



MISSION: READINESS

MILITARY LEADERS FOR KIDS

Virginia's Education System: Supporting Our National Security

How High-Quality Early Childhood Education Can Improve School Performance

MISSION: READINESS is the national security organization of more than 275 retired generals, admirals and other senior military leaders who support policies and investments that will help young Americans succeed in school and later in life, thus enabling more young adults to join the military if they choose to do so.

SUMMARY: At least one in eight young people in Virginia does not graduate from high school on time.¹ Even among Virginia's high school graduates, 26 percent of those seeking to enlist in the Army cannot join because of low scores on the military's basic exam for math, literacy and problem-solving, according to an analysis by The Education Trust.²

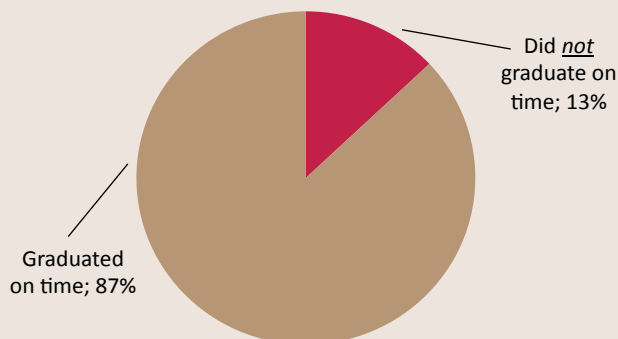
While there are other major disqualifying factors – including being overweight and having a criminal record – poor educational achievement is the biggest reason why an estimated 75 percent of all young Americans are unable to join the military.³

These alarming figures raise a critical question: Will our national education crisis soon become a national security crisis? While the military services are currently meeting their recruitment goals due in part to the poor economy, Defense Department officials have expressed concerns to Congress that such factors as inadequate education, obesity, poor physical fitness and involvement in crime have severely limited the pool of young adults qualified for military service and ultimately could pose a threat to our national security.⁴

Virginia has an opportunity to make tremendous strides to help its children and the nation's security. **We know what works to help more children do well in school and in life.** Long-term studies of high-quality early childhood education show that at-risk children benefit greatly from these programs. For example, children who participated in the High/Scope Perry Preschool Project were 44 percent more likely to graduate high school than those who did not.⁵ In addition, high-quality state early education programs are now beginning to show they can increase the literacy skills of those served and reduce the number of children held back in school.⁶

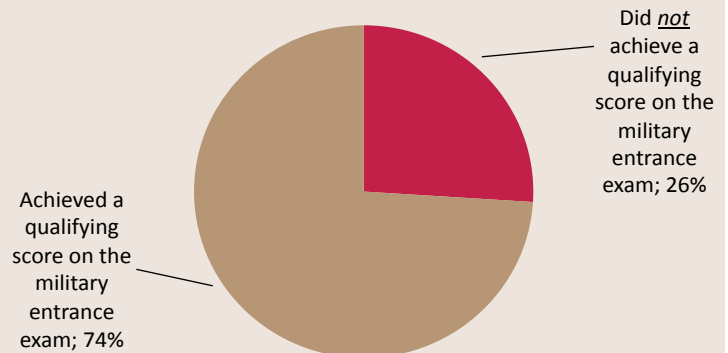
High school graduation and military entrance exam qualifying rates amongst young Virginians

PROPORTION WHO DO NOT GRADUATE: One in eight young Virginians do not graduate high school on time.



Source: Virginia Department of Education, 2011

PROPORTION WHO SCORE TOO LOW: Out of those young Virginians who do graduate and then try to join the Army, one in four cannot join because they score too low on the military's entrance exam.



Source: The Education Trust, 2010



High-Quality Early Childhood Education Works

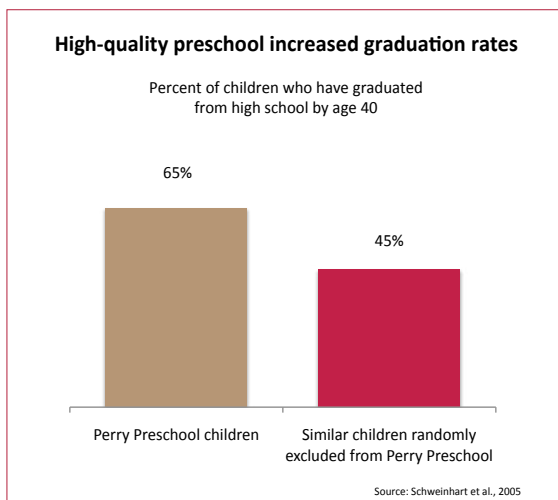
Early education can provide the solid foundation upon which effective school reform is built. Research following the graduates of preschool programs up to age 40 have shown that early education can produce very strong and lasting results.⁷ More recent studies of state programs provide further proof that high-quality early education can help disadvantaged children succeed. Here is some of that research:

The **High/Scope Perry Preschool Project** in Ypsilanti, Michigan, randomly assigned disadvantaged 3- and 4-year-olds to a high-quality pre-kindergarten program or to no intervention, and followed them over time. The results:

- By age 14, almost half of the disadvantaged children in the project were performing at a basic achievement level or better in school compared to just 15 percent of the children in the control group.
- The children who participated in the project were 44 percent more likely to graduate from high school.
- By age 27, those who did *not* attend the Perry Preschool were five times more likely to have been chronic criminal offenders than the children who participated.
- By age 40, those who attended the Perry Preschool were earning more on average and were, for example, one third more likely to have a car than those who did not attend.⁸

The **Abecedarian** home visiting and preschool program randomly assigned disadvantaged children in North Carolina, starting in infancy, to a high-quality early care and education program or to no intervention. The results:

- The children *not* in Abecedarian were 75 percent more likely to be held back in school.
- The children served by Abecedarian were 2.5 times more likely to be attending a four-year college at age 21.⁹



The modern military needs well-educated recruits.

The Chicago **Child-Parent Centers** pre-kindergarten programs have served over 100,000 at-risk children and have produced long-term results:

- By age 18, children left out of the program were 70 percent more likely than participants to have been arrested for a violent crime (and, if convicted, the individual would usually not be able to serve in the military).
- By age 20, the children left out were almost twice as likely to have been placed in foster care.
- By age 20, participants were 29 percent more likely to have graduated from high school.¹⁰

State pre-kindergarten programs now have evaluations proving that – if they are of high enough quality – they can deliver solid results:

- Children who did not attend high-quality pre-kindergarten in New Jersey were twice as likely to be held back by second grade (11 percent vs. 5 percent).¹¹ Michigan’s

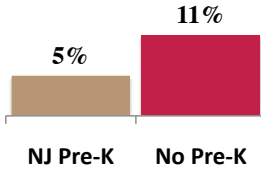
Other military disqualifiers

An estimated 75 percent of young Americans nationwide are unable to join the military because of low educational achievement, weight problems, involvement in crime or other disqualifying factors. For example, more than one in three young adults in Virginia is overweight or obese according to data from the Centers for Disease Control and Prevention. To be within a healthy weight range with a Body Mass Index under 25, these young adults would have to collectively lose more than 6.8 million pounds – the equivalent of 57 Abrams tanks.²⁴ Improving the quality of food served and sold in the schools and increasing the availability of active physical education can help young people to maintain healthier weight levels.

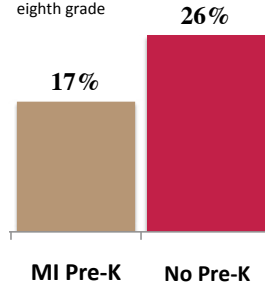


Pre-k helps reduce grade retention

Children left out of New Jersey pre-k were twice as likely to be held back
Percent of students held back by second grade



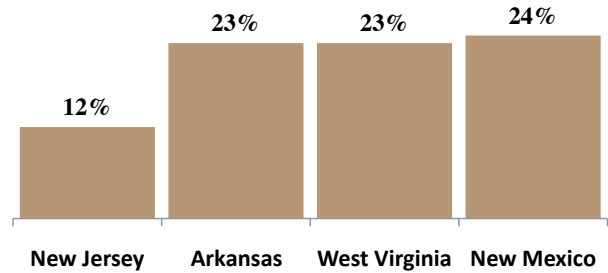
Children left out of Michigan pre-k were 51 percent more likely to be held back
Percent of students held back by eighth grade



Sources: Frede 2009; Maloffeva 2007

Pre-k improves literacy skills

Children attending pre-k answered 12-24 percent more questions correctly on a literacy test than children without pre-k



Percent more questions answered correctly on TOPEL or PRE-CTOPPP Print Awareness Test

Sources: Frede 2009; Lamy 2005; Hustedt 2007; Hustedt 2009

evaluation showed that the children who did not participate in the state's program were 51 percent more likely to be held back in school (26 percent vs. 17 percent).¹²

- In Oklahoma, New Jersey, Arkansas, West Virginia and New Mexico, studies show clear gains in literacy if the children attended pre-kindergarten programs, and Pennsylvania has shown impressive gains in reducing the number of children needing special education.¹³

Combined, the longer-term studies and the more recent state studies of high-quality programs provide solid evidence that early childhood education programs can provide the a secure foundation upon which to construct meaningful school reform in America.

Early Childhood Education in Virginia

The Virginia Preschool Initiative (VPI) serves 15,000 at-risk 4-year-olds, with eligibility based on locally determined risk factors like poverty and limited English proficiency. Fourteen percent of all 4-year-olds in Virginia are served.¹³

A 2007 analysis found that at-risk children who attended VPI programs performed better on a literacy assessment prior to kindergarten entry than would be predicted based on their background. Overall, kids attending VPI scored 13 percent higher at kindergarten entry than predicted, with Hispanic students faring 41 percent better.¹⁴

The current status of military recruiting

Due in part to the economic slowdown, military services are meeting or exceeding their recruitment goals. However Dr. Curtis Gilroy, director of Accession Policy in the Office of the Under Secretary of Defense for Personnel and Readiness, has warned that when the economy gains strength, recruitment and retention challenges could return if America does not do a better job now of producing more young men and women qualified for service.²²

For Fiscal Year 2013, VPI is expected to receive a \$5 million increase in funding, increasing total funding to \$68 million. This additional funding coincides with a small increase in total slots.¹⁵ Funding goes to public school districts and departments of social services, which can directly provide services or subcontract with private child care centers or Head Start. A local match is also required. Not all districts participate in VPI.¹⁶

Virginia also operates the Virginia Star Quality Initiative (VSQI), a voluntary five-star quality rating improvement system launched in 2007 to improve quality in child care centers, Head Start and private and state-funded preschool programs.

VSQI only serves parts of the state due to limited funding (federal, local and private) and only about 8,000 children have been impacted by their program's participation thus far.¹⁷

While Virginia is facing severe budget constraints, early education is one area where, along with federal help, the state should do all it can to expand and improve services – not cut them.

Savings from Early Education

The costs of failure can be very high. For example, each child who grows up to drop out, use drugs and become a career criminal costs society, on average, \$2.5 million. America also spends \$20 billion a year on child protection and foster care services.¹⁸ So what works to help disadvantaged children succeed can produce substantial savings later:

Net savings per student over their lifetime from early education investments

High/Scope Perry Preschool	\$244,812 ¹⁹
Chicago Child-Parent Centers	\$92,220 ²⁰

Nobel-prize-winning economist James Heckman has taken a strong stand for high-quality early childhood education, saying, "Make no mistake, reducing spending in some areas is necessary and warranted [to reduce the deficit]. However, when one has dug themselves into a hole, the solution is not to stop digging as much as to start digging the hand and toe holds that facilitate climbing out."²¹



Conclusion

There are more than 275 retired admirals and generals who are members of MISSION: READINESS.²³ We wish to make clear that investing wisely now in education reform – especially improvements in early childhood education – is a necessary investment in our national security. As an essential part of education reform, we support efforts to ensure that states improve and increase access to high-quality early learning, especially for their most disadvantaged children. Without enough skilled men and women available to serve in tomorrow’s armed services, we cannot maintain the strength of our military.

We strongly support state policymakers’ efforts to expand and protect funding for the Virginia Preschool Initiative and improve the quality of early learning programs through the Virginia Star Quality Initiative. Combined, these wise state efforts can produce the strong results Virginia needs.

Endnotes

1 The Virginia Department of Education, using one respected way to count graduates, reports that 13 percent of its students do not graduate on time, while the United States Department of Education reports that 22 percent do not graduate on time (that second figure is used in the map below because it can be compared with results from other states. It can be challenging to count graduates, and both of these approaches have their defenders. Neither should be seen as efforts to skew the data, as has happened in the past when local districts could use any approach they wanted. Chapman, C., Laird, J., Iffill, N., & KewalRamani, A. (2011). *Trends in high school dropout and completion rates in the United States: 1972-2009*. Compendium report (NCES 2012-006). Washington, DC: US Department of Education; Virginia Department of Education. (2011). *State-level cohort report, four year rate*. Richmond, VA: Author. Retrieved on January 18, 2012 from http://www.doe.virginia.gov/statistics_reports/graduation_completion/cohort_reports/index.shtml

2 Theokas, C. (2010). *Shut out of the military: Today’s high school education doesn’t mean you’re ready for today’s Army*. Washington, DC: The Education Trust. Retrieved on February 22, 2011 from http://www.edtrust.org/sites/edtrust.org/files/publications/files/ASVAB_4.pdf. Nationally, 22.6 percent of individuals seeking enlistment did not achieve a qualifying score on the Army’s entrance exam. In Virginia, 25.5 percent of individuals seeking enlistment did not achieve a qualifying score on the Army’s entrance exam.

3 Gilroy, C. (March 3, 2009). *Prepared statement of Dr. Curtis Gilroy, director of accession policy in the Office of the Under Secretary of Defense for Personnel & Readiness*. Before the House Armed Services Personnel Subcommittee “Recruiting, Retention and End of Strength Overview.”

4 Gilroy, C. (March 3, 2009). *Prepared statement of Dr. Curtis Gilroy, director of accession policy in the Office of the Under Secretary of Defense for Personnel & Readiness*. Before the House Armed Services Personnel Subcommittee “Recruiting, Retention and End of Strength Overview.”

5 Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40*. Ypsilanti, MI: High/Scope Press.

6 To access a selection of state pre-kindergarten evaluations with evidence of effectiveness, see: Fight Crime: Invest in Kids. (2010). *Research shows state pre-k works*. Washington, DC: Fight Crime: Invest in Kids. Retrieved on March 10, 2011 from www.fightcrime.org

7 Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40*. Ypsilanti, MI: High/Scope Press; Reynolds, A. J., Temple, J. A., Ou, S.R., Arteaga, I.A., & White, B.A.B. (2011). School-based early childhood education and age-28 well-being: Effects by timing, dosage, and subgroups. *Science*, DOI:10.1126/science.1203618. Published June 9, 2011 online at <http://www.sciencemag.org/content/early/2011/06/08/science.1203618>; Campbell, F.A., Ramey, C.T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science*, 6(1), 42-57.

8 Schweinhart, L. J., Barnes, H. V., & Weikart, D. P. (1993). *Significant benefits: The High/Scope Perry Pre-kindergarten study through age 27*. Ypsilanti, MI: High/Scope Press; Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40*. Ypsilanti, MI: High/Scope Press.

9 Campbell, F.A., Ramey, C.T., Pungello, E., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science*, 6(1), 42-57.

10 Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest. *Journal of the American Medical Association*, 285(12), 2339-2380; Reynolds, A.J., Temple, J.A., Ou, S.R., Robertson, D.L., Mersky, J.P., Topitzes, J.W., et al. (2007). Effects of a school-based, early childhood intervention on adult health and well-being: A 19-year follow-up of low-income families. *Archives of Pediatric and Adolescent Medicine*, 161(8), 730-739.

11 Frede, E., Jung, K., Barnett, W.S., & Figueras, A. (2009). *The APPLIES Blossom: Abbott Preschool Program Longitudinal Effects Study (APPLES): Preliminary Results through 2nd Grade / Interim Report*. New Brunswick, NJ: National Institute for Early Education Research.

12 Malofeeva, E., Daniel-Echols, M., & Xiang, Z. (2007). *Findings from the Michigan School Readiness program 6 to 8 follow up study*. Ypsilanti, MI: High/Scope Educational Research Foundation.

13 To access a selection of state pre-kindergarten evaluations with evidence of effectiveness, see Fight Crime: Invest in Kids. (2010). *Research shows state pre-k works*. Washington, DC: Fight Crime: Invest in Kids. Retrieved on January 23, 2012 from www.fightcrime.org

14 Joint Legislative Audit and Review Commission. (2007). *Virginia Preschool Initiative (VPI): current implementation and potential change. House document no. 44*. Richmond, VA: Commonwealth of Virginia. Retrieved on January 25, 2012 from <http://jlarc.state.va.us/Reports/Rpt364.pdf>

15 Personal communication on December 22, 2011 with John Morgan, Executive Director, Voices for Virginia’s Children.

16 Barnett, W.S., Epstein, D.J., Carolan, M.E., Fitzgerald, J., Ackerman, D.J. & Friedman, A.H. (2010). *The state of preschool 2010: State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research.

17 Voices for Virginia’s Children. (2011). *Building our future: The state of Virginia’s early childhood system*. Richmond, VA: Author. Retrieved on January 17, 2012 from <http://www.vakids.org/pubs/ECE/Building%20Our%20Future%20Oct%202011.pdf>

18 Cohen, M.A., & Piquero, A.R. (2008). New evidence on the monetary value of saving a high risk youth. *Journal of Quantitative Criminology*, 25, 25-49; Child Trends. (2010). *Total child welfare expenditures in SFY 2006, all sources*. Washington, DC: Author. Retrieved on February 24, 2011 from: <http://www.childwelfarepolicy.org/maps/single?id=2>

19 Schweinhart, L.J., Montie, J., Xiang, Z., Barnett, W.S., Belfield, C.R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40*. Ypsilanti, MI: High/Scope Press.

20 Reynolds, A.J., Temple, J.A., White, B.A.B., Ou, S.R., & Robertson, D.L. (2011). Age 26 cost-benefit analysis of the Child-Parent Center early education program. *Child Development*, 82(1), 379-404.

21 Heckman, J.L. (September 2010). *Letter from James J. Heckman to the National Commission on Fiscal Responsibility and Budget Reform*.

22 Personal communication with Dr. Curtis Gilroy, Director, Accession Policy (Military Personnel Policy), US Department of Defense, February 7, 20011.

23 For an up-to-date list, see our website www.missionreadiness.org/

24 This calculation of the excess pounds 18- to 24-year-old American women and men would have had to lose to be of healthy weight (below a BMI of 25) in each state and nationally was calculated by the CDC’s epidemiologist who processes BRFSS data, Liping Pan, and was provided in a table to MISSION: READINESS in a personal communication, March 18, 2010 and was originally reported in our national *Too Fat to Fight* report. Other findings for this survey can be found at: National Center for Chronic Disease Prevention & Health Promotion. (2011). Prevalence and trends data – Overweight and obesity. *Behavioral Risk Factor and Surveillance System*. Washington, D.C.: U.S. Department of Health and Human Services. Retrieved on December 12, 2011 from <http://apps.nccd.cdc.gov/BRFSS/>. The tank estimate is from: *M1 Abrams main battle tank*. Retrieved on December 12, 2011 from <http://www.globalsecurity.org/military/systems/ground/m1-specs.htm>. One tank equals 60 tons, or 120,000 lbs. 6.8 million pounds that must be lost equals approximately 57 tanks.

Acknowledgments

MISSION: READINESS is supported by tax-deductible contributions from foundations, individuals and corporations. MISSION: READINESS accepts no funds from federal, state or local governments.

MISSION: READINESS gratefully acknowledges the Early Care and Education Funders Collaborative of The Washington Area Women’s Foundation, whose generous support has made this report possible.

Major funding for MISSION: READINESS is provided by: Birth to Five Policy Alliance · The Boeing Company · The Annie E. Casey Foundation · The California Endowment · Early Care and Education Funders Collaborative of The Washington Area Women’s Foundation · The Grable Foundation · The Heinz Endowments · The J.B. & M.K. Pritzker Family Foundation · Robert Wood Johnson Foundation · W.K. Kellogg Foundation · The Oscar G. & Olga S. Mayer Family Foundation · William Penn Foundation · The Pew Charitable Trusts. The opinions expressed are those of the author(s) and do not necessarily reflect the views of The Pew Charitable Trusts.