

## New research: Quality early learning instills STEM skills and core character traits

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The Greater Susquehanna Valley United Way's Priorities for Impact is gaining momentum, as citizens tackle our biggest challenges and move our community forward. I'm especially amazed that the initiative's Early Childhood Education Council draws people from all walks of life, including businesspeople, health care providers, early childhood educators, and university officials.

All are attracted by the message of quality early childhood education, which offers one of the best returns on investment around by contributing to a strong, capable workforce. Quality early learning helps children develop the cognitive reasoning abilities and the foundation for learning that will make them desirable employees and good citizens.

Quality early learning is a solution to a critical dilemma facing us in the 21st century – that 60 percent of new jobs require skills that only 20 percent of the current workforce possesses, according to the U.S. Department of Education. Already, more than half of Pennsylvania employers can't find employees qualified to fill their jobs, and they expect the problem to get worse.

What kind of future will people have if they lack skills? At the end of the day, they become dependent on charity, and no one wants that.

Decades of compelling scientific research prove that quality early learning experiences resonate for a lifetime. Almost 90 percent of the brain is developed by age 5, laying the groundwork for academic and social success. Quality programs help young children develop core character traits, including stronger focus and self-control, better communication skills, critical thinking, and the abilities to work in teams or engage in self-directed learning.

Emerging studies also show that the ability to learn complex STEM skills – the science, technology, engineering and math concepts so critical to workplaces in the 21st century -- is grounded in the quality of prekindergarten learning.

Investments in young learners help build a capable workforce because research draws a clear, three-point link between high-quality early childhood education and high school graduation, which is an important starting point for job readiness.

First, young children who are disadvantaged – those at risk of failing in school due to adversity -- can be 18 months behind their peers developmentally when they enter kindergarten. Second, despite our best efforts at remediation, many of those children won't be reading or doing math at grade level by third grade. Finally, if they're not reading

proficiently by third grade, they won't comprehend much of their school work from then on, and they are four times more likely to drop out of school.

Quality prekindergarten stops the process before it starts, helping to close the learning gap for at-risk children by the time they enter kindergarten. From there, they're more likely to succeed in school and walk the stage on graduation day, ready for college or career studies.

Sadly in Pennsylvania, for every six 3- and 4-year-old children, only one has access to high-quality, publicly funded early childhood education. In tough economic times, difficult choices must be made by our policy makers. Governor Corbett's proposed 2014-15 state budget includes increased funding for evidenced-based early childhood programs such as Pre-K Counts, Pennsylvania's highest-quality early childhood education program. The proposed funding reaps strong, measurable dividends in children's academic achievement and their lifetime success. We all benefit, and it's time for everyone to step up in support of these investments in quality early learning that prepare children to join our communities and, ultimately, industries as productive neighbors and citizens.