Following are the indicators included in DC Action for Children’s 2012 KIDS COUNT e-databook, their definitions and sources and the rationale for their selection.

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<td>% of students attending public school in the neighborhood who are eligible for free and reduced-price lunch</td>
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Note: Interactive maps do not contain all indicators listed. To see data for all indicators, visit the DC KIDS COUNT Data Center.
Indicator Rationale

The indicators for DC KIDS COUNT represent a mix of traditional KIDS COUNT indicators of child well-being, such as the number of children living in poverty, and indicators of neighborhood well-being that are focused on neighborhood conditions. The indicators and measures reflect DC KIDS COUNT’s neighborhood-centered analytical frame. Nearly all DC KIDS COUNT indicators and measures are calculated at the neighborhood level, which allows us to evaluate the assets and needs of neighborhoods where DC’s children live, play and learn. Indicators and measures were selected in consultation with local government officials, community advocates and experts, as well as the large body of literature on children’s well-being in neighborhood contexts.

In this section, indicators are the concept being measured and measures are the data points selected to represent that concept. For example, the indicator “educational attainment for young adults” is represented by the measure “percent of peoples ages 18-24 without a high school diploma.” To guide our selection of measures, we strove to follow several of the criteria laid out in the national KIDS COUNT data book:


The measure must be from a reliable source: With the exceptions of our composite indicators, which combine several measures, DC KIDS COUNT measures come directly from data collected by DC governmental/administrative agencies, or from US Census data. Where potential questions about reliability arise, we have noted it below.

The measure should reflect an outcome or measure of well-being: DC KIDS COUNT measures are either outcome or status measures whose validity is corroborated by expert and community input. Like the national KIDS COUNT data book, we do not include measures such as program spending, which may not reflect actual outcomes for children.

The measure must have a relatively unambiguous interpretation: When child poverty is down and graduation rates are up, we can agree that it is a good outcome for children. All DC KIDS COUNT indicators lend themselves to similarly clear interpretations.

A high probability exists that the measure will continue to be produced in the near future: This criterion relates closely to our preference for administrative and governmental data. Data from an isolated or intermittent study will not allow us to evaluate change or progress in future years.

DC KIDS COUNT indicators are divided into five categories:

- Neighborhood demographics and socioeconomic status
- Indicators of distressed neighborhoods
- Concentration of neighborhood assets
- Education
- Health

These categories represent the key areas of our analysis and guide the composite indicators DC KIDS COUNT uses to show relationships between measures. These categories are not mutually exclusive, however, and should not be understood as unrelated or independent. For example, many educational indicators are interrelated with indicators of distressed neighborhoods, and institutional assets are often interrelated with health.

Neighborhoods as the Unit of Analysis

A central belief of DC KIDS COUNT is that neighborhoods deeply affect all aspects of children’s lives. They are where children live, play and learn. As such, neighborhoods are the DC KIDS COUNT unit of analysis. Data used to map the neighborhood clusters, which were developed by the DC Office of Planning, was extracted from the Office of the Chief Technology Officer (OCTO) Citywide Data Warehouse Program.

A large and growing body of literature and policy emphasizes the important effects of neighborhoods on children’s lives. For instance, the US Department of Education recently adopted a “place-based strategy” to make its reform efforts more effective in community contexts. The indicators chosen to represent neighborhood demographics and socioeconomic status were inspired in part by the Kirwan Institute’s opportunity mapping project, which uses mapping software to visualize geographic zones of opportunity in cities. DC KIDS COUNT indicators and
metrics were also influenced by the Urban Institute’s “State of DC Neighborhoods, 2010” report, which, while not exclusively focused on children, looked at nearly every conceivable measure of neighborhood quality of life.4

The measures were also shaped by data available through the US Census Bureau’s Decennial Census and American Community Survey, two reliable and widely used sources of neighborhood level socioeconomic and demographic data. DC KIDS COUNT particularly focused on the economic security of children, which influenced the decision to use measures such as median family income instead of overall median household income and to highlight young adult educational attainment and workforce participation.

**Neighborhood Demographics and Socio-Economic Status**

The indicators chosen to represent neighborhood demographics and socioeconomic status form the foundation of the neighborhood analysis. We cannot begin to analyze neighborhoods without first creating a frame based on the total and child populations, racial and ethnic composition, child poverty and household income.

The intersection of race, place and socioeconomic status is a central concern of DC KIDS COUNT. Racial and ethnic dynamics have shaped the residential and political landscape of the city. DC’s demographics are rapidly changing: the city recently reversed a decades-long trend of population decline, and the proportion of black residents is poised to fall below 50 percent for the first time in 50 years.5 Black and Hispanic families are disproportionately likely to live in poverty.6

Poverty is associated with a host of negative outcomes for children. The effects of poverty are not limited to the immediate economic state of not having everything one needs; poverty negatively affects future economic outcomes, especially when poverty is sustained, or experienced during early childhood.7 Numerous associations exist between race/ethnicity and health, social and educational outcomes among DC’s children, particularly the achievement gap in school performance.8

Housing indicators, such as home ownership and vacant properties, are associated with the residential stability of a neighborhood, which can influence economic opportunities, social cohesion and educational outcomes for children. For instance, one study found that high neighborhood residential stability during childhood was significantly associated with good overall health and mental health at midlife.9

**Indicators of Distressed Neighborhoods**

The indicators in the Distressed Neighborhood category go beyond individual measures of socioeconomic status to capture some aspects of the economic and educational environment of neighborhoods as a whole. Indicators mapped include:

- High poverty neighborhoods (27 percent or more)
- High percentage of households headed by single mothers (37 percent or more)
- High percentage of population over age 25 without a high school diploma (23 percent or more)
- High unemployment rates for 16-24 year olds (34 percent or more)

Each of these indicators has a history of use in literature around distressed neighborhoods – although we included variations such as young adult educational attainment to reflect DC KIDS COUNT’s focus on children.

Concentrated poverty in a neighborhood is one of the central indicators of distressed neighborhoods, and a cornerstone of DC KIDS COUNT’s neighborhood analyses. Research has shown that concentrated poverty amplifies the effects of individual poverty, and can limit education opportunity, lead to increased crime, worsen health outcomes, decrease the value of homes, and reduce private sector investment10 – all of which affect the lives of children.

Other indicators such as educational attainment, vacant properties and households headed by single women are all commonly used indicators of distress. For example, a national KIDS COUNT / Population Reference Bureau Report included percentage of female-headed families and percentage of high school dropouts as indicators of neighborhood distress.11

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Concentration of Neighborhood Assets

Neighborhood assets are public or private institutions that enrich the overall health, economic opportunity and educational opportunities available to children and families in a neighborhood. Examples of institutional assets include:

- Grocery stores where families can purchase healthy food
- Libraries that offer out-of-school learning, community meeting sites and connections to government programs in addition to books and computers
- Recreation centers where children can play safely and improve their physical fitness
- Transportation infrastructure that transports families to jobs and children to school

The violent crime rate is also included in the institutional assets category, because safe spaces with low levels of violent crime are important community assets for children’s safety and well-being.

Education

Educational quality is a key indicator of children’s well-being. Indicators mapped as part of child success include: strong test performance in reading and math (66 percent and above), high school graduation rate (89 percent and above) and youth ready to enter the workforce (84 percent and above).

The DC KIDS COUNT approach is unique for the way in which it creates neighborhood measures of educational performance based on school address. Both DC Public Schools (DCPS) and DC Public Charter Schools (PCS) are included in our analysis, and both fall under the purview of The Office of the State Superintendent of Education (OSSE).

Free and reduced-price lunch eligibility allows us to compare the family income status of children in schools versus neighborhoods. While school quality is a highly debatable concept, we have chosen to use graduation rate, state test performance and student/classroom teacher ratios as proxy measures of school quality. Graduation rate and state test performance are widely used student-outcome measures, which OSSE incorporates into their school evaluations, in accordance with federal policies such as No Child Left Behind. The student/classroom teacher ratio is a less common measure of school quality. DC KIDS COUNT includes it because research generally finds that reduced class sizes can increase student achievement, and because this measure captures schools’ deployment of human capital.

More than 53 charter schools in DC serve more than 40 percent of public school students, so their inclusion in our analysis is important. While charter schools do not have neighborhood-based enrollment, they often attract a majority of their students from surrounding neighborhoods, and they can be important neighborhood assets. DC is currently assessing the potential impact of neighborhood-based enrollment at local charter schools.

We have chosen to include child care capacity in addition to K-12 indicators because of the frequently demonstrated importance of high-quality early care on children’s development and school readiness, particularly among low-income children.

Health, Safety and Environment: This category includes indicators of three dimensions of children’s health care access: access to mental health care, access to preventative medical and dental health services and access to a healthy living environment. Mental health access is measured by the number of school mental health programs. Preventative medical and dental health access are measured by the percentage of Medicaid-enrolled children who had well-child and dental visits in the past year. Environmental health is measured by the rate of asthma-related emergency department visits. Asthma is strongly correlated with air pollution, which, according to the DC Department of Health, varies between neighborhoods due to factors such as highway proximity or industrial pollution.

A Note on Neighborhood Clusters: DC KIDS COUNT uses the DC Department of Planning’s neighborhood clusters as our geographic unit of analysis. DC has 39 neighborhood clusters, which vary in size and shape. Many indicators use data from the Decennial Census and American Community Survey, which
do not collect data according to the neighborhood clusters in DC. To ensure accuracy in our estimates, DC KIDS COUNT used block-level population data from the 2010 Census to construct population weights for data at the block-group and census-tract levels. At the neighborhood level, these data represent close estimations. We are grateful for the help of NeighborhoodInfoDC in providing information that helped us map these data at the neighborhood level.

Because neighborhood boundaries may not align exactly with block groups, some areas lie outside the neighborhood cluster boundaries and are not captured in the interactive maps. We report on these data in the notes section of each indicator. In addition, we measure whether an asset/resource is contained within a cluster, not an adjacent cluster.


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**Indicator Definitions and Sources**

**NEIGHBORHOOD DEMOGRAPHICS AND SOCIO-ECONOMIC STATUS**

**Indicator: Population**
- **Measure:** Number of residents
- **Source:** U.S. Census Bureau, 2010
- **Decennial Census**
- **Note:** Population in non-cluster areas is 7,244 individuals.

**Indicator: Child Population**
- **Measure:** Number of children ages 0-17
- **Source:** U.S. Census Bureau, 2010
- **Decennial Census**
- **Note:** Child population in non-cluster areas is 1,456 children.

**Indicator: Young Child Population**
- **Measure:** Number of children ages 0-4
- **Source:** U.S. Census Bureau, 2010
- **Decennial Census**
- **Note:** Young child population in non-cluster areas is 692 children.

**Indicator: Race/Ethnicity**
- **Measure:** Percent of residents who are white (not Hispanic), black (not Hispanic), Hispanic and Asian/Other (not Hispanic)
- **Source:** U.S. Census Bureau, 2010
- **Decennial Census**
- **Notes:** To remain consistent with race/ethnicity categories used in other DC KIDS COUNT publications, the following groups are included in “Asian/Other:” Asian, other race, two or more races, Native Hawaiian/Pacific Islander and American Indian/Alaska Native.

**Indicator: Child Poverty**
- **Measure:** Percent of children whose families live below the federal poverty line.
- **Source:** U.S. Census Bureau, 2006-2010
- **American Community Survey**
- **Note:** Child poverty in non-cluster areas is 17 percent.

**Indicator: Median Family Income**
- **Measure:** Median income of households with related children ages 0-17
- **Source:** U.S. Census Bureau, 2006-2010
- **American Community Survey**
- **Notes:** Median family income in non-cluster areas is $57,100.

**INDICATORS OF DISTRESSED NEIGHBORHOODS**

**Indicator: Concentrated Neighborhood Poverty**
- **Measure:** Percent of people who live below the federal poverty line
- **Source:** U.S. Census Bureau, 2006-2010
- **American Community Survey**
- **Notes:** Poverty in non-cluster areas is 16 percent.

DC KIDS COUNT considers concentrated poverty as a neighborhood in which 30 percent or more of residents are living in poverty, which is consistent with the Annie E. Casey Foundation and research on the effects of concentrated poverty.

**Indicator: Educational Attainment, Young Adults**
- **Measure:** Percent of people ages 18-24 without a high school degree
- **Source:** U.S. Census Bureau, 2006-2010
- **American Community Survey**
- **Note:** In non-cluster areas, three percent of people ages 18-24 lack a high school diploma.

**Indicator: Educational Attainment, Adults**
- **Measure:** Percent of people age 25+ without a high school degree
- **Source:** U.S. Census Bureau, 2006-2010
- **American Community Survey**
- **Notes:** In non-cluster areas, 10 percent of people age 25 and older lack a high school degree. We have chosen to look at this indicator separately from young adult educational attainment because older adults are far less likely to return to school for a GED or high school diploma.

**Indicator: Households Headed by Single Mothers**
- **Measure:** Percent of families with related children ages 0-17 that are headed by single women
- **Source:** U.S. Census Bureau, 2010
- **Decennial Census**
- **Note:** In non-cluster areas, 29 percent of families with children are headed by single women.

**Indicator: Vacant Properties**
- **Measure:** Number of properties that are vacant or blighted
- **Source:** DC Department of Consumer and Regulatory Affairs, Survey of Vacant and Blighted Properties March 2012, containing current property data from the first half of FY2011.
Notes: No vacant or blighted properties are in non-cluster areas.
As of FY2011, designated vacant (class 3) and designated blighted (class 4) properties. List of properties downloaded from the DC Office of Consumer and Regulatory Affairs and geocoded and aggregated to the neighborhood cluster level by DC KIDS COUNT.

Indicator: Access to Jobs
Measure: Number of people whose travel time to work is an hour or more
Source: U.S. Census Bureau, 2006-2010 American Community Survey
Notes: In non-cluster areas, 8 percent of people travel an hour or more to work.

Indicator: Access to Healthy Food
Measure: Number of grocery stores
Source: DC Office of Planning, May 2012, via Office of the Chief Technology Officer (OCTO) Citywide Data Warehouse Program
Notes: No grocery stores are in non-cluster areas.
Data obtained directly from OCTO staff. Includes large or national chain grocery stores, which have been determined by the DC Office of Planning to be healthy food locations.

Indicator: Access to Recreation Centers
Measure: Number of recreational facilities
Source: DC Department of Parks and Recreation, 2012
Notes: Notes: One recreation center, Bald Eagle Recreation Center, is in a non-cluster area. Recreation centers tabulated from DPR website in September 2012, geocoded using the DC Master Address Repository, aggregated to neighborhood cluster level and mapped by DC KIDS COUNT.

Indicator: Home Ownership
Measure: Percent of housing units that are owner-occupied
Source: U.S. Census Bureau, 2010 Decennial Census
Notes: In non-cluster areas, 7 percent of housing units are owner-occupied.
The calculation refers to the number of owner-occupied housing units divided by the total number of housing units.

Indicator: Libraries
Measure: Number of public libraries in a neighborhood
Source: DC Public Libraries, 2011, via Office of the Chief Technology Officer (OCTO) Citywide Data Warehouse Program;
Notes: No libraries are in non-cluster areas.
Addresses updated to reflect new and renovated library openings by DC KIDS COUNT in June 2012.

Indicator: Crime Rate
Measure: Reported violent crime incidents per 1,000 residents
Source: DC Metropolitan Police Department, 2010 crime data, via Office of the Chief Technology Officer (OCTO) Citywide Data Warehouse Program.
Notes: In non-cluster areas, the violent crime rate was 13 incidents per 1,000 residents.
For this analysis, violent crimes are defined as homicide, sexual assault, assault with a deadly weapon and robbery, based on Bureau of Justice Statistics crime classification.

Indicator: Access to Transportation
Measure: Number of Metro bus and Circulator stops, number of metro station entrances contained in neighborhood cluster area
Notes: No bus stops, Circulator stops or Metro entrances are in non-cluster areas.
Metro bus stop data obtained directly from WMATA staff. Two Metro stations (McPherson Square and Shaw/Howard University) have entrances located in more than one neighborhood cluster; for this analysis these stations were counted in both neighborhood clusters. Data aggregated to the neighborhood cluster level by DC KIDS COUNT.

EDUCATION

Indicator: Free/Reduced-price lunch students
Measure: Percent of students eligible for free and reduced-price lunch who are attending a public school in the neighborhood / total number of students attending a public school in the neighborhood.
Source: DC Office of the State Superintendent of Education (OSSE), school year 2011-12
Notes: No schools are in non-cluster areas.
DC KIDS COUNT analyzed school-level data from OSSE’s November 2011 reimbursement claim. Where counts of students eligible for free and reduced-price lunch were available, those data were used. Where those counts were not available, DC KIDS COUNT estimated the number using the percentage of students eligible for free and reduced-price and the October 2011 audited enrollment. Oyster-Adams Bilingual School has an upper and lower campus that are located in two neighborhood clusters; they are considered separately for this analysis, with the students attending the lower campus (grade 3) grouped with Cluster 15 and students attending the upper campus (grades 4-8) grouped with Cluster 1.

Indicator: Teacher Access Ratio
Measure: Percent of elementary schools in the neighborhood with a low student-teacher ratio (15 students to one teacher).
Source: DC Public Schools Human Resources Data (May 2012), DC Public Charter School Board 2012 School Performance Reports.
Notes: No schools are in non-cluster areas.
DC KIDS COUNT selected the ratio of 15:1 based on a review of class size literature, and schools were classified as “low ratio” schools or “high ratio” schools. The analysis included schools if they contained elementary grades (K-5) in school year 2011-12. Both traditional elementary schools and elementary/ middle school education campuses were included, but schools with only early childhood programs were not. Each charter school reports its student/teacher ratio to the DC Public Charter School Board individually, and the method of calculating the ratio is not standardized, so the student/ classroom teacher ratio for charter schools is less reliably valid than that of DCPS schools.

Indicator: Test Performance
Measure: Percent of students proficient and above in reading who attend school in the neighborhood.
Percent of students proficient and above in math who attend school in the neighborhood.

**Source:** DC Office of the State Superintendent of Education, DC Comprehensive Assessment System (DC CAS) 2011 Score Reports

**Notes:** No schools are in non-cluster areas.

Students are tested in grades 3-8 and grade 10. Schools without test scores were not included. Certain special education, alternative and online schools that had test scores were not included in the analysis: Maya Angelou PCS (Shaw campus), Sharpe Health School, Mamie D. Lee ES, Hamilton Center, Options PCS, Prospect Learning Center, St. Coletta Special Education PCS, Transition Academy at Shadd, Ballou STAY HS and Community Academy online.

Oyster-Adams Bilingual School has an upper and lower campus that are located in two neighborhood clusters; they are considered separately for this analysis, with the test scores of the lower campus (grade 3) grouped with Cluster 15 and scores of the upper campus (grades 4-8) grouped with Cluster 1.

**Indicator: Four Year Graduation Rate**

**Measure:** Adjusted Cohort Graduation Rate, which is the percent of individual students who enroll in the ninth grade and graduate four years later with a diploma.

**Source:** DC Office of the State Superintendent of Education, 2011 State Reports

**Notes:** No schools are in non-cluster areas.

The adjusted cohort method was implemented for the first time in 2011, to better comply with No Child Left Behind reporting requirements. Because of a small number of high schools, data are reported for individual schools rather than the neighborhood cluster as a whole.

**Indicator: Child Care Capacity**

**Measure:** Number of infant and toddler slots in licensed child development centers and homes.

**Source:** DC Office of the State Superintendent of Education, 2012

**Notes:** In centers and homes in non-cluster areas, there are 109 infant-toddler slots.

Locations were tabulated, geocoded and aggregated to neighborhood cluster by DC KIDS COUNT using the DC Master Address Repository. Data represent all licensed childcare providers, including those affiliated with an employer.

**Indicator: Youth Ready to Enter the Workforce**

**Measure:** Percent of people ages 16-24 currently employed

**Source:** U.S. Census Bureau, 2006-2010 American Community Survey

**Notes:** In non-cluster areas, 80 percent of people ages 16-24 are employed.

Equals “number of civilian residents employed / (civilian residents employed + civilian residents unemployed).” Data do not include military personnel or residents out of the workforce.

**HEALTH**

**Note:** We have worked with the DC Department of Health Care Finance to obtain data on child-well and dental visits for Medicaid-enrolled children. These data were not available in time to be included on the neighborhood maps. Ward-level data can be accessed at the DC KIDS COUNT data center.

**Indicator: School-Based Mental Health**

**Measure:** Number of schools with school mental health programs

**Source:** DC Department of Mental Health, 2012 School Mental Health Program Directory

**Indicator: Environmental Health**

**Measure:** Rate of asthma related emergency department visits per 10,000 children.

**Source:** DC Department of Health, Community Health Administration

**Note:** DC KIDS COUNT aggregated ZIP code-level data to neighborhood clusters using population weights based on block-level population data from the 2010 Census. At the neighborhood level, these data represent close estimations. Data represent the number of visits, not the number of children. One child may have had multiple visits to the emergency department.