The Relationship between Distance to Public High Schools and Population of Students in Seven Vermont School Districts

Overview: It is not uncommon for several towns to consolidate students into a single, large high school. This project examines the distance from seven Vermont high schools and the distribution of the students attending them. Overall, the relationships between the school districts varied significantly. Generally, students tended to live closer to high schools and no portion of a district was more than 30 miles away from a high school.

Analysis: For each school district, rings were created based on how long it takes to drive on Vermont roads, around the high school. Each ring is one mile apart. As the distance from the high school increases, the map color becomes darker.

Significance: This analysis shows that the distance to high schools for some school districts, like Otter Valley, varies and can be quite long for students living on the edge of the district.

Analysis: The distance rings around high schools were combined with student population data in another format. The information was dissolved or reformed based on distance. This altered the student population data so that it was in the same shape as the distance rings. Then, each individual distance from a high school and number of students was mapped in a scatter plot to show general trends.

Significance: This map shows according to distance what percentage of students live where in each school district. There is a general trend of students living closer to their respective high schools, though some districts do not have this trend. Like for instance, in Champlain Valley High most student lived far from the high school, which contracts to Otter Valley where most lived closer to the district high school.

Analysis: Due to the small scale of this project and relatively large size this income data was in, this information was not processed outside of displaying the different incomes by block group. However, this still yields interesting insights.

Significance: This map shows the median income of households in the areas that comprise the school districts. One relationship is the northern area around Burlington is generally wealthier. Another is that there are often lower income areas around high schools.

Sources:
VCGI.org: School Districts, School Locations
U.S. Census Bureau: Median Income
Middlebury Geography Department: Vermont Roads