

“The Power of Music ... Changing Lives” is a series of four advocacy brochures designed for distribution to parents, school board members, elementary school principals and secondary school principals, to give those audiences “the why and the how” of supporting school music education.

Each brochure can be downloaded in PDF form to reproduce copies for handout (visit the links below for PDFs and additional resources). Not for further use without written permission from MENC. Print copies are also available for purchase; visit [the MENC Store](http://www.menc.org/gp/menc-store) <http://www.menc.org/gp/menc-store> or call 800-828-0229. <http://www.menc.org/resources/view/the-power-of-music-advocacy-brochure-series>

SUCCESS IN SOCIETY

Perhaps the basic reason that every child must have an education in music is that music is a part of the fabric of our society. The intrinsic value of music for each individual is widely recognized in the many cultures that make up American life — indeed, every human culture uses music to carry forward its ideas and ideals. The importance of music to our economy is without doubt. And the value of music in shaping individual abilities and character are evident. – *MENC*

Data show that high earnings are not just associated with people who have high technical skills. In fact, mastery of the arts and humanities is just as closely correlated with high earnings, and, according to our analysis, that will continue to be true. History, music, drawing, and painting, and economics will give our students an edge just as surely as math and science will. – *Tough Choices or Tough Times: The report of the new commission on the skills of the American workforce, 2007, page 29;* www.skillscommission.org

The arts provide one alternative for states looking to build the workforce of tomorrow - a choice growing in popularity and esteem. The arts can provide effective learning opportunities to the general student population, yielding increased academic performance, reduced absenteeism, and better skill building. An even more compelling advantage is the striking success of arts-based educational programs among disadvantaged populations, especially at-risk and incarcerated youth. For at-risk youth, that segment of society most likely to suffer from limited lifetime productivity, the arts contribute to lower recidivism rates; increased self-esteem; the acquisition of job skills; and the development of much needed creative thinking, problem solving and communications skills. Involvement in the arts is one avenue by which at-risk youth can acquire the various competencies necessary to become economically self-sufficient over

the long term, rather than becoming a financial strain on their states and communities. – *The Impact of Arts Education on Workforce Preparation, May 2002, The National Governors Association*; <http://www.nga.org/cda/files/050102ARTSED.pdf>

The abilities associated with the humanities and the arts are vital, both to the health of individual nations and to the creation of a decent world culture. These include the ability to think critically, to transcend local loyalties and to approach international problems as a “citizen of the world”. And, perhaps most important, the ability to imagine sympathetically the predicament of another person. One of the best ways to cultivate sympathy is through instruction in literature, music, theatre, fine arts and dance. When people put on a play or a dance piece together, they learn to cooperate – and find they must go beyond tradition and authority if they are going to express themselves well. The sort of community created by the arts is non-hierarchical – a model of the responsiveness and interactivity that a good democracy will also foster in its political processes. And not the least, the arts can be a great source of joy. Participation in plays, songs and dances fills children with happiness that can carry over into the rest of their education.

We need to favor an education that cultivates the critical capacities, that fosters a complex understanding of the world and its peoples and that educates and refines the capacity for sympathy. In short, an education that cultivates human beings rather than producing useful machines. If we do not insist on the crucial importance of the humanities and the arts, they will drop away. They don’t make money; but they do something far more precious; they make the world worth living in. – *Martha Nussbaum, Ernst Freund Distinguished Service Professor of Law and Ethics, University of Chicago; Newsweek International, August 21 – 18, 2006; “Teaching Humanity”*; <http://www.msnbc.msn.com/id/14322948/print/1/displaymode/1098/>

Secondary students who participated in band or orchestra reported the lowest lifetime and current use of all substances (alcohol, tobacco, illicit drugs). – *Texas Commission on Drug and Alcohol Abuse Report. Reported in Houston Chronicle, January 1998*

The U.S. Department of Education lists the arts as subjects that college-bound middle and junior high school students should take, stating “Many colleges view participation in the arts and music as a valuable experience that broadens students’ understanding and appreciation of the world around them. It is also well known and widely recognized that the arts contribute significantly to children’s intellectual development.” In addition, one or two years of Visual and Performing Arts is recommended for college-bound high school students. – *Getting Ready for College Early: A Handbook for Parents of Students in the Middle and Junior High School Years, U.S. Department of Education, 1997*; <http://www.ed.gov/pubs/GettingReadyCollegeEarly/step2.html>

The fact that choral singing is a communal activity is especially significant today when we increasingly rely on internet-based communications, rather than face-to-face interaction. Several recent studies have shown a significant decline in civic engagement in our communities. Robert Putnam, Harvard University’s Kennedy School of Government scholar, asserts that the significance of choral singing goes beyond music making, and even beyond the arts. He sees group performing as contributing directly to

the social trust and reciprocity that is the basis of civic engagement. His work shows that the mere existence of choral groups helps foster America's democratic culture... Chorus America found that choral singers are far more likely to be involved in charity work, as volunteers and as donors (76 %), than the average person (44% according to a 2001 report by Independent Sector). Choral singers are also more than twice as likely as non-participants to be aware of current events and involved in the political process. They are also twice as likely as the general public to be major consumers of other arts – and not just music. – *America's Performing Art: A Study of Choruses, Choral Singers, and their Impact (Chorus Impact Study, 2003)*; www.chorusamerica.org
SUCCESS IN SCHOOL AND LEARNING

Success in society, of course, is predicated on success in school. Any music teacher or parent of a music student can call to mind anecdotes about effectiveness of music study in helping children become better students. Skills learned through the discipline of music, these stories commonly point out, transfer to study skills, communication skills, and cognitive skills useful in every part of the curriculum. Another common variety of story emphasizes the way that the discipline of music study — particularly through participation in ensembles — helps students learn to work effectively in the school environment. – *MENC*

The term ‘core academic subjects’ means English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, **arts**, history, and geography.”
– *No Child Left Behind Act of 2002, Title IX, Part A, Sec. 9101 (11)*

“When I hear people asking how do we fix the education system, I tell them we need to do the opposite of what is happening, cutting budgets by cutting music programs.... Nothing could be stupider than removing the ability for the left and right brains to function. Ask a CEO what they are looking for in an employee and they say they need people who understand teamwork, people who are disciplined, people who understand the big picture. You know what they need? They need musicians.” – *Former Arkansas Governor Mike Huckabee, MENC Centennial Congress, Orlando, Florida, June 2007*

Schools that have music programs have significantly higher graduation rates than do those without programs (90.2% as compared to 72.9%). In addition, those that rate their programs as “excellent” or “very good” have an even higher graduation rate (90.9%). Schools that have music programs have significantly higher attendance rates than do those without programs (93.3% as compared to 84.9%). --*Harris Interactive poll of high school principals conducted Spring 2006; funded by MENC and NAMM. For more info, contact info@menc.org.*

Students in high-quality school music programs score higher on standardized tests compared to students in schools with deficient music education programs, regardless of the socioeconomic level of the school or school district. Students in top-quality music programs scored 22% better in English and 20% better in math than students in deficient music programs. Students in top-quality instrumental programs scored 19% higher in

English than students in schools without a music program. Students in top quality instrumental programs scored 17% higher in math than children in schools without a music program. Students at schools with excellent music programs had higher English and math test scores across the country than students in schools with low-quality music programs. Students in all regions with lower-quality instrumental programs scored higher in English and math than students who had no music at all. – *MENC Journal of Research in Music Education, Winter 2006, vol. 54, No. 4, pgs. 293- 307; “Examination of Relationship between Participation in School Music Programs of Differing Quality and Standardized Test Results” Christopher M. Johnson and Jenny E. Memmott, University of Kansas*

Students of the arts continue to outperform their non-arts peers on the SAT, according to reports by the College Entrance Examination Board. In 2006, SAT takers with coursework/experience in music performance scored 57 points higher on the verbal portion of the test and 43 points higher on the math portion than students with no coursework or experience in the arts. Scores for those with coursework in music appreciation were 62 points higher on the verbal and 41 points higher on the math portion. – *The Student Descriptive Questionnaire, a self-reported component of the SAT that gathers information about students’ academic preparation, gathered data for these reports. Source: The College Board, Profile of College-Bound Seniors National Report for 2006; www.collegeboard.com*

Schools that have higher levels of student participation in the fine arts receive higher academic ratings and have lower drop out rates. Average student enrollment in fine arts courses is 17 percent points higher in high schools that are rated “exemplary” than in those rated “low performing”, based on data from the Texas Education Agency on 951 high schools. Schools with the lowest drop out rates on average have 52% of their students enrolled in fine arts classes while schools with the highest drop out rates have only 42% of their students in fine arts courses. The data from 864 middle schools followed the same trend as high schools. – *Analysis conducted by the Texas Coalition for Quality Arts Education and the Texas Music Educators Association (www.tmea.org). Full report: www.music-for-all.org/WME/documents/TexasArtsStudy.pdf*

Nearly 100% of past winners in the prestigious Siemens Westinghouse Competition in Math, Science and Technology (for high school students) play one or more musical instruments. This led the Siemens Foundation to host a recital at Carnegie Hall in 2004, featuring some of these young people, after which a panel of experts debated the nature of the apparent science/music link. – *The Midland Chemist (American Chemical Society) Vol. 42, No.1, Feb. 2005*

The Georgia Project found that school districts in Georgia that made staffing and funding of their arts programs a priority tended to have higher overall rates of student participation in the arts, and higher rates of arts student retention. Such districts tend to have lower dropout rates in grades 9 – 12 and thus keep their students in school longer and graduate more of them. Students tended to score higher on achievement and performance tests, such as the SAT and Georgia High School Graduation Test. They tended to graduate more of their students with college prep diplomas, percentages

increasing with diversity of arts curriculum and percent of students participating. While these findings do not prove a cause and effect relationship, they do indicate “strong arts programs need not come at the expense of academic achievement. Rather, the arts are an important factor in achieving academic excellence.” – *Executive Summary, The Georgia Project: A Status Report on Arts Education in the State of Georgia, 2004*; Dr. John Benham, President, Music in World Cultures Program, Bethel University, St. Paul, MN

“Music is an extremely rich kind of experience in the sense that it requires cognition, it requires emotion, it requires aesthetics, it develops performance skills, individual capabilities. These things have to be developed and all have to be synchronized and integrated so that, as a person learns music, they stretch themselves mentally in a variety of ways. What we are finding is that the kind of mental stretching that takes place can be of value more generally, that is, to help children in learning other things. And these other things, in turn, can help them in the learning of music, so that there is a dialogue between the different kinds of learning.” – *from the Music in Education National Consortium, Journal for Learning through Music, Second Issue, Summer 2003, “What Makes Music Work for Public Education?”* - pg. 87 Dr. Martin F. Gardiner, Brown University; <http://www.music-in-education.org/>

Harvard Project Zero (<http://pzweb.harvard.edu/>) researcher Larry Scripp investigated how intensive music study could serve as the basis for academic excellence. His research at Conservatory Lab Charter School (<http://www.conservatorylab.org/learning.html>) attempted to identify innovative ways to incorporate music into the curriculum and then measure its impact. Among his findings: notational skills in music, not musical performance, correlate positively with achievement in math and reading. According to Scripp, “The ability to process musical symbols and representations, a skill relegated to the training of the talented few in the past, is a leading predictor of music’s association with learning in other subject areas”. He also found that musical pitch is more predictive of mathematical ability while rhythm is more predictive of reading ability.

James Catterall (Prof. of Education, UCLA) stated, in response to Scripp, that “since our education systems ideally focus on academic and social development, the arts should legitimately be considered in the array of potential instructional strategies contributing to these goals”. -- *EXCERPTED from Terry Teitelbaum, Stephanie F. Gillis, “Arts Education: A Review of the Literature”, Blueprint Research and Design, Inc.; prepared for the Performing Arts Program of the William and Flora Hewlett Foundation, 11/03, updated 2/04*)<http://www.hewlett.org>

SUCCESS IN DEVELOPING INTELLIGENCE

Success in school and in society depends on an array of abilities. Without joining the intense ongoing debate about the nature of intelligence as a basic ability, we can demonstrate that some measures of a child’s intelligence are indeed increased with music instruction. Once again, this burgeoning range of data supports a long-established base of anecdotal knowledge to the effect that music education makes kids smarter. What is new and especially compelling, however, is a combination of tightly controlled behavioral

studies and groundbreaking neurological research that show how music study can actively contribute to brain development. – *MENC*

Results of an IQ test given to groups of children (total: 144) who were provided with lessons in keyboard, voice, drama or no lessons at all, showed that the IQ of students in the keyboard or voice classes increased from their pre-lesson IQ score, more than the IQ of those students taking drama or no lessons. Generally these increases occurred across IQ subtests, index scores, and academic achievement. -- *Summary by MENC; Original source: August 2004, Psychological Science, a journal of the American Psychological Society; <http://www.psychologicalscience.org/pdf/ps/musiciq.pdf>; Dr. E. Glenn Schellenberg (University of Toronto)*

Children with music training had significantly better verbal memory than those without such training, and the longer the training, the better the verbal memory. Researchers studied 90 boys between the ages of 6 and 15. Half had musical training as members of their school's string orchestra program, plus lessons in playing classical music on Western instruments like the flute or violin for one to five years. The other 45 students had no training. Students with musical training recalled more words in a verbal memory test than did untrained students, and after a 30-minute delay, students with training also retained more words than the control group. In a follow-up one year later, students who continued training and beginners who had just started learning to play both showed improvement in verbal learning and retention. -- *Summary by MENC. Original source: Ho, Y. C., Cheung, M. C., & Chan, A. Music training improves verbal but not visual memory: cross-sectional and longitudinal explorations in children (2003) Neuropsychology, 12, 439-450.*

A 2004 Stanford University study showed that mastering a musical instrument improves the way the human brain processes parts of spoken language. In two studies, researchers demonstrated that people with musical experience found it easier than non-musicians to detect small differences in word syllables. They also discovered that musical training helps the brain work more efficiently in distinguishing split-second differences between rapidly changing sounds that are essential to processing language. About 40 adults, divided into groups of musicians and non-musician, matched by age, sex, general language ability and intelligence, were tested. To qualify, the musicians need to have started playing instruments before age 7 and never stopped, practicing several hours/week. Functional magnetic resonance imaging showed the musicians had more focused, efficient brain activity. “This is the first example showing how musical training alters how your brain processes language components.” – *Prof. John Gabrieli, former Stanford psychology professor, now associate director of MIT's Athinoula A. Martinos Center for Biomedical Imaging. (<http://news-service.stanford.edu>, Nov. 2005)*

Young children who take music lessons show different brain development and improved memory over the course of a year, compared to children who do not receive musical training. The brains of musically trained children respond to music in a different way to those of untrained children, and that the musical training improves their memory. After one year the musically trained children performed better in a memory test that is correlated with general intelligence skills such as literacy, verbal memory, Visio spatial processing, mathematics and IQ. Dr. Laurel Trainor, Prof. of Psychology, Neuroscience, and Behaviour at McMaster University, Director of the McMaster Institute for Music and

the Mind; Canada; published 9/20/06;

<http://www.sciencedaily.com/releases/2006/09/060920093024.htm>

Playing a musical instrument significantly enhances the brainstem's sensitivity to speech sounds. This relates to encoding skills involved with music and language. Experience with music at a young age can "fine-tune" the brain's auditory system. – from a study supported by Northwestern University, grants from the National Institutes of Health, and the National Science Foundation. Nina Kraus, director of NWU's Auditory Neuroscience Laboratory and senior author of the study, which appeared in April 2007 Nature Neuroscience. Other contributing researchers/authors: Patrick Wong, primary author "Musical Experience Shapes Human Brainstem Encoding of Linguistic Pitch Patterns" Other researchers Erika Skoe, Nicole Russo, Tasha Dees; info from

www.sciencedaily.com

A study of 31 children found that children who received keyboard instruction for two years beginning at age 3 continued to score higher on spatial-temporal and arithmetic tasks two years after the instruction was terminated (Rauscher & LeMieux, 2003). The age at which children begin instruction appears to affect the duration of extra-musical cognitive outcomes, and longitudinal research suggests that at least two years of music instruction are required for sustained enhancement of spatial abilities (Rauscher, 2002); ERIC Clearinghouse on Early Education and Parenting , Can Music Instruction Affect Children's Cognitive Development? ERIC Digest; Frances H. Rauscher; ERIC Identifier: ED480540, Publication Date: 09/2003. <http://www.ericdigests.org/2004-3/cognitive.html> "Academic work is really about certain types of deductive reasoning, and especially some forms of verbal and mathematical reasoning. Developing these abilities is an essential part of education. But if intelligence were limited to academic ability most of human culture would never have happened. There'd be no practical technology, business, music, art, literature, architecture, love, friendship or anything else. These are big ideas to leave out of our common-sense view of intelligence and educational achievement." Sir Ken Robinson, Senior Advisor, Education Policy, Getty Foundation, in an Arts and Minds: Conversations about the Arts interview; Education Commission of the States, April 2005 How Creativity, Education and the Arts Shape a Modern Economy; <http://www.ecs.org/clearinghouse/60/51/6051.pdf>

SUCCESS IN LIFE

Each of us wants our children — and the children of all those around us — to achieve success in school, success in employment, and success in the social structures through which we move. But we also want our children to experience "success" on a broader scale. Participation in music, often as not based on grounding in music education during the formative school years, brings countless benefits to each individual throughout life. The benefits may be psychological or spiritual, and they may be physical as well. –

MENC

To put it simply, we need to keep the arts in education because they instill in students the habits of mind that last a lifetime: critical analysis skills, the ability to deal with ambiguity and to solve problems, perseverance and a drive for excellence. Moreover, the creative skills children develop through the arts carry them toward new ideas, new experiences, and new challenges, not to mention personal satisfaction. This is the intrinsic value of the arts, and it cannot be overestimated. -- *Education Week, Issue 20,*

vol. 24, pg. 40, 52; Jan 26, 2005, Rod Paige (former U.S. Secretary of Education), Mike Huckabee, former Governor of Arkansas, Education Commission of the States Chairman (www.ecs.org), Chairman's Initiative on the Arts in Education

"The arts are not just affective and expressive. They are also deeply cognitive. They develop the tools of thinking itself: careful observation of the world, mental representation of what is observed or imagined, abstraction from complexity, pattern recognition and development, symbolic and metaphoric representation, and qualitative judgment. We use these same thinking tools in science, philosophy, math and history. The advantage of the arts is that they link cognitive growth to social and emotional development. Students care more deeply about what they study, they see the links between subjects and their lives, their thinking capacities grow, they work more diligently, and they learn from each other." -- Nick Rabkin, Executive Director of the Center for Arts Policy, Columbia College Chicago; Robin Redmond, associate director of CAP. "The Art of Education Success", *Washington Post*, January 8, 2005, pg. A19

An education rich in the arts and humanities develops skills that are increasingly crucial to the productivity and competitiveness of the nation's workforce: the ability to think creatively, communicate effectively and work collaboratively, and to deal with ambiguity and complexity. Just as important, exposure to the arts and humanities fosters cultural literacy: the ability to understand and appreciate other cultures, perspectives and traditions; to read and understand music and literature; to craft a letter or essay; to design a Web site; and to discern the "hidden persuaders" in a political or commercial advertisement. Arts and humanities education also develops skills necessary to participate in one of the fastest-growing, economically significant set of occupations and industries in the American economy – the arts, cultural and intellectual property section. The "creative workforce" – which includes traditional artist categories (dancers, musicians, painters, actors, photographers, authors), as well as individuals employed in advertising, architecture, fashion design, film, video, music, publishing and software development – is growing at a rate more than double that for the rest of the nation's workforces. --

Summary of paper by Prof. Ann M. Galligan, Northeastern University, in her paper "Creativity, Culture, Education and the Workforce", Center for Arts and Culture, December 2001, www.culturalpolicy.org; summary provided/written by Suzanne Weiss, in the "Progress of Education Reform 2004: The Arts in Education"; vol. 5, no. 1, January 2004, Education Commission of the States; <http://www.ecs.org/clearinghouse/49/91/4991.pdf>

While many executives turn to golf, tennis or boating for recreation, some unwind by making music together. They may be members of relatively large organizations like the Park Avenue Chamber Symphony, whose 55 members are almost all executives, or of smaller outfits, like a rock 'n roll band or a jazz ensemble. Beyond the pure pleasure the music brings, some executives say, there can be chances to advance a career. And creating a performance can help executives develop basic management skills. "If you are in an improv jazz ensemble or a small chamber group, you learn to think fast on your feet and how to be flexible and to collaborate and compromise, and that may yield a creative outcome." (J. Richard Hackman, a professor of organizational psychology at Harvard University who has studied symphony orchestras). Amy Zipkin, "Learning Teamwork by Making Music", for the *New York Times*, 11/16/03.

“I dream of a day when every child in America will have in his or her hand a musical instrument, be it a clarinet, a drumstick or a guitar. And I dream of a day when there’s no state legislature that would even consider cutting funding for music and the arts because they realize that it’s a life skill that changes the lives of students and gives them not only better academic capability, but it makes them better people. We sometimes forget that many of us in this room, including this guy standing right in front of you, would not be where he is today if not for having music introduced in my life because it gave me the understanding of teamwork, discipline and focus.” -- *Mike Huckabee, Former Arkansas Governor; NAMM University Breakfast Sessions 2007, NAMM Playback Magazine, Spring 2007, pg. 36; www.namm.com*

“Music has a great power for bringing people together. With so many forces in this world acting to drive wedges between people, it’s important to preserve those things that help us experience our common humanity.” – *Ted Turner, Turner Broadcasting System*

“Music is one way for young people to connect with themselves, but it is also a bridge for connecting with others. Through music, we can introduce children to the richness and diversity of the human family and to the myriad rhythms of life.” – *Daniel A. Carp, Eastman Kodak Company Chairman and CEO*

“Casals says music fills him with the wonder of life and the ‘incredible marvel’ of being a human. Ives says it expands his mind and challenges him to be a true individual. Bernstein says it is enriching and ennobling. To me, that sounds like a good cause for making music and the arts an integral part of every child’s education. Studying music and the arts elevates children’s education, expands students’ horizons, and teaches them to appreciate the wonder of life.” – *U.S. Secretary of Education Richard W. Riley, July 1999*

“The life of the arts, far from being an interruption, a distraction, in the life of the nation, is close to the center of a nation's purpose - and is a test to the quality of a nation's civilization.” – *John F. Kennedy*

I have made a career doing things that weren't even invented when I graduated from high school 40 years ago. It will be the same for today's graduates, only on a sharply accelerating timeline. Much of what I learned in the classroom is obsolete or, at best, only marginally useful. What has made a difference in my life has been the ability to learn as I go, to adapt to new ideas, to have the courage to take risks, and to feel confident I will be able to perform and successfully meet the challenges of new situations. These skills I learned through participation in band and drama. - *Fred Behning retired from IBM Corporation after a 32-year career that included assignments in systems engineering, product development, management, and customer technology briefings, and is still an IBM consultant. A life-long musician, Fred plays oboe and English horn in the Williamson County Symphony Orchestra and the Austin Symphonic Band.*

<http://www.supportmusic.com>