

Pathways to Grade-Level Reading Initiative What Do We Know?

Pathways is creating partnerships among the state's early learning and education, public agency, policy, philanthropic and business leaders to define a common vision, shared measures of success and coordinated strategies that support children's optimal development beginning at birth. A <u>Data Action Team</u> of 30 data, research and policy experts considered the research and created a <u>framework of whole child measures</u> that are critical for moving the needle on third grade reading outcomes. The framework includes indicators in three Goal areas:

- Health and Development on Track, Beginning at Birth
- Supported and Supportive Families and Communities
- High Quality Birth to Eight Learning Environments and Regular Attendance

Each goal area includes five Measures of Success, as well as Influencer Measures that move the Measures of Success.

The Data Action Team also identified critical Developmental Milestones for children on the way to third grade reading proficiency and a set of Community Conditions measures that impact third grade reading proficiency.

This document highlights what data is available in North Carolina on these measures and what data is not. As noted below, many key measures for young children on the pathway to early literacy are not collected and/or analyzed and made available to the public. Part of the Pathways mission is to improve the collection and sharing of these critical measures of success.

Measures of Success

Health and Development on Track, Beginning at Birth

	Measures of Success	State average	Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age
Healthy Birthweight	Babies born with low birthweight	✓	\	>	✓	✓	\	n/a
Physical Health	Children with excellent or good health	✓	✓	\	X	✓	✓	✓
	Children with untreated tooth decay (K)	1	√	X	✓	✓	X	n/a
Oral Health	Children with untreated tooth decay (3 rd grade)	√	X	/	X	X	X	n/a
Early Intervention	Children showing improvement with early intervention services	✓	✓	X	✓	✓	X	n/a
Social Emotional Health	Children exhibiting self-regulation, good interpersonal skills, and no behavior problems	No available data						

Data Sources:

Healthy birthweight: National comparison: Annie E. Casey Foundation. KIDS COUNT Data Center. State and by race: NC SCHS Selected Vital Statistics 2016. By county: NC Vital Statistics, 2016.

Physical healthy Center for Child & Adolescent Healthy National Survey of Children's Healthy 2016. For race (othericity and income breakdowns use drandown many).

Physical health: Center for Child & Adolescent Health. National Survey of Children's Health 2016. For race/ethnicity and income breakdowns, use dropdown menu.

Oral Health K: N.C. Department of Health and Human Services, Division of Public Health, Oral Health Section, Kindergarten Oral Health Status County Level Summary, 2013-14 and 2015-16. Variable is %dt, the percentage of kindergarten students with untreated tooth decay.

Oral Health 3rd: Centers for Disease Control and Prevention, Oral Health Data, latest data

Early Intervention: Data provided by NC Early Intervention to Pathways. Measures growth in social-emotional skills, acquisition and use of knowledge and skills, and use of appropriate behaviors to meet own needs.

Supported and Supportive Families and Communities

M	Measures of Success		Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age
Safe at Home	Rate of child abuse or neglect	✓	✓	\	✓	✓	X	✓
Positive Parent/Child Interactions	Average number of minutes per day parents talk or play with their children	✓	X	✓	X	X	X	X
Reading with Children	Average number of days per week that parents read to their children	✓	✓	\	X	✓	✓	X
Supports for Families	New mothers with access to sufficient social supports	√	X	X	X	√	✓	X
Skilled and Knowledgeable Parents	Parents with sufficient knowledge of child development and parenting skills	X	X	X	X	X	X	X

Data Sources:

Safe at Home: National: Child Maltreatment 2014, Children's Bureau. State, Local and by race/ethnicity: Duncan, D.F. et al (2016). Management Assistance for Child Welfare, Work First and Food & Nutrition Services in North Carolina (v.3.2). UNC-CH Jordan Institute for Families. Data pulled for Pathways, with demographic data from US Census Bureau American Community Survey.

Positive Parent/Child Interactions: American Time Use Survey (2011-2015)

Reading with Children: National Survey of Children's Health 2016. For race/ethnicity and income breakdowns, use dropdown menu.

Supports for Families: NC PRAMS 2015

High Quality Birth to Eight Learning Environments

	Measures of Success	State average	Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age
High Quality	Children birth-to-five attending licensed child care who are in high quality centers, homes (4- and 5-star)	1	/	X	✓	X	X	\
Early Care and Education	Children birth-to-five receiving subsidy attending licensed child care who are in high-quality centers, homes (4- and 5-star)	✓	✓	X	✓	✓	✓	>
Promotion to Next	Children promoted to next grade level (K-3)	1	×	X	1	/	X	\
Grade	Children promoted to next grade level (3 rd grade Read to Achieve retentions)	√	\	n/a	√	X	X	n/a
Positive School Climate	Schools employing social-emotional strategies				No availab	ble data		
Summer Learning	Children who maintain literacy gains over the summer				No availab	ole data		
Regular School	Students in NC schools with K, 1st, 2nd, and/or 3rd grades, who are chronically absent	√	X	✓	✓	✓	X	X
Attendance	Average days attended for children enrolled in NC Pre-K	1	/	X	1	1	X	n/a

Data Sources:

High Quality Early Care and Education:

- High Quality: North Carolina Partnership for Children, Inc., PBIS. Data request by Pathways.
- High Quality, with subsidy: North Carolina Partnership for Children, Inc., PBIS. Data request by Pathways.
- Other useful sources of data: CCSA NC ECE Data Repository; Office of Child Care 2015; Kids Count Data Center 2015

Promotion to Next Grade:

- **K-3:** By grade: NC DPI Statistical Profile, Table 8, Impact of Summer School on Non-Promotion Rate; By race/ethnicity: US Department of Education, Office of Civil Rights Data Collections, 2013-14, analysis by Pathways. National comparison: Civil Rights Data Collection, Data Snapshot: Early Childhood Education (2011-2012). By county, retentions in 1st and 2nd grade: Child Care Services Association, choose "3-Young Children and their Families in NC."
- Read to Achieve: State: NC Public Schools/NC State Board of Education/NC DPI Report to the NC General Assembly Improve K-3 Literacy Accountability Measures, October 2015. Local: Pathways data request.

Regular School Attendance:

- K-3: US Department of Education, Office of Civil Rights Data Collections, 2013-14. Pathways analysis of data, which is provided by school.
- **Pre-K:** NC Pre-K Program Evaluation Project, FPG Child Development Institute from NC Pre-K Kids administrative data, Division of Child Development and Early Education, NC Department of Health and Human Services. Data request by Pathways.

Influencer Measures

Health and Development on Track, Beginning at Birth

Influ	encer Measures	State average	Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age
Adult Health Insurance	Adults with health insurance	/	X	1	—	X	X	X
Prenatal Care	Pregnant women who receive on-time pre-natal care	✓	√	✓	√	√	√	X
	Pregnant women who smoke	\	X	/	/	/	X	X
Smoking/	Pregnant women who drink alcohol	√	1	1	X	1	1	1
Substance Use	Pregnant women who misuse prescription drugs and/or use illegal substances	X	X	✓	X	X	X	X
Teen Pregnancy	Births to girls aged 15-19		1		/			X
Well-Child Visits	Medicaid-enrolled children receiving regular well-child visits	√	1	1	X	√	√	√
Child Health Insurance	Children with health insurance	✓	√	✓	✓	✓	✓	✓
Parent Health Insurance	Parents with health insurance	\	1	1	X	X	X	X
	Availability of pediatricians and family physicians Availability of pediatricians and family physicians	/	✓	4	4	X	X	X
Access to Doctors and	accepting Medicaid			•	•			
Dentists	Availability of dentists	✓	1	1	1	X	X	X
	Availability of dentists accepting Medicaid	\	X	X	\	X	X	X
Immunization	Children aged 19-35 months who are fully immunized	1	1	1	X	1	1	X
Medical Home	Parents reporting they have a regular place to take their children for medical care (i.e., medical home)	✓	\checkmark	✓	X	✓	✓	✓

Healthy Weight	Children whose height and weight falls into expected ranges	√	✓	✓	X	✓	✓	X				
Physical Activity	Children over age 6 who are active 60 mins/day, 5 days/week	√	✓	✓	X	✓	✓	✓				
Healthy Eating	Children who eat the recommended dietary guidelines of fruits and vegetables	✓	✓	X	×	✓	✓	✓				
Breastfeeding	Mothers who exclusively breastfeed for 6 weeks	√	✓	/	X	✓	✓	✓				
Dental Care	Children who have seen a dentist in the past year	1	1	1	√	1	√	4				
Food Security	Children living in food insecure households	1	1	1	1	X	X	X				
	Children screened for social-emotional needs	No available data										
Social-Emotional Screening,	Children identified with social-emotional needs	No available data										
Referrals & Services	Children referred for behavioral health services	No available data										
	Children receiving behavioral health services				No avail	able data						
	Children screened for developmental delay	1	1	1	X	✓	1	X				
Develop-mental Screening,	Children identified with developmental delay	1	\	X	√	1	√	X				
Referrals & Services	Children referred for early intervention services				No avail	able data						
	Children receiving early intervention services	1	1	1	1	1	X	X				

Health and Development on Track, Beginning at Birth Data Sources:

Adult health insurance: Robert Wood Johnson Foundation County Health Rankings. Click on the excel option under the 2017 data. On spreadsheet, go to tab "Additional Measures Data" and see columns AN-AQ. For data source information, go to tab "Additional Measures Sources and Years." Data are from the 2014 Small Area Health Insurance Estimates.

Prenatal care: Trimester care began: NCSCHS County Health Data Book 2018, Scroll down to "Birth Indicator Tables by State and County"; select North Carolina or the county of interest; click "view table"; data is in rows entitled "Trimester Care Began." National: Child Trends 2015; By mother's education level (income): NCSCHS Basic Automated Birth Yearbook 2015, under "Baby Book Data" select North Carolina or the county of interest; click "View."

Smoking/substance use:

- Smoke: State, local: NC SCHS County Health Data Book 2018, enter NC or county of interest in "Birth Indicator Tables by State and County," scroll down to "Mother Smoked?" for data. National: Child Trends 2016
- Drink: National: SAMHSA 2013; State, by race/ethnicity/income/age: NC SCHS PRAMS 2014.
- Drugs: SAMHSA National Survey on Drug Use and Health 2013

Teen pregnancy: State, local, by race/ethnicity: NC NCSCHS Basic Automated Birth Yearbook 2015; National, state: National Campaign to Prevent Teen and Unplanned Pregnancy 2015 2016; State, by race/ethnicity: NC SCHS Vital Statistics 2011 to 2015; Trend: NC SCHS Trends in Key Indicators 2001-05 to 2011-15 by County

Well-child visits: National Survey of Children's Health, 2016, for race/ethnicity and income breakdowns, use dropdown menu.

Child health insurance: State, national: Natl Survey of Children's Health 2016, for race/ethnicity and income breakdowns, use dropdown menu. Local: County Health Rankings 2017, click on the excel option under the 2017 data. On spreadsheet, go to tab "Additional Measures Data" and see columns AR-AU. For data source information, go to tab "Additional Measures Sources and Years." Data are from the 2014 Small Area Health Insurance Estimates.

Parent health insurance: Kids Count Data Center 2010 2015, click on NC, select "Health" from the topic list on the left; under "Health Insurance," click on "Parents Without Health Insurance"

Access to doctors and dentists:

- Physicians: County Health Rankings 2017, click on the excel option under the 2017 data. On spreadsheet, go to tab "Ranked Measure Data" and see columns BP-BS. For data source information, go to tab "Ranked Measures Sources and Years." Data are from Area Health Resource File/American Medical Association 2014.
- Physicians/Medicaid: NC DMA 2017, open file "Medicaid and NCHC Primary Care Providers July-Sept. 2017 (EXCEL)" (or most recent list) and count providers for each county. Kaiser Family Foundation 2017
- Dentists: County Health Rankings 2017, click on the excel option under the 2017 data. On spreadsheet, go to tab "Ranked Measure Data" and see columns BT-BW. For data source information, go to tab "Ranked Measures Sources and Years." Data are from Area Health Resource File/National Provider Identification file 2015.
- Dentists/Medicaid: NC DMA 2017, click on most recent list of dental providers by county and count providers by county.

Immunization: National, state: National Immunization Survey 2012-2014; State, by race/ethnicity, by income: CDC Child Vax View 2015, choose North Carolina on left side of screen to populate table.

Medical home: National Survey of Children's Health 2016, for race/ethnicity and income breakdowns, use dropdown menu.

Healthy weight: State, by race/ethnicity, by income: NC Nutrition and Physical Activity Surveillance System (NC-NPASS) BMI data on children aged two to four, seen in North Carolina public health-sponsored WIC and Child Health Clinics and some School Based Health Centers. National: Robert Wood Johnson Foundation, Declining Childhood Obesity Rates, June 2016

Physical activity: State, by race/ethnicity, by income, by age: NC SCHS, CHAMP 2013-14; National: ASCM National Report Card

Healthy eating: State, by race/ethnicity, by income, by age: NC SCHS CHAMP 2013-14

Breastfeeding: State, by race/ethnicity, by income: NC SCHS PRAMS 2012; National: CDC PRAMS 2009; National, state: CDC Breastfeeding Report Card 2014

Dental care: State, by race/ethnicity, by income: National Survey of Children's Health 2016, for race/ethnicity and income breakdowns, use dropdown menu. Local: NC Child Child Health Report Card County Data Cards 2013, click on a county, then see "Medicaid-eligible children enrolled for at least 6 months who use dental services."

Food security: Local: NC Child Child Health Report Card County Data Cards 2013, click on a county, then see food insecurity on page 3 for 0-18 year olds. State, national: Best NC, download the Facts & Figures: Education in North Carolina 2017; page 4 shows the national and state comparison of food insecurity.

Developmental screening, referrals & services:

- Screened: National Survey of Children's Health 2016; NC IDEA Part C Profile 2014; NC IDEA Part C and B 2016
- Identified: Data provided by NC Early Intervention to Pathways.
- Receiving services: Kids Count Data Center 2015, click on NC; under topics, select "Health"; then select "Other Health"; then click on "Children (ages 0-3) receiving early intervention services." NC IDEA Part C 2015-16. Also data provided by NC Early Intervention to Pathways.

Supported and Supportive Families and Communities

Int	fluencer Measures	State average	Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age				
Maternal Education	Births to mothers with at least 12th grade education	1	<	✓	/	~	X	X				
Parent Education	Availability of in-home visiting, parent education, and family preservation programs	X	X	X	✓	X	X	X				
Supports	Parents participating in above programs	No available data										
Paid Leave	Families with access to the Family Medical Leave Act	region only	X	✓	X	X	X	X				
Treatment Access	Parents with access to mental health, domestic violence, and substance abuse services	√	✓	√	✓	X	X	X				
Parental ACEs	Adults with fewer than three adverse childhood experiences	√	X	sample	regions	✓	✓	\				
Substance Abuse	Parents misusing substances				No availa	ble data						
	Parents screened for depression at well-child visits				~							
Parental Depression	Parents with identified depression referred for service	No available data										
	Parents receiving services for depression				No availa	ble data						
Family Meals	Families having frequent family meals	√	✓	✓	X	✓	✓	X				
Books in Home	Students with 25 or more books in the home	√	✓	√	X	-	X	X				
Poverty Screening	Families screened for poverty at well child visits				No availa	ble data						

Supported and Supportive Families and Communities Data Sources:

Maternal education: State, by race/ethnicity: NC SCHS County Health Data Book 2016 - Resident Births - Risk Factors and Characteristics, and for local data, County Health Databook, then scroll down to bullet "Birth Indicator Tables by State and County"; select North Carolina or the county of interest; click view table.

Parent education supports: Pathways collected data on some programs' locations across the state, but need more comprehensive data source.

Paid leave: National: <u>US Department of Labor Fact Sheet 2015</u>

Treatment access: State and local: <u>County Health Rankings 2016</u>

Parental ACEs: National: CDC Morbidity and Mortality Weekly Report 2009; State, local: NC SCHS 2014 - BRFSS

Family meals: National Survey of Children's Health 2016, for race/ethnicity and income breakdowns, use dropdown menu.

Books in home: NAEP Data Explorer, Pathways generated a report using the NAEP Data Explorer from a question that asked students about the number of books in their home.

High Quality Birth to Eight Learning Environments

Inf	luencer Measures	State average	Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age	
Suspension and	Children suspended from programs and schools	✓	✓	✓	✓	\checkmark	X	X	
Expulsion	Children expelled from programs and schools	√	√	/	✓	√	X	X	
Teacher &	Early childhood teachers with post-secondary early childhood education, by degree	✓	X	X	✓	X	X	X	
Administrator Education	Early childhood administrators and principals with post- secondary early childhood education, by degree	✓	X	X	✓	X	X	X	
Teacher & Administrator	Early childhood teachers with early childhood/child development-specific knowledge and competencies*	✓	✓	X	X	X	X	X	
Knowledge of Child Development	Early childhood administrators and principals with early childhood/child development- specific knowledge and competencies*	✓	✓	X	X	X	X	X	
Diverse Schools	Children who attend schools that reflect the socioeconomic diversity of their school districts	X	X	X	✓	X	✓	X	
Supported Transitions	Children attending schools that systematically involve child care programs and families before school transition				No availab	ole data			
Trauma- Informed Education	Teachers who receive professional development on children's mental health, including trauma	No available data							
Specialized Teacher Training	Teachers working with special populations, including English language learners and children with disabilities, who receive specific training/coaching for these populations				No availab	ble data			

Special Education	Children (K-3) receiving special education services**	√	✓	√	✓	X	X	X		
Native Language Support	Students with access to programs in native language				No availal	ble data				
Affordable High	Estimated eligible children under age 6 receiving child care subsidies	✓	✓	√	✓	X	X	✓		
Quality Child Care	Families paying 10% or less of income on childcare	\	X	X	✓	X	X	X		
High Quality Pre- Kindergarten	Estimated eligible four-year- olds attending NC PreK	✓	✓	✓	X	X	X	X		
School Stability	Children who changed early care and education programs or schools within the past year	✓	✓	✓	X	X	X	✓		
Quality Summer Learning Programs	Availability of summer learning programs		No available data							

^{*} Data is only available for early care teachers (0-5) and center directors (0-5).

High Quality Birth to Eight Learning Environments Data Sources:

Suspensions and Expulsions: State, by grade: NC Department of Public Instruction Consolidated Data Report, 2015-16. By race/ethnicity for K-3 and preschool: US Department of Education, Office of Civil Rights Data Collection, 2013-14. Pathways analysis of data, which is provided by school.

Teacher and Administrator education: Birth-to-five: CCSA - Working in Early Care and Education - 2015 Workforce Study; K-12: NC School Report Cards dataset, scroll down to "Personnel Table"; click on "xlsx, 11.3mb" link to open table.

Teacher and Administrator knowledge of child development: CCSA - Working in Early Care and Education - 2015, see Table 9.

Diverse schools: NC Report Cards 2012-13. Pathways analysis – calculated percent of schools in each district that fall into the range of economically disadvantaged, for grades K-3.

Special education: Local: National Center for Education Statistics, choose NC in drop-down menu and search, then for each district, see "Students with IEPs." State trend: IDEA data, 2012; By race/ethnicity: IDEA Data 2015-16

Affordable high quality child care:

- Subsidies: State, local: CCSA NC ECE Data Repository, choose "3-Young Children and Their Families in North Carolina," use drop down menus to select year and county. And KIDS COUNT Data Center 2015. National: Office of Child Care 2015.
- Cost of care: State, local: CCSA NC ECE Data Repository, for percent of gross income spent on childcare, choose "1-Child Care in North Carolina," use drop down menus to select year and county; for 2-year-old and 4-year-old 4-star market rates, select "4-Early Care and Education Programs in North Carolina." Local: NC County per capita income 2010, for median income by county.

High quality pre-kindergarten: National, state: National Institute for Early Education Research - State Preschool Yearbook 2016

School stability: State, by grade: NC DPI CEDARS data warehouse, Pathways data request. National: <u>School Mobility in the Early Elementary Grades: Frequency and Impact from Nationally-Representative Data</u>, 2010.

^{**} Data is only available for 3-21 year olds.

Developmental Milestones

Measure of Success	State average	Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age			
Children on-track for oral language skills at 24, 36, 48 and 60 months				No availa	ble data					
Children developmentally on-track at kindergarten entry		No available data								
Children meeting expected growth in reading (K-3)		No available data								
Children reading on grade-level by the end of third grade	✓	√	✓	✓	✓	✓	n/a			

Data Source:

Children reading on grade-level by the end of third grade: Local, state: NC third grade Reading End of Grade (EOG) test. State, national: National Assessment of Educational Progress (NAEP).

Community Conditions

	Community Conditions	State average	Trend (5 year)	National Comparison	Disaggregated by county or school district	Disaggregated by race/ethnicity	Disaggregated by income level	Disaggregated by age				
Family	Children living in families above 200% of federal poverty level (FPL) (ages 0-17)	√	√	✓	√	√	n/a	✓				
Economic Security	Children living in families who make a living wage	No available data										
	Children who are homeless	\	/	X	X	X	n/a	1				
Housing Stability	Children with housing stability (family has not moved more than once in past 12 months)	✓	√	✓	X	X	X	X				
	Families who spend less than 30% of income on housing	✓	/	X	all renters	all renters	X	X				
Economically Viable Neighbor-hoods	Children living in census tracts with poverty levels below 30%	✓	√	✓	some	✓	X	X				
Safe Neighbor-	Reported violent crimes	√	✓	✓	some	n/a	n/a	n/a				
hoods	Adults living on a block where it is safe for children to play outside	√	√	√	X	√	√	X				
Environmental	Children with elevated blood lead levels	✓	✓	X	✓	X	X	X				
Health	Children screened for elevated blood lead levels	✓	√	X	✓	X	X	X				

Community Conditions Data Sources:

Family economic security:

- 200% poverty: American Community Survey 2015, Pathways analysis.
- Living wage: No data on percent of families making a living wage. Other useful data: For percent of families in various income categories: Log Into North Carolina (Census look-up tool), select state or county, click "continue," select "employment and income" from the drop down menu of topic groups; on right, scroll down list of topics to "household and family income;" check box of interest (Families with Income \$25k-\$49k; Families with Income \$50k or more; Families in Poverty; Families in Poverty with Related Children); click continue and follow prompts. For sustainable living wage estimates for NC and counties: United Way Self-Sufficiency Standard for NC, 2017 and United Way Self-Sufficiency Standard County Data Sheets.

Housing stability:

- Homeless: K-3: National Center for Homeless Education, Consolidated State Performance Report and North Carolina Factsheet (2013-14). Birth to five: Early Childhood Homelessness in the United States, 2017
- Housing stability: US Census Bureau QuickFacts
- Housing cost: State: KIDS COUNT Data Center 2014, click on NC, scroll down to "Housing," click on "Children living in households with a high housing cost burden." By race/ethnicity: NC State Center for Health Statistics Population Health Data 2015; National: State of the Nation's Housing Report 2014; Local: NC Justice Center BTC County Economic Snapshots 2017

Economically viable neighborhoods: American Community Survey – neighborhood poverty. Pathways analysis. **Safe neighborhoods:**

- Crime: State, national: <u>Uniform Crime Reporting Statistics</u>. Local: <u>NC State Bureau of Investigation Crime Reporting</u>
- Safe to play outside: National Survey of Children's Health, 2016

Environmental health:

- Elevated blood lead: North Carolina Childhood Blood Lead Surveillance Data
- Lead screening: North Carolina Childhood Blood Lead Surveillance Data