The Price of Living Near Good Schools

An exploratory analysis of school ratings and home prices.

Team: Joan Lee, Michael Guldberg, Marco Zanchetta, and James Cisneros

GitHub Repo: https://github.com/UC-Berkeley-I-School/Project2 cisneros guldberg lee zanchetta

Contents

Overview	1
Project Questions	1
Data Processes	
Data Sources	
Data Validation and Preparation	
Data Cleaning:	
Data Validation:	
Data Relationships:	
Data Assumptions:	
Analysis	
Question 1: What is the typical home price in areas with high-performing schools?	
Question 2: What areas are affordable by state when comparing home prices?	
Conclusion	
References	
Appendix	
Appendix 1: Median Zip Code Home Values by School Level	
Appendix 2: Median Zip Code Home Values by State, School Level, and School Rank	
Appendix 3: Number of Zip Codes by State with Median Home Value <= National Median	
the same and a second and a second and a second	

Overview

Finding a good school is a top priority for families looking for a home¹. When parents are making the decision, they often rely on the assumption that the more expensive the home, the better the school. If this is true, how much more expensive are the homes with better schools? What if there are areas with relatively affordable homes with schools that provide a high-quality education?

We analyzed publicly available data collected by the U.S. Department of Education, the National Center for Education Statistics, and Zillow to help answer those questions. Our goal is to understand the price differences for areas with highperforming schools versus other schools. In addition, we will search for pockets where securing an outstanding education for children remains reasonably affordable.

Project Questions

Our analysis focused on two main questions:

- What is the typical home price in areas with high-performing schools?
 - Does this vary by school level?
 - o How do these prices compare between states?

What areas are affordable by state when comparing home prices?

Data Processes

Data Sources

The descriptions below are for original file formats. We will be renaming fields and files during project analysis for clarity and ease of use.

School Performance Data (referred to as "EDFacts" data):

U.S. Department of Education ED Facts Data Files

https://www2.ed.gov/about/inits/ed/edfacts/data-files/index.html

Files:

SY 2020-21 Achievement Results for State Assessments in Mathematics School Level CSV File

• 3,832,672 rows, 15 columns

SY 2020-21 Achievement Results for State Assessments in Reading/Language Arts School Level CSV File

• 3,750,367 rows, 15 columns

SY 2020-21 Adjusted Cohort Graduation Rate School Level CSV File

• 190,914 rows, 13 columns

Description:

The Department of Education centralizes data provided by the state education agencies, local education agencies, and school levels. The Ed Facts Data Files report two (2) categories of metrics:

- 1. Assessment Proficiency for Mathematics and Reading/Language Arts ("RLA")
 - Metrics from 80,600 distinct schools across multiple grades and student categories
 - Each of the two files has a field called "PCTPROF" which is the percentage of students for the given school that have a proficient score for that exam. This field will also be referred to as the "proficiency score".
- 2. Adjusted Cohort Graduation Rate
 - Graduation rates for 22,066 distinct high schools across multiple student categories

School Characteristics Data (referred to as "NCES" data):

National Center for Education Statistics (NCES) - Public School Characteristics 2020-21

https://data-nces.opendata.arcqis.com/datasets/nces::public-school-characteristics-2020-21/about

Files:

Public School Characteristics 2020-21

• 100,722 rows, 79 columns

Description:

A set of administrative attributes including geographic information, grade levels, and student demographic data for public elementary and secondary schools from the 2020-2021 school year. The file contains characteristics for 100,722 distinct schools.

Housing Price Data (referred to as "Zillow" data):

Zillow – Home Values

https://www.zillow.com/research/data/

Files:

ZHVI All Homes (SFR, Condo/Co-op) Time Series, Smoothed, Seasonally Adjusted (\$) by Zip Code

• 26,368 rows, 294 columns

Description:

Zillow is a website that tracks and publishes home sales. Zillow creates a "Zillow Home Value Index" (ZHVI) which is a measure of the typical home value and market changes across a given region and housing type. The ZHVI reflects the typical value for homes in the 35th to 65th percentile range. We are evaluating the ZHVI published at a Zip Code level for all housing types for the September 2023 time period (the most recently available data point). The file contains home value prices for 26,368 distinct zip codes.

Data Validation and Preparation

Data Cleaning:

EDFacts data files have a category column that groups the data by demographic. We filtered this field to only values of "ALL" which is the aggregate of all demographics for a given school. This was because our research questions did not delve into demographic data.

The proficiency score and rate columns in the EDFacts data had some values that were represented as ranges (ex. '10-20'), expressions (ex. 'GE75' - greater than or equal to 75), or missing values. For rows with ranges, we replaced the range value with the average of the lower and upper bounds. For rows with expressions, we replaced them with the average of the lower and upper bounds. For example, if the value was 'GE75' the lower bound was 75, and the higher bound was 100 because 100 is the highest value. However, for expressions that had 50, our team decided that this was too general because there are many values between 50 and the other bound. Therefore, we replaced these expressions with the average value in the data that met the expression requirements. Lastly, missing values were replaced with the average value in the data because the other columns were valuable for analysis.

The Zillow data contained more than 200 columns. The team decided to create three new columns to summarize the 200+ columns. We created a column for percent change in home value in the last 5 years, 10 years, and 20 years. Then, we selected 6 other columns in the data set that were necessary for our analysis and dropped the rest of the columns.

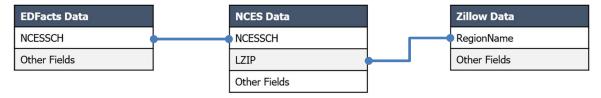
Data Validation:

After cleaning the data sets, we merged all the data to create a single source. During this process, we lost some rows of data, but the number was so small that we decided to proceed with merging. Each of the EDFacts data files was merged with the NCES data to get the zip code and other valuable school information such as school level. During the merge, we did not see a decrease in the number of unique schools. Then, we merged these files which reduced the number of unique schools to 80,228 and saw a loss in 378 schools. The reason behind this is that the Edfacts data sets contain different schools. Lastly, we merged with the Zillow data on the zip code fields and ended with a final count of 77,549 unique schools which was a 3% loss.

With this final merged file, we cleaned up the column names by making them lowercase, changed complicated column names to be intuitive, and dropped duplicate columns.

Data Relationships:

The NCES assigns every school in the U.S. a unique school identifier. This school identifier is present in the EDFacts and NCES data. The NCES data contains geographic data for every school, including the zip code. The zip code in the NCES data will be used to join the Zillow data. The specific fields and relationships are as follows:



Data Assumptions:

After our data was merged and standardized, we made assumptions to complete our analysis.

For the determination of "high-performing" schools:

The math and reading proficiency scores should be segmented by state and school level. In other words, we should not compare the math score of an elementary school in Texas to a high school in California. The elementary schools in Texas should be ranked against the other elementary schools in Texas.

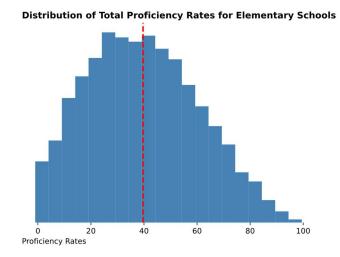
- High schools that do not have a graduation rate are included in the analysis and ranked. Those schools are given a score of 0 for the graduation rate portion of the total rank. Approximately 6.9% of all high schools are missing a graduation rate, however:
 - The entire state of Illinois omitted graduation rates, which accounts for 4.6% points of the 6.9%
 - An additional 0.7% points are Texas high schools, which is 7.9% of the total high schools in Texas
 - The remaining 1.6% points (6.9 4.6 0.7) are high schools spread across the country
- All schools regardless of student population size are included in the analysis. Approximately, 8% of all schools have a population of less than 25 students.

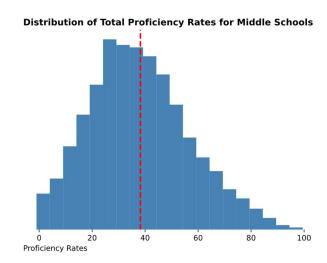
Analysis

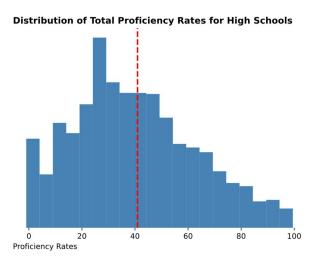
Question 1: What is the typical home price in areas with high-performing schools?

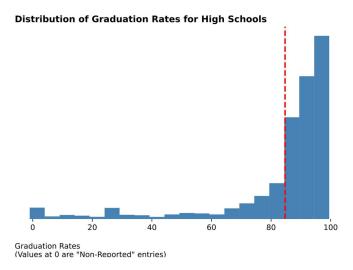
The first step to finding how much it costs to live near a high-performing school is to locate the high-performing schools. There are several sites² dedicated to creating rankings, however, we created our simple ranking using the variables in our dataset. For elementary and middle schools, we used the Math and RLA proficiency scores, and for high schools, we added the graduation rates to the calculation.

We analyzed the overall distribution of proficiency scores by taking the average of the Math and RLA scores (a "total" proficiency score) for each school. We then created histograms of 1) the total proficiency scores grouped by school levels and 2) the high school graduation rates (red lines show the national average for reported entries):









Figures 1-4: Distribution of total proficiency rates and graduation rates

From these figures, we can clearly see that there is a wide range of schools as measured by their students' proficiency scores and the national average across school levels is approximately 40%. In contrast, high school graduation rates are concentrated above 80%.

With this in mind, we decided to group the schools by school level and state and then rank the schools within those groups. We then assigned each school to one of five percentile ranking groups as determined by the school's total proficiency score (and graduation rate, for high schools). We designated schools in the top 20% (or 80th percentile) ranking group as "high-performing". For each ranking group, we calculated the median home value for those schools' zip codes. We now have the national median home value by school rankings (charts broken out by school level in Appendix 1):

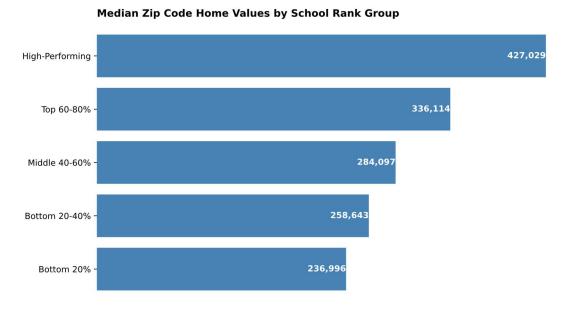


Figure 5: Median zip code home values by school ranking group.

We can see that for the whole country, the median home price near high-performing schools is approximately \$430,000. This is 27% more than homes near schools in the top 60-80% and 80% higher than homes near schools in the bottom 20%. When looking at the difference between school levels:

	Bottom 20%	Bottom 20-40%	Middle 40-60%	Top 60-80%	High-Performing
school_level					
Elementary	\$237,421	\$264,526	\$299,600	\$348,331	\$450,248
Middle	\$231,833	\$256,180	\$277,529	\$338,011	\$440,557
High	\$242,592	\$242,584	\$254,586	\$303,310	\$367,776

Figure 6: Median zip code home values by school ranking and school level

We can see that the home price near a high-performing elementary school is 29% higher than the top 60-80% of schools and nearly 90% more than the schools in the bottom 20%. We believe the gaps between home values are greater for elementary schools than high schools because the areas that high schools cover are greater and therefore less likely to be concentrated in affluent areas.

If we look at the median home prices for high-performing schools across the states:

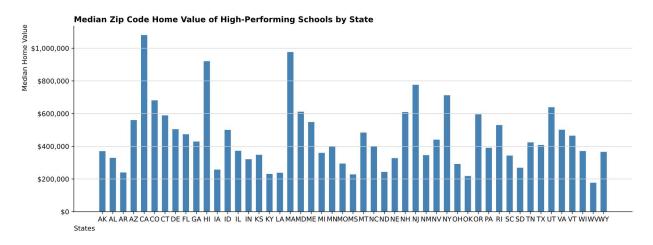


Figure 7: Median state home values for high-performing schools

We can see that the cost of living near a high-performing school varies greatly by state. For example, to live near a highperforming school in California you will face a median value of over \$1,000,000 versus the median home value of approximately \$400,000 in Texas. A full list of median home values by school level, school ranking, and state can be found in Appendix 2.

Question 2: What areas are affordable by state when comparing home prices?

To determine the affordable areas in the US, we first created a heatmap of the Continuous US displaying the average housing prices grouped by zip code (NOTE: Hawaii and Alaska are included in our analysis, but excluded from this graphic for presentation purposes):

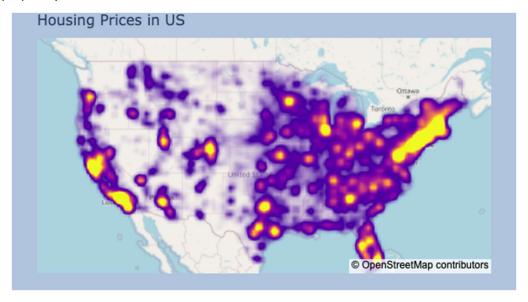


Figure 8: Heat map of average home prices.

Unsurprisingly, the regions with the highest concentration of high home prices are the Northeast and West Coast (and Hawaii). It is also worth noting that though the Western half of the Continuous US (defined as west of 98.5795°W) has some of the most expensive cities in the country (e.g. Los Angeles, San Francisco), it actually includes fewer total zip codes with average home prices above the national median value (2,486) than the Eastern half (6,880). This appears to

be due to the sparsity of cities in the Western half as compared to the Eastern half. Next, we grouped our results by state and observed the following:

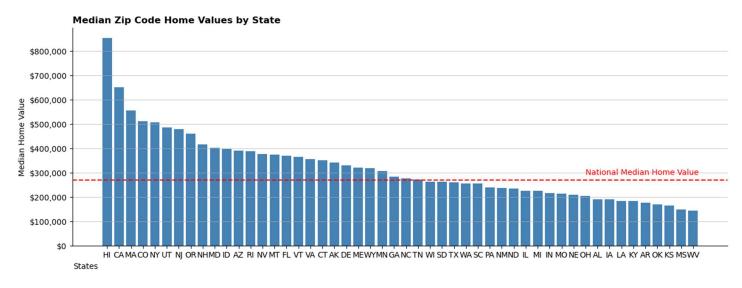


Figure 9: Average home values by state

Three states (Hawaii, California, and Massachusetts) clearly stand out with high home values. The states with the highest number of zip codes with median housing values less than the national median were Texas (707), Illinois (618), Ohio (584), Pennsylvania (503) and Missouri (435) (Appendix 3). We interpret this as these states having the most areas of affordable housing (defined as housing values below the median) in the US when not considering school performance.

To locate high-performing schools in affordable areas, we defined "affordable" as having home values at or below the national median and "high-performing" as the 80th percentile or above, as determined by our algorithm for determining school performance. We then created a heatmap to find the highest school performance for home price areas in the US.

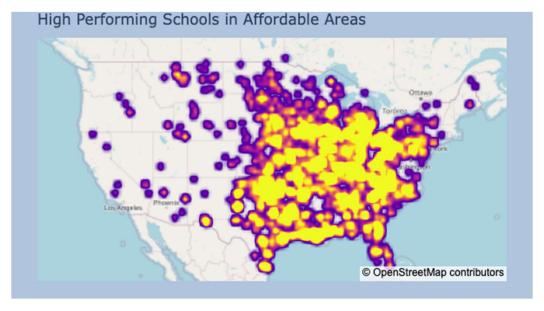


Figure 10: Heat map of number of high-performing schools in affordable areas

Due to the high home values discussed in the section above, we see a low concentration of high education for home price value areas in the Northeast and on the West Coast. Additionally, a large portion of the high value areas appear to be in the Eastern half of the country. To further explore these areas, we then created the following graphic to identify the highperforming areas grouped by state.

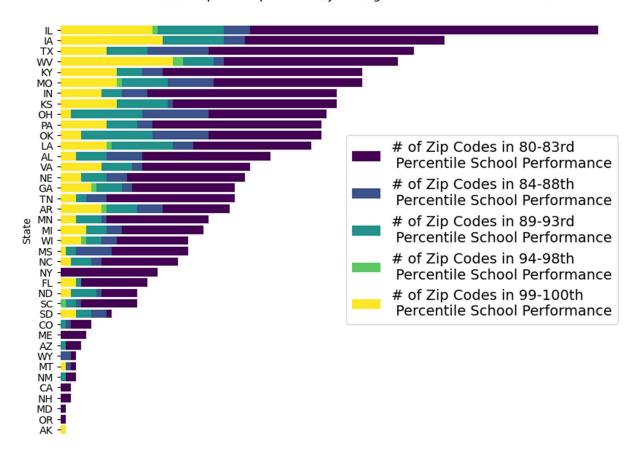


Figure 11: Breakdown of affordable zip codes by school rankings

From this graph, we observe a huge number of affordable zip codes with high-performing schools in the states of Illinois, Iowa, and Texas, with Texas having the highest number of zip codes with the highest average school performance. We interpret this to say that the states at the top of this graph have high opportunities for finding affordable housing with great schools.

Conclusion

The analysis results have validated our initial hypothesis, revealing a correlation between high-performing schools and their location in more affluent areas. Nationally, residing in proximity to a high-performing school comes at an average cost of approximately \$430,000, signifying a 27% premium compared to schools in the 60th to 80th percentile and an 80% premium compared to those in the bottom 20th percentile.

Upon segmenting the analysis by education levels (Elementary, Middle, and High Schools), we observed that, on average, it is more expensive to live near high-performing Elementary and Middle Schools compared to High Schools. This discrepancy could potentially be attributed to the larger geographical coverage of high schools.

Examining the median home prices across different states, we observed considerable variability. California, Hawaii, and Massachusetts registered the highest values, while West Virginia and Oklahoma boasted the lowest cost of living.

Further exploration into areas with both high-performing schools and affordable housing unveiled a concentration on the eastern side of the United States. Illinois, Iowa, and Texas emerged as standout states, with Texas leading in the number of zip codes showcasing the highest average school performance. These states, collectively, offer a high quality of education at a reasonable cost.

References

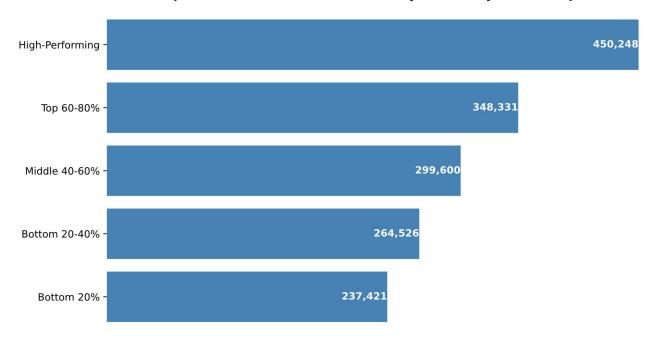
¹ Goldstein, A., Hastings, O. (2019) School Quality Influences Where Parents Choose to Live—and How Much They're Willing to Pay for Their Homes. Sociological Science. https://housingmatters.urban.org/research-summary/school-qualityinfluences-where-parents-choose-live-and-how-much-theyre-willing

² Examples include <u>Niche.com</u> and <u>GreatSchools.org</u>

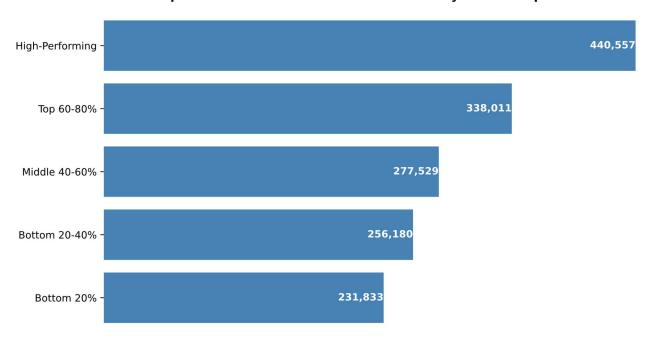
Appendix

Appendix 1: Median Zip Code Home Values by School Level

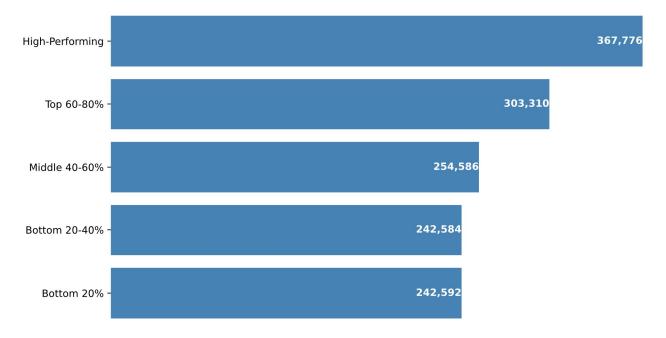
Median Zip Code Home Values for Elementary Schools by Rank Group



Median Zip Code Home Values for Middle Schools by Rank Group



Median Zip Code Home Values for High Schools by Rank Group



Appendix 2: Median Zip Code Home Values by State, School Level, and School Rank

State	School Level	Bottom 20%	Bottom 20- 40%	Middle 40- 60%	Top 60- 80%	High- performing
AK	Elementary	\$301,708	\$321,664	\$379,547	\$368,005	\$379,547
	Middle	\$301,708	\$385,306	\$330,409	\$419,457	\$330,796
	High	\$301,708	\$356,464	\$333,204	\$385,306	\$356,464
AL	Elementary	\$136,248	\$170,455	\$205,015	\$231,231	\$367,412
	Middle	\$128,484	\$184,250	\$198,706	\$231,831	\$339,005
	High	\$138,390	\$180,773	\$190,619	\$208,185	\$279,682
AR	Elementary	\$110,267	\$164,123	\$190,892	\$199,005	\$253,432
	Middle	\$116,054	\$178,499	\$179,036	\$209,592	\$240,211
	High	\$107,640	\$130,486	\$159,590	\$195,748	\$209,454
ΑZ	Elementary	\$350,368	\$374,402	\$384,999	\$457,712	\$560,686
	Middle	\$317,302	\$350,368	\$385,851	\$448,759	\$553,997
	High	\$344,092	\$364,077	\$318,754	\$407,190	\$547,519
CA	Elementary	\$642,792	\$532,269	\$527,429	\$619,299	\$1,133,414
	Middle	\$711,696	\$578,474	\$563,905	\$590,700	\$1,092,756
	High	\$565,569	\$629,805	\$564,916	\$671,740	\$994,519
CO	Elementary	\$444,011	\$480,252	\$510,158	\$597,944	\$685,743
	Middle	\$436,399	\$480,561	\$545,073	\$625,358	\$662,744
	High	\$462,840	\$431,462	\$462,435	\$532,363	\$667,866
CT	Elementary	\$252,218	\$302,341	\$351,255	\$404,463	\$600,227
	Middle	\$289,200	\$313,054	\$379,516	\$428,113	\$600,227
	High	\$264,147	\$297,679	\$355,612	\$405,078	\$531,545
DE	Elementary	\$283,185	\$309,582	\$375,294	\$375,294	\$504,776
	Middle	\$298,664	\$306,349	\$420,290	\$386,481	\$504,776
	High	\$307,638	\$284,687	\$353,855	\$395,107	\$423,610

	School	Bottom	Bottom 20-	Middle 40-	Тор 60-	High-
State	Level	20%	40%	60%	80%	performing
FL	Elementary	\$314,524	\$349,481	\$379,378	\$396,859	\$484,830
	Middle	\$327,549	\$326,934	\$373,367	\$422,182	\$512,538
	High	\$316,997	\$334,412	\$343,941	\$392,299	\$432,129
GA	Elementary	\$253,112	\$285,775	\$301,934	\$323,225	\$447,506
	Middle	\$245,983	\$253,796	\$281,513	\$346,706	\$440,802
	High	\$218,139	\$239,974	\$282,784	\$291,036	\$334,610
HI	Elementary	\$640,471	\$830,172	\$853,463	\$879,881	\$920,788
	Middle	\$735,004	\$1,044,405	\$848,242	\$764,546	\$920,788
	High	\$825,274	\$836,816	\$820,467	\$863,537	\$975,435
IA	Elementary	\$169,561	\$176,901	\$197,059	\$241,308	\$255,055
	Middle	\$159,390	\$167,425	\$219,455	\$256,002	\$273,169
	High	\$160,176	\$164,343	\$187,082	\$209,206	\$278,049
ID	Elementary	\$367,008	\$389,410	\$405,021	\$439,743	\$500,409
	Middle	\$348,733	\$355,065	\$400,959	\$411,463	\$509,413
	High	\$398,517	\$378,807	\$397,826	\$348,028	\$449,429
IL	Elementary	\$185,501	\$210,546	\$226,089	\$294,921	\$381,520
	Middle	\$139,377	\$169,748	\$252,925	\$304,518	\$423,287
	High	\$171,682	\$145,867	\$152,800	\$204,852	\$321,734
IN	Elementary	\$168,440	\$199,486	\$221,443	\$256,938	\$322,209
	Middle	\$175,169	\$208,361	\$223,876	\$280,421	\$333,203
	High	\$183,136	\$183,066	\$202,854	\$228,386	\$298,683
KS	Elementary	\$139,640	\$161,058	\$176,183	\$232,016	\$374,955
	Middle	\$143,561	\$162,780	\$189,251	\$271,422	\$383,634
	High	\$130,652	\$156,655	\$122,524	\$177,766	\$254,778
KY	Elementary	\$180,724	\$170,392	\$171,987	\$191,839	\$230,807
	Middle	\$183,362	\$170,156	\$183,362	\$224,001	\$257,257
	High	\$179,268	\$171,912	\$146,725	\$174,340	\$230,807
LA	Elementary	\$155,927	\$174,735	\$184,015	\$200,571	\$238,153
	Middle	\$153,129	\$165,027	\$188,289	\$238,153	\$275,062
	High	\$156,633	\$164,954	\$162,097	\$188,289	\$189,923
MA	Elementary	\$451,893	\$474,196	\$540,969	\$688,927	\$995,676
	Middle	\$396,707	\$485,618	\$582,822	\$644,678	\$951,094
	High	\$463,300	\$446,766	\$511,594	\$633,998	\$849,462
MD	Elementary	\$314,740	\$349,740	\$405,337	\$449,303	\$612,751
	Middle	\$346,934	\$345,667	\$396,044	\$497,733	\$657,563
	High	\$234,971	\$336,417	\$380,759	\$438,109	\$530,553
ME	Elementary	\$284,514	\$336,362	\$357,333	\$395,247	
	Middle	\$293,992	\$295,187	\$350,495	\$358,804	\$585,768
	High	\$246,766	\$254,298	\$313,850	\$338,260	\$494,068
MI	Elementary	\$153,493	\$204,207	\$247,724	\$308,204	\$372,211
	Middle	\$168,551	\$207,130	\$248,441	\$319,761	\$385,078
p en -	High	\$191,920	\$185,765	\$204,691	\$224,294	\$314,014
MN	Elementary	\$287,802	\$300,599	\$303,038	\$340,828	\$430,450
	Middle	\$285,189	\$285,081	\$337,491	\$352,652	\$432,519

	School	Bottom	Bottom 20-	Middle 40-	Тор 60-	High-
State	Level	20%	40%	60%	80%	performing
MN	High	\$302,229	\$265,336	\$254,081	\$297,988	\$357,838
МО	Elementary	\$163,559	\$196,544	\$240,155	\$263,418	\$296,219
	Middle	\$165,923	\$209,660	\$227,891	\$266,848	\$313,462
	High	\$182,549	\$178,681	\$206,695	\$210,065	\$290,094
MS	Elementary	\$109,432	\$147,121	\$181,581	\$225,234	
	Middle	\$91,437	\$130,457	\$169,273	\$181,581	\$228,340
	High	\$101,075	\$130,457	\$168,891	\$172,053	\$227,923
MT	Elementary	\$314,108	\$343,570	\$393,583	\$435,353	\$455,771
	Middle	\$333,730	\$356,633	\$406,339	\$411,039	\$534,963
	High	\$236,969	\$359,435	\$261,883	\$403,903	\$486,241
NC	Elementary	\$223,817	\$254,376	\$274,055	\$341,110	\$471,411
	Middle	\$215,718	\$259,467	\$264,929	\$314,491	\$457,591
	High	\$235,858	\$237,174	\$264,324	\$321,664	\$290,893
ND	Elementary	\$242,212	\$235,080	\$255,310	\$214,205	\$274,362
	Middle	\$248,761	\$274,362	\$255,310	\$273,789	
	High	\$229,639	\$242,212	\$192,467	\$191,498	\$172,812
NE	Elementary	\$193,743	\$223,678	\$229,097	\$223,686	\$356,747
	Middle	\$198,435	\$182,768	\$233,066	\$217,521	\$362,295
	High	\$183,238	\$182,247	\$182,629	\$200,176	\$260,406
NH	Elementary	\$365,268	\$394,387	\$443,684	\$472,105	\$615,126
	Middle	\$367,736	\$395,248	\$484,212	\$487,257	\$620,519
	High	\$366,502	\$356,234	\$392,605	\$465,207	\$579,954
ŊĴ	Elementary	\$403,600	\$453,480	\$486,892	\$585,888	\$785,092
	Middle	\$397,119	\$443,281	\$536,342	\$613,390	\$830,320
	High	\$378,395	\$456,546	\$496,808	\$556,349	\$706,468
NM	Elementary	\$237,004	\$190,837	\$227,372		
	Middle	\$223,113	\$227,372	\$210,635		
	High	\$227,472	\$253,315	\$216,256	\$265,015	\$345,788
NV	Elementary	\$337,425	\$392,710	\$439,909	\$540,043	
	Middle	\$337,927	\$345,053	\$357,971	\$436,735	\$475,661
	High	\$334,377	\$311,182	\$380,655	\$416,549	\$428,166
NY	Elementary	\$413,825	\$288,019	\$505,827	\$618,348	\$753,723
	Middle	\$410,914	\$264,767	\$385,562	\$571,308	\$854,475
011	High	\$417,813	\$424,090	\$506,672	\$493,136	\$652,153
ОН	Elementary	\$157,326	\$216,360	\$234,491	\$308,678	±224 600
	Middle	\$167,353	\$200,078	\$228,164	\$244,832	\$321,698
01/	High	\$158,547	\$175,758	\$204,071	\$224,877	\$262,835
OK	Elementary	\$140,673	\$167,576	\$166,954	\$196,893	\$227,337
	Middle	\$155,360	\$154,933	\$182,031	\$197,523	\$256,232
0.5	High	\$140,079	\$153,759	\$143,886	\$143,102	\$196,893
OR	Elementary	\$425,820	\$404,880	\$460,145	\$522,955	\$599,901
	Middle	\$425,441	\$421,717	\$432,064	\$500,088	\$595,345
2.0	High	\$390,641	\$404,880	\$379,192	\$503,753	\$525,754
PA	Elementary	\$169,395	\$219,379	\$257,429	\$314,034	\$400,760

	School	Bottom	Bottom 20-	Middle 40-	Top 60-	High-
State	Level	20%	40%	60%	80%	performing
PA	Middle	\$174,117	\$223,108	\$276,420	\$291,865	\$402,368
	High	\$209,515	\$185,311	\$221,162	\$278,066	\$298,669
RI	Elementary	\$337,570	\$349,859	\$390,674	\$497,050	\$530,043
	Middle	\$335,985	\$351,796	\$391,389	\$479,898	\$569,403
	High	\$388,532	\$349,859	\$389,748	\$477,189	\$529,275
SC	Elementary	\$185,834	\$212,782	\$262,119	\$289,603	\$344,361
	Middle	\$163,430	\$204,015	\$264,863	\$290,656	\$341,080
	High	\$172,589	\$184,148	\$256,133	\$280,277	\$342,185
SD	Elementary	\$255,020	\$268,791	\$244,744	\$276,802	\$252,379
	Middle	\$264,493	\$255,020	\$272,797	\$268,861	\$271,921
	High	\$216,945	\$218,180	\$268,618	\$271,185	\$292,029
TN	Elementary	\$213,524	\$250,684	\$263,593	\$277,328	\$428,939
	Middle	\$265,057	\$271,277	\$280,523	\$253,338	\$489,120
	High	\$238,687	\$262,624	\$253,338	\$278,448	\$375,204
TX	Elementary	\$204,749	\$235,991	\$273,410	\$316,093	\$441,798
	Middle	\$199,612	\$231,932	\$257,770	\$311,908	\$430,726
	High	\$220,540	\$218,332	\$231,995	\$270,520	\$336,438
UT	Elementary	\$430,824	\$465,324	\$481,708	\$542,336	\$653,589
	Middle	\$432,747	\$479,380	\$487,055	\$590,261	\$616,298
	High	\$431,785	\$467,138	\$457,923	\$534,046	\$543,511
VA	Elementary	\$285,287	\$329,005	\$367,364	\$392,717	\$548,071
	Middle	\$296,751	\$326,721	\$342,430	\$413,315	\$445,809
	High	\$278,904	\$297,146	\$329,081	\$393,684	\$421,727
VT	Elementary	\$319,883	\$340,819	\$365,220	\$420,119	\$464,244
	Middle	\$370,049	\$332,297	\$461,613	\$501,281	
	High	\$317,825	\$322,375	\$345,427	\$414,580	\$496,460
WA	Elementary					
	Middle					
	High					
WI	Elementary	\$208,140	\$251,432	\$269,949	\$309,023	\$385,267
	Middle	\$213,673	\$249,195	\$283,136	\$300,901	\$362,275
	High	\$220,993	\$241,199	\$272,716	\$274,952	\$362,761
WV	Elementary	\$123,324	\$135,054	\$142,237	\$153,037	\$175,364
	Middle	\$121,717	\$134,430	\$158,428	\$168,015	\$181,917
	High	\$119,379	\$121,941	\$142,728	\$149,458	\$200,337
WY	Elementary	\$291,331	\$284,445	\$313,956	\$347,953	\$360,874
	Middle	\$280,715	\$274,787	\$320,342	\$350,094	\$400,075
	High	\$340,745	\$269,799	\$294,655	\$333,299	\$321,103

^{*}WA did not have enough schools reported

Appendix 3: Number of Zip Codes by State with Median Home Value <= National Median

State	# of Zip Codes
AK	5
AL	303
AR	206
AZ	47
CA	61
CO	44
СТ	31
DE	5
FL	149
GA	248
HI	0
IA	377
ID	6
IL	618
IN	364
KS	338
KY	307

State	# of Zip Codes
LA	239
MA	12
MD	50
ME	83
MI	418
MN	209
МО	435
MS	208
MT	59
NC	297
ND	71
NE	250
NH	10
NJ	30
NM	47
NV	19
NY	377

State	# of Zip
State	Codes
ОН	584
OK	395
OR	17
PA	503
RI	0
SC	174
SD	67
TN	248
TX	707
UT	7
VA	191
VT	21
WA	2
WI	246
WV	260
WY	21