Exploring the relationship between housing prices and school quality

Ross Fu

Data Incubator interview project

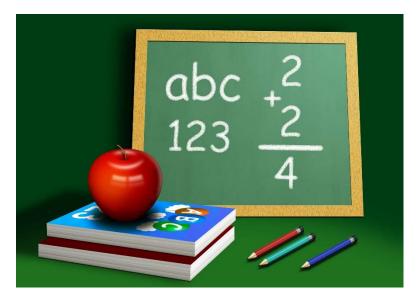
May 2, 2016

Introduction

What is the correlation between housing prices and school value?

- 1. How is school performance correlated with home values?
- 2. What is the degree of correlation?
- 3. Are home price indices a good indicator of an area's income demographics? Or is price per square foot, or property tax, or something else a more salient metric?
- 4. What is the role of charter schools? Do they play a positive or negative role? Do they play different roles in different income areas? What about private schools?
- 5. How is the API of a school affected by the race or ethnicity of its students? Is there a correlation between school APIs, home values, and the disparity between white/East Asian students and underrepresented minorities?



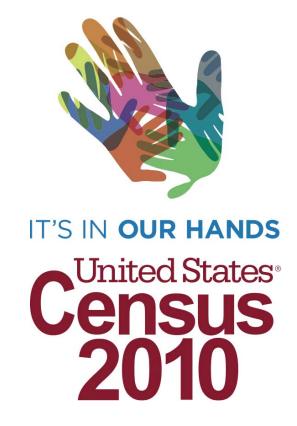


Data sources

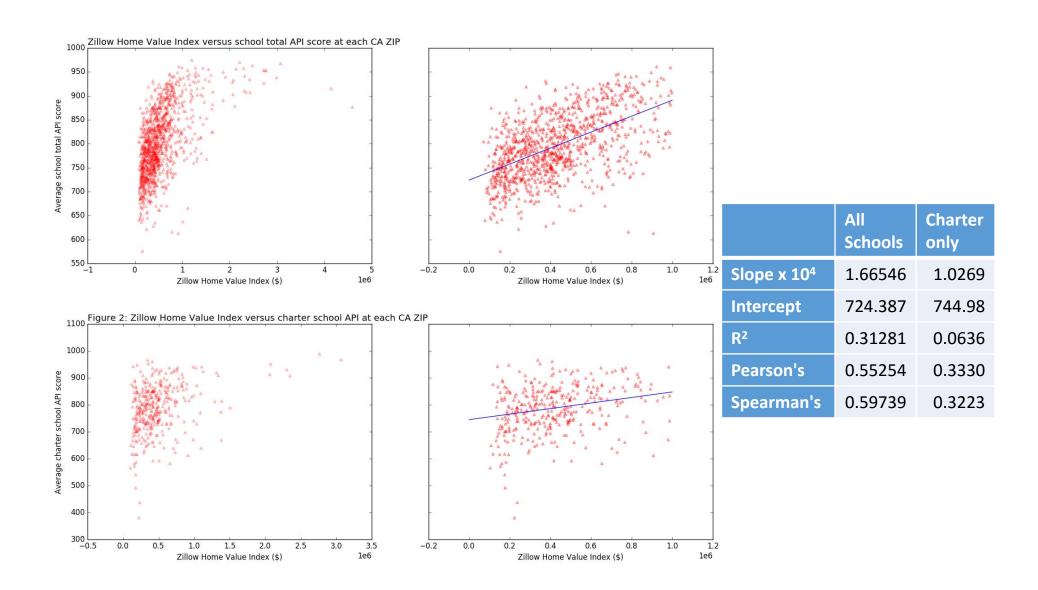




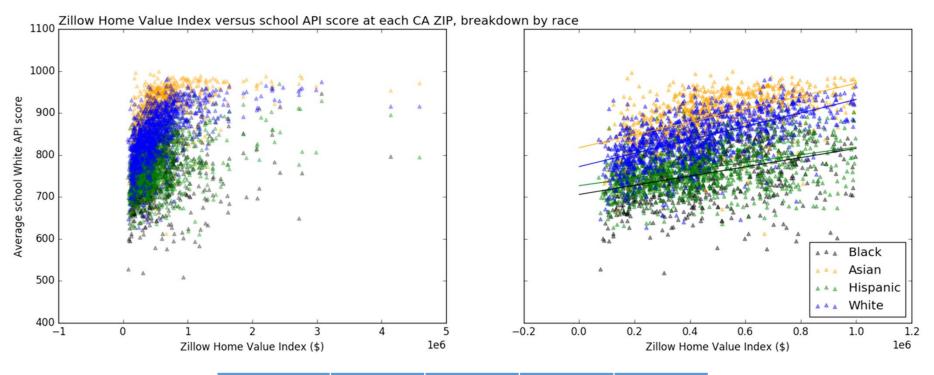




Initial results

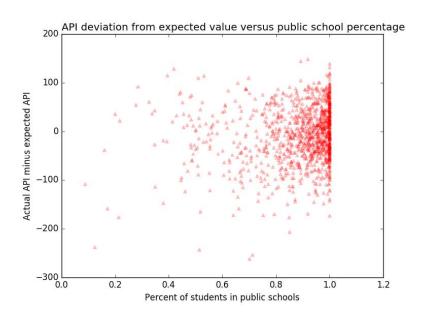


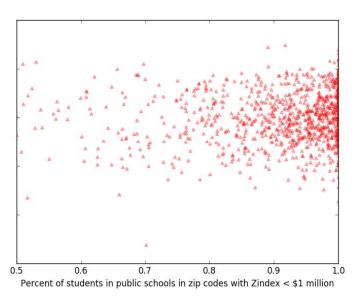
Racial breakdown



	Asian	Black	Hispanic	White
Slope x 10 ⁴	1.531716	1.096435	0.918279	1.598099
Intercept	817.405	705.9881	726.9845	772.3306
R ²	0.293611	0.125855	0.149754	0.366764
Pearson's	0.458479	0.205933	0.409162	0.573052
Spearman's	0.607966	0.340154	0.429339	0.698472

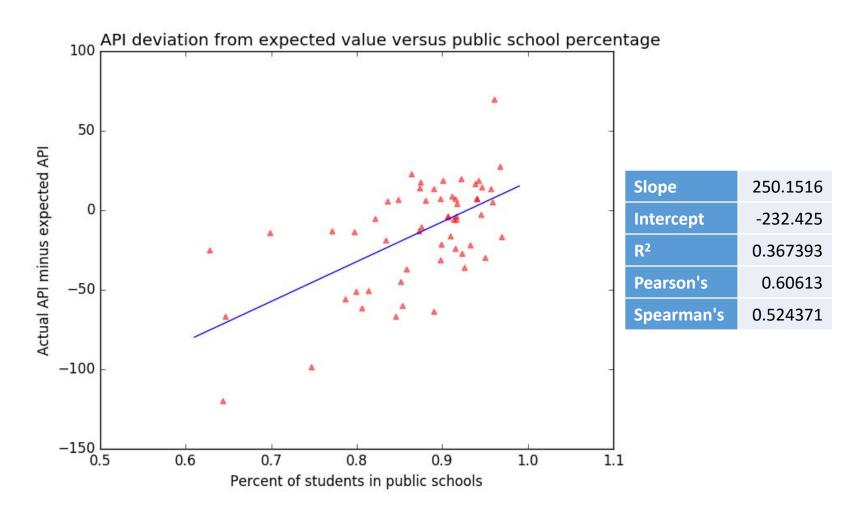
Considerations for private school attendance





Slope	59.12554	
Intercept	-58.8796	
R ²	0.022746	
Pearson's	0.150817	
Spearman's	0.151745	

Correlation appears when considering SCFs



Conclusions

- Home values are loosely correlated with public school performance
- Performance of charter schools correlates much less with home values
- Breakdown of data by racial groups does not show any particular minority group to have an especially large correlation
- Correlation between an area's private school enrollment and its public school's deviation from expected performance