

EXECUTIVE SUMMARY

January 2019

How Zip Code Matters: Spatial Analysis of Ohio Learning Standards Opportunity Gaps in Cuyahoga County

On September 15, 2016, the Ohio Education Department (OED) released the first report cards based on Ohio Learning Standards (OLS) revisions developed in collaboration with the American Institutes for Research (AIR). Fallouts were seismic in their impact on districts, schools and classrooms. In comparison to the previous year, proportion of Ohio school districts receiving grades “A” to “C” declined considerably. Officials quickly responded, noting that, rather than being indicative of a decline in academic performance, the lower report card grades reflected higher standards against which school district performance was assessed. In other words, the OLS effectively created “a new baseline of student learning.” Due to the controversies surrounding report card grades, a crucial aspect of educational attainment has been overlooked—that pertaining to school zip code inequality. This issue was aptly surmised in an article published in 2017 in the *Harvard Journal of Legislation* by Congresswoman Marcia L. Fudge, representing the Eleventh District, which includes Cleveland and the eastern inner-ring suburban areas of Cuyahoga County:

Time and time again we are reminded the key to success in America is directly related to a person’s access to quality education. This idea conspicuously overlooks the most significant problem currently facing America’s children: the unfortunate truth that one’s zip code, and directly related socioeconomic status, is a significant determinant of school and education quality.¹

This ongoing issue was the primary motivation behind the present study. The aim of which is to establish whether children face different barriers and have unequal access to learning opportunities due solely to their school’s zip code. The specific research question driving this investigation was thus: “To what extent, if any, are persistent Ohio Learning Standards gaps attributable to differences within zip codes for the largest county in Ohio (i.e., Cuyahoga County)?”

DATA

The National Urban Research Group (NURG) aggregated data from two sources. The 2016-17 school year Ohio New Learning assessments were obtained from the Ohio Department of Education website. The second data source was gathered from the Economic Innovation Group (EIG) interactive mapping tool ranking the economic conditions in 25,000 zip codes across the United States. Individual zip code locations of every public school in Cuyahoga County was then merged to its corresponding EIG



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distressed score. Throughout this report, cross-sectional descriptive and zip code-level spatial analysis compares Ohio Learning Standards gaps (OLS gaps), defined as the differences in proficiency rates between distress and prosperous zip codes on the more rigorous OLS benchmark assessments.

MAIN RESULTS

Cuyahoga County is a divided region educationally, with students attending schools in Cleveland and the county’s inner ring urban core much less likely to attend a good or outstanding school than their peers in prosperous zip codes. It is also evident from our findings that opportunities for implementing the Ohio Learning Standards (OLS) and the benefits this yields for the students are far from equally distributed. In the 2016-2017 school year, four of Ohio’s eleven highest-performing school districts were located in Cuyahoga County. Solon recorded the highest score in the state, followed by Rocky River in the 2nd place, Beachwood (ranked 7th), and Brecksville-Broadview Heights (ranked 11th). However, based on these same OLS assessments, the Cleveland Metropolitan School District received an “F” grade, as did East Cleveland, Euclid, Garfield Heights, Maple Heights, Richmond Heights, and Warrensville Heights school districts. The greatest OLS opportunity gap is noted between the Cleveland Metropolitan and Solon School Districts, it stood at 69.2 percentage points. Students in the Solon School District also scored 65.5 and 66.7 percentage points higher than their peers from East Cleveland and Warrensville Heights, respectively. Similar OLS gaps are evident in districts and individual schools throughout Cuyahoga County.

	Proficient	Accelerated	Advanced	Advanced +	Proficient and Above
Solon	13.1	24.3	53.8	4.5	94.8
Cleveland	16.3	6.4	2.6	0.01	25.6
Gap	-3.2	17.9	51.2	4.5	69.2
Solon	13.1	24.3	53.8	4.5	94.8
East Cleveland	19.0	7.0	2.1	0	29.3
Gap	-5.9	17.3	51.7	4.5	65.5
Solon	13.1	24.3	53.8	4.5	94.8
Warrensville Heights	19.7	6.3	1.9	0	28.1
Gap	-6.6	18.0	51.9	4.5	66.7

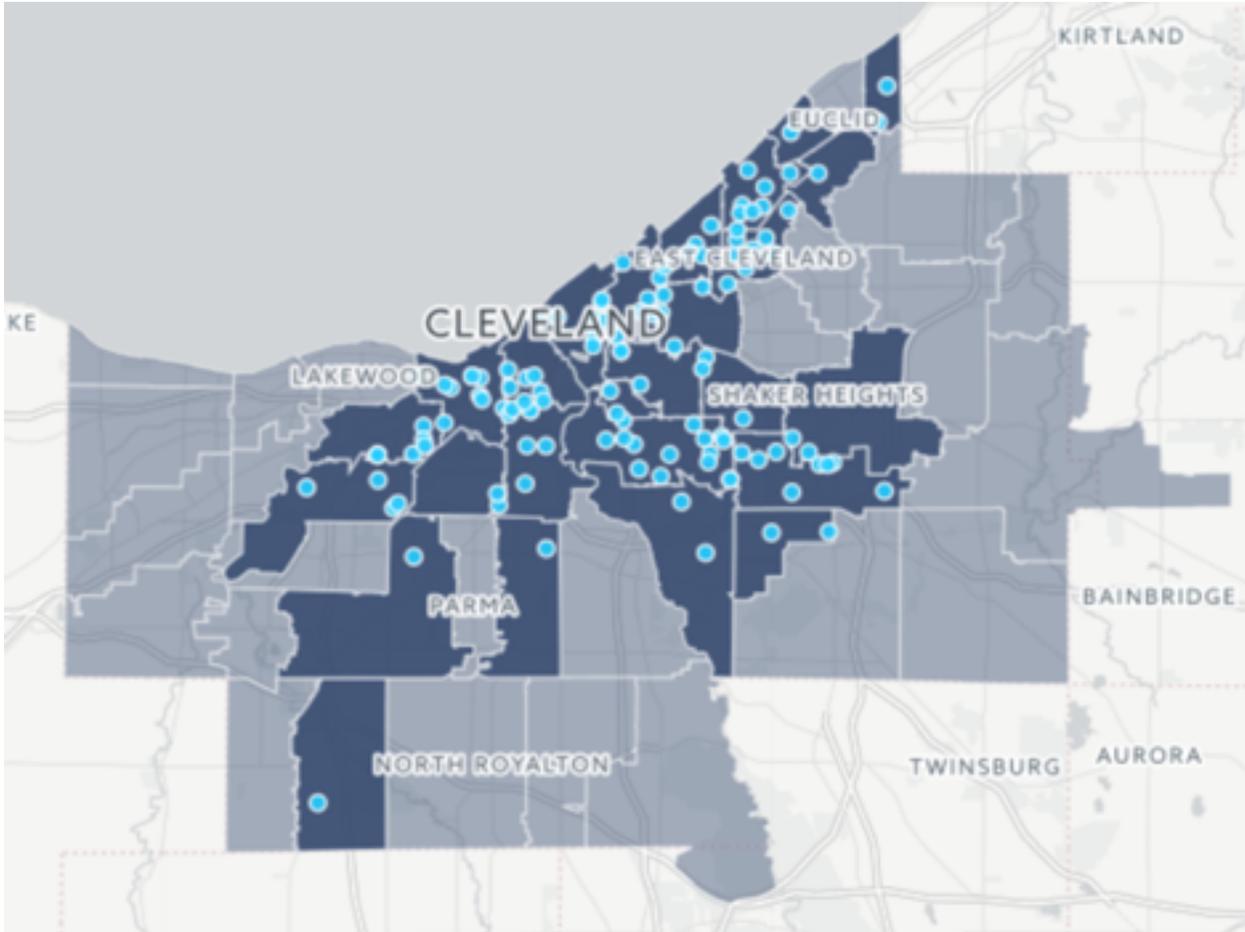
Results clearly demonstrate how zip code matters. Students performing at the Basic Level can only demonstrate *partial command* of OLS subject content for their grade. Limited Level, the lowest rating on the proficiency continuum, is awarded to students that demonstrate a *minimal command* of subject content for their grade level. It is demoralizing that 79.4 percent of students attending schools in distressed zip codes tested at these bottom levels, compared to only 15.3 percent in prosperous zip codes.

Students attending schools in prosperous zip codes scored roughly 40 percentage points higher than the Cuyahoga County average OLS proficiency rate of 49.4 percent.

2016	Cuyahoga County	Prosperous Zip Code	Average Zip Code	Distressed Zip Code
Limited	34.7	8.7	27.0	52.4
Basic	19.1	10.8	20.0	21.4
Proficient	18.6	21.0	21.8	14.5
Accelerated	13.4	24.0	15.9	6.7
Advanced	13.7	34.9	14.8	4.4
Proficient and Above	45.8	80.0	52.6	25.8
2017				
Limited	30.0	5.8	23.2	45.7
Basic	19.9	9.5	20.0	23.7
Proficient	20.5	21.7	23.5	17.1
Accelerated	15.2	26.9	18.1	8.1
Advanced	13.4	35.7	14.2	4.4
Proficient and Above	49.4	84.3	56.2	29.7

- The mean proficiency rate in zip codes 44139 (Solon), 44116 (Rocky River), 44141 (Brecksville), 44140 (Bay Village), and 44022 (Chagrin Falls) was over 89 percent.
- Conversely, on the identical Ohio Learning Standards assessments, the mean proficiency rate in zip codes 44127 (North Broadway), 44103 (St. Clair/Superior/Hough), 44110 (East Cleveland), 44105 (Slavic Village/Union-Miles), and 44108 (Glenville) was below 25 percent.
- It is particularly alarming that 49.2 percent of students in Cleveland tested at the OLS Limited Level. In East Cleveland, Maple Heights, and Warrensville Heights, over 40 percent of students recorded scores at this lowest level on the proficiency continuum.

Illustration of this spatial inequality is provided throughout this report, for example, the high performing schools, *where over 80 percent of students tested at Proficient Level or above*, are distributed across several outer-bound prosperous zip codes throughout Cuyahoga County. Whereas the lowest performing schools, *where less than 20 percent of students tested at or above Proficient Level*, are concentrated within zip codes of Cleveland and its inner-suburban ring.



Map: Schools with Proficiency Rates below 20 percent

As results indicate, the OLS instruction provided to students in Cuyahoga County's 50 bottom ranked schools, all located within distressed zip codes, is so wholly inadequate that eighth percent or more of the students are unable to meet mandated state proficiency standards. In fact, 33 of these lowest performing schools (66 percent) have less than 15 percent of students testing at proficient or above on OLS assessments.

ENGLISH LANGUAGE ARTS

English Language Arts and Mathematics assessments results, at each grade level, reveal similar learning opportunity gaps. Specifically, in prosperous and distressed zip codes, third graders respectively achieved 86.3 and 35.4 percent proficiency rates, revealing a 50.9 ELA percentage point difference. Because literacy development is cumulative and sequentially dependent, students who have been denied the opportunity to learn early in life fall further behind their more successful peers with each year of schooling. By eighth grade, the difference remains relatively stable at 52.9, but the overall achievement continues to decline (71.1 vs. 18.2 percent). In High School English I and II, students attending schools in prosperous zip codes outperformed their peers in distressed zip code by roughly 45 percentage points.

	Cuyahoga County	Prosperous Zip Code	Average Zip Code	Distressed Zip Code
Grade 3	51.3	86.3	61.0	35.4
Grade 4	46.2	84.8	56.8	30.2
Grade 5	46.9	86.1	57.5	33.2
Grade 6	36.7	81.1	47.8	25.8
Grade 7	34.6	76.0	44.9	23.6
Grade 8	28.1	71.1	35.2	18.2
HS English I	50.3	78.2	56.0	34.5
HS English II	43.6	74.4	47.8	28.8

MATH

The introduction of rigorous OLS standards requires all students to demonstrate mastery of math skills, not just those aspiring toward careers in science, technology, engineering, and mathematics (STEM). Grade 3 students in prosperous zip codes have math proficiency rates over 50 percentage points higher than their peers that attend school in distressed zip codes. At each elementary grade level, this OLS math gap widens even further. In distressed zip codes, more than half of sixth, seventh, and eighth grade classrooms had less than 20 percent of students testing proficient or above. OLS also effectively repositioned Algebra I as an introductory high school math course. The vast majority of school located in distressed zip code had Algebra 1 and Geometry proficiency rates of less than 20 percent. In fact, 20 high schools located in Cleveland and its inner-ring zip codes had Algebra 1 proficient rates lower than 10 percent. Likewise, 28 high schools in these zip codes recoded Geometry proficiency rates of less than 10 percent.

Observed OLS gaps confirm that the conditions in schools located in distressed zip codes are antithetical to OLS learning. This abysmal 2016-1017 testing data reflects a regional system of

	Cuyahoga County	Prosperous Zip Code	Average Zip Code	Distressed Zip Code
Grade 3	55.8	90.7	65.2	39.8
Grade 4	52.7	91.9	66.0	33.4
Grade 5	36.0	84.7	45.0	22.0
Grade 6	35.3	82.2	49.2	21.6
Grade 7	33.9	73.4	45.2	22.0
Grade 8	34.4	84.9	39.2	24.7
Algebra I	47.3	76.6	51.5	24.2
Geometry	43.2	76.2	48.7	14.5

education that has functionally excluded and effectively denied the learning opportunity for students attending schools in distressed zip codes. Consequently, it can be surmised that students attending schools in Cuyahoga County’s most distressed neighborhoods are in fact receiving their education in “Ohio Learning Standards deserts” – designation given to zip code clusters marked by large OLS gaps. Faced with this certainty, the challenge before us now is implementing OLS with fidelity in each zip code, school district, and school building, and across all grade levels. Unless these actions are taken, the Cuyahoga County two-tier educational system will undoubtedly continue to impede the academic potential for tens of thousands of its most vulnerable children in the years ahead.

The full report of this study can be found at nurg.org

¹ Representative Marcia L. Fudge, Policy Essay, “Reinvesting in Public Education, A Cornerstone for America’s Success,” *Harvard Journal of Legislation*, vol. 54, May 2017, p. 1, available at <http://harvardjol.com/wp-content/uploads/2017/05/HLL202.pdf>.