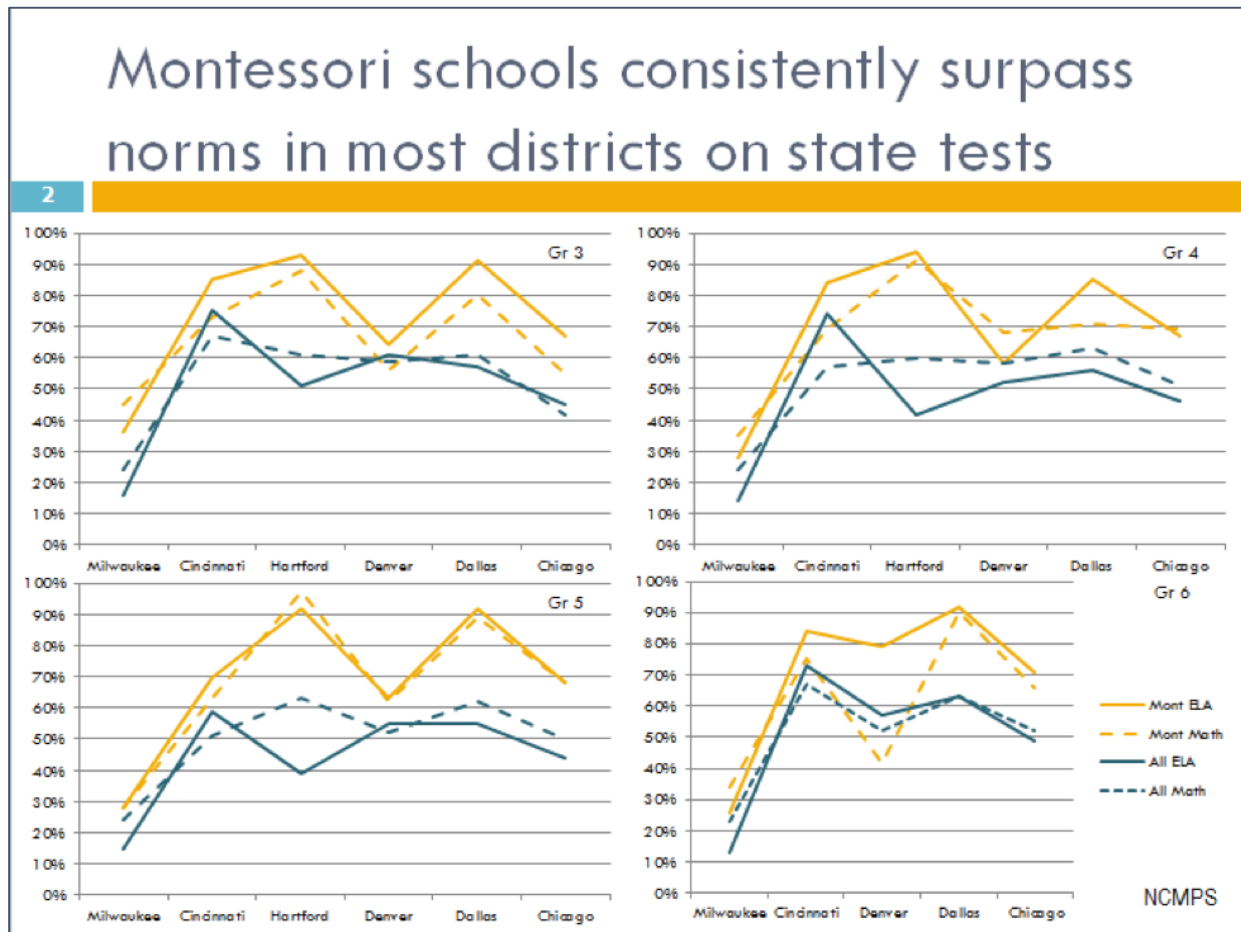


**Excerpt from “Expanding Access to Montessori Education: An Opportunity for Disadvantaged Students,”  
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**Does Montessori Work?**

A growing body of evidence demonstrates the success of this holistic approach in achieving strong results on both academic and socio-emotional student outcomes. A number of large, urban public school districts (Milwaukee, Cincinnati, Hartford, Denver, Dallas, and Chicago) have successfully implemented Montessori as a small part of their magnet, charter, and neighborhood schools. Based on school report card data, these Montessori public schools demonstrate superior academic results relative to other schools in their respective districts: the proportion of grades 3-6 students scoring at or above “proficient” on the states’ tests in in both English and math is higher in nearly every case. In fact, Montessori schools outperformed district results in 44 out of 46 comparisons and by an average of almost twenty percentage points (NCMPS, 2014).



Perhaps even more compelling is the fact that a peer-reviewed study published in the *Journal of Research in Childhood Education* shows that these early Montessori gains persist in mathematics achievement even after 7 years of traditional schooling. This particular study examined children who attended Milwaukee Public Montessori schools from ages 3 to 11 to a matched set of non-Montessori children who graduated from the same rigorous high schools. The children from Montessori backgrounds were superior to their peers on math and science assessments and were on par on English and social studies tests and grades. The authors suggest that such results may be due to the Montessori math curriculum's being distinctive and highly consistent, incorporating concrete abstraction and early exposure to complex mathematical concepts (Dohrmann, et al., 2007).

A number of other recently published peer-reviewed studies involving Montessori students from preschool through adolescence also demonstrate strong academic results along with effective development of "soft skills." One analysis compared Montessori private preschoolers to non-Montessori children with similarly well-educated parents. The results showed that the schools with a strong implementation of Montessori pedagogy demonstrated stronger school year gains in executive function, reading, math, vocabulary, and social problem-solving (Lillard, A., 2012).

Another peer-reviewed study compared outcomes for kindergarten and elementary aged students who attended an urban public Montessori school serving predominantly minority children to similar non-Montessori public school students by using lottery selection as a method of randomization. Five-year-olds in the Montessori programs evidenced superior results across many areas, including better scores on reading and math standardized tests, more positive interaction on the playground, more advanced social cognition and executive control, and more concern for fairness and justice. The twelve-year-olds enrolled in Montessori programs also showed superior strengths on socio-emotional measures; they showed more positive responses to stories depicting social dilemmas such as a situation in which children are having difficulty taking turns on the swing set. They also reported a stronger sense of community at school with more positive responses to statements such as, "Students in my class really care about each other" and "Students in this class treat each other with respect." In addition, the older Montessori children's essay compositions were rated as being more creative and as having a more sophisticated sentence structure than those of non-Montessori students (Lillard, A., 2006).

Finally, Rathunde and Csikszentmihalyi (2005a,b) examined outcomes of Montessori education at the adolescent level in a group of suburban and rural schools. The researchers used questionnaires and the Experience Sampling Method (ESM) where students were signaled eight times each day for a week and were asked to complete a short response form of their activities and feelings in that moment. They found that Montessori students were more positively engaged at school, articulated more positive perceptions of school and teachers, and were more likely to perceive classmates as friends. These adolescents also reported more energized feelings, stronger intrinsic motivation as well as more undivided interest and flow experience. Undivided interest was gauged by the amount of time students reported high intrinsic motivation (i.e., enjoyment, interest, and desire to be doing the activity) coincident with high salience (i.e., challenge level and importance of the activity). Similarly, flow was ascertained as times in which students were engaged in activities that were above average in both challenge level and required skills. The authors hypothesize that a rich social environment such as that found in Montessori adolescent programs yields deep engagement, enjoyment and concentrated work, compared to environments that reflect competition, ability grouping, and public evaluation, and that diminish student choice and cooperation.

<http://ciep.hunter.cuny.edu/expanding-access-to-montessori-education-an-opportunity-for-disadvantaged-students/>