City Health Dashboard Technical Document

Part 2: Education Data

Version 3.1: Updated July 18, 2019

Contents

Section 1: Overview

The City Health Dashboard (the Dashboard) is a one-stop resource allowing users to view and compare data from multiple sources on health and the factors that shape health to guide local solutions. Through a vigorous selection process, the City Health Dashboard selected 37 metrics spanning 5 domains—clinical care, health behaviors, health outcomes, physical environment, and social and economic factors—to quantify health, health determinants, and equity at the city level, and where available, census tract level.

The Dashboard metrics are derived from both private and publicly available data sources, with some data sources contributing several metrics and others contributing only a single metric.

Document Mission

This document is written for an audience interested in the technical attributes of the education metrics—absenteeism, high school graduation and third-grade reading proficiency—of the Dashboard. It provides details on which data sources, variables, and formulas were used to operationalize the education metrics and explains the rationale behind analytic decisions. It should be used in conjunction with the Technical Document Part 1, which addresses all other technical elements of the Dashboard analytics.

Users are invited to contact the Dashboard (info@cityhealthdashboard.com) with general feedback or questions not addressed below.

Important Changes for June 2019 Release of High School Graduation Estimates

We have made several updates and methodological improvements to our education data for our June 2019 release, including:

- Elimination of high school graduation enrollment weights. See Section 4A for more information.
- Addition of English proficiency status subgroup disaggregation for high school graduation. See Section 4A for more information.
- Addition of a spatial buffer for high school graduation. See Section 3 for more information.

Note on Absenteeism

Absenteeism was originally included in the City Health Dashboard Technical Document Part 1 as the data are not from state-based education data sources, but rather a national data source. However, for our June 2019 release, the Dashboard decided to combine all education metrics into a separate technical document, known as City Health Dashboard Technical Document Part 2: Education Data. Please refer to the City Health Dashboard Technical Document Part 1 for the technical attributes of the non-education metrics available on the Dashboard.

State-based Education Data Selection Criteria

The Dashboard chose to use state-based education data sources for high school graduation and third-grade reading proficiency instead of federally reported data sources through the U.S. Department of Education EDFacts (EDFacts). State-based education data sources are updated more regularly and provide data at a more granular level than federally reported data.

Limitations of State-based Education Data Sources

Overall, state-based education data are not reported or collected centrally. **Caution is needed when comparing values across states as there may be variability in data collection and reporting practices by each state department of education.** Any specific questions regarding the original data collection and reporting should be directed to the specific state departments of education. There are variations between and within states in terms of the following:

- Most recent year of data
- Data update frequency
- Race/ethnicity, gender, English proficiency status subgroup disaggregation availability
- Race/ethnicity and English proficiency status categories and definitions
- Data censorship criteria
- Definition of reading proficiency
- Data file layout and supporting documentation

The Dashboard acquired state departments of education. Some states have different release schedules so there are different years of data between and within states. For states without publicly available and downloadable data on their website, the Dashboard made best efforts to submit data requests as allowed by the project's timeline. The Dashboard made best efforts to standardize data collection and analysis.

Data Analysis

Primary data analysis of values calculated by the Dashboard was performed by Sarah Conderino, MPH (Surveillance Data Scientist, Department of Population Health, NYU School of Medicine) and Miriam Gofine, MPH (Senior Data Analyst, Department of Population Health, NYU School of Medicine). Allegra Wilson, Shauna Ford, and Taylor Lampe contributed to data validation.

Updates to Technical Document

This technical document will be continuously updated as needed. Please note that the date of the last update for this document is provided on the first page of this document and on the footer of this document. Documentation of updates can be found in Appendix K.

City Health Dashboard Team

Marc Gourevitch, MD, MPH	Primary Investigator, City Health Dashboard Muriel and George Singer Professor of Population Health and Chair, Department of Population Health, NYU Langone Health
Lorna Thorpe, PhD	Methods Co-Primary Investigator, City Health Dashboard Professor of Epidemiology, NYU School of Medicine Director of the Division of Epidemiology, NYU School of Medicine Vice Chair of Strategy and Planning, Department of Population Health, NYU Langone Health
Neil Kleiman, PhD	City Policy/Partnerships Co-Primary Investigator, City Health Dashboard Clinical Assistant Professor of Public Service, NYU Wagner Graduate School of Public Service
Shoshanna Levine, DrPH, MPH	Program Director, City Health Dashboard
Becky Ofrane, MPH	Manager, Engagement and Partnerships, City Health Dashboard
Ben Spoer, PhD, MPH	Manager, Metrics and Analytics, City Health Dashboard
Samantha Breslin, MPA	Project Coordinator, City Health Dashboard
Miriam Gofine, MPH	Senior Data Analyst, City Health Dashboard
Taylor Lampe, MPH	Data Analyst, City Health Dashboard
Allegra Wilson, BA	Research Analyst, City Health Dashboard

Downloading Education Data

Dashboard education data are available for free download at www.cityhealthdashboard.com/data-downloads. Users should consult the Downloadable Data Codebook, also available at www.cityhealthdashboard.com/data-downloads, for more detail.

Citing Dashboard Data and Technical Document

Dashboard data:

City Health Dashboard. *City Health Dashboard Data.* New York: City Health Dashboard; 2019. Available for download at www.cityhealthdashboard.com/data-downloads.

Technical Document:

Wilson A, Gofine M, Kum S, Ford S, Athens J, Levine S, Spoer B, and Conderino S. *City Health Dashboard Technical Document, Part 2: Education Data*. New York: City Health Dashboard; 2019. Available for download at www.cityhealthdashboard.com/data-downloads/technical-documentation.

Feedback or Errors

Users are encouraged to contact the Dashboard with comments or questions regarding cityhealthdashboard.com and any documents available for download from it, including this Technical Document, at info@cityhealthdashboard.com.

SECTION 2: Education Analytic Decisions

Education Level Disaggregation

School districts, also known as local education agencies (LEA), do not map directly to city boundaries. Thus, the Dashboard acquired data at the individual school level in order to select the schools that are physically located within the city boundaries. The provided education estimates are only city-level estimates, not school district-level estimates. Census tract-level estimates are not available. For more detailed information on the count of schools within each city and the number of schools contributing to each city-level estimate, please email info@cityhealthdashboard.com.

School Inclusion

All public schools were included in analysis. This consists of regular schools (including charter and magnet schools), special education schools, vocational schools, and other/alternative schools. For definitions of these types of schools, please refer to individual state departments of education or Appendix J.

Data Censoring

Data censorship varies between and within data sources and may not reflect the Dashboard's policies noted in the City Health Dashboard Technical Document Part 1. Please refer to Section 4 and 5 and Appendix A, B & C for more information on the censoring policies by metric and data source.

Data Disclaimer

Estimates presented in the Dashboard are subject to the same limitations as those inherent in the source datasets. We highlight the most likely sources of bias in Section 6.

Data Rounding

All calculated values were rounded to one decimal place immediately prior to data export.

Federal Information Processing Standards (FIPS) codes

The Federal Information Processing Series (FIPS), formerly Federal Information Processing Standards, are codes for geographic entities maintained and issued by the Census Bureau. When concatenated as State-County, State-Place, or State-County-Tract, FIPS codes function as unique identifiers for geographic entities. The Census Bureau assigns codes to geographic entities such as tracts, which are not covered by FIPS.[1] Note: Census Bureau codes for tracts are referred to as Tract FIPS within the Dashboard.

Note on Honolulu, HI FIPS code
The Dashboard reports data for the 500 most populous cities in the nation as selected by the CDC's 500 Cities Project.[2] The Dashboard selected city and tract FIPS codes as census tract boundary shapefiles released by the 500 Cities Project.[3] As per the CDC 500 Cities Project, the Dashboard uses the FIPS code for the county of Honolulu, Hawaii (15-003) to represent the geographic area associated with the city of Honolulu (Urban Honolulu CDP, FIPS code 15-71550) for absenteeism, high school graduation, and third-grade reading proficiency.[4]

Subgroup Availability and Categories

The Dashboard acquired disaggregated education data when possible. Availability of subgroup disaggregation and categorization of subgroups vary between data sources and may not reflect the Dashboard categories.

Subgroup disaggregation availability by metric:

Metric	Race/ethnicity	Gender	English proficiency status
Absenteeism	X	X	
High school graduation	X	X	X
Third-grade reading proficiency			

For race/ethnicity groups across all three metrics, the Dashboard combined according to the following demographic groups: Asian; Black; Hispanic; White (not Hispanic or Latino); and Other. For a summary of definitions of Hispanic, Asian, and Other race for metrics with demographic-specific values, please refer to Appendix E. For more information on the rationale behind these population groups, refer to the City Health Dashboard Technical Document Part 1.

Population Percentages

Text describing population breakdowns by race/ethnicity group rate values are on the Demographic Detail page for absenteeism and high school graduation. These values are not available for download. Please email info@cityhealthdashboard.com for more information on their calculation.

Reporting Rates

Absenteeism, high school graduation, and third-grade reading proficiency rates are reported as calculated by the Dashboard staff. Confidence intervals are presented when available, but not all data sources provided all necessary data elements for the calculation.

Since there were not always numerators or denominators reported in third-grade reading proficiency datasets, the Dashboard analysts calculated weights based on grade-level enrollment for aggregating school-based rates to the city level. For more information on the relevant formulas for each metric, please refer to Section 4B.

Validation

The Dashboard implemented a multi-step data validation process to ensure the accuracy of (1) metric value calculation and (2) data uploaded to the website display.

1. *Internal data results validation.*
   Analyses on the Dashboard were initially calculated by a primary analyst from the City Health Dashboard analysis team. All analyses were then independently replicated by a secondary analyst within the group. Results were directly compared and if applicable, discrepancies were iteratively investigated and internally documented until the two separate analyses generated identical values.
2. *The Dashboard development site data validation*.
   A quality assurance audit by the site's web developers at Forum One ensured that values calculated by the Dashboard staff in SAS correctly appear on the site.

SECTION 3: School Geographic Mapping

Introduction to this Section

Education metrics were defined using schools that fell within the geographic boundaries of the Centers for Disease Control and Prevention (CDC) 500 Cities Project. The final sample of schools were filtered based on the following National Center for Education Statistics (NCES) data files:

- NCES School Directory files
- NCES Education Demographic and Geographic Estimates (EDGE) files
- NCES Elementary/Secondary Information Systems (ElSi) grade enrollment files

The years of data for each data file varied by metric depending on when the analysis was conducted. The individual school estimates within a city were then aggregated to provide city-level metrics for absenteeism, high school graduation, and third-grade reading proficiency.

All analyses were performed using SAS version 9.4 and ArcGIS 10.4.1.[5,6]

Analyses

Data inputs

(1) NCES School Directories. The flat files were downloaded from here.
    a. High school graduation: NCES (Preliminary) Directory 2017-18 & NCES Directory (v.1a) 2016-2017 [7,8]
    b. Absenteeism and third-grade reading proficiency: NCES (Preliminary) Directory 2016-17 & NCES Directory (v.1a) 2015-2016 [9,10]
(2) NCES Education Demographic and Geographic Estimates (EDGE) files for public schools for a school year. The file was downloaded from here.
    a. High school graduation: NCES EDGE 2016-17 shapefile (points)[11]
    b. Absenteeism and third-grade reading proficiency: NCES EDGE 2015-16 shapefile (points)[12]
(3) NCES Elementary/Secondary Information Systems (ElSi) data file created using the tableGenerator for the 2015-16 school year (most recent available in the system).[13] This file was only used for third-grade reading proficiency. Data file containing information about grades from NCES ElSi was downloaded from here. The following fields were use:
    a. NCESSCH
    b. School Type [Public School]: "1-Regular school", "2-Special education school", "3-Vocational school", "4-Alternative/other school"
        i. Third-grade reading proficiency: Grade 3 offered [Public School]: "1-Yes", "2-No"
(4) City boundaries shapefile (polygons) from the CDC 500 Cities Project.[3] The file was downloaded from here.

Spatial join

(5) The spatial projection of the public schools shapefile was transformed to match the projection of the city boundaries shapefile.
(6) A spatial join was performed between the re-projected EDGE public schools shapefile and the city boundaries shapefile. The result of the spatial join is public schools within city boundaries of the CDC 500 Cities Project.
(7) For absenteeism, the latitude and longitude of a school, as per the CCD_LATCOD and CCD_LONCOD variables, was used to determine its location within city boundaries defined by the CDC 500 Cities Project.[14]

(8) As part of our methodology improvements for June 2019, we applied a 10m buffer to the spatial join for high school graduation. This “across the street” buffer captures some schools that are considered to be schools in a given city, but would not have been captured without the buffer because the point location of the school falls just outside the city boundaries. This buffer was applied to high school graduation, but not absenteeism and third-grade reading proficiency. The buffer will be applied to those metrics when the underlying data sources are next updated.

For more details on the SAS code and ArcGIS methods, please contact the Dashboard at info@cityhealthdashboard.com.

SECTION 4: Metric Calculation for State-based Education Data

Introduction to this Section

State-based education data provide the underlying data for the high school graduation and third-grade reading proficiency metrics. This section is organized by metric, with notes on elements specific to the high school graduation and third-grade reading proficiency metrics.

All analyses were performed using SAS v9.4. For more details on the SAS code, please contact the Dashboard at info@cityhealthdashboard.com.

A. *High School Graduation*

High school graduation: General notes
The high school graduation metric was calculated using state-based education data sources. These data were acquired from November 2019 - April 2019. The Dashboard defines high school graduation as the percent of public school students who graduate high school within four years of entering ninth grade. Note: this metric is at the city (not school district) level, and involves all school types. This is commonly referred to as the Four Year Adjusted Cohort Graduation Rate. The formula is presented here:

$$\text{High school graduation} = \frac{[\text{Total students who graduate 4 years after entering 9th grade}]}{\text{Total 9th grade cohort}} \times 100\%$$

If you have any questions regarding the Four Year Adjusted Cohort Graduation Rate, please direct them to the individual state departments of education.

High school graduation: Reporting rates, numerators, and denominators
High school graduation rates are reported as calculated by the Dashboard staff. States vary in how they report rates—they can be reported as exact rates or approximate rates. Exact rates are reported as reported by the state department of education and approximate rates (e.g. ~95%) are reported as the value (95%). The type of rate is noted in the downloadable data.

Numerators and denominators are collected and reported when available. Confidence intervals are calculated for almost all states, except for Louisiana, Texas, and certain race/ethnicities for DC.

High school graduation: Weights
In the May 2018 release of high school graduation, the Dashboard calculated weights based on grade-level enrollment in order to aggregate school-based rates to the city level as there were not always numerators or denominators reported. Sensitivity analyses identified this analytic decision as contributing to elevated city-level rates.

For the June 2019 release, the Dashboard eliminated the enrollment weight for high school graduation to reduce this source of bias. The Dashboard made sure to acquire school-level datasets that provided the rate and numerators and/or denominators for high school graduation data. However, some states were unable to publicly release numerators and/or denominators. For those states, the Dashboard provided the individual schools of interest so the state department of education could calculate city-level rates for us.

High school graduation: Categorizing subgroups
Not all states provided disaggregated data by subgroup. For more detail on what subgroups are available by state, please refer to Appendix D.

The following race/ethnicity groups are presented on the Dashboard: Asian, Black, Hispanic, White, Other. Please refer to Appendix E for more detail on the Dashboard's categorization of race/ethnicity groups used for high school graduation. If you have any questions on how state-specific race/ethnicity groups are defined, please direct them to the individual state department of education.

The Dashboard disaggregates high school graduation data by English proficiency status disaggregation to calculate estimates for Limited English Proficiency (LEP). Nomenclature and definition of this subgroup varies by state. Of note, some states refer to it as "LEP," "English Language Learners (ELL)," or "English Learners (EL)." The Dashboard chose to name the subgroup "LEP" to be consistent with the 2016-2017 NCES reporting of high school graduation data by demographic characteristics.[15] If you have any questions on how state-specific English proficiency status is defined, please direct them to the individual state department of education.

High school graduation: Data censoring
State-based education data adhere to the state's data censoring criteria. The Dashboard did not censor data further than what individual states already censored. No individual-level data were accessed or analyzed. For more detail on individual states' data censoring criteria, please refer to Appendix B.

High school graduation: Analysis
Data were acquired from state departments of education (Appendix F & H). State file formats varied substantially. From each file, the Dashboard identified columns relevant to the metric and created a macro that would systematically import the state data files, pulling these relevant columns to create a unified dataset.

State files fell into four basic formats:
1. *Single, long file*: Rates, numerators, and denominators were found on a single tab/sheet, and if available, subgroups were designated in a single column.
2. *Single, wide file*: Rates, numerators, and denominators were found in a single tab/sheet, and data values for each subgroup were found in distinct columns.
3. *Multiple files/sheets*: Data were found in separate files or tabs/sheets.
4. *Single column*: Rates, numerators, and denominators were all found in a single column.

Next, data were matched according to the following steps:
1. The files of directories (2016-17 and 2017-18) containing NCES school IDs, state school IDs, school grades information, and the spatial join result were merged using a common field, NCESSCH (NCES school ID).
2. State-based education files were matched to the spatial join/directory files based on school IDs and NCES IDs, as available in the individual state files.
3. The Dashboard used string matching for state files that did not have school IDs. The Dashboard cleaned school names and matched them to NCES data through the SAS procedure COMPGED. For schools that did not have an exact match, the top five matches were manually reviewed to determine true and false matches.

The Dashboard calculated city-level graduation rates by summing the number of high school graduates and four-year graduation cohort totals for all schools within the given city, for all students and stratified by subgroup.

High school graduation: Multi-year data
Multi-year data are not available for high school graduation and only data from the June 2019 release are displayed on the site. The Dashboard's methodology changed substantially from the May 2018 release to the June 2019 release, making multi-year comparison of high school graduation inappropriate.

High school graduation: Indicators
Rate Indicator:
The Dashboard created the following indicator (variable educ_indicator), available in the Dashboard data download, to provide more information on what type of rate was utilized for all reported high school graduation values.

educ_indicator=1: All school estimates are a rate
educ_indicator=2: At least one school estimate is an approximate rate

The Dashboard indicates when an approximate rate is displayed on a page (i.e. where educ_indicator=2) under the "Tips and Cautions for Using the Data" sub-header.

County Indicator:
County-level data are used where city-level data are unavailable/censored as outlined in Section 2: *Federal Informational Processing Standards (FIPS) codes*. The Dashboard created the following indicator (variable county_indicator), available in the Dashboard data download, to indicate which geography was utilized for all reported values:

county_indicator=0: Estimate is calculated from city-specific values
county_indicator=1: Estimate is calculated from an average of component counties' values (i.e.city falls under one or more counties)
county_indicator=2: Estimate is calculated from its single corresponding county values (i.e. city falls under on specific county)

The Dashboard indicates when county data are displayed on a page (i.e., where county_indicator=1 or county_indicator=2) under the "Tips and Cautions for Using the Data" sub-header.

High school graduation: State-specific notes
There are nuances to each state's data for high school graduation.

- For Maryland, the race/ethnicity subgroup disaggregation comes from the city of Baltimore specifically, not from the state department of education.
- Louisiana, Texas, and Utah state departments of education calculated city-level rates for the Dashboard. The Dashboard uploaded the estimates as provided by the state departments of education.
- Data are unavailable for Illinois and New Mexico because the number of students or graduates required to calculate the city-level high school graduation rate was not available from the state departments of education.
- For the District of Columbia, the Dashboard used district-level data as all schools fall within district boundaries, rendering the spatial join unnecessary.

For more detail on the state-based data sources, method of data acquisition, year of data, month of acquisition, and specific notes, please refer to Appendix F & H.

B. Third-grade Reading Proficiency

Third-grade reading proficiency: General notes
The third-grade reading proficiency metric was calculated using state-based education data sources. These data were acquired from August 2017-April 2018. The Dashboard defines third-grade reading proficiency as the percent of public school third-graders who score "proficient" or above in reading on standardized tests. Note: this metric is at the city (not school district) level, and involves all school types. The formula is presented here:

$$\text{3rd grade reading proficiency} = \frac{\text{Total 3rd graders who score proficient or above on reading]}}{\text{Total 3rd graders who were tested}} \times 100\%$$

Third-grade reading proficiency tests are different in every state, with different definitions of proficiency and different skills tested. In general, achieving a score of "proficient" or above implies that students have satisfactorily achieved the grade-level reading standard, adequately preparing them to advance to the next grade. The reading proficiency test scores do not include scores from alternative reading proficiency tests (for third-graders in specialized education programs). If you have any questions regarding third-grade reading proficiency tests, please direct them to the individual state department of education.

Third-grade reading proficiency: Reporting rates, numerators, and denominators
Third-grade reading proficiency rates are reported as calculated by the Dashboard staff. States vary in how they report rate. The type of rate is noted in the downloadable data.

Numerators and denominators are not collected beyond what was publicly provided by the states and are not reported. Confidence intervals are not calculated as not all state-based education data sources provided the necessary data elements.

Third-grade reading proficiency: Weights
Since there were not always numerators or denominators reported, the Dashboard analysts calculated weights based on grade-level enrollment for aggregating school-based rates to the city level. The Dashboard used third-grade school enrollment data from NCES ElSi to create weights for the school and student subgroups in order to provide a city estimate for third grade reading proficiency. The output from our geographic analysis was used to select which schools to include (see Section 3). Weights were adjusted to account for schools that did not report or censored their third-grade reading proficiency rate data. For more detail on the formulas, please refer to the *Third-grade reading proficiency: Analysis section*.

Third-grade reading proficiency: Categorizing subgroups
The Dashboard did not report any disaggregated data by subgroup for third-grade reading proficiency. There was substantial state censorship of subgroups, especially in race/ethnicity groups, at the school level. As a result, there were not enough disaggregated subgroup data for the majority of the 500 cities.

Third-grade reading proficiency: Data censoring
The Dashboard selected the state-provided combined rate over the individual proficiency levels if rates were reported both as a combined proficient or above rate AND as individual proficiency levels (i.e. proficient or above). This was done to reduce missingness from state censorship in individual proficiency levels, and was applied to the District of Columbia and the 32 states that provided a combined proficient or above rate. The remaining 19 states reported rates as individual proficiency levels. For those states, the Dashboard summed the rates for proficient or

above to get an overall estimate of proficient or above. The overall rate was censored if a component rate was missing. For more detail on which states provided a combined proficient or above rate, please refer to Appendix G.

State-based education data adhere to the state's data censoring criteria. Specific criteria for data censoring can also vary within a state as well, with high school graduation and third-grade reading proficiency metrics having different criteria. No individual-level data were accessed or analyzed. For more detail on data censoring criteria by state, please refer to Appendix C.

Third-grade reading proficiency: Analysis
Data were acquired from state departments of education (Appendix G & I). From each file, the Dashboard identified columns relevant to the metric and created a macro that would systematically import the state data files, pulling these relevant columns to create a unified dataset.

State files fell into four basic formats:

1. *Single, long file*: Rates, numerators, and denominators were found on a single tab/sheet, and if available, subgroups were designated in a single column.
2. *Single, wide file*: Rates, numerators, and denominators were found in a single tab/sheet, and data values for each subgroup were found in distinct columns.
3. *Multiple files/sheets*: Data were found in separate files or tabs/sheets.
4. *Single column*: Rates, numerators, and denominators were all found in a single column.

When available, the following elements were included in the macro: school names and IDs, counts for numerators, counts for denominators, rates, subgroup designation, and filtering criteria (i.e. year, subject, test, grade). Rates were reported differently by each state and were cleaned as follows:

- Approximate rates were set to the specific value (i.e. ~95% becomes 95%)
- Rates reported in decimal format were multiplied by 100
- If rates were not reported, calculating the rate from the numerator and denominator
- If rates were reported both as a combined proficient or above rate AND as individual proficiency levels (i.e. proficient or above), the Dashboard selected the state-provided combined rate over the individual proficiency levels. If rates were only reported in individual proficiency levels, the Dashboard summed the rates for proficient or above to get an overall estimate of proficient or above. The overall rate was censored if a component rate was missing.

Next, data were matched according to the following steps:

1. The files of directories (2015-16 and 2016-17) containing NCES school IDs, state school IDs, school grades information, and the spatial join result were merged using a common field, NCESSCH (NCES school ID).
2. State-based education files were matched to the spatial join/directory files based on school IDs and NCES IDs, as available in the individual state files.
3. The Dashboard used string matching for state files that did not have school IDs. The Dashboard cleaned school names and matched them to NCES data through the SAS procedure COMPGED. For schools that did not have an exact match, the top five matches were manually reviewed to determine true and false matches.
    a. There were 8 states (AK, LA, MS, ND, NY, UT, VA, WY) for which there were duplicate match results for school names that were not unique. For those school names, the Dashboard used state school directories or other files to identify

which of the duplicate schools are located in the CDC 500 Cities Project boundaries.

The Dashboard multiplied school specific third-grade reading proficiency rates by the corresponding weight and summed all schools within the given city (see below). These city-level rates were then adjusted by dividing them by the weight adjustments, the sum of weights for all schools that did not censor their reading proficiency data.

Relevant formulas are presented here for users' reference:

$$\text{Third-grade Reading Proficiency Weight}_i = \frac{\text{Total 3rd grade population for school}_i}{\text{Total 3rd grade population for all schools in city}}$$

$$\text{Third-grade Reading Proficiency Unadjusted City Rate} = \sum_{i=1}^{n} (\text{Rate}_i * \text{Weight}_i)$$

Where rate_i is the third-grade reading proficiency rate of an individual school; where weight_i is the weight of that individual school; where unadjusted city rate is the derived city third-grade reading proficiency estimate from multiplying rate_i and weight_i for an individual school and summing it for all schools in the city

$$\text{Weight Adjustment} = \sum_{i=1}^{n} (\text{Weight}_i)$$

Where the weight adjustment is calculated as the sum of weights for all schools that did not censor their third-grade reading proficiency data

$$\text{Third-grade Reading Proficiency Adjusted City Rate} = \frac{\sum_{i=1}^{n} (\text{Rate}_i * \text{Weight}_i)}{\text{Weight Adjustment}}$$

Third-grade reading proficiency: Multi-year data
Multi-year data are not available for third-grade reading proficiency and only data from the May 2018 release are displayed on the site.

Third-grade reading proficiency: Indicators
Rate Indicator:
The Dashboard created the following indicator, available in the Dashboard data download, to provide more information on what type of rate was utilized for all reported third-grade reading proficiency values.

educ_indicator=1: All school estimates are a rate
educ_indicator=2: At least one school estimate is an approximate rate

The Dashboard indicates when an approximate rate is displayed on a page (i.e., where educ_indicator=2) under the "Tips and Cautions for Using the Data" sub-header.

County Indicator:
County-level data are used where city-level data are unavailable/censored as outlined in Section 2: *Federal Informational Processing Standards (FIPS) codes*. The Dashboard created the following indicator (variable county_indicator), available in the Dashboard data download, to indicate which geography was utilized for all reported values:

county_indicator=0: Estimate is calculated from city-specific values

county_indicator=1: Estimate is calculated from an average of component counties' values (i.e. city falls under one or more counties)
county_indicator=2: Estimate is calculated from its single corresponding county values (i.e. city falls under on specific county)

The Dashboard indicates when county data are displayed on a page (i.e., where county_indicator=1 or county_indicator=2) under the "Tips and Cautions for Using the Data" sub-header.

Third-grade reading proficiency: State-specific notes
There are nuances to each state's data for third-grade reading proficiency.

- For Massachusetts, the state is currently transitioning between two different reading proficiency tests (MCAS and Next Generation MCAS). Thus, some of the schools in the Dashboard's Massachusetts cities are taking one test, while others are taking the other test. The Dashboard chose to analyze assessment results from the Next Generation MCAS.
- For Virginia, elementary school reading proficiency scores are not disaggregated by grade level, thus any reading proficiency values for Virginian cities are elementary school values.
- For California, the enrollment data are from the state department of education, not from NCES ElSi.
- For the District of Columbia, the Dashboard used district-level data as all schools fall within district boundaries, rendering the spatial join unnecessary.

For more detail on the data sources, method of data acquisition, year of data, month of acquisition, and specific notes, please refer to Appendix G & I.

SECTION 5: Metric Calculation for National Education Data Sources

Introduction to this Section

A national education data source provides the underlying data for the absenteeism metric. This section provides notes on elements specific to the national education data source and the absenteeism metric.

All analyses were performed using SAS v9.4. For more details on the SAS code, please contact the Dashboard at info@cityhealthdashboard.com.

A. Civil Rights Data Collection (CRDC)

CRDC: General notes

The absenteeism metric was calculated using the 2015-16 Civil Rights Data Collection survey.[16] These data were the most recently available data at the time of analysis in October 2018. The Dashboard defines absenteeism as the percent of public school students who miss ≥15 days of school in an academic year. Note: this metric is at the city (not school district) level, and involves all school types. The formula is presented here:

$$\text{Absenteeism in grades K-12} = \frac{[\text{Students who miss 15 or more days of school in a year}]}{\text{Total students}} \times 100\%$$

CRDC: Reporting rates, numerators, and denominators

Absenteeism rates are reported as calculated by the Dashboard staff. Numerators and denominators are reported. Confidence intervals were not calculated because MOE or SE data were not presented in the underlying dataset, which presents counts.

CRDC: Weights

No weights were applied to the CRDC analysis.

CRDC: Categorizing subgroups

The following race/ethnicity groups are presented on the Dashboard: Asian, Black, Hispanic, White, Other. Please refer to Appendix E for more detail on the Dashboard's categorization of race/ethnicity groups used for absenteeism. If you have any questions on how absenteeism race/ethnicity categories are defined, please direct them to CRDC.

CRDC: Analysis

Chronic student absenteeism variables (see variables prefix SCH_ABSENT_) were used in this analysis. Sex-specific values within schools were summed to create totals per school. Please refer to Section 3 for more information on the spatial join performed between the school locations (points) and the city boundaries (polygons) to identify schools within the city boundaries.

Schools with preschools (SCH_GRADE_PS="YES") and Juvenile Justice Facility Schools (JJ="YES") were excluded from analysis.

CRDC: Multi-year data

Multi-year data are not available for absenteeism and only estimates from 2015-2016 data are displayed on the site. Please refer to *CRDC: Metric-specific* notes for the rationale behind not presenting multi-year estimates for this metric.

CRDC: Indicators

County Indicator:

County-level data are used where city-level data are unavailable/censored as outlined in Section 2: *Federal Informational Processing Standards (FIPS) codes*. The Dashboard created the following indicator (variable county_indicator), available in the Dashboard data download, to indicate which geography was utilized for all reported values:

> county_indicator=0: Estimate is calculated from city-specific values
> county_indicator=1: Estimate is calculated from an average of component counties' values (i.e. city falls under one or more counties)
> county_indicator=2: Estimate is calculated from its single corresponding county values (i.e. city falls under on specific county)

The Dashboard indicates when county data are displayed on a page (i.e., where county_indicator=1 or county_indicator=2) under the "Tips and Cautions for Using the Data" sub-header.

CRDC: Metric-specific notes

There are nuances to CRDC data on absenteeism.

- The Dashboard initially calculated absenteeism estimates using 2013-2014 CRDC data, published in May 2018. An update using 2015-2016 data was released in October 2018. Although the analysis of these two datasets was identical, markedly large differences in the percent of chronically absent students between the two datasets were identified for a minority of cities. Although it is plausible that these changes accurately reflect the reality of absenteeism in each city, CRDC data may be biased due to reporting error. Please email info@cityhealthdashboard.com with any questions.

For more detail on the data source, method of data acquisition, and month of acquisition please refer to Appendix A.

SECTION 6: Comparison to EDFacts Data

City-level high school graduation rates were compared to EDFacts district-level high school graduation rates for cities that were coterminous with district boundaries. Occasional differences were observed between the calculated city-level rates and EDFacts district level rates that may be attributed to the following reasons:

1. Censoring at the school level (e.g. when the cohort total for the school is below the censoring criteria for the given state)
2. Differences in the types of schools that were included in district-level data versus the calculated city-level rates (e.g. alternative or special education schools that are likely not included in the district-level data)
3. Differences in the years of data

SECTION 7: Acknowledgements

The Dashboard acknowledges Dr. Jessica Athens, Shauna Ford, Dr. Susan Kum, Dr. Erin Fahle, Rania Kanchi, Alexis Feinberg, and Priscilla Lopez for their significant contributions to the Dashboard site and analyses.

SECTION 8: References

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SECTION 9: Appendices

Appendix A: Summary of Dataset of Origin, Censorship Rules, Estimate Provenance and Date of Acquisition (metrics only)

Metric	Dataset of origin	Censorship		Estimate Provenance	Date of Data Access*
		Internal Dashboard Guidelines	NVSS Guideline (as per DUA)‡	*Estimates posted on the Dashboard as received from source or calculated by the Dashboard's staff*	
		Censor where denominator <50	Censor where numerator <10		
Absenteeism	CRDC	no	no	Calculated by the Dashboard	8/7/2018
High school graduation	State-based education data	no	no	Calculated by the Dashboard	Varies (see Appendix H)
Third-grade reading proficiency	State-based education data	no	no	Calculated by the Dashboard	Varies (see Appendix I)

* Datasets are sometimes updated after the initial release if the administrator identifies an error. This column records the date of dataset acquisition to indicate to users which version of the underlying dataset informs our analyses.

‡ NVSS Data Use Agreement censorship guidelines require censorship of values with numerator less than 10

Appendix B: High School Graduation Data Censorship Criteria by State

State	Data Censorship Criteria	State	Data Censorship Criteria	State	Data Censorship Criteria
Alabama	Censorship: N<11 Ranges: Percentages>95%	**Kentucky**	Censorship: N<10	**North Dakota**	Censorship: N<10
Alaska	Does not censor	**Louisiana**	Provided aggregated city-level rates	**Ohio**	Censorship: N<10
Arizona	Censorship: N<11	**Maine**	Censorship: N<5	**Oklahoma**	Censorship: N<11 Range: Depends on cohort group sizes
Arkansas	Censorship: N<10	**Maryland**	Censorship: N<10 Range: Percentages ≤5 or ≥95	**Oregon**	Does not censor
California	Censorship: N<11	**Massachusetts**	Censorship: N<6	**Pennsylvania**	Censorship: N<11
Colorado	Does not censor	**Michigan**	Censorship: N<10 Range: Percentages >95%,<5%	**Rhode Island**	Censorship: N<10
Connecticut	Censorship: N<6 Range: Percentages >95%,<5%	**Minnesota**	Censorship: N<11	**South Carolina**	Censorship: Does not release censorship criteria publicly
Delaware	Censorship: N<15	**Mississippi**	Censorship: N<10	**South Dakota**	Censorship: N<10
DC	Censorship: N<10	**Missouri**	Censorship: N<11	**Tennessee**	Censorship: N<5%
Florida	Censorship: N<10	**Montana**	Censorship: N<5	**Texas**	Censorship: Does not release censorship criteria publicly
Georgia	Censorship: N<10	**Nebraska**	Censorship: N<10	**Utah**	Censorship: N<10
Hawaii	Censorship: N<10	**Nevada**	Censorship: N<10	**Vermont**	Censorship: N<11
Idaho	Censorship: N<5	**New Hampshire**	Censorship: N<40	**Virginia**	Censorship: N<10
Illinois	No data	**New Jersey**	Censorship: N<10	**Washington**	Censorship: All students N<10
Indiana	Censorship: N<10	**New Mexico**	No data	**West Virginia**	Censorship: N<10
Iowa	Censorship: N<10	**New York**	Censorship: N<5	**Wisconsin**	Censorship: Does not release censorship criteria publicly
Kansas	Censorship: N<10	**North Carolina**	Censorship: N<10 Range: Percentages >95%,<5%	**Wyoming**	Does not censor

Appendix C: Third-grade Reading Proficiency Data Censorship Criteria by State

State	Data Censorship Criteria	State	Data Censorship Criteria	State	Data Censorship Criteria
Alabama	Censorship: N<11 Range: Percentage: ≥95%,<1%	**Kentucky**	Censorship: N<10	**North Dakota**	Censorship: N<10
Alaska	Censorship: N<6 Range: Percentages may be reported in ranges	**Louisiana**	Censorship: N<10 Range: Percentages ≤1%	**Ohio**	Censorship: N<10
Arizona	Censorship: N<11 Range: Percentages: >98%,<2%	**Maine**	Censorship: N<5	**Oklahoma**	Censorship: N<10 Range: Percentages: >95%,< 5%
Arkansas	Censorship: N<11	**Maryland**	Censorship: N<10 Range: Percentages: ≥95%, ≤5%	**Oregon**	Censorship: N<6 Range: Percentages:>95%, <5%
California	Censorship: N<11	**Massachusetts**	Censorship: N<10	**Pennsylvania**	Censorship: N<11
Colorado	Censorship: N<16	**Michigan**	Censorship: N<10 Range: Percentages: <5%, >95%	**Rhode Island**	Censorship: N<10
Connecticut	Censorship: N<6 Range: Percentages: >95%,<5%	**Minnesota**	Censorship: N<10	**South Carolina**	Censorship: N<10
Delaware	Censorship: N<15 Range: Percentages: >95%,<5%	**Mississippi**	Censorship: N<10 Range: Percentages: >95%,<5%	**South Dakota**	Censorship: N<10
District of Columbia	Censorship: N<10	**Missouri**	Censorship: N<30	**Tennessee**	Censorship: N<10 Range: Percentages: ≥99%, <1%
Florida	Censorship: N<10	**Montana**	Censorship: N<5	**Texas**	Censorship: N<5
Georgia	Censorship: N<15	**Nebraska**	Censorship: N<10 in a group, N<5 students at a performance level.	**Utah**	Censorship: N<10
Hawaii	Censorship: N<10	**Nevada**	Censorship: N<10	**Vermont**	Censorship: N<11
Idaho	Censorship: N<10	**New Hampshire**	Censorship: N<11	**Virginia**	Censorship: N<10
Illinois	Censorship: N<10	**New Jersey**	Censorship: N<11	**Washington**	Censorship: N<10 Range: Percentages>95%
Indiana	Censorship: N<10	**New Mexico**	Censorship: N<10 Range: Percentages may be reported in ranges	**West Virginia**	Censorship: N<10
Iowa	Censorship: N<10	**New York**	Censorship: N<5	**Wisconsin**	Censorship: N<20
Kansas	Censorship: N<10	**North Carolina**	Censorship: N<10 Range: Percentages: >95%,<5%	**Wyoming**	Censorship: N<5 Range: Percentages: >95%, <5%

Appendix D: Subgroups Reported by State for High School Graduation

State	Subgroup disaggregation	State	Subgroup disaggregation	State	Subgroup disaggregation
Alabama	Race/ethnicity Gender LEP	**Kentucky**	Race/ethnicity Gender LEP*	**North Dakota**	Race/ethnicity Gender LEP
Alaska	Race/ethnicity Gender LEP	**Louisiana**	None	**Ohio**	Race/ethnicity Gender LEP
Arizona	Race/ethnicity Gender LEP	**Maine**	Race/ethnicity Gender LEP	**Oklahoma**	Race/ethnicity Gender LEP
Arkansas	Race/ethnicity Gender LEP	**Maryland**	Race/ethnicity Gender LEP	**Oregon**	Race/ethnicity Gender LEP
California	Race/ethnicity Gender LEP	**Massachusetts**	Race/ethnicity Gender LEP	**Pennsylvania**	Race/ethnicity Gender LEP
Colorado	Race/ethnicity Gender LEP	**Michigan**	Race/ethnicity Gender LEP	**Rhode Island**	Race/ethnicity Gender LEP
Connecticut	Race/ethnicity Gender LEP	**Minnesota**	Race/ethnicity Gender LEP	**South Carolina**	Race/ethnicity Gender LEP
Delaware	Race/ethnicity Gender LEP*	**Mississippi**	Race/ethnicity LEP*	**South Dakota**	Race/ethnicity Gender LEP
District of Columbia	Race/ethnicity Gender LEP	**Missouri**	Race/ethnicity	**Tennessee**	Race/ethnicity Gender LEP
Florida	Race/ethnicity Gender LEP	**Montana**	Race/ethnicity Gender LEP	**Texas**	Race/ethnicity Gender LEP
Georgia	Race/ethnicity Gender LEP	**Nebraska**	Race/ethnicity Gender LEP	**Utah**	Race/ethnicity Gender LEP
Hawaii	Race/ethnicity Gender LEP	**Nevada**	Race/ethnicity Gender LEP	**Vermont**	Race/ethnicity Gender LEP
Idaho	Race/ethnicity LEP	**New Hampshire**	Race/ethnicity Gender LEP	**Virginia**	Race/ethnicity Gender LEP
Illinois	No data	**New Jersey**	Race/ethnicity Gender LEP	**Washington**	Race/ethnicity Gender LEP
Indiana	Race/ethnicity Gender LEP	**New Mexico**	No data	**West Virginia**	None
Iowa	Race/ethnicity Gender LEP	**New York**	Race/ethnicity Gender LEP	**Wisconsin**	Race/ethnicity Gender LEP
Kansas	Race/ethnicity Gender LEP	**North Carolina**	Race/ethnicity Gender LEP	**Wyoming**	Race/ethnicity Gender LEP

* LEP rate are not available for the city in this state due to data censorship at the school level.

Appendix E: Summary of Definition of Hispanic, NHOPI and Other Race for Metrics with Demographic-Specific Values (by Metric)

Metric	Data Source	Hispanic ethnicity is mutually exclusive with racial groups	Definition of Asian	Definition of "Other"	Metric value is available for specific racial/ethnic groups
Absenteeism	CRDC	No	Asian, Native Hawaiian, or other Pacific Islander†	American Indian or Alaska Native, Two or more races†	Yes
High school graduation	State-based education data	Yes	Asian, Native Hawaiian, Pacific Islander, or Filipino	American Indian or Alaska Native, Two or more races	Yes
Third-grade reading proficiency	State-based education data	N/A	N/A	N/A	No

†Civil Rights Data Collection. Survey Forms: 2013-14 CRDC School Form (downloadable MS Word Document) - see table headers on page 10. Available at: https://www2.ed.gov/about/offices/list/ocr/data.html. Accessed April 26, 2018

Appendix F: High School Graduation Data by State

State	Data Year	State	Data Year	State	Data Year
Alabama	2016-2017	**Kentucky**	2016-2017	**North Dakota**	2016-2017
Alaska	2017-2018	**Louisiana**	2016-2017	**Ohio**	2016-2017
Arizona	2016-2017	**Maine**	2016-2017	**Oklahoma**	2016-2017
Arkansas	2016-2017	**Maryland**	2016-2017	**Oregon**	2016-2017
California	2016-2017	**Massachusetts**	2016-2017	**Pennsylvania**	2016-2017
Colorado	2016-2017	**Michigan**	2016-2017	**Rhode Island**	2016-2017
Connecticut	2016-2017	**Minnesota**	2016-2017	**South Carolina**	2016-2017
Delaware	2016-2017	**Mississippi**	2016-2017	**South Dakota**	2016-2017
District of Columbia*	2017-2018	**Missouri**	2016-2017	**Tennessee**	2016-2017
Florida	2017-2018	**Montana**	2016-2017	**Texas**	2016-2017
Georgia	2017-2018	**Nebraska**	2017-2018	**Utah**	2017-2018
Hawaii	2017-2018	**Nevada**	2016-2017	**Vermont**	2016-2017
Idaho	2016-2017	**New Hampshire**	2017-2018	**Virginia**	2017-2018
Illinois	No data	**New Jersey**	2016-2017	**Washington**	2016-2017
Indiana	2016-2017	**New Mexico**	No data	**West Virginia**	2016-2017
Iowa	2016-2017	**New York**	2017-2018	**Wisconsin**	2017-2018
Kansas	2017-2018	**North Carolina**	2017-2018	**Wyoming**	2017-2018

*Using district values

Appendix G: Third-grade Reading Proficiency by State

State	Reading Proficiency Test	Data Year	Notes	State	Reading Proficiency Test	Data Year	Notes
Alabama	ACT Aspire	2015-2016		**Montana**	SBA	2016-2017	Using combined rate
Alaska	PEAKS	2016-2017	Using combined rate	**Nebraska**	NeSA	2016-2017	
Arizona	AzMERIT	2015-2016		**Nevada**	CRT/SBA	2016-2017	Using combined rate
Arkansas	ACT Aspire	2016-2017	Using combined rate	**New Hampshire**	SBA	2016-2017	
California	CAASP/SBA	2015-2016	Using combined rate	**New Jersey**	PARCC	2015-2016	
Colorado	CMAS/PARCC	2016-2017	Using combined rate	**New Mexico**	PARCC	2016-2017	Using combined rate
Connecticut	SBA	2015-2016	Using combined rate	**New York**	Engage NY	2016-2017	Using combined rate
Delaware	DE SBA	2014-2015	Using combined rate	**North Carolina**	North Carolina End of Grade (EOG) Assessment	2015-2016	Using combined rate
District of Columbia	DC PARCC	2015-2016	Using district values and combined rate	**North Dakota**	SBA	2015-2016	
Florida	FSA	2016-2017	Using combined rate	**Ohio**	Ohio State Test	2016-2017	Using combined rate
Georgia	Georgia Milestones End of Grade Assessments	2016-2017		**Oklahoma**	OSTP	2015-2016	
Hawaii	SBA	2016-2017	Using combined rate	**Oregon**	SBA	2015-2016	Using combined rate
Idaho	ID SBA	2015-2016		**Pennsylvania**	PSSA	2015-2016	
Illinois	PARCC	2015-2016		**Rhode Island**	PARCC	2016-2017	Using combined rate
Indiana	ISTEP+	2016-2017	Using combined rate	**South Carolina**	SC Ready	2016-2017	Using combined rate
Iowa	IA Assessment	2015-2016		**South Dakota**	SBA	2015-2016	
Kansas	KSA	2016-2017		**Tennessee**	TN Ready	2014-2015	Using combined rate
Kentucky	KPREP	2015-2016	Using combined rate	**Texas**	STAAR	2015-2016	Using combined rate
Louisiana	LEAP	2016-2017		**Utah**	SAGE	2015-2016	Using combined rate
Maine	eMPowerME	2016-2017	Using combined rate	**Vermont**	SBA	2016-2017	Using combined rate
Maryland	PARCC	2015-2016		**Virginia**	SOL	2016-2017	Only provides an elementary school reading proficiency value, not disaggregated by grade. Using combined rate

Massachusetts	Next Generation MCAS	2016-2017	Transitioning between two tests and not all schools are taking the same test. Using combined rate	**Washington**	SBA	2015-2016	Using combined rate
Michigan	M-STEP	2015-2016	Using combined rate	**West Virginia**	WVGSA	2016-2017	Using combined rate
Minnesota	MCA-III	2016-2017		**Wisconsin**	Wisconsin Forward Exam	2016-2017	Using combined rate
Mississippi	MAAP	2016-2017		**Wyoming**	PAWS	2016-2017	Using combined rate
Missouri	MAP	2015-2016					

Appendix H: High School Graduation Data Sources

State	Author	Method of Acquisition	Hyperlink (Active as of May 14, 2019)	Click-through	Month of Acquisition	State	Author	Method of Acquisition	Hyperlink (Active as of May 14, 2019)	Click-through	Month of Acquisition
Alabama	Alabama State Department of Education	Download	http://www.alsde.edu/dept/data/Pages/graduationrate-all.aspx		August 2018	**Montana**	Montana Office of Public Instruction	Data request			December 2018
Alaska	Alaska Department of Education & Early Development	Data request			March 2019	**Nebraska**	Nebraska Department of Education	Download	http://nep.education.ne.gov/Links		March 2019
Arizona	Arizona Department of Education	Download	http://www.azed.gov/accountability-research/data/	Select "Graduation Rates" tab	November 2018	**Nevada**	State of Nevada Department of Education	Download	http://www.nevadareportcard.com/di/main/cohort4yr	Select all districts and schools under the "Available" table and move to the "Selected" table.	November 2018
Arkansas	Arkansas Department of Education	Data request			November 2018	**New Hampshire**	New Hampshire Department of Education	Data request			December 2018
California	California Department of Education	Download	https://www.cde.ca.gov/ds/sd/sd/filesacgr.asp		April 2019	**New Jersey**	State of New Jersey Department of Education	Download & Data Request	https://www.state.nj.us/education/data/grate/2017/		Download: November 2018 Data request: December 2018
Colorado	Colorado Department of Education	Download	https://www.cde.state.co.us/cdereval/graduatecurrent		November 2018	**New Mexico**					
Connecticut	Connecticut State Department of Education	Download	http://edsight.ct.gov/SASPortal/main.do	Select "Four-year Cohort Graduation Rate" box, select year, "All districts," and "All schools"	November 2018	**New York**	New York State Education Department	Download	https://data.nysed.gov/downloads.php		February 2019
Delaware	Delaware Department of Education	Data request			January 2019	**North Carolina**	Public Schools of North Carolina	Download	http://www.ncpublicschools.org/accountability/reporting/cohortgradrate	Select "Longitudinal 4-year Cohort Graduation Rates: 2006 through 2018" under "Additional Information"	November 2018
District of Columbia	Office of the State Superintendent of Education	Download	https://osse.dc.gov/publication/2017-18-adjusted-cohort-graduation-rate		November 2018	**North Dakota**	North Dakota Department of Public Instruction	Download	https://insights.nd.gov/Data		November 2018
Florida	Florida Department of Education	Download	http://cdn.fldoe.org/accountability/data-sys/edu-info-accountability-services/pk-12-public-school-data-	Select "High School Graduation Rates (EDStats tool)", select "PK-12 Public Schools", select "High School Graduation Rates"	January 2019	**Ohio**	Ohio Department of Education	Data request			April 2019

			pubs-reports/students.stml#rates	under "Students", select "Build Your Own Table" tab								
Georgia	The Governor's Office of Student Achievement	Download	https://gosa.georgia.gov/downloadable-data		January 2019	**Oklahoma**	Oklahoma State Department of Education	Data request			December 2018
Hawaii	Hawaii State Department of Education	Data request			February 2019	**Oregon**	Oregon.gov	Download	https://www.oregon.gov/ode/reports-and-data/students/Pages/Cohort-Graduation-Rate.aspx		August 2018
Idaho	Idaho State Department of Education	Data request			November 2018	**Pennsylvania**	Pennsylvania Department of Education	Data request			January 2019
Illinois						**Rhode Island**	Rhode Island Department of Education	Download	https://www.eride.ri.gov/FileExchange/fredDetails.aspx?fileID=38516&download=no		November 2018
Indiana	Indiana Department of Education	Download	https://www.doe.in.gov/accountability/find-school-and-corporation-data-reports		November 2018	**South Carolina**	South Carolina Department of Education	Download	https://ed.sc.gov/data/report-cards/historic-school-report-cards/2017/data-files-for-researchers-2017/		November 2018
Iowa	Iowa Department of Education	Download	https://educateiowa.gov/documents/graduation-rates-building-subgroup/2018/10/iowa-public-high-school-class-2017-4-year		November 2018	**South Dakota**	South Dakota Department of Education	Download	http://doe.sd.gov/reportcard/index.aspx		November 2018
Kansas	Kansas State Department of Education	Data request			March 2019	**Tennessee**	Tennessee Department of Education	Download	https://www.tn.gov/education/news/2018/10/1/tennessee-maintains-highest-graduation-rate-on-record-.html		November 2018
Kentucky	Kentucky Department of Education	Download	http://applications.education.ky.gov/SRC/DataSets.aspx	Under "Delivery Targets"	August 2018	**Texas**	Texas Education Agency	Data request			April, 2019
Louisiana	Louisiana Department of Education	Data request			February 2019	**Utah**	Utah State Board of Education	Data request			February 2019

Maine	Maine Department of Education	Data request			December 2018	**Vermont**	State of Vermont Agency of Education	Data request			November 2018
Maryland	Maryland State Department of Education	Download	All Students: http://reportcard.msde.maryland.gov/Graphs/#/DataDownloads/datadownload/3/17/6/99/XXXX Baltimore: http://reportcard.msde.maryland.gov/Graphs/#/AtaGlance/Index/3/17/6/30/XXXX		November 2018	**Virginia**	Virginia Department of Education	Download	http://www.doe.virginia.gov/statistics_reports/graduation_completion/cohort_reports/index.shtml		November 2018
Massachusetts	Massachusetts Department of Elementary and Secondary Education	Download	http://profiles.doe.mass.edu/statereport/gradrates.aspx		November 2018	**Washington**	State of Washington Office of Superintendent of Public Instruction	Download	http://www.k12.wa.us/DataAdmin/Dropout-Grad.aspx		November 2018
Michigan	Michigan Department of Education	Download	https://www.mischooldata.org/DistrictSchoolProfiles2/EntitySummary/SchoolDataFile.aspx		November 2018	**West Virginia**	West Virginia Department of Education	Download	https://zoomwv.k12.wv.us/Dashboard/portalHome.jsp	Select "Graduation" on top bar.	November, 2018
Minnesota	Minnesota Department of Education	Download	http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=2		November 2018	**Wisconsin**	Wisconsin Department of Public Instruction	Download	https://dpi.wi.gov/wisedash/download-files/year	Select "hs_completion_certified_2016-17" zip file	November 2018
Mississippi	Mississippi Department of Education	Data request			January 2019	**Wyoming**	Wyoming Department of Education	Download	https://portals.edu.wyoming.gov/Reports/Public/wde-reports-2012/public-reports/gradrates/fedfouryearadjustedschool		November 2018
Missouri	Missouri Department of Elementary & Secondary Education	Download	https://apps.dese.mo.gov/MCDS/home.aspx	Select "Reports and Resources," select "Students" on left sidebar, select "Building Adjusted Cohort Graduation Rates (xls)" under "Graduation & Dropout Rates"	April 2019						

Appendix I: Third-grade Reading Proficiency Data Sources

State	Author	Method of Acquisition	Hyperlink (active as of April 20, 2018)	Click-through	Month of Data Acquisition	State	Author	Method of Acquisition	Hyperlink (active as of April 20, 2018)	Click-through	Month of Data Acquisition
Alabama	Alabama State Department of Education	Download	http://www.alsde.edu/dept/data/Pages/assessment-all.aspx?navtext=Assessment%20Reports:%20Statewide%20Reports		September 2017	**Montana**	Montana Office of Public Instruction	Data request			December 2017
Alaska	Alaska Department of Education & Early Development	Data request			December 2017	**Nebraska**	Nebraska Department of Education	Download	http://nep.education.ne.gov/Links	Select "NeSA Reading Assessments Detail Data"	March 2018
Arizona	Arizona Department of Education	Download	http://www.azed.gov/accountability-research/data/		August 2017	**Nevada**	State of Nevada Department of Education	Download	http://nevadareportcard.com/di/main/assessment	Select "CRT (New NV Standards" under "Exam. "Select Schools. Select all districts and schools under the "Available" table and move to the "Selected" table.	March 2018
Arkansas	Arkansas Department of Education	Download	http://www.arkansased.gov/divisions/learning-services/student-assessment/test-scores/year?y=2017		October 2017	**New Hampshire**	New Hampshire Department of Education	Download	https://www.education.nh.gov/instruction/assessment/index.htm	Select "2017 Smarter Balanced Disaggregated Data File" under "2017 Final Assessment Results for SAT and Smarter Balanced"	December 2017
California	California Department of Education	Download	Reading proficiency: https://caaspp.cde.ca.gov/sb2017/ResearchFileListCAA?ps=true&lstTestType=A&lstCounty=00&lstCntyNam=Select%20County...&lstTestYear=2016 Enrollment: https://www.cde.ca.gov/ds/sd/sd/filesenr.asp		Third-grade reading proficiency: December 2017 Enrollment: March 2018	**New Jersey**	State of New Jersey Department of Education	Download	http://www.state.nj.us/education/schools/achievement/16/parcc/spring/excel.htm		August 2017
Colorado	Colorado Department of Education	Download	http://www.cde.state.co.us/assessment/cmas-dataandresults		January 2018	**New Mexico**	New Mexico Public Education Department	Download	https://webnew.ped.state.nm.us/bureaus/accountability/achievement-data/	Select "Proficiencies Webfiles, State, District, School by Grade 2017"	January 2018
Connecticut	Connecticut State Department of Education	Download	http://edsight.ct.gov/SASPortal/main.do	Select "Smarter Balanced" under "Performance"	December 2017	**New York**	New York State Education Department	Download	https://data.nysed.gov/downloads.php	Select "3-8 Assessment Database"	September 2017
Delaware	Delaware Department of Education	Download	https://data.delaware.gov/Education/Student-Performance/a7g2-pjpe		November 2017	**North Carolina**	Public Schools of North Carolina	Download	http://www.ncpublicschools.org/src/researchers/	Select "Drilldown" under "Ready Accountability Tables"	December 2017

District of Columbia	District of Columbia Public Schools	Download	https://dcps.dc.gov/publication/dcps-data-set-parcc		August 2017	**North Dakota**	North Dakota Department of Public Instruction	Data request			September 2017
Florida	Florida Department of Education	Download	http://www.fldoe.org/accountability/data-sys/edw/	Select "Florida PK-20 Education Information Portal" on left sidebar" -> Select "PK-12 Public Schools"-> Select "English Language Arts" under "Assessments"-> Select "Build Your Own Table"	January 2018	**Ohio**	Ohio Department of Education	Download	http://reportcard.education.ohio.gov/Pages/Download-Data.aspx	Select year->select "School Building Data"-> select "Building Achievement Ratings"	December 2017
Georgia	The Governor's Office of Student Achievement	Download	https://gosa.georgia.gov/downloadable-data		December 2017	**Oklahoma**	Oklahoma State Department of Education	Download	http://sde.ok.gov/sde/accountability-resources	Under "Data"	August 2017
Hawaii	Hawaii State Department of Education	Download	http://www.hawaiipublicschools.org/VisionForSuccess/AdvancingEducation/StriveHIPerformanceSystem/Pages/2016-17-results.aspx		December 2017	**Oregon**	Oregon.gov	Download	http://www.oregon.gov/ode/educator-resources/assessment/Pages/Assessment-Group-Reports-for-2014-2015-and-2015-2016.aspx		September 2017
Idaho	Idaho State Department of Education	Download	http://sde.idaho.gov/communications/frequently-requested-data.html		August 2017	**Pennsylvania**	Pennsylvania Department of Education	Data request			January 2018
Illinois	Illinois State Board of Education	Download	https://www.isbe.net/Pages/Illinois-State-Report-Card-Data.aspx		February 2018	**Rhode Island**	Rhode Island Department of Education	Data request			January 2018
Indiana	Indiana Department of Education	Download	https://www.doe.in.gov/accountability/find-school-and-corporation-data-reports	select "2017 ISTEP+ School Results Grades 3-8"	January 2018	**South Carolina**	South Carolina Department of Education	Download	https://ed.sc.gov/data/test-scores/state-assessments/sc-ready/2017/	Select "SC READY 2017 Data File" under "2017" under "Data" on the right sidebar	October 2017
Iowa	Iowa Department of Education	Data request			August 2017	**South Dakota**	South Dakota Department of Education	Download	http://doe.sd.gov/reportcard/index.aspx	Select "English Language Arts 2015-16" under "Report Card Tables"	September 2017
Kansas	Kansas State Department of Education	Download	http://ksreportcard.ksde.org/assessment_results.aspx?org_no=State&rptType=3	Select "Download Full Results"	December 2017	**Tennessee**	Tennessee Department of Education	Download	https://www.tn.gov/education/data/data-downloads.html	Select "Base Accountability File Updated 12/13/16" under "State Assessments"	September 2017
Kentucky	Kentucky Department of Education	Download	http://applications.education.ky.gov/SRC/DataSets.aspx	Select "Grade" under "KPREP" under "Assessment"	September 2017	**Texas**	Texas Education Agency	Download	https://rptsvr1.tea.texas.gov/perfreport/tapr/2017/download/DownloadData.html		August 2017
Louisiana	Louisiana Department of Education	Download	https://www.louisianabelieves.com/resources/library/pk-8-performance	Select "Spring 2017 State-LEA-School LEAP Achievement Level Summary"	August 2017	**Utah**	Utah State Board of Education	Download	https://www.schools.utah.gov/data/reports	Under "SAGE Proficiency Rates"	September 2017
Maine	Maine Department of Education	Data request			September 2017	**Vermont**	State of Vermont Agency of Education	Data request			January 2018

Maryland	Maryland State Department of Education	Download	http://reportcard.msde.maryland.gov/downloadindex.aspx?K=99AAAA		August 2017	**Virginia**	Virginia Department of Education	Download	http://www.doe.virginia.gov/statistics_reports/school_report_card/index.shtml	Select "School Subject-Area"	December 2017
Massachusetts	Massachusetts Department of Elementary and Secondary Education	Download	http://profiles.doe.mass.edu/statereport/nextgenmcas.aspx		April 2018	**Washington**	State of Washington Office of Superintendent of Public Instruction	Download	http://reportcard.ospi.k12.wa.us/DataDownload.aspx	Select "AIM-EOC-MSP-SBA Assessments School (with suppression - new format)" under "AIM/EOC/MSP/SBA Data Downloads"	September 2017
Michigan	Michigan Department of Education	Download	https://www.mischooldata.org/DistrictSchoolProfiles2/EntitySummary/SchoolDataFile.aspx		September 2017	**West Virginia**	West Virginia Department of Education	Download	https://zoomwv.k12.wv.us/Dashboard/portalHome.jsp	Select "State Assessment Results" on top bar. Select "SY16-17 Assessment Proficiency & Subgroup Summary" under "Related Links"	December 2017
Minnesota	Minnesota Department of Education	Download	http://w20.education.state.mn.us/MDEAnalytics/DataTopic.jsp?TOPICID=1	Select "TAB" file	December 2017	**Wisconsin**	Wisconsin Department of Public Instruction	Download	https://dpi.wi.gov/wisedash/download-files/type?field_wisedash_upload_type_value=Forward&field_wisedash_data_view_value=Certified		September 2017
Mississippi	Mississippi Department of Education	Download	http://mdereports.mdek12.org/report1/r2016-17.aspx	Select "2017 Mississippi Academic Assessment Program (MAAP) Results"	September 2017	**Wyoming**	Wyoming Department of Education	Download	https://fusion.edu.wyoming.gov/MySites/Data_Reporting/data_reporting_assessment_reports.aspx	Select "Performance Level Results Grades 3-8 and 11 PAWS, ACT, and WY-ALT Disaggregated-School Level"	December 2017
Missouri	Missouri Department of Elementary & Secondary Education	Download	https://mcds.dese.mo.gov/quickfacts/Pages/State-Assessment.aspx/		September 2017						

Appendix J: Glossary of Terms

Definitions are presented here verbatim from their source.

Adjusted Cohort: The result of removing any allowable exclusions from a cohort (or subcohort). For the Fall Enrollment component, it is the cohort for calculating retention rate; for the Graduation Rates component, this is the cohort from which graduation and transfer-out rates are calculated; and for the Outcome Measures component, these are the four cohorts (first-time, full-time; first-time, part-time; non-first-time, full-time; or nonfirst-time, part-time) for which outcomes rates are calculated at 4, 6, and 8 years.[17]

Cohort: A specific group of students established for tracking purposes.[17]

Graduate rate: The four-year or extended-year adjusted cohort graduation rate as defined by 34 CFR 200.19(b)(1).[18]

Limited English Proficiency: An English language learner. A national-origin-minority student who is limited-English-proficient. Also referred to as ELL or EL.[19]

Local education agency: As defined in ESEA, a public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary schools or secondary schools in a city, county, township, school district, or other political subdivision of a State, or for a combination of school districts or counties that is recognized in a State as an administrative agency for its public elementary schools or secondary schools.[18]

Macro: a code for performing a specific task. In the case of the Dashboard, a macro is used to import different state-based education data files in SAS to create a unified dataset.

NCES School District ID: The 7 digit school identification number. The first 2 digits of the 7 digit school district ID identify the state and the last 5 identify the district ID. Put together, they make a 7 digit unique ID code for each school district.[20]

NCES School ID: The 5 digit school identification number. When combined with the NCES School District ID, the two codes comprise a unique 12 digit code for each school. The first 7 digits of the 12 digit school ID are the district ID, and the last five are the school ID.[20]

Other/Alternative Schools: A public elementary/secondary school that (1) addresses needs of students that typically cannot be met in a regular school, (2) provides nontraditional education, (3) serves as an adjunct to a regular school, or (4) falls outside the categories of regular, special education, or vocational education.[20]

Regular Schools: A public elementary/secondary school providing instruction and education services that does not focus primarily on special education, vocational/technical education, or alternative education, or on any of the particular themes associated with magnet/special program emphasis schools.[20]

Special Education Schools: A public elementary/secondary school that focuses primarily on special education—including instruction for any of the following students with: autism, deaf-blindness, developmental delay, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, serious emotional disturbance, specific learning disability, speech or language impairment, traumatic brain injury, visual impairment, and other health impairments—and that adapts curriculum, materials, or instruction for students served.[20]

Vocational Schools: A public elementary/secondary school that focuses primarily on providing formal preparation for semiskilled,
skilled, technical, or professional occupations for high school-age students who have opted to develop or expand their employment opportunities, often in lieu of preparing for college entry.[20]

Abbreviations

CDC Centers for Disease Control and Prevention
CRDC Civil Rights Data Collection
EDFacts U.S. Department of Education EDFacts
EL English Learners
ELL English Language Learners
LEA Local Education Agency
LEP Limited English Proficiency
NAEP National Assessment of Educational Progress
NCES National Center for Education Statistics
NCES EDGE National Center for Education Statistics Education Demographic and Geographic Estimates
NCES ELSI National Center for Education Statistics Elementary and Secondary Information System

Appendix K: Updates Summary

Technical Document Part 2: Education Data v2.0	July 2018	• Addition of Section 6: Comparison to EDFacts data (7/3/18)
Technical Document Part 1 v3.1	October 2018	• Absenteeism: Data source updated to 2015-16 from 2013-14 (10/29/18) • Life expectancy: Metric posted 10/2/18; minor revision to city values posted 10/29/18 • Uninsured: Data source changed to ACS from BRFSS-CDC 500 (10/29/18); revised strata • Violent crime: Updated to 2017 FBI UCR data (10/29/18) • Revised Technical Documentation (v3.0), downloadable data (v3.0) and codebook (v3.0) (10/29/18) • Minor typos corrected in Technical Documentation (v3.1) (10/31/18)
Technical Document Part 2: Education Data v3.0	June 5, 2019	• High school graduation: Methodology change. Updated to 2019 release estimates, removal of 2018 release estimates (05/20/19) • Revised Technical Documentation to include absenteeism (05/20/19)
Technical Document Part 2: Education Data v3.1	June 21, 2019	• Absenteeism: Metric definition language change to emphasis that estimates are city level and include all public school types. • High school graduation: Metric definition language change to emphasis that estimates are city level and include all public school types. • Third-grade reading proficiency: Metric definition language change to emphasis that estimates are city level and include all public school types.