



Direct Certification: Measuring Student Poverty

Direct certification (DC) is used to measure poverty levels of students in Georgia.

The DC rate for each district and school is calculated by dividing the number of directly certified students by the total school enrollment from the October Full-Time Equivalent (FTE) count.

Directly certified students include:

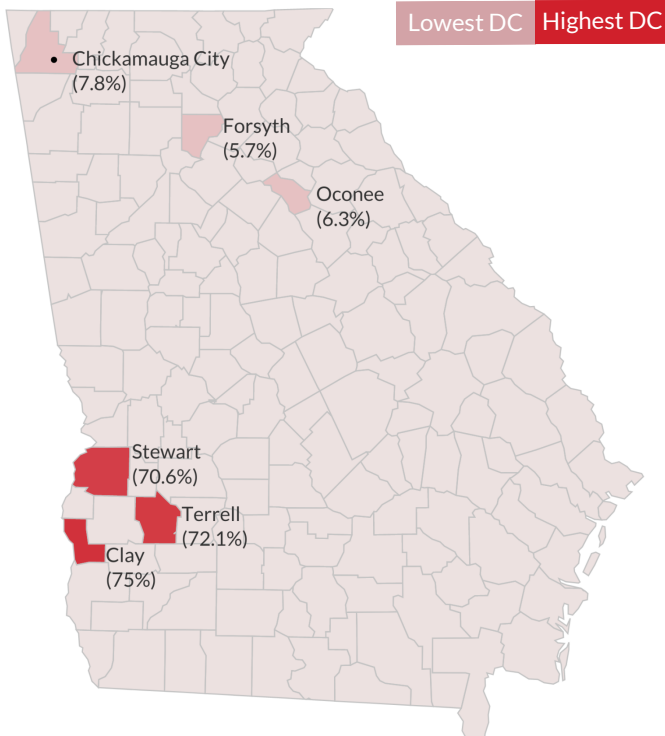
- Students living in a family unit receiving Supplemental Nutrition Assistance Program (SNAP) food stamp benefits,
- Students living in a family unit receiving Temporary Assistance for Needy Families (TANF) benefits, and
- Students identified as homeless, unaccompanied youth, foster or migrant.

School Year	Avg. DC% (District)	Avg. DC% (School)
2014-15	37.7%	35.3%
2015-16	39.0%	37.2%
2016-17	37.4%	35.3%
2017-18	38.0%	35.8%
2018-19	37.8%	35.5%
2019-20	36.3%	33.8%
2020-21	40.2%	38.3%
2021-22	33.3%	31.7%
2022-23	37.5%	35.7%

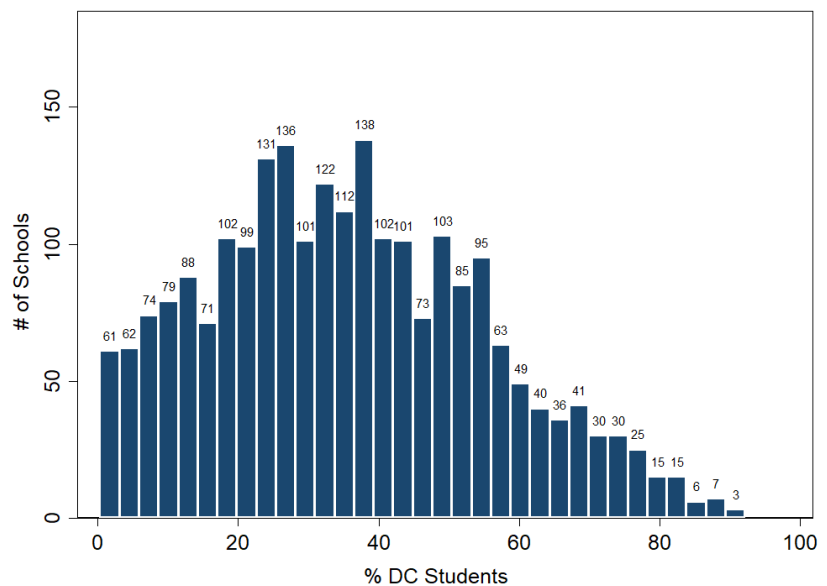
Volatility of Poverty Measures During COVID

The US experienced a record one-year decline in poverty in 2020 and 2021 due to strong public policy responses (eg. child tax credits). The poverty level rose again in 2022, as pandemic-era temporary assistance expired and prices increased due to inflation. These influences increase the number of people at risk of falling into poverty.

Highest & Lowest District DC Rates (2022-23)



Spread of DC Levels in Georgia Schools (2022-23)



Note: The value at the top of each bar represents the number of schools within the corresponding interval of directly certified students.

The graphic above indicates the percentage of DC students varies between schools, with the majority of Georgia schools serving between 20 to 60 percent of students classified as DC.

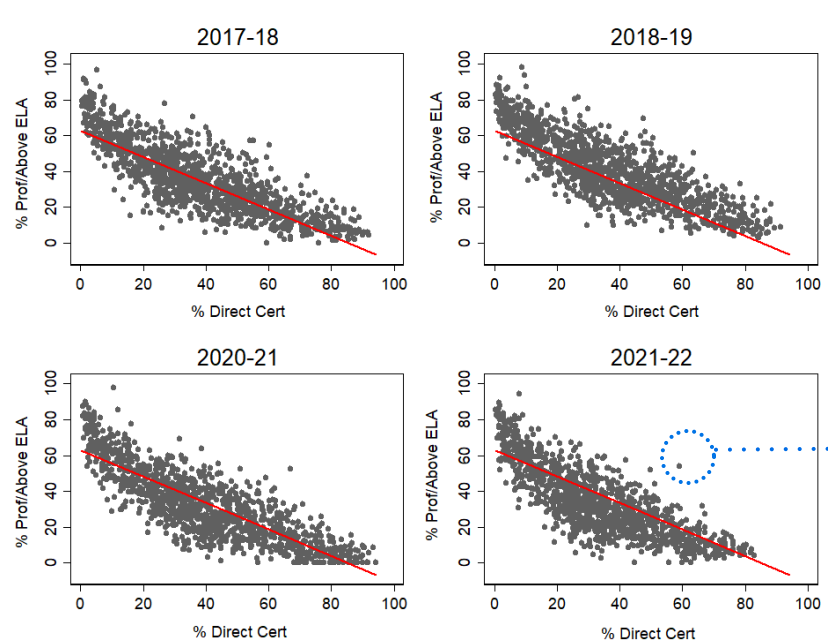


Correlation of Direct Certification & 3rd Grade ELA Milestone Proficiency

The scatter plots to the right show a statistically significant ($p < 0.001$) and negative relationship between schools' percentages of DC students, and schools' percentages of 3rd graders who score proficiently/above on ELA Milestones.

In other words, schools with higher populations of DC students tend to have lower ELA Milestone proficiency rates among its 3rd graders.

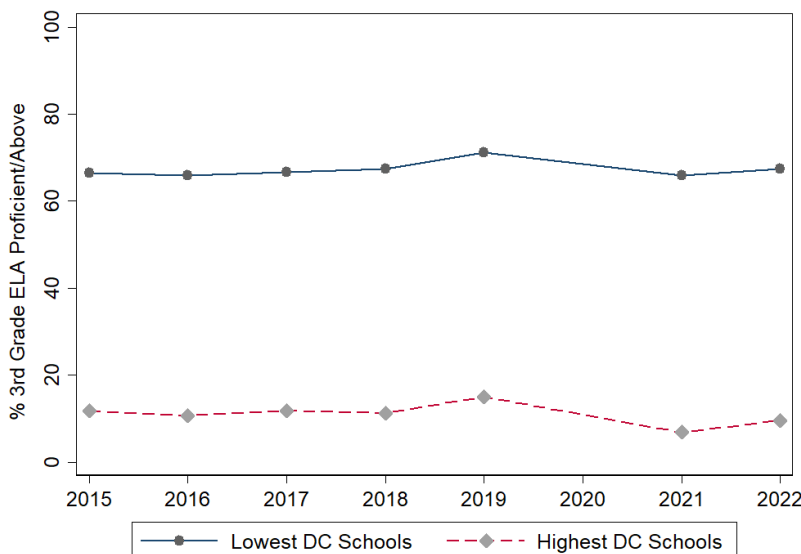
GOSA's model predicted that on average, a 10.0 percentage point increase in a school's DC population corresponded to a 8.2 percentage point decrease in that school's 3rd grade ELA Milestone proficiency in 2021-22.



Data Spotlight: Willacoochee Elementary School (Atkinson County)

Willacoochee Elementary School had a DC rate of 59.0% and a 3rd grade ELA proficiency rate of 54.0% during the 2021-2022 school year. Based on GOSA's estimation, schools with a DC rate of 59.0% would have a 3rd grade ELA proficiency rate of 13.0% on average. Willacoochee's 2021-22 ELA Milestone results represent an important bright spot in our state. Such data-driven analyses help uplift schools, policies, and practices that defy the odds to advance literacy attainment.

ELA Proficiency in Lowest and Highest DC Schools (2014-15 to 2021-22)



Note: Due to the COVID-19 pandemic, Milestones were not administered in 2019-20. Among all schools in Georgia, the lowest DC schools are defined as schools at/below the 10th percentile of percent DC students during that school year. The highest DC schools are defined as schools at/above the 90th percentile of percent DC students during the school year.

Poverty can play a tremendous role in students' academic achievement, especially literacy. The graph on the left shows a stark contrast in ELA proficiency among schools with the highest and lowest DC rates. Between 2015 to 2022, schools with the lowest DC rates have the highest 3rd grade ELA proficiency rates (above 60%). Alternatively, schools with the highest DC rates have proficiency rates consistently below 20%.

There are many reasons why the correlation between a school's DC rate and 3rd grade ELA proficiency rate is so strong. Empirical research has long established the link between poverty and literacy. Access to healthcare (e.g., vision and hearing), transportation, internet services, and quality reading materials at home are among the biggest barriers for students in poverty to be proficient in reading and literacy. This analysis highlights the need to devote attention and resources to schools with high DC rates in an effort to improve literacy among Georgia's students.



Correlation of Direct Certification & Teacher Sorting Characteristics

Avg. Student : Teacher Ratio (2021-22)



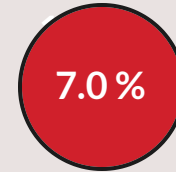
Highest DC
Schools



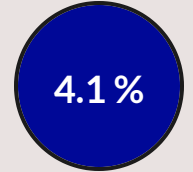
Lowest DC
Schools

Avg. 2021-22 Statistics	Highest DC Schools	Lowest DC Schools
# Students	430	1,031
# Teachers	34	66
# Admin.	2.6	3.6
% DC	66 %	4.8 %
# Schools	223	228

Avg. % New Teachers (2021-22)



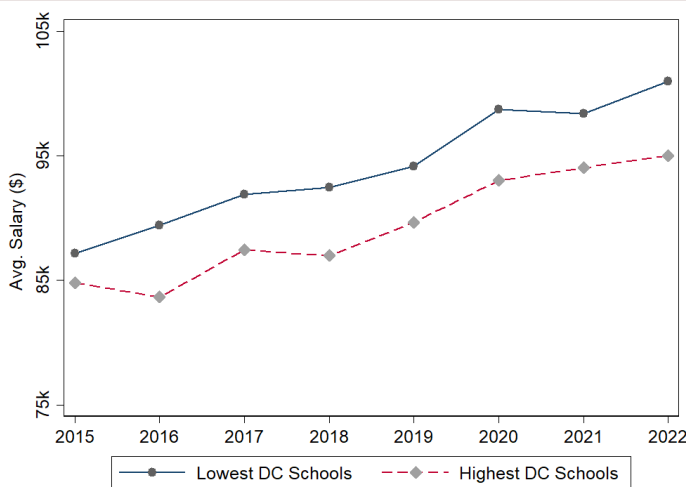
Highest DC
Schools



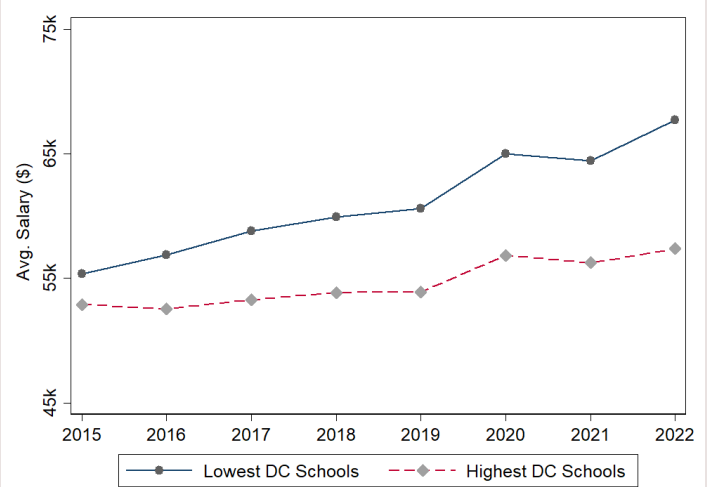
Lowest DC
Schools

Research suggests teacher characteristics vary among high and low poverty schools, leaving students from under-resourced families with less exposure to experienced and credentialed educators. GOSA found schools with the highest percentages of DC students had teachers with 4 years less experience on average than schools with the lowest percentages of DC students in 2021-22. On average, schools with the highest percentages of DC students also had fewer teachers with advanced degrees (17% less) than schools with the lowest percentages of DC students.

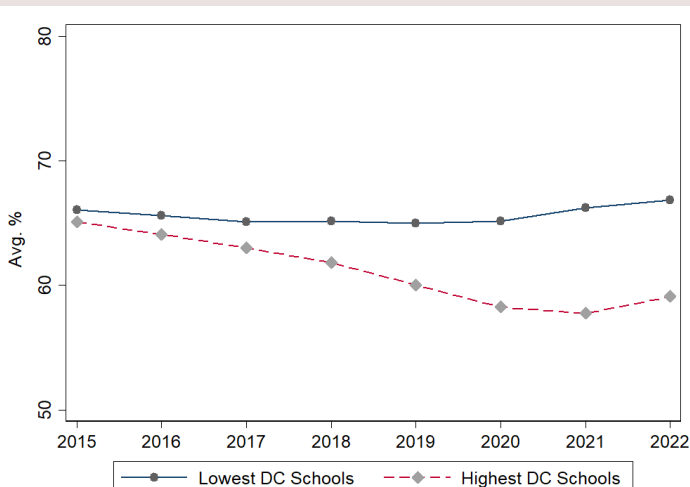
Avg. Salary (Administrators)



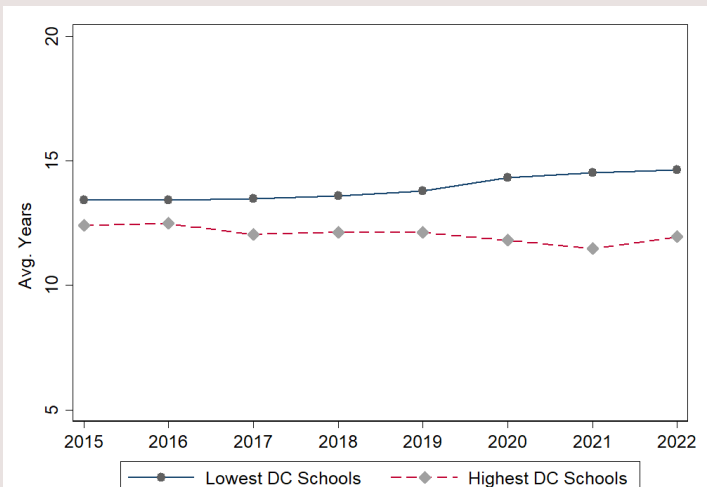
Avg. Salary (Teachers)



Avg. % Advanced Degrees (Teachers)



Avg. Years of Experience (Teachers)



Appendix: Data Source and Methodology

Memo: Direct Certification: Measuring Student Poverty

1. Table
 - a. Data Source: Direct Certification GOSA downloadable data (school and district) 2014-15 to 2022-23.
 - b. Notes: average of all districts' or schools' directly certified (DC) rates in that school year.
2. Visual: Highest & Lowest District DC Rates (2022-23) Map
 - a. Data Source: Direct Certification GOSA downloadable data (district) 2022-23.
3. Visual: Spread of DC Levels in Georgia Schools (2022-23)
 - a. Data Source: Direct Certification GOSA downloadable data (school) 2022-23.
 - b. Notes: The X axis represents values of DC rates in a school, and the Y axis represents the total number of schools with that DC rate. The number of schools is showing on top of each bar.

Memo: Correlation of Direct Certification & 3rd Grade ELA Milestone Proficiency

1. Visual: Scatterplots
 - a. Data Source: Direct Certification GOSA downloadable data (school) 2017-18, 2018-19, 2020-21, and 2021-22 and Georgia Milestones End-of Grade (EOG) Assessments 2017-18, 2018-19, 2020-21, and 2021-22.
 - a. Notes: The X axis represents schools' DC rates. The Y axis represents schools' percentage of 3rd grade students scoring proficient and above on EOG ELA tests of that year. The red lines represent linear regression results when predicting schools' 3rd grade ELA proficiency rate from its DC rate. The relationship is statistically significant and negative across years, $p < .05$.
2. Visual: ELA Proficiency in Lowest and Highest DC Schools (2014-15 to 2021-22)
 - a. Data Source: Direct Certification GOSA downloadable data (school) 2014-15 to 2018-19 and 2020-21 to 2021-22 and Georgia Milestones End-of Grade (EOG) Assessments (schools) 2014-15 to 2018-19 and 2020-21 to 2021-22.
 - b. Notes: Lowest DC schools are defined as schools at/below the 10th percentile of percent DC students during that school year. Highest DC schools are defined as schools at/above the 90th percentile of percent DC students during the school year. The X axis represents school years. The Y axis represents the average proficiency rates among the schools in each category (lowest and highest DC rates) on 3rd grade ELA assessments.

Memo: Correlation of Direct Certification & Teacher Sorting Characteristics

1. Visual & Table: Avg. Student Teacher Ratio (2021-22), Table, & Avg. % New Teachers (2021-22)
 - a. Data Source: Direct Certification GOSA downloadable data (school) 2021-22 and Certified Personnel GOSA downloadable data (school) 2021-22.
 - b. Notes: Lowest DC schools are defined as schools at/below the 10th percentile of percent DC students during that school year. Highest DC schools are defined as schools at/above the 90th percentile of percent DC students during the school year. Avg. student teacher ratio is calculated by number of K-12 students in the school divided by number of full-time equivalent teachers. Avg. % new teachers is calculated by the number of teachers with less than 1 year of experience (including full-time and part-time) divided by total number of full-time and part-time teachers in the school.
2. Visual: Avg. Salary (Administrators), Avg. Salar (Teachers), Avg. % Advanced Degrees (Teachers), & Avg. Years of Experience (Teachers)
 - a. Data Source: Direct Certification GOSA downloadable data (school) 2014-15 to 2021-22 and Certified Personnel GOSA downloadable data (school) 2014-15 to 2021-22.
 - b. Notes: Lowest DC schools are defined as schools at/below the 10th percentile of percent DC students during that school year. Highest DC schools are defined as schools at/above the 90th percentile of percent DC students during the school year. The Y axis indicates the average of schools' administrator salary, teacher salary, percentage of teachers with advanced degrees (i.e., degrees higher than Bachelor's), and teacher years of experience.

Residential treatment centers (RTC) were excluded from the analyses in all three memos.