PyCitySchools:

Charter Schools Outperform Districts Schools: Does that mean they are better?

In analyzing a range of data from PyCitySchools, one thing is clear: The district’s charter schools have better test scores than district schools. The top five schools sorted by overall passing percentage are charter schools. Looking more closely, all of the charter schools have higher overall passing percentages than the district schools. The simple analysis is: charter schools provide a better education than district schools.

While that may be the case, it will take further analysis to verify that conclusion.

Charter schools and district schools have different characteristics. Regarding this analysis, the most important difference is the composition of the school populations. Charter schools are “schools of choice,” meaning a parent or a student actively seeks to enroll in a charter school. Charters typically admit students through a lottery, but some are selective admissions based on test scores or overall academic performance. District schools, by comparison, are open enrollment by an attendance boundary. As a result, charter schools have an extremely different population.

This raises several questions:

* A student who chose a charter probably is more motivated to succeed because they or their parents are actively seeking the right educational fit. Such motivation may result in better test scores.
* Charter school populations may not reflect the racial and socioeconomic makeup of district schools. Past research has established that academic achievement is correlated by race and economic status. If charter schools have higher proportion of races that tend for perform well and/or students from higher income families, their test schools may be associated with those factors rather than the instruction in the schools.
* As schools that aren’t required to educate students in a specific neighborhood, charter schools may have larger transfer rates. Students who are unable to keep up with the curriculum at charter schools may move back to a district school. Worse, charter schools may have higher expulsion or suspension rates for student academically challenged students. In other words, charter schools may have higher achievement because their academic standards may weed out or force out low-performing students.

Based on the preliminary data, it appears as if charter are the most successful schools in PyCity. But further analysis is necessary to determine that for certain.

A note on my homework: I am happy that I completed the PySchools assignment. It was extremely challenging, and I couldn’t have finished it without help from my instructors and classmates. I spent a substantial amount of time on it and learned a lot through the process. I would like to fine tune it later, if possible.

Regarding the mini-cases and the class homework, I substainally completed those as well. But many of the python files are missing from my repository. I have several versions saved as notebook files on the desktop of my computer, but they don’t show up in the repository. I will need some help transferring them to my repository.