

2017

State of Durham County's Young Children



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State of Durham County's Young Children



Durham, North Carolina, is a vibrant community that is growing and changing rapidly. Children in Durham come from numerous ethnic, racial and national backgrounds and speak dozens of different languages at home. This diversity contributes to the rich cultural tapestry that makes Durham a special place to live and work, but it also poses problems.

Significant differences are apparent among different segments of the overall population when it comes to early childhood experiences, health and academic achievement—all factors that play an important role in nurturing young children and preparing them to become functioning adults. These differences are particularly striking among children from different racial and socioeconomic backgrounds and, to a large extent, they define the challenges facing policymakers in Durham as they work to enrich the lives and opportunities for current and future generations.

In order to support the development of its youngest residents, Durham community leaders formed a task force in 2016 and requested that the Duke Center for Child and Family Policy prepare a report that provides a snapshot of the children ages zero to eight living in Durham County today. The resulting document is intended to be a tool for informing policy and community decisions.

This report describes the population of young children in Durham through the lenses of socioeconomic, health and education. When helpful in highlighting areas of strength or concern, data on Durham's children are compared with their counterparts statewide. The report also shows how particular groups within the overall population face special challenges that policymakers should consider in making determinations about how best to improve community services for young children. One plan of action may not work for the entire community.

Recommendations for the Community

The State of Durham County's Young Children Task Force developed the following recommendations for the community in an effort to improve the lives of the county's youngest residents.

#1 RECOMMENDATION

Provide trauma-informed services in a systemic way to build resiliency in young children. These services include screening for adverse childhood experiences and training parents and school personnel to address trauma in children so that they can reach their full potential.

Adverse Childhood Experiences

More than a quarter of Durham's young children live in a home where the head of household's income is at or below poverty level. These economic struggles in Durham are highly correlated with race and ethnicity.

A lack of resources in other areas can also affect children's well-being,¹ and research has documented both immediate and lasting harms associated with adverse childhood experiences.²

While it is difficult to determine the number of children affected by adverse childhood experiences in Durham, some statistics do indicate a need for services that focus on the county's most vulnerable children. For example, among Durham children ages zero to eight, it is estimated in 2015 that:

- 5 percent were the subject of a maltreatment report.
- 16 percent lived in a home where housing costs exceeded 50 percent of income.
- 15 percent lived in crowded housing.
- 7 percent lived in a household where there was no working parent.

To ensure children's later success, these numbers illustrate the need for Durham to address the holistic needs of young children.

Birth and Maternal Health

Prenatal care is vital to ensuring infants enter the world healthy, and timely prenatal care is associated with better birth outcomes.³ About a third of Durham's babies in 2015 were born to mothers who did not receive prenatal care in their first trimester.

Relative to black and Hispanic women, white women in Durham are much more likely to receive prenatal care in their first trimester.

#2 RECOMMENDATION

To ensure that Durham County infants enter the world healthy, increase efforts to educate the community about preconception and prenatal services available in Durham. Outreach efforts should focus in particular on the Hispanic and black communities.

Early Childhood

High-quality early child care and education help set the stage for healthy child development. The average cost of child care in Durham greatly exceeds the federal benchmark of 7 percent of a family's income.⁴ There is also a lack of capacity for early care and learning. Spots in licensed centers and in home-based care are available for only 45 percent of infants and toddlers and 66 percent of preschool-aged children.

While many children may be cared for by relatives or friends, a lack of affordability and capacity for early child care and education in Durham may contribute to a lack of preparedness once children enter school. As a group, 38 percent of Durham children enter kindergarten with a reading proficiency at grade level. However, a higher percentage of white children enter kindergarten reading at grade level than minority children.

Research has found that high-quality pre-kindergarten programs can create an enhanced learning environment for all children regardless of poverty level.⁵

#3 RECOMMENDATION
Improve the availability, affordability and quality of early child care and education in Durham, with the goal of improving all children's preparedness for kindergarten.

Kindergarten to Grade 3

The lack of an early foundation presents challenges for Durham's elementary schools. The ability to read by the end of third grade is a key educational benchmark. In later grades, schools rely on students' reading ability to aid their learning.⁶

Data show that 47 percent of Durham third graders in public and charter schools in 2014-15 scored at or above grade level in reading. While this figure is substantially higher than the 38 percent of students who entered kindergarten reading at grade level, it is nearly 12 percentage points lower than the state average of 59 percent. A contributing factor to Durham's low third grade proficiency rates may be the relatively large proportion of students with limited English proficiency.

#4 RECOMMENDATION
Expand educational and support services in grades kindergarten through third so Durham's children meet or exceed the state average for reading and math proficiency.

Data

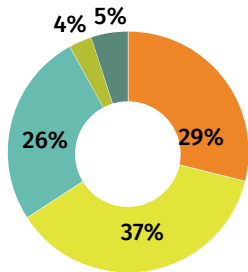
In researching this report, we found that data are not available on many important health and well-being indicators for young children.

Given the importance of early interventions in establishing a life-long pattern of mental and physical well-being, it is important for Durham County to know in greater detail what issues its youngest residents face.

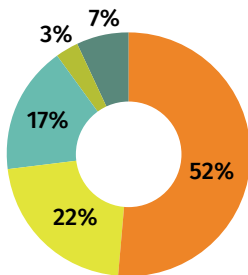
#5 RECOMMENDATION
Improve data collection across agencies and age groups so that community stakeholders can continue to identify the areas of greatest need and to track progress in these areas that have been identified as a focus. Better data tracking will also determine if efforts to improve the quality of life for Durham County's young children are successful.

Socioeconomics

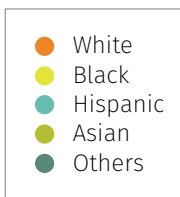
RACE/ETHNICITY OF CHILDREN AGES 0-8 IN DURHAM AND NC
2011-2015 American Community Survey



Durham
(n=36,048)



North Carolina
(n=1,124,006)



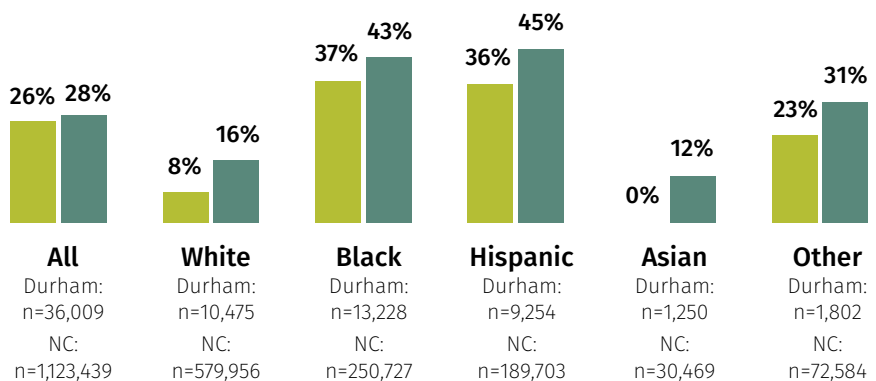
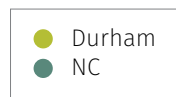
More than 36,000 children ages zero to eight lived in Durham County in 2015. Whereas a slight majority of North Carolinians in that age bracket are white (52 percent), more than two-thirds of young children living in Durham are from a minority group (71 percent).

More than a quarter of Durham's young children (26 percent) live in a home where the head of household's income is at or below poverty level. Nearly half live in a home where the head of household's

income is at or below 185 percent of poverty level. That marker is frequently used as a threshold for eligibility in family support programs such as reduced-price lunch for school children and the Women, Infants, and Children program that provides federal grants to states to help pay for food for low-income women who are pregnant or have children under the age of 5.

For a family of four, an annual household income of \$24,250 was considered at poverty level in 2015.⁷ While Durham's overall household poverty rate is lower than

CHILDREN AGES 0-8 WHO LIVE IN A HOME WHERE THE HEAD OF HOUSEHOLD IS AT OR BELOW POVERTY LEVEL
2011-2015 American Community Survey



the state average, the rate is disproportionately high in Durham's black and Hispanic communities, where 37 and 36 percent of young children respectively live in homes at or below poverty level. By contrast, only 8 percent of young white children in Durham live in such homes.

For a family of four, a yearly household income of \$44,863 was considered at 185 percent of poverty level in 2015.

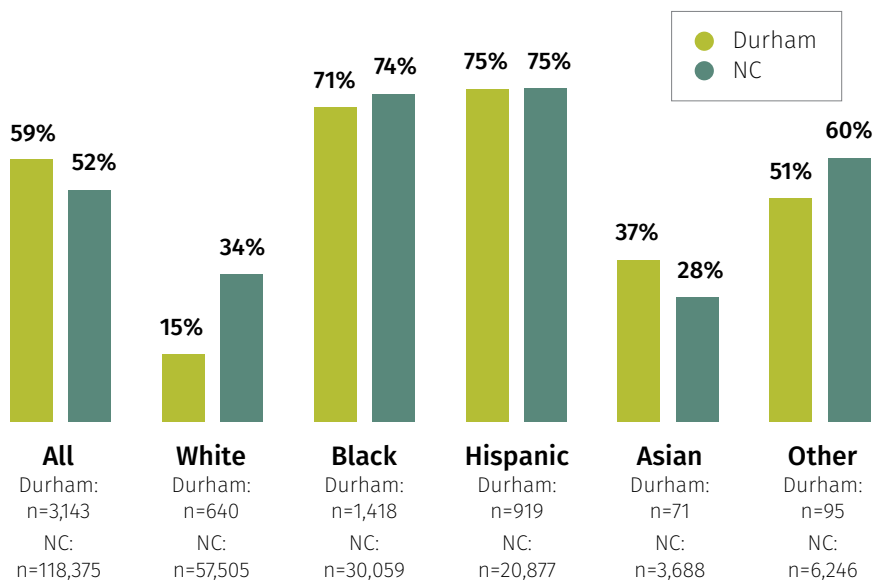
Once again, children in Durham's black and Hispanic communities are more likely to live in low-income households (57 percent and 86 percent) than white children (14 percent). These socioeconomic differences lead to very different worlds in which Durham's children grow up.

As children enter school, these disparities continue. Nearly 60 percent of third graders in Durham charter and public schools received free and reduced price lunch during the 2014-15 school year, an indicator of household poverty level that is well above the statewide figure of 52 percent. Significantly, these economic disparities in Durham are highly correlated with race and ethnicity. Seventy-one percent of black third graders and 75 percent of Hispanic third graders in Durham are economically disadvantaged, compared to only 15 percent of the county's white third graders.

Health insurance facilitates use of preventive services, receipt of timely care and



ECONOMICALLY DISADVANTAGED THIRD GRADE STUDENTS, CHARTER AND PUBLIC SCHOOLS, 2014-15





buffers against sudden unexpected medical costs.⁸ Just 6 percent of children from birth to age eight in Durham lacked health insurance in 2015. However, about 46 percent of those children received such coverage through public sources such as Medicaid and Health Choice that cover children in low-income and poverty-level families.

While it is important that the vast majority of Durham’s young children do have health insurance, whether their parents have health insurance is also a predictor of receipt of health services for children.⁹⁻¹¹ Twenty-seven percent of Durham children ages zero to eight live in a home where the head of the household lacks health insurance, and the percentage is much higher in the Hispanic community at 63 percent.

Single-parent families, relative to two-parent families, may have less financial resources and less time to invest toward their children’s well-being.¹² Forty-three percent of Durham’s young children live in a household headed by a single parent, higher than the state average of 37 percent. While only 12 percent of young white children in Durham live in a single-parent household, young Hispanic (56 percent) and black (64 percent) children are much more likely to be living in a single-parent home.

The Durham Connects program also offers a window into the family life of Durham’s newest residents. Under this program, every mother who gives birth in Durham is entitled to have a registered nurse visit their home shortly following the child’s birth.¹³

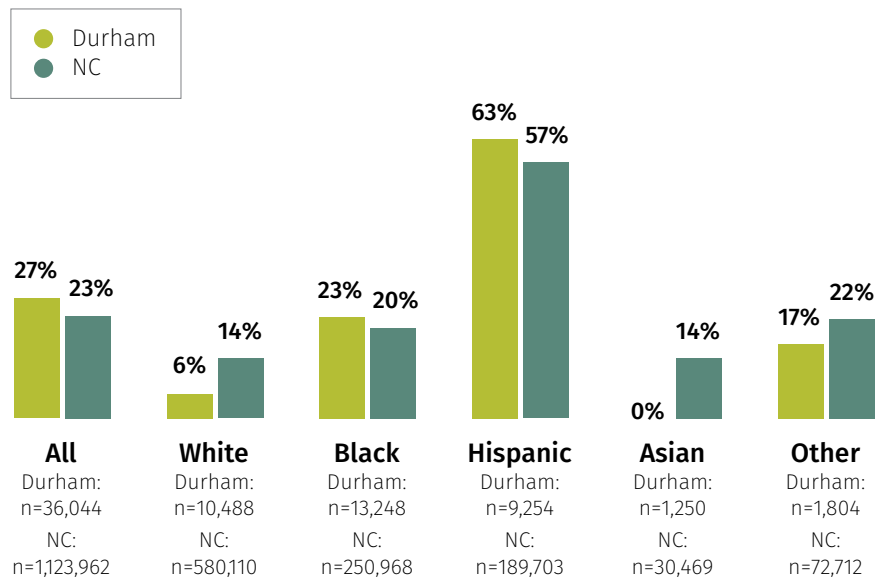
The initial one- to two-hour home visit typically occurs between three and 12 weeks of age and offers an opportunity for families to ask questions and for the nurse to assess a family’s needs.

Studies of Durham Connects have shown about 80 percent of families of newborns schedule a home visit.^{14,15} Nearly all families that received home visits in 2015 reported needing some additional intervention or supportive guidance. For half the families,

this support was provided by the nurse during the initial visit or through follow-up visits. While a few cases required urgent attention, 47 percent of families needed long-term support that required a connection to community agencies and resources. The percentage of such families was higher in Durham’s black and Hispanic communities—57 and 61 percent respectively—compared to 24 percent among whites.

CHILDREN AGES 0-8 LIVING IN A HOME WHERE HEAD OF HOUSEHOLD LACKS HEALTH INSURANCE

2011-2015 American Community Survey



Adverse Childhood Experiences

While official poverty measures reflect a family's income, a lack of resources in other areas can also affect children's well-being.¹ Research has documented both immediate and lasting harms associated with adverse childhood experiences related to poverty, intimate partner violence, maternal depression and maternal substance use.² Mothers and caregivers experiencing these issues may struggle to provide the care a child requires.¹⁶

Mental health

Maternal depression may lead to disengaged parenting and negative behaviors toward the child, such as irritability and hostility.¹⁷ Durham Connects nurses identified significant mental health issues in 12 percent of mothers they saw, with the rates for white mothers (5 percent) much lower than that of black (16 percent) and Hispanic mothers (15 percent).

Violence in the home

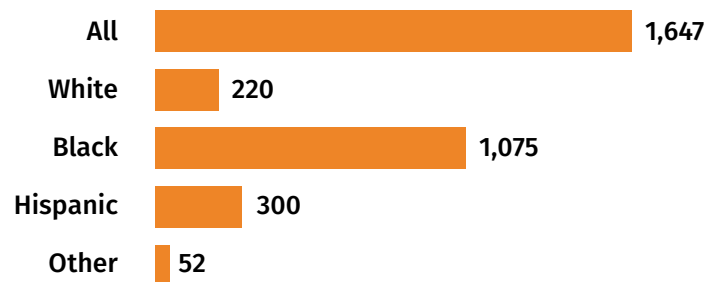
Mothers in 3 percent of households who received a Durham Connects visit reported violence in the home, with higher rates of black mothers reporting such violence (5 percent).

Substance use by caregivers

Infants may directly be exposed to drugs and alcohol through breast milk, and such exposure can affect their psychomotor or cognitive development.¹⁸ Indirectly, substance use may affect a caregiver's ability to care for a child.¹⁹ Among

DURHAM CHILDREN AGES 0-8 WITH A MALTREATMENT REPORT, 2015

Number of children



Durham Connects mothers, 7 percent self-reported substance use, with the highest rate in the black community at nearly 13 percent.

Child abuse and neglect

There were 1,647 young children in Durham County who were the subject of a maltreatment report in 2015, about 5 percent of the population. Most (85 percent) were for reports of neglect. The majority of those maltreatment reports were for black children (65 percent).

In a small number of cases (5 percent), authorities found a substantiated case of abuse or neglect. For a third of the children, investigators found that while there was not a substantiated case of maltreatment, there was a need for further services to be provided.

Foster care

While less than half a percent of Durham's young children were in foster care in 2015, those 166 children are also among those

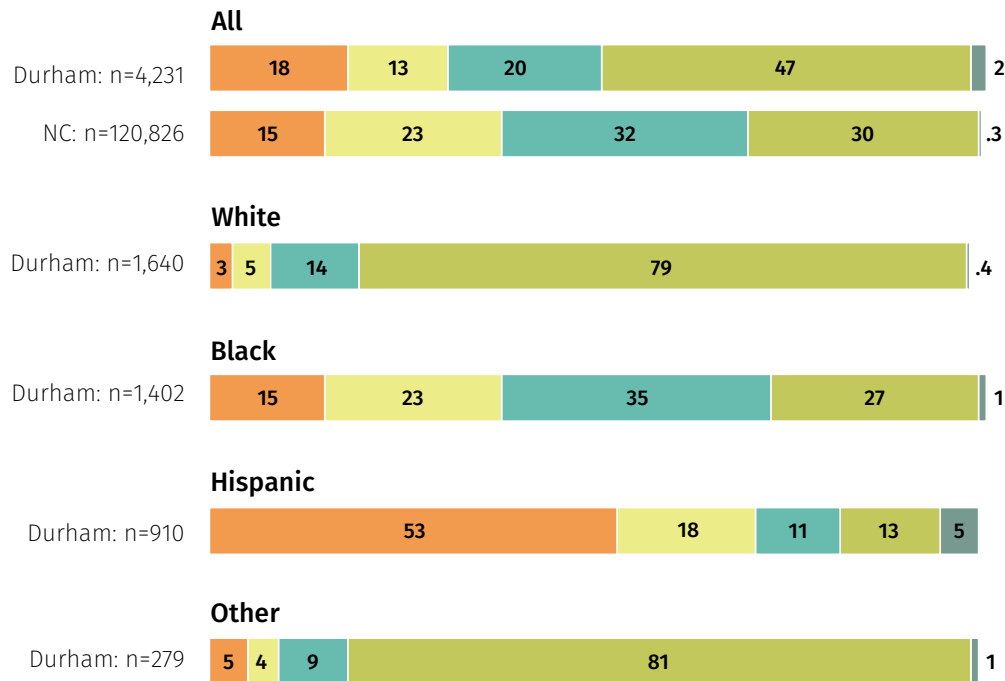
most likely to suffer the consequences of adverse childhood experiences. Nearly all placements (96 percent) had neglect listed as the reason for foster care placement, followed by parental drug addiction (15 percent) and physical abuse (13 percent).

Homelessness

Children who are homeless have a higher risk of adverse childhood experiences, including health issues, hunger, education disruptions, and exposure to violence.²⁰ There were 190 children ages zero to eight who experienced homelessness at some point in 2016.

Housing costs in excess of 50 percent of a household's income

Excessive housing costs may make it difficult for families to make ends meet and cause family stress.²¹ In Durham, 16 percent of children ages zero to eight live in a home that faces housing costs that exceed 50 percent of the household's income.



BIRTHS BY MOTHER'S EDUCATION LEVEL AND RACE (%)
2015

● Less than HS
● HS diploma or GED
● Some college
● Bachelor's degree or higher
● Not stated

Crowded housing

For young children, crowding has been associated with diminished cognitive development.^{22,23} In Durham, the rates are comparable to the state average of around 15 percent. However, Hispanic children in Durham are much more likely to live in households with more crowded conditions.

Parental education levels

Higher levels of maternal education are associated with better birth outcomes and child development outcomes.²⁴⁻²⁷ In addition, education facilitates attaining and maintaining employment and helps individuals navigate public systems, teach their children skills such as vocabulary, and support their children's school work.

More mothers who gave birth in Durham in 2015 had a college degree or higher than in the state as a whole—47 percent versus 30 percent—and all races and ethnicities

showed higher rates of college completion than their counterparts statewide. Once again, however, the proportions varied widely among different groups in Durham. More than three-quarters of white women giving birth (79 percent) had at least a college degree, which was nearly triple the rate for blacks (27 percent) and more than six times that for Hispanics (13 percent).

At the other end of the education spectrum, Durham had a higher percentage of mothers with less than a high school education than in the state overall, especially among Hispanics.

Unemployment

Unemployment can cause financial and emotional strain in a household.²⁸ More than 7 percent of young children in Durham live in a household where there are no working parents.

#1 RECOMMENDATION
Provide trauma-informed services in a systemic way to build resiliency in young children. These services include screening for adverse childhood experiences and training parents and school personnel to address trauma in children so that they can reach their full potential.

Birth and Maternal Health

Prenatal care is vital to ensuring infants enter the world healthy, and timely prenatal care is associated with better birth outcomes.³

Both in Durham and North Carolina, 68 percent of mothers giving birth in 2015 received prenatal care during the first trimester. That means about a third of Durham's babies born in 2015 were born to mothers who did not receive prenatal care in their first trimester.

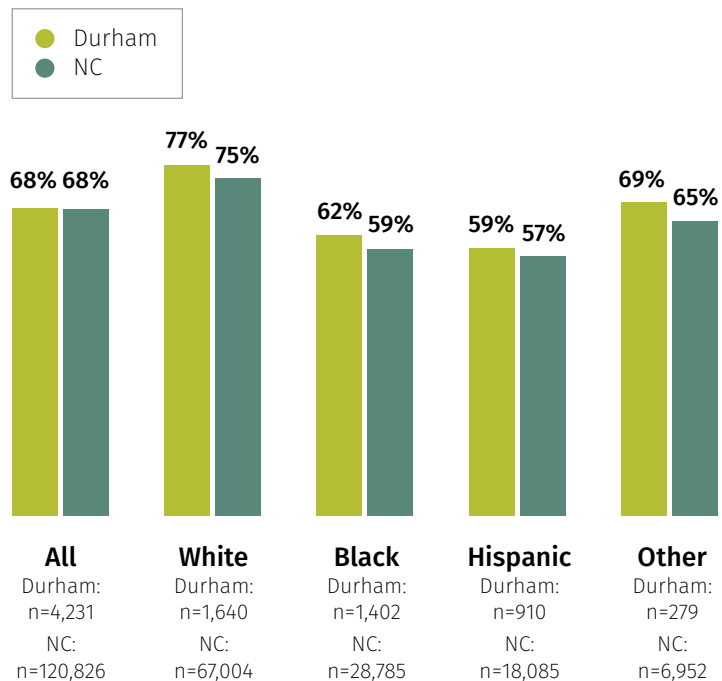
Once again, however, there are discrepancies by race. Relative to black and Hispanic women, white women in Durham are much more likely to receive prenatal care (77 percent) in their first trimester. The utilization of such services is lower among black and Hispanic women at 62 percent and 59 percent.

The pre-term birth rate of 10 percent in Durham and North Carolina is comparable to the national average.²⁹ Being born pre-term also puts babies at risk for a host of health problems and cognitive deficits, including low birth-weight, and the costs of pre-term birth are felt throughout the community in terms of health and social care, education, parental expenses and lost productivity.^{30, 31}

The teen birth rate in Durham of 7.8 per 1,000 women ages 13 to 17 is higher than the state average of 6.9. Teen pregnancies are associated with poor birth outcomes, such as higher rates of neonatal and infant mortality relative to births to older women,³² and teen mothers are at enhanced risk of postpartum depression.³³ In Durham, Hispanic women have the highest teenage birth rate at 18.3 per 1,000 births. An adolescent mother is at risk for having a

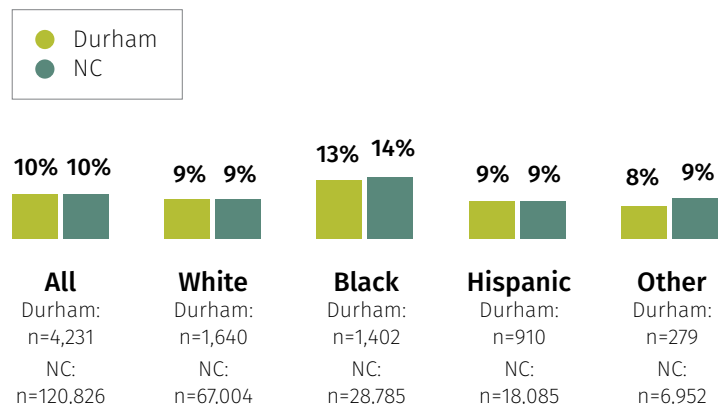
PRENATAL CARE IN FIRST TRIMESTER

2015



PREMATURE BIRTH RATE (GESTATION LESS THAN 37 WEEKS)

2015





#2 RECOMMENDATION

To ensure that Durham County infants enter the world healthy, increase efforts to educate the community about preconception and prenatal services available in Durham. Outreach efforts should focus in particular on the Hispanic and black communities.

second child during her teenage years. Adolescent mothers who have multiple births are at high risk for not completing high school, living in poverty and becoming dependent on welfare.^{34, 35} In Durham, the rate of repeat births among teens is approximately one in four, which is about the same throughout the state.

Durham’s infant mortality rate is lower than the state average—5.9 versus 7.3 deaths per 1,000 births—and is consistent with the national average of about 6 deaths per 1,000 births.²⁹ Infant deaths are highest among Durham’s black community at 10.7 deaths per 1,000 births.

The American Academy of Pediatrics (AAP) recommends that infants be exclusively breastfed for the first six months due to the health benefits for both mother and baby unless a mother is unable.³⁶ Durham’s mothers are initiating breast feeding at

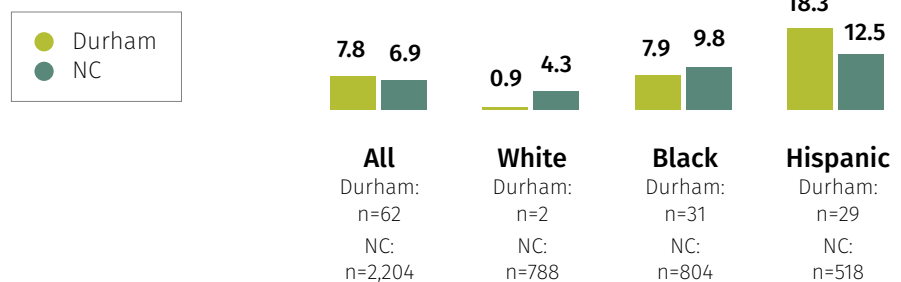
higher rates than the state average. Eighty-eight percent of mothers were breast feeding at the time of hospital discharge, compared to 80 percent statewide.

At the time of the Durham Connects nurse home visit, 77 percent of mothers report some breastfeeding, and 36 percent report exclusive breastfeeding. It is noteworthy that the exclusive breastfeeding rates are highest among Hispanic women, at nearly 60 percent, and hover around 20 percent for white and black women.

AAP recommends children receive a series of vaccinations to prevent against diseases, and vaccination rates in Durham are also high. In 2015, 77 percent of Durham two-year-olds who were assessed by medical providers had received all recommended vaccinations, which is higher than the state rate of 70 percent.

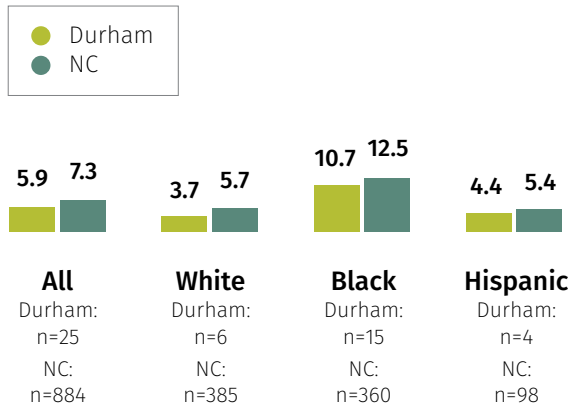
TEEN BIRTH RATE

of live births per 1,000 women ages 13-17 in 2015



INFANT DEATH RATE

of deaths per 1,000 live births in 2015



MEASURES OF HEALTH CARE ACCESS AMONG DURHAM CHILDREN AGED 0-8

Number of two-year-olds who received recommended vaccines, 2015



Early Childhood

High-quality early child care and education help set the stage for healthy child development. Child care comes in various forms, both public and private, and is supported by multiple funding sources.

The average cost of child care in Durham greatly exceeds the federal benchmark of 7 percent of a family's income.⁴ In Durham, the median monthly income for a family with children under 18 during fiscal year 2014-15 was \$4,539.³⁷

During fiscal year 2014-15, the median monthly cost of care for a child under three was \$1,089 at a child care center and \$758 for home-based child care in Durham. Even for families whose income is at Durham's median, this represents 24 percent and 17 percent of household income, far exceeding the recommended threshold.³⁷

For Durham children between the ages three and five, the median monthly cost of care was \$900 at a child care center and \$693 for home-based child care. This represents 20 percent and 15 percent of household income for families whose income is at Durham's median, far exceeding the recommended threshold.³⁷

There is also a lack of capacity in the county for early care and learning. Spots in licensed centers and in home-based care are available for only 45 percent of infants and toddlers and 66 percent of preschool-aged children.

While many children may be cared for by relatives or friends, a lack of affordability and capacity for early child care and education may contribute to a lack of preparedness once children enter school. Research has found that high-quality pre-kindergarten programs can create an enhanced learning environment for all children regardless of poverty level, resulting in

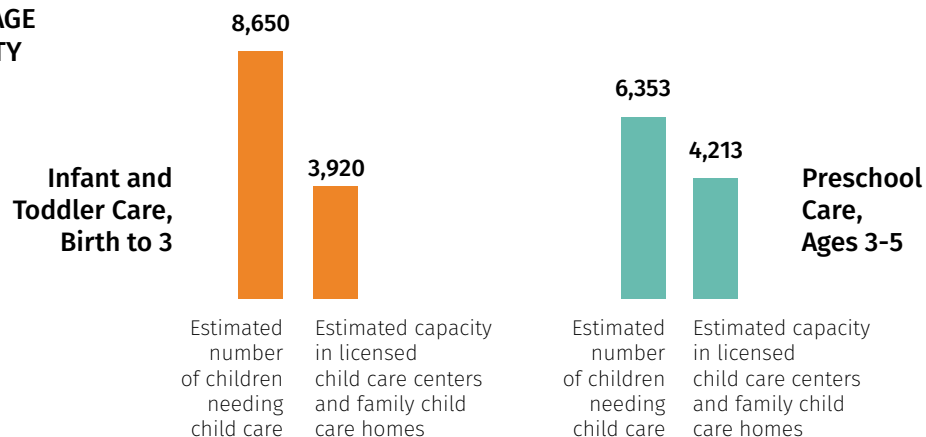
higher test scores, less grade retention and fewer special education placements.⁵

As a group, 38 percent of Durham pupils enter kindergarten with a reading proficiency at grade level, which is slightly above the state average of 35 percent. Within Durham, however, there are differences among racial groups. A higher percentage of white children (65 percent) enter kindergarten reading at grade level than minority children.

The federal Every Student Succeeds Act (ESSA) includes provisions that promote early learning, such as aligning preschool with early elementary school as a way to address educational equity.³⁸ Although it's unclear what will happen under the new administration, it may be possible for Durham to use ESSA funds or other revenue to expand preschool programs and improve educational equity.

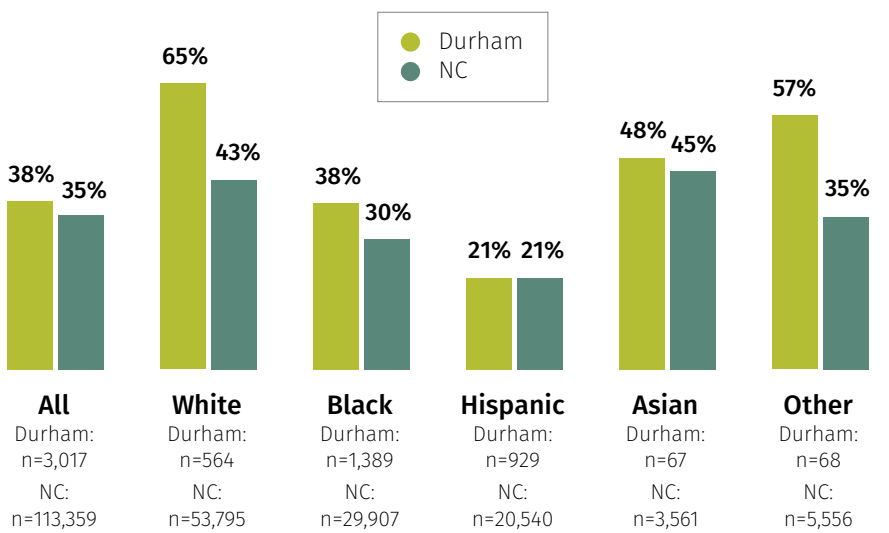
NEED FOR CHILD CARE FOR CHILDREN UNDER THE AGE OF 6 IN DURHAM COUNTY

(Fiscal Year 2014-15)





KINDERGARTEN ENTRY READING PROFICIENCY, CHARTER AND PUBLIC SCHOOLS
 % at grade level proficiency at the beginning of kindergarten, 2014-15



#3 RECOMMENDATION
 Improve the availability, affordability and quality of early child care and education in Durham, with the goal of improving all children's preparedness for kindergarten.



Kindergarten to Grade 3

During the 2014-2015 school year, there were 13,501 students in kindergarten through third grade in Durham's public and charter schools, with 84 percent attending Durham Public Schools and 16 percent attending charter schools.

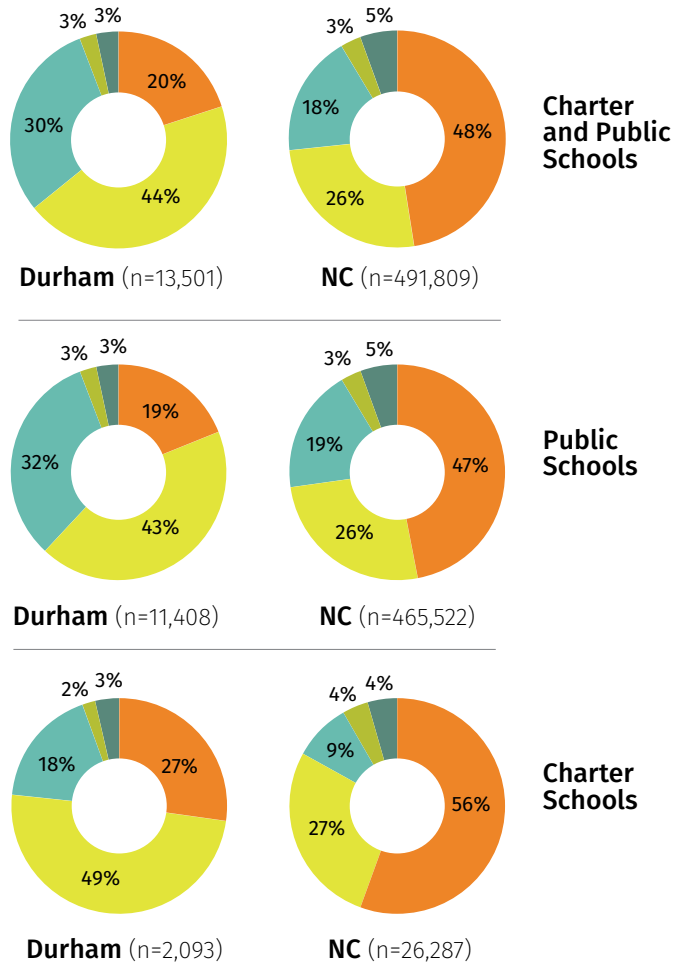
A lack of a foundation of early childhood programs presents challenges for Durham's elementary schools, as can be seen in data on student performance.

The ability to read by the end of third grade is a key educational benchmark. In later grades, schools rely on students' reading ability to aid their learning.⁶ Failure to read on grade level by third grade is associated with a host of negative outcomes for children, including dropping out of high school.³⁹

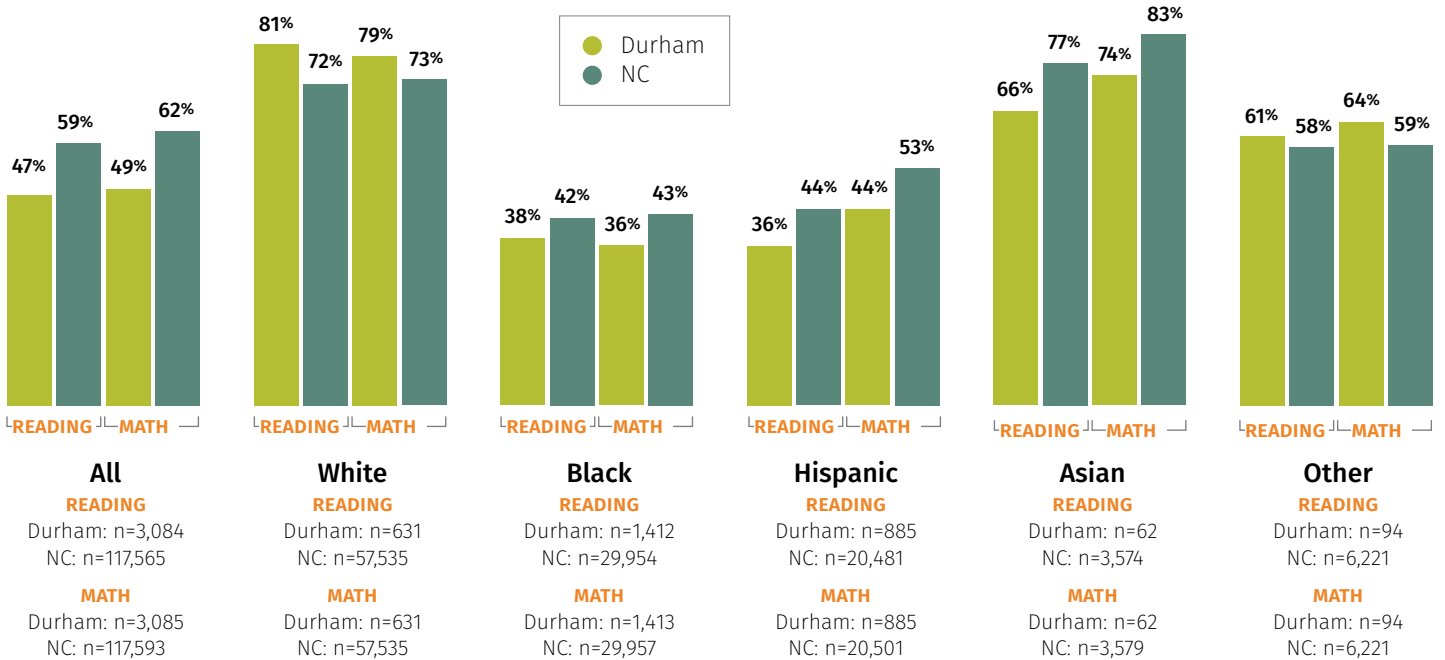
Data show that 47 percent of Durham third graders in public and charter schools in 2014-15 scored at or above grade level on the North Carolina end-of-grade test in reading. While this is substantially higher than the 38 percent of students who entered kindergarten reading at grade level, it is nearly 12 percentage points lower than the state average of 59 percent.

The results for end-of-grade math scores are nearly identical to those for reading. Forty-nine percent of third graders in Durham scored proficient or better in 2014-15, compared to 62 percent of third graders statewide.

K-3 STUDENTS ENROLLED DURING THE 2014-15 SCHOOL YEAR



THIRD GRADE READING AND MATH PROFICIENCY, CHARTER AND PUBLIC SCHOOLS 2014-15



A contributing factor to Durham’s low third grade proficiency rates may be the relatively large proportion of students with limited English proficiency. Nearly 20 percent of Durham’s third graders in charter and public schools are English Language Learners (ELLs), many of them from the Hispanic community. Sixty-one percent of Hispanic students are ELL, and these students are at risk for reading and math difficulties in elementary school.

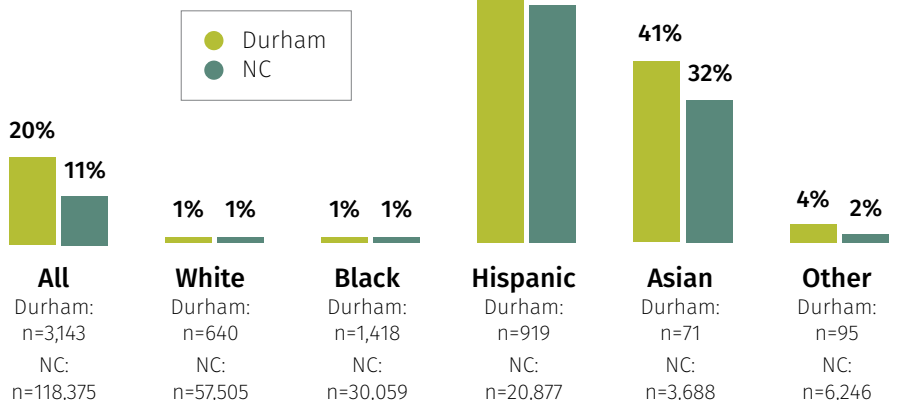
These difficulties can endure through middle school and lead to high school dropout and low college attendance.⁴⁰ However, evidence suggests that differences between English Language Learners and native speakers can vanish when students become proficient by kindergarten entry.⁴⁰

Excessive absences have long been considered a risk factor for poor school performance. Absenteeism in elementary school has been linked to decreased reading and math achievement⁴¹ and even to school disengagement and high school dropout.^{42,43}

While the majority of Durham public and charter school students in kindergarten through third grade missed fewer than seven days of school, nearly 14 percent of students missed 11 or more days of school. Even the best schools can’t help students who are not in attendance.

LIMITED ENGLISH PROFICIENCY OF THIRD GRADERS, CHARTER AND PUBLIC SCHOOLS

% of students with limited English proficiency, 2014-15



#4 RECOMMENDATION
Expand educational and support services in grades kindergarten through third so Durham’s children meet or exceed the state average for reading and math proficiency.

Data

In researching this report, we found that data are not available on many important health and well-being indicators for young children. For example, we lack information on students' social and emotional development as they prepare to enter school. Similarly, we lack information on the number of young children who have developmental delays, suffer from food insecurity or who are overweight.

Given the importance of early interventions in establishing a life-long pattern of mental and physical well-being, it is important for Durham County to know in greater detail what issues its youngest residents face.

#5

RECOMMENDATION

Improve data collection across agencies and age groups so that community stakeholders can continue to identify the areas of greatest need and to track progress in these areas that have been identified as a focus. Better data tracking will also determine if efforts to improve the quality of life for Durham County's young children are successful.



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