YOUNG KIDS COUNT ON THE EASTERN SHORE OF VIRGINIA

By Dr. William P. O'Hare

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Voices
For Virginia's
Children

Young KIDS COUNT on the Eastern Shore of Virginia

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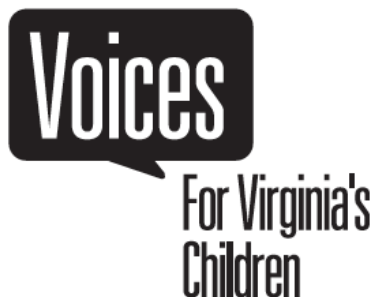
Dr. William P. O'Hare

Executive Summary

This report summarizes the well-being of young children living on the Eastern Shore of Virginia. The Eastern Shore of Virginia comprises Accomack and Northampton counties, and each county is examined separately in this report. This report follows on a report released at the 2017 KIDS COUNT Eastern Shore Forum which focused on all children. The 2017 report is available on the Voices for Virginia's Children website at https://vakids.org/our-news/publications under the KIDS COUNT section.

This report focuses on young children (generally under age 5).

The goals of the report include:

1) increasing public awareness, understanding, and knowledge of the well-being of young children on the Eastern Shore;

2) making statistical data related to young children on the Eastern Shore more easily available to child advocates, political leaders, and others for decision making, grant writing, and other related activities; and

3) stimulating actions to improve the well-being of young children on the Eastern Shore of Virginia.

The report focuses on 12 statistical indicators of child well-being drawn from economics, health, education, and family/community dimensions. These include measures such as child poverty, infant mortality rate, young children without health insurance, and percent of young children living in single-parent families. The measures used here have been widely used in other studies. For each indicator, the value of the indicator is provided for Accomack and Northampton counties and these counties are compared to all other counties in Virginia.

With few exceptions, the young children growing up on the Eastern Shore trail the young children in most of the other counties in Virginia. On every dimension of child well-being examined here (economics, health, education, and family/community environment), young children on the Eastern Shore are ranked near the bottom of all counties in Virginia. Of the12 statistical indicators examined here, there were no measures where young children in both counties on the Eastern Shore were better than the statewide figure.

2

When a statistical index was constructed based on combining multiple measures of child well-being, the two counties on the Eastern Shore were near the bottom of the distribution. Out of 133 counties and independent cities in Virginia, Accomack County ranked 125th and Northampton County ranked 128th on overall well-being of young children.

The focus of this report was selected, in part, because high-quality preschool and early life experiences are identified as two promising avenues to improve the well-being of young children. Numerous studies have found high-quality early life experiences provide benefits that last through school into adult life. This approach to improving the lives of young children has a strong evidence base and bipartisan support.

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1. Introduction

While it may sound trite to say "children are the future," it is widely believed that the extent to which children today grow up to be productive workers, supportive parents, as well as engaged and knowledgeable citizens will shape our future. Moreover, there is a growing body of evidence that the first few years of life are critical in terms of launching children on a path toward positive and productive adulthood.
In that context, this report examines the well-being of young children on the Eastern Shore of Virginia (Northampton and Accomack counties). The purpose of this report is to provide a detailed and comprehensive picture of their well-being using the best available data.

The goals of the report include:

1) increasing public awareness, understanding, and knowledge of the well-being of young children on the Eastern Shore;

2) making data related to young children on the Eastern Shore more easily available to child advocates, political leaders, and others for decision making, grant writing, and other related activities; and

3) stimulating actions to improve the well-being of young children on the Eastern Shore of Virginia.

This report is modeled after the national KIDS COUNT report, which has been produced by the Annie E. Casey Foundation every year since 1990 (The Annie E. Casey Foundation 2017, O'Hare 2013). Like the national KIDS COUNT report, this report uses the best up-to-date statistics to create a balanced and relatively comprehensive picture of young children on the Eastern Shore. It relies on the most recent statistical data available from government sources, such as the U.S. Census Bureau, the Virginia Department of Education, and the Virginia Department of Health. The report draws heavily on the data provided by the KIDS COUNT in Virginia project located at Voices for Virginia's Children, in Richmond, Virginia, and available at vakids.org.

The indicators used in this report are all commonly used measures of child well-being, and they all come from reliable government statistical agencies. Most of the indicators used here have appeared in other reports on child well-being (U.S. Federal Interagency Forum on Child and Family Statistics, 2017; The Annie E. Casey Foundation, 2017; Land et al., 2001; UNICEF, 2007; Organisations for Economic Development and

Cooperation, 2009). Appendix A provides more detailed information about the sources for the statistical indicators used in this report.

The report uses a comparative perspective by examining the well-being of young children on the Eastern Shore relative to the well-being of young children in other localities in Virginia and the state of Virginia as a whole. For many of the data points provided here, the meaning may not be immediately apparent in insolation. For example, those who do not work in the field probably do not know if an infant mortality rate of eight is good or bad. The data only become meaningful for many readers when compared to the same measures from other places. The report employs this comparative perspective in three ways.

First, the well-being of young children in the two counties on the Eastern Shore is compared to that of all the other localities in Virginia. Ranks are assigned to each county on each indicator of well-being. There are several cities in Virginia that are treated much the same as counties and often referred to as county equivalents. For the remainder of this report, counties and county equivalents are used interchangeably. There are 133 such counties or county equivalents in Virginia, so rankings generally range from 1 (best) to 133 (worst). In a few cases, data were not available for all localities, so the rankings do not extend to 133.

Second, data points for the commonwealth of Virginia as a whole are also provided as a point of reference.

Finally, this report compares the well-being of young children in Accomack and Northampton to other counties in Virginia based on composite indices for each of four domains and for the overall well-being of young children at the county level. More information about the methodology used to construct the indices is provided in Appendix B.

This report treats young children and families in a holistic way by looking at indicators from a variety of fields. The indicators of child well-being used here capture the most important forces shaping the lives of young children, such as income and poverty, health, family structure, education, and parental employment. O'Hare and Guttierrez (2012) examined several studies that use a comprehensive index of child well-being and found the most common domains used in constructing indices of child well-being were income, health, and education. Many researchers also use indicators of family and community (The Annie E. Casey Foundation, 2017). The analysis presented here contains indicators from all these domains of well-being.

The indicators used in this study possess four important attributes:

> 1) They reflect a wide range of factors affecting the well-being of young children, such as health, adequacy of income, and educational attainment.

> 2) Each indicator reflects a conceptually relevant dimension of child well-being.

> 3) Each indicator is relatively easy to understand and unambiguous in its interpretation.

5

4) The indicators are comparable across localities in Virginia, permitting legitimate comparisons.

In Section 2, background information for assessing young child well-being on the Eastern Shore is provided. Basic demographic data is provided to give context to the measures of young child well-being shown later in the report.

In Section 3, detailed data on the well-being of young children in Accomack and Northampton counties are provided. The well-being of young children is shown separately for four different categories or domains of child well-being: economics, health, education, and family/community well-being. There are three indicators in each of the four dimensions.

In Section 4, key indicators of young child well-being are used to construct a comprehensive composite index of child well-being for all counties and independent cities in Virginia. The two counties on the Eastern Shore are assessed in terms of the overall index as well as indices for each of the four domains outlined in Section 3, namely, economics, health, education, and family/community. This provides the most complete picture of young child well-being in Accomack and Northampton counties and compares these two counties to other localities in a comprehensive way.

In Section 5, the report turns to the topic of what can be done to improve the well-being of young children on the Eastern Shore. While there are many ideas, programs, and policies that have been suggested to improve the lives of young children, this report looks at one, the value of good early care and preschool programs.

In Section 6, a short summary of the major findings from the study is provided.

This report fits neatly into a broader stream of reports on the well-being of young children. The use of statistical indicators to measure and monitor the well-being of young children has been growing steadily over the past few decades (O'Hare, 2014a; O'Hare and Guttierrez, 2012; Fernandes et al., 2012; Lamb and Land, 2013; Pollard and Lee, 2003; Skocpol and Dickert, 2001; O'Hare, 2006; Brown et al., 2002; Brown and Botsko 1996; Brown et al., 2008; Brown and Moore, 2007; Stagner et al., 2008; Save the Young Children UK, 2012; U.S. Federal Interagency Forum on Child and Family Statistics, 2017; The Annie E. Casey Foundation, 2017; O'Hare et al., 2013; Bradshaw and Richardson, 2009). This report is also similar to several recent publications that focus on sub-state differences in child well-being (Hur and Testerman, 2012; Kentucky Young Advocates, 2015; Colorado Children's Campaign 2012; Advocates for Young Children of New Jersey, 2015). This report builds on that stream of research and reporting by using statistical indicators of child well-being to examine the status of young children on the Eastern Shore of Virginia.

2. Background

To provide some context for understanding the data on child well-being, a demographic overview of the counties on the Eastern Shore of Virginia is provided in this section.

6

Table 2.1 shows the total population of Accomack and Northampton counties and population growth since 2010 based on the most recent population estimates from the U.S. Census Bureau. The 2010 population figures reflect the April 1, 2010, Census date, and the 2017 figures reflect July 1, 2017, population estimates from the U.S. Census Bureau.

Table 2.1 Eastern Shore Demographics: Total Population and Population Growth			
	Accomack County	Northampton County	Virginia
Total population 2010	33,164	12,389	8,001,024
Total population 2017	32,545	11,846	8,470,020
Change 2010 to 2017	-619	-543	468,996
Percent change in population from 2010 to 2017	-2	-4	6
Source: U.S. Census Bureau			

The 2017 total population of Accomack County was estimated to be 32,545 and that of Northampton County was 11,846. Perhaps more importantly, the population in both counties has declined since the 2010 Census, while the population for the state has increased by 6 percent since 2010.

Table 2.2 shows the age structure for the two counties on the Eastern Shore as well as the state of Virginia. The age structures for both counties on the Eastern Shore are relatively similar, but both are strikingly different than the state as a whole with respect to the share of the population that is in the working ages (18 to 64) or elderly (age 65 +). In contrast, figures for young children show about one-fifth of the population in both Eastern Shore counties are children (under age 18) and about 6 percent are preschoolers (under age 5). These figures are not very different than the state figures.

Table 2.2. Age Structure of the Eastern Shore Population: 2016			
	Percent of Total Population in Different Age Categories		
	Accomack County	Northampton County	Virginia
Population under age 5	6	6	6
Population under age18	21	20	22
Population age 18 to 64 (working-age population)	52	48	57
Population Age 65 or older	22	26	15
Source: U.S. Census Bureau	100	100	100
Details may not sum to 100 percent due to rounding.			

Both Accomack and Northampton counties have a disproportionately large share of elderly and a disproportionately small share of the working-age population compared to the statewide figures. In Accomack County, 22 percent of the population is over age 65, and the figure is 26 percent in Northampton County, compared to only 15 percent statewide. On the other hand, the shares of the Accomack and Northampton populations in what are often called the working ages (18 to 64) are several percentage points below the statewide figure.

One implication of the age structure is that there is a relative dearth of adults who are likely to have young children in the school system (those in the working ages) and an overrepresentation of adults unlikely to have young children in school (the elderly).

Differences by Race and Hispanic Origin Status

Table 2.3 shows the race and Hispanic origin status of the child population on the Eastern Shore. The table includes data for the preschool population (ages 0 to 4) and all children (age 0-17). The data are from the 2010 U.S. Decennial Census.
The Census Bureau and the federal government measure race and ethnicity by treating Hispanic origin status as a different category than race, which includes White, Black, Asian, and American Indian. Therefore, it is important to look at White children who are not Hispanic to identify the majority group for comparative purposes.

Both counties on the Eastern Shore have a disproportionately high share of Black (African-Americans) and Hispanic young children compared to the state of Virginia as a whole. In the simplest terms, non-Hispanic White young children are the majority of the statewide child population but not the majority in Accomack or Northampton counties. In both Accomack and Northampton counties, Black children are a larger percent of the child population than Hispanic, but both groups make up substantial shares of the population.

Table 2.3. Summary of Racial Demographics in Accomack and Northampton Counties from the 2010 Census

Groups	Under age 5 percent of Total				Under age 18 percent of total		
	Accomack County	Northampton County	Virginia		Accomack County	Northampton County	Virginia
White Alone Not Hispanic	41	37	54		48	43	57
Black Alone Not Hispanic	32	39	20		32	39	21
Hispanic	22	19	13		16	13	11
Other	5	5	13		4	5	11
Source: U.S. Census Bureau, 2010 Decennial Census, Summary File 1.							

Most of the individual measures of child well-being used here are not available for Black or Hispanic children at the county level. Furthermore, even when data are available for these groups, the figures are often unreliable, because they are based on small samples or a small number of events. Nonetheless, it is important to recognize that measures for all young children often mask differences among groups.

3. Measuring Child Well-Being on the Eastern Shore

In this section of the report, a broad set of measures related to the well-being of young children on the Eastern Shore are presented. The results are presented in four sections: 1) economics, 2) health, 3) education, and 4) family and community.
Table 3.1 provides a list of the indicators used in this study along with summary statistics for each indicator. As the data in Table 3.1 show, for most of the indicators used here there is a lot of variation across the counties of Virginia. Readers are reminded that all the measures have been arranged so that a higher value represents a worse outcome for children.

As stated earlier, a comparative perspective is employed here in a couple of ways for each indicator. First, on each measure of child well-being, the values for the two Eastern Shore counties are compared to those of all the other localities in Virginia and a rank is assigned to each locality for each measure. A rank of 1 is considered best in this report.

Second, the statewide figure for each measure is provided so readers can compare the values for each of the two counties to the comparable statewide figure. For every indicator, the ratio of the local figure to the state figure is provided to make it easier to see the relationship between the county and the state results. A ratio above 1 indicates the locality is doing worse than the state, and a ratio below 1 indicates the locality is doing better than the state.

Since both Accomack and Northampton counties are relatively small and the population under age 5 in the two counties is small, I used five years of data for all the measures to try and minimize random fluctuations. This can sometimes lead to unreliable measures. It is important to look at all the measures collectively in assessing the well-being of young children on the Eastern Shore. That is also why construction of a comprehensive index is very useful. Nonetheless, some of the measures may not accurately reflect that real level of risk.

9

Table 3.1   Summary Statistics for Indicators Used to Measure Well-Being of Preschool-Aged Population in Counties of Virginia

ECONOMICS	Mean	Standard Deviation	Maximum	Minimum
Poverty rate (percent in poverty) for under age 5	21.8	12.2	0.0	61.9
Percent under age 6 without health insurance	4.7	3.6	0.0	18.6
Percent of births 2011-2015 that are covered by Medicaid	40.4	14.3	2.7	69.3
Education				
Percent of 3-and 4-year-olds NOT enrolled in school	56.6	13.8	12.4	89.4
Percent of births to women with less than 12 years of education	10.5	5.2	1.8	28.4
Percent PALS-K below kindergarten readiness	15.6	5.4	2.5	33.0
Health				
Infant mortality rate 2011-2015	7.0	4.4	0.0	38.2
Percent low-birthweight babies	8.4	2.0	2.7	14.7
Percent prenatal care NOT beginning on first trimester	21.2	13.3	2.5	85.9
Family/Community				
Percent of children under age 6 living with one parent	37.4	13.3	7.1	71.3
Teen birth rate for ages 15 to 17 (mean of 2011 to 2015)	11.7	8.0	0.6	40.2
Percent of adults (age 25+) with less than 12 years of education completed	13.6	5.2	2.0	28.2

3.1 Economic Indicators

Economic or material well-being is typically thought of as one of the most important dimensions or domains of child well-being. Three economic measures which reflect child well-being are shown in Table 3.2. The measures are highly correlated and perhaps even redundant, but all are presented here to provide a more detailed portrait of economic well-being of young children in Accomack and Northampton counties.

Table 3.2 Economic Indicators of Young Child Well-Being for Accomack and Northampton Counties and Virginia

		Accomack	Northampton	Virginia
	Rate	31	41	17
Povety rate for under age 5	local/state ratio	1.82	2.41	
	rank	107	124	
	Rate	8.2	3.9	4.4
Percent under age 6 without health insurance	local/state ratio	1.86	0.89	
	rank	113	65	
	Rate	56.0	61.7	30.1
Percent of births 2011-2015 covered by Medicaid	local/state ratio	1.86	2.05	
	rank	110	125	

While there is some variation in how measures of economic well-being of young children in Accomack and Northampton counties compare to the rest of Virginia, generally the values indicate that young children living on the Eastern Shore are not doing as well economically as young children in other parts of Virginia. For the measures shown here, the two focal counties are in the bottom half of the ranking (in all but one case), and all are worse than the comparable statewide figure.

Poverty is one of the most widely used indicators of child well-being, because young children growing up in poverty have worse outcomes on almost every measure of well-being. For example, they drop out of school at a higher rate, they are more likely to become teenage parents, and they are more likely to abuse drugs or alcohol (Mayer, 1997, Table 3.1).

The data shown here are based on the official poverty measure as determined by the U.S. Office of Management and Budget. The official poverty level of young children is reported every year by the U.S. Census Bureau. To determine poverty status, the family income is compared to a set of thresholds which vary by family size and composition. In 2016, a family of two adults and two young children was considered poor if its income was below $24,339 (U.S. Census Bureau, 2017, page 43).

Data in Table 3.2 show the young child poverty rates in Accomack and Northampton counties are much higher than the average in Virginia. The young child poverty rate is 31 percent in Accomack County and 41 percent in Northampton County. The statewide figure is 17 percent. When the child poverty rates in Accomack and Northampton counties are compared to other localities in Virginia, they are near the bottom of the rankings. Of the 133 counties, Accomack ranks 107th and Northampton ranks 124th.

The second measure used to reflect economic status is health insurance. Table 3.2 shows 8.2 percent of young children in Accomack County lack health insurance compare to 3.9 percent in Northampton County. Accomack County ranks 113th on this measure, but Northampton is 65th. The percent of young children in Northampton County without health insurance is surprisingly low at 3.9 percent. This unusual figure is probably due to the small sample size for the population age 0 to 5 in Northampton County. The percent of young children without health insurance in Northampton County from 2008 to 2016 was 20 percent.

The third measure of economic well-being is the percent of births that are covered by Medicaid. Medicaid is a government health care program that covers people in low-income families. A birth covered by Medicaid reflects a newborn who is entering a family with low-income. The data reflect where the mother lived when she delivered, not the county where the delivery took place.

Data in Table 3.2 indicate that 56 percent of births in Accomack County were covered by Medicaid and 61.7 percent of births in Northampton County were covered by Medicaid. Rates in both counties are much higher than the statewide figure of 30.1 percent. On this measure Accomack County ranks 110th and Northampton County ranks125[th].

In summary, there are some variations across counties and indicators, but generally the economic conditions facing families and young children in Accomack and Northampton counties are more challenging than those facing families and young children in most other communities in the state.

3.2 Education Indicators

How well a child does in school plays a critical role in his or her life trajectory. In 2014, the mean income for individuals in Virginia without a high school degree was $20,542 compared to $50,450 for those who completed college (U.S. Census Bureau 2015a). Children ages 0 to 4 are not typically in school, but many of the conditions of their pre-school years can enhance their school readiness and can impact their educational trajectory. Three such conditions are shown in Table 3.3.

Table 3.3 shows three education well-being measures for young children in Accomack and Northampton counties.

Table 3.3 Education Indicators of Young Child Well-Being for Accomack and Northampton Counties and Virginia				
		Accomack	Northampton	Virginia
Percent of 3 and 4-years-old NOT enrolled in school	Rate	65.3	67.1	52.0
	local/state ratio	1.26	1.29	
	rank	99	104	
Percent of births to women with less than 12 years of education	Rate	28	19	10
	local/state ratio	2.93	1.96	
	rank	133	124	
Percent of PALS-K score below kindergarten readiness	Rate	16	16	14
	local/state ratio	1.15	1.16	
	rank	73	76	

In general, young children who attend preschool enter kindergarten in a better position to succeed in school. Data in Table 3.3 show the percent of 3- and 4-year-olds in Accomack and Northampton counties who DO NOT attend some type of school. The rate is 67.1 in Northampton County and 65.3 percent in Accomack County. The state-wide figure is 52 percent.

Children born to mothers with less than a high school education often struggle in school. Table 3.3. shows the share of births to women with less than 12 years of education is much higher on the Eastern Shore than it is elsewhere in Virginia. Table 3.3 shows 28 percent of births in Accomack County and 19 percent of births in Northampton County occurred to women with less than a high school education, while the statewide figure is less than 10 percent.

Data in Table 3.3 show the percent of students in Accomack and Northampton counties who DO NOT meet the PALS kindergarten standards. PALS-K is defined as "a measure of young children's knowledge of several important literacy fundamentals: phonological awareness, alphabet recognition, concept of word, knowledge of letter sounds and spelling. PALS-K provides a direct means of matching literacy instruction to specific literacy needs and provides a means of identifying those young children who are relatively behind in their acquisition of these fundamental literacy skills." (KIDS COUNT website). Statewide, 14 percent do not pass the PALS-K test, but the figures are 16.1 percent in Accomack and 16.2 percent in Northampton.

In summary, young children on the Eastern Shore trail their counterparts across the state of Virginia in terms of educational well-being.

3.3 Health Indicators

Good health is critically important for child development. For example, young children who grow up with good health are better able to pay attention and perform better in school. Moreover, recent evidence indicates that good health care as a young child has important benefits as an adult (Campbell et al., 2015). Table 3.4 shows three indicators related to young children's health.

For the data related to births shown in Table 3.4, it should be noted that the birth reflects where the mother was living at the time of the birth and not the place where the birth occurred. For example, if a woman from Northampton County went to a hospital in Virginia Beach for delivery of her child, that birth would still be recorded as a Northampton County birth.

Table 3.4. Health Indicators of Young Child Well-Being for Accomack and Northampton Counties and Virginia

		Accomack	Northampton	Virginia
Infant mortality rate	Rate	9.4	16.1	6.2
	local/state ratio	1.5	2.6	
	rank	104.0	126.0	
Percent low-birthweight babies	Rate	9.0	7.7	8.0
	local/state ratio	1.1	1.0	
	rank	89.0	56.0	
Percent prenatal care NOT beginning in the first trimester	Rate	38.0	17.8	16.7
	local/state ratio	2.3	1.1	
	rank	122.0	61.0	

Infant mortality is often taken as a sign of the overall health of a community or a society. Since the first year of life is more precarious than later years of childhood, negative social conditions (such as poverty and an unhealthy physical environment) have a bigger impact on newborns. The number of young children who die before their first birthday is reflected in the infant mortality rate, defined as the number of deaths to persons less than one year old per 1,000 live births during the year.

The infant mortality rates for young children in Accomack and Northampton counties are extremely high when compared to other localities or the state as a whole. The infant mortality rates seen in Accomack (9.4) and Northampton (16.1) are well above the statewide value (6.2), and both Eastern Shore counties rank among the worst localities on this measure.

Young children born to families with fewer advantages are more likely to experience serious health problems at an early age. For example, according to results of a study conducted in the mid-nineties, the infant mortality rate for young children born into poor families was shown to be more than 50 percent higher than that for young children born into families with incomes above the poverty line (Kiely, 1995). The link between poverty

13

and infant mortality partially explains why the infant mortality rate is high in Accomack and Northampton counties.

Babies weighing less than 2,500 grams (about 5.5 pounds) at birth have a high probability of experiencing developmental problems. Therefore, the percent low-birthweight babies category reflects a group of young children who are likely to have problems as they move through the growth stages. In addition, the percent of young children born with low birthweight (less than 5.5 pounds or 2,500 grams) often reflects the health of mothers. As with the infant mortality rate, the low birthweight is often seen as a reflection of broader problems.

Some of the risks faced by low-birthweight babies have been captured in data linking information from birth and death certificates. Although low-birthweight babies were only 7.6 percent of all births in 1999, they accounted for nearly 66 percent of infant deaths that year. One study (The Annie E. Casey Foundation, 2000) reported the risk of dying during the first year of life for low-birthweight babies (60.5 deaths per 1,000 births) is 24 times that for babies of normal birthweight (2.5 deaths per 1,000 births).

Table 3.4 shows that 9.0 percent of births in Accomack County were low-birthweight births, compared to 7.7 percent in Northampton County. The state rate was 8.0 percent. The low number for Northampton County is probably due in part to the small number of births in the county. The percent of low-weight births in Northampton County over the past ten years is 9.5 percent, which is well above the state average.

The infant mortality rate and the percent low birthweight both indicate that many young children in the two focal counties do not get off to a good start in life and their life trajectories are compromised from the beginning.

The rate at which pregnant women lack prenatal care in the first three months is higher in Accomack and Northampton counties than it is statewide. Table 3.4 shows 38 percent of pregnant women in Accomack did not get care in the first trimester, compared to 17.8 percent in Northampton. Statewide, the figure was 16.7 percent. The relative lack of timely prenatal care in Accomack and Northampton counties may be related to the relatively higher rates of infant mortality there.

National research indicates that the health care received by young children without health insurance is typically not as good as the health care received by those young children with health insurance (Families USA, 2006; Rand Corporation, 2006). However, that national generality may not hold true for young children on the Eastern Shore, because all residents of the Eastern Shore have access to the services of Eastern Shore Rural Health System.

In summary, measures of health show young children in Accomack and Northampton counties generally have poorer health than young children in most other localities in Virginia.

14

3.4 Family and Community Indicators

The well-known phrase "It takes a village to raise a child" reflects the widespread belief that young children depend on adults outside their family to provide a nurturing and supportive environment. The family and community well-being measures shown in Table 3.5 reflect a broad range of conditions that impact the lives of young children. Supportive families, institutions, and communities contribute a great deal to child development. In this section, some of the measures that reflect the strengths of families and communities are examined.

The U.S. Census Bureau (2014) reports the poverty rate for young children in married-couple families is 6 percent compared to 43 percent for young children living in single-parent families. A large share of young children in Accomack and Northampton Counties live in single-parent families.

Table 3.5 shows that the percent of young children in Accomack and Northampton Counties living in single-parent families was much higher than the state average. Statewide, 32 percent of young children are living in single-parent families compared to 40 percent in Accomack County and 70 percent in Northampton County.

Table 3.5 Family and Community Indicators of Young Child Well-Being for Accomack and Northampton Counties and Virginia

		Accomack	Northampton	Virginia
Percent of children under age 6 living with one parent	Rate	40	70	32
	local/state ratio	1.25	2.19	
	rank	75	132	
Teen birth rate for ages 15 to 17	Rate	15	19	9
	local/state ratio	1.70	2.10	
	rank	100	110	
Percent of adults (age 25+) with less than 12 years of education complete	Rate	18	20	11
	local/state ratio	1.58	1.75	
	rank	107	120	

Teen births, particularly those to younger teens, can limit the opportunities of the teen mother and the newborn. Table 3.5 shows the teen birth rates for females age 15 to 17 years old. The birth rate for 15-to-17-year-olds in Accomack County is 15 births per 1000 females, and in Northampton County the rate is 19. In both focal counties the rates are much higher that the state rate of 9.

A high percent of adults (age 25 and above) in Accomack and Northampton counties have not graduated from high school. Lack of a high school degree is linked to poverty and unemployment. Moreover, one study (O'Hare et al., 2013) found the level of adult education was one of the best predictors of child well-being at the state level.

In each of the focal counties, the share of adults without a high school degree is much higher than the state figure. Note that this measure is for all adults, not just parents. In Accomack County, 18 percent of adults have not graduated from high school. In Northampton County, the figure is 20 percent, which is much higher than the statewide figure of 11 percent. To the extent that well-educated adults can help school young children, young children on the Eastern Shore are at a distinct disadvantage.

15

In summary, the adults and community institutions that are critical for supporting the positive development of young children are typically not as well-positioned in the two focal counties as they are in most other communities in Virginia.

4. Overall Child Well-Being

A child well-being index combines multiple indicators of child well-being across many dimensions into a single comprehensive measure. Construction of an index of child well-being is a useful way to operationalize or measure the concept of child well-being, and a comprehensive composite index is one of the most efficient ways to communicate overall patterns and trends (Organisation for Economic Development and Cooperation, 2008).
Preparing an overall comprehensive composite index of child well-being is helpful for several reasons. Combining individual indicators into an overall index can help reduce the impact of random error, outliers, missing data, or other mismeasurement problems in individual indicators. Because individual indicators may have significant errors, combining multiple statistical indicators into broader measures of child well-being helps minimize the impact of problems with any one indicator. Also, for many audiences, an index provides a more concise and understandable portrayal of child well-being than a collection of data tables for individual measures. An index helps one quickly determine which groups or which geographic areas are doing better and which are doing worse in terms of comprehensive child well-being (Organisation for Economic Development and Cooperation, 2009). These qualities may explain why the number of researchers using composite indices of child well-being is growing rapidly (O'Hare and Guttierrez, 2012; Fernandes et al., 2012; Lamb and Land, 2013).

The methodology used to construct an index in this report, often referred to as the Standard Scores Method, is one that has been widely used by others (Bradshaw and Richardson, 2009; The Annie E. Casey Foundation, 2017; O'Hare et al., 2013). All indicator values are translated into standardized scores (sometimes called z-scores); then the standardized scores for all indicators are averaged for each county to provide an overall index score. More details about the methodology are provided in Appendix B.

The indicators presented in Section 3 were used to calculate this index. Table 4.1 shows the results of the index construction. In each case, the index value is converted into a county ranking to make the results more meaningful. Recall that a higher-ranking value represents worse child well-being. In other words, a rank of 1 is better than a rank of 100.

There is an index ranking presented for each of the four domains as well as an overall index. There is some variation across the domains, but rankings for Accomack and Northampton counties are all in the bottom half of the ranking. Only one of the sub-indices (family/community for Accomack County) was lower than 100 in the rankings.

Table 4.1 Accomack and Northampton Counties Ranked on Four Dimensions of Young Child Well-Being and Overall Young Child Well-Being					
A higher ranking is worse	Economics	Education	Health	Family/Community	Overall Rank
Accomack	120	127	113	96	125
Northampton	121	117	100	130	128

16

Another way to think about the situation of young children in Accomack and Northampton counties is to note that of the 133 localities in Virginia, 124 are better than Accomack County and 127 are better than Northampton County in terms of young child well-being.

Some may argue that it is not fair to compare young child well-being in Accomack and Northampton counties to that in large urban centers or large suburban counties. Counties located outside of officially recognized metropolitan areas are often referred to as rural counties. There are 54 counties in Virginia that are categorized as non-metro by the United States Department of Agriculture (2013). As Table 4.1. shows, there are only a handful of counties that have worse young child well-being that those on the Eastern Shore; so young child well-being is better in the vast majority of these rural counties than in Accomack and Northampton counties.

5) Implications and Discussion

The data presented in this report make it clear that many young children growing up on the Eastern Shore can use more support and assistance. There is no shortage of ideas about what should be done to help young children. Many publications provide a host of ideas about how to improve the welfare of young children (First Focus, 2015; Karoly et al., 2005; Sawhill, 2003). This section of the report focuses on high-quality preschool and early life experiences for three reasons:
1) The evidence about the efficacy of high-quality early care and learning is clear and convincing.
2) There are a large number of model programs one can replicate or modify.
3) There appears to be strong bipartisan support for expanding preschool support, which makes this idea more promising than some other ideas.

Numerous studies have shown that high-quality preschool experiences pay large dividends (Schweinhart et al., 2006; Dickens et al., 2006; Olds, et al., 1999). The Perry School Study, The Abecedarian Project, and others have shown that an investment in high-quality preschools pays back seven to eight dollars for each dollar invested in things, such as less money needed for incarceration, more taxes from working adults, and lower welfare costs.

Nobel Prize-winning economist James Heckman (2007) is among the many researchers who supports investing in young children. After studying numerous early education programs, Dr. Heckman (2007, page 45) provides this simple conclusion: "The bottom line conclusion… invest early in young children – and don't stop." Dr. Heckman notes that attending a high-quality preschool increases the odds of graduating from high school and going to college, avoiding welfare dependency and involvement in the criminal justice system, and increased workforce participation.

After examining numerous preschool programs, Dr. Arthur Rolnick (2003), formerly head of the Minneapolis Federal Reserve Bank, notes that early investment in young children yields a 16 percent return on each dollar invested. General Colin and Alma Powell (Powell and Powell, 2007) also add their voices to those calling for a bigger investment in young children.

17

In December 2015, a bipartisan group of scholars from the left-leaning Brookings Institution and the right-leaning American Enterprise Institute (American Enterprise Institute/Brookings, 2015) concluded that good preschool and early learning is a fundamental building block of any anti-poverty program. In their words, "The federal government and states should build on the recent bipartisan reauthorization of the Child Care and Development Block Grant to continue to improve the quality of child care for low-income working parents."

In addition to high-quality preschool programs, there are a number of other programs that help support good early development. For example, programs which provide in-home assistance to new mothers and mothers-to-be have proven to be effective in many places. A nurse-family-partnership pilot program undertaken in Elmira, New York; Memphis, Tennessee; and Denver, Colorado–which was subjected to rigorous investigation—found several positive outcomes for young children (Stevens and English, 2016, page 27).

Good quality preschools and early care are good for young children, good for the community, and in the long run, good for taxpayers. Clearly, efforts should be made by policymakers on the Eastern Shore to invest in programs that will assure that all young children on the Eastern Shore have access to quality childcare and preschool programs.

It should be noted that stakeholders and the general public on the Eastern Shore have demonstrated growing support for and understanding of the value of early childhood programs and have implemented a number of early childhood programs

Notable examples include the Eastern Shore Nurse Family Partnership which was established in 2015, the Virginia Preschool Initiative serving high-risk three- and four-year-olds, Head Start and Migrant Head Start programs, and the Northampton County Public School's pre-kindergarten program available to all four-year-olds living in the county.

While these programs make important contributions to the welfare of young children and their families, they do not provide the comprehensive and seamless system of services that will be needed in order to make significant progress in improving the well-being of all young children on the Eastern Shore. Clearly, it is urgent that additional efforts be made by policy makers on the Eastern Shore to strengthen the programs that already exist, invest in new programs, and improve the entire system of services to assure that all young children on the Eastern Shore have access to quality early intervention, childcare, and education programs.

5. Summary and Conclusions

Examination of multiple aspects of child well-being on the Eastern Shore of Virginia show young children there typically trail young children in other parts of Virginia on a host of measures. The disadvantaged position of young children on the Eastern Shore was observed in terms of economic status, health, education, and family/community measures.

Ideas about programs, policies, and activities to help young children are not lacking. It is important for adults living on the Eastern Shore to find the best programs, policies, and activities for the context here and develop the political will to implement those choices.

The data presented here will probably not be too surprising to people on the Eastern Shore, although perhaps Eastern Shore residents may not have fully understood how they compare to other parts of Virginia in terms of young child well-being. Hopefully, by providing the quantitative measures shown here, leaders will be able to argue more persuasively that young children on the Eastern Shore are among the neediest in the state and deserve more support. When leaders and child advocates seek funding and support for young children on the Eastern Shore, they can use this report to make the case with strong statistical evidence.

Our hope with this report is to elevate young children on the public agenda and stimulate more discussion about young children on the Eastern Shore, with a focus on improving their well-being.

Appendix A Table A Indicators Used to Measure Well-Being of Young Child Population in Localities of Virginia		
	Years Covered	Source
ECONOMICS		
Poverty rate for under age 5	2012-2016	ACS Table B17001
Percent under age 6 without health insurance	2012-2016	ACS Table B27001
Percent of births that are covered by Medicaid	2011-2015	VA Dept of Health
Education		
Percent of 3-and-4-year-olds NOT enrolled in school	2012-2016	ACS Table S1401
Mean PALS-K below kindergarten readiness	AY2013-14 to AY2017-18	VA Dept of Education
Percent of births to women with less than 12 years of education	2011-2015	VA Dept of Health
Health		
Mean infant mortality rate	2011-2015	VA Dept of Health
Mean percent low-birthweight babies	2011-2015	VA Dept of Health
Mean percent prenatal care NOT beginning on first trimester	2011-2015	VA Dept of Health
Family/Community		
Percent under age 6 living with one parent	2012-2016	ACS Table B05009
Teen birth rate for ages 15 to 17	2010-2014	VA Dept of Health
Percent of adults with less than 12 years of education	2012-2016	ACS Table B15003

Appendix B – Methodological Notes

Many of the measures used here, like all similar measures, may contain some mismeasurement, so small differences between localities should be viewed cautiously. Because of potential measurement errors in some indicators, more weight is often given to indices that combine several indicators together rather than any individual measure. Small errors in some measures have less impact on an index that combines data from several different measures.

For relatively small counties, a single-year estimate is sometimes unreliable because it is based on small sample size or a small number of events, like births and deaths. To enhance the reliability and accuracy of statistical indicators of child well-being, I average data over several years. This provided larger samples or bigger numbers of events (such as births or death) upon which the statistics are based. This approach involves a tradeoff between timeliness (using the most recent data available) and reliability, but the increased reliability of the local measures is more important than timeliness. Some indicators showed extensive variation over the years examined, while others did not. To maintain consistency across indicators, I combined years for nearly all the indicators.

Generally, rates are rounded to the nearest whole percentage point to avoid giving a false sense of precision. The periods reflected in the various estimates are not exactly the same, although almost all reflect conditions from about 2011-2012 to 2015-2016.

Almost all of the measures have a large overlap in years, so the mismatch of the periods covered is unlikely to lead to any significant distortion in the findings.

Index Construction

The methodology used to construct an index in this study, often referred to as the standard scores method, is one that has been widely used by others (Bradshaw and Richardson, 2009; The Annie E. Casey Foundation, 2017; O'Hare et al., 2013).

For some measures for some counties, data were not available or did not meet the quality standards for this study. Typically, when indicator values are missing, researchers simply average the values that are available (Organisation for Economic Co-operation and Development, 2009). That is the approach taken here. An equal-weighting strategy is the simplest, most widely used, and most transparent method for combining indicators (Haggerty and Land, 2007). The use of equal weighting is widely used for composite indices in other areas of research as well (Booysen, 2002). An equal-weighting approach is used in this study.

<u>Standardization</u>

One of the key aspects of building a comprehensive composite index of child well-being is standardizing the indicators used to construct the index so that they can be meaningfully combined (O'Hare, 2014b; Organisation for Economic Development and Cooperation, 2008). Standardization includes standardizing for directionality of indicators and standardizing for different variances among the indicators.

In this study, directionality was an issue because some indicators were constructed so that higher values reflect more positive outcomes (for example, median household income and percent passing the PALS-K) and other indicators were constructed so a higher value was negative (for example, the child poverty rate and the percent of young children without health insurance). Since the majority of indicators were constructed so that a higher value was negative, those that were constructed the opposite way were transposed. In other words, a higher value consistently reflects worse outcomes. This was done so that for nearly every measure examined here, a higher value consistently reflects worse child outcomes than a lower value. This issue is sometimes referred to as directionality (O'Hare, 2014b).

In the standard-scores method, observed values are standardized to control for different degrees of variability among indicators. If the measures are not standardized, the measures with more variability would count more heavily in the index than those with less variability. For example, the state values for the percent of Black 3-to-5-year-olds in nursery school, preschool, or kindergarten ranges from 37.7 percent to 76.9 percent, while the range for percent normal-birthweight babies was only 84.1 percent to 90.8 percent. If I simply combine these two percentages, data for the percent of 3-to 5-year-olds in nursery school, preschool, or kindergarten would dominate the resulting sum. Standardizing variables by creating z-scores allows us to combine indicators in meaningful ways.

21

For each indicator, standard scores were derived by subtracting the mean value for all counties in Virginia from the observed estimate for a given county and dividing the result by the standard deviation for that distribution of estimates, as shown in formula (1).

(1)

$$z_s = \frac{x_s - \mu}{\text{ó}}$$

Where;

Zs = the z-score for locality "s"

X_s = value of an indicator of child well-being for a locality "s"

u = the mean across the 133 locality values, and

б = the standard deviation across 133 locality values.

The standardized scores for each indicator are averaged to provide an index value for each locality. A higher value indicates worse outcomes. An index was constructed for each of the four domains using the four indicators shown in Table 4.1, and an overall child well-being index was constructed using all 12 indicators shown in Table 4.1.

One drawback of using an index based on standard scores is that the resulting index values are not always intuitive or easy to interpret. The average z-scores are used to rank localities. Rankings make findings easier to interpret.

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23

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