Neighborhood History through Mathematical Analysis

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The main purpose of this project is to build an interest in mathematics and history by doing mathematical analysis of historical data, rather than textbook data, that the students have found themselves from primary historical documents. As I am not a practicing historian, I am expecting that the class may create more questions than we can find answers for, giving the students a feel for the process of research. It is my hope that students will leave their seventh grade mathematics classroom, interested in some aspects of history that they can take to their eighth grade American History class and possibly history classes in high school all the while introducing them to the usefulness of mathematics.

The major activity of the project is to use the manuscript census information available at the National Archives to describe historically several of the blocks in the neighborhood of our school. There will be three strands of interest within the unit—the history of the neighborhood within the context of the West Philadelphia area and when necessary the City of Philadelphia, the methodology which will be inspired by W.E.B. DuBois’ The Philadelphia Negro, and the mathematics necessary to analyze the data for which we will use the text Dealing with Data from the Mathematics In Context curriculum.

This project is to be undertaken at Penn Alexander School, during the month of April, in a seventh grade mathematics classroom in the heart of West Philadelphia, sometimes referred to as University City. The class is tracked in a school with two classes per grade. This class is the high tracked class, which meets ninety minutes a day. Field trips are common and, in fact, encouraged by the school and permission slips are not difficult to acquire from parents.