

The State of
Early Childhood
in Virginia



OLD DOMINION UNIVERSITY

Virginia Early Childhood Policy Center

IDEA FUSION

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Table of Contents

Key Findings	3
Introduction.....	9
Economics of Early Childhood Development Programs	15
Early Childhood Education.....	25
Health and Wellness.....	37
Special Populations.....	53
Family Support Services	75
Conclusion.....	87





Key Findings



Key Findings from The State of Early Childhood in Virginia – 2013

The mission of the Virginia Early Childhood Policy Center is to develop materials and conduct original research that will lead to positive changes in early childhood policy and to provide useful information to parents, communities, schools and others directly involved with the well-being of Virginia's young children.

In this report, we provide a holistic overview of the state of early childhood programming throughout the Commonwealth of Virginia. Using publicly available data, we have created a broad snapshot of programmatic information focusing on economics, education, health and wellness, special populations, and family support services.

While our report highlights programs of promise throughout Virginia, it also identifies areas of critical concern. A primary challenge to developing this report has been a pronounced lack of current information documenting the effectiveness of many programs designed to meet our youngest children's most fundamental needs. Our work within the context of publicly available data indicates that Virginia's families face an undue burden as they seek effective services for their young children.

On behalf of all those who contributed their time and energy to this project, we hope that this report enhances understanding of the challenges faced by children, families, and service providers working to promote young children's healthy growth and development.

Critical Concerns

The following list includes many of the most pressing issues we have uncovered during the development of this report. These findings are highlighted here in order to urge Virginia's policymakers and service providers to carefully consider these areas of critical concern, given the important role that our youngest children will play in the long-term health and prosperity of Virginia. The findings listed below, in addition to many more, are discussed at greater length in the subsequent sections of this report.

- In Virginia's early childhood landscape, frequent systematic evaluation of program quality and outcomes is not prioritized and is exceedingly rare, though many programs are funded through federal and state dollars. Lack of programmatic outcomes information makes evaluating the effectiveness of programs impossible.
- Virginians lack access to a comprehensive clearinghouse of information about the availability and quality of programs across early childhood health, education, and various family support services, forcing families to make ill-informed choices about their children's care and education.
- While state funding for the Virginia Preschool Initiative was restored to near previous levels, child enrollment in this program has increased,¹ with a subsequent decrease in per child state spending during the 2011-2012 year. More children are being served through VPI, but the low state spending per child has unknown, uninvestigated effects on quality and outcomes.²
- Many localities throughout Virginia are unable to make use of state-allocated Virginia Preschool Initiative funds for various reasons. As such, while the General Assembly funds can accommodate more than 23,000 children, Virginia made use of only 16,618 of these slots during the 2012-2013 academic year.³
- As a result of the voluntary nature of Virginia's Quality Rating Improvement System for child care and providers (Virginia STAR Quality Initiative), large regions of the Commonwealth suffer from insufficient availability of quality-rated early child care programs.⁴
- Across the U.S., Virginia's children aged 2-5 years rank 33rd in overweight and 41st in obesity statistics. Nearly one out of three 2- to 5-year-olds (58,833) is either overweight or obese.⁵
- The most current U.S. infant mortality data indicate that Virginia ranks 34th—worse than the national average—in the number of infant deaths before age 1.⁶
- Military families and their children experience unique circumstances that can threaten healthy childhood growth and development. Virginia has the largest number per capita of military-connected dependents in the nation, with more than 90% of these dependents located in either Hampton Roads or Northern Virginia.⁷
- Between 2004 and 2012, the number of Virginia's children with special needs under age 3 increased nearly twofold, resulting in an anticipated deficit for 2013 in excess of \$8.5 million for services designated for these children (IDEA Part C).⁸
- Despite the Commonwealth's status as a leader in home visitation programs for families with young children,⁹ nearly 84% of eligible families in Virginia's Central, Eastern, and Southside regions will not receive home visitation services in 2013.¹⁰

Next Steps for Virginia

Moving forward, the Virginia Early Childhood Policy Center will address what we believe to be the grand challenges facing legislators, service providers, and families concerned with early childhood issues:

- Planning and implementing accountability measures to ensure that quality programs are available to all children,
- Disseminating information regarding the quality of early childhood programs and services to all stakeholders, and
- Collaborating with other organizations to build a comprehensive, integrated systems approach to early childhood programming.

(Endnotes)

1. Kids Count Data Center. (2013). *Four-Year Olds Served by Virginia Preschool Initiative*. Retrieved from: <http://datacenter.kidscount.org/data/tables/3258-four-year-olds-served-by-virginia-preschool-initiative?loc=48&loc1=2#detailed/2/any/false/1001,943,839,742,70/any/10488>
2. The National Institute for Early Education Research. (2013). *The state of preschool 2012*. New Brunswick, NJ: Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. Retrieved from http://nieer.org/sites/nieer/files/Virginia_0.pdf
3. Kids Count Data Center (2013). *Four-Year Olds Served by Virginia Preschool Initiative*. Retrieved from <http://datacenter.kidscount.org/data/tables/3258-four-year-olds-served-by-virginia-preschool-initiative?loc=48&loc1=2#detailed/2/any/false/1001,943,839,742,70/any/10488>
4. Smart Beginnings Organization. (2013). *Find a Star Rated Center/Home*. Retrieved from <http://www.smartbeginnings.org/home/star-quality-initiative/about-star-quality.aspx>
5. Centers for Disease Control and Prevention. (2013). *Pediatric and Pregnancy Nutrition Surveillance System, 2011*. Retrieved from http://www.cdc.gov/pednss/pednss_tables/pdf/national_table6.pdf
6. Virginia Performs. (2013). [Graph illustration infant mortality by region]. *Infant Mortality*. Retrieved from <http://vaperforms.virginia.gov/indicators/healthfamily/infantMortality.php>
7. Military Community & Family Policy. (2012). *2011 Demographics: Profile of the military community*. Washington, D.C.: United States Department of Defense, Office of the Deputy Under Secretary of Defense.
8. Virginia Department of Behavioral Health and Developmental Services. (2012). *Report on Virginia's Part C Early Intervention System*. Richmond, VA. Retrieved from [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/\\$file/RD261.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/$file/RD261.pdf)
9. Johnson, K. (2009) Strength-based Home Visiting: Strengthening programs through state leadership. National Center for Children in Poverty. Mailman School of Public Health: Columbia University, NY.
10. Virginia Department of Health, Division of Women's and Infants' Health. (2010). Home Visiting Survey.





Introduction

Early childhood education, health and development for children from birth to 5 years of age is a pressing issue for Virginians. A Mason-Dixon survey¹ conducted during June 2013 indicated that 54% of Virginia's likely voters were more concerned that Virginia's youngest children's needs were met than they were about the tax burdens that must accompany such investments in early childhood. Monetary and human capital investments during a child's first years are vital to the success of our Commonwealth's youth. Extensive research has shown that involvement in quality early childhood programs can significantly increase children's chances of avoiding incarceration as adults as well as improve their sociability, motivation, and self-esteem.² Similarly, early childhood programs enhance the likelihood that children, especially those from disadvantaged backgrounds, will successfully complete high school.³ Young children who take part in effective, high-quality early childhood programs experience more success once they enter college, allowing them to earn higher lifetime incomes.⁴

Effective early childhood programs have well-documented economic and societal value. Programs that target the early years – the Nurse-Family Partnership program, the Abecedarian Project, and the High/Scope Perry Preschool Study – are all national examples of high-quality programs that have demonstrated high economic returns for children and offer support for families.^{5,6,7,8}

Despite these encouraging reports, many children and families throughout Virginia are still waiting for the chance to participate in quality early childhood education, health, and development programs. This perpetual wait list is troublesome for Virginia since research indicates that children who enter kindergarten with cognitive or behavioral deficits continue to show deficits across their entire K12 education. These deficits, sometimes referred to as *achievement gaps* but more accurately characterized as *opportunity gaps*,⁹ will require a comprehensive range of resources and programs targeting childhood emotional, social, cognitive, linguistic, and health development. The early childhood years are becoming especially challenging for particular segments of Virginia's birth-5 population as families struggle to find the necessary means to meet the physical, social, and educational needs of their children.

While the importance of the success of our Commonwealth's youngest children is both intuitive and supported by extensive research, ensuring opportunities for success for all of our children has been inconsistent for several important reasons:

- Insufficient evidence exists of robust evaluation data on the effects of early childhood programs across the Commonwealth;
- Likely due in part to a lack of evaluation data, in general, the effectiveness of many of Virginia's early childhood programs is unknown to parents and families;
- The piecemeal funding and implementation approaches adopted by many of these programs make robust evaluation incredibly complicated;
- The Commonwealth's youngest children lack the means to advocate for themselves.

A Note on the Report's Contents

Data included in this report are largely limited to those that were publicly available via the Internet, as part of our purpose was to focus on information accessible to the general public. When it was deemed unavoidable, this report's authors made contact with other individuals, many of whom are identified in this report's Acknowledgments section, who had special access to data not available via the Internet. Data that were more than a few years old and data that seemed obviously obsolete were omitted from this report. On a related note, since new reports on early childhood issues are frequently published and subsequently augmented or otherwise modified—especially electronic reports disseminated exclusively via the Internet—the authors cannot guarantee that, at the time of this report's publication—fall of 2013, all data included represent the newest, most accurate data available. In addition, we sought to determine the most accurate data to report in instances when available programmatic data conflicted. That said, the report's contributors went to great lengths to ensure the accuracy of the data included as of the time of writing—fall of 2013.

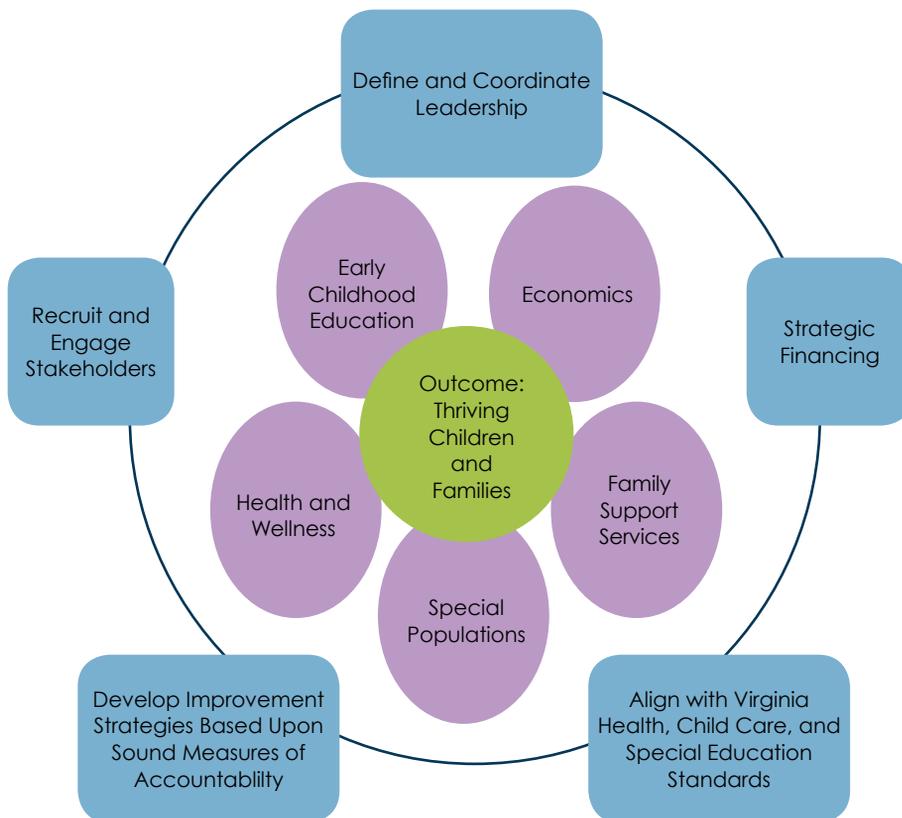
Currently, 1,850,215 children live in Virginia and of those, 510,187 are 5 years old or younger.¹⁰ This report is dedicated to painting a broad picture of the early childhood services in existence to serve those 510,187 children. Due to Virginia's diverse landscape, the regions within the Commonwealth vary widely in terms of the challenges they face and the programs that are in place to address these challenges. As such, whenever possible, this report delineates data by region to present an accurate picture of programs serving young children across the Commonwealth.

This report is driven by a need to call legislators', business leaders', and the general public's attention to a broad range of factors that impact the well-being of Virginia's young children and families. In the search for existing data, report contributors were troubled to find that most existing sources of information on early childhood in Virginia focus exclusively on a singular facet of the interconnected set of issues related to positive early childhood growth and development. As such, this report includes major sections devoted to economics, health and wellness, education, special populations, and family support services—issues essential to the development of a thorough understanding of the multifaceted, interconnected issues facing the Commonwealth's youngest children.

The Need for a Comprehensive Framework of Birth-5 Services in Virginia

A comprehensive view of early childhood programming is vital in order to make informed decisions about which programs are truly meeting the needs of the Commonwealth’s young children. This report’s broad focus serves to facilitate the development of an integrated, systems approach necessary to the successful holistic development of Virginia’s youngest children (Figure 1).¹¹ We recommend viewing early childhood programming through this integrated system as a means to break down silos that currently exist among stakeholders focusing on singular issues.

Figure 1
Components of a Comprehensive Early Childhood System in Virginia¹²





(Endnotes)

¹ Mason-Dixon Polling and Research. (2013). *Strong kids – Strong Virginia poll*. Jacksonville, FL.

² Heckman, J. J. (2012). *The case for investing in disadvantaged young children*. Retrieved from <http://heckmanequation.org/content/resource/case-investing-disadvantaged-young-children>

³ Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). *Early childhood interventions: Proven results, future promise*. Santa Monica, CA: Rand.

⁴ Heckman, J. J. (2012). *The case for investing in disadvantaged young children*. Retrieved from <http://heckmanequation.org/content/resource/case-investing-disadvantaged-young-children>

⁵ Heckman, J. J. (2012). *Ibid.*

⁶ Olds, D. (2002). Prenatal and infancy home visiting by nurses: From randomized trials to community replication. *Prevention Science*, 3, 153-172.

⁷ Campbell, F. A., Ramey, C. T., Pungello, E. P., Miller-Johnson, S., & Sparling, J. J. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science*, 6, 42-57.

⁸ Schweinhart, L., 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 Ladson-Billings, G. (2006). From the achievement gap to the education debt: Understanding achievement in U.S. schools. *Educational Research*, 35(7), 3-12.

¹⁰ Children's Defense Fund. (2013). *Children in Virginia* [data file]. Retrieved from <http://www.childrensdefense.org/child-research-data-publications/data/state-data-repository/cits/2013/2013-virginia-children-in-the-states.pdf>

¹¹ Zero To Three: National Center for Infants, Toddlers and Families. (2012). *Putting the pieces together for infants and toddlers*. Washington, DC.

¹² Adapted from Zero To Three: National Center for Infants, Toddlers and Families. (2012). *Putting the pieces together for infants and toddlers*. Washington, DC.





Economics of Early Childhood Development Programs

In the past decade, early childhood development has attracted the attention of numerous high-profile economists including Nobel laureate and University of Chicago Professor, James Heckman; Chair of the Board of Governors of the Federal Reserve System, Ben Bernanke; and President of the Federal Reserve Bank of Richmond, Jeffrey Lacker.

The Federal Reserve Bank of Minneapolis considers the topic important enough to devote a “Special Study” of its website to it.^{1, 2}

While it may be obvious why parents, grandparents, and other family members would be motivated to care about early childhood issues, the attention it has received from so many leading economists may at first glance seem to be unusual. The explanation is really quite simple: the evidence in favor of early childhood development programs as a tool for economic growth and development is just too overwhelming to ignore. In fact, compared to alternative strategies to promote individual, regional, and state economic development, high-quality early childhood programs appear to be one of the best development strategies (if not *the* best) in terms of benefit per dollar spent. National examples of such high-quality programs that provide considerable private and public benefits include preschool for 3- and 4-year-olds, such as the Chicago Child-Parent Center (CCPC) program, and home visit programs such as the Parent-Child Home Program (PCHP) and the Home Instruction for Parents of Preschool Youngsters (HIPPY).

Any economic view of early childhood development has its foundations in a broader economic concept that is known as “human capital.” Human capital is the term used to describe – in a very broad sense – all of the talents, abilities, knowledge, and initiative that individuals possess. These human capital attributes may be both innate and acquired and help to form the marketable skills that we all bring to our jobs every day.

The more skills brought to the job, the more *productive* an individual can be.

In a market-based economy, individuals who are more productive are generally rewarded with greater compensation (wages plus benefits) than those less skilled at creating goods and/or services that their fellow citizens want to buy. In other words, for any individual, their human capital is one of the strongest predictors of their current *and future* economic productivity, which in turn is one of the strongest predictors of their earnings and overall economic well-being. Of course, this is not to suggest that an individual’s earnings are the only – or even the most important – goal to pursue. However,

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¹ Bernanke, B. S. (2012). Early childhood education. Children’s Defense Fund National Conference, Cincinnati. July 24. Speech.
² Lacker, J. M. (2007). Early childhood development and economic growth. Governor’s Summit on Early Childhood Development, Richmond. July 27. Speech.

when we look at broader measures of life satisfaction and overall happiness, it turns out that our economic well-being is very tightly linked to just about every meaningful quality-of-life measure.³

While the relationship between one person's own human capital and their personal economic health should not be surprising, it may surprise some to learn that there is considerable evidence that human capital investments also generate substantial benefits to society at large. This occurs for several reasons. First, *any* economic growth will generate "spillover benefits" to society at large in the form of new goods and services and job creation. Second, individuals with more human capital are better at acquiring new skills, which translates into even more economic development and additional opportunities to invest in human capital. Third, ideas do not wear out or require maintenance like buildings or machinery and will continue to become even more accessible to others in the future. In fact, a recent study found that a state's "knowledge stocks" are the most important factor explaining differences in per capita income growth across U.S. states over a long period of time (1939-2004). These "stocks" included the proportion of the state's residents with a high school degree, the proportion with a bachelor's degree, and the number of patents held by businesses or people.⁴ Finally, individuals with greater opportunity and ability (access to education, health care, socializing) tend to have better life outcomes, which has been shown to save society money in the long run. Social problems and their treatments that impose considerable costs on society at large such as crime, teen pregnancy, school dropouts, unemployment, and health problems, can all be "traced to low levels of skill and ability."⁵ Existing social programs to "treat" these social problems after they occur often have lackluster results because the individuals lack a strong human capital foundation, so they have trouble learning, socializing, or being disciplined with their time and efforts, all of which are required to be productive participants in society. **However, instead of treating problems, society can work to prevent or reduce these outcomes by investing in the human capital of children, helping to raise citizens who will be self-sufficient and more productive.**

From the perspective of regions, states, or nations, how productive or innovative we are in terms of creating goods and services is *the* engine that drives economic growth, and economic growth is an incredibly powerful phenomenon that deserves closer attention. Although it may seem as though small differences in the average growth rate between two cities, counties, or states is inconsequential, quite the opposite is actually true, especially over long periods of time. Our standard of living – all of the advancements in health care, transportation, and personal entertainment that enrich our lives on a daily basis – will double once every 35 years in a state that grows at an average rate of 2% per year, compared to doubling once every 70 years if the average growth rate falls to 1% per year.

Formal schooling, job training programs, and other similar activities are the most common ways we try to invest and grow our human capital. However, the evidence is clear and overwhelming that early childhood intervention is one of the most cost-effective methods to develop human capital and promote economic development in both the short- and long-term.

Intervention in the form of quality early childhood programs for children, and especially for at-risk children, provides lifelong individual benefits by ensuring a strong foundation of skills that will

³ Easterly, W. (1999). "Life during growth: International evidence on quality of life and per capita income" World Bank, Policy Research Paper No. 2110.

⁴ Bauer, P. W., Schweitzer, M. E. & Shane, S. (2006). State growth empirics: The long-run determinants of state income growth. Federal Reserve Bank of Cleveland, Working Paper No. 06-06.

⁵ Heckman, J. J. (2008). Schools, skills, and synapses." *Economic Inquiry* 46(3), 289-324.

dramatically improve their lives *and* reduce the costly social problems that can dampen economic growth. Two seminal studies of the long-term effects of early childhood education – the High/Scope Perry Preschool Study and the Abecedarian Project – have shown that such programs generate substantial gains to participants and society at large that have lasting effects far beyond the early childhood years. In addition, both studies meet the “gold standard” for research design by randomly assigning the children to either the group that received the additional early childhood schooling or to the comparison group that did not receive any additional schooling. This is extremely important because the randomized design gives us the highest level of scientific certainty that early childhood education is *the* causal factor between the skills and life outcome differences we have observed in the study participants over their lifetimes.

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The High/Scope Perry Preschool Study (1962-67) tracked the outcomes of 123 disadvantaged 3- and 4-year-old children at several age points in their lives up to the age of 40. The students were randomly divided into two groups, where one group was provided free access to part-time preschool and a home visit by the student’s teacher every week, and the other group was the control group that did not receive the preschool program. The project was motivated by the observation that disadvantaged children (i.e., low income, single-parent, etc.) were often far behind other students when entering primary school. School system officials reasoned that if they could educate at-risk children earlier, then the students would be better prepared for primary school and hopefully produce better life outcomes.

The Perry study collected information on all participants annually between the ages of 3 and 11 and again at ages 14, 15, 19, 27, and 40. While one might expect the children who received the additional pre-schooling to benefit while in the program (which they did), the benefits had lasting effects at *every* age point through age 40. (The age 40 results were published in 2005.) As of age 40 for example, the preschool group was less likely to be arrested, less likely to have teen pregnancies, less likely to have received government assistance, more likely to have graduated high school, more likely to have higher earnings, and more likely to have better health.⁶ Graph 1 summarizes some of the major results between the preschool and non-preschool groups at age 40.

The broader benefits to society at large from the preschool group in the Perry study are also considerable and are illustrated in Graph 2.

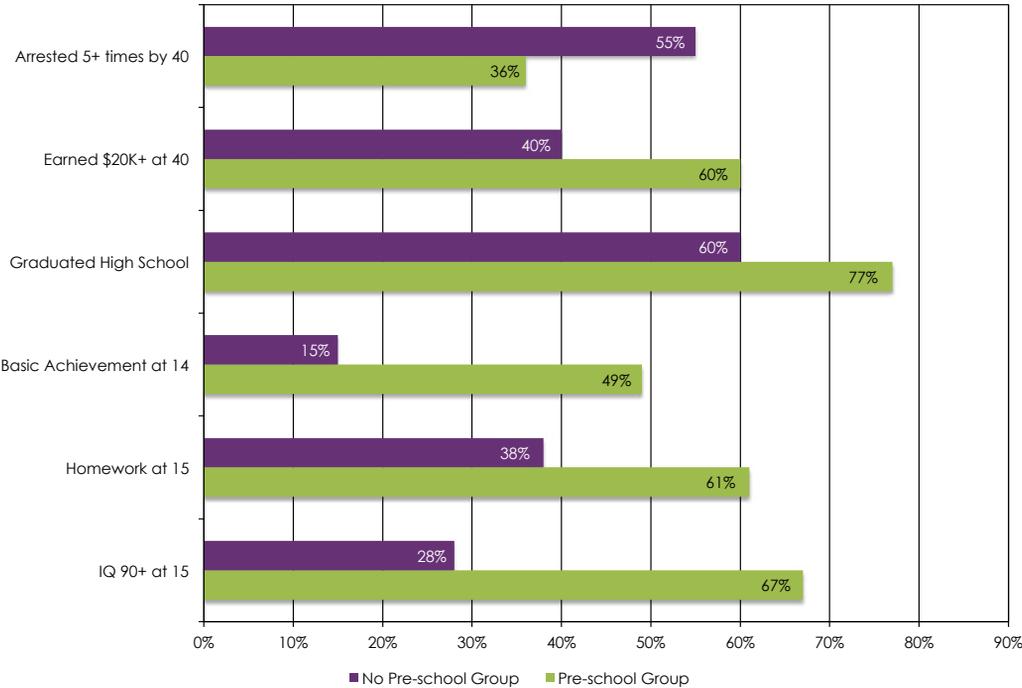
For public and private benefits, the total economic return for the \$20,000 invested in each preschool student (in 2012 dollars) was more than \$330,000 per participant, which is a return of more than \$16 per dollar invested. Of this \$330,000 total return, Graph 2 shows that the public benefit accounted for more than \$264,000 (or 80% of the total return). Preschool program participants were less costly to educate over their lifetime to age 40 (a savings of \$9,800), less likely to be on welfare (a savings of

⁶ 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: Summary, conclusions, and frequently asked questions. High/Scope Press, Ypsilanti, MI.

\$3,700), less likely to commit crimes and be part of the criminal justice system (\$230,000), and paid more in taxes by age 40 because of greater earnings (\$19,000). Hence, from a public perspective alone, each dollar invested in the Perry Preschool program generated a return of almost \$13.

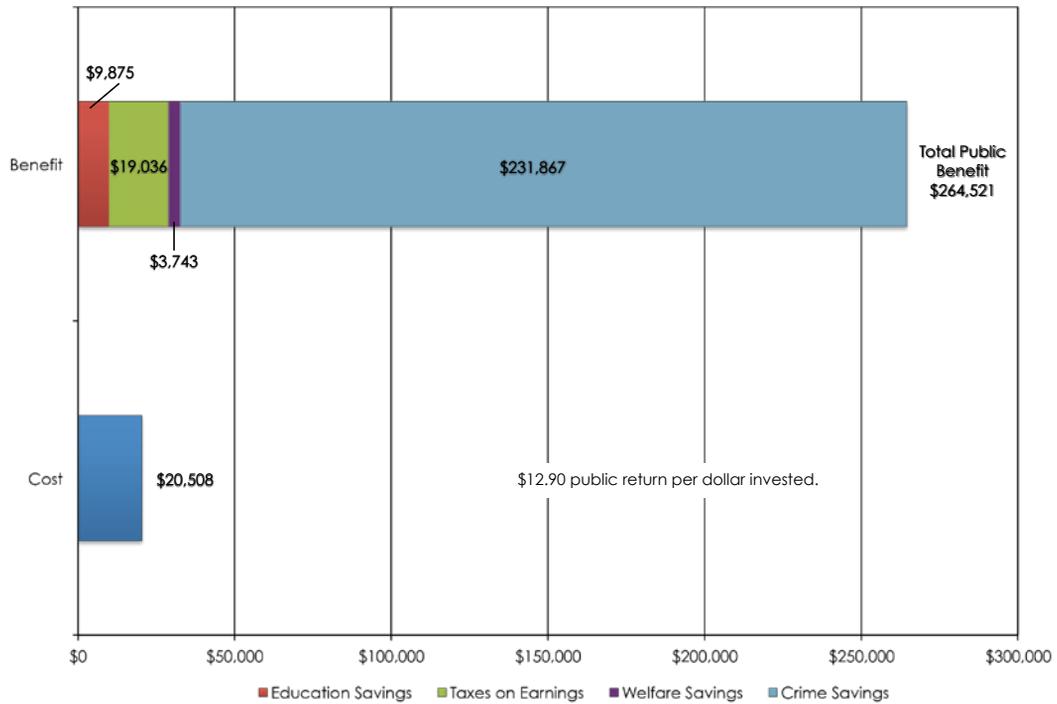
A second groundbreaking study, the Abecedarian Project (1972-77), followed a similar design as Perry, except this program provided five years of full-time (10 hours/day) child care from birth to age 5. Both study groups were given nutritional guidance, health care, and access to social services to neutralize these effects while in the program. The guidance for this program was the same for the participants (more time to educate will better prepare students), but the Abecedarian Project also made it possible for the parents of the preschool participants (more than 80% were single-female households) to finish school, enroll in a university, and/or work more. Studies of the participants' mothers have also shown that the mothers of the preschool participants had fewer children.

Graph 1
Major Findings of the High/Scope Perry Preschool Study – Participants at Age 40



Source: The High/Scope Perry Preschool Study Through Age 40: Summary, Conclusions, and Frequently Asked Questions, by Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005).

Graph 2
High/Scope Perry Preschool Study Costs and Benefits – 2012 Dollars



Source: The High/Scope Perry Preschool Study Through Age 40: Summary, Conclusions, and Frequently Asked Questions, by Lawrence J. Schweinhart, Jeanne Montie, Zongping Xiang, W. Steven Barnett, Clive R. Belfield, and Milagros Nores, 2005.

The most recent Abecedarian Project follow-up released in 2012 occurred when the participants were 30 years old. Similar to the High/Scope Perry Preschool Study, participants in the Abecedarian Program were found to be less likely to have teenage pregnancies, less likely to use cigarettes, less likely to have used government assistance, and more likely to be in a higher skill job. Moreover, by the age of 30, for example, students who participated in the early childhood education program were almost five times more likely to graduate from college than individuals from the non-participant control group.⁷ From an investment perspective, every dollar spent in the Abecedarian Project generated roughly \$3 of net benefits to society when participants had reached the age of 21.⁸ The benefits at age 30 have not yet been estimated, but it is likely that they will increase due to the fact that levels of educational attainment and earnings widened between participants and non-participants from the ages of 21 to 30.

While the Perry and Abecedarian projects have clearly demonstrated that early childhood development programs provide substantial individual and societal benefits that far outweigh program costs, early childhood investments are also extremely competitive as broader economic development initiatives relative to other popular development strategies, such as business subsidies. These subsidies, typically tax incentives to make a particular area more inviting to a business, often appear to be the more worthwhile strategy but in reality they feature several drawbacks. Business subsidies offer a good image to a state or city by making the area seem more competitive than another place and by allowing officials to boast

⁷ Campbell, F. A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B., Barbarin, O., Sparling, J. J., & Ramey, C. T. (2012). Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up. *Developmental Psychology* 48(4), 1033-1043.

⁸ Kilburn, M. R. & Karoly, L. A. (2008). The economics of early childhood policy: What the dismal science has to say about investing in children. The Rand Corporation, Occasional Paper OP-227.

about large numbers of new incoming businesses. Business subsidies also are often used to target a specific company or activity, so the implementation and benefits come relatively fast. However, there is considerable evidence that business subsidies are better at resource and “job shifting” than they are at creating net new jobs. For instance, while business incentives may attract new businesses to a state, the prospect of employment attracts more workers. In one way this is a good thing for a state (i.e., more citizens equal more resources for the state); however, more workers in a state might mean that existing in-state workers are still without a job. After 10 or so years, the majority of jobs in brought-in businesses are filled by workers who were not residents of the state before the businesses arrived.⁹ Also, the subsidy strategy does not provide the cost savings that early childhood programs do. Brought-in businesses often feature some higher skill level than existing businesses, and while this clearly has a benefit, it does almost nothing for poorer, less-skilled communities, so many of the existing social problems will continue. Finally, from a national perspective, a job taken from one area to another (from North Carolina to Virginia, for example), or “job shifting,” has a zero-net effect on the national economy.

... investments in early childhood programs promote local economies by creating jobs that do not move around much (i.e., teachers) and were not lured away by other states.

In addition to the exclusive economic benefits of the programs (less crime, better-skilled citizens), investments in early childhood programs promote local economies by creating jobs that do not move around much (e.g., teachers) and are not lured away by other states. One downside to early childhood programs is that they do not generate the same headlines as attracting 1,000 jobs to an area because early childhood programs are a very long-term development strategy. However, one of the leading economic development researchers in the nation, economist Timothy Bartik of the W.E. Upjohn Institute, has carefully examined data on business subsidies and early child care programs in order to compare the two as economic development strategies. His work has found that early childhood programs consistently outperform business subsidies in terms of job creation and income gains.

... early childhood programs consistently outperform business subsidies in terms of job creation and income gains.

Assuming an initial investment of equal amounts, Bartik’s study estimates how a “representative” state can expect to fare with regard to jobs and earnings over the long term from a business subsidy program and an early childhood program. The four preschool programs he examines in detail include Universal Preschool, Abecedarian, Nurse-Family Partnership, and a Parent-Child Home Program. Using the most recent data available for Virginia, we have tailored the estimates from Bartik’s study to pose the “what if” question for the Commonwealth. These estimates, presented in Table 1, show how Virginia is estimated to benefit in terms of jobs and earnings over a 50-year period if an equal dollar investment were made into (a) a business subsidy versus a Universal Preschool program where 70% of children are enrolled, (b) a business subsidy versus an Abecedarian-type program in which 15% of children are enrolled, (c) a business subsidy versus a Nurse-Family Partnership program with 9% of children enrolled, and (d) a business subsidy versus a Parent-Child Home Program with 5.5% of children enrolled.

⁹ Bartik, T. J. (2008). The economic development effects of early childhood programs. W.E. Upjohn Institute for Employment Research Working Paper.

Table 1 Estimated Effects of Early Childhood Programs Versus Business Subsidies for Virginia							
Program	Thousands of Jobs Created			Income Gains in \$Millions			Children Helped
	Early Childcare	Business Subsidy	Early Childcare Net	Early Childcare	Business Subsidy	Early Childcare Net	
Universal Preschool	50.41	22.95	+27.46	\$5,353	\$4,397	+\$956	356,721
Abecedarian	78.26	51.17	+27.09	\$8,871	\$9,750	-\$879	76,440
Nurse Family Partnership	6.02	4.89	+1.13	\$688	\$918	-\$229	45,864
Parent-Child Home Program	3.76	1.50	+2.26	\$688	\$268	+\$421	28,028

Source: Adapted from Bartik (2008), Bureau of Labor Statistics, US Census Bureau. Values as of August 2013. All prices in 2012 dollars.

As the results illustrate, all of these programs would have a meaningful impact on Virginia families and the Commonwealth's economy. In terms of jobs, every early childhood program is estimated to generate more jobs than any potential business subsidy. In fact, a Universal Preschool program and an Abecedarian-type program both are estimated to create 27,000 more jobs than a business subsidy over a 50-year period. It is important to also note that the jobs created by the preschool program are generated by the programs themselves rather than simply being relocated from some other state, giving cause for the federal government to prefer and possibly incentivize states to choose this route of development.

The growing evidence and realization of the benefits of early childhood intervention as a vehicle for economic growth suggest that this will be an important policy issue for Virginians in the years ahead.

As for income gains, two of the preschool programs create less earnings than the business subsidy. The Abecedarian Program is the most expensive and brings in the highest job and income gains of all the programs, but does not outperform a subsidy in income effects because of the program's high initial cost. In contrast, however, a Universal Preschool program creates the second-largest effects in both categories, but is able to outperform a business subsidy both in terms of jobs and earnings gained over a 50-year time horizon. The Universal Program, which Bartik (2008) assumes would have 70% of children enrolled, would also touch the lives of more than 350,000 children who call the Commonwealth home.

While investments in early childhood development and preschool are certainly long-term endeavors, they provide very high returns from a cost-benefit perspective both for the children enrolled and for society at large. In fact, relative to a standard business subsidy model to promote economic development, many early childhood programs far outperform the subsidies both in terms of jobs created and earnings. The growing evidence and realization of the benefits of early childhood intervention as a vehicle for economic growth suggest that this will be an important policy issue for Virginians in the years ahead.







Early Childhood Education

After a child's first five years of early childhood experiences, some children arrive at elementary school with the foundation to learn to read and engage in mathematics, science, and other content areas already in place, while others have yet to build a foundation for readiness. Initial readiness differences are powerful predictors for later school achievement, economic productivity, and health.¹ Child care and preschool attendance is increasing for America's young children with more than 1.3 million children (28%) attending state-funded preschool at age 4 in 2011-12². Accordingly, the general public has become increasingly aware of the need for high-quality early childhood care and education for children ages birth-5 that promotes children's cognitive (including early math and science skills), linguistic, emotional, social, and physical development. Decades of research on the policy and economic outcomes of early childhood programming indicate that high-quality programs help to ameliorate effects of poverty and other risk factors, better preparing children for later school experiences. High-quality early childhood education has the potential to eliminate achievement gaps prior to school entry and promote better outcomes across the lifespan.^{3, 4, 5}

At the present time, 52 state-funded prekindergarten programs exist in 40 states (as well as one in the District of Columbia) to supplement federal early education initiatives such as Head Start.⁶ In Virginia, this program is called the Virginia Preschool Initiative (VPI). Despite Head Start and VPI programming, large numbers of children continue to arrive at school unprepared for cognitive, language, and social expectations of kindergarten. As such, significant achievement gaps persist as Virginia's children enter the primary grades.^{7, 8} This section will present data on the availability and quality of child care and early education experiences in Virginia.

¹ Knudsen, E. I., Heckman, J. J., Cameron, J. L., & Shonkoff, J. P. (2006). Economic, neurobiological, and behavioral perspectives on building America's future workforce. *Proceedings of the National Academy of Sciences*, 103(27), 10155-10162.

² Barnett, W.S., Carolan, M.E., Fitzgerald, J., & Squires, J.H. (2012). *The state of preschool 2012: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.

³ Burchinal, M. R., & Cryer, D. (2004). Diversity, child care quality, and developmental outcomes. *Early Childhood Research Quarterly*, 18(4), 401-426.

⁴ Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children*. National Academies Press.

⁵ Vandell, D. L., Belsky, J., Burchinal, M., Steinberg, L., & Vandergrift, N. (2010). NICHD Early Child Care Research Network. Do effects of early child care extend to age 15 years? Results from the NICHD study of early child care and youth development. *Child Development*, 81(3), 737-756.

⁶ Barnett, W.S., Carolan, M.E., Fitzgerald, J., & Squires, J.H. (2012). *The state of preschool 2012: State preschool yearbook*. New Brunswick, NJ: National Institute for Early Education Research.

⁷ Halle, T., Martinez-Beck, I., Forry, N.D., & McSwiggan, M. (2011). Setting the context for a discussion of quality measures: The demographic landscape of early care and education (pp. 3-10). In Martinez-Beck, I., Tout, K., & Halle, T. (2011). *Quality measurement in early childhood settings*. Paul H. Brookes Publishing Company.

⁸ Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children*. National Academies Press.

The specific topics covered in this section are as follows:

REGULATED CHILD CARE BY REGION

Child care programming occurs in state-licensed, registered, and unregulated settings. As such, large numbers of children receive care outside the home that is not regulated by the Virginia Department of Social Services (VDSS). This number includes children who are cared for by neighbors, friends, or extended family members. Children receiving care in unregulated settings make up a large segment of Virginia's birth-5 population, but data allowing for an accurate count of these children does not exist.

PREVALENCE OF QUALITY-RATED (QRIS) OR ACCREDITED CARE BY REGION

While the VDSS ensures that regulated child care settings meet basic health and safety standards, additional organizations provide broader evaluations of educational quality within our child care settings.

THE ECONOMICS OF INFANT AND CHILD CARE

Quality child care is a major expense for families with young children. In Virginia, federal and state programs exist to help families shoulder the economic burden of securing high-quality care for their children.

Definitions of Child Care and Education Settings

Child Day Centers — In Virginia, a child day program is a service arrangement where, when a parent or guardian is not present, a person or organization agrees to assume responsibility for the supervision, protection and well-being of a child under the age of 13 years for less than a full, 24-hour day. Licensed programs must meet the standards implemented by the State Board of Social Services and enforced by the Virginia Department of Social Services.

Certified PreK Centers — Virginia law allows preschool programs operated by private schools that are accredited by a statewide accrediting organization (or another accrediting organization recognized by the Board of Education) to be exempt from licensure.

Family Day Home Care — Virginia law requires family day homes that serve between 6 and 12 children (not including any children who reside at the home) to be licensed. The care may be offered in the child care provider's home or in the home of any of the children in care.

Religious Exempt Child Day Centers — Virginia law allows child care centers operated by religious institutions exemption from licensure requirements. Unlike licensed centers, religious exempt centers do not have to meet the regulations prescribed by the Child Day Care Council.

Military Child Care — Child care for children of Virginia's military personnel is offered on 17 installations throughout Virginia, as accounted for in the accreditation records of the National Association for the Education of Young Children. They are certified by the Department of Defense and regulated by the respective branches of the military.

Region	Child Day Center	Family Day Home	Short Term CDC	Religious Exempt CDC	wCertified Pre-K	Voluntary Registered Child Day Homes	Military
Northern	1017	880	37	242	4	241	3
Eastern	117	44	2	64	1	68	1
Hampton Roads	494	162	16	242	2	398	11
Valley	97	34	6	69	0	32	0
Central	472	228	13	243	4	231	2
Southside	82	34	0	35	0	39	0
West Central	200	62	3	115	0	26	0
Southwest	110	39	0	41	0	15	0

- **Head Start** is a national child development and education program for children from birth to age 5, which provides services to promote academic, social, and emotional development for income-eligible families.
- **The Virginia Preschool Initiative (VPI)** provides services to 4-year-olds who meet locally determined risk criteria and are not served by Head Start. The program operates in public schools and community-based settings. Virginia’s VPI enrollment has increased 10% since 2002, although only 16% of the state’s children were served by the program in the 2011-12 school year.⁹
- In 2012, across the state, 16,618 children were served by the Virginia Preschool Initiative¹⁰ and 17,478 children were served by Head Start programming.¹¹

The majority of Virginia’s children are cared for by child day centers, family day home care settings, voluntary registered child day homes, and religious exempt centers.

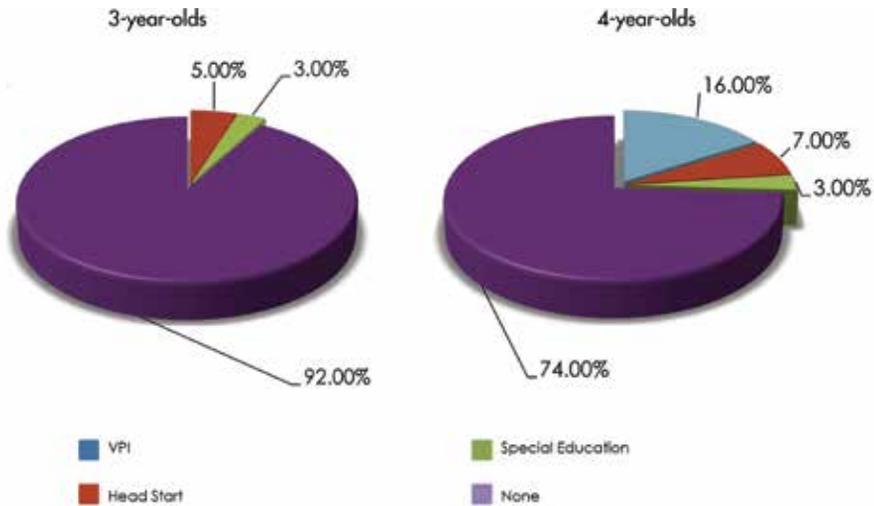
⁹ Barnett, W.S., Carolan, M.E., Fitzgerald, J., & Squires, J.H. (2012). The state of preschool 2012: State preschool yearbook. New Brunswick, NJ: National Institute for Early Education Research.

¹⁰ Kids Count Data Center. (2013). Four-Year Olds Served by Virginia Preschool Initiative. Retrieved from: <http://datacenter.kidscount.org/data/tables/3258-four-year-olds-served-by-virginia-preschool-initiative?loc=48&loc=2#detailed/2/any/false/1001,943,839,742,70/any/10488>

¹¹ Kids Count Data Center. (2013). Head Start Enrollment by age group. Retrieved from: <http://datacenter.kidscount.org/data/tables/5938-head-start-enrollment-by-age-group?loc=48&loc=2#detailed/2/48/false/868,867,133,38,35/1830,558,559,1831,122/12570>

Graph 1

VPI and Head Start Enrollment – Percentage of Total Population¹²



Prevalence of Quality-Rated (QRIS) or Accredited Care by Region

State licensing standards are important for health, safety, and teacher qualifications, but they represent only a minimum standard for child care and education. **National organizations such as the National Association for the Education of Young Children (NAEYC), the Association for Early Learning Leaders, and Zero to Three have developed standards and voluntary systems of accreditation that have higher, more comprehensive standards and expectations than state licensing regulations.**

Quality in early childhood settings has emerged as an important factor in determining whether the potential benefits of educational experiences before kindergarten will be realized. Quality rating and improvement systems (QRISs) are a method to assess, communicate, and improve the level of quality in early childhood settings. Virginia's QRIS, known as the Virginia Star Quality Initiative, operates in classrooms, centers, and family child care settings across all regions of the state.

QRIS IN VIRGINIA

- In Virginia, the QRIS rating system is operated on a voluntary basis in every region of the state. In the Virginia Star Quality Initiative (VSQI), each participating preschool, child care program, or family child care home is given a star rating, from one (lowest) to five (highest) stars. The star rating system examines four standard areas – 1) education, qualifications, and training; 2) interactions; 3) structure; and 4) environment and instruction – and areas have indicators that must be achieved at each star level.

¹² Barnett, W.S., Carolan, M.E., Fitzgerald, J., & Squires, J.H. (2012). The state of preschool 2012: State preschool yearbook. New Brunswick, NJ: National Institute for Early Education Research.

- Currently, there are 341 classroom-based sites and 77 family child care homes participating, serving more than 15,000 children in Virginia. The average QRIS program rating is three stars (of a maximum five stars).¹³

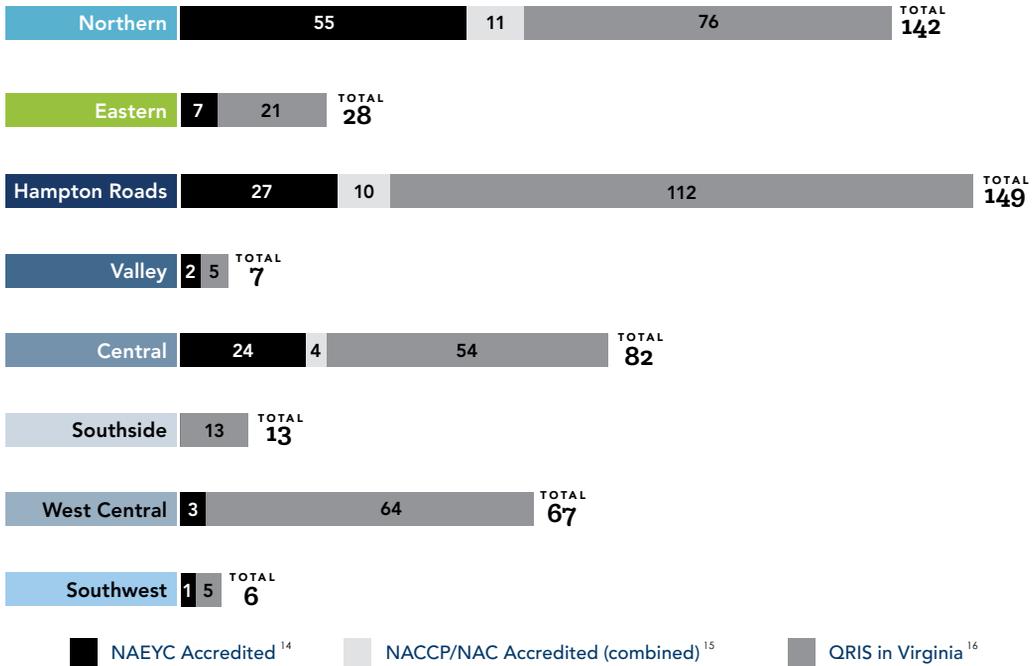
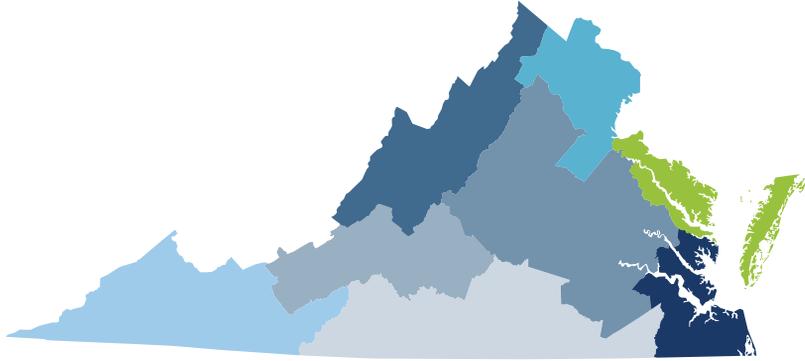
NATIONAL ACCREDITATION IN VIRGINIA

- The largest professional organization of early childhood educators is the National Association for the Education of Young Children (NAEYC). NAEYC accreditation of programs for young children represents the benchmark of quality in early childhood education. NAEYC accreditation began in 1985 with the goal of providing an accrediting system that would raise the level of early childhood programs. Today, more than 6,500 programs are NAEYC-accredited. NAEYC-accredited programs in Virginia include private child care, Head Start, and military-affiliated child care programs.
- The Association for Early Learning Leaders operates the National Accreditation Commission for Early Care and Education Programs (NAC). NAC accreditation offers early care and education programs the opportunity to demonstrate and document quality performance using research-based criteria.
- The National Association for Family Child Care accreditation (NAFCC) is recognized as the highest indicator that a family child care program is a quality environment. In some states where quality rating systems have been implemented, NAFCC accreditation is often the “top” level in the rating system. NAFCC accreditation is awarded to family child care providers who meet the eligibility requirements and the quality standards for NAFCC accreditation.
- Additional programmatic accreditation available but less utilized across the state:
 - Association for Christian Schools International (ASCI)
 - Council on Accreditation (COA)
 - National Early Childhood Program Accreditation (NECPA)

- Families looking for QRIS-rated centers have few to choose from in the Southwest (5 centers), Valley (5 centers), and Southside (13 centers) regions of Virginia, while families in Hampton Roads (112 centers), Northern (76 centers), and West Central (64 centers) have the most QRIS-rated options.
- Families looking for the NAEYC benchmark in accredited care for their children in the Southwest (1 centers) and Valley (2 centers) have extremely limited options, while parents in the Southside region have no opportunities for NAEYC-accredited programs. NAEYC-accredited programs are most readily found in the Hampton Roads (27 centers), Northern (55 centers), and Central (24 centers) regions.

¹³ <http://www.smartbeginnings.org/Portals/5/PDFs/VA2013ReportCardFinal.pdf>

Graph 2
Prevalence of Quality-Rated (QRIS) or Accredited Care – by Region



¹⁴ National Association of Young Children. (2013). National Program Search. Retrieved from: <http://www.naeyc.org/academy/accreditation/search>

¹⁵ Data retrieval contributed by the ChildCare Aware organization.

¹⁶ Smart Beginnings Organization. (2013). Find a Star Rated Center/Home. Retrieved from: <http://www.smartbeginnings.org/home/star-quality-initiative/about-star-quality.aspx>

The Economics of Infant and Child Care

Table 2 Average Annual Costs of Full-Time Child Care in a Center and Public College Tuition and Fees ¹⁷				
Average Child Care Center Costs*				
Infant	4-Year-Old	School-Age	Average Tuition and Fees at a Public College**	Percentage Difference Between Cost of College and Cost for Infant Center Care
\$10,028	\$7,855	\$5,614	\$9,907	1.22%

Table 3 Average Annual Cost of Full-Time Care by State 2012 ¹⁷			
Center-Based Child Care		Family Child Care	
Infant	4-Year-Old	Infant	4-Year-Old
\$10,028	\$7,855	\$8,292	\$6,915

- In 2012, in 31 states and the District of Columbia, the average annual cost for center-based care for an infant was higher than a year's in-state tuition and related fees at a four-year public college.¹⁷
- Child care is a major expense, not just for low-income families, but also for most of Virginia's families.
- The high cost of infant and child care forces Virginia's parents to make difficult decisions. Parents want quality child care for their children but safety, health, and school readiness come at a cost that many parents cannot afford. Head Start and VPI programs offer relief to qualifying families.

¹⁷ Child Care Aware of America. (2013). Parents and the high cost of child care: 2013 report. Retrieved from <http://usa.childcareaware.org/sites/default/files/Cost%20of%20Care%202013%20110613.pdf>

Focus on Funding

HEAD START

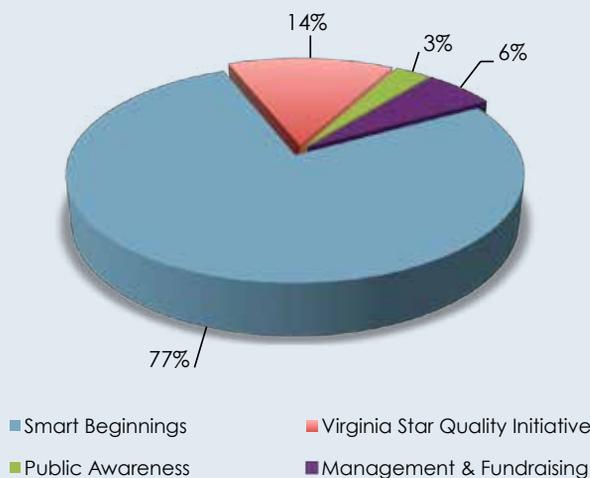
As of the 2011 fiscal year, federal Head Start grants worth nearly \$110 million were being implemented throughout Virginia. These grants served a total of approximately 14,460 children.¹⁸ The impacts of Head Start throughout the state are easy to see. During the 2011-12 school year, children who participated in Virginia's Head Start programs made exceptional gains in fine motor skills, self-regulation, persistence and attentiveness, reasoning and problem solving, and phonological awareness.¹⁹

School Readiness Measure	Fall 2011	Spring 2012
	Percent meeting expected skill level	
Fine motor skills	41	85
Self-regulation	33	86
Persistence & attentiveness	43	81
Reasoning & problem solving	34	77
Phonological awareness	44	80

VIRGINIA EARLY CHILDHOOD FOUNDATION

The Virginia Early Childhood Foundation (VECF), founded in 2005, was supported in 2013 by \$1.5 million in public, state funds in addition to public, private and local funds totaling nearly \$6 million.²⁰ In addition to the VECF's efforts to further the Virginia Star Quality Initiative and their statewide Smart Beginnings coalitions, the VECF works to further public awareness of important early childhood issues.

Graph 3
Virginia Early Childhood Foundation Expenses – 2013



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¹⁸ <http://headstartva.org/about/documents/Annual-Report-2012.pdf>

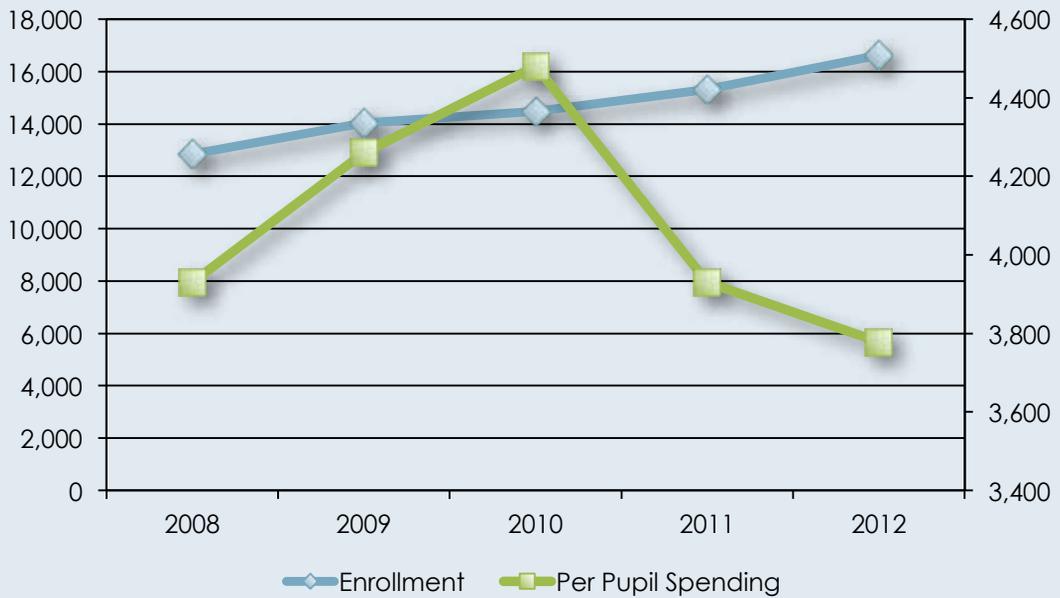
¹⁹ <http://headstartva.org/about/documents/Annual-Report-2012.pdf>

²⁰ [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2212013/\\$file/RD221.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2212013/$file/RD221.pdf)

VIRGINIA PRESCHOOL INITIATIVE

The Virginia Preschool Initiative (VPI) provides preschool services for primarily at-risk children not served through Head Start. Funding for VPI has, unfortunately, not kept pace with enrollment. The state share of VPI per pupil spending has reached 10-year lows.

Graph 4
Virginia Preschool Initiative Enrollment and Spending Per Student—2008-2012



Conclusion

Quality child care and education experiences hold the promise of a solid future by providing Virginia's youngest children support for early learning and language development, nurturance and care, and the opportunity for all children to reach their full potential. Children who experience high-quality care and education settings typically have better outcomes across developmental domains than similar children who are not exposed to high-quality care during the first five years.²¹ Children who experience low-quality child care typically display more behavior problems, fewer language skills, and lower levels of academic skills than children in medium- or high-quality care.²² Consistent access to high-quality care during the early childhood years is one of the most effective means to closing the achievement gap for young learners.

²¹ Thornburg, K. R., Mayfield, W. A., Hawks, J. S., & Fuger, K. L. (2009). The Missouri Quality Rating System School Readiness Study: Executive Summary. Kansas City, M.O.: Center for Family Policy & Research, University of Missouri, and the Institute for Human Development, University of Missouri. Available at: <http://cfpr.missouri.edu/MOQRISexec.pdf>

²² Burchinal, M. et al. (2000). Children's social and cognitive development and child care quality: Testing for differential associations related to poverty, gender, or ethnicity. *Applied Developmental Science*, 4 (3), 149-165.





Health and Wellness

Good health in early childhood is the foundation stone of health throughout life. Good or bad health transcends many aspects of a child's life including ability to play, learn, socialize, and the overall quality of life. The health section includes the following conditions:

INFANT MORTALITY AND LOW BIRTH WEIGHT

Infant Mortality and Low Birth Weight are conditions that still exist in the United States. Adverse pregnancy outcomes are more common in the U.S. than in other developed countries.¹ The definition of infant mortality is death of a child before age 1, and low birth weight is a baby born weighing less than 5 pounds and 8 ounces.²

ASTHMA

Asthma is a chronic disease. A chronic disease is one that is persistent, long term and generally incurable. Asthma affects the lungs and during a severe exacerbation, a child may gasp for breath.

OBESITY

Obesity begins in early childhood, and the additive effects are profound. Obesity causes heart diseases and the buildup of plaque in arteries of the heart—which causes heart attacks—begins in the early childhood period. Obesity is at epidemic levels in Virginia and throughout the U.S.

INJURIES

Injuries are the leading cause of death in children ages 0-5 years. When safety information is provided for families, many accidental injuries can be avoided.

LEAD POISONING

Lead poisoning still exists. Lead is toxic to the body and causes damage to the body's organs as well as the developing brain of a child.

DENTAL CARIES

Dental caries, commonly known as tooth decay or cavities, is an infection that causes destruction of teeth. It can affect the first set of teeth as well as the second.

The data presented in this section of the report are often reported at the level of health planning regions. Virginia consists of five health planning regions—Central, Eastern, Northern, Northwestern, and Southwestern—each divided into multiple districts. Prevalence data are defined as the number of cases of a condition that exists in a defined population at a given point in time. Morbidity data include hospital discharge data. Morbidity data provide an indication of how a disease affects a population (for instance, hospital admission for asthma), but these data do not necessarily tell us how many young children in Virginia suffer the condition of interest.

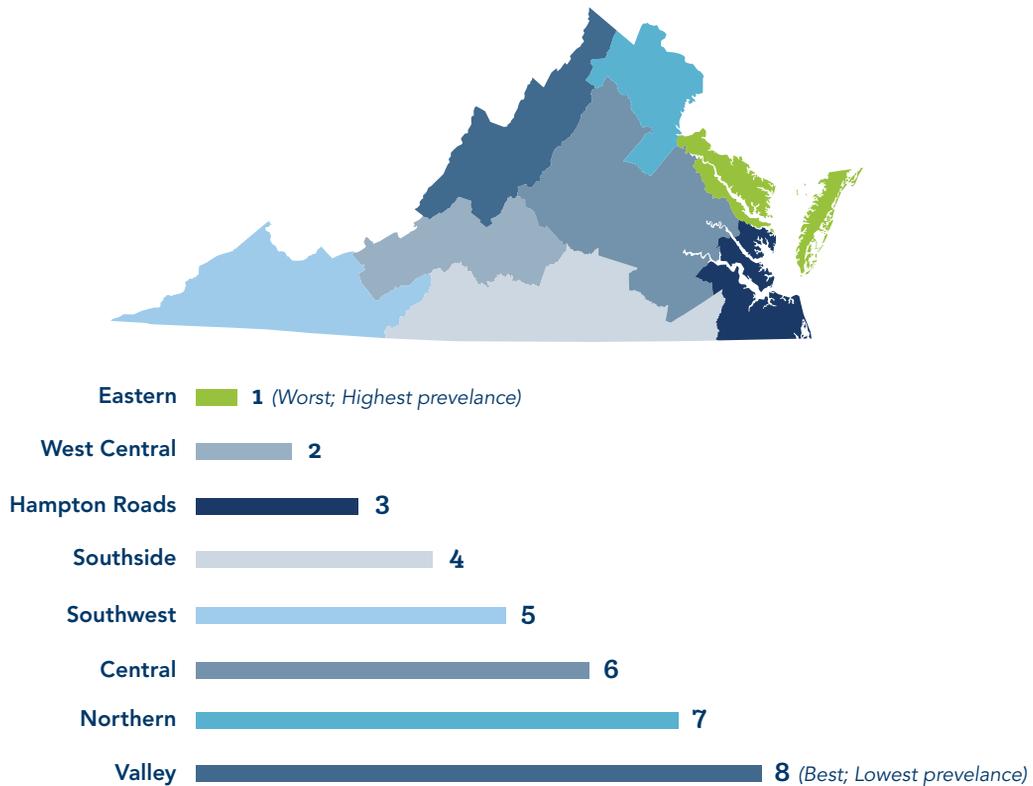
¹ Goldenberg, R. L., & Culhane, J. F. (2007). Low birth weight in the United States. *American Journal of Clinical Nutrition*, 85, 84-90.

² <http://www.marchofdimes.com/baby/low-birthweight.aspx>

Infant Mortality

Unlike much of the data presented in this Health and Wellness section, infant mortality statistics are reported according to the eight standard regions of Virginia.

Graph 1
Infant Mortality Rates – by Region, 2009



- Infant mortality is the number of infant deaths before age 1. Virginia's infant mortality rate in 2009 ranked 34th in the U.S., worse than the national average of 6.4 deaths per 1,000 live births.
- In 2011, the Eastern and West Central regions had the highest rates of mortality (10.6 and 9.5) and above the Virginia statewide level (7.1 per 1,000 live births), along with Hampton Roads, Southside, and Southwest regions.
- The Valley region had the lowest rate at 4 per 1,000 live births.

Leading causes of infant death include premature birth, low birth weight, and sudden infant death syndrome. The mortality rate is associated with maternal health, quality, and access to medical care and socioeconomic conditions related to poverty including low levels of literacy, substance abuse, and exposure to pollutants, etc.

LOW BIRTH WEIGHT

Low birth weight infants are likely to have long-term handicapping conditions such as blindness, deafness, intellectual disability, and cerebral palsy affecting the early childhood years and beyond. Factors that explain and predict whether a pregnant woman will have a low birth weight baby include: race, poverty, body mass index (BMI) of mother, obstetric history, etc.³ Close monitoring of pregnant women on a regular basis by a health care provider is important to gauge and prevent low birth weight.

Region	2012 low birth weight rate percentage
Central	10.43%
Eastern	9.64%
Northern	7.76%
Northwestern	7.03%
Southwestern	8.49%

- The prevalence of low birth weight in Virginia in 2011 was 8.3% compared to 8.10% across the U.S.⁴
- The Central health planning region has the highest rate (10.43%) followed by the Eastern district (9.64%).
- The Northwestern health planning region has the lowest rate (7.03%).

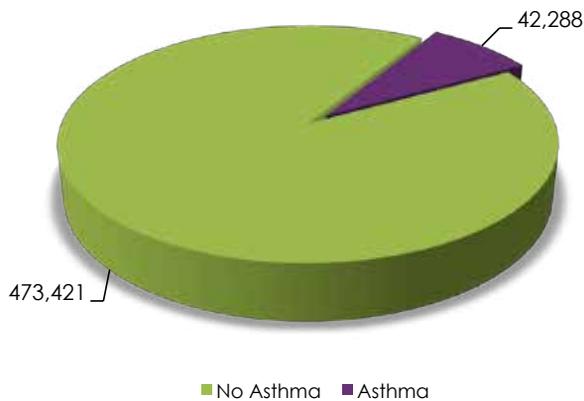
³ Goldenberg, R. L. & Culhane, J. F. (2007). Low birth weight in the United States. *American Journal of Clinical Nutrition*, 85, 84-90.

⁴ Hamilton, B. E., Martin, J. A., & Ventura, S. J. (2012). Births: Preliminary data for 2011. *National Vital Statistics Reports*, 61 (5), 1-19.

ASTHMA

Asthma is a chronic disease that involves difficulty breathing to the extent that children may have shortness of breath, coughing, and wheezing. Children with unmanaged asthma may have difficulty with physical activity. CDC provides funding to states for asthma control activities. The goal of this program is to reduce the burden of asthma among state populations. Although Virginia did have an Asthma Control Program, it is currently one of 15 states that do not take part in project-related activities. It is possible, therefore, that we may begin to witness an increase in the burden of asthma.⁵ The age group that seeks health care for asthma is highest among children ages 0-4 years in the U.S.⁶ Health care use, in this case, can be understood as evidence of unmanaged asthma. Since the Commonwealth's youngest children make up the largest age group represented in the asthma health care use statistics, it is obvious that asthma among Virginia's youngest children is a critical issue for legislators and service providers to address.

Graph 2
Asthma Diagnoses Among Virginia Children 4 Years of Age or Younger



- While they may not currently show asthma symptoms, 8.2% of children 4 years of age or younger in Virginia have been diagnosed with asthma at some point in their lives. This equates to 42,288 children.⁷
- Approximately 43% of children with special health care needs in Virginia have asthma.⁸
- Children less than 5 years of age have the highest asthma hospitalization rate in Virginia: 27.3 per 10,000.⁹

⁵ Centers for Disease Control and Prevention. (2013). CDC's asthma control program: An investment in America's health. Washington, DC.

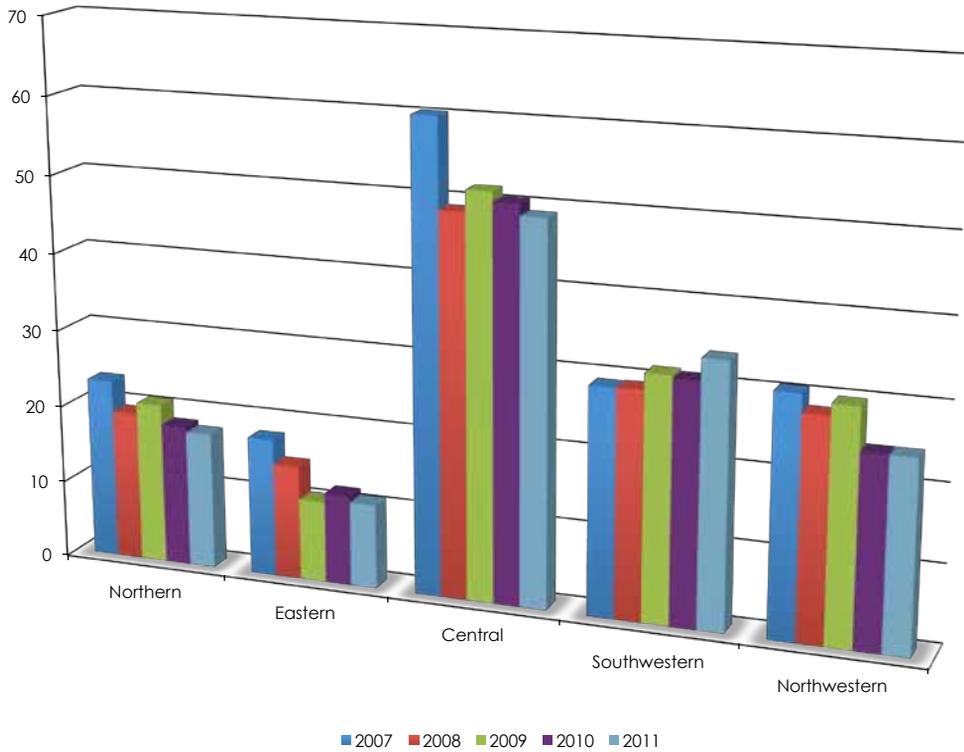
⁶ Akinbami, L. J., Moorman, J. E., & Liu, X. (2011). Asthma prevalence, health care use and mortality: United States, 2005-2009. National Health Statistics Reports, 32. Hyattsville, MD: National Center for Health Statistics.

⁷ Virginia Department of Health. (2010). Asthma in Virginia 2008: A comprehensive data report. Richmond, VA. Retrieved from <http://www.vahealth.org/cdpc/asthma.htm>

⁸ Data Resource Center for Child and Adolescent Health. (2009, 2010). Virginia report on asthma from the National Survey of Children with Special Health Care Needs. Retrieved from www.childhealthdata.org

⁹ Virginia Department of Health. (2011). Asthma burden in Virginia 2011 update. Richmond, VA. Retrieved from [http://www.vahealth.org/cdpc/documents/2011/pdf/Asthma Fact Sheet.pdf](http://www.vahealth.org/cdpc/documents/2011/pdf/Asthma%20Fact%20Sheet.pdf)

Graph 3
Age-Specific Rate of Asthma Hospital Discharge in Children Ages 0-5 – by
Virginia Health Planning Region



- The Central region of Virginia exhibits the highest rates of hospital discharge for asthma, followed by the Southwestern and Northwestern regions.

Children still die from asthma attacks. Asthma cannot be cured but can be controlled with the right medications. Common triggers for an asthma attack include cigarette smoke, allergy, respiratory tract infections, and exercise.

Focus on Funding

ASTHMA

According to the Virginia Health Information system, costs for asthma hospitalizations across the Commonwealth climbed continuously by more than 100% between 1999 (less than \$6,000 per hospitalization) and 2009 (\$15,060 per hospitalization).¹⁰ In Virginia, when asthma required hospitalization, these costs were most often covered by Medicare or Medicaid (39.7% of all hospitalizations). Private insurance was the primary payer in an additional 25.9% of asthma hospitalizations.

Between 2001 and 2013, the National Asthma Control Program (NACP) invested \$238 million in state efforts to control asthma, including approximately \$22 million in 2012 alone.¹¹ These efforts have proven successful in states like New York, where some NACP funds were used to provide training for nurses who then educated child care and Head Start providers, each responsible for 20 children ages 0–4 years each day. Among this population, asthma hospitalizations of New York’s youngest children decreased by 92%.¹²

Clearly, the NACP is a program that, when implemented wisely, can yield impressive results in terms of asthma outcomes for young children.

FAMIS

The Virginia Family Access to Medical Insurance Security (FAMIS) plan provides health insurance coverage for children and pregnant women in poverty.¹³ FAMIS, a component of the Commonwealth’s Comprehensive Health Investment Program (CHIP), is financed through a combination of federal, state, and other funding sources. Title XXI of the Social Security Act provided approximately \$97 million during fiscal year 2012; the Virginia General Fund provided approximately \$35 million; the Virginia Health Care Fund provided approximately \$2 million; and the FAMIS Trust Fund provided approximately \$14 million, the maximum allowable contribution. Additional funding came from the Robert Wood Johnson Foundation’s Maximizing Enrollment grant. FAMIS expenditures for fiscal year 2012 totaled nearly \$148 million.¹⁴

FAMIS—in addition to CHIP’s other initiatives—represents extremely important components of the health care framework supporting Virginia’s most vulnerable children and families. It is essential that efforts continue to ensure these programs’ long-term viability in a landscape that will continue to change as the Affordable Care Act is implemented throughout the Commonwealth.

¹⁰ <http://www.vahealth.org/cdpc/documents/2011/pdf/Asthma%20Fact%20Sheet.pdf>

¹¹ http://www.cdc.gov/asthma/pdfs/investment_americas_health.pdf

¹² http://www.cdc.gov/asthma/pdfs/investment_americas_health.pdf

¹³ [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD3522012/\\$file/RD352.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD3522012/$file/RD352.pdf)

¹⁴ [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD3522012/\\$file/RD352.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD3522012/$file/RD352.pdf)

OBESITY

Children with a body mass index (BMI, kg/m²) between the 85th and 95th percentiles are considered “overweight” and those above the 95th percentile are considered “obese.”¹⁵ **Factors contributing to early childhood obesity include: inactive lifestyle, poor dietary habits, genetics, emotional factors, lack of sufficient sleep, and underlying medical conditions.**¹⁶ Children who are considered obese are more likely to have high cholesterol, high blood pressure, or type 2 diabetes and more likely to suffer from bone and joint ailments, sleep apnea, and social and psychological problems such as bullying and low self-esteem.¹⁷ **One out of three preschool-age children will be classified as obese or overweight before their fifth birthday.**

Graph 4
Virginia's Children Ages 2-5 Years – Overweight and Obese



- 16.5% of children ages 2-5 years in Virginia are overweight.¹⁸
- 15.6% of Virginia children, ages 2-5 years, are considered obese.¹⁹
- 20% of Virginia's low-income children, ages 2-4 years, are obese.²⁰

¹⁵ Centers for Disease Control and Prevention - National Center for Health Statistics. (2013). Growth Charts. Retrieved from http://www.cdc.gov/growthcharts/clinical_charts.htm

¹⁶ Biro, F.M., & Wien, M. (2010). Childhood obesity and adult morbidities. *American Journal of Clinical Nutrition*, 91(5), 1499S-1505S.

¹⁷ Mayo Clinic. (2013). Childhood Obesity. Retrieved from <http://www.mayoclinic.com/health/childhood-obesity/DS00698>.

¹⁸ Centers for Disease Control and Prevention. (2013). Pediatric and Pregnancy Nutrition Surveillance System, 2011. Retrieved from http://www.cdc.gov/pednss/pednss_tables/pdf/national_table6.pdf

¹⁹ Centers for Disease Control and Prevention. (2013). Ibid.

²⁰ Centers for Disease Control and Prevention. (2012). Trends in the prevalence of extreme obesity among U.S. preschool-aged children living in low-income families, 1998-2010. *Journal of the American Medical Association*, 308(24), 2563-2565.

Table 2					
Rate of Obesity in Virginia Children Ages 2-5 – per 1,000 WIC Participants					
	Central	Eastern	Northern	Northwestern	Southwestern
2011	25.2	31.6	50.4	23	28.6

- Among Women, Infants, and Children (WIC) Program enrollees between 2008 and 2011, 16% of Virginia children ages 2-5 years were clinically obese.
- The Northern and Eastern Virginia health planning regions continue to have the highest rates of obesity in children 2-5 years old.²¹

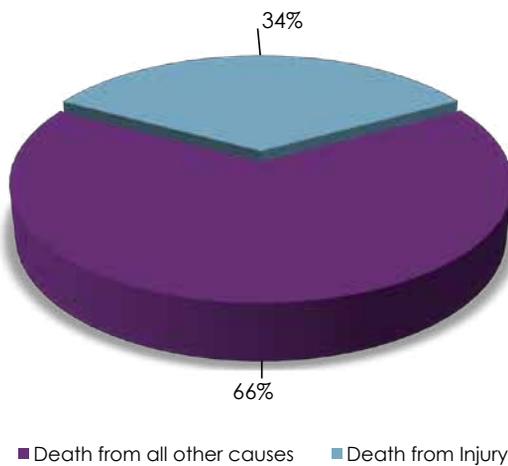
The obesity epidemic among preschool-aged children in Virginia will lead to adverse health outcomes in adolescence and adulthood and pose a burden on Virginia’s health care system. Interventions for obesity prevention during the early childhood years include increasing physical activity and fruit and vegetable intake, decreasing energy-dense food and sugar consumption, decreasing the amount of time spent watching television, and increasing the time mothers spend breastfeeding infants.

²¹ Levi, J., Segal, L., St. Laurent, R., Lang, A., & Rayburn, J. (2012, September 18). Bending the obesity cost curve in Virginia. Retrieved from <http://www.rwjf.org/content/dam/farm/reports/reports/2012/rwjf401510>.

INJURIES

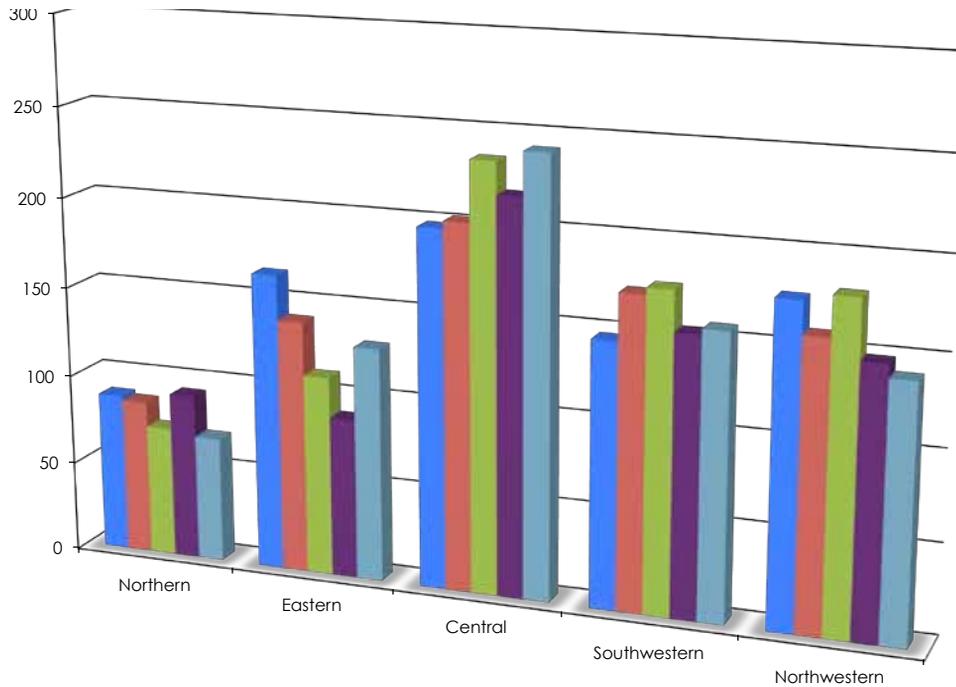
Unintentional injuries are a leading cause of death in children ages 1-4 years. Injuries are events that are often ***predictable and preventable***. Hospital discharge data only reflect injuries that resulted in a hospital admission, and not those treated in a physician's office. That means, the data here ***underestimate*** the true number of injuries to children. Leading causes of injury hospitalizations include: falls, poisoning, burns from a hot object or substance, and animal bites and stings. In children less than one year of age, suffocation is the leading cause of death.

Graph 5
Death from Injury in Children 0-5 Years in Virginia – 2009



- In Virginia in 2009, deaths resulting from injury accounted for 34% of all deaths in children ages 1-4 years.
- 75% of those deaths were classified as unintentional. This means that the injury occurred without intending harm toward the child.

Graph 6
Hospitalizations Due to Unintentional Injury in Children Ages 0-5



- The Central health planning region exhibited the highest hospital discharge rates for children ages 0-5 related to unintentional injuries over the period 2007-2011.

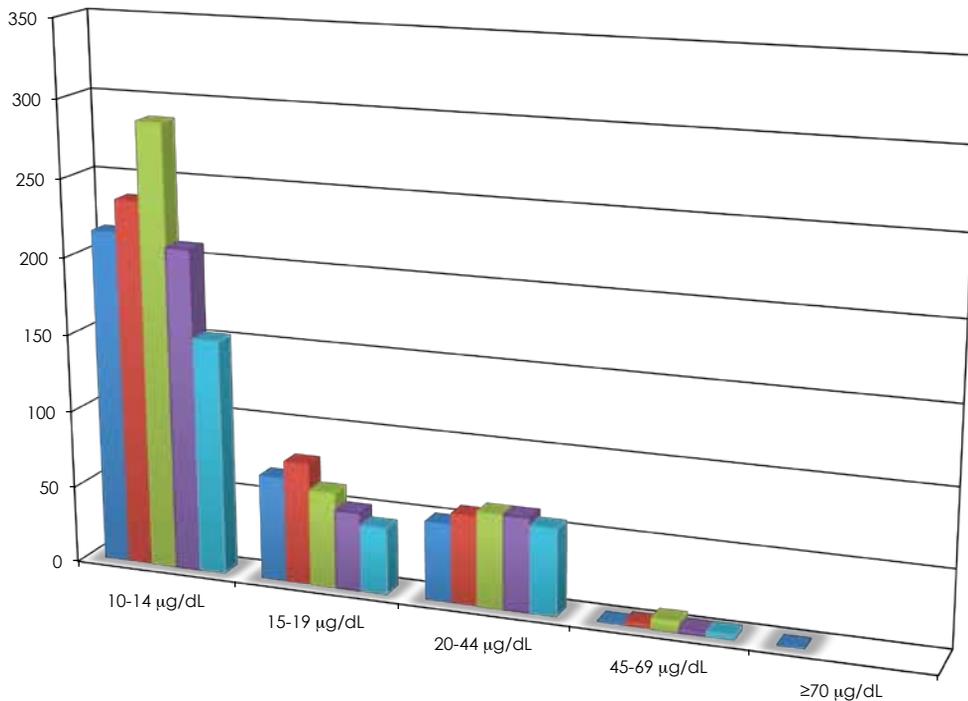
Adult supervision of young children is a key injury prevention measure. Use of child safety gates, cabinet locks, placing medications and poisons out of reach in a locked cabinet, use of age-appropriate play equipment, and appropriate child car seat use are all important ways to protect young children from injury within and outside the home environment.

LEAD POISONING

There is no safe elevated lead level for children, though the minimum reportable lead toxicity level is set at 10 micrograms per deciliter (one-tenth of a liter). Increasing the concentration of lead in the bloodstream comes along with heightened risk for negative health outcomes. Symptoms of lead toxicity include learning difficulties, slowed growth, irritability, weight loss, and sluggishness and fatigue in infants and children.²²

²² Mayo Clinic. (2013). Lead Poisoning. Retrieved from <http://www.mayoclinic.com/health/lead-poisoning/FL00068>.

Graph 7
Reported Cases of Lead Poisoning in Virginia – 2007-2011



Retrieved from <http://www.cdc.gov/nceh/lead/data/state/vadata.htm>

- Approximately 60% of the confirmed elevated blood lead levels fall into the lowest reportable lead toxicity range (10-14 µg/dL).
- One case with an elevated blood lead level that was extremely high (≥70 µg/dL) was reported in 2007.²³

Children exposed to lead-contaminated paint chips and dust from older buildings as well as lead in contaminated air, water, and soil may develop lead toxicity. Several risk factors listed by the Virginia Department of Health contribute to the suspicion of elevated blood lead levels in children including: children living in or visiting properties built before 1978, including child care facilities, a caregiver working in an industry that involves exposure to lead, and living in high-risk ZIP codes. Preschool-aged children are especially susceptible to lead poisoning, which can severely stunt mental and physical development.

- Among children 5 years of age or younger, the crude rate (per 100,000 children) of elevated blood lead levels remains highest in the Central and Eastern Virginia health planning regions and lowest in the Northern health planning regions.
- While lead toxicity rates have generally declined across Virginia since 2007, the Central and Eastern Virginia health planning regions continue to have the highest rates of lead toxicity among children 5 years of age or younger.

²⁴ Centers for Disease Control and Prevention. (2013). *Lead Poisoning Statistics* [Data file]. Retrieved from <http://www.cdc.gov/nceh/lead/data/state/vadata.htm>

Table 3 Lead Toxicity Rates among Virginia Children Ages 0-5 – per 100,000					
	Central	Eastern	Northern	Northwestern	Southwestern
2007	256.9	141.9	55.3	76.2	118
2008	214.2	143.3	58.2	56.7	106.4
2009	123.1	87.3	63.8	53.7	49.3
2010	98.6	75.7	42.8	48.8	56.8
2011	94.2	57.7	38.5	32.4	33.4

Without the proper interventions, elevated blood lead levels will result in behavioral and intellectual deficits.²⁴ Disparities of blood lead elevations can be traced back to housing quality, environmental exposures, and nutrition. Efforts to increase awareness of lead hazards and nutritional interventions to increase iron and calcium, which can reduce lead absorption, are key components of a successful lead toxicity prevention policy.²⁵

DENTAL CARIES

- According to data obtained from the Virginia Department of Health (VDH) “Bright Smiles for Babies” (BSB) program, about 97% of Virginia WIC participants from birth to 5 years old, sampled in 2011, had untreated decay, prior fillings, or prior treatment for dental caries.
- The crude rate (per 100 children) of dental caries among BSB program participants is highest in the Central health planning region and lowest in the Southwestern health planning region of the Commonwealth.

Table 4 Dental Caries Incidence in Bright Smiles for Babies Ages 0-5 – per 100 children					
	Central	Eastern	Northwestern	Southwestern	Northern
2008	82.6	3.6	10.7	0.1	No data available
2009	48.4	9.9	36.9	3.4	
2010	54	27.3	4.5	12	
2011	45.9	30.2	15.5	5.5	

According to the Virginia Department of Health (2010), dental caries remains the most common chronic disease among Virginia’s children. It is a costly yet preventable condition. **Several risk factors contributing to tooth decay include: frequent snacking or sipping, certain food items, bedtime infant feeding, and inadequate brushing.** Minority children and children of mixed-race backgrounds and those from a lower socioeconomic status (SES) tend to have a higher prevalence and

²⁴ Centers for Disease Control and Prevention. (2013). Blood lead levels in children aged 1-5 years – United States, 1999-2010. Washington, DC.

²⁵ Centers for Disease Control and Prevention. (2013). Ibid.

severity of dental caries compared to other groups.²⁶ The American Academy of Pediatric Dentistry states that children with early childhood caries are at higher risk of the following: new caries in both the primary and permanent teeth, hospitalizations and emergency room visits, increased treatment costs and time, insufficient physical development (especially in height/weight), loss of school days and increased days with restricted activity, diminished ability to learn, and diminished oral health-related quality of life.²⁷

The 2011 State of Children's Dental Health Report by the Pew Center on the States found that Virginia needs to improve the ability of a dental hygienist to place sealants without a prior exam, the share of dentists' fees that are reimbursed by Medicaid, and the authorization of a new type of primary care dental provider.

Important interventions for the prevention of caries during a child's first years include: minimizing saliva-sharing activities such as sharing utensils, implementing oral hygiene measures no later than the first year of life, establishing a primary care dental provider in early childhood, avoiding consumption of high-sugar foods and drinks, and working with medical providers to ensure preschool-aged children have access to dental care.²⁸

²⁶ U.S. Preventive Services Task Force. (2004). Prevention of dental caries in preschool children: Recommendations and rationale. Retrieved from <http://www.uspreventiveservicestaskforce.org/3rduspstf/dentalchild/dentchrs.htm>

²⁷ American Academy of Pediatric Dentistry. (2008). Policy on early childhood caries (ECC): Classifications, consequences, and preventive strategies. *Pediatric Dentistry*, 32(6), 41-44.

²⁸ American Academy of Pediatric Dentistry. (2008). *Ibid.*

Conclusion

This section has examined seven of the most critical health conditions that affect children in the early years of life. The Central health reporting region of Virginia exhibits the highest rate in six out of the seven conditions, but all conditions exist within all five of the health reporting regions in the Commonwealth.

Of concern for Virginia, childhood obesity levels, if unchecked, will have profound morbidity, mortality, and cost implications with advancing age.

In Virginia, children and their families in poverty are at a particular disadvantage with respect to low birth weight, obesity, and dental caries. If proper dental health is not maintained during childhood, it may affect quality of life and employability in later years.

While asthma cannot be cured, it can be managed, and well-managed asthma does not require hospitalization. Children ages 0-4 exhibit the highest level of asthma hospitalization compared with other age ranges. Virginia's lack of an asthma control project puts children at a particular disadvantage, and long-term economic impact is unknown. All children attending child care should have an Asthma Action Plan on file as well as rescue medication to be given by trained staff if needed.

Lead poisoning is still a threat to young children. **While federal dollars exist for lead hazard abatement, the amount of (competitive) funding available does not match need.**

The health of a child in the early years sets the foundation for health throughout the lifespan, so the health of Virginia's young children is vital to the long-term health trajectory of the Commonwealth.





Special Populations

Services provided to early childhood special populations within Virginia warrant close attention due to the complex network of funding and oversight responsibilities associated with programs that serve these groups. Effectively supporting children within special populations is crucial, given the rapid expansion of cognitive, linguistic and social skills that occurs during early childhood.

Programming and demographic information in this report address the following special populations:

CHILDREN IN MILITARY FAMILIES

Children in military families are considered military dependents. Military dependents are legal spouses and children under 21 years of age of active duty or reservist service members in the uniformed services of the United States. The population of military dependents also includes children ages 21 – 22 who are registered full-time students and adult children with disabilities, but the information in this report focuses primarily on children 5 years of age or younger.¹

CHILDREN WITH DISABILITIES

Children with disabilities are children who are eligible for and receive either Part B (3- to 5-year-olds) or Part C (birth-3 years old) special education services outlined in the Individuals with Disabilities Education Act (IDEA). Part B and Part C services include early intervention efforts designed to improve academic and social/emotional development in children with disabilities. In Virginia, categories of disability for children ages 3-5 years include autism, deaf-blindness, developmental delay, emotional disturbance, hearing impairment, intellectual disabilities, multiple disabilities, other health impairment, orthopedic impairment, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment. Categories used for children ages birth to 3 years include children who display a 25% delay in one or more areas of development, have atypical development, or have a diagnosed physical or mental condition that has a high probability of resulting in a developmental delay.²

CHILDREN WHO ARE DUAL LANGUAGE LEARNERS

Children who are dual language learners are exposed to and learn two languages throughout the early years of language development. These children may be referred to as English Language Learners (ELL) or children with Limited English Proficiency (LEP). The Commonwealth of Virginia uses the federal government definition of Limited English Proficient Students from the No Child Left Behind Act of 2001.³

¹ Military Community & Family Policy. (2012). *2011 Demographics: Profile of the military community*. Washington, D.C.: United States Department of Defense, Office of the Deputy Under Secretary of Defense.

² Code of Virginia Ch. 53, §2.2-5300. Virginia Acts of Assembly 2009, April 8, 2009.

³ The complete definition of Limited English Proficient students can be found at http://www.doe.virginia.gov/federal_programs/esea/title3/guidance/definitions/index.shtml

CHILDREN LIVING IN POVERTY

Children living in poverty are those who live with families whose income falls below the federal poverty level. In 2012, the baseline for calculations used in many of the studies in this report, the federal poverty level for a family of two adults and two children was \$23,283.⁴

The number of children qualified to receive special services continues to rise, creating challenges for existing service providers. Many of the services described in this section are funded by federal mandates but are implemented and overseen by state and/or local agencies. The information included in this section serves to clarify the complex delivery of services available to Virginia's children and families and highlight additional needs.

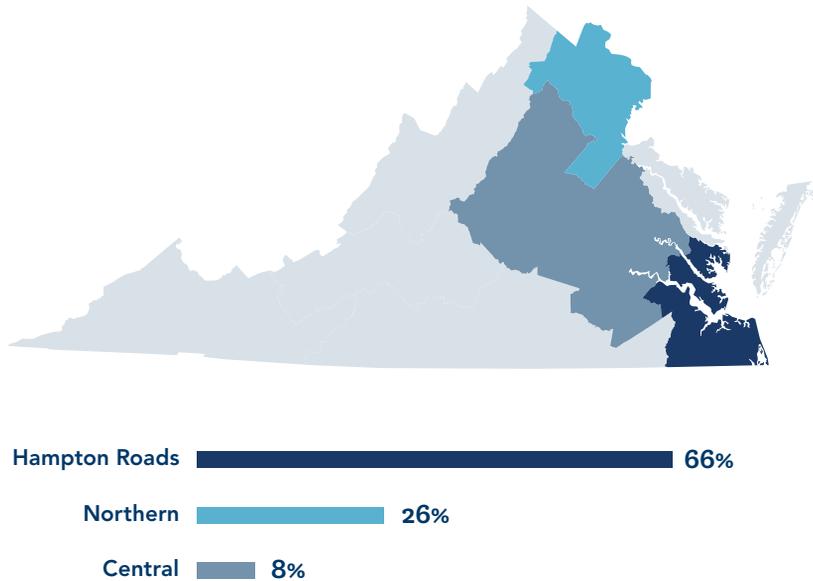
⁴ Annie E. Casey Foundation. (2013). The KIDS COUNT data center. Retrieved from <http://datacenter.kidscount.org/>

Children in Military Families

Virginia has the largest number of military-connected dependents per capita in the United States, despite ranking 12th in population size. Military demographic sources indicate 1,985,471 military dependents nationally, with Virginia accounting for nearly 10 percent of those dependents (187,792).⁵

- The largest percentage of military dependents is located in the Hampton Roads region (Chesapeake, Hampton, Norfolk, Newport News, Virginia Beach)—66%.
- The remaining military dependents are located in the Northern Virginia (26%) and Greater Richmond (8%) areas.

Graph 1
Location of Military Dependents in Virginia

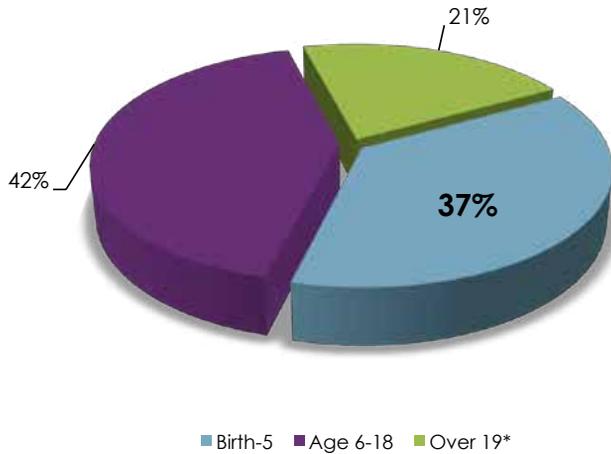


Nearly 150,000 children 18 years or younger in Virginia have one or both parents that are active duty or reservist in the military. Early childhood dependents constitute about 37% (slightly over 70,000) of Virginia's military dependent population.⁶

⁵ Military Community & Family Policy. (2012). 2011 Demographics: Profile of the military community. Washington, D.C.: United States Department of Defense, Office of the Deputy Under Secretary of Defense.

⁶ Military Community & Family Policy. (2012). 2011 Demographics: Profile of the military community. Washington, D.C.: United States Department of Defense, Office of the Deputy Under Secretary of Defense.

Graph 2
Percentage of Military Dependents



*Dependents ages 19-22 who are currently full-time students, adult dependents, or spouses.

RISK FACTORS AFFECTING MILITARY-CONNECTED FAMILIES

Military families and their children experience unique circumstances that contribute to a set of risk factors that can affect family well-being and resiliency. Higher risk and vulnerability to altered academic, social, and emotional development is a reality for children of military families versus families that are not in the military.⁷ Risk factors experienced by military-connected families (and not shared by the general population) include:

- Reassignment and relocation of duty stations
- Extended deployments
- Shorter turnaround between deployments
- Wartime deployment

Most military families move every three years, with up to 15% reportedly being relocated at least 11 times during their years of service.⁸ In addition to constant relocation, service members are experiencing longer deployments, shorter turnaround before redeployment, and increased danger which has added a new stress to military families that hasn't been seen since the Vietnam era.⁹ Additionally, research suggests that wartime deployments negatively impact the behavior and increase depression symptoms for children ages 1-1/2 to 5 years.¹⁰

⁷ Couchenour, D. & Chrisman, K. (2013). *Families, schools and communities: Together for children* (5th ed.). Belmont, CA: Wadsworth Cengage Learning.

⁸ Booth, B., Segal, M., Bell, D., Martin, J., Ender, M., Rohall, D., & Nelson, J. (2007). What we know about Army families: 2007 update. Retrieved November 12, 2007, from <http://www.army.mil/fmwrcc/documents/research/whatweknow2007.pdf>

⁹ Flake, E., Davis, B., Johnson, P., & Middleton, L. (2009). The psychosocial effects of deployment on military children. *Journal of Developmental and Behavioral Pediatrics*, 30(4), 271-278.

¹⁰ Chartrand, M., Frank, D., White, L., & Shope, T. (2008). Effect of parents' wartime deployment on the behavior of young children in military families. *Archives of pediatrics and adolescent medicine*, 162(11), 1009-1014.

- Virginia's large military population also includes Reservists and National Guard members whose dependents are often overlooked for support services because their academic struggles and/or emotional needs are perceived to be only temporary, leaving educational and support needs unmet.¹¹
- **Services for Reservists and National Guard dependents are often not aligned with those of active duty military families, potentially impeding access to additional support that might otherwise be available in Department of Defense schools or resources onsite at military bases.**¹²

ACCESS TO CHILD CARE FOR MILITARY-CONNECTED FAMILIES

Military families' lifestyles often create unique demands impacting child care such as unusually long hours, sudden and dire needs, extended burdens on other family members for long durations, and affordability.¹³ Seventeen military installations throughout Virginia offer on-base child care for children from 6 weeks to kindergarten age, with many also providing after-school and summer programs for school-aged dependents. Most on-base services are provided through Child Development Centers (CDCs) accredited by the National Association of Education for Young Children (NAEYC). Other centers are managed by Bright Horizons, an organization that offers child care subsidies for military personnel through the National Association of Child Care Resource and Referral Agencies (NACCRRRA).

Most of the CDCs maintain waiting lists for child care services with waiting periods varying by age group and installation. It is not uncommon for waiting times to extend beyond several months.¹⁴ While each installation maintains its own CDCs and/or approved programs, there are also programs in place such as Child Care Aware and the Navy Region Mid-Atlantic Child and Youth Program to offer referral services for military personnel seeking off-base providers.¹⁵

DISABILITIES AND MILITARY-CONNECTED FAMILIES

The stress of raising a child with a disability is compounded for military families because of the lifestyle and additional trauma associated with military service. **Factors such as respite care, arrangement of special services, and advocacy can present special challenges and stressors to military parents of a child with special needs.**¹⁶

¹¹ Harrison, J. & Vannest, K.J. (2008). Educators supporting families in times of crisis: military reserve deployments. *Preventing School Failure: Alternative Education for Children and Youth*, 52(4), 17-24.

¹² Harrison, J. & Vannest, K.J. (2008). Educators supporting families in times of crisis: military reserve deployments. *Preventing School Failure: Alternative Education for Children and Youth*, 52(4), 17-24.

¹³ Military One Source. (2013). Military child care programs. Retrieved August 24, 2013 from http://www.militaryonesource.mil/phases-family-life?content_id=267339

¹⁴ Powers, R. (2013). Installation overview: Naval Station Norfolk, Virginia: Child Care. Retrieved August 7, 2013 from http://usmilitary.about.com/od/navybasesunits/ss/Norfolk_8.htm

¹⁵ Navy Mid-Atlantic Region. (n.d.). Child and Youth Programs: Parent Handbook. Norfolk, VA: Naval Station Norfolk, Navy Region Mid-Atlantic.

¹⁶ Russo, T.J., & Fallon, M. A. (2001). Helping military families who have a child with a disability cope with stress. *Early Childhood Education Journal*, 29(1), 3-8.

Special Legislation, Policies, and Resources for Military-Connected Families

Most legislation and formal policy established to address the needs of military-connected families so far largely focuses on school-aged children, neglecting the 70,000-plus early childhood military dependents across Virginia.

USA 4 MILITARY FAMILIES

The USA 4 Military Families initiative, sponsored by the Department of Defense and individual states in a partnership to support military members, has identified 10 key issues to address the needs of military-connected families. Three of these issues are related to military dependents and are directly linked to the early childhood population:¹⁷

- Increase access to quality, affordable child care for military families,
- Assign an identifier for military children in education data systems, and
- Create statewide Memoranda of Understanding between the Department of Defense and the state child welfare agency to standardize relationships.

To date, Virginia has made progress toward only one of these issues (access to quality, affordable child care).¹⁸

VIRGINIA DEPARTMENT OF EDUCATION

The Virginia Department of Education recognizes the special educational needs of military-connected families and has established four laws specifically addressing these needs; however, these laws focus primarily on school-aged children (6 to 18) and do not address the needs of early childhood education for those dependents from birth to 5 years old.¹⁹

VIRGINIA CITIZEN-SOLDIER COUNCIL

The Virginia Citizen-Soldier Council was established to increase awareness, involvement, and cooperation among various state, business, and community agencies and members to the needs of military-connected families; however, there is little data regarding the council's efforts to assist early childhood military dependents.²⁰

OPERATION MILITARY KIDS, VIRGINIA

Operation Military Kids, Virginia (OMKV) is the state affiliate of the national nonprofit organization Operation Military Kids (OMK) in collaboration with the U.S. Army. The OMK's goal is to connect military families with local resources to achieve a sense of community support and enhance their well-being, particularly during deployments. The OMK provides information aimed at improving the social, emotional, physical, health, recreational, and academic lifestyles of military families.²¹

¹⁷ USA4 Military Families. (2013). State status: Virginia. Department of Defense and States. Retrieved August 23, 2013 from http://www.usa4militaryfamilies.dod.mil/MOS/f?p=USA4:HOME:0:::P1_STATE:VA

¹⁸ USA4 Military Families. (2013). Ibid.

¹⁹ Virginia Department of Education. (2012). Student and family services: Military families. Retrieved July 7, 2013 from http://www.doe.virginia.gov/support/student_family/military/

²⁰ Commonwealth of Virginia. (2009). Continuing the Virginia Citizen-Soldier Support Council. Retrieved July 12, 2013 from [http://www.lva.virginia.gov/public/EO/eo88\(2009\).pdf](http://www.lva.virginia.gov/public/EO/eo88(2009).pdf)

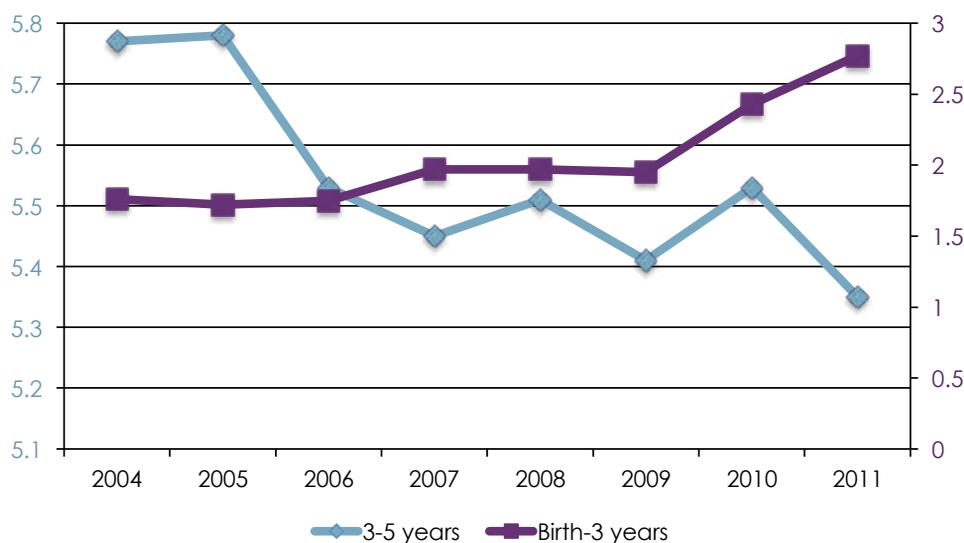
²¹ Operation Military Kids. (2012). Operation military kids: Virginia. Retrieved June 22, 2013 from <http://www.operationmilitarykids.org/public/statePOCHome.aspx?state=Virginia>

Children with Disabilities

The number of children with disabilities has increased nationally over the last decade by 16.3%, according to the American Academy of Pediatrics.²² **The greatest increase was in children of families with an income 300% higher than the federal poverty level, even though the highest rate of disabilities remains in children experiencing poverty.**

- In Virginia, there has been a steady increase of children with disabilities ages birth to 3 years, whereas the number of children with disabilities ages 3-5 years has not changed significantly. The increase among the Commonwealth's children from birth-3 years can be attributed to the increased efforts of state service providers to more thoroughly identify children with disabilities.²³

Graph 3
Percentage of Children with Disabilities in Virginia – by Age Group



Data retrieved from <https://www.ideadata.org/DACAnalyticTool/>

CHILDREN WITH DISABILITIES – BIRTH TO 3 YEARS

In Virginia, 15,676 infants, toddlers, and families received Part C services from July 2011 to June 2012, nearly twice as many who received services in 2004-05 (8,540), with the 2- to 3-year-old range being the largest age group served. More than 85% of these children received services in their homes, with just over 12% receiving services in another home (for example, the home of a relative or child care provider). The remaining 3% receive services in a community-based setting such as a child care facility. In addition to service coordination, the predominant services received by children with disabilities from birth-3 years are speech-language therapy (35%), physical therapy (27%), developmental services (19%), and occupational therapy (14%).²⁴ Individuals with Disabilities

²² American Academy of Pediatrics, May 5, 2013. Childhood Disability Rate Jumps 16% Over Past Decade. AAP Press Room. Retrieved from <http://www.aap.org/en-us/about-the-aap/aap-press-room/pages/Childhood-Disability-Rate-Jumps.aspx?nfstatus=401&nftoken=00000000-0000-0000-0000-000000000000&nfstatusdescription=ERROR:+No+local+token>

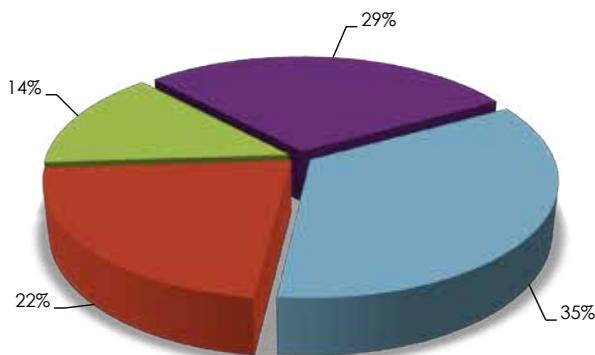
²³ Virginia Department of Behavioral Health and Developmental Services. (2012). Report on Virginia's Part C Early Intervention System. Richmond, VA. Retrieved from [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/\\$file/RD261.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/$file/RD261.pdf)

²⁴ [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/\\$file/RD261.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/$file/RD261.pdf)

Education Act (IDEA) Part C services are coordinated by the Virginia Department of Behavioral Health and Developmental Services' Office of Child and Family Services.

- Approximately one-third of children receiving birth-3-year-old special education services continue to receive 3-to 5-year-old special education services.
- An additional 22% do not need services because their development has achieved a “normal” or “typical” rate.
- The remaining 43% withdraw from services, move out of state, are unable to be contacted, and/or have no eligibility determination.²⁵

Graph 4
Transitions from Part C (birth-3-year-old) to Part B (3- to 5-year-old)

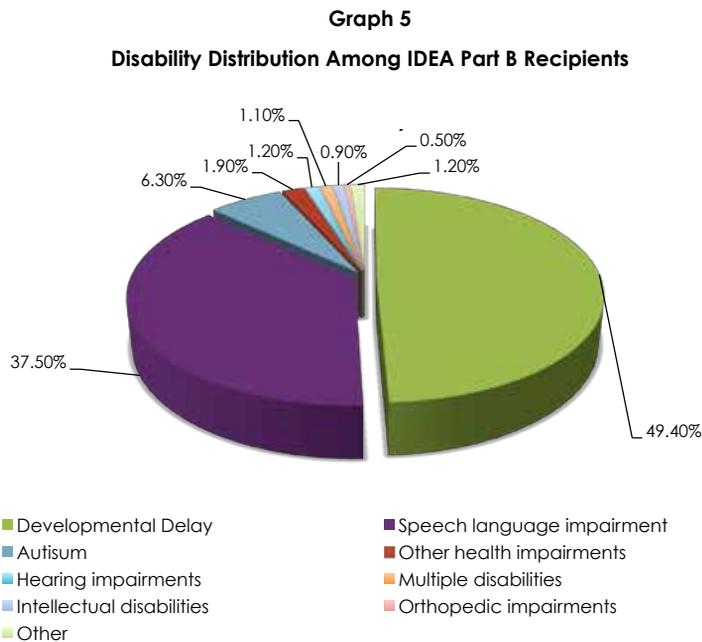


- Services continued into 3- to 5-year-old program
- Service no longer needed
- Not eligible for 3- to 5-year-old services
- No determination for services (moved out of state, death, withdrawal from services, inability to contact)

²⁵ U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB # 1820-0557: "Infants and Toddlers Exiting Part C," 2010-11. Data updated as of July 15, 2012. Retrieved June 5, 2013 from https://www.ideadata.org/arc_toc13.asp#partcPS

CHILDREN WITH DISABILITIES – 3 YEARS OLD TO 5 YEARS OLD

In Virginia, there are 16,677 children with disabilities ages 3 to 5 years,²⁶ with 5-year-olds as the largest single age group. Almost half (49.4%) are identified as children with developmental delays, a non-specific disability category, because state regulations allow for the use of the term developmental delay through age 6, and professionals are reluctant to use another label unless a child meets eligibility criteria for a specified disability. The next largest group identified is children with speech or language impairments (37.5%), and children with autism follows at 6.3%. Children with health impairments (1.9%), hearing impairments (1.2%), multiple disabilities (1.1%), or intellectual disabilities (0.9%) constitute an approximate 5% of the total population served. Children with orthopedic impairments represent .5% of the total population served. The remaining 1.2% are identified as children with either visual impairments, emotional disturbance, specific learning disabilities, traumatic brain injury, deafness, or blindness.²⁷

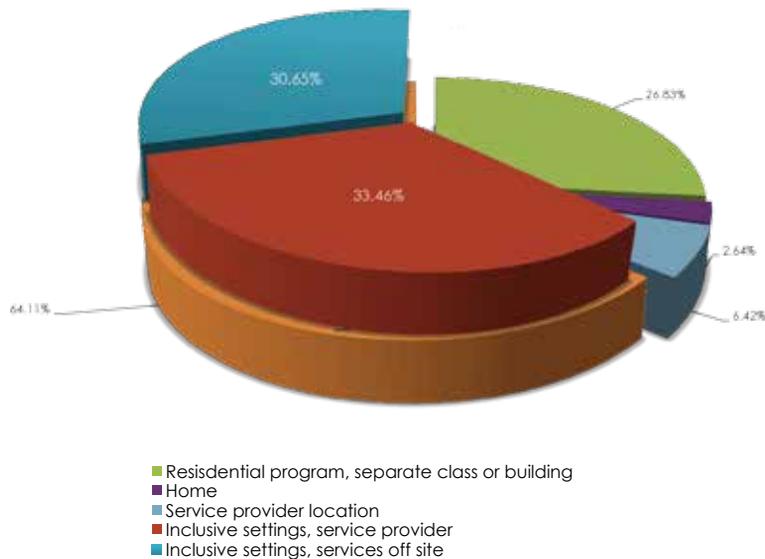


²⁶ U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB # 1820-0557: "Infants and Toddlers Exiting Part C," 2010-11. Data updated as of July 15, 2012. Retrieved June 5, 2013 from https://www.ideadata.org/arc_toc13.asp#partcPS

²⁷ U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB # 1820-0557: "Infants and Toddlers Exiting Part C," 2010-11. Ibid.

According to data included in the Commonwealth of Virginia Part B State Performance Plan for 2005-12,²⁸ more than 64.11% of the 3- to 5-year-old children with disabilities are enrolled in inclusive child care programs (those that serve both typically developing children and those with special needs). Among the children with special needs in inclusive settings, 33.46% receive their services there, while 30.65% receive their services outside the inclusive program. The children not enrolled in inclusive programs receive their services in a separate class, building, or residential program (26.83%), within their home (2.64%), or at a service provider location (6.42%).

Graph 6
Service Settings for 3- to 5-Year-Olds



According to the national Kids Count Data Center, of the 17,478 children enrolled in Virginia Head Start or Early Head Start programs,²⁹ 11.5% have an Individualized Education Plan (IEP) or Individualized Family Service Plan (IFSP), the document required to receive special education services. While Head Start regulations mandate that 10% of enrolled children meet special education eligibility criteria, it is likely that Head Start centers in some localities serve a higher percentage of children with disabilities.³⁰ The most common identified disabilities in children enrolled in Head Start programs are speech impairments or developmental delays.

• For the children with disabilities enrolled in Head Start, 51.7% were found eligible for special education services before enrolling in the program, and 47.5% were found eligible while enrolled in the program.

²⁸ U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB # 1820-0557: "Infants and Toddlers Exiting Part C," 2010-11. Data updated as of July 15, 2012. Retrieved June 5, 2013 from https://www.ideadata.org/arc_toc13.asp#partcPS

²⁹ Kids Count Data Center. <http://datacenter.kidscount.org/data/tables/5938-head-start-enrollment-by-age-group?loc=48&loct=2#national>

³⁰ http://eclkc.ohs.acf.hhs.gov/hslc/standards/Pls/2009/resour_pri_004_031009.html

- For the children with disabilities enrolled in Early Head Start, 62.2% were found eligible for special education services before enrolling in the program, and 37.8% were found eligible while enrolled in the program.³¹

While early intervention programs such as Virginia's Infant-Toddler Connection are contributing to successful efforts to identify young children with disabilities (as evidenced by the high rates of identification prior to enrolling in Head Start or Early Head Start), Virginia's Head Start educators and administrators are making additional strides toward high rates of early identification while children are enrolled in these programs.

- The greatest increase of identified disabilities was in children of families with an income 300% higher than the federal poverty level, yet children in poverty have the highest number of disabilities and risk factors,³² so thorough and high-quality developmental and health screenings prior to age 3 should be emphasized for all of Virginia's children.
- The number of children ages 0-3 years identified with disabilities continues to increase; therefore, greater attention should be centered on early intervention (Part C) services, especially since 22% of these children often achieve typical development while receiving intervention services before age 3 and, thereby, do not require 3- to 5-year-old special education (Part B) services.³³
- The majority of preschool children with disabilities are enrolled in programs with typically developing peers, yet half of those enrolled in such programs receive special education services outside of the inclusive setting.³⁴ In order to maximize the benefit of intervention services, the overall impact of Virginia's inclusive on-site services should be examined.
- Since almost half of the children with disabilities in Head Start programs are identified with disabilities while enrolled in the program,³⁵ increased resources should be provided for special education support and inclusive practices in Head Start programs.

³¹ Data collected from IDEA Data Explorer Analytic Tool retrieved June 5, 2013 from https://www.ideadata.org/DACAnalyticTool/Values_2.asp?STUDY=Part%20B%20Child%20Count&Statistic=1&VarCollID=Age,%203-5&VarRowID=DISABILITY&VarPageID1=YEAR&VarPageID2=STATE&VarPageID3=&VarPageID4

³² Commonwealth of Virginia Part B State Performance Plan for 2005-2012. Revised May 14, 2013. Retrieved June 3, 2013 from http://www.doe.virginia.gov/special_ed/reports_plans_stats/state_performance_plan/2013_revision.pdf

³³ 2011-2012 Head Start Program Information Report (PIR) Performance Indicator Report. Data as of March 11, 2013. Retrieved May 21, 2013 from <https://hses.ohs.acf.hhs.gov/>

³⁴ 2011-2012 Head Start Program Information Report (PIR) Performance Indicator Report. Ibid.

³⁵ 2011-2012 Head Start Program Information Report (PIR) Performance Indicator Report. Data as of March 11, 2013. Retrieved May 21, 2013 from <https://hses.ohs.acf.hhs.gov/>

Focus on Funding

INDIVIDUALS WITH DISABILITIES EDUCATION ACT

The federal Individuals with Disabilities Education Act (IDEA) provides support for Virginia's young children with disabilities through two of the legislation's arms—Part B and Part C. Part C funds services for children with disabilities between birth and 2 years of age. Part B provides funding for services for children with disabilities between ages 3 and 5.



IDEA Part C

During 2012, IDEA Part C revenues totaled \$57,449,183, while program expenditures totaled \$57,873,922. Fiscal year 2012 was the first year during which expenditures outstripped revenues. Revenues for Part C come predominantly from federal and state governmental programs, with Medicaid providing the single largest share of revenue—\$15,239,981—during fiscal year 2012. IDEA Part C funding is managed and distributed among Virginia’s 40 local Infant and Toddler Connection agencies by the state Department of Health.³⁶

As the number of children between the ages of 0 and 2 who are identified as being eligible for Part C services increases, the Virginia Department of Behavioral Health and Developmental Services anticipated deficits in excess of \$8.5 million for the 2013 fiscal year. The viability and effectiveness of Part C services are vital to the successful development of Virginia’s youngest children with disabilities, so every effort should be made in order to stabilize funding for this program.³⁷

IDEA Part B

In Virginia, IDEA Part B funding is further divided into two major categories—one designated for preschool and the other, called “flow-through” funding, designed to support students with disabilities throughout their K12 education. In 2012-13, preschool Part B funding in Virginia totaled nearly \$6.6 million, but in 2013-14, this figure was reduced to just under \$6.2 million.³⁸

Part B funding in Virginia has been put to good use in preschool settings. In the 2011-12 school year, Virginia met all of its targets in terms of improving preschool outcomes for children with disabilities.³⁹

Positive social-emotional skills	Percent entering preschool functioning within age expectations	11.9
	Percent functioning within age expectations after preschool	57.9
Acquisition and use of knowledge and skills (language, communication, and literacy)	Percent entering preschool functioning within age expectations	7.7
	Percent functioning within age expectations after preschool	45.6
Use of appropriate behavior	Percent entering preschool functioning within age expectations	10.9
	Percent functioning within age expectations after preschool	64.8

Retrieved from http://www.doe.virginia.gov/special_ed/reports_plans_stats/special_ed_performance/state/2011-2012.pdf

³⁶ [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/\\$file/RD261.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/$file/RD261.pdf)

³⁷ [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/\\$file/RD261.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2612012/$file/RD261.pdf)

³⁸ http://www.doe.virginia.gov/special_ed/grants_funding/index.shtml

³⁹ http://www.doe.virginia.gov/special_ed/reports_plans_stats/special_ed_performance/state/2011-2012.pdf

CHILDREN WHO ARE DUAL LANGUAGE LEARNERS

The number of children across the country who are dual language learners entering school has grown as much as 40% in the last decade.⁴⁰ Nationally, 30% of children enrolled in Head Start are dual language learners, with more than 80% from Spanish-speaking homes.⁴¹ Beyond that, there are limited data available specific to children birth to 5 years of age who are dual language learners, and there is no exact nationwide count of young dual language learners.⁴²

Only eight of Virginia's 133 school divisions reported enrollment of students with Limited English Proficiency in preschool during the 2012-13 school year. The total of 834 students was an enrollment increase of 42% over the last decade. Despite the sharp increase, numbers of early childhood dual language learners are grossly underreported. For example, the 2012-13 kindergarten enrollment data indicate that the number of Limited English Proficiency students statewide rose dramatically to 15,212.⁴³ Accurate projections of needs for LEP services provided in PK12 settings are impossible without accurate reporting from all school divisions on preschool dual language learners.

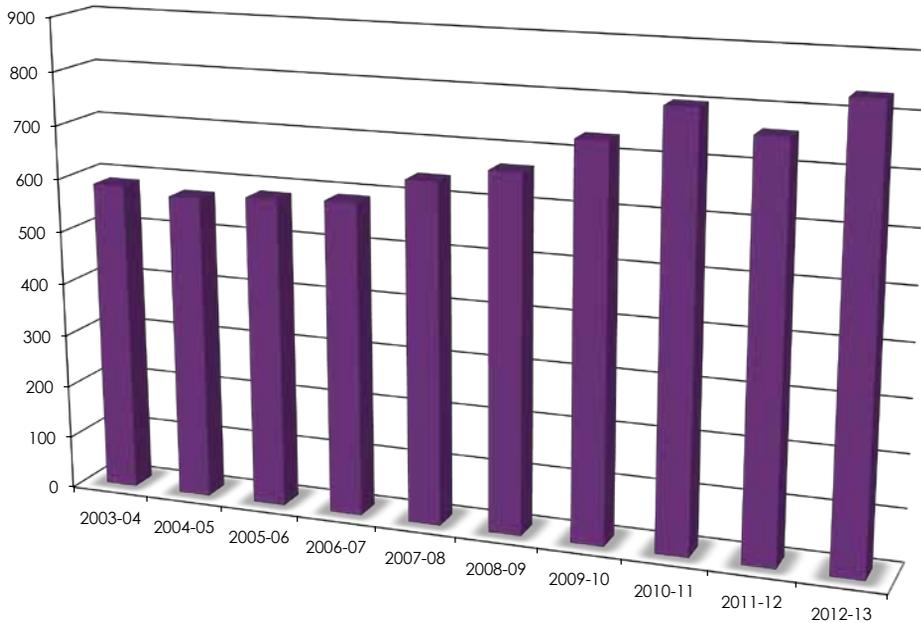
⁴⁰ Castro, D.C., Garcia, E.E. & Markos, A.M. (2013). Dual language learners: Research informing policy. The University of North Carolina, FPG Child Development Institute, Center for Early Care and Education Research-Dual Language Learners.

⁴¹ Center for Early Care and Education Research-Dual Language Learners (CECER-DLL; 2011). Research Brief #6: Language and literacy development in dual language learners: A critical review of the research. Chapel Hill: The University of North Carolina, FPG Child Development Institute.

⁴² National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs. (2011). Key demographics and practice recommendations for young English learners. Washington, DC: The George Washington University, NCELA.

⁴³ Virginia Department of Education. (2013). *LEP student statistics* [Data file]. Retrieved from http://bi.vita.virginia.gov/doe_birdPage.aspx?rdReport=Main&subRptName=Fallmembership

Graph 7
Preschool Dual Language Learners in Virginia*



*Eight of 133 Virginia school divisions reporting.
Data retrieved from <http://www.doe.virginia.gov>

- During the 2003-04 school year in Virginia, a total of 60,291 Limited English Proficient students were enrolled in PK12 public schools. By the 2012-13 school year, this number had increased by more than 100% to 121,727.⁴⁴
- Comprehensive data specific to preschool dual language learners is necessary for targeted decision making to support this increasing population in Virginia.
- Ensuring high-quality programs that support evidence-based practices for dual language learners would enable the Commonwealth's youngest dual language learners to be more adequately prepared for later school years and, thereby, require fewer services.

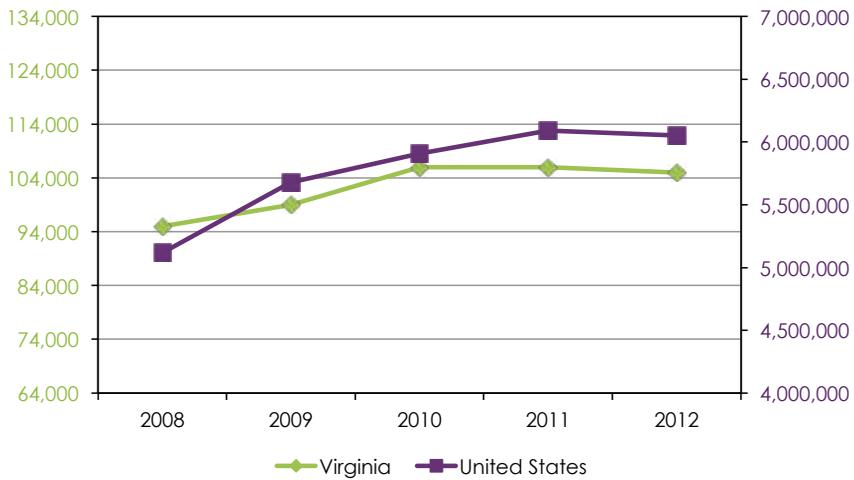
⁴⁴ http://bi.vita.virginia.gov/doe_bi/rdPage.aspx?rdReport=Main&subRptName=Fallmembership

Children Living in Poverty

CHILDREN IN POVERTY

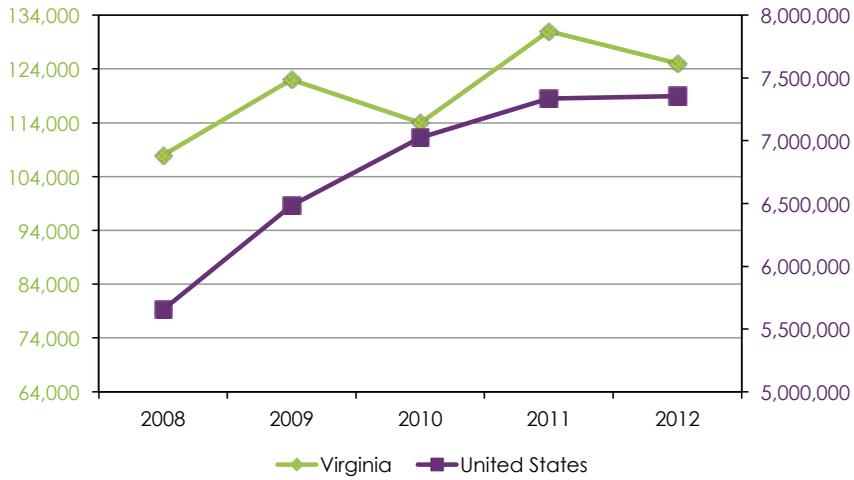
In 2012, the U.S. Census Bureau reported there were 6.05 million—26%, or about a 1-in-4 ratio— young children from birth through age 5 in poverty, based on a family income of \$23,283 for two adults and two children.⁴⁵ In Virginia, the 2012 poverty rate was 16% for young children, or 10% below the national level of 26%. However, the number of young children in poverty rose sharply from 2008 to 2012 across the Commonwealth (9.5%).⁴⁶ Moreover, children from birth through age 17 in extreme poverty based on family income of \$11,641 in Virginia represented one of the fastest-growing child poverty populations, which rose by 13.6% from 2008 to 2012. The tables in this section provide an overview of child poverty in the Commonwealth of Virginia compared to the United States.

Graph 8
Comparison of the Numbers of Children in Poverty from 2008 – 2012 in the United States and the Commonwealth of Virginia



⁴⁵ Annie E. Casey Foundation. (2013). The KIDS COUNT data center. Retrieved from <http://datacenter.kidscount.org/>
⁴⁶ Annie E. Casey Foundation. (2013). The KIDS COUNT data center. Retrieved from <http://datacenter.kidscount.org/>

Graph 9
Comparison of the Numbers of Children in Extreme Poverty from 2008 – 2012 in the
United States and the Commonwealth of Virginia

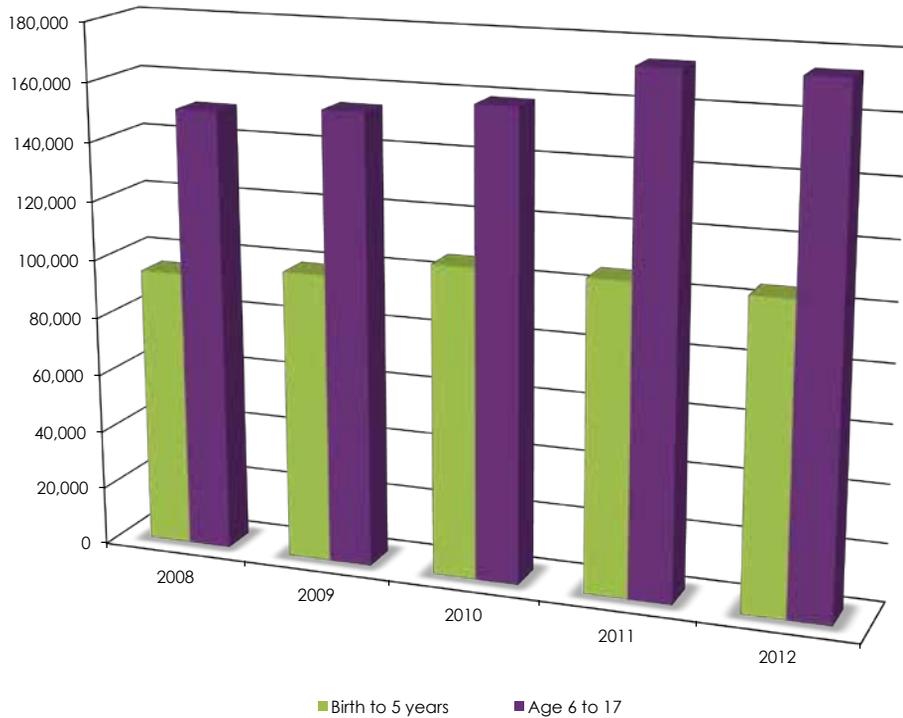


According to the National Center on Family Homelessness, food security is a significant problem in Virginia.⁴⁷ One out of 37 children in the Commonwealth does not know where their next meal will come from. While this statistic is better than the national average (one out of 26),⁴⁸ food insecurity poses a serious threat to our most vulnerable children.

⁴⁷ http://www.homelesschildrenamerica.org/pdf/report_cards/long/va_long.pdf

⁴⁸ Nord, M., Andrews, M., & Carlson, S. (2006). Household Food Security in the United States, 2005: Economic Research Report No. ERR-29. Washington, D.C.: United States Department of Agriculture.

Graph 10
Virginia's Children in Poverty by Age Group – 2008-2012



Data retrieved from <http://datacenter.kidscount.org/data/tables/5650-children-in-poverty-by-age-group?loc=48&loct=2#detailed/2/48/false/868,867,133,38,35/17,18,36/12263,12264>

- At its peak (2010-11), the number of Virginia's children 0-5 years of age experiencing poverty represented 18% of all the children in this age range throughout the Commonwealth.⁴⁹
- A higher percentage of the Commonwealth's youngest children (0-5 years; 17%) experience poverty than do older children (6-17 years; 14%).⁵⁰

Poverty significantly and adversely impacts families' capabilities to support their young children's overall development: physical, mental, cognitive, and social-emotional health.⁵¹ A particularly vulnerable segment of young children in poverty are children experiencing homelessness. The next section provides information on child homelessness as a special population issue in Virginia.

⁴⁹ <http://datacenter.kidscount.org/data/tables/5650-children-in-poverty-by-age-group?loc=48&loct=2#detailed/2/48/false/868,867,133,38,35/17,18,36/12263,12264>

⁵⁰ <http://datacenter.kidscount.org/data/tables/5650-children-in-poverty-by-age-group?loc=48&loct=2#detailed/2/48/false/868,867,133,38,35/17,18,36/12263,12264>

⁵¹ Park, J. M., Fertig, A. R., & Allison, P. D. (2011). Physical and mental health, cognitive development, and health care use by housing status of low-income young children in 20 American cities: A prospective cohort study. *American Journal of Public Health, 101*(S1), S255-S261.

CHILD HOMELESSNESS

The National Center on Family Homelessness reported an increase of 38% in the prevalence of child homelessness in the United States, from 1.2 million children in 2007 to more than 1.6 million children in 2010, based on aggregated state data.⁵² This means that one in 45 children in the U.S. is now homeless. Each of the 50 states was ranked by performance across four domains:

- Extent of child homelessness adjusted for age and the state's population size,
- Child well-being,
- Child homelessness risk, and
- State policy responses.

On a scale of 1 to 50, from best to worst across rated domains, the Commonwealth is among the top 20 states in the first three of the four stated domains. However, of concern for legislators and service providers is **Virginia's 46th ranking on state policy responses**. Policy response improvements are needed to reverse the rising trend of child homelessness and improve Virginia's national ranking in serving this special sub-population.

The Council on Community Pediatrics of the American Academy of Pediatrics noted **children experiencing homelessness are adversely impacted from hunger, malnutrition, chronic disease, and trauma**.⁵³ **Developmental delays, emotional distress, and low academic achievement are more common in children experiencing homelessness, as well as marked barriers to needed health care services**. Adults who experience homelessness during childhood are less able to manage toxic stressors throughout their lives.⁵⁴ Because of this, it is vital that Virginia's policymakers take strides to ensure that all of the Commonwealth's youngest children have secure housing.

Information gathered from the McKinney-Vento Educational Programs estimates that, in Virginia, 18,214 children experience homelessness each year. Children ages 0-5 are more likely than any other group of Virginia's children to experience homelessness.⁵⁵

⁵² Bassuk, E. L., Murphy, C., Coupe, N. T., Kenney, R. R., & Beach, C. A. (2011). America's youngest outcasts 2010. The National Center on Family Homelessness State Report Card on Child Homelessness. Retrieved from http://www.homelesschildrenamerica.org/media/NCFH_AmericaOutcast2010_web.pdf

⁵³ Council on Community Pediatrics. (2013). Providing care for children and adolescents facing homelessness and housing insecurity. *Pediatrics*, 131, 1206-1210. doi: 10.1542/peds.2013-0645. Retrieved from <http://pediatrics.aappublications.org/content/131/6/1206.full.html>

⁵⁴ Fantuzzo, J., LeBoeuf, W., Brumley, B., & Perlman, S. (2013). A population-based inquiry of homeless episode characteristics and early educational well-being. *Children and Youth Services Review*, 35, 966-972. doi: 10.1016/j.childyouth.2013.02.016. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0190740913000807>

⁵⁵ http://www.homelesschildrenamerica.org/pdf/report_cards/long/va_long.pdf

Table 2	
Ages and Numbers of Virginia's Children Experiencing Homelessness – 2010	
Ages/Grade Levels	Numbers
0-5 years	7,650
Grades K-8	8,624
Grades 9-12	1,940

Data retrieved from http://www.homelesschildrenamerica.org/pdf/report_cards/long/va_long.pdf

- Children ages 0-5 years represent approximately 42% of all children in the Commonwealth experiencing homelessness.⁵⁶

⁵⁶ http://www.homelesschildrenamerica.org/pdf/report_cards/long/va_long.pdf





Family Support Services

A wide variety of programs offer parent and family education and family support across the Commonwealth of Virginia. These include activities, classes, seminars, or other methods of engaging parents to develop deeper understandings about their roles, responsibilities, and knowledge needed to enhance parenting skills. Parent and family education or other family support services are provided by federal, state or local agencies, nonprofit organizations, churches or religious groups, state advocacy groups, medical communities, public schools, and private businesses throughout the state.

Family support services are designed to build a comprehensive network to address the safety, well-being, health, and physical, cognitive, emotional, and social development of children by supporting the holistic needs of all members of the family unit. Parent and family education and family interventions promote protective factors that help parents to develop healthy attachment to their children, build knowledge of child development, strengthen child guidance techniques, shield children from maltreatment, and develop family resiliency.¹

Resource and referral service agencies typically connect families with young children to resources related to parent and family education, health-related services, mental health issues, domestic violence, abuse, financial education and assistance, emergency needs, housing needs, job and educational training, and child care options. For instance, ChildCare Aware, a national organization with a state affiliate in Virginia, provides child care information to families throughout the Commonwealth. Additionally, 211 Virginia, a program that can be accessed via the Internet as well as over the telephone, assists families in securing resources that they need through a free, confidential program clearinghouse connected to every local community in Virginia.

Currently, there is no mechanism for collection of a comprehensive list of programs and agencies across the state that provide these services. The following two sections provide references to show that many resources are available. There is, however, a need to centralize this information to make it accessible to families, service-providers, and other stake-holders throughout Virginia.

Home Visitation Programs

Home visitation programs offer information, risk assessment, health programming, and parenting support interventions during in-home visits by various care providers. Parent and family education offered for Virginia's parents and families include classes, seminars, lectures, and interactive sessions that address parents in individual, online, or group meetings. Referral and resources agencies provide a wide variety of services, ranging from child care provider referrals to risk assessments, to connect families with other services they need within and outside the scope of parenting support.

These programs seek to improve outcomes of prenatal care, pregnancy, parenting skills, early childhood health, and child growth and development.² These programs typically assist families considered to be at risk due to poverty or other social conditions.

¹ Lundahl, B. W., & Harris, N. (2006). Delivering parent training to families at risk to abuse: Lessons from three meta-analyses. The APSAC Advisor, 18(3), 7-11.

² Johnson, K. (2009). State-based home visiting: Strengthening programs through state leadership.

The Virginia Home Visiting Consortium (VHVC) was developed in 2006. **The nationally recognized VHVC is a collaboration of statewide early childhood home visiting programs that serves families of children from pregnancy through age 5.**³ As of 2013, VHVC programming includes 11 evidence-based home visitation programs that serve Virginia’s at-risk families. While programmatic elements, intensity, and duration differ depending on program goals, most program services are provided by registered nurses, caseworkers, or other early childhood professionals.⁴

Program Name	Sponsoring Agency	Total Number Served
Resource Mothers	Virginia Department of Health	1,054
Project LINK	Virginia Department of Behavioral Health and Developmental Services	524
Baby Care Maternal Infant Care Center (MICC)	Virginia Department of Medical Assistance Services	6,051
Healthy Start Loving Steps	Virginia Department of Health	327
Comprehensive Health Investment Project (CHIP) of Virginia	CHIP of Virginia	1,681
Early Childhood Special Education	Virginia Department of Education	0*
Home-Based Head Start	Virginia Department of Social Services	0*
Early Intervention – IDEA Part C	Virginia Department of Behavioral Health and Developmental Services	6,869
Healthy Families	Virginia Department of Social Services/ Prevent Child Abuse Virginia	2,940
Parents as Teachers	CHIP of Virginia	364
Nurse-Family Partnerships (NFP)	Virginia Department of Health	300
Home Instruction for Parents of Preschool Youngsters (HIPPY)	Virginia Department of Health	50
		21,012

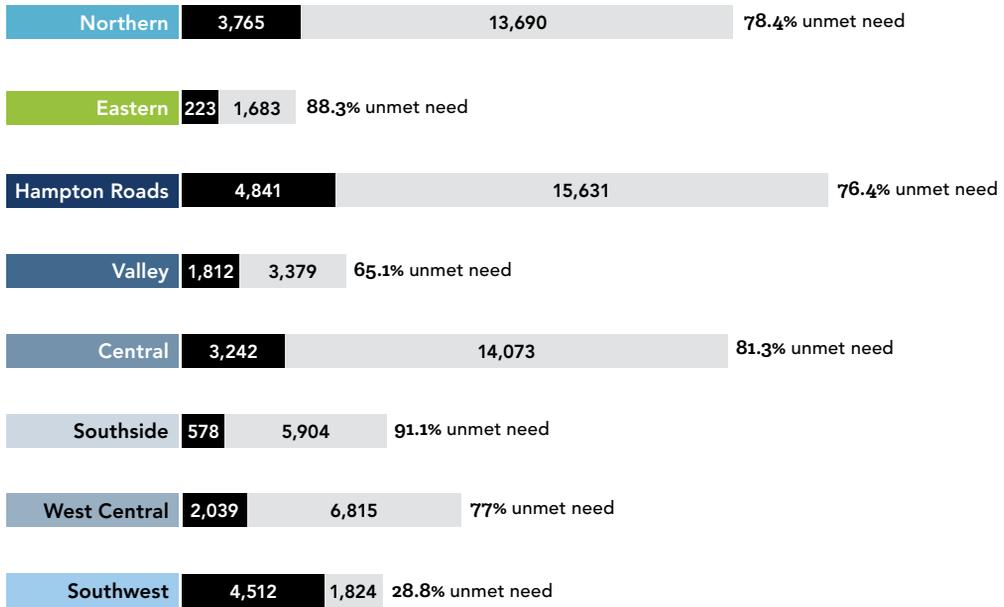
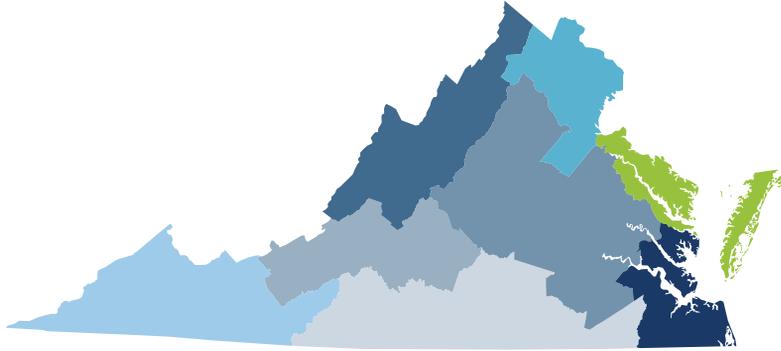
*No data available

³ homevisitingva.com/index.php

⁴ Virginia Home Visiting Consortium. (2010). *Virginia home visiting needs assessment*. Virginia Department of Health, VA.

- Together, Baby Care MICC (6,051) and Early Intervention – IDEA Part C (6,869) accounted for 61.5% of all the families served by Virginia’s home visitation programs during the 2013 fiscal year.
- Thanks to huge contributions from Baby Care MICC (serving 3,900 families), Virginia’s Southwest region boasts the lowest percentage of unmet need (28.8%), providing home visitation services to 4,512 of the estimated 6,336 families eligible for these services.
- Virginia’s Central, Eastern, and Southside regions’ home visitation services serve a total of only 4,043 of the estimated 25,649 eligible families within those regions—a rate of 84% unmet need.
- While the collaborative nature of the VHVC serves as a national model, the number of families that qualify to benefit from VHVC services is far greater than the number served during the 2013 fiscal year. Programs of promise, like CHIP, featuring a model of integrated services, work to provide holistic support to Virginia’s families during critical periods of early development.

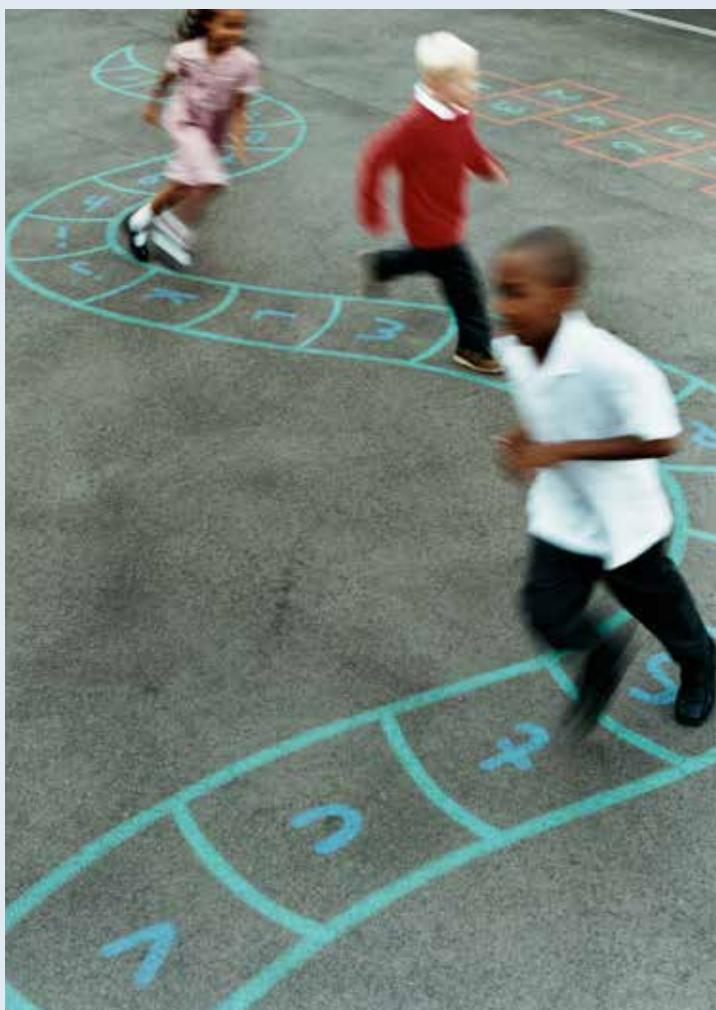
Graph 1
Home Visitation Program Services vs. Unmet Need – by Region



Focus on Funding

VIRGINIA HOME VISITING CONSORTIUM

In 2013, approximately 1,200 at-risk families throughout Virginia received home visitation services. These services are funded through the Affordable Care Act, and funding is managed by the Virginia Home Visiting Consortium. More than \$5.7 million has been allocated to support this work across the Commonwealth.⁵ This funding has allowed Virginia to serve as a leader in home visitation services. As of 2009, the Commonwealth was one of only five states that reported implementation of three or more home visitation programs.⁶ Further, Virginia and Pennsylvania were the only two states that reported implementation of more than 10 home visitation programs. In fact, as of 2009, Virginia and Oregon were the only two states with gubernatorial initiatives designed to support review and coordination of home visitation services.⁷



⁵ Virginia Home Visiting Consortium. (2010). Maternal Infant Early Childhood Home Visiting (MIECHV Project). Retrieved from <http://homevisitingva.com/miechv.php>

⁶ Johnson, K. (2009). Strength-based Home Visiting: Strengthening programs through state leadership. National Center for Children in Poverty. Mailman School of Public Health: Columbia University, NY.

⁷ Johnson, K. (2009). Ibid.

Parent and Family Education

The goal of parent and family education is to help caregivers guide their children toward healthy adulthood, strengthening families through relevant education and support that encourage environments for the healthy growth and development of parents and children.⁸ Family support agencies and programs frequently include various educational components for caregivers, as well as a myriad of other services that enhance the well-being and functioning of the family.

PARENTING CLASSES

Parenting practices and supportive family behaviors are important predictors of healthy growth and development for children.⁹ Parent and family education programming has the potential to help support all families as they work to provide positive home environments for their children.

Within each of Virginia's eight regions, various parent and family education classes are offered. These classes range from those mandated by Juvenile and Domestic Relations Courts to voluntary classes that are open to the public. Parent and family classes are mandated in court cases dealing with child abuse or neglect but are also available to families in court cases dealing with custody, adoption, and parental rights. Because of the wide variety of parent and family education opportunities available, little information exists regarding the relative quality and effectiveness of these classes. The Virginia Statewide Parent Education Coalition (VSPEC) is working to address this challenge, identifying areas of need and strengthening available parent and family education services.

A Sampling of Topics Covered in Parent and Family Education Classes:

- Child Development
- Divorce
- Foster Parenting
- Grief, Trauma and Loss
- Pregnancy and Childbirth
- Military Families/Stress
- Positive Guidance

⁸ National Parenting Education Network. (2013). Retrieved from <http://npen.org/>

⁹ Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development*. National Academies Press.

VARIED PARENT AND FAMILY EDUCATION OPPORTUNITIES IN VIRGINIA'S EIGHT REGIONS

Northern Region

Stop Child Abuse Now (SCAN) - parenting classes in English and Spanish offered in fall and spring. Child care is available for children ages 0-4.

<http://www.scanva.org>

Parenting Education Program in Fairfax County - Participants must agree to complete the program as a family. Classes are FREE and include an evening meal and child care. Purpose is to help build strong, positive relationship with family members and increase understanding and respect for the needs of each other.

<http://www.fairfaxcounty.gov/dfs/childrenyouth/nurturingparenting.htm>

Central Region

Children's Mental Health Resource Center - goal is to be the community's go-to source for information and assistance related to children's mental health. Their goal is to make it easier to navigate the complex system of mental health care for children.

<http://www.mentalhealth4kids.org>

Early Childhood Development Initiative (ECDI) provides free parenting education. Activities are provided in a variety of formats for parents, grandparents and other caregivers of children from birth through age 5. Topics include child development, positive discipline, communication is the key, and many others.

<http://www.richmondgov.com/ecd/>

Southside Region

ParentClassOnline is the most hassle-free way of completing a parenting class requirement. This course is built by parenting instructors, social workers and professors of social work who know how to make parent and family education clear-cut and engaging. It includes easy-to-read text lessons, videos and audio lessons. Accept Visa and MasterCard

www.ParentClassOnline.com

Parenting Together, Living Apart – This class is designed for never-married parents living apart. This course is designed to teach parents about positive communication and cooperative parenting skills, and children's developmental stages and reactions to parental conflict.

http://www.onlineparentingprograms.com/resourcecenter_countyresources_displaycounty/virginia/halifax-1/

Eastern Region

Online Parent Class - 4 hour, 6 hour, 10 hour, 12 hour, 16 hour, 26 hour classes. An educationally based online class designed to teach parents more effective skills to better interact with their children and others involved in the parenting process. www.onlineparentclass.com/Parenting-Classes-Virginia-Northampton-County.aspx

The Center for Parenting Education - free online parenting workshops. A virtual meeting room where participants learn to maintain a positive connection with their children and build their self-esteem while encouraging responsibility and imparting values.

<http://centerforparentingeducation.org/online-workshops/>

Valley Region

Home Service of Clarke County Parenting Education Center - certified parenting coach offering co-parenting education classes for divorce, separation, child custody and visitation. Also available are educational services for behavioral modification.

<https://www.leliawilliams.net/HomeServiceOfClarkeCountyIn.php>

The Incredible Years—All About Baby

A 14-week program for parents expecting a child or who have a child under age 2. Topics include: Baby and Toddler curriculum of the Incredible Years, Happiest Baby on the Block, Happiest Toddler on the Block, Signing with your Baby

<http://www.rmhonline.com/main/ParentingEducationandSupport.aspx>

West Central Region

Parent Class based on the Systematic Training for Effective Parenting (STEP) program. The focus is on living with and rearing children. The classes are free to parents in the area and are taught annually in selected local elementary schools.

www.lynchburg.edu/center-family-studies-and-educational-advancement/parents

YWCA/Violence Intervention Program (VIF) - designed to support youth in reducing the risk for negative behaviors such as violence, delinquency, school failure, and gang involvement. This is based on restorative principles that create opportunities for growth regardless of one's actions or behaviors

www.lynchburgywca.org

Southwest Region

Virginia Parenting Class - court approved online co-parenting class for separating and divorcing families. This is geared toward helping children cope with divorce and separation.

www.familyaffairs.org

<http://www.rmhonline.com/main/ParentingEducationandSupport.aspx>

Co-Parenting; Two Parents, Two Houses – Court approved parenting class designed to provide information and strategies that parents can use to avoid putting children in the middle of parental conflict. This class consists of one four-hour session.

<http://www.aliciakitts.com/>

Hampton Roads Region

Hampton Roads Parenting Education Network (HRPEN) – ensures access to comprehensive parenting education opportunities that meet the needs of families in Hampton Roads

www.chkd.org/Services/HRPEN

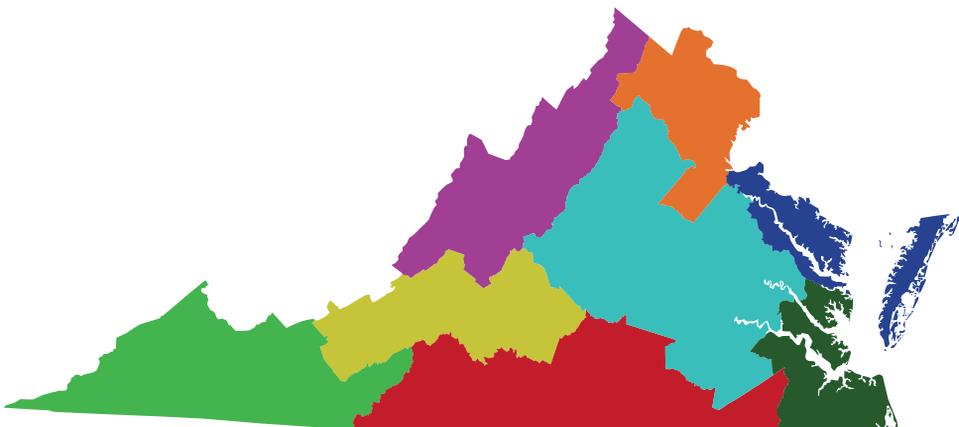
Hampton Healthy Families Partnership - created to ensure that all children were born healthy and entered school ready to learn. A variety of free programs have been designed to help strengthen families and promote school readiness.

<http://www.hampton.gov/healthyfamilies/>

- While a wide variety of parent and family education opportunities exist throughout the Commonwealth, the quality of the instruction being provided and the outcomes achieved by participants remain unknown.
- Parent and family education classes have the potential to offer support for families experiencing crisis or transition, but it is important that these services exist within a comprehensive, integrated framework designed to meet the varying levels of complexity faced by our most vulnerable families.

Figure 1

Varied Parent and Family Education Opportunities in Virginia's Eight Regions



Conclusion

A large number of parenting education and family support programs are offered across the state. Programs vary greatly by goals and objectives, duration, intensity, and by the agency/trainer providing the service. In looking specifically at parenting education classes, both those that parents voluntarily seek out to develop or enhance their knowledge or problem-solving skills and those that are court-ordered, thousands of classes are offered annually across the state. Currently, no comprehensive process or clearinghouse is in place to compile available classes, examine quality and outcomes, or track the number of families served in these programs. Given the vast number of programs and providers and the current models, efforts to collect this data would be difficult.

There are 11 home visitation programs offered in Virginia, with a capacity to serve more than 21,000 families of young children in Virginia in fiscal year 2013. However, based on 2010 poverty rates, it is estimated that the need exceeds 84,000, projecting that 75% of the needs across the state are unmet.¹⁰ Clear data are collected by the Virginia Department of Health on home visitation programs, including capacity and types of evidence-based programs.

A number of resource and referral agencies exist in all regions of Virginia. Services are provided through a host of providers: state agencies, hospitals, local governments, departments of social services, and many nonprofit agencies. Goals and program components vary widely. As with parent and family education classes, there is not a comprehensive mechanism to track or identify referral and resource agencies across the state. Further, collection of the number of families served, especially those with young children, is difficult due to the large number of programs and overlapping agencies.

An array of parent and family education and family support services is available to families of young children in Virginia. Data collection, tracking of participants, effectiveness, and outcomes for most parent and family education programming are not readily available, which poses challenges to understanding the impact of these valuable programs.

¹⁰ Virginia Home Visiting Consortium. (2010). *Virginia home visiting needs assessment*. Virginia Department of Health, VA.







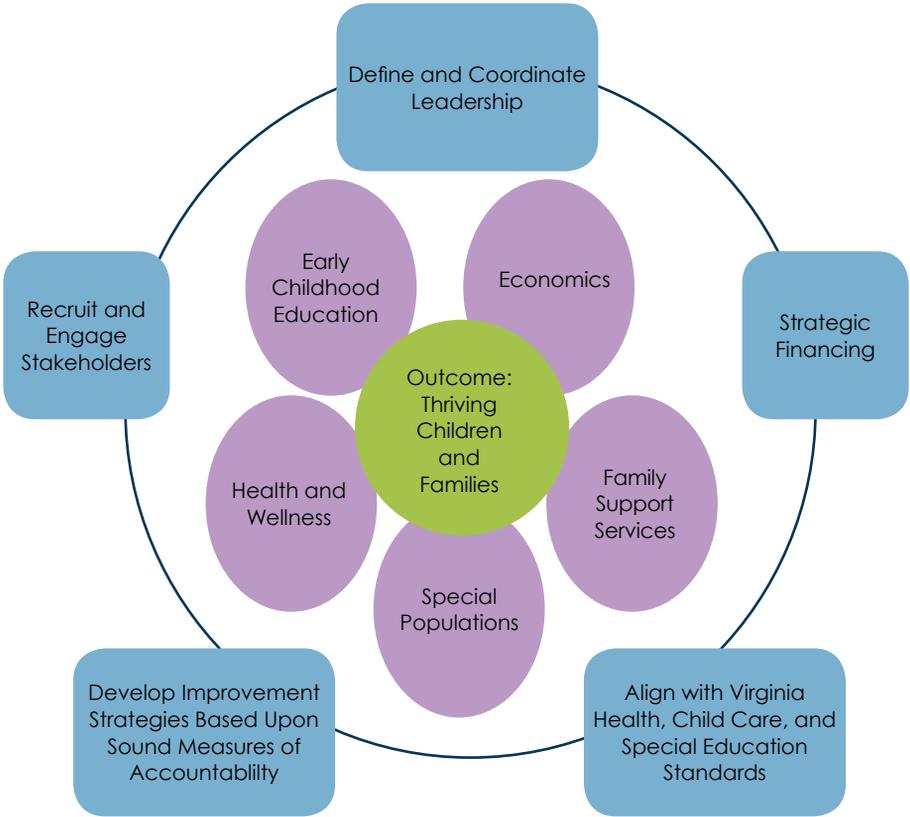
Conclusion

The aim of the Virginia Early Childhood Policy Center’s State of Early Childhood in Virginia report was to provide a thorough understanding of a wide array of issues impacting the Commonwealth’s youngest citizens. The report’s focus on each of these factors—Economics, Education, Health and Wellness, Special Populations, and Family Support Services—is tied to the belief that, in order to effectively provide Virginia’s children with a good start in life, policymakers and service providers must adopt a comprehensive, integrated systems approach that recognizes the interrelationships among each of the areas we have described. At least partially because Virginia’s young children are largely “invisible”—unable to vote and lobby on their own behalf and being raised by parents who are mostly young and less politically active than older citizens—a comprehensive network of support for this population has been slow to develop. We hope that this report will assist in demonstrating the importance of prioritizing our Commonwealth’s children for the sake of their own well-being and that of Virginia as a whole.

Next Steps for Virginia

In the introduction to this report, we introduced a possible model of a comprehensive Early Childhood System in Virginia.

Figure 1
Components of a Comprehensive Early Childhood System in Virginia



During the construction of this report, we were struck by the number of Virginia's birth-five programs that focus on or isolate a singular component related to healthy development and education. Practically, this means service providers rarely know the extent to which children and families are utilizing services in other programs targeting birth-five children and families. As we have noted previously, a primary problem with the current system of services in Virginia is the unavailability of data about children and families prior to entrance into formal schooling. As a result, our at-risk children and families may not be identified as early as they should be and, hence, are delayed in receiving valuable services. Additionally, there is no formal information sharing between the multitude of Virginia's agencies and service providers who regularly work with children and their families. This silo approach to programming prohibits service providers' abilities to link intervention and prevention services to established outcomes. Viewing and delivering early childhood programming through an integrated, systems approach will promote services that support children and families during the critical time period of birth-five .

As demonstrated by the piecemeal programming available in regions throughout Virginia, our citizens need lawmakers who recognize the diverse needs of young children across the Commonwealth and will seek to support an equitable programmatic approach across Virginia. Moving forward, the Virginia Early Childhood Policy Center will continue the work begun in this report in support of Virginia's young children.

Critical to this work is defining **quality** as it relates to early childhood services in Virginia, a challenging task due to the ambiguous uses and applications of the term. Currently, quality is defined in different ways by different groups of stakeholders, resulting in variable and unclear benchmarks across programs. Understanding what high-quality programs mean in Virginia will entail precise identification of the needs of specific subsets of the early childhood population while analyzing data on the extent to which these needs are being met throughout the Commonwealth. Data presented in this report highlight the fact that not all programs geared toward the Commonwealth's young children are created equally, and rigorous scientific evaluation is the only way to ensure that wise investments are made in early childhood.

In order to alleviate the lack of sound evaluation data available to families, program providers and funding agencies across Virginia should seek to further the work of evaluating early childhood programs, monitoring the extent to which they are effectively meeting the needs of children and families throughout the Commonwealth. Results of these evaluations should then be freely and publicly shared with lawmakers, educators, families, and all other advocates for young children so that Virginia can best leverage federal, state, local, and private resources and serve as an example of a state that takes seriously its responsibility to its youngest children.

Ideas that Work

During the creation of this report, we explored many programs geared toward young children and their families. A few of these programs that have long-term track records of success are briefly described below in order to highlight what we believe to be unique characteristics that have contributed to these programs' success.

- Smart Beginnings, a network of 29 coalitions located throughout Virginia, represents one excellent example of a locally responsive, collaborative program improving the lives of the Commonwealth's children. This organization, spearheaded by the Virginia Early Childhood Foundation in 2007, works to ensure that high-quality early childhood care, health, and education services are available for all children. Through leveraging partnerships between the private and public sectors, Smart Beginnings has made great strides in localities across Virginia.
- The Comprehensive Health Investment Project (CHIP) of Virginia is an organization that aids in establishing and sustaining a network of eight community-based child health care and family support service providers throughout the Commonwealth.
- The Virginia Star Quality Initiative (VSQI) is a measure used to evaluate the overall quality of child care centers and family child care homes throughout Virginia according to four criteria—education, qualifications, and training of staff; interactions; structure; and environment and instruction. Currently, 341 child care centers and 77 family child care homes participate in the voluntary VSQI system.
- The Virginia Home Visiting Consortium, founded in 2006, is made up of a group of home visiting service providers who collaborate to ensure that information is shared across programs and government agencies in order to provide high quality home visiting services to Virginia's families. Their collaborative, inter-agency approach likely accounts for Virginia's nationally-known home visiting system.
- Military Child Care provided for the dependents of military personnel across the Commonwealth is exception in that these child care services are tailored to the unique needs of the population they serve. Likewise, this system is flexible enough to provide services not just for those families who make use of their on-base child care facilities—but also for those who make use of high-quality off-base child care services. Finally, military child care values and prioritizes national accreditation.

Final Thoughts

Currently, the piecemeal nature of information and the limited accountability of early childhood programs and services available throughout the Commonwealth force parents of Virginia's young children to exert undue effort in order to identify and secure services necessary to support their children's healthy holistic development. Building upon leading organizations and programs like those listed above, Virginia can emerge as a leader in early childhood through the implementation of an integrated, systems approach to programs designed for young children and their families. Though this will not be a quick or easy process, it will yield both short- and long-term results that will benefit the Commonwealth's economy, its long-term stability, and the children and families, themselves.

