



Research Studies & Articles

Impact of the Arts on Child Development and Education

The Importance of Art in Child Development

In recent years, school curricula in the United States have shifted heavily toward common core subjects of reading and math, but what about the arts? Although some may regard art education as a luxury, simple creative activities are some of the building blocks of child development. Learning to create and appreciate visual aesthetics may be more important than ever to the development of the next generation of children as they grow up.

<http://www.pbs.org/parents/education/music-arts/the-importance-of-art-in-child-development/>

Preparing Students for the Next America: The Benefits of an Arts Education

This Arts Education Partnership research bulletin offers a snapshot of how the arts support achievement in school, bolster skills demanded of a 21st century workforce, and enrich the lives of young people and communities.

<http://www.aep-arts.org/wp-content/uploads/2013/04/Preparing-Students-for-the-Next-America-FINAL.pdf>

An impact evaluation of arts-integrated instruction through CETA

This comprehensive study of arts integration examines Kennedy Center's Changing Education Through the Arts (CETA) program's impact on hundreds of fourth and fifth graders, among 32 schools across five school districts in the Metro D.C. region. Among the 12 key findings, the study found students in arts-integrated classrooms are more creative, engaged, and effective at problem solving than their counterparts who are not in arts-integrated classrooms. <http://artsedge.kennedy-center.org/educators/how-to/arts-integration/ceta-white-paper>

The 2006 Solomon R. Guggenheim Museum study on art education showed a link between arts education and improved literacy skills.

The study was the result of a pilot program through the Guggenheim called Learning Through Art, which sent artists into schools to teach students and help them create their own masterpieces. Kids who took part in the program performed better on six different categories of literacy and critical thinking skills than those who did not. While students did better on an oral exam, they did not on standardized, written literacy tests — a disparity researchers said could exist because they did not emphasize written communication in the program.

http://www.nytimes.com/2006/07/27/books/27gugg.html?_r=1&



A study of Missouri public schools in 2010 found that greater arts education led to fewer disciplinary infractions and higher attendance, graduation rates & test scores.

Using data submitted by the state's public schools, the Missouri Department of Education and the Missouri Alliance for Arts Education compiled this report. They found that arts education had a significant effect on the academic and social success of their students. Those with greater arts participation were more likely to come to class, avoid being removed and graduate. Additionally, they demonstrated greater proficiency in mathematics and communication.

<https://www.missouriartscouncil.org/graphics/assets/documents/b657d9f1adfc.pdf>

A 2011 study called “Reinvesting in Arts Education” found that integrating arts with other subjects can help raise achievement levels.

Arts education may not just help raise test scores, but also the learning process itself, as a recent study revealed. This report on the Maryland school system found that skills learned in the visual arts could help improve reading and the counterparts fostered in playing an instrument could be applied to math. Researchers and school officials believe that arts education can be a valuable education reform tool, and classroom integration of creative opportunities could be key to motivating students and improving standardized test scores.

www.pcah.gov/sites/default/files/photos/PCAH_Reinvesting_4web.pdf

The Center for Arts Education published a report in 2009 that suggests arts education may improve graduation rates.

Taking a look at the role of arts education in New York public schools, this report found that schools with the lowest access also had the highest dropout rates. Conversely, those with the highest graduation rates also had the greatest access to arts education and resources. While there are undoubtedly a number of other factors that play into graduation rates, the research in this study and others like it (most notably *The Role of the Fine and Performing Arts in High School Dropout Prevention*, which you can read [here](#)) has found that many at-risk students cite participation in the arts as their reason for staying. Participation in these activities has a quantifiable impact on levels of delinquency, truancy and academic performance.

http://www.cae-nyc.org/sites/default/files/docs/CAE_Arts_and_Graduation_Report.pdf

In “Neuroeducation: Learning, Arts and the Brain,” researchers shared findings showing that arts education can help rewire the brain in positive ways.

While proponents of arts education have long asserted that creative training can help develop skills translating into other areas of academics, little research had been done to investigate the scientific component. Aspects of training in the arts, like motor control, attention and motivation, were studied by researchers who participated in the report, with some interesting results. In one four-year study, students undertaking regular music training were found to have changes in their brain structures helping them transfer their motor skills to similar areas. Another found students motivated to practice a specific art form and spent time with focused attention increased the efficiency of their attention network as a whole, even when working in other areas of study — and it improved their fluid IQ scores. Other studies reported similar scientific findings on the arts' impact on the brain, showing that sustained arts education is can be essential part of social and intellectual development.

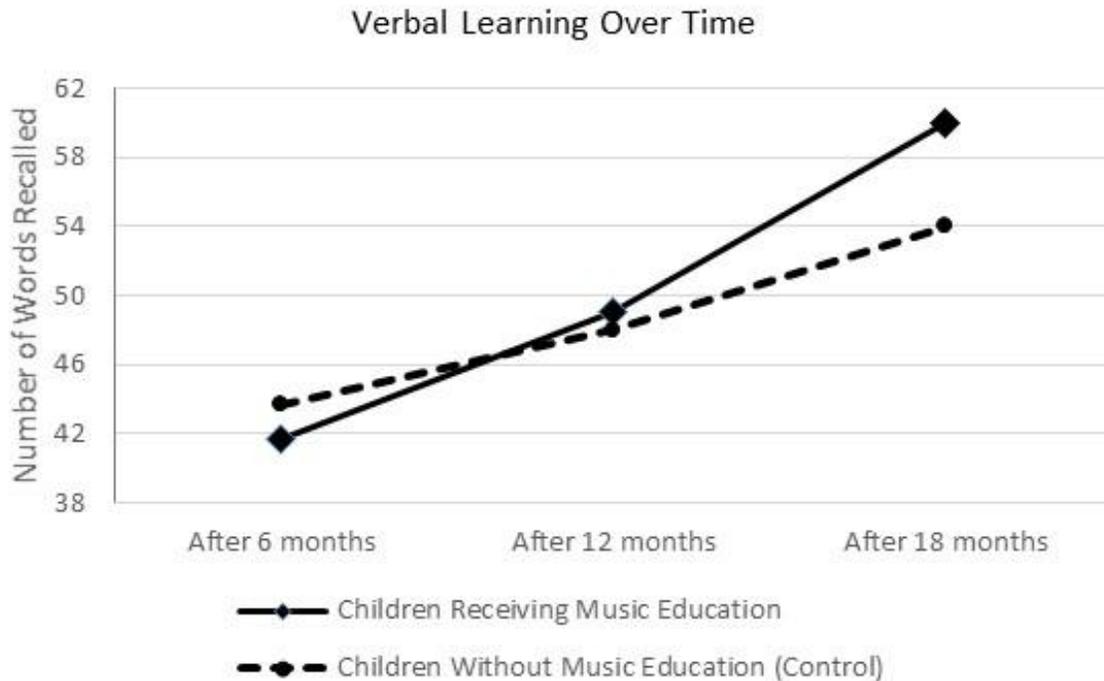
http://www.arteducators.org/research/Neuroeducation_Learning-Arts-Brain.pdf



Arts Facts . . . Early Childhood Arts Education improves cognitive development

Music training increases brain and cognitive development in three- to five-year-old underprivileged children.

Early Childhood Arts Education Improves Vocabulary, Communication, and Memory in Young Children



- An 18-month study of German elementary school students found that 40 minutes of instrumental music education each week resulted in improved abilities in Verbal Learning, Verbal Delayed Recall, and Verbal Recognition in experimental and control groups.
- After only four weeks of daily training in rhythm, pitch, melody, voice, and basic musical concepts, 90 percent of Canadian four- to six-year olds demonstrated “a rapid transfer of cognitive benefits” in vocabulary and verbal communication, enhancing their ability to understand words and explain their meaning.
- With regular training in the motor and listening skills needed to play an instrument, young students benefit from improved attention and memory. A Harvard study shows particularly significant improvements in students with dyslexia.

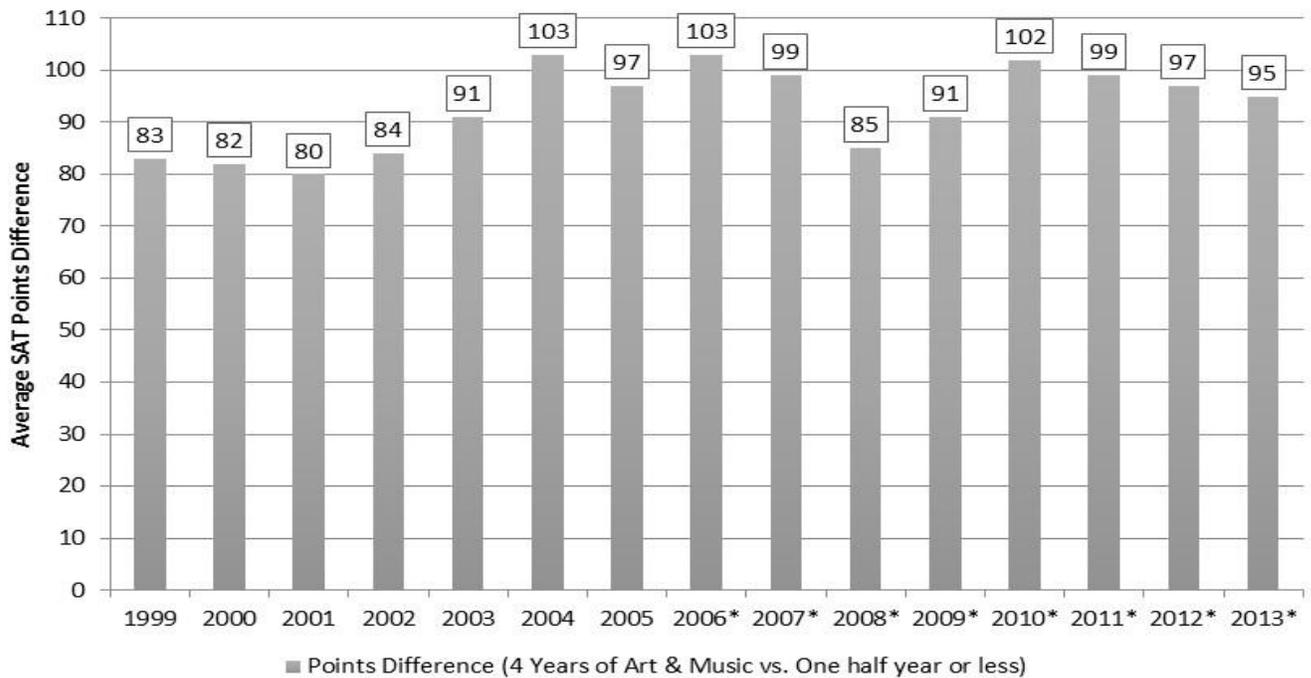
Sources: Dana Consortium Report on Arts & Cognition, 2008; US National Library of Medicine at NIH; *Psychological Science* Journal; American Institute of Physics



Arts Facts . . . SAT Scores and the Arts

Students with four years of high school arts and music classes have higher SAT scores than students with one-half year or less.

Arts Students Outperform Non-Arts Students on SATs



- Data from The College Board show that in 2013, students who took four years of arts and music classes while in high school (only eighteen percent of test-takers) scored an average of 95 points better on their SATs than students who took only one-half year or less (scores of 1061 vs. 966, respectively).
- The College Board's report, *Arts at the Core: Recommendations for advancing the state of arts education in the 21st Century*, by the National Task Force on the Arts Education, recommends that education stakeholders consider arts requirements for high school core curricula, high school graduation requirements, and college and university admission requirements in the arts (including arts courses in GPA calculations), working with regional accrediting agencies.
- *These scores reflect the *Critical Reading* and *Mathematics* portions of the SAT only. The *Writing* section of the test is excluded from this analysis for year-to-year comparison purposes. Students with four years of art and music classes averaged 520 on the *Writing* portion of the test—59 points higher than students with one-half year or less of arts/music classes (461).

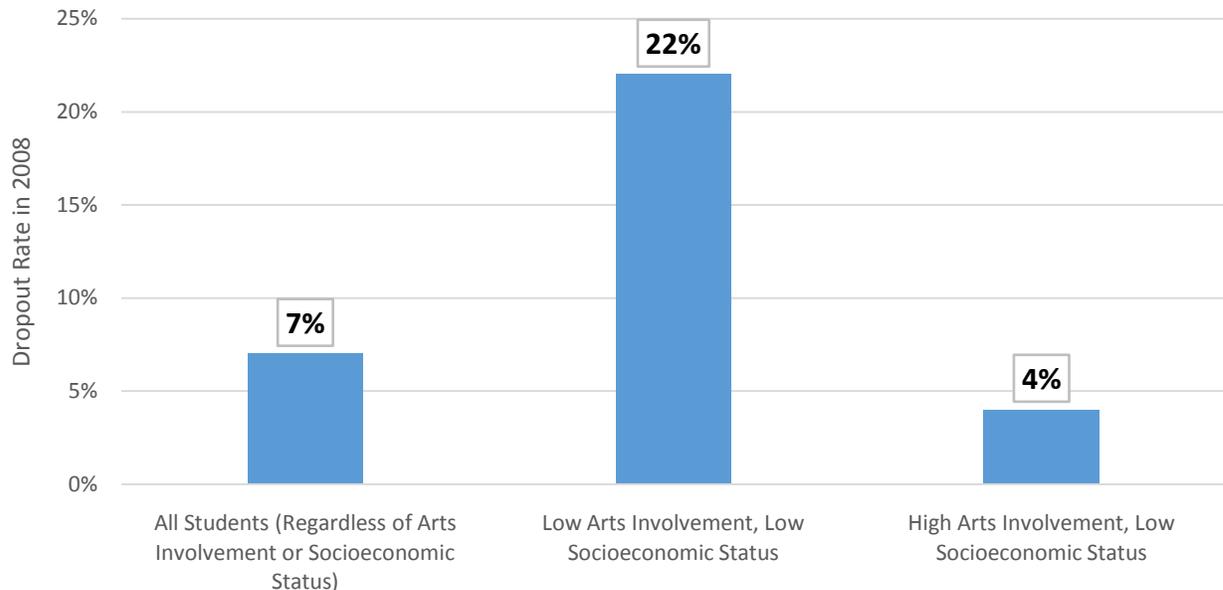
Source: The College Board, 2013. *2013 College-Bound Seniors: Total Group Profile Report*. Analysis by Americans for the Arts, 2014.



Arts Facts...Improved Academic Performance

Students who participate in the arts, both in school and after school, demonstrate improved academic performance and lower dropout rates.

Students with High Levels of Arts Involvement: Less Likely to Drop Out of School



- Longitudinal data of 25,000 students demonstrate that involvement in the arts is linked to higher academic performance, increased standardized test scores, more community service, and lower dropout rates (see chart above). These cognitive and developmental benefits are reaped by students regardless of their socioeconomic status.
- Arts in the schools increase test scores and lower dropout rates. The report, *Critical Links*, contains 62 academic research studies that, taken together, demonstrate that arts education helps close the achievement gap, improves academic skills essential for reading and language development, and advances students' motivation to learn.
- Research conducted between 1987 and 1998 on young people working in the arts for at least three hours on three days of each week throughout at least one full year, demonstrated the following:
 - ✓ 4 times more likely to have been recognized for academic achievement
 - ✓ Being elected to class office within their schools more than 3 times as often
 - ✓ 4 times more likely to participate in a math and science fair
 - ✓ 3 times more likely to win an award for school attendance
 - ✓ 4 times more likely to win an award for writing an essay or poem

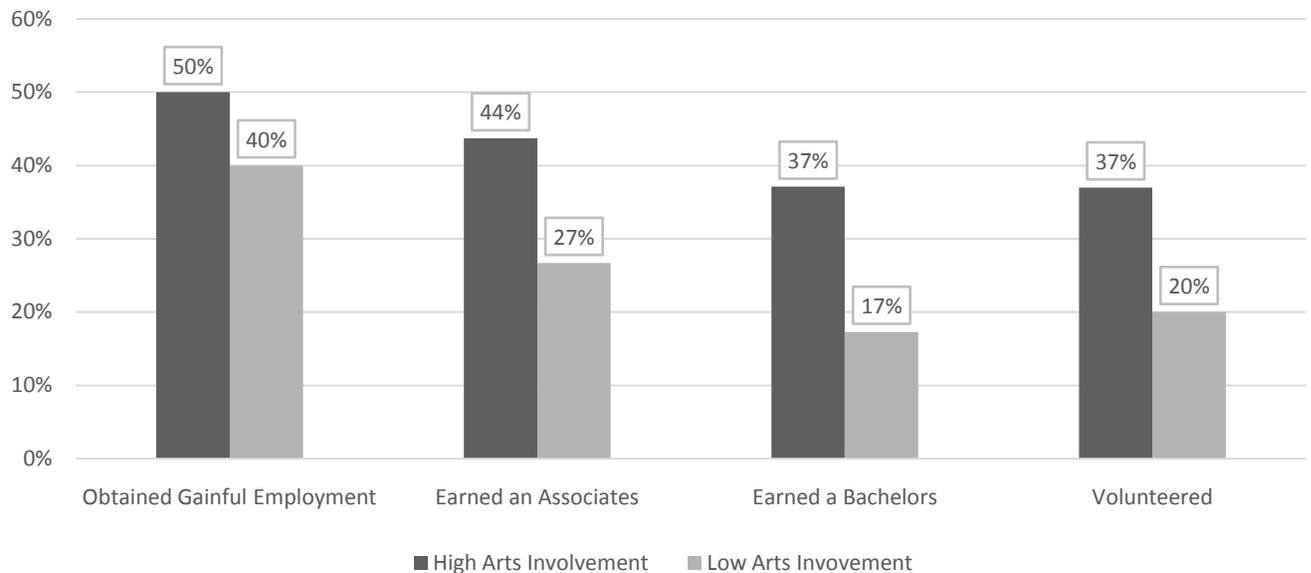
Sources: NEA Office of Research & Analysis (Catterall 2012); Arts Education Partnership (Deasy 2002); Americans for the Arts (Heath 1998).



Arts Facts...Advantages of Arts Learning Continues over Time

Low-income students who are highly engaged in the arts are more than twice as likely as their peers with low arts involvement to earn a Bachelor's degree.

Increased Arts Involvement Among Disadvantaged Students Leads to: Finding a Better Job, Earning a College Degree, and Volunteering



In the late 1990s, James Catterall analyzed data from the National Educational Longitudinal Survey, a study of some 25,000 secondary school students, over four years. He found significant connections between high involvements in arts learning and general academic success.

In 2009, Catterall analyzed ten additional years of data for the exact same cohort of students, now age 26. The results strongly connect arts learning with continued success in academics and in life.

- The study found significant advantages for “arts engaged low-socioeconomic status [low-SES] students” in college-going and types of employment, as well as strong advantages in volunteerism and voting.
- Gainful employment for this group of students included better jobs with higher pay, more responsibility, more promotion opportunity, and more employee satisfaction.
- Dr. Catterall concludes that the benefits to arts-engaged disadvantaged students are measurable and unparalleled. He states: “In the annals of education research, it is hard to find average performance or outcome statistics reported for low-SES students that exceed such measures for the entire population.”

Source: Catterall, James S. (2009). *Doing Well and Doing Good by Doing Art: The Effects of Education in the Visual and Performing Arts on the Achievements and Values of Young Adults*.

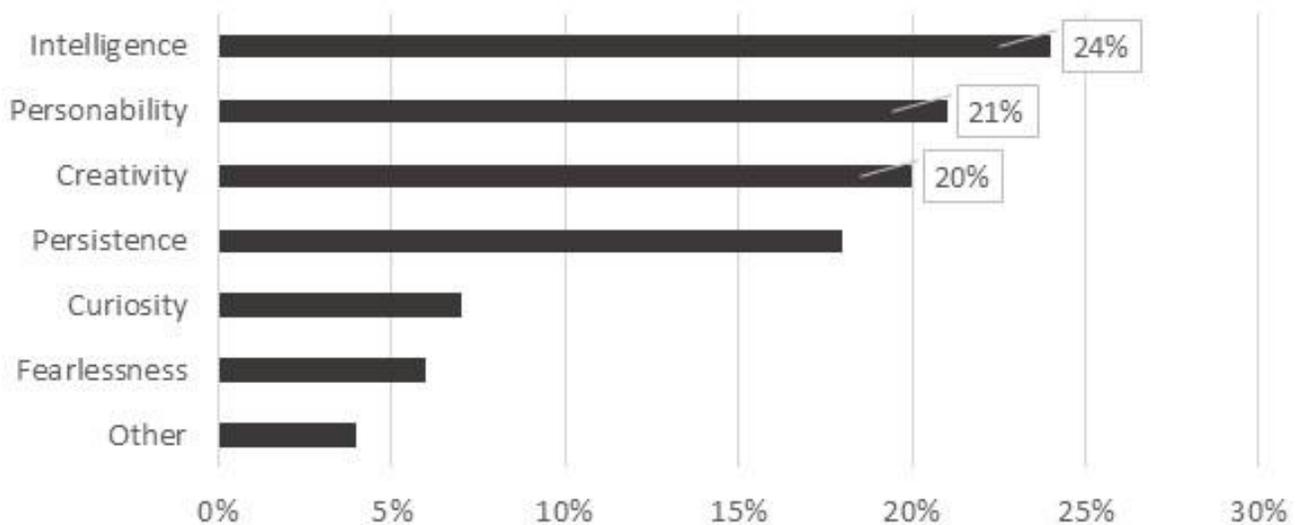


Arts Facts . . . Preparing Students for the Workplace

Schools and employers rank a *degree in the arts* among the most significant indicator of a job candidate's creativity and innovation skills.

Arts are Key to Preparing Students as Creative Workers in the Global Marketplace

Creativity is one of the top three personality traits most important to career success, according to U.S. employers



- Teaching creativity develops critical thinking, engages students, and fosters innovation.
- 85 percent of people agreed that creative thinking is critical for problem solving in their career. 71 percent of college-educated professionals say creative thinking should be taught as a course, like math and science. Additionally, 78 percent of the respondents (1,000 U.S., college-educated and full-time salaried employees ages 25+) stated that creativity is very important to their career but only 57 percent thought so when they were in college.
- 72 percent of employers say creativity is of primary concern when they're hiring, yet 85 percent of these employers can't find the creative applicants they seek.
- Employers (56 percent) and superintendents (79 percent) agree that a college degree in the arts is the most significant indicator of creativity in a prospective job candidate.
- 97 percent of superintendents surveyed agreed that music develops creativity, yet only 17 percent of their schools require music courses for graduation.

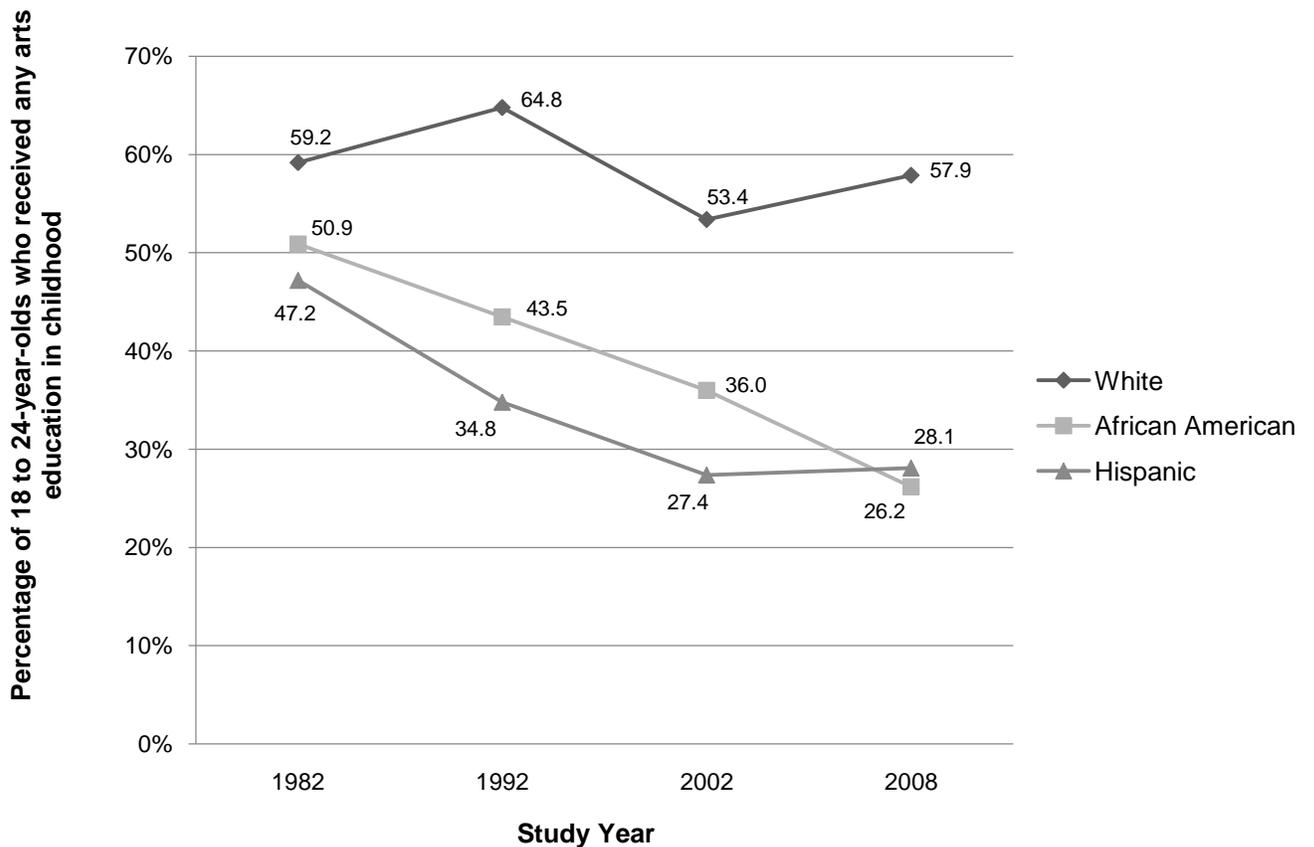
Sources: Adobe Systems Inc. and *Ready to Innovate*, a collaboration between The Conference Board, Americans for the Arts, and the American Association of School Administrators.



Arts Facts...Access to Arts Education is Not Equitable

In 2008, African-American and Hispanic students had less than half of the **access** to arts education than their White peers.

Decline of Arts Education in Underserved Populations



- Access to arts education for Blacks and Hispanics is significantly lower than for their White peers, and has been steadily declining for three decades.
- Findings by UCLA researcher James Catterall indicate that low socio-economic-status students who are engaged in arts learning have increases in high school academic performance, college-going rates, college grades, and holding jobs with a future.
- Despite these findings, the decline of arts education is most drastic in underserved populations, where students who could benefit the most from arts education are getting it the least.

Source: NEA Office of Research & Analysis, NORC at the University of Chicago (Rabkin&Hedberg,2011).