

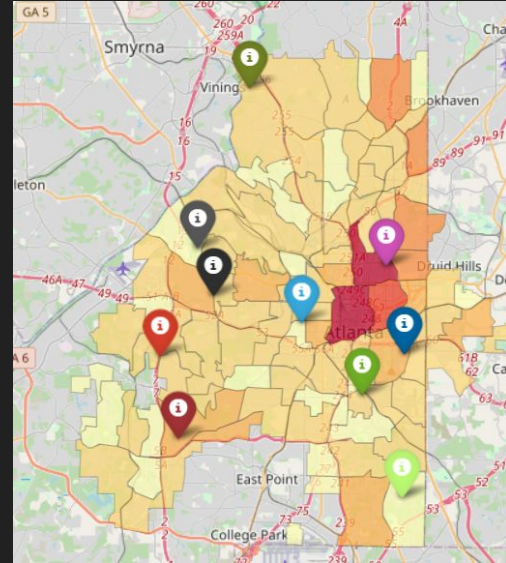
Overpopulation in Atlanta Public Schools

Current Public Schools

- Currently 10 distinct public high schools in the city of Atlanta representing 102 neighborhoods and over 400,000 people (as of the 2010 census)
- Schools and populations are not evenly distributed across the city, which may lead to undue burden to certain schools
- The opening of a new school could potentially relieve this burden if placed in the right area

Data

- List of public high schools retrieved from Wikipedia and addresses from school websites.
- Atlanta population data: 2010 census data
 - <https://www.arcgis.com/home/webmap/viewer.html?webmap=0c204a9dc0324dfab11de90ec755791c>
- Data split into different neighborhoods
- Cleaned into useful format that only looks at neighborhood population.



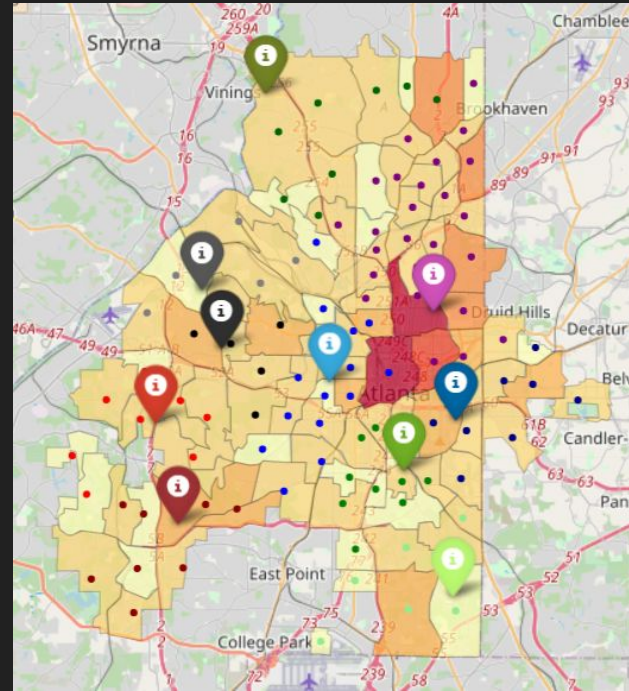
Purpose and Assumptions

- Analyze data on populations and schools to find a location to open a new public high school.
- Assume that neighborhood population is evenly distributed and that portion of neighborhood population that is of high school age is approximately equal.

Initial Clustering

- Clustered neighborhoods to individual schools based on proximity
- Populations represented by each school highly variable and inequal.

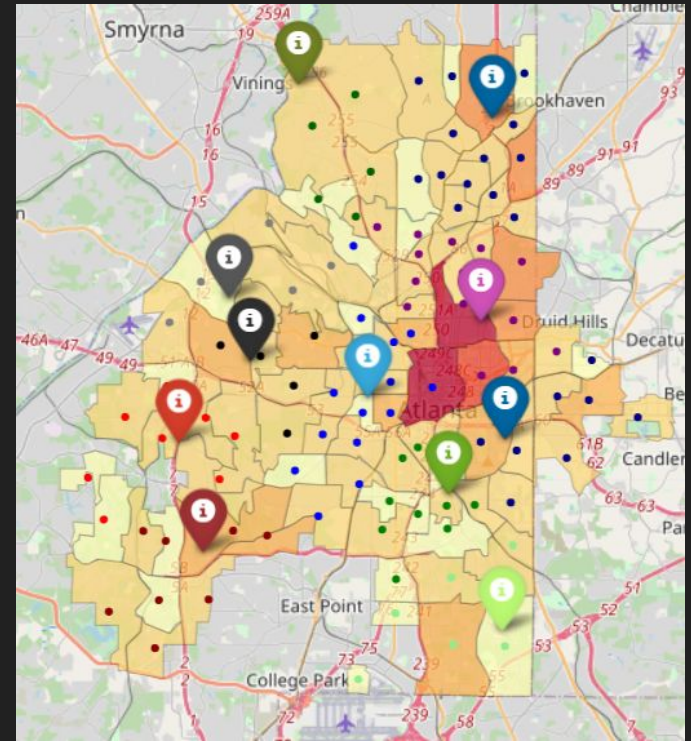
	Assigned School	Pop
	Benjamin Elijah Hays High School	27831.0
	Booker T. Washington High School	65969.0
	Carver High School	35005.0
	Coretta Scott King Young Women's Leadership Academy	20479.0
	Daniel McLaughlin Therrell High School	31189.0
	Frederick Douglass High School	20451.0
	Henry W. Grady High School	127585.0
	Maynard H. Jackson High School	39539.0
	North Atlanta High School	31203.0
	South Atlanta High school	20752.0



Addition of New School

- Used modified K Means clustering to find the location of a new school that would reduce the burden on Henry W. Grady

	Pop
Assigned School	
Benjamin Elijah Hays High School	27831.0
Booker T. Washington High School	65969.0
Carver High School	35005.0
Coretta Scott King Young Women's Leadership Academy	20479.0
Daniel McLaughlin Therrell High School	31189.0
Frederick Douglass High School	20451.0
Henry W. Grady High School	84131.0
Maynard H. Jackson High School	39539.0
North Atlanta High School	17356.0
Proposed Location	57301.0
South Atlanta High school	20752.0



Conclusions

- Proposed location was found.
 - At or around 3596 North Stratford Road Northeast, Buckhead, Atlanta
- Other factors should be considered
 - Schools outside and near city limits, actual high school age demographics, changes in populations since 2010, private school locations, etc.
- Overall reduction of overpopulation at Henry W. Grady by $\frac{1}{3}$.