Public Education Funding: Is There a Solution?
Case Study of Stark County, Ohio

Abstract
Public school funding in the State of Ohio has been an established problem since 1991 when the district court case of DeRolph v. State of Ohio when the State of Ohio was sued for failing "to provide an 'efficient' educational system." due to funding inequality and discrepancies. Ohio school districts contend that the heavy reliance of property taxes to fund the schools is the sole cause of the lack of educational funding. The problematic funding schema can be observed in Stark County, Ohio. From 1927 to 1950, the county’s school district boundaries evolved to reflect the county’s growing urban nature. Over sixty years later, how is public school funding affected by the static nature of district boundaries? To investigate public school funding, we will investigate wealth distribution and school district populations to assess whether or not Stark County presents and equitable distribution of funds to the school districts. However, in the end, is there a clear solution. Additionally, the data presented demonstrates the ever present complicated situation of school funding, as still nothing has changed since DeRolph v. State of Ohio.

Methods
The variables used to analyze Stark County’s public school education system consist of households paying property taxes, students enrolled in the public school system (kindergarten – 12th grade), and tax brackets, and academic buildings. Property taxes from each school district within the county only affect their respective county. Therefore, it was necessary to evaluate property taxes and households at the district scale. U.S. Census 2012 tax bracket extremes and student enrollment was used to indicate the extent of funding inequity amongst the districts. A vulnerability analysis was conducted. Households paying over $1,500 in taxes, student enrollment, and number of public education facilities were combined to identify areas likely to be at risk for disproportionate funding. This analysis aims to show how districts with low tax funding, high student enrollment, and many educational facilities are unequally funded compared districts with similar tax funding but lower student enrollment and fewer facilities.

Analysis
Interestingly, the lower property tax bracket of households paying under $800 is not an indicator of unequal school funding. Most of the smallest school systems are receiving substantial funding due to having a high percentage of their population paying large property taxes. The vulnerability analysis is a clear indicator of the disparities between districts. Canton City and Plain school districts are clearly not receiving equitable funding in comparison to the other districts. Additionally, they reside next to districts at the lowest risk for unequal funding distribution. Students attending Canton City Schools or Plain Schools likely suffer from this lack of financial resources and overpopulation, resulting in an impact on their quality of education. Remarkably, the vulnerability analysis demonstrates that while a district may not collect high taxes, its small student population and lack of academic buildings appear to even out the difference in funding. However, it can be assumed from the tax data that the school districts still are not equally funded. It is evidenced that solely altering funding distribution will not solve the education system problems. Student population is equally important in finding a solution to the issue at hand. The data indicates that public education funding within school districts is multifactorial and cannot simply be blamed on wealth disparities. While the present system of educational funding is not effective, school district boundaries must be changed.

Next Steps
Given the multi-factorial character of education system funding, a tangible solution is difficult to decipher and therefore a policy-based solution should be offered. Other factors to investigate in a further analysis may include investigating urban and rural distributions and poverty rates. These factors not only affect property taxes, but also school populations.

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Projection: GCS_North_American_1983
Sources: US Census Bureau, Stark County GIS, Ohio Department of Education, and American Fact Finder, and Education Law Center