

Property Tax Rates In and Within Counties

April 2016 Special Studies

By Natalia Siniavskaia, PhD.

NAHB research consistently shows that property tax rates differ substantially across the United States, with the southern states typically registering some of the lowest rates, with the exception of Texas, and Northeast and Midwest registering some of the highest rates in the nation¹. Using the recently released 5-year American Community Survey (ACS) data from the Census Bureau, NAHB Economics extends the property tax analysis to smaller geographic areas like counties and tracts (the main way the Census Bureau subdivides counties).

The analysis reveals that the effective real estate tax rates vary widely even within counties, with the highest rate tracts displaying rates that are often multiple times higher than the lowest rate tracts within the same county. The analysis shows that some of these intra-county differences in property tax rates can be explained by varying household income, home values, how recently the homes have been purchased, presence of households that are exempt from paying property taxes, and the share of households with children under 18, among other factors.

ACS as a Source of the Real Estate Tax Data

The data on real estate taxes in this study come from the Census Bureau's American Community Survey (ACS). For areas with a population under 65,000, the ACS estimates must be based on several years of data. This article uses ACS data collected over the five-year period 2010-2014 so it can present effective property tax rate estimates for tracts and smaller counties.

The ACS asks homeowners to report both their home value and overall annual real estate taxes. The Census Bureau aggregates home values and property taxes for all homeowners by geographic areas and publishes these totals for different levels of geographies on its publicly available tabulations. The ratio of aggregate real estate taxes and aggregate home values is the average effective real estate tax rate, or the percentage of the property value that is paid in taxes

¹ For example, see "[Property Tax Rates after the Housing Downturn](#)", N. Siniavskaia, Housing Economics Online, April 2011

every year². These effective tax rates are different from the nominal tax rates that are set by local jurisdictions, as they also reflect existing assessment ratios, homestead exemptions, other possible tax credits and deductions, and owners' perceptions of how home values are changing.³

Property Taxes and Tax Rates across Counties

The five-year ACS is designed to provide data for all US counties and tracts within counties. However, when it comes to the real estate tax data, some estimates are either suppressed or disguised by the Census Bureau to protect confidentiality. In addition, areas with very few owner-occupied homes are likely to have large margins of error. Therefore, this study is limited to geographic areas that have at least 100 homeowners and where the property values and taxes are not disguised by the Census Bureau. This criterion primarily screens out anomalous census tracts, still allowing us to estimate average effective property tax rates for 3,129 of the 3,142 US counties.⁴

The county real estate tax data are organized by states and presented in Table 1. For each county, the first three data columns report average house value, average annual real estate taxes, and average property taxes per \$1,000 of value based on five years of collected data. The last three columns report the lowest and highest tract real estate tax rates within each county, as well as the ratio between the highest and lowest rates. Figure 1 displays county average annual property taxes per home and helps visualize wide cross-country differences in property tax bills homeowners pay across the nation.

Average real estate taxes range from around \$110 per home in several Louisiana parishes to more than \$10,000 in Bergen and Essex Counties in New Jersey, and Nassau and Westchester Counties in New York. As Figure 1 shows, property taxes per home are consistently and

² Until 2010, the Census Bureau was not publishing aggregate property taxes, so estimated rates for small areas had to be based on median property taxes divided by median property value, a measure that has some technical shortcomings. At NAHB's request, the Census Bureau began publishing aggregate property taxes with the release of the 2010 ACS, allowing us to perform the preferred aggregate taxes over aggregate value calculation, which yields the average property tax rate per dollar of property value

³ A relatively old study found that owners tended to underestimate the value of their homes (Charles Wolters and Henry Woltman, *1970 Census: Preliminary Results Memorandum No 48*, U.S. Census Bureau, Statistical Methods Division, 1974). A study conducted in the 1990s, in contrast, showed that owners tended to overestimate the value by a few percentage points (Katherine Kiel and Jeffrey Zabel, "The Accuracy of Owner-Provided House Values: the 1978-1991 American Housing Survey," *Real Estate Economics*, 1999). We are not aware of a study investigating whether either tendency persisted after the historic period of declining house prices in the 2000s.

⁴ Including county "equivalents" like parishes in Louisiana and independent cities that do not belong to any county in several states.

significantly higher along the coastal areas of California, Northeast, and South Florida. To a large degree, these high property taxes reflect high homes values in these areas; therefore comparing real estate tax rates per \$1,000 of value is more meaningful.

Figure 1. Average Annual Real Estate Taxes per Owner-Occupied Home, 2010-2014

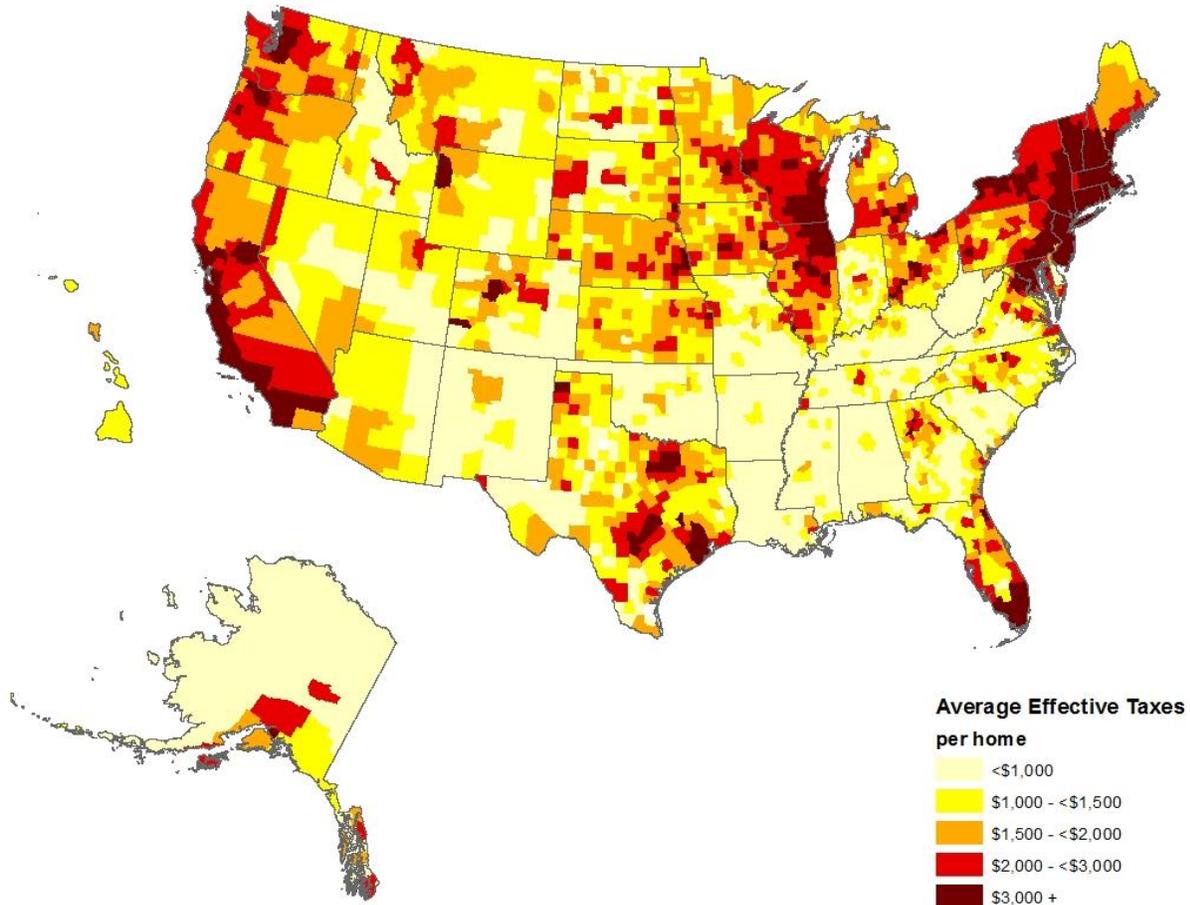
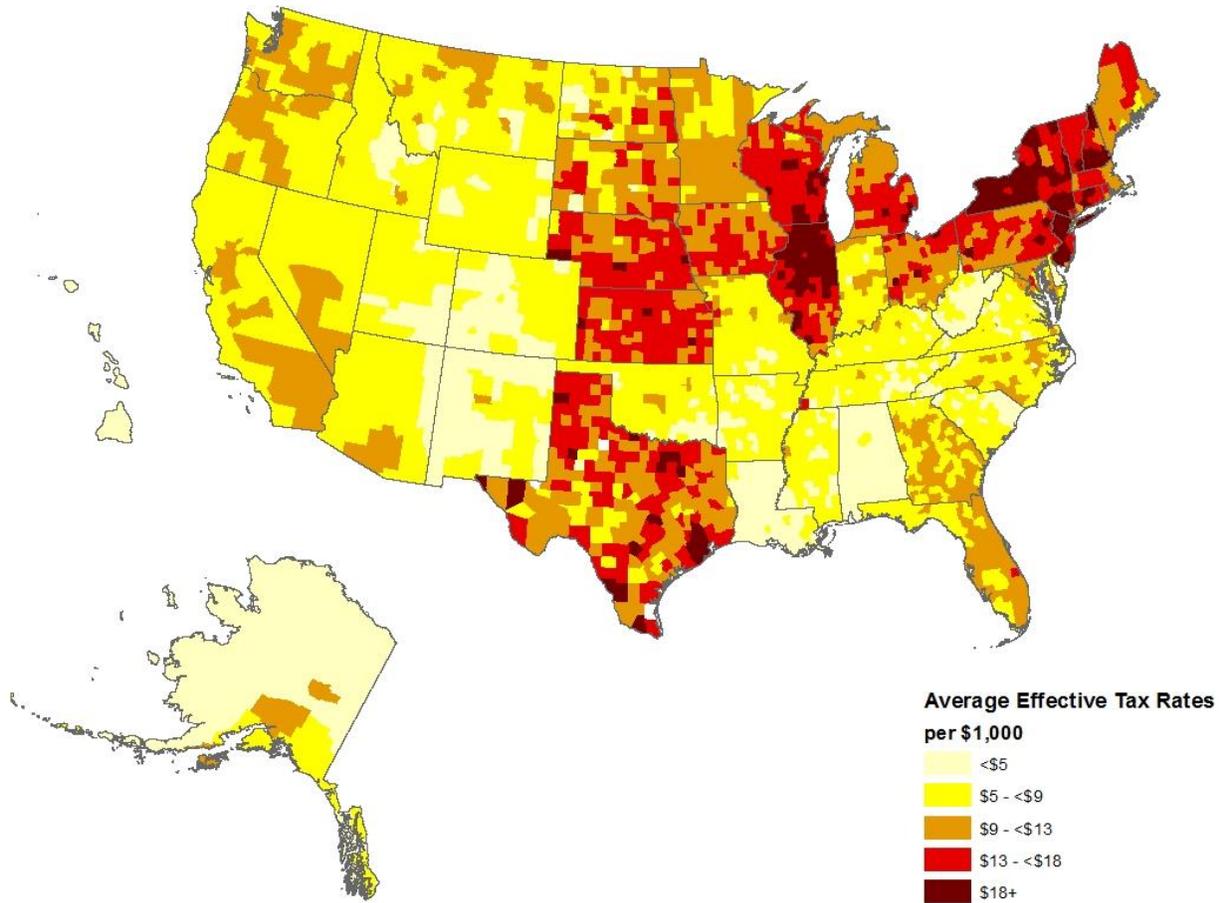


Figure 2 shows average effective property tax rates per \$1,000 of value and reveals a clear and more condensed geographic pattern with property tax rates being higher in Texas, and the Northeast and Midwest regions. The coastal areas of California and South Florida no longer stand out on the map with the rates measured per \$1,000 of value. At the low end of the national spectrum, there are once again Louisiana parishes with twelve of them registering property tax rates that are effectively under \$2 dollars per \$1,000 of value. At the high end, there are Orleans and Monroe Counties, New York and Camden County, New Jersey with property tax rates averaging close to \$29.

The tax rate map also highlights the fact that even though counties largely mirror the geographic pattern for states, there is plenty of variation within states. However, some states seem to have fewer intra-state differences than others do. For example, average property tax rates in Hawaii are consistently low, averaging around \$2-3 per \$1,000 of value. Similarly, property tax rates in

all counties in Alabama do not exceed \$5, with the only exception of Jefferson County, where the rates cross the \$6 per \$1,000 of value mark.

Figure 2. Average Effective Property Tax Rates per \$1,000 of Value, 2010-2014



In sharp contrast, counties in New York have average real estate tax rates that range from less than \$6 in Kings and New York Counties to \$29 per \$1,000 in Monroe County.

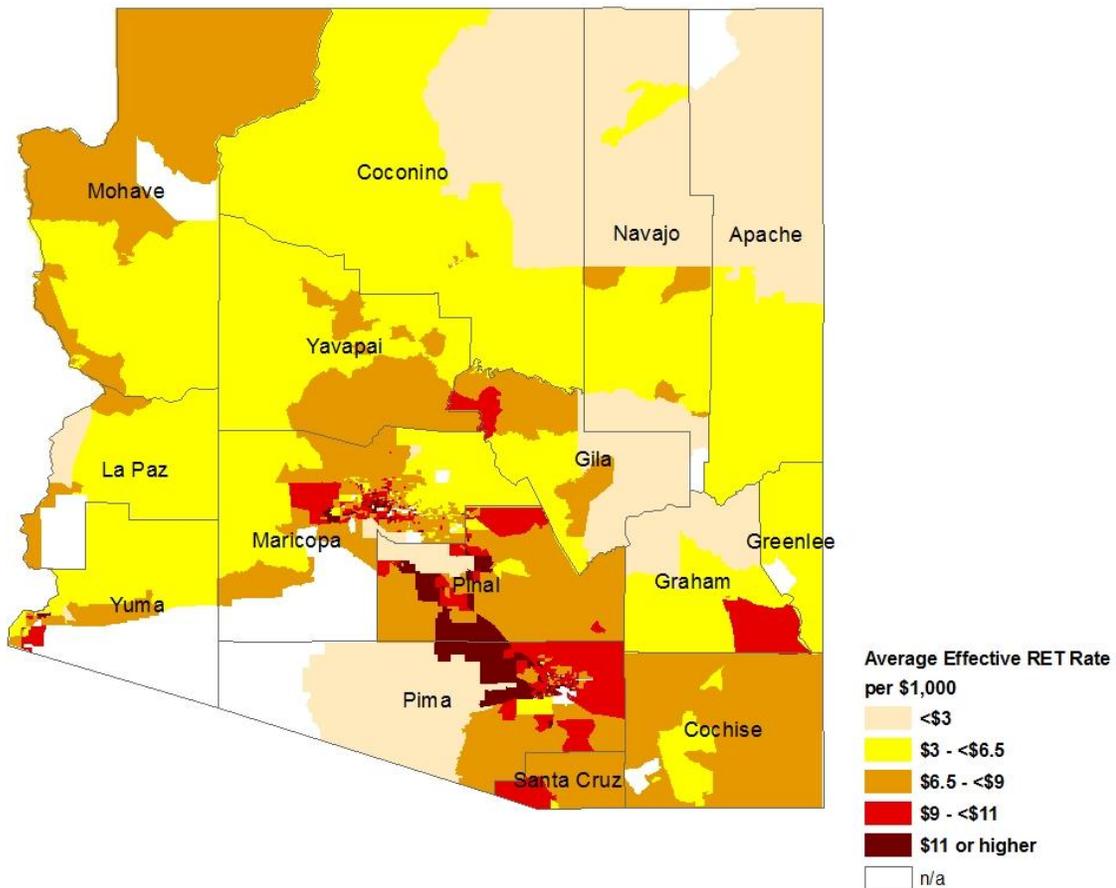
Property Tax Rates Within Counties

The five-year ACS data allow drilling further down geographically and examining tax rate differences within counties, on a census tract level. The Census Bureau defines tracts as small statistical subdivisions of a county with population between 2,500 and 8,000 persons and designs them to be homogenous with respect to population characteristics, economic status, and living

conditions. The tract level data show that even within counties effective property tax rates can vary significantly.

Figure 3 illustrates widespread intra-county differences, using the average effective real estate tax rates for Arizona counties and tracts. Several Arizona counties stand out for registering some of the highest intra-county tax rate differences in the nation. For example, the lowest tract rates in Pima and Pinal counties are effectively under \$1 per \$1,000 of value, while the highest tract rates exceed \$14. Similarly, in Gila County, average tax rates vary from less than \$1 to \$9 per \$1,000 of value.

Figure 3. Average Effective Real Estate Tax Rates by Census Tracts in Arizona, 2010-2014



To explore what factors can possibly explain the inter-tract variation in residential property tax rates we use a regression analysis⁵. To account for regional differences, the regression analysis

⁵ Since the ACS data are known to have larger margins of errors for smaller geographic areas, the estimated regression parameters were tested for stability by running separate regressions for small tracts (with a population under 2,500) and large tracts (with a population of 2,500 or more). The results remained stable across all regressions.

includes flag variables for the West, South, Midwest, Northeast regions, and a separate dummy for Texas that is known to have high property tax rates unlike the rest of the South region. To capture presence of homestead exemption and other possible tax credits and deductions, the regression analysis includes the share of homeowners that do not pay real estate taxes. Some tax credits, such as “property tax circuit breakers” programs, are linked to household income. To account for presence of these programs, tract median household income is included. Since property taxes are known to fund local public schools, the county share of households with children under 18 is added in as a proxy for a school district size. In addition, tract median home values and median year homeowners moved into unit also enter the regression equation.

As expected, a large portion of inter-tract differences can be explained by their regional location, with homeowners in Midwest, Northeast and Texas paying considerably higher property tax rates per \$1,000 of value, compared to homeowners in the South and West regions. The regression analysis shows that after accounting for differences in home values, income, share of exempt households and presence of households with children under 18, homeowners in Northeast face property tax rates that are on average almost 70 percent higher than in otherwise similar tracts in the South Region. This is just a reflection of a well-known and long established tradition of southern states to rely less on real estate taxes as a source of government revenue. The prominent exception to this rule is Texas, a state that does not have state or local income taxes. The average effective property tax rates in Texas are almost 60 percent higher than the rates in otherwise similar tracts in the rest of the South Region.

Comparing the shares of homeowners that do not pay real estate taxes also helps explain large average effective property tax rates differences between tracts within a county. Tracts that report significant shares of exempt homeowners are likely to have a large concentration of homeowners eligible for homestead exemption and other tax credits and deductions. Consequently, these tracts register substantially lower average effective property tax rates compared to otherwise similar tracts but with fewer exempt homeowners.

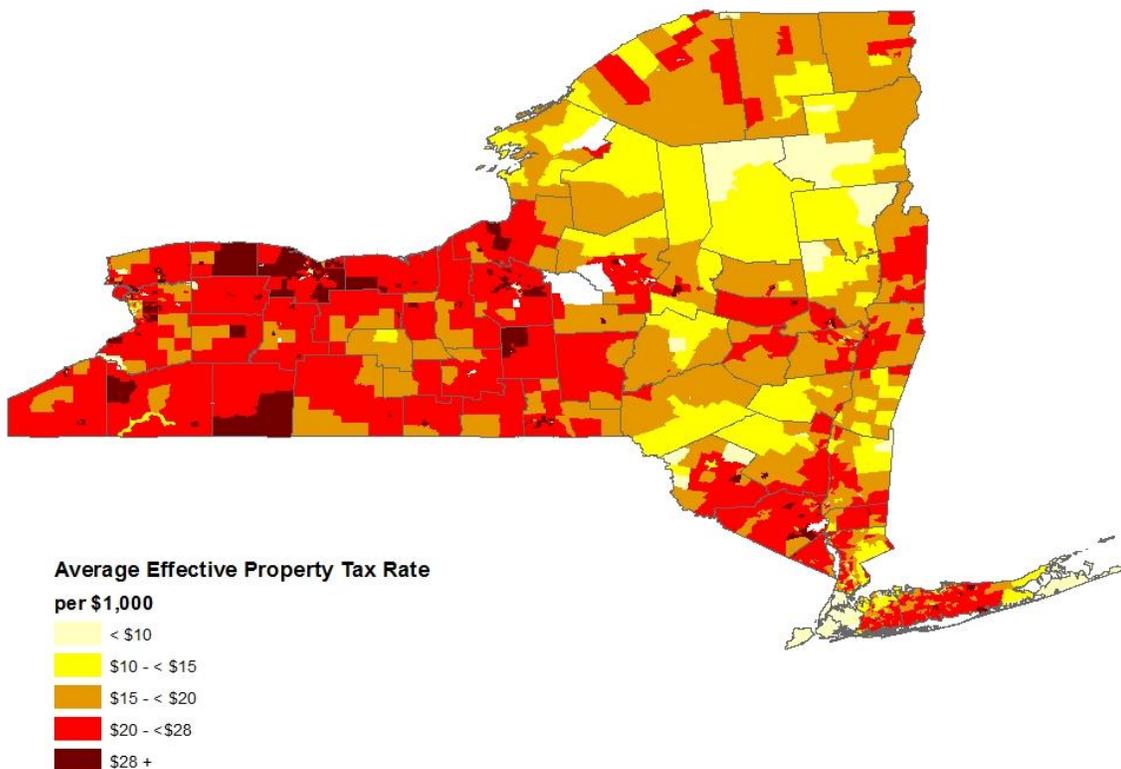
For example, according to Table 1, most tracts in Louisiana counties report consistently low property tax rates, and consequently have a relatively low ratio between the highest and lowest tract rates within a county. One obvious exception is Orleans Parish, where the highest average tract property tax rate exceeds the lowest more than 17 times. A closer examination of the data reveals that two out of top five highest rate tracts in Orleans Parish have no homeowners exempt from paying real estate taxes, while in the lowest rate tract, close to a quarter of homeowners pay no real estate taxes.

Similar situation is observed in Montgomery County, Alabama, where the lowest average property tax rate is under \$1 per \$1,000 of value, and the highest tract rate exceeds it more than 11 times. It turns out only 8 percent of homeowners in the highest rate tract are exempt from paying real estate taxes. In the lowest rate tract, however, the majority of homeowners are exempt, thus effectively driving the average property tax rate in this tract close to zero.

Since many households who pay a high share of their income in property taxes can be eligible for “property tax circuit breakers” or other tax credits tied to their income, the tract median household income might help explaining some differences in effective property tax rates. Indeed, it turns out that tracts with lower median income are likely to register lower effective property tax rates than otherwise similar tracts. The regression model estimates the tract income elasticity of property tax rates at 0.26, meaning that tracts register average effective property tax rates 2.6 percent lower than otherwise similar tracts if the tract median income is 10 percent lower.

The regression analysis also confirms an expected negative relationship between effective property tax rates and home values. For example, in New York, homeowners in tracts where average home value exceeds \$1 million pay effective tax rates of under \$6 while the rest pays property tax rates averaging \$16.5 per \$1,000 of value. Kings County shows most variation in average effective property tax rates in New York. It turns out top five highest rates in Kings County are registered by tracts where average home values are under \$440,000 while the bottom four rates are recorded by tracts where average home value exceeds \$1million.

Figure 4. Average Effective Property Tax Rates in New York, 2010-2014



Academic literature offers several compelling arguments to explain this relationship. Low

property values drive state and local government to raise tax rates to boost government revenues; poorer neighborhoods require more public services that in turn dictate higher tax rates; when capitalized, lower tax rates boost home values⁶.

Since property taxes are known to fund local public schools, it is likely that school districts with more children per household would set higher real estate tax rates to boost government revenues to pay for schools. However, school districts are typically larger than tracts and often overlap with counties (in case of Maryland, they are not even independent and run at the county level). Consequently, school district taxing policies are more likely to reflect county demographics than be dominated by demographics of a smaller tract. To account for this, the county - rather than tract - share of households with children enters the regression equation. The relationship indeed turns out positive, meaning that tracts belonging to counties with proportionately more children tend to have higher property tax rates.

The last factor considered in the analysis - median year homeowners moved into unit – turns out to have a relatively small but still significant positive effect on average effective tax rates. Tracts with the most recent homebuyers report slightly higher property tax rates. This is likely to happen where localities have limits on annual property tax hikes but grant them only to existing homeowners. In this case, homebuyers could face a much larger property tax bill compared to original or non-moving homeowners of similar properties, resulting in higher effective tax rates in tracts with the most recent homebuyers.

⁶ For more information, see “Property Taxes in the 2000 Census,” Paul Emrath, Housing Economics, December 2002.

Additional Resources

Multiple Regression Results for Model of Ln (Tract Average Effective Tax Rate per \$1,000 of Value)

	All tracts	Small tracts with a population <2500	Large tracts with a population exceeding 2,500
Intercept	-15.02715 (<.0001)	-13.46136 (<.0001)	-15.79689 (<.0001)
Ln (Tract Median Income)	0.25555 (<.0001)	0.19833 (<.0001)	0.26632 (<.0001)
Ln (Tract Average Home Value)	-0.31471 (<.0001)	-0.32092 (<.0001)	-0.31091 (<.0001)
Median Year Owners Moved In	0.00901 (<.0001)	0.00854 (<.0001)	0.00933 (<.0001)
Share of Exempt Homeowners	-0.02516 (<.0001)	-0.02393 (<.0001)	-0.02559 (<.0001)
Share of Households with Children under 18	0.76443 (<.0001)	0.93427 (<.0001)	0.69238 (<.0001)
West	0.04607 (<.0001)	-0.0167 (0.1636)	0.05448 (<.0001)
Midwest	0.50009 (<.0001)	0.50684 (<.0001)	0.49661 (<.0001)
Texas	0.58344 (<.0001)	0.48041 (<.0001)	0.60378 (<.0001)
Northeast	0.68276 (<.0001)	0.63136 (<.0001)	0.69345 (<.0001)
Adjusted R ²	0.564	0.5516	0.5692
n	69,667	11,825	57,842

Table 1. Effective Real Estate Tax (RET) Rates: County Averages, Highs and Lows

County Fip	County	Average House Value	Average Real Estate Taxes	Average RET Rate Per \$1,000 of Value*			
				County Average	Lowest Tract	Highest Tract	High-Low Ratio
01001	Autauga County, Alabama	146,937	444	3.0	2.2	4.8	2.2
01003	Baldwin County, Alabama	202,331	723	3.6	2.3	5.2	2.2
01005	Barbour County, Alabama	167,224	429	2.6	1.3	3.5	2.7
01007	Bibb County, Alabama	112,485	261	2.3	1.7	3.0	1.8
01009	Blount County, Alabama	135,644	416	3.1	2.7	3.6	1.4
01011	Bullock County, Alabama	98,432	312	3.2	2.9	3.3	1.1
01013	Butler County, Alabama	125,476	362	2.9	1.6	3.5	2.3
01015	Calhoun County, Alabama	126,769	442	3.5	1.8	4.9	2.8
01017	Chambers County, Alabama	108,071	374	3.5	3.0	4.2	1.4
01019	Cherokee County, Alabama	126,770	444	3.5	3.0	4.1	1.3
01021	Chilton County, Alabama	120,375	390	3.2	2.3	3.8	1.7
01023	Choctaw County, Alabama	95,736	228	2.4	2.2	2.6	1.2
01025	Clarke County, Alabama	100,825	252	2.5	2.0	3.7	1.9
01027	Clay County, Alabama	113,313	304	2.7	2.0	3.4	1.6
01029	Cleburne County, Alabama	139,688	402	2.9	2.6	3.2	1.2
01031	Coffee County, Alabama	154,980	547	3.5	1.9	4.3	2.3
01033	Colbert County, Alabama	137,344	414	3.0	2.1	4.2	2.0
01035	Conecuh County, Alabama	85,295	293	3.4	3.1	4.0	1.3
01037	Coosa County, Alabama	101,628	238	2.3	1.9	2.8	1.4
01039	Covington County, Alabama	125,813	346	2.7	1.6	4.0	2.6
01041	Crenshaw County, Alabama	92,548	305	3.3	2.6	4.0	1.5
01043	Cullman County, Alabama	153,609	381	2.5	2.0	3.2	1.6
01045	Dale County, Alabama	126,188	404	3.2	2.4	4.9	2.1
01047	Dallas County, Alabama	107,707	374	3.5	1.6	5.2	3.2
01049	DeKalb County, Alabama	132,217	363	2.7	2.0	3.8	2.0
01051	Elmore County, Alabama	163,436	432	2.6	2.1	3.7	1.8
01053	Escambia County, Alabama	109,632	365	3.3	2.1	4.5	2.2
01055	Etowah County, Alabama	126,105	461	3.7	2.5	5.3	2.1
01057	Fayette County, Alabama	121,420	253	2.1	1.0	3.2	3.2
01059	Franklin County, Alabama	108,643	357	3.3	2.4	4.4	1.9
01061	Geneva County, Alabama	106,855	304	2.8	2.6	3.1	1.2
01063	Greene County, Alabama	90,465	218	2.4	1.5	2.8	1.9
01065	Hale County, Alabama	114,496	308	2.7	2.4	3.9	1.7
01067	Henry County, Alabama	123,322	383	3.1	2.2	4.3	2.0
01069	Houston County, Alabama	149,841	444	3.0	2.2	3.7	1.7
01071	Jackson County, Alabama	125,296	342	2.7	2.2	3.3	1.5
01073	Jefferson County, Alabama	190,524	1,244	6.5	1.7	9.8	5.7
01075	Lamar County, Alabama	86,114	363	4.2	2.7	5.5	2.1
01077	Lauderdale County, Alabama	155,338	583	3.8	1.5	4.8	3.3
01079	Lawrence County, Alabama	119,593	324	2.7	1.6	4.0	2.5
01081	Lee County, Alabama	177,449	845	4.8	3.6	5.7	1.6
01083	Limestone County, Alabama	167,703	593	3.5	2.1	4.7	2.2
01085	Lowndes County, Alabama	113,730	476	4.2	2.8	5.3	1.9
01087	Macon County, Alabama	94,006	389	4.1	2.4	5.0	2.1
01089	Madison County, Alabama	200,136	898	4.5	2.1	5.8	2.8

01091	Marengo County, Alabama	117,697	350	3.0	2.0	3.7	1.9
01093	Marion County, Alabama	102,396	287	2.8	1.8	3.7	2.1
01095	Marshall County, Alabama	147,981	502	3.4	2.5	6.0	2.4
01097	Mobile County, Alabama	156,659	779	5.0	0.9	7.9	8.8
01099	Monroe County, Alabama	94,379	286	3.0	2.0	4.1	2.0
01101	Montgomery County, Alabama	162,788	591	3.6	0.6	6.8	11.1
01103	Morgan County, Alabama	143,617	493	3.4	2.4	4.9	2.0
01105	Perry County, Alabama	83,986	209	2.5	2.0	4.4	2.2
01107	Pickens County, Alabama	108,217	283	2.6	2.2	3.1	1.4
01109	Pike County, Alabama	132,487	355	2.7	1.8	3.1	1.7
01111	Randolph County, Alabama	135,324	354	2.6	2.3	3.2	1.4
01113	Russell County, Alabama	134,489	535	4.0	2.6	5.6	2.2
01115	St. Clair County, Alabama	152,929	448	2.9	2.3	3.7	1.6
01117	Shelby County, Alabama	229,937	1,116	4.9	1.9	7.0	3.6
01119	Sumter County, Alabama	116,392	267	2.3	1.6	3.0	1.9
01121	Talladega County, Alabama	125,146	384	3.1	1.3	6.3	4.8
01123	Tallapoosa County, Alabama	158,113	489	3.1	2.4	3.8	1.5
01125	Tuscaloosa County, Alabama	177,566	649	3.7	2.3	6.5	2.9
01127	Walker County, Alabama	108,176	294	2.7	1.8	4.0	2.2
01129	Washington County, Alabama	103,437	315	3.0	2.5	3.6	1.5
01131	Wilcox County, Alabama	94,638	277	2.9	2.1	3.4	1.6
01133	Winston County, Alabama	121,658	326	2.7	2.0	3.9	1.9

Source: The 2010-2014 American Community Survey, U.S. Census Bureau, NAHB estimates

*Some lowest/highest tract median tax rates are possibly omitted if tracts have less than 100 homeowners