



# Strengthening Partnerships Between Durham Schools and Local Universities



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## Background

We are a joint Duke/NCCU effort to support local school communities in the Durham Public School (DPS) system by analyzing and visualizing data from Durham Public Schools, as well as the city of Durham, using an asset-based approach

## Methodology

- Data Collection using data mining and web scraping
- Visualize Data through geojson files, plots, and tables
- Develop and deploy an interactive R-shiny dashboard

## Future Work

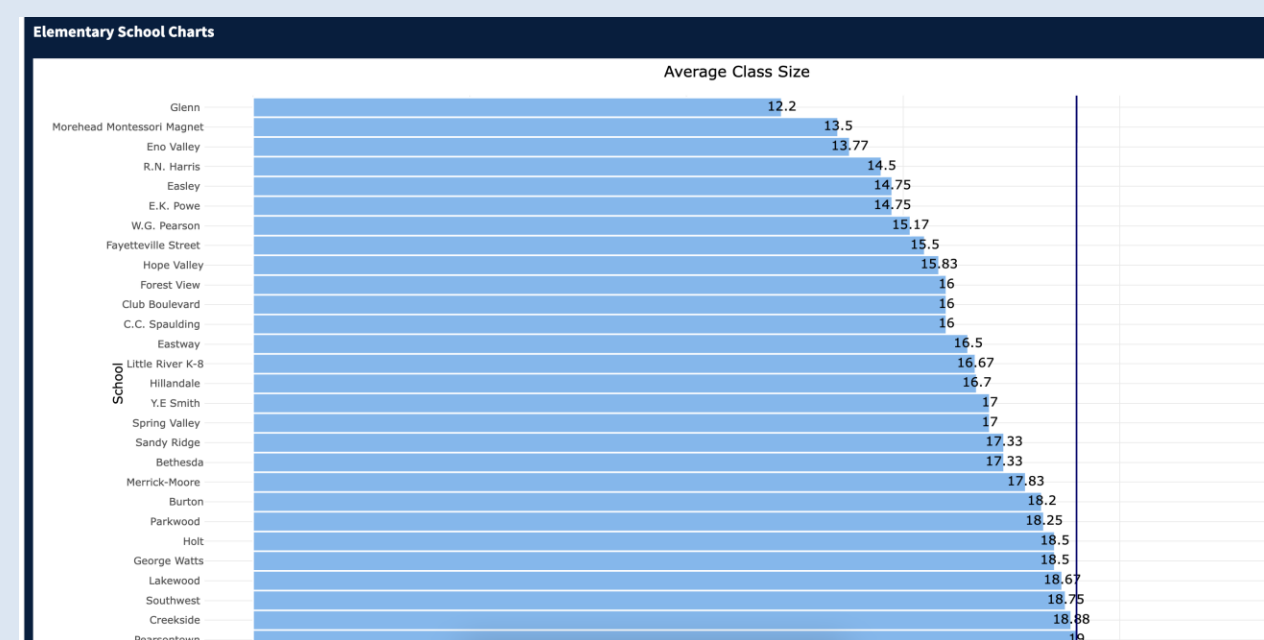
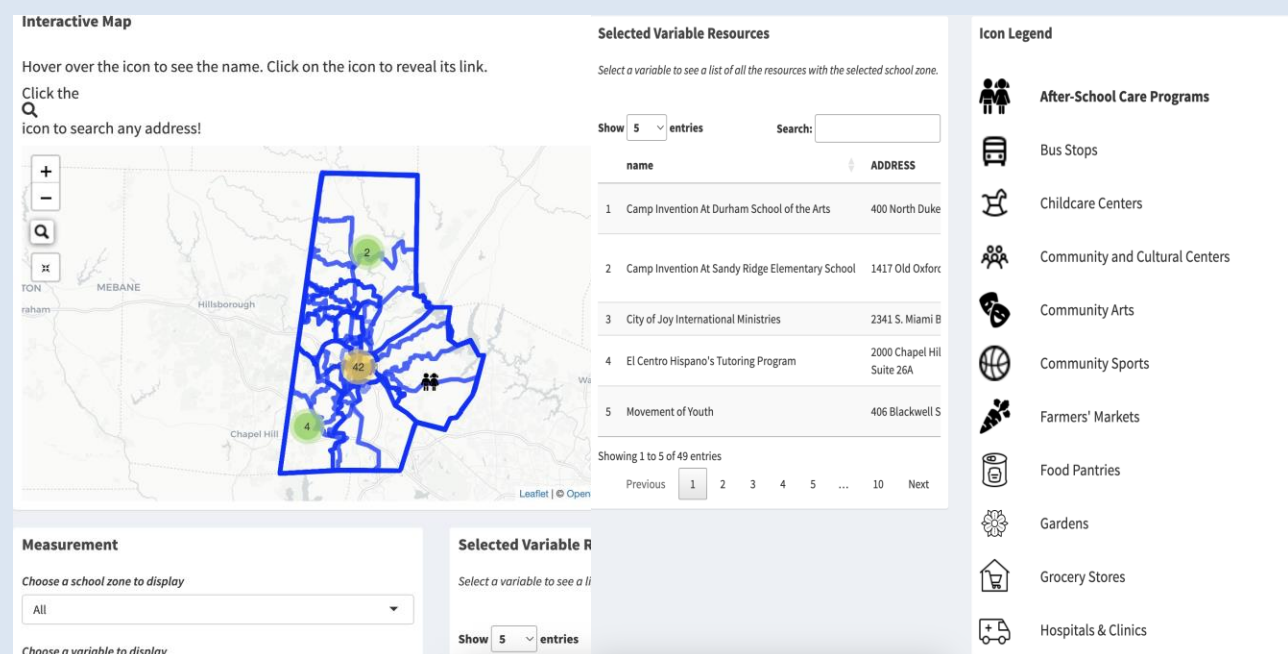
- Create a base template for data dashboards to be used by community schools in different neighborhoods.
- Incorporate community-sourced changes and feedback

## Check It Out



Durham University- Durham  
Assisted Community Schools Research Foundation  
Public School Collective

## Dashboard



### Ciencia de la Salud

- AP Historia de Europa
- AP Geografía humana
- AP Gobierno y política
- AP Historia de los Estados Unidos
- AP Comparado Gobierno y Política

Choose a school to view the CTE Courses available.

Hillside High

### Agricultural Education

Financial Planning  
NAF Academy of Finance

### Cursos AP de ingeniería

- AP Ciencias de la computación
- AP Principios de Ciencias de la computación
- AP Física C: Electricidad y Magnetismo
- AP Física C: Mecánica

### Family and Consumer Sciences Education

Early Childhood Development & Services  
Interior Design

1	Duke	Girls Exploring Math	https://sites.duke.edu/gemproject/	Math
2	Duke	Duke Scripps Spelling Bee	https://community.duke.edu/program/duke-regional-spelling-bee/	English
3	Duke	Mary Ann Black Summer Internship Program	https://community.duke.edu/program/duke-internships/	Healthcare, Internships
4	Duke	John Hope Franklin Young Scholars	https://community.duke.edu/program/john-hope-franklin-scholars/	History
5	Duke	School Days	https://community.duke.edu/program/school-days/	Academics
6	Duke	PepsiCo Educational Technology	https://community.duke.edu/program/pepsico-k-12-technology-mentor-program/	Academics
7	Duke	America Reads/America Counts	https://sites.duke.edu/iraac/partner-resources/request-tutors/	Tutoring
8	Duke	Duke Homebuyers Club	https://community.duke.edu/program/duke-homebuyers-club/	Real Estate

## Progress

### FULL SCHOOL COVERAGE

- Incorporated all schools in Durham County with a physical footprint
- Created and cleaned a new dataset containing many details on the demographics and performance of each school

### TRIPLED DATASET

- Information on over 17 geospatial variables
- Graduation Rate, Wi-Fi Access, and Funding per student.
- Some community statistics: Median Home Sale Price, Diversity percentage breakdown etc.
- Analyzed data in a geospatial context, identifying patterns.

### OVERHAULED AP COURSES/SPORTS

- Adding the remaining high schools to the list
- Restructured the sports section: men's and women's sports on Varsity, JV, and Club levels were integrated.

### IMPROVED ACCESSIBILITY

- Added full Spanish translations to all parts of the dashboard for better accessibility
- New tab with feedback form, enabling both current and future Data+ teams to address user needs effectively

### CONNECTOR ROLES

- New Page that helps DPS communities facilitate connections between Duke and NCCU faculty-led programs
- The page categorizes initiatives around three pillars: teaching and learning; research; and service