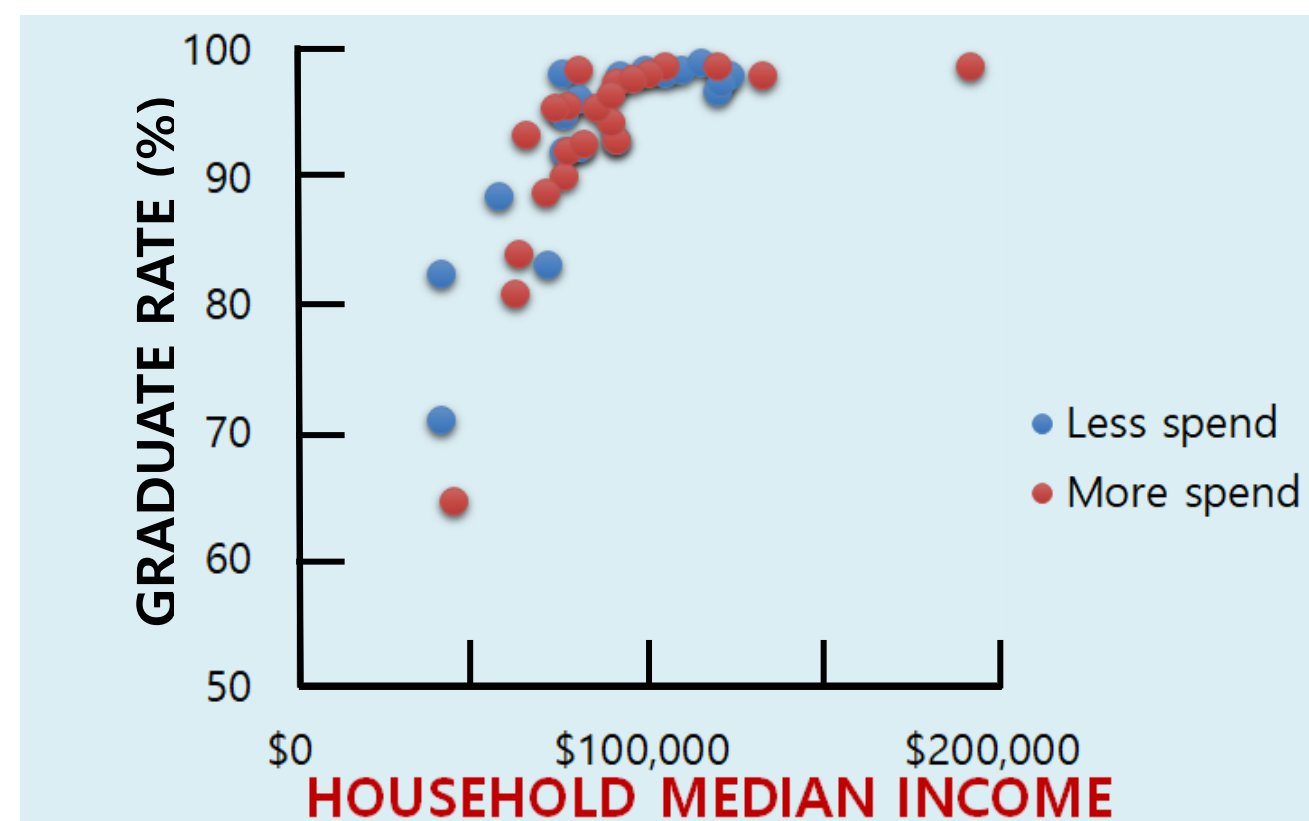


# Connecticut's Wealth Disparity: The Correlation Between Student Expenses and Performance

## Introduction

Connecticut has been well publicized for its economic struggles and has routinely reported as one of the top states for economic inequality. Despite this, the state continues to be documented as spending well above the national average on individual students, which is about \$15,908 per student, compared to Connecticut's \$20,635. In an article written by Elizabeth A. Harris and Kristin Hussey, it was found that two neighboring districts, both of which spent over the national average and were only \$2,000 apart, had a drastically different quality of education. Though we are aware that different expenditure per student has significantly education quality, we felt skeptical if these changes were applied in other districts, or would depend on other factor such as "household income". In this study, we decided to perform education quality of schools among the districts in CT and hypothesized that higher-spending schools result in more positive outcomes in education compared to lower spending schools.

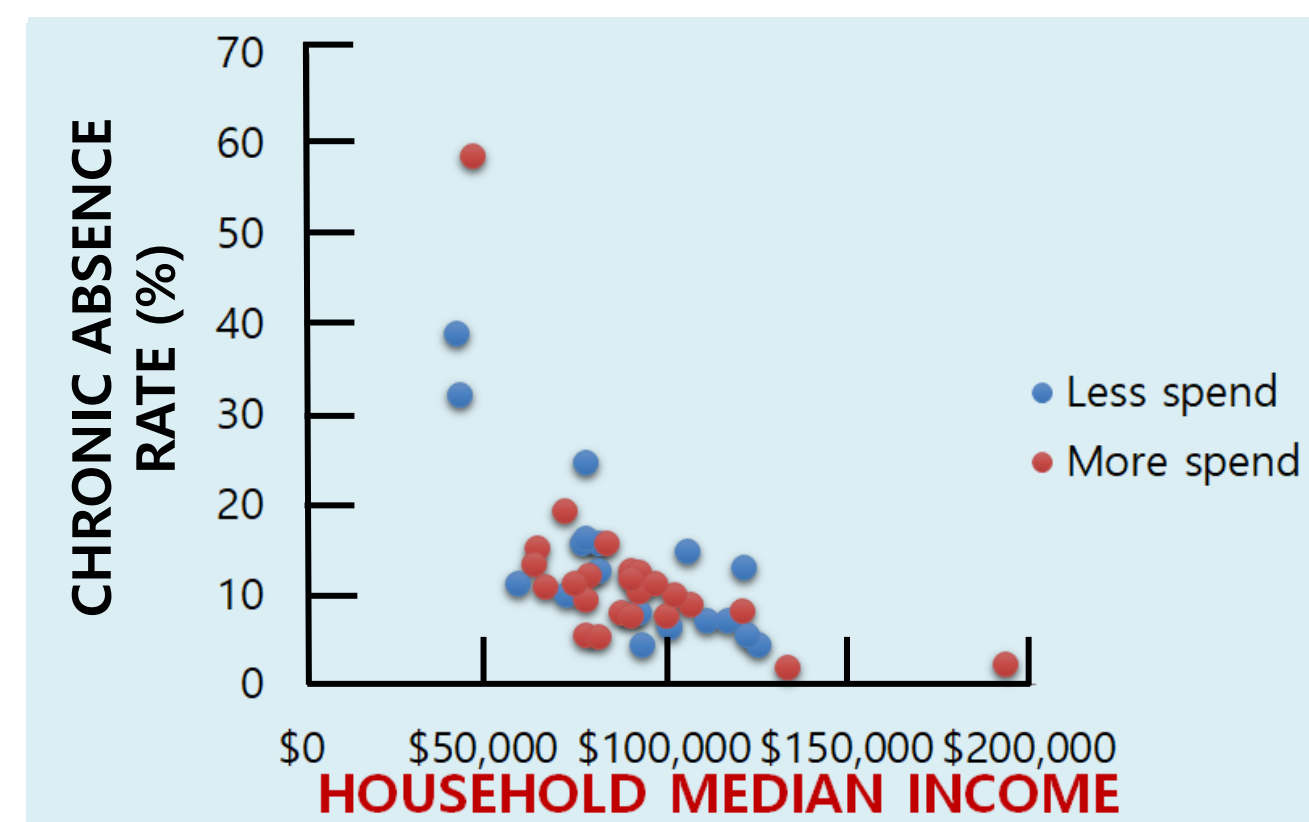
## Research I



I. The Correlation Between Household Income and the Graduation Rates of Students in CT



II. The Correlation Between Household Income and the College Enrollment Rates of Students in CT



III. The Correlation Between Household Income and the Chronic Absence Rate of Students in CT



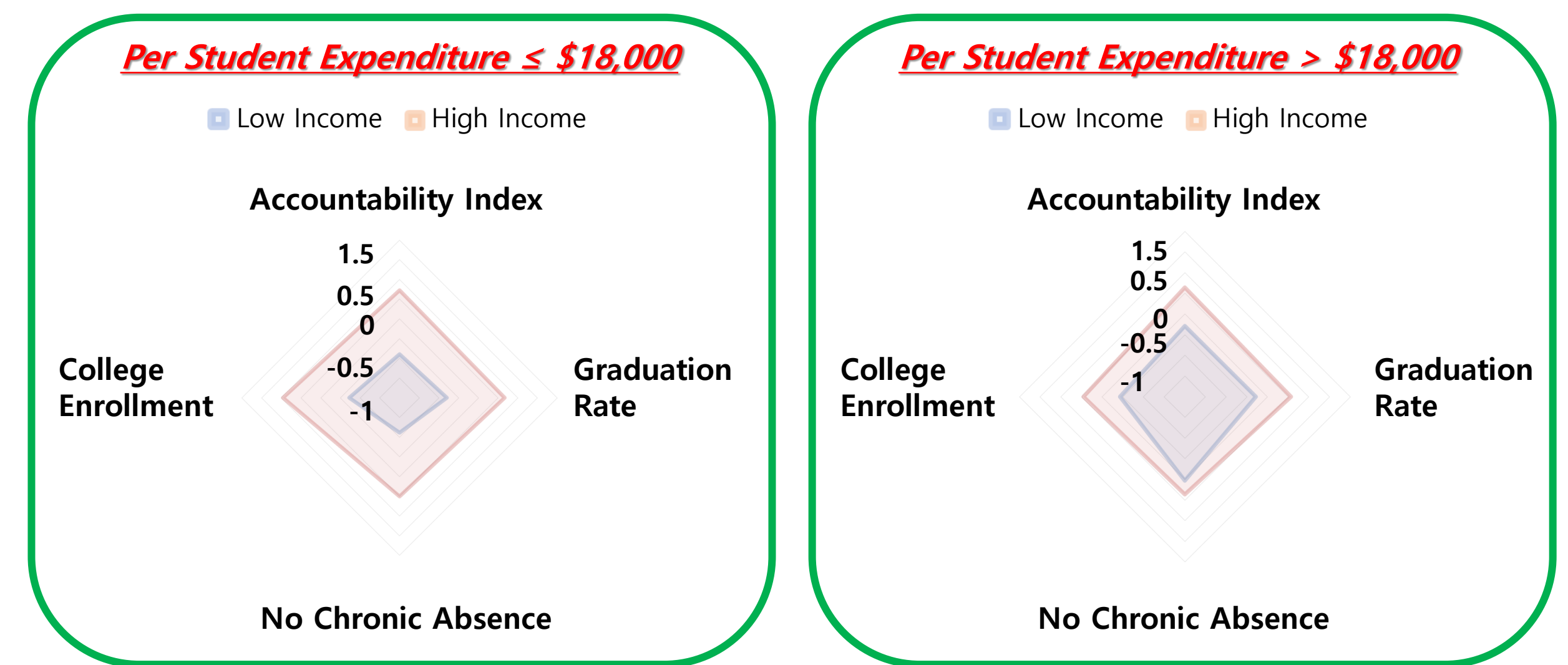
IV. The Correlation Between Household Income and the Accountability Index of in CT Schools

As demonstrated in the first graph, the graduation rate of Connecticut students display increasing rates from \$0, to \$100,000. This part of the data includes both schools that spend more money, and schools that spend less money. This first graph shows an increase of graduation rates as the household income increases, while still being under \$100,000. However, after the household median reaches \$100,000 and beyond, the graduation rates are significantly high but also eminently analogous. The second graph also has a similar trend, in which household incomes that meet or exceed \$100,000, the college enrollment rates stay similar, and within the high range of 80%-90%. However, any households that make under \$100,000, a larger variety of college enrollment rates are displayed, with some having higher rates than others. Despite the variation, the overall trend of increasing college enrollment rates as the household income grows higher is still evident. A notable decline is displayed in the third graph, as the higher the household income is, the lower the chronic absence rates are. In the final graph, a conspicuous incline in data regarding accountability index of Connecticut schools is delineated, with a positive linear trend for higher household incomes. The last two graphs differ from the trends of the first two graphs, as the trend continues beyond the \$100,000 mark.

## Research Methods

The Primary data (Household Income, Graduate rate, Chronic absence rate, College enrollment rate, and Accountability index) of each individual school of district were taken from the "edsight.ct.gov" website. Scatter plots were then constructed for the graduate rate, chronic absence rate, college enrollment rate, and accountability index vs household income. Student expenditure (>\$18,000) and household incomes (>\$87,000) of school district were dichotomized by median values of the sample. We constructed radar charts to compare the standardized primary data, and demonstrated discrepancies between high and low household income groups in schools with low and high student expenditures, respectively.

## Research II



In the first radar chart labeled *Per Student Expenditure ≤ \$18,000*, you can see that students from a low-income household lack in every single category the graph shows, graduation rates, college enrollment, accountability index, and most notably, no chronic absences. This reality is vastly different from the ones of students from a high-income household. A large percent of those students can still succeed with higher graduation rates, college enrollment, low absence rate, and a higher accountability index. In the second radar labeled, *Per Student Expenditure > \$18,000*, you can see the gap between the success of students from low income households and students from high income households close and become tighter. For students from low income households, college enrollment rates, as well as graduation rates and the accountability index grow, and the rate of chronic absences has drastically lowered. For students from a high-income household, their rates stay more or less the same. In this second graph, we see that students from low income households have the ability to reach the same levels as high-income students when it is provided by the school.

## Conclusion

The research done above provides evident proof of the variety in money spent on schools directly correlating with the outcome in student statistics. The more money is spent on the students, the better the statistics will come out.

## Reference

1. "EdSight of Connecticut State Department of Education.", [www.edsight.ct.gov/SASPortal/main.do](http://www.edsight.ct.gov/SASPortal/main.do)
2. "In Connecticut, a Wealth Gap Divides Neighboring Schools", *The New York Times*, Sep-11-2016