, or museum exhibits is a long-standing tradition in public schools. These school trips are often students’ first introduction to the unique cultural resources of New York City. Sets, lights, a live orchestra, the Egyptian wing of the Met—all these can provide inspiration to schoolchildren.

Student attendance at arts activities is not only a way to build an appreciation of the arts, it can also give high school students new ideas about future career paths and reasons to stay in school.

The visual display of the arts is made possible by the support of vast numbers of industry employees, from stagehands to box office personnel to marketing specialists to graphic designers to arts conservators to advertising writers, and more. Estimated to have an economic impact of \$21 billion per year,⁴⁹ and providing over 309,000 jobs in New York City alone (8.1 percent of all city workers),⁵⁰ the creative sector is vital to New York City’s economy.

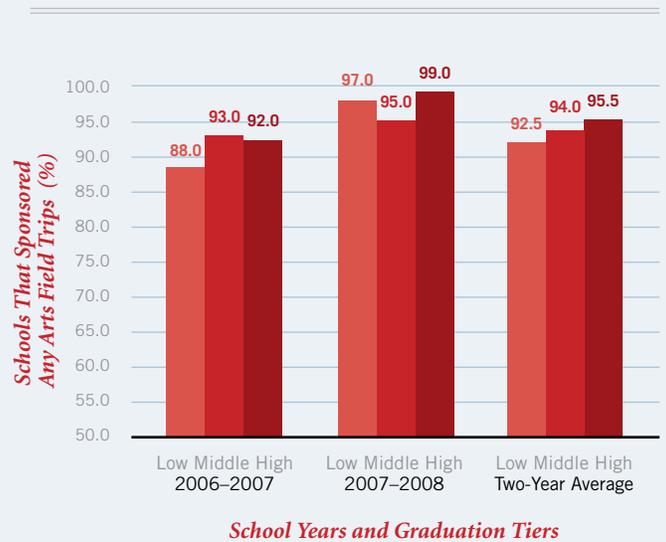
For this measure as well as the previous indicator, the DOE asked principals to indicate with a “yes” or “no” the types of events or activities that the school sponsored.⁵¹ Schools received full credit for sponsoring an activity regardless of the number of students who participated.

As illustrated in Figure 9, a high percentage of schools across all tiers reported student attendance at an art activity. Nonetheless, schools in the low tier were noticeably less likely than schools in the high tier to have offered students an opportunity to attend an arts activity. Given the generous definition of sponsorship, it is reasonable to assume that an even greater discrepancy exists in the percentage of students at these schools who had the opportunity to attend one of the activities sponsored.

It is worth noting that data provided for 2007–08 included an additional category of activity (viewed film/media), which can explain the increased level of participation of 2007–08 over the previous school year.

Figure 9.

SCHOOL SPONSORSHIP OF ARTS FIELD TRIPS AND GRADUATION RATES



CONCLUSION

Our analysis finds that the New York City high schools that are struggling most to keep their students on track to graduate are offering the least in the way of music, theater, dance, and visual arts—all subject areas that have well-documented success in motivating students to stay in school. The struggling schools have fewer arts teachers, fewer arts classrooms, and fewer cultural partnerships, among a host of other disparities. The analysis further shows that schools offering students the most access to arts education have the highest graduation rates.

Beyond the traditional benefits that an arts education provides—the opportunity to learn to play an instrument, to express oneself through dance and movement, to develop creative and critical thinking skills and the ability to work collaboratively with peers—the arts cut across learning styles and language barriers and engage students who might otherwise be uninterested in school and on a path to dropping out. The arts give students something to look forward to, and in New York City, a school system with one of the lowest graduation rates in the country, engagement is critical.

The findings suggest that both locally and nationally, we need to take into account the benefits of arts education when addressing the graduation crisis and improving struggling high schools. Strategies that rely on intervention only when students are on the verge of dropping out are insufficient. Relying on a credit recovery process or “discharging” the habitually truant to mask a portion of systemic failure does not contribute to school improvement.

Curriculum and instruction do matter—and participation in the arts has been shown to produce positive outcomes for students. School and education leaders would be well advised to expand their approach to school reform by providing a greater array of course offerings and resources to support learning in and through the arts.

This is true not only for high schools. Students at all grade levels benefit from a robust arts education. Indeed, for students to fully reap the benefits of high school arts instruction, it is critical that they build on a solid foundation of knowledge and understanding that comes with coursework in earlier grades.

New York State has some of the most rigorous and well-developed learning standards for arts instruction in the nation. Adhering to the state's standards and requirements would be a valuable first step toward ensuring that every student receive a minimum level of instruction in the arts, regardless of socioeconomic background, their school leadership, or the uncertainties of the budget process. To that end, the State Education Department should develop a protocol to ensure compliance with existing mandates at public schools in New York City and across the state.

The section that follows outlines several other policy recommendations that would improve schools through a renewed emphasis on providing quality arts education at all grade levels. Implementing these recommendations would ensure that all of New York City's 1.1 million public school students would gain greater access to the benefits that an arts education has to offer.

POLICY RECOMMENDATIONS

The following recommendations are designed to ensure greater access to arts education in city high schools, particularly schools currently underserved in the arts. These recommendations can further be expanded to apply to schools at all levels.

Expand Course Offerings in the Arts

As demonstrated in this report, one third more graduates exceeded the minimum course requirements in the arts at schools with high graduation rates compared with their peers in schools with low graduation rates. Providing students with a wider array of course offerings in the arts should be a priority of principals at schools with low graduation rates.

- **High school principals should expand course offerings in the four arts disciplines and provide all students with an opportunity to exceed the minimum graduation requirement of successful completion of two courses (one unit of credit) in the arts.**
- **The New York State Board of Regents and the State Education Department should review the graduation requirements and examine the benefits of increasing the minimum requirement to three courses in the arts.**

Expand Student Access to the City's Cultural Arts Sector

New York City's array of arts and cultural resources can enrich the education and lives of its schoolchildren. While many schools take advantage of these opportunities, the findings in this report suggest that access to these resources—through attendance at events or exhibits and cultural partnerships—is not equitable across schools. Providing greater access for all students should be a goal for school leaders, policymakers, cultural institutions, and other relevant stakeholders.

- **The city should implement policies and dedicate resources to ensure that all students have access to the city's vibrant and diverse cultural arts sector.**

Ensure All Schools Have Certified Arts Teachers

With approximately 20 percent of high schools and 30 percent of schools overall lacking a certified arts teacher on staff, the city is falling short in the effort to provide students with instruction by a teacher certified in the subject area they teach. Education leaders should ensure that all schools have an adequate number of certified arts teachers on staff to meet the state requirements, especially at high schools struggling to graduate students on time. These teachers should work in tandem with teaching artists and non-arts subject area teachers at each school and be provided ample opportunity to participate in professional development in the arts.

- **Every school should have at minimum one certified arts teacher on staff in one of the four required art forms, with larger schools hiring a sufficient number to ensure that instructional requirements are met.**
- **The city should expand to arts teachers the financial incentives already in use to attract and retain certified teachers in other high-needs areas to address the current recognized shortage of arts teachers that exists in the city public school system.**
- **The city should support and expand approaches for sharing arts teachers and teaching artists among small high schools.**
- **The New York State Education Department, in partnership with the state's institutions of higher learning, should create an expedited certification program (extension certificate) for non-arts subject area teachers who have an arts background to attain certification in any of the four recognized arts forms.**

Require Adequate Classroom Space for Arts Instruction

The disparities in access to dedicated and appropriately equipped arts classrooms described in this report, coupled with official recognition, from both the New York City Department of Education and the U.S. Department of Education, about the importance of arts spaces to quality arts instruction, should lead the city to ensure that all schools are adequately equipped to support instruction in the arts.

- **The city should require that all schools provide adequate space for arts instruction. The formula used for determining a school's capacity should reflect this requirement.**
- **The city should conduct an inventory of spaces dedicated to and used for arts instruction in each of its public schools, including a survey of the number and former use of arts spaces that have been repurposed and are no longer used for arts instruction. These spaces should be reclaimed for arts instruction where the need exists.**
- **Arts spaces should be incorporated into the design and construction of all future school facilities.**

Dedicate Resources to Support Arts Instruction

Project Arts was a catalyst in restoring arts education to city public schools after a sharp decline in the 1970s. Since the city lifted the requirement that principals spend Project Arts funds directly on the arts at the beginning of the 2007–08 school year, there has been an overall decline in the percentage of a school's budget spent on the arts, including a decrease in school spending on the hiring of arts teachers, the purchase of supplies and instruments, and the contracting of services from arts and cultural organizations to deliver arts education directly to students. Restoring this mandated per-pupil allocation for all schools would spur investment in these core elements of a vibrant arts education program.

- **Principals should once again be held accountable for spending funds they receive through the Project Arts budget line exclusively on arts education.**

Ensure School Compliance with Existing State Regulations for Arts Instruction

Ensuring compliance with laws already in place would be an important step in reducing educational inequities and providing students with the arts instruction outlined by the State Education Department from kindergarten through graduation. At the high school level this would ensure that schools offer students the requisite credits and coursework, taught by certified teachers, and the opportunity to take a multiyear arts sequence in at least one of the four arts forms.

- **The New York State Education Department should conduct a thorough and periodic audit of compliance with the New York State education regulations for arts instruction throughout the state and develop a comprehensive intervention program for districts and schools found to be out of compliance.**
- **The New York State Education Department, City Comptroller, or other government entity should investigate and issue a public report on New York City high school compliance with graduation requirements, including an examination of how students at schools without certified arts teachers are meeting the graduation requirements, how prevalent the credit recovery process is for arts instruction, and how schools ensure that the state's rigorous learning standards and requirements are being met through the credit recovery process. ■**

APPENDIX: DEMOGRAPHIC INFORMATION, ARTS INDICATORS, AND GRADUATION RATES FOR SCHOOLS ANALYZED IN REPORT

DEMOGRAPHIC INFO	2006–2007 Graduation Tiers			2007–2008 Graduation Tiers		
	Low	Middle	High	Low	Middle	High
Total Number of Schools	65	61	63	79	80	80
Total Number of Students	103,594	66,446	73,283	103,230	74,800	71,682
Average Students Per School	1,594	1,089	1,163	1,307	935	896
% Student Attendance	79%	86%	91%	79%	87%	93%
% Students English Language Learners	15%	8%	5%	16%	11%	6%
% Students Special Education	13%	12%	7%	16%	13%	7%
% Students Free Lunch	58%	51%	36%	57%	51%	40%
% Students Hispanic	45%	35%	26%	46%	36%	28%
% Students Black	35%	37%	23%	36%	38%	24%
% Students White	7%	15%	26%	7%	13%	23%
% Students Asian/Pacific Islander	11%	11%	25%	10%	13%	26%
% Students American Indian	0%	0%	0%	0%	0%	0%
Average School Graduation %	48%	65%	85%	49%	69%	88%

ARTS INDICATORS

FT Certified Arts Teachers/1,000 Students	2.52	3.61	4.30	3.20	4.08	3.61
Dedicated Arts Rooms/1,000 Students	2.41	3.61	3.56	4.59	5.48	6.28
Appropriately Equipped Classrooms/1,000 Students	3.85	5.48	5.35	4.47	5.25	6.14
Average Number of Arts and Cultural Partnerships	1.80	2.25	2.11	2.14	2.35	2.78
Schools That Raised External Funds for the Arts (%)	23%	51%	46%	54%	55%	66%
Graduates with Three or More Arts Courses (%)	42%	52%	57%	34%	43%	45%
Schools That Offered Multiyear Arts Sequence (%)	32%	44%	49%	46%	44%	36%
Schools That Sponsored Arts Participation (%)	88%	95%	94%	96%	98%	98%
Schools That Sponsored Arts Field Trips (%)	88%	93%	92%	97%	95%	99%

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35. The New York State Education Department considers the New York City school system one school district.
36. The schools in the analysis include high schools, middle school/high schools, and 6–12 schools, where appropriate data were available.

ENDNOTES

37. As this is not a comparative analysis between the two school years, the fact that the analysis does not include all of the same schools for each school year does not present sampling issues.
38. See note 3.
39. This average is based on all schools over the two years. The 2006–07 average student population size was 1,287 and the 2007–08 average student population size was 1,044.
40. It is important to note that other categories reported in the *Annual Arts in Schools Reports* would be beneficial to analyze in such a manner; not all of the data collected by the DOE, however, were reported out on a school-by-school basis as were the indicators analyzed in this report. Most notable is the omission of school-by-school reporting on the funds budgeted by schools for arts education.
41. According to the *Annual Arts in Schools Reports*, numbers and percentages of certified arts teachers were based on two sources: the Division of Human Resources licensed arts teacher data and responses on the Annual Arts Education Survey. For purposes of this report, dance, music, theater, and visual arts teachers were added together.
42. New York State Education Department, *Teacher Supply and Demand in New York State: Third Annual Report*, The University of the State of New York, The Office of Higher Education (May 2008), 11. <http://www.highered.nysed.gov/pdf/tsd2008final.pdf>
43. Hilary R. Persky, Brent A. Sandene, and Janice M. Askew, *The NAEP 1997 Arts Report Card* (Washington, DC: National Center for Education Statistics, 1999); reporting on this relationship was not included in the most recent NAEP report card released in 2009. <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=1999486>
44. National Art Education Association, *Design Standards for School Arts Facilities* (Reston, VA: Author, 1994); Bradford L. Perkins, *Building Type Basics for Elementary and Secondary Schools* (Hoboken, NJ: Wiley Publishing, 2001).
45. See note 30.
46. Emily Horowitz and Leonie Haimson, *How Crowded Are Our Schools? Results from a Survey of NYC Public School Principals* (New York: Class Size Matters, 2008). http://www.classsizematters.org/principal_survey_report_final_4.08.pdf
47. As reported by the DOE, outside arts funding included: Parent-Teacher or Parent Associations, private foundations, local businesses, state, local, and county arts agencies, education associations, federal and state grants, City Council, in-kind donations from cultural organizations and business partners.
48. Activity categories included: participated in dance performance, participated in theater performances, contributed work to exhibition, participated in concert performance (2007–08 only), showed student-made film (2007–08 only).
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50. Robin Keegan, Neil Kleiman, Beth Seigel, and Michael Kane, *Creative New York* (New York: Center for an Urban Future, 2005). http://www.nycfuture.org/images_pdfs/pdfs/CREATIVE_NEW_YORK.pdf
51. Activity categories included: attended concerts, attended dance performances, attended theater performances, visited museums or galleries, and viewed film/media (2007–08 only).

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