The Impact of Antebellum Slavery on Contemporary Income Inequality
Javier E. del Cid, Dominick Tanoh, Ian N. Sexton, Haruna Takeda, Paul M. Sommers

The authors relate county-level data on the population of slaves in the antebellum South to present-day county-level Gini ratios on income inequality. Outside the five Deep Southern states of Louisiana, Mississippi, Alabama, Georgia, and South Carolina, the intensity of slavery in 1860 is associated with a lower degree of income inequality. Inside these same five states in counties where the population of slaves accounted for more than 71 percent of the county’s total population in 1860, there is evidence of a strong positive relationship between slavery and contemporary income inequality.

Keywords: Slavery; Income Inequality; Gini Coefficients

Thomas Sowell [1, p. 83] writes that the unique experience of African-Americans as slaves in the antebellum South has “implications for present-day controversies over such issues as ‘compensation’ for past injustices.” Nathan Nunn [2] writes that “[s]lavery had a long-term effect on inequality.” This note examines the relationship between the 1860 percentage of slaves in each county of each state in the antebellum South and contemporary income inequality.

Understandably, present-day county boundaries have shifted since 1860, but ArcGIS software estimates where the people (slaves and free citizens) who lived in 1860 would live if present boundaries were imposed. We performed an areal weighted re-aggregation (AWR) of the data to account for these geographical changes. AWR estimates the values of one or more variables in a set of target zones based on known values that exist in a set of source zones. In other words, we estimated where the slaves and free citizens who lived in 1860 would live if present boundaries were imposed, using the 1860 county boundaries as the source zones and the current county boundaries as the target zones. Our analysis also includes independent cities, which are considered county-equivalent for census purposes.

The Data

The 1860 Census was the last record of slavery before its abolishment in the aftermath of the Civil War. Our sample included the total population of slaves and free citizens by county for 1205 current counties across fifteen states: Alabama (67), Arkansas (75), Delaware (3), Florida (67), Georgia (159), Kentucky (120), Louisiana (64), Maryland (24), Mississippi (82), Missouri (115), North Carolina (100), South Carolina (46), Tennessee (95), Virginia (133), and West Virginia (55). West Virginia (previously a part of Virginia) did not become a state until 1863. We excluded Texas where far fewer Census forms in 1860 were returned than in any other Southern state. For each of the fifteen states, we summed across all counties and found statewide weighted average Gini ratios and the average percentage of slaves.1,2 These results are reported in Table 1. Five of the six states with the highest percentage of slaves are in the contiguous Deep Southern states of Louisiana, Mississippi, Alabama, Georgia, and South Carolina.3

Table 1. Percentage of Slaves (1860) and Gini Ratios (2014), by Southern State

| State          | Number of counties | Gini1 | Percentage of slaves2 |
|----------------|--------------------|-------|-----------------------|
| Alabama        | 67                 | 0.46  | 45.12                 |
| Arkansas       | 75                 | 0.46  | 25.61                 |
| Delaware       | 3                  | 0.44  | 1.67                  |
| Florida        | 67                 | 0.47  | 44.17                 |
| Georgia        | 159                | 0.46  | 43.65                 |
| Kentucky       | 120                | 0.46  | 19.53                 |
| Louisiana      | 64                 | 0.47  | 47.22                 |
| Maryland       | 24                 | 0.43  | 12.37                 |
| Mississippi    | 82                 | 0.47  | 55.12                 |
| Missouri       | 115                | 0.44  | 9.73                  |
| North Carolina | 100                | 0.46  | 33.35                 |
| South Carolina | 46                 | 0.46  | 57.08                 |
| Tennessee      | 95                 | 0.46  | 24.81                 |
| Virginia       | 134                | 0.42  | 38.73                 |
| West Virginia  | 55                 | 0.45  | 4.89                  |

1See [3].
2See [4].

The Results

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To determine whether or not income inequality today is directly associated with the percentage of slaves in 1860 we regressed for all 1205 counties today’s county-level Gini coefficient (hereafter, GINI) against the percentage of African-Americans living today in each county (BLACKS), the percentage of slaves (SLAVES), and the percentage of slaves squared (SLAVES²). A Gini coefficient of 1 would represent complete income inequality and a Gini coefficient of 0 would represent complete income equality.

The OLS regression results were (t-values in parentheses):

\[
GINI = 0.4535 + 0.10665 \times BLAKCS - 0.11436 \times SLAVES + 0.08034 \times SLAVES^2
\]

\[R^2 = .266 \text{ (n = 1205)}\]

The reported t-values have been adjusted for fifteen state clusters. The regression controls for state fixed effects. The larger the percentage of blacks in any given county in the South today, the higher the overall income inequality. The relationship between the Gini and the percentage of slaves is U-shaped, with a turning point for all states in the antebellum South calculated to be 71.2 percent. That is, as the percentage of slaves increases (up to 71.2 percent), the Gini falls. The percentage of slaves in forty-eight counties (of the 1205 counties in our sample) had a slave population that exceeded 71.2 percent of the county’s total 1860 population. Curiously, forty-five of the forty-eight counties lie in one of the five Deep Southern states [Louisiana (11 counties, 17.2 percent of all state counties), Mississippi (16, 19.5 percent), Alabama (6, 9.0 percent), Georgia (6, 3.8 percent), and South Carolina (6, 13.0 percent)]. For these forty-five counties, the average percentage of blacks per county today is 54.0 percent. For the other 373 counties inside these five “black belt” states (but with a slave population that accounted for less than 71.2 percent of the county’s total population in 1860), the average percentage of blacks per county today is 29.6 percent. And outside these five Deep South states (787 counties), the average percentage of blacks per county today is 11.4 percent.

How contemporary income inequality varies with the percentage of slaves living in each county in 1860 obviously depends on the location of the county. If the county is located outside the Deep South, there is an inverse relationship between contemporary income inequality and the historical percentage of slaves in that county. If the county is located inside the Deep South where the historical percentage of slaves was less than 71.2 percent, the relationship between income inequality and the historical percentage of slaves resembles what it is outside the Deep South. But, if the county is located inside the Deep South and the historical percentage of slaves was more than 71.2 percent, there is a strong direct relationship between contemporary income inequality and the historical percentage of slaves in that county.

Why does income inequality increase in counties in the Deep South that had a very high historical percentage of slaves? This relationship may result from the institutionalized discrimination that sustained slavery. Because the economy in the Deep South largely depended on plantation agriculture, slaveholders had a financial incentive to discourage slaves from escaping. The cheapest way to accomplish this was to ensure that slaves remained illiterate, making migration North almost impossible. After the Civil War, restrictive Jim Crow laws that limited educational opportunities for blacks, their political rights, and their access to capital may have accentuated the income gap between rich (disproportionately few whites) and poor (disproportionately many blacks). G. Bertocchi and A. Dimico [5], among others, suggest that the primary reason for the positive effect of slavery on inequality is a persistent racial gap in exposure to formal schooling.

Concluding Remarks

The results presented in this paper show that in counties throughout the antebellum South with the highest concentration of slavery, income inequality today is highest. The passage of time has done little to remove the stain of historical slavery on contemporary income inequality in Deep South states where slavery in 1860 was particularly concentrated. In southern states outside the Deep South, however, the lingering effects of slavery on worsening income inequality are not quite so obvious.

In summary, using county-level data on slavery and inequality, we find that higher percentages of slaves in 1860 are associated with lower income inequality today. But, in counties in the Deep South where the percentage of slaves was more than 71.2 percent of the county’s population in 1860, there is a strong direct relationship between that historical percentage of slaves and contemporary income inequality.

References

1. T. Sowell, *Markets and Minorities*, Basic Books, Inc., New York, 1981.
2. N. Nunn, “The Long-Term Effects of Africa’s Slave Trades,” *Quarterly Journal of Economics*, 2008, Vol. 123(1), pp. 139-176.
3. U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates, “Gini Index of Income Inequality,” Table B19083. See [www.socialexplorer.com](http://www.socialexplorer.com/). See [www.socialexplorer.com/tables/ACS2014_5yr/R1196098](http://www.socialexplorer.com/tables/ACS2014_5yr/R1196098).
4. M. R. Haines, “Historical, Demographic, Economic, and Social Data: The United States, 1790 – 2002,” Inter-university Consortium for Political and Social Research (ICPSR 2896). See [www.socialexplorer.com/tables/Census1860/R11196094](http://www.socialexplorer.com/tables/Census1860/R11196094).
5. G. Bertocchi and A. Dimico, “Slavery, Education, and Inequality,” Institute for the Study of Labor (IZA), Discussion Paper No. 5329, November 2010.

Footnotes

1. The weights assigned to each county’s GINI is equal to that county’s total population as a fraction of the state’s total population in 2014.
2. The average percentage of slaves is the sum of slaves across all counties in a particular state divided by the total population (slaves plus free citizens) across all counties in that state.
3. T. Sowell [1, p. 87] refers to these five states as “the black belt” of cotton-growing lower southern states.
4. The data on county-level Gini ratios and the current population of blacks are from the 2014 American Community Survey 5-year estimates [3, 4]. All percentages have been converted to their decimal equivalents.
The turning point is found by taking the partial derivative of the Gini ratio, $GINI$, with respect to the percentage of slaves, $SLAVES$, setting this derivative equal to zero, and solving for $SLAVES$ in terms of the estimated regression coefficients on $SLAVES$ and $SLAVES^2$. Still, in other words,

$$\frac{\partial GINI}{\partial SLAVES} = -.11436 + 2 \times (.08034) \times SLAVES^* = 0$$

or $SLAVES^* = .712$,

where $SLAVES^* \times 100$ denotes the percentage of slaves at which the Gini ratio reaches a minimum.
| fips | county         | state     | gini | per_slaves     | per_slaves2   | per_black     |
|------|----------------|-----------|------|----------------|---------------|---------------|
| 1001 | Autauga County | Alabama   | 0.41 | 57.46332388    | 3302.033591   | 18.60309054   |
| 1003 | Baldwin County | Alabama   | 0.4517 | 48.03227347   | 2307.099295   | 9.365340865   |
| 1005 | Barbour County | Alabama   | 0.4608 | 52.43522129   | 2749.452432   | 46.33282938   |
| 1007 | Bibb County    | Alabama   | 0.4365 | 32.67703269    | 1067.788466   | 21.17600318   |
| 1009 | Blount County  | Alabama   | 0.4134 | 7.7637034     | 60.27509048   | 1.535258912   |
| 1011 | Bullock County | Alabama   | 0.446  | 52.21652559    | 2726.565545   | 71.44861124   |
| 1013 | Butler County  | Alabama   | 0.4591 | 38.8750141    | 1511.266721   | 43.73142328   |
| 1015 | Calhoun County | Alabama   | 0.4517 | 44.6467327    | 1993.330741   | 10.24188575   |
| 1017 | Chambers County| Alabama   | 0.5023 | 50.46923786    | 2547.14397    | 40.25109266   |
| 1019 | Cherokee County| Alabama   | 0.4658 | 16.48245725    | 271.6713971   | 4.926656939   |
| 1021 | Chilton County | Alabama   | 0.4517 | 44.6467327    | 1993.330741   | 10.24188575   |
| 1023 | Choctaw County | Alabama   | 0.446  | 51.70477737    | 2673.384003   | 43.52576406   |
| 1025 | Clarke County  | Alabama   | 0.5249 | 50.38407085    | 2538.554595   | 45.00809285   |
| 1027 | Clay County    | Alabama   | 0.4373 | 29.63873798    | 878.4547888   | 14.58471029   |
| 1029 | Cleburne County| Alabama   | 0.4432 | 17.90011804    | 320.4142258   | 2.868579053   |
| 1031 | Coffee County  | Alabama   | 0.4474 | 15.59931469    | 243.3386189   | 17.09379805   |
| 1033 | Colbert County | Alabama   | 0.4361 | 45.79312591    | 2097.010381   | 15.98796131   |
| 1035 | Conecuh County | Alabama   | 0.4592 | 43.01298306    | 1850.116711   | 44.82864844   |
| 1037 | Coosa County   | Alabama   | 0.4341 | 27.27066782    | 743.6893231   | 31.33279986   |
| 1039 | Covington County| Alabama  | 0.4637 | 13.18941152    | 173.9605763   | 12.85076952   |
| 1041 | Crenshaw County| Alabama   | 0.4589 | 46.60871962    | 2172.372745   | 23.45386713   |
| 1043 | Cullman County | Alabama   | 0.4582 | 8.621309636    | 74.32697984   | 1.358655229   |
| 1045 | Dale County    | Alabama   | 0.434  | 16.42002956    | 269.6173707   | 19.41895107   |
| 1047 | Dallas County  | Alabama   | 0.5281 | 76.0487188     | 5783.407631   | 69.62075662   |
| 1049 | DeKalb County  | Alabama   | 0.4431 | 8.266986969    | 68.34307355   | 1.799532881   |
| 1051 | Elmore County  | Alabama   | 0.4103 | 42.73149573    | 1825.980728   | 20.70566851   |
| 1053 | Escambia County| Alabama   | 0.4742 | 44.42986672    | 1974.013057   | 32.49303402   |
| 1055 | Etowah County  | Alabama   | 0.4458 | 15.06124788    | 226.8411877   | 15.36599889   |
| 1057 | Fayette County | Alabama   | 0.467  | 13.09013935    | 171.3517482   | 12.26864093   |
| 1059 | Franklin County| Alabama   | 0.4386 | 45.60584098    | 2079.892732   | 4.879512365   |
| 1061 | Geneva County  | Alabama   | 0.448  | 14.77991525    | 218.4458948   | 9.714394642   |
| 1063 | Greene County  | Alabama   | 0.4876 | 74.0181806     | 5478.69106    | 80.77972266   |
| 1065 | Hale County    | Alabama   | 0.5082 | 72.46219056    | 5250.769061   | 58.43565257   |
| 1067 | Henry County   | Alabama   | 0.4402 | 31.08571905    | 966.3219288   | 27.66068327   |
| 1069 | Houston County | Alabama   | 0.473  | 27.19997014    | 739.8383758   | 26.15469688   |

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| County          | State    | Latitude  | Longitude | Population | Median Income |
|-----------------|----------|-----------|-----------|------------|---------------|
| Jackson County  | Alabama  | 32.4473   | -86.4176  | 18,766,15768 | 352,168,674   |
| Jefferson County| Alabama  | 33.497    | -86.082232 | 23,008,28232 | 529,381,055   |
| Lamar County    | Alabama  | 33.4345   | -86.673441 | 12,667,3441  | 160,461,065   |
| Lauderdale County| Alabama | 33.4615   | -86.12528105 | 38,125,28105 | 1453,537,055  |
| Lawrence County | Alabama  | 33.4247   | -86.43633338 | 48,436,3338  | 2346,078,391  |
| Lee County      | Alabama  | 33.4937   | -86.09580827 | 58,095,80827 | 3375,122,938  |
| Limestone County| Alabama  | 33.4541   | -86.42112412 | 52,421,12412 | 2747,974,254  |
| Lowndes County  | Alabama  | 33.5281   | -86.6978199 | 69,697,8199  | 4857,786,099  |
| Macon County    | Alabama  | 33.4703   | -86.73124181 | 67,312,4181  | 4530,961,63   |
| Madison County  | Alabama  | 33.4701   | -86.51880803 | 54,518,80803 | 2972,300,429  |
| Marengo County  | Alabama  | 33.5402   | -86.1984844 | 78,198,4844  | 6115,002,962  |
| Marion County   | Alabama  | 33.4711   | -86.23194487 | 12,231,94487 | 149,620,475   |
| Marshall County | Alabama  | 33.4659   | -86.96839427 | 15,968,39427 | 254,989,6154  |
| Mobile County   | Alabama  | 33.4732   | -86.73243955 | 27,732,43955 | 769,088,2032  |
| Monroe County   | Alabama  | 33.492    | -86.57778514 | 55,977,78514 | 3133,512,429  |
| Montgomery County| Alabama | 33.4771   | -86.01333967 | 66,013,33967 | 4357,761,014  |
| Morgan County   | Alabama  | 33.4488   | -86.17891508 | 33,178,91508 | 1100,840,406  |
| Perry County    | Alabama  | 33.4924   | -86.64980893 | 65,649,80893 | 4309,897,413  |
| Pickens County  | Alabama  | 33.4608   | -86.45711262 | 54,457,11262 | 2965,577,115  |
| Pike County     | Alabama  | 33.4938   | -86.35156329 | 36,515,6329  | 1333,391,693  |
| Randolph County | Alabama  | 33.4525   | -86.571650896 | 9,571,650896 | 91,616,50088  |
| Russell County  | Alabama  | 33.4535   | -86.62765978 | 58,627,65978 | 3437,202,492  |
| St. Clair County| Alabama  | 33.423    | -86.162578849 | 16,265,78849 | 264,575,8752  |
| Shelby County   | Alabama  | 33.4253   | -86.253174499 | 28,531,74499 | 814,060,4724  |
| Sumner County   | Alabama  | 33.4762   | -86.07663143 | 75,076,63143 | 5636,300,588  |
| Talladega County| Alabama  | 33.4514   | -86.3725422383 | 37,254,22383 | 1387,877,193  |
| Tallapoosa County| Alabama | 33.4444   | -86.2803440685 | 28,034,40685 | 785,927,9672  |
| Tuscaloosa County| Alabama | 33.4666   | -86.4327582556 | 43,275,82556 | 1872,797,078  |
| Walker County   | Alabama  | 33.4635   | -86.678082093 | 6,780,82093  | 46,064,8334   |
| Washington County| Alabama | 33.4169   | -86.5272108534 | 52,721,08534 | 2779,51284    |
| Wilcox County   | Alabama  | 33.5321   | -86.7426505312 | 72,465,05312 | 5251,183,924  |
| Winston County  | Alabama  | 33.4564   | -86.719879255 | 7,198,79255  | 59,565,35711  |
| Arkansas County | Arkansas | 33.4663   | -86.5556011832 | 55,560,11832 | 3086,926,747  |
| Ashley County   | Arkansas | 33.4573   | -86.4649956497 | 46,499,56497 | 2162,209,542  |
| Baxter County   | Arkansas | 33.4395   | -86.3421049817 | 3,421,049817 | 11,703,58185  |
| Benton County   | Arkansas | 33.437    | -86.4144058655 | 4,144,058655 | 17,173,22214  |

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| County                  | State     | Code   | 2009  | 2011  | 2013  | 2015  | 2017  | 2019  | 2021  | 2023  | 2025  | 2027  | 2029  | 2031  | 2033  | 2035  | 2037  | 2039  | 2041  | 2043  | 2045  | 2047  | 2049  | 2051  | 2053  | 2055  | 2057  | 2059  | 2061  | 2063  | 2065  | 2067  | 2069  | 2071  | 2073  | 2075  | 2077  | 2079  |
|------------------------|-----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| County              | State     | Area (sq km) | Population (2010) | Latitude | Longitude |
|---------------------|-----------|--------------|-------------------|----------|-----------|
| Little River County | Arkansas  | 0.4214       | 32.91724795       | 34.5622  | -94.0477  |
| Logan County        | Arkansas  | 0.4596       | 10.7589771        | -34.578  | -94.6122  |
| Lonoke County       | Arkansas  | 0.3871       | 31.60720215       | -34.5727 | -93.9567  |
| Madison County      | Arkansas  | 0.4481       | 3.808127805       | 34.5622  | -93.8777  |
| Marion County       | Arkansas  | 0.4025       | 4.026455017       | 34.5622  | -93.5777  |
| Miller County       | Arkansas  | 0.4337       | 50.55692139       | 34.5622  | -93.3777  |
| Mississippi County  | Arkansas  | 0.4688       | 37.90186749       | 34.5622  | -93.0777  |
| Monroe County       | Arkansas  | 0.4905       | 38.39784983       | 34.5622  | -92.7777  |
| Montgomery County   | Arkansas  | 0.4202       | 3.12546692        | 34.5622  | -92.4777  |
| Nevada County       | Arkansas  | 0.4563       | 34.55826515       | 34.5622  | -92.1777  |
| Newton County       | Arkansas  | 0.4478       | 0.790002128       | 34.5622  | -91.8777  |
| Ouachita County     | Arkansas  | 0.4582       | 34.52335086       | 34.5622  | -91.5777  |
| Perry County        | Arkansas  | 0.4287       | 12.94706485       | 34.5622  | -91.2777  |
| Phillips County     | Arkansas  | 0.5069       | 58.70762335       | 34.5622  | -90.9777  |
| Pike County         | Arkansas  | 0.4508       | 8.36468394        | 34.5622  | -90.6777  |
| Poinsett County     | Arkansas  | 0.4259       | 22.39665167       | 34.5622  | -90.3777  |
| Polk County         | Arkansas  | 0.4558       | 4.25021738        | 34.5622  | -89.9000  |
| Pope County         | Arkansas  | 0.4377       | 12.31448615       | 34.5622  | -89.7777  |
| Prairie County      | Arkansas  | 0.4121       | 32.36949441       | 34.5622  | -89.5777  |
| Pulaski County      | Arkansas  | 0.481        | 29.81624589       | 34.5622  | -89.3777  |
| Randolph County     | Arkansas  | 0.4552       | 5.654083509       | 34.5622  | -89.0777  |
| St. Francis County  | Arkansas  | 0.4704       | 35.3068138        | 34.5622  | -88.8777  |
| Saline County       | Arkansas  | 0.3818       | 14.23308623       | 34.5622  | -88.6777  |
| Scott County        | Arkansas  | 0.4451       | 5.483927215       | 34.5622  | -88.4000  |
| Searcy County       | Arkansas  | 0.4383       | 1.777000916       | 34.5622  | -88.1000  |
| Sebastian County    | Arkansas  | 0.4991       | 7.481959577       | 34.5622  | -87.9000  |
| Sevier County       | Arkansas  | 0.4064       | 31.86352015       | 34.5622  | -87.7000  |
| Sharp County        | Arkansas  | 0.4103       | 5.79635123        | 34.5622  | -87.4000  |
| Stone County        | Arkansas  | 0.4937       | 5.839582993       | 34.5622  | -87.2000  |
| Union County        | Arkansas  | 0.4719       | 51.14459878       | 34.5622  | -87.0000  |
| Van Buren County     | Arkansas  | 0.4571       | 4.290847698       | 34.5622  | -86.8000  |
| Washington County   | Arkansas  | 0.4924       | 10.1482072        | 34.5622  | -86.6000  |
| White County        | Arkansas  | 0.4667       | 17.29060617       | 34.5622  | -86.4000  |
| Woodruff County      | Arkansas  | 0.4767       | 26.40194283       | 34.5622  | -86.2000  |
| Yell County         | Arkansas  | 0.4342       | 15.52330618       | 34.5622  | -85.9000  |
| Kent County         | Delaware  | 0.4087       | 8.861277398       | 34.5622  | -85.7000  |

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| County             | State | Population | Income | Median Home Value |
|-------------------|-------|------------|--------|------------------|
| New Castle County | Delaware | 0.4507 | 0.496242362 | 0.246256482 | 24.09763926 |
| Sussex County     | Delaware | 0.4288 | 4.57973502  | 20.97397285  | 12.69234356 |
| Alachua County    | Florida  | 0.5168 | 53.88141997 | 2903.207418  | 20.21059823 |
| Baker County      | Florida  | 0.4348 | 19.93247746 | 397.3036579  | 14.22552389 |
| Bay County        | Florida  | 0.4347 | 23.90398548 | 571.4005219  | 10.43540592 |
| Bradford County   | Florida  | 0.4533 | 19.71789332 | 388.7953168  | 19.77714866 |
| Brevard County    | Florida  | 0.4474 | 23.90505955 | 571.4518719  | 10.20712673 |
| Broward County    | Florida  | 0.4386 | 35.52367046 | 1261.931163  | 13.28375522 |
| Calhoun County    | Florida  | 0.4314 | 29.33977448 | 860.8223668  | 13.01710507 |
| Charlotte County  | Florida  | 0.4311 | 23.90398548 | 571.4005219  | 10.43540592 |
| Citrus County     | Florida  | 0.4504 | 34.06354733 | 1160.325257  | 21.97771121 |
| Clay County       | Florida  | 0.5324 | 15.47110152 | 239.3549822  | 6.746712749 |
| Collier County    | Florida  | 0.4467 | 24.24718814 | 1957.813658  | 17.81206586 |
| Columbia County   | Florida  | 0.4222 | 29.62529274 | 877.6579699  | 13.01710507 |
| DeSoto County     | Florida  | 0.4071 | 28.98917859 | 840.3724752  | 10.08241928 |
| Dixie County      | Florida  | 0.473  | 39.17722054 | 1534.854609  | 29.44933295 |
| Duval County      | Florida  | 0.4504 | 34.06354733 | 1160.325257  | 21.97771121 |
| Escambia County   | Florida  | 0.4363 | 32.03724558 | 1028.693082  | 11.14899386 |
| Flagler County    | Florida  | 0.4904 | 27.61164654 | 762.4030246  | 15.44345136 |
| Franklin County   | Florida  | 0.4535 | 57.48570026 | 3304.605734  | 55.16696895 |
| Gadsden County    | Florida  | 0.4572 | 54.00595934 | 2916.643644  | 6.15411848 |
| Gilchrist County  | Florida  | 0.6497 | 22.33504911 | 498.8544186  | 13.13115997 |
| Glades County     | Florida  | 0.4413 | 34.18682097 | 1168.738728  | 18.3701923  |
| Gulf County       | Florida  | 0.4646 | 33.70943856 | 1136.326248  | 33.58219273 |
| Hamilton County   | Florida  | 0.4835 | 29.62529274 | 877.6579699  | 7.328759665 |
| Hardee County     | Florida  | 0.4594 | 15.50367341 | 240.3638892  | 12.28623566 |
| Hendry County     | Florida  | 0.4201 | 17.00482892 | 289.1642066  | 5.3001381  |
| Hernando County   | Florida  | 0.4375 | 26.07093859 | 679.6656827  | 9.406580434 |
| Highlands County  | Florida  | 0.4792 | 18.92979151 | 358.3370066  | 16.68831291 |
| Hillborough County| Florida  | 0.4458 | 9.476102048 | 89.79651002  | 6.919608936 |
| Holmes County     | Florida  | 0.5251 | 8.536585366 | 72.87328971  | 9.037170553 |
| Indian River County| Florida | 0.4511 | 47.90629709 | 2295.0133    | 26.31911211 |
| Jackson County    | Florida  | 0.448  | 64.5396364  | 4165.923243  | 36.56784095 |
| Jefferson County  | Florida  | 0.4979 | 28.85381366 | 832.542563   | 17.44700147 |
| Lafayette County  | Florida  | 0.4326 | 28.28876452 | 800.254198   | 9.706894856 |

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| County              | State     | Latitude     | Longitude     | Population | Density |
|---------------------|-----------|--------------|---------------|------------|---------|
| Lee County          | Florida   | 29.1124      | -86.9854      | 54,224     | 1,249.6 |
| Leon County         | Florida   | 29.6297      | -85.3307      | 111,804    | 1,275.4 |
| Levy County         | Florida   | 27.4568      | -82.5911      | 16,909     | 566.2   |
| Liberty County      | Florida   | 40.0241      | -82.5911      | 9,871      | 28.6    |
| Madison County      | Florida   | 39.9766      | -82.8395      | 17,926     | 529.6   |
| Manatee County      | Florida   | 27.6517      | -83.0175      | 24,527     | 721.7   |
| Marion County       | Florida   | 30.2611      | -82.2207      | 17,855     | 542.9   |
| Martin County       | Florida   | 30.2641      | -82.2207      | 17,855     | 542.9   |
| Miami-Dade County   | Florida   | 25.7677      | -80.1947      | 11,327     | 33.6    |
| Monroe County       | Florida   | 33.6007      | -82.2411      | 12,817     | 381.5   |
| Nassau County       | Florida   | 28.5767      | -80.8111      | 18,882     | 559.7   |
| Okaloosa County     | Florida   | 28.4817      | -80.8111      | 18,882     | 559.7   |
| Okeechobee County   | Florida   | 26.5461      | -80.8111      | 18,882     | 559.7   |
| Orange County       | Florida   | 28.3561      | -80.8111      | 18,882     | 559.7   |
| Osceola County      | Florida   | 27.4817      | -81.3241      | 27,391     | 824.7   |
| Palm Beach County   | Florida   | 27.0561      | -80.8111      | 18,882     | 559.7   |
| Pasco County        | Florida   | 28.2461      | -82.3241      | 21,911     | 676.2   |
| Pinellas County     | Florida   | 27.7761      | -82.5911      | 24,527     | 721.7   |
| Polk County         | Florida   | 28.0761      | -82.8395      | 17,926     | 529.6   |
| Putnam County       | Florida   | 27.8007      | -82.2207      | 17,855     | 542.9   |
| St. Johns County    | Florida   | 29.8611      | -85.3307      | 10,024     | 263.6   |
| St. Lucie County    | Florida   | 27.6007      | -80.8111      | 18,882     | 559.7   |
| Santa Rosa County   | Florida   | 29.2561      | -80.8111      | 18,882     | 559.7   |
| Sarasota County     | Florida   | 27.4817      | -80.8111      | 18,882     | 559.7   |
| Seminole County     | Florida   | 28.0761      | -82.8395      | 17,926     | 529.6   |
| Sumter County       | Florida   | 30.2641      | -82.2207      | 17,855     | 542.9   |
| Suwannee County     | Florida   | 29.1124      | -86.9854      | 54,224     | 1,249.6 |
| Taylor County       | Florida   | 27.4817      | -82.8395      | 17,926     | 529.6   |
| Union County        | Florida   | 30.2641      | -82.2207      | 17,855     | 542.9   |
| Volusia County      | Florida   | 29.1124      | -86.9854      | 54,224     | 1,249.6 |
| Wakulla County      | Florida   | 30.2611      | -82.2207      | 17,855     | 542.9   |
| Walton County       | Florida   | 30.2641      | -82.2207      | 17,855     | 542.9   |
| Washington County   | Florida   | 31.4817      | -80.8111      | 18,882     | 559.7   |
| Appling County      | Georgia   | 31.4817      | -80.8111      | 18,882     | 559.7   |
| Atkinson County     | Georgia   | 31.4817      | -80.8111      | 18,882     | 559.7   |
| Bacon County        | Georgia   | 31.4817      | -80.8111      | 18,882     | 559.7   |
| County          | State    | Latitude          | Longitude          | Area       | Population | Density  |
|-----------------|----------|-------------------|--------------------|------------|------------|----------|
| Baker County    | Georgia  | 31.21638          | -89.94487          | 204        | 23,382     | 224.6    |
| Baldwin County  | Georgia  | 32.28037          | -86.35355          | 679        | 63,471     | 93.6     |
| Banks County    | Georgia  | 33.01437          | -84.62428          | 104        | 18,270     | 173.8    |
| Barrow County   | Georgia  | 31.57803          | -85.37237          | 427        | 24,836     | 57.8     |
| Bartow County   | Georgia  | 33.68357          | -87.14163          | 111        | 22,482     | 202.2    |
| Ben Hill County | Georgia  | 32.88177          | -85.18817          | 213        | 20,157     | 94.0     |
| Berrien County  | Georgia  | 31.88477          | -88.35247          | 147        | 15,245     | 103.6    |
| Bibb County     | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Bleckley County | Georgia  | 32.01457          | -85.14237          | 315        | 9,132      | 29.0     |
| Brantley County | Georgia  | 32.78257          | -83.84487          | 392        | 16,245     | 41.8     |
| Brooks County   | Georgia  | 31.88477          | -88.54237          | 147        | 15,245     | 103.6    |
| Bryan County    | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Bulloch County  | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Burke County    | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Butts County    | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Calhoun County  | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Camden County   | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Candler County  | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Carroll County  | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Catawba County  | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Charlton County | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Chatham County  | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Chattooga County| Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Cherokee County | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Clarke County   | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Clay County     | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Clay County     | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Clinch County   | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Cobb County     | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Coffee County   | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Colquitt County | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Columbia County | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Cook County     | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Coweta County   | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| Crawford County | Georgia  | 31.77487          | -85.44187          | 287        | 22,756     | 79.0     |
| County         | State       | Median Income  |
|---------------|-------------|----------------|
| Crisp County  | Georgia     | 0.5032         |
| Dade County   | Georgia     | 0.4207         |
| Dawson County | Georgia     | 0.4677         |
| Decatur County | Georgia    | 0.5228         |
| DeKalb County | Georgia     | 0.4903         |
| Dodge County  | Georgia     | 0.4458         |
| Dooly County  | Georgia     | 0.4639         |
| Dougherty County | Georgia | 0.5197       |
| Early County  | Georgia     | 0.4844         |
| Echols County | Georgia     | 0.4583         |
| Effingham County | Georgia | 0.3834       |
| Elbert County | Georgia     | 0.4641         |
| Emanuel County | Georgia   | 0.4855         |
| Evans County  | Georgia     | 0.4651         |
| Fannin County | Georgia     | 0.4404         |
| Fayette County | Georgia   | 0.4196         |
| Floyd County  | Georgia     | 0.4612         |
| Forsyth County | Georgia  | 0.4168         |
| Franklin County | Georgia | 0.4278        |
| Fulton County | Georgia     | 0.54           |
| Gilmer County | Georgia     | 0.4577         |
| Glascock County | Georgia | 0.3916        |
| Glynn County  | Georgia     | 0.4881         |
| Gordon County | Georgia     | 0.4362         |
| Grady County  | Georgia     | 0.4735         |
| Greene County | Georgia     | 0.5503         |
| Gwinnett County | Georgia  | 0.4248         |
| Habersham County | Georgia | 0.4226       |
| Hall County   | Georgia     | 0.4461         |
| Hancock County | Georgia   | 0.4712         |
| Haralson County | Georgia | 0.4388        |
| Harris County | Georgia     | 0.43           |
| Hart County   | Georgia     | 0.4686         |
| Heard County  | Georgia     | 0.4092         |
| Henry County  | Georgia     | 0.3976         |

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| County            | State | Latitude  | Longitude | Population | Density | Income | Poverty Rate |
|-------------------|-------|-----------|-----------|------------|---------|--------|--------------|
| Houston County    | Georgia | 34.5163   | -84.2012  | 135,000    | 1,814   | 42,100 | 10.2         |
| Irwin County      | Georgia | 32.3456   | -84.1234  | 12,000     | 1,000   | 20,000 | 15.0         |
| Jackson County    | Georgia | 31.2345   | -84.3456  | 10,000     | 1,000   | 15,000 | 20.0         |
| Jasper County     | Georgia | 30.4567   | -84.5678  | 5,000      | 1,000   | 10,000 | 30.0         |
| Jeff Davis County | Georgia | 29.3456   | -84.6789  | 2,000      | 1,000   | 5,000  | 40.0         |
| Jefferson County  | Georgia | 28.4567   | -84.7890  | 1,000      | 1,000   | 2,000  | 50.0         |
| Jenkins County    | Georgia | 27.3456   | -84.8901  | 500        | 1,000   | 1,000  | 60.0         |
| Johnson County    | Georgia | 26.4567   | -84.9012  | 200        | 1,000   | 500    | 70.0         |
| Jones County      | Georgia | 25.3456   | -85.0123  | 50         | 1,000   | 250    | 80.0         |
| Lamar County      | Georgia | 24.4567   | -85.1234  | 10         | 1,000   | 100    | 90.0         |
| Lanier County     | Georgia | 23.3456   | -85.2345  | 5          | 1,000   | 50     | 100.0        |
| Laurens County    | Georgia | 22.4567   | -85.3456  | 2          | 1,000   | 20     | 110.0        |
| Lee County        | Georgia | 21.3456   | -85.4567  | 1          | 1,000   | 10     | 120.0        |
| Liberty County    | Georgia | 20.4567   | -85.5678  | 0.5        | 1,000   | 5      | 130.0        |
| Lincoln County    | Georgia | 19.3456   | -85.6789  | 0.25       | 1,000   | 2.5    | 140.0        |
| Long County       | Georgia | 18.4567   | -85.7890  | 0.1        | 1,000   | 1      | 150.0        |
| Lowndes County    | Georgia | 17.3456   | -85.8901  | 0.05       | 1,000   | 0.5    | 160.0        |
| Lumpkin County    | Georgia | 16.4567   | -85.9012  | 0.025      | 1,000   | 0.25   | 170.0        |
| McDuffie County   | Georgia | 15.3456   | -86.0123  | 0.0125     | 1,000   | 0.125  | 180.0        |
| McIntosh County   | Georgia | 14.4567   | -86.1234  | 0.00625    | 1,000   | 0.0625 | 190.0        |
| Macon County      | Georgia | 13.3456   | -86.2345  | 0.003125   | 1,000   | 0.03125| 200.0        |
| Madison County    | Georgia | 12.4567   | -86.3456  | 0.0015625  | 1,000   | 0.015625| 210.0        |
| Marion County     | Georgia | 11.3456   | -86.4567  | 0.00078125 | 1,000   | 0.0078125| 220.0        |
| Meriwether County | Georgia | 10.4567   | -86.5678  | 0.000390625| 1,000   | 0.00390625| 230.0        |
| Miller County     | Georgia | 9.3456    | -86.6789  | 0.0001953125| 1,000   | 0.001953125| 240.0        |
| Mitchell County   | Georgia | 8.4567    | -86.7890  | 0.00009765625| 1,000   | 0.0009765625| 250.0        |
| Monroe County     | Georgia | 7.3456    | -86.8901  | 0.0000488275| 1,000   | 0.000488275| 260.0        |
| Montgomery County | Georgia | 6.4567    | -86.9012  | 0.00002441375| 1,000   | 0.0002441375| 270.0        |
| Morgan County     | Georgia | 5.3456    | -87.0123  | 0.00001220625| 1,000   | 0.0001220625| 280.0        |
| Murray County     | Georgia | 4.4567    | -87.1234  | 0.000006103125| 1,000   | 0.00006103125| 290.0        |
| Muscogee County   | Georgia | 3.3456    | -87.2345  | 0.0000030515625| 1,000   | 0.000030515625| 300.0        |
| Newton County     | Georgia | 2.4567    | -87.3456  | 0.00000152625| 1,000   | 0.0000152625| 310.0        |
| Oconee County     | Georgia | 1.3456    | -87.4567  | 0.000000763125| 1,000   | 0.00000763125| 320.0        |
| Oglethorpe County | Georgia | 0.4567    | -87.5678  | 0.0000003815625| 1,000   | 0.000003815625| 330.0        |
| Paulding County   | Georgia | 0.3456    | -87.6789  | 0.00000019078125| 1,000   | 0.0000019078125| 340.0        |
| Peach County      | Georgia | 0.4532    | -87.7890  | 0.000000095390625| 1,000   | 0.00000095390625| 350.0        |
| County         | State     | Latitude  | Longitude | Population | Annual Income | Per Capita Income |
|---------------|-----------|-----------|-----------|-------------|---------------|------------------|
| Pickens County | Georgia   | 0.4431    | 4.99217996| 24.92186075| 1.343485618   |
| Pierce County  | Georgia   | 0.4682    | 12.0645695| 145.5538373| 8.700954401   |
| Pike County    | Georgia   | 0.4204    | 46.806682 | 2190.86548  | 10.95898098   |
| Polk County    | Georgia   | 0.4311    | 38.36492949| 1471.867815| 13.24848485   |
| Pulaski County | Georgia   | 0.4273    | 46.85360847| 2195.260627| 32.87436928   |
| Putnam County  | Georgia   | 0.4594    | 70.33870443| 4947.533341| 27.06115142   |
| Quitman County | Georgia   | 0.4071    | 46.66265172| 2177.403065| 52.92859721   |
| Rabun County   | Georgia   | 0.5062    | 6.947660904| 48.26999204| 1.536853753   |
| Randolph County| Georgia   | 0.6519    | 46.71914275| 2182.678299| 61.62461206   |
| Richmond County| Georgia   | 0.479     | 39.97293023| 1597.835151| 54.50249448   |
| Rockdale County| Georgia   | 0.4171    | 44.57207743| 1986.670086| 48.52763866   |
| Schley County  | Georgia   | 0.479     | 50.71749458| 2572.264257| 26.09814009   |
| Screven County | Georgia   | 0.4796    | 54.87085157| 3429.79751 | 26.7479858    |
| Seminole County| Georgia   | 0.4595    | 49.77129369| 2477.181675| 33.7230759    |
| Spalding County| Georgia   | 0.4629    | 43.82860221| 1920.946372| 32.7979858    |
| Stephens County| Georgia   | 0.4449    | 16.52671706| 273.1323769| 12.15182005   |
| Stewart County | Georgia   | 0.4647    | 58.5644731 | 3429.79751 | 54.18644068   |
| Sumter County  | Georgia   | 0.4814    | 52.08164673| 2712.497926| 54.40713241   |
| Talbot County  | Georgia   | 0.4858    | 62.78413727| 3941.847893| 57.9211404    |
| Taliaferro County| Georgia | 0.4115   | 62.25298337| 3875.433938| 53.29411765   |
| Tattnall County| Georgia   | 0.4575    | 26.89913261| 723.563354  | 28.9040133    |
| Taylor County  | Georgia   | 0.4671    | 41.56392077| 1727.55951 | 39.44738389   |
| Telfair County | Georgia   | 0.4484    | 30.70283274| 942.6639383| 38.47692961   |
| Terrell County | Georgia   | 0.4664    | 47.30130397| 2237.413357| 60.26440241   |
| Thomas County  | Georgia   | 0.4927    | 57.91995006| 3354.720615| 36.98611763   |
| Tift County    | Georgia   | 0.5123    | 16.28951029| 265.3481456| 29.25026399   |
| Toombs County  | Georgia   | 0.497     | 27.39510619| 750.4918431| 25.6086829    |
| Towns County   | Georgia   | 0.4524    | 4.459048949| 19.88311753| 0.96532336    |
| Treutlen County| Georgia   | 0.4742    | 29.81772671| 889.0968263| 31.57351423   |
| Troup County   | Georgia   | 0.4781    | 61.28619893| 3755.99818 | 33.97879342   |
| Turner County  | Georgia   | 0.4926    | 26.49837 | 702.1636127 | 42.66870804   |
| Twiggs County  | Georgia   | 0.5104    | 63.83129075| 4074.433679| 43.427752    |
| Union County   | Georgia   | 0.427     | 2.902125519| 8.422332528| 0.719157426   |
| Upson County   | Georgia   | 0.4307    | 49.63348883| 2463.483214| 28.33477006   |
| Walker County  | Georgia   | 0.4468    | 15.38131433| 236.5848307 | 4.394769523   |
| Walton County  | Georgia   | 0.4144    | 41.86411432| 1752.604068| 15.61037884   |

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| County                  | State     | Latitude | Longitude | Population | Area (sq km) | Density |
|------------------------|-----------|----------|-----------|------------|--------------|---------|
| Ware County             | Georgia   | 0.4661   | 16.79943366 | 282.2209714 | 29.83989976  |         |
| Warren County           | Georgia   | 0.476    | 54.87485018 | 3011.249182 | 60.22040526  |         |
| Washington County       | Georgia   | 0.4738   | 51.35843876 | 2637.689231 | 52.57178467  |         |
| Wayne County            | Georgia   | 0.4457   | 23.62423818 | 558.1046297 | 21.1203182   |         |
| Webster County          | Georgia   | 0.4276   | 45.81274538 | 2098.807639 | 51.56705539  |         |
| Wheeler County          | Georgia   | 0.434    | 32.53388986 | 1058.453989 | 41.5279879   |         |
| White County            | Georgia   | 0.4301   | 8.101810864 | 296.9461831 | 4.110266455  |         |
| Whitfield County        | Georgia   | 0.4628   | 17.23212648 | 297.8524378 | 4.110266455  |         |
| Wilcox County           | Georgia   | 0.4484   | 20.09931407 | 403.9824261 | 36.97163668  |         |
| Wilkes County           | Georgia   | 0.4525   | 69.55143169 | 2098.807639 | 51.56705539  |         |
| Wilkinson County        | Georgia   | 0.4229   | 41.67835275 | 1737.085088 | 37.65203596  |         |
| Worth County            | Georgia   | 0.4351   | 23.72057952 | 562.6658925 | 28.75263281  |         |
| Adair County            | Kentucky  | 0.4393   | 45.3814274  | 2059.473952 | 7.200080112  |         |
| Allen County            | Kentucky  | 0.4285   | 17.25840195 | 297.8524378 | 1.854691132  |         |
| Anderson County         | Kentucky  | 0.372    | 19.94995373 | 398.0006538 | 2.404911374  |         |
| Ballard County          | Kentucky  | 0.4473   | 19.76630166 | 390.7066812 | 3.54121344   |         |
| Barren County           | Kentucky  | 0.4223   | 24.31882413 | 591.4052068 | 4.359232625  |         |
| Bath County             | Kentucky  | 0.4921   | 20.71805248 | 429.22376986| 2.404911374  |         |
| Bell County             | Kentucky  | 0.4729   | 16.901905   | 285.6743927 | 2.732240437  |         |
| Boone County            | Kentucky  | 0.4001   | 15.56361998 | 242.2262668 | 3.056156163  |         |
| Bourbon County          | Kentucky  | 0.4571   | 45.3814274  | 2059.473952 | 7.200080112  |         |
| Boyd County             | Kentucky  | 0.4949   | 19.76630166 | 390.7066812 | 3.54121344   |         |
| Boyle County            | Kentucky  | 0.4685   | 34.74268547 | 1207.054194 | 6.89193825   |         |
| Bracken County          | Kentucky  | 0.431    | 6.91302248  | 47.78987993 | 0.011821728  |         |
| Breathitt County        | Kentucky  | 0.4604   | 3.766060697 | 14.18321317 | 0.50501354   |         |
| Breckinridge County     | Kentucky  | 0.4026   | 17.56267296 | 22.32390061 | 2.599702486  |         |
| Bullitt County          | Kentucky  | 0.3684   | 18.8883266  | 356.7688818 | 0.65183394   |         |
| Butler County           | Kentucky  | 0.4519   | 9.988051035 | 99.76116347 | 1.047120419  |         |
| Caldwell County         | Kentucky  | 0.4472   | 25.4416965 | 647.2799208 | 5.986024845  |         |
| Calloway County         | Kentucky  | 0.4736   | 14.93758135 | 223.1313365 | 3.88087812   |         |
| Campbell County         | Kentucky  | 0.4337   | 0.61070995  | 0.372966644 | 0.302073984  |         |
| Carlisle County         | Kentucky  | 0.4141   | 19.77010825 | 390.8571802 | 1.391373484  |         |
| Carroll County          | Kentucky  | 0.4447   | 15.8657855  | 251.7231495 | 1.720172937  |         |
| Carter County           | Kentucky  | 0.4263   | 3.632964297 | 13.19842958 | 0.776267357  |         |
| Casey County            | Kentucky  | 0.4482   | 11.67230413 | 136.2426836 | 1.106111736  |         |
| Christian County        | Kentucky  | 0.4512   | 45.68788072 | 2087.382445 | 19.92774547  |         |
### Clark County  
Kentucky  
0.4392  
41.41226477  
1714.975674  
5.233912385
### Clay County  
Kentucky  
0.4915  
5.175939946  
26.79035433  
4.644222699
### Clinton County  
Kentucky  
0.4806  
4.91520936  
24.15928306  
0.726059655
### Crittenden County  
Kentucky  
0.4628  
10.85871816  
117.9117602  
0.886103307
### Cumberland County  
Kentucky  
0.4628  
19.0563085  
363.1513679  
3.353346024
### Daviess County  
Kentucky  
0.4276  
22.81420904  
520.488134  
4.616361606
### Edmonson County  
Kentucky  
0.4307  
6.14926044  
37.81340396  
1.441871962
### Estill County  
Kentucky  
0.4463  
9.24296513  
85.4324044  
0.52244449
### Fayette County  
Kentucky  
0.4929  
44.21314915  
1954.802558  
14.4242675
### Fleming County  
Kentucky  
0.5028  
16.29990633  
265.6869464  
1.55808342
### Franklin County  
Kentucky  
0.4323  
27.10895848  
734.8956301  
10.45466481
### Fulton County  
Kentucky  
0.465  
20.28351641  
411.4210378  
24.51908397
### Gallatin County  
Kentucky  
0.3904  
14.02523282  
196.7071557  
1.543137713
### Garrard County  
Kentucky  
0.4207  
33.8910461  
1148.471411  
1.522511848
### Grant County  
Kentucky  
0.4023  
8.82672487  
77.9191253  
0.218915961
### Graves County  
Kentucky  
0.4567  
17.56758791  
308.6201448  
4.675442578
### Grayson County  
Kentucky  
0.4806  
4.932891489  
24.3341844  
0.886866626
### Green County  
Kentucky  
0.4705  
26.48940979  
701.6888311  
2.959055963
### Greenup County  
Kentucky  
0.4439  
4.127288936  
17.03451396  
0.742034046
### Hancock County  
Kentucky  
0.397  
13.54399192  
183.4397171  
0.970649411
### Hardin County  
Kentucky  
0.4256  
16.71152189  
279.2749638  
12.41853763
### Harlan County  
Kentucky  
0.4792  
2.561999118  
6.563839478  
2.23359602
### Harrison County  
Kentucky  
0.4804  
24.33231059  
592.0613385  
2.118757711
### Hart County  
Kentucky  
0.4653  
13.44214747  
180.6913287  
4.813588756
### Henderson County  
Kentucky  
0.4563  
40.23147816  
1618.571835  
7.175496831
### Henry County  
Kentucky  
0.4188  
27.38278842  
749.8171018  
3.266999417
### Hickman County  
Kentucky  
0.3723  
17.88534211  
319.8854625  
9.561586639
### Hopkins County  
Kentucky  
0.4417  
17.02217361  
289.7543945  
6.085596778
### Jackson County  
Kentucky  
0.4663  
1.375411618  
1.89175712  
0.022438295
### Jefferson County  
Kentucky  
0.4847  
11.58123321  
134.1249626  
20.63979986
### Jessamine County  
Kentucky  
0.4869  
39.40776051  
1552.971588  
3.112840467
### Johnson County  
Kentucky  
0.4549  
0.546223497  
0.298360109  
0.2864472
### Kenton County  
Kentucky  
0.4433  
2.274779202  
5.17462042  
4.63700896
### Knott County  
Kentucky  
0.471  
2.590956498  
6.713055576  
0.88605242

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| County         | State  | Code1 | Code2 | Code3 | Code4 |
|----------------|--------|-------|-------|-------|-------|
| Knox County    | Kentucky | 0.4707 | 6.236239502 | 38.89068312 | 1.572652792 |
| Larue County   | Kentucky | 0.4314 | 13.54083711 | 183.3542697 | 3.40601173  |
| Laurel County  | Kentucky | 0.4682 | 3.469672498  | 12.03862724 | 0.851599899 |
| Lawrence County| Kentucky | 0.471  | 1.944097617  | 3.779515544  | 0.107255521 |
| Lee County     | Kentucky | 0.4913 | 2.882661508  | 8.30973737  | 1.314932951 |
| Leslie County  | Kentucky | 0.484  | 4.039235546  | 16.31542375 | 0.23364486  |
| Letcher County | Kentucky | 0.4668 | 2.687855823  | 7.224568928 | 0.58418527  |
| Lewis County   | Kentucky | 0.4767 | 3.217239837  | 10.35063217 | 0.129982669 |
| Lincoln County | Kentucky | 0.4471 | 32.01997775  | 1025.278975 | 2.489203944 |
| Livingston County | Kentucky | 0.4263 | 16.90969135  | 285.9376616 | 0.307105793 |
| Logan County   | Kentucky | 0.4354 | 33.46840435  | 1120.13409  | 6.571300849 |
| Lyon County    | Kentucky | 0.4239 | 20.15956481  | 406.4080533 | 6.33392751  |
| McCracken County | Kentucky | 0.4857 | 16.78849389  | 281.853527  | 10.77732855 |
| McCreary County | Kentucky | 0.4666 | 7.248605991  | 52.54228882 | 6.03109611  |
| McLean County  | Kentucky | 0.4112 | 14.59861509  | 213.1195626 | 0.47318612  |
| Madison County | Kentucky | 0.4557 | 35.14981673  | 1235.509616 | 4.370357373 |
| Magoffin County | Kentucky | 0.4638 | 2.038191787  | 4.154225761 | 0.015295197 |
| Marion County  | Kentucky | 0.4471 | 27.51913666  | 757.3028826 | 0.656899574 |
| Marshall County | Kentucky | 0.4153 | 5.43743662  | 29.565717  | 0.28504628  |
| Martin County  | Kentucky | 0.4915 | 1.332408566  | 1.775312586 | 4.305882353 |
| Mason County   | Kentucky | 0.5156 | 20.5926458  | 424.0570609 | 6.701919761 |
| Meade County   | Kentucky | 0.4321 | 21.68788668  | 470.3644286 | 4.369414101 |
| Menifee County | Kentucky | 0.4365 | 20.8883525  | 436.3232703 | 0.536531482 |
| Mercer County  | Kentucky | 0.4374 | 23.93622482  | 572.9428566 | 3.86185538  |
| Metcalfe County | Kentucky | 0.4533 | 12.43497518  | 154.6286076 | 1.266832918 |
| Monroe County  | Kentucky | 0.4588 | 11.275561974 | 127.1396004 | 2.0699271 |
| Montgomery County | Kentucky | 0.4852 | 35.36093027 | 1270.39539 | 3.027832339 |
| Morgan County  | Kentucky | 0.468  | 1.888031524  | 3.564663037 | 3.076467978 |
| Muhlenberg County | Kentucky | 0.4265 | 14.91408064  | 222.4298014 | 4.558631455 |
| Nelson County  | Kentucky | 0.4454 | 34.41260392  | 1184.227308 | 5.10682994 |
| Nicholas County | Kentucky | 0.4283 | 16.20904718  | 262.7332106 | 0.382219706 |
| Ohio County    | Kentucky | 0.4539 | 10.85533233  | 117.8382399 | 2.387710803 |
| Oldham County  | Kentucky | 0.4226 | 33.06824287  | 1093.508686 | 4.21156682 |
| Owen County    | Kentucky | 0.4447 | 13.69525562  | 187.5600264 | 1.610800745 |
| Owsley County  | Kentucky | 0.5201 | 2.106063779  | 4.435504639 | 0.789586001 |
| Pendleton County | Kentucky | 0.4446 | 4.176728973  | 17.44506491 | 0.512225106 |

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| County                  | State   | Latitude | Longitude | Population | Housing | Income |
|------------------------|---------|----------|-----------|------------|---------|--------|
| Perry County           | Kentucky| 0.4841   | 1.924339907 | 3.70308407 | 1.213686706 |
| Pike County            | Kentucky| 0.4821   | 1.333343794 | 1.777805673 | 0.866728798 |
| Powell County          | Kentucky| 0.4951   | 11.84407167 | 140.2820338 | 0.199171447 |
| Pulaski County         | Kentucky| 0.5056   | 8.275694754  | 68.48712366 | 1.138493032 |
| Robertson County       | Kentucky| 0.4562   | 14.86504477  | 220.969556  | 0       |
| Rockcastle County      | Kentucky| 0.4641   | 8.268299653  | 68.36477915 | 0.141647728 |
| Rowan County           | Kentucky| 0.4463   | 7.438896784  | 55.33718537 | 1.65637641|
| Russell County         | Kentucky| 0.4684   | 9.619515732  | 92.53508292 | 0.487362575 |
| Scott County           | Kentucky| 0.4094   | 39.35308097  | 154.664982  | 5.206744361 |
| Shelby County          | Kentucky| 0.4189   | 38.45044994  | 147.8437101 | 7.351827631 |
| Simpson County         | Kentucky| 0.4048   | 29.00566964  | 841.3288711 | 9.600592559 |
| Spencer County         | Kentucky| 0.3469   | 33.80988339  | 1143.108215 | 1.773925024 |
| Taylor County          | Kentucky| 0.4289   | 21.63938913  | 468.2631621 | 4.629075382 |
| Todd County            | Kentucky| 0.4226   | 41.70798941  | 1739.556381 | 8.552684215 |
| Trigg County           | Kentucky| 0.4355   | 30.75681607  | 945.9817345 | 8.209007495 |
| Trimble County         | Kentucky| 0.3879   | 14.23231881  | 202.558896  | 1.349818512 |
| Union County           | Kentucky| 0.4435   | 24.23625755  | 587.39618   | 12.97393365 |
| Warren County          | Kentucky| 0.468    | 30.5187139   | 931.3918982 | 9.278051362 |
| Washington County      | Kentucky| 0.414    | 24.68624506  | 609.4106952 | 5.96414228 |
| Wayne County           | Kentucky| 0.4571   | 9.515740763  | 100.4932228 | 2.113083751 |
| Webster County         | Kentucky| 0.4366   | 15.7444938   | 247.889085  | 4.756949606 |
| Whitley County         | Kentucky| 0.454    | 2.377697729  | 5.653446491 | 0.804342324 |
| Wolfe County           | Kentucky| 0.5086   | 2.675483949  | 7.15821436  | 0.206242266 |
| Woodford County        | Kentucky| 0.4518   | 49.79586548  | 2479.628219 | 4.906365552 |
| Acadia Parish          | Louisiana| 0.4636  | 164.94263455 | 2449.520875 | 17.63130683 |
| Allen Parish           | Louisiana| 0.4599  | 24.58633259  | 604.4877503 | 18.99108637 |
| Ascension Parish       | Louisiana| 0.4035  | 63.98618463  | 4094.231823 | 22.41069203 |
| Assumption Parish      | Louisiana| 0.4502  | 53.43537436  | 2857.284612 | 29.74104445 |
| Avoyelles Parish       | Louisiana| 0.4635  | 55.31549767  | 3059.804282 | 29.47793481 |
| Beauregard Parish      | Louisiana| 0.4515  | 22.02210229  | 484.9729893 | 13.15461519 |
| Bienville Parish       | Louisiana| 0.498   | 45.50815924  | 2070.992557 | 42.34527687 |
| Bossier Parish         | Louisiana| 0.4359  | 70.2412698   | 4933.835983 | 21.21015765 |
| Caddo Parish           | Louisiana| 0.5011  | 60.61208814  | 3673.825229 | 47.64742945 |
| Calcasieu Parish       | Louisiana| 0.4717  | 19.76640169  | 390.7106358 | 25.0129525 |
| Caldwell Parish        | Louisiana| 0.5141  | 40.72373155  | 1658.422311 | 17.52597922 |
| Cameron Parish         | Louisiana| 0.4073  | 24.32092504  | 591.5073949 | 3.083569194 |

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| Parish             | State     | Latitude      | Longitude     | Population | Median Income |
|-------------------|-----------|---------------|---------------|------------|---------------|
| Catahoula Parish   | Louisiana | 30.72759316   | -89.02317691  | 7925.126027 | 40.94812946   |
| Claiborne Parish   | Louisiana | 46.49624278   | -90.905093    | 2161.900593 | 50.28245228   |
| Concordia Parish   | Louisiana | 89.03217691   | -90.905093    | 7925.126027 | 40.94812946   |
| De Soto Parish     | Louisiana | 63.86741827   | -90.905093    | 4079.047116 | 38.57534856   |
| East Baton Rouge Parish | Louisiana | 53.76996749   | -90.905093    | 2891.209404 | 45.4745062    |
| East Carroll Parish| Louisiana | 77.46228837   | -90.905093    | 6000.40612  | 69.85003946   |
| Evangeline Parish  | Louisiana | 49.59595835   | -90.905093    | 2459.759084 | 28.22843271   |
| Franklin Parish    | Louisiana | 65.81219085   | -90.905093    | 4331.244644 | 32.71494309   |
| Grant Parish       | Louisiana | 52.73921858   | -90.905093    | 2781.425176 | 15.76711532   |
| Iberia Parish      | Louisiana | 68.19414485   | -90.905093    | 4650.441392 | 31.69322574   |
| Iberville Parish   | Louisiana | 72.58704638   | -90.905093    | 5268.879302 | 48.74007491   |
| Jackson Parish     | Louisiana | 43.4126683    | -90.905093    | 1884.6      | 30.16852892   |
| Jefferson Parish   | Louisiana | 27.25988643   | -90.905093    | 743.1014081 | 26.57826423   |
| Jefferson Davis Parish | Louisiana | 23.85171985   | -90.905093    | 568.904532  | 17.25835133   |
| Lafayette Parish   | Louisiana | 49.6985839    | -90.905093    | 2469.949242 | 25.74270883   |
| Lafourche Parish   | Louisiana | 47.84521884   | -90.905093    | 2289.164966 | 13.34498894   |
| LaSalle Parish     | Louisiana | 52.3404712    | -90.905093    | 2739.794582 | 12.58572005   |
| Lincoln Parish     | Louisiana | 43.06293362   | -90.905093    | 1854.416252 | 40.80181191   |
| Livingston Parish  | Louisiana | 30.6081804    | -90.905093    | 936.8607077 | 5.90345036    |
| Madison Parish     | Louisiana | 87.42808981   | -90.905093    | 7643.670887 | 61.30079947   |
| Morehouse Parish   | Louisiana | 63.55426079   | -90.905093    | 4039.144064 | 47.49087826   |
| Natchitoches Parish| Louisiana | 56.04656362   | -90.905093    | 3141.217293 | 40.77085292   |
| Orleans Parish     | Louisiana | 8.30594136    | -90.905093    | 68.98865815 | 59.60984718   |
| Ouachita Parish    | Louisiana | 59.82699423   | -90.905093    | 3579.269239 | 37.07827543   |
| Plaquemines Parish | Louisiana | 48.05490242   | -90.905093    | 2309.273646 | 21.26141341   |
| Pointe Coupee Parish| Louisiana | 73.07651341   | -90.905093    | 5340.176812 | 35.80486943   |
| Rapides Parish     | Louisiana | 60.42912648   | -90.905093    | 3651.679327 | 32.12278459   |
| Red River Parish   | Louisiana | 55.22313729   | -90.905093    | 3049.594892 | 39.23016672   |
| Richland Parish    | Louisiana | 66.3692093    | -90.905093    | 4404.871943 | 36.0566083    |
| Sabine Parish      | Louisiana | 31.45520933   | -90.905093    | 989.430194  | 17.00979988   |
| St. Bernard Parish | Louisiana | 11.92833257   | -90.905093    | 142.285118  | 20.38721603   |
| St. Charles Parish | Louisiana | 70.42590735   | -90.905093    | 4959.808426 | 26.26007298   |
| St. Helena Parish  | Louisiana | 52.19349056   | -90.905093    | 2724.160457 | 52.70138737   |
| St. James Parish   | Louisiana | 70.08598175   | -90.905093    | 4912.044838 | 50.29382059   |
| St. John the Baptist Parish | Louisiana | 59.47719961 | 3537.537274 | 54.02064169 |
| Parish/County                  | State       | Latitude   | Longitude  | Population | Area (square miles) | Median Household Income |
|-------------------------------|-------------|------------|------------|------------|--------------------|------------------------|
| St. Landry Parish             | Louisiana   | 30.131326  | -91.826376 | 31606      | 182.8               | 46,293                 |
| St. Martin Parish             | Louisiana   | 32.689552  | -92.053538 | 47986      | 188.6               | 46,514                 |
| St. Mary Parish               | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| St. Tammany Parish            | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Tangipahoa Parish             | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Tensas Parish                 | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Terrebonne Parish             | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Union Parish                  | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Vernon Parish                 | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Washington Parish             | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Webster Parish                | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| West Baton Rouge Parish       | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| West Carroll Parish           | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| West Feliciana Parish         | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Winn Parish                   | Louisiana   | 32.769698  | -92.053538 | 81179      | 261.1               | 46,788                 |
| Allegany County               | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Anne Arundel County           | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Baltimore County              | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Calvert County                | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Caroline County               | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Carroll County                | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Cecil County                  | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Charles County                | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Dorchester County             | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Frederick County              | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Garrett County                | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Harford County                | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Howard County                 | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Kent County                   | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Montgomery County             | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Prince George's County        | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Queen Anne's County           | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| St. Mary's County             | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Somerset County               | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| Talbot County                 | Maryland    | 39.099927  | -76.557695 | 56,290     | 27.8                | 53,193                 |
| County Name         | State     | Population | Income | Housing Cost |
|--------------------|-----------|------------|--------|--------------|
| Washington County  | Maryland  | 0.4317     | 4.762937864 | 22.68557709 | 10.40204683 |
| Wicomico County     | Maryland  | 0.4547     | 19.25153405 | 370.6215633 | 24.30760341 |
| Worcester County    | Maryland  | 0.4718     | 17.66327953 | 311.9914438 | 14.32561387 |
| Baltimore City      | Maryland  | 0.5056     | 1.167195747  | 1.362345913  | 63.04520056  |
| Adams County        | Mississippi | 0.5222    | 71.30503966  | 508.4.0868   | 56.73988008  |
| Alcorn County       | Mississippi | 0.4539    | 21.49704938  | 462.123132   | 11.37637812  |
| Amite County        | Mississippi | 0.4598    | 63.79524955  | 412.456345   | 33.75887886  |
| Attala County       | Mississippi | 0.4784    | 35.64679405  | 1270.693926  | 42.7083873   |
| Benton County       | Mississippi | 0.5216    | 39.30993038  | 1545.270626  | 36.62661845  |
| Bolivar County      | Mississippi | 0.4959    | 86.22707321  | 7435.108154  | 64.17361091  |
| Calhoun County      | Mississippi | 0.4551    | 20.30902128  | 412.456345   | 27.40381376  |
| Carroll County      | Mississippi | 0.477     | 62.6639385   | 3926.769188  | 33.75887886  |
| Chickasaw County    | Mississippi | 0.4967    | 55.00866142  | 3025.952831  | 43.28959484  |
| Choctaw County      | Mississippi | 0.4473    | 30.56718486  | 934.3527904  | 31.34897012  |
| Claiborne County    | Mississippi | 0.4895    | 78.34405098  | 6137.790323  | 84.48275862  |
| Clarke County       | Mississippi | 0.4623    | 47.00328703  | 2209.308992  | 35.5864971   |
| Clay County         | Mississippi | 0.4983    | 62.16602528  | 3864.614699  | 58.25903792  |
| Coahoma County      | Mississippi | 0.523     | 75.89510924  | 5760.067607  | 75.92351395  |
| Copiah County       | Mississippi | 0.4924    | 52.31954793  | 2737.335096  | 51.3544757   |
| Covington County    | Mississippi | 0.4512    | 35.22912218  | 1241.09105   | 35.850218    |
| DeSoto County       | Mississippi | 0.3824    | 58.58375735  | 3432.056625  | 23.08529705  |
| Forrest County      | Mississippi | 0.5098    | 28.11648769  | 790.53688    | 36.57479746  |
| Franklin County     | Mississippi | 0.4523    | 58.32956379  | 3402.338012  | 35.59919436  |
| George County       | Mississippi | 0.4486    | 27.61238993  | 762.4440779  | 7.944250871  |
| Greene County       | Mississippi | 0.4323    | 31.7160872   | 1005.910187  | 25.65697512  |
| Grenada County      | Mississippi | 0.5411    | 56.8954901   | 3237.096794  | 42.99630656  |
| Hancock County      | Mississippi | 0.4368    | 27.15202325  | 737.2323665  | 8.700372208  |
| Harrison County     | Mississippi | 0.4473    | 21.14387806  | 447.0635796  | 22.85196393  |
| Hinds County        | Mississippi | 0.4946    | 71.37363859  | 5094.196286  | 70.07395561  |
| Holmes County       | Mississippi | 0.5177    | 67.04607648  | 4495.176371  | 82.61534405  |
| Humphreys County    | Mississippi | 0.4984    | 79.003492    | 6241.551748  | 75.6643971   |
| Issaquena County    | Mississippi | 0.4681    | 85.12411065  | 7246.114214  | 66.84910086  |
| Itawamba County     | Mississippi | 0.4487    | 20.00940323  | 400.3762177  | 6.504377536  |
| Jackson County      | Mississippi | 0.4484    | 26.37069384  | 695.4134935  | 21.87896772  |
| Jasper County       | Mississippi | 0.4787    | 41.23470654  | 1700.301023  | 52.6218014   |
| Jefferson County    | Mississippi | 0.4856    | 80.72397185  | 6516.359631  | 85.90516112  |
| County                  | State     | Numbers | Population | Area | Density |
|-------------------------|-----------|---------|------------|------|---------|
| Jefferson Davis County  | Mississippi | 0.4655  | 38.30061396 | 1466.93703 | 61.07438017 |
| Jones County            | Mississippi | 0.4707  | 14.17217152 | 200.8504456 | 28.608674 |
| Kemper County           | Mississippi | 0.4588  | 49.32607069 | 2433.06125 | 59.09796314 |
| Lafayette County        | Mississippi | 0.5224  | 44.74800593 | 2002.384035 | 24.28963706 |
| Lamar County            | Mississippi | 0.4639  | 46.30260614 | 2143.931335 | 20.15059099 |
| Lauderdale County       | Mississippi | 0.4889  | 38.28965726 | 1466.097853 | 42.22474178 |
| Lawrence County         | Mississippi | 0.4638  | 40.45048096 | 1636.2411   | 32.30452675 |
| Leake County            | Mississippi | 0.5224  | 68.69465227 | 4718.95525  | 72.01309329 |
| Lauderdale County       | Mississippi | 0.5338  | 70.77119896 | 5008.562602 | 44.12414624 |
| Lowndes County          | Mississippi | 0.4948  | 77.1983969  | 5959.592485 | 38.29165906 |
| Madison County          | Mississippi | 0.4498  | 77.1983969  | 5959.592485 | 38.29165906 |
| Marshall County         | Mississippi | 0.4338  | 60.38089298 | 3811.672839 | 50.09418379 |
| Mississippi             | Mississippi | 0.4307  | 59.36622166 | 3524.348275 | 37.18209667 |
| Monticello County       | Mississippi | 0.4322  | 45.51511753 | 2071.625923 | 47.04720707 |
| Neshoba County          | Mississippi | 0.4626  | 26.88072623 | 722.573443 | 21.35085822 |
| Newton County           | Mississippi | 0.4777  | 34.91748062 | 1219.230453 | 30.47851968 |
| Nottoway County         | Mississippi | 0.4643  | 74.86390928 | 5604.604913 | 71.8772242 |
| Oktibbeha County        | Mississippi | 0.5399  | 59.06874742 | 3489.116921 | 37.18209667 |
| Panola County           | Mississippi | 0.4782  | 61.73874666 | 3811.672839 | 50.09418379 |
| Pearl River County      | Mississippi | 0.447   | 34.61144125 | 1197.951865 | 13.33441846 |
| Perry County            | Mississippi | 0.4333  | 28.41535273 | 807.4322707 | 21.62612162 |
| Pike County             | Mississippi | 0.4871  | 44.31971262 | 1964.236927 | 52.16245119 |
| Pontotoc County         | Mississippi | 0.4306  | 34.35083435 | 1179.979821 | 14.66714954 |
| Prentiss County         | Mississippi | 0.4544  | 20.61987834 | 425.1793828 | 14.12897624 |
| Quitman County          | Mississippi | 0.4803  | 70.65662483 | 4992.358633 | 69.62794229 |
| Rankin County           | Mississippi | 0.4201  | 52.398648   | 2745.618312 | 19.47787714 |
| Scott County            | Mississippi | 0.4437  | 36.33726002 | 1320.396465 | 37.79903363 |
| Sharkey County          | Mississippi | 0.4077  | 91.5555703  | 8382.422452 | 70.84524296 |
| Simpson County          | Mississippi | 0.4651  | 38.81410125 | 1506.534456 | 34.93163172 |
| Smith County            | Mississippi | 0.492   | 28.85300596 | 832.495953  | 24.78585414 |
| Stone County            | Mississippi | 0.4137  | 21.4436511  | 459.8301725 | 18.66674098 |
| Sunflower County        | Mississippi | 0.5071  | 84.02804904 | 7060.711663 | 73.04160486 |
| Tallahatchie County     | Mississippi | 0.4305  | 64.05991614 | 4103.672856 | 47.69902142 |
| County          | State     | Lat       | Long       | Pop10 | Lat10     | Long10    |
|-----------------|-----------|-----------|------------|-------|-----------|-----------|
| Tate County     | Mississippi | 0.4693    | 60.18425451 | 3622.14449 | 30.67549112 |
| Tippah County   | Mississippi | 0.4626    | 28.14243284 | 791.9965259 | 15.03919525 |
| Tishomingo County| Mississippi | 0.4271    | 21.12489098 | 446.2610189 | 2.467745239 |
| Tunica County   | Mississippi | 0.4429    | 78.32285041 | 6134.468896 | 75.14882358 |
| Union County    | Mississippi | 0.4572    | 31.63788198 | 1000.955576 | 13.84732714 |
| Walthall County | Mississippi | 0.4717    | 44.48702434 | 1979.095334 | 45.04826127 |
| Warren County   | Mississippi | 0.4708    | 67.23519122 | 4520.570936 | 47.67347953 |
| Washington County| Mississippi | 0.5054    | 92.02324053 | 8468.276799 | 71.07198529 |
| Wayne County    | Mississippi | 0.5081    | 52.71623536 | 2779.001471 | 39.02770365 |
| Webster County  | Mississippi | 0.4884    | 31.60169996 | 998.6674401 | 19.2021435 |
| Wilkinson County| Mississippi | 0.449    | 81.88641297 | 6705.38463 | 71.15283198 |
| Winston County  | Mississippi | 0.4847    | 43.87042005 | 1924.613756 | 47.36256752 |
| Yalobusha County| Mississippi | 0.4574    | 25.74119736 | 662.6092413 | 8.726555257 |
| Yazoo County    | Mississippi | 0.4994    | 74.66632178 | 5575.059608 | 57.10571306 |
| Adair County    | Missouri    | 0.4805    | 1.012904431 | 1.025975387 | 2.098120271 |
| Andrew County   | Missouri    | 0.4193    | 7.397784073 | 54.7272092 | 1.249064641 |
| Atchison County | Missouri    | 0.4203    | 1.269090127 | 1.61058975 | 0.543478261 |
| Audrain County  | Missouri    | 0.4009    | 14.63143357 | 214.0788484 | 5.889924718 |
| Barry County    | Missouri    | 0.4142    | 3.111090167 | 9.678882027 | 0.064460077 |
| Barton County   | Missouri    | 0.4375    | 1.25090457  | 1.564762244 | 0.219762331 |
| Bates County    | Missouri    | 0.43      | 6.11404425  | 37.38153708 | 0.673420739 |
| Benton County   | Missouri    | 0.4272    | 6.722643981 | 45.19394209 | 0.268973155 |
| Bollinger County| Missouri    | 0.4545    | 3.480026139 | 12.11058193 | 0.330805228 |
| Boone County    | Missouri    | 0.4881    | 25.74119736 | 662.6092413 | 8.726555257 |
| Buchanan County | Missouri    | 0.4541    | 2.429610733 | 71.0583371 | 4.966717298 |
| Butler County   | Missouri    | 0.4381    | 1.871178354 | 3.501308434 | 5.230812208 |
| Caldwell County | Missouri    | 0.4199    | 4.718162104 | 22.0164449 | 0.741063644 |
| Callaway County | Missouri    | 0.4215    | 25.84230683 | 667.8248224 | 3.864397635 |
| Camden County   | Missouri    | 0.4247    | 1.463084896 | 17.33127585 | 0.455861236 |
| Cape Girardeau County | Missouri | 0.4517    | 9.809251405 | 96.22141312 | 7.393127442 |
| Carroll County  | Missouri    | 0.4505    | 11.29815308 | 127.6482631 | 0.884569182 |
| Carter County   | Missouri    | 0.4878    | 1.572585767 | 2.473025996 | 0.588890657 |
| Cass County     | Missouri    | 0.4027    | 10.27112689 | 105.4960476 | 3.732347343 |
| Cedar County    | Missouri    | 0.4611    | 3.175748799 | 10.08538044 | 0.258769408 |
| Chariton County | Missouri    | 0.431    | 22.53238958 | 507.7085801 | 2.23890255 |
| Christian County| Missouri    | 0.4077    | 4.171899516 | 17.40474557 | 0.661190142 |

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| County          | State      | Latitude   | Longitude   | Population | Density |
|-----------------|------------|------------|-------------|------------|---------|
| Clark County    | Missouri   | 38.7164483 | 14.98591445 | 485644908  |
| Clay County     | Missouri   | 38.596    | 26.15335875 | 6839981741 | 5.392231 |
| Clinton County  | Missouri   | 42.8688048 | 204.1149538 | 8917741543 |
| Cole County     | Missouri   | 10.26787321| 105.4292202 | 11.42543114|
| Cooper County   | Missouri   | 21.92898989| 480.8805976 | 5.72078476 |
| Crawford County | Missouri   | 2.887440833| 8.337314566 | 0.263771151|
| Dade County     | Missouri   | 4.86776677 | 23.69515333 | 5.60041678 |
| Dallas County   | Missouri   | 2.06862479 | 4.279208521 | 0.048100048|
| Daviess County  | Missouri   | 3.69405416 | 13.65158706 | 0.708793849|
| DeKalb County   | Missouri   | 3.447087843| 11.88241459 | 10.7922645 |
| Dent County     | Missouri   | 2.730277108| 7.454413084 | 0.484662968|
| Douglas County  | Missouri   | 1.108388608| 1.228525305 | 0         |
| Dunklin County  | Missouri   | 3.59129035 | 12.89736638 | 10.49153502|
| Franklin County | Missouri   | 8.808050271| 77.58174958 | 1.155563423|
| Gasconade County| Missouri   | 0.985277559| 0.970771868 | 0.606100972|
| Gentry County   | Missouri   | 1.087087268| 1.18758729  | 0.691990577|
| Greene County   | Missouri   | 12.5587702 | 157.722709  | 3.02896418 |
| Grundy County   | Missouri   | 3.632290415| 13.19353366 | 1.021500146|
| Harrison County | Missouri   | 0.248341847| 0.061673673 | 0.864127345|
| Henry County    | Missouri   | 12.585493  | 158.394634  | 1.472847203|
| Hickory County  | Missouri   | 4.219412054| 17.80343808 | 0.276008493|
| Holt County     | Missouri   | 4.707541527| 22.16094723 | 0.638977636|
| Howard County   | Missouri   | 36.71559498| 1348.034915 | 5.0476284 |
| Howell County   | Missouri   | 1.113737132| 1.240410399 | 0.281697101|
| Iron County     | Missouri   | 5.532732904| 30.60714994 | 1.793937068|
| Jackson County  | Missouri   | 17.25149816| 297.6141887 | 23.78543928 |
| Jasper County   | Missouri   | 4.86706451 | 23.68831637 | 2.262470512|
| Jefferson County| Missouri   | 5.261877399| 27.68735377 | 0.872786297|
| Johnson County  | Missouri   | 12.98232041| 168.5406433 | 4.471129754 |
| Knox County     | Missouri   | 3.250949047| 10.56866971 | 1.250613046 |
| Laclede County  | Missouri   | 8.36907061 | 34.06948404 | 0.531735314 |
| Lafayette County| Missouri   | 31.28404641| 978.69156   | 2.107714173 |
| Lawrence County | Missouri   | 3.226175627| 10.40820918 | 0.177517882 |
| Lewis County    | Missouri   | 10.3022687 | 106.1367404 | 2.643474843 |
| Lincoln County  | Missouri   | 19.9333966 | 397.3380299 | 2.181151558 |
| Linn County     | Missouri   | 6.427078023| 41.30733191 | 0.592284296 |

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| County                  | State      | Code 1 | Code 2   | Code 3   | Code 4   |
|------------------------|------------|--------|----------|----------|----------|
| Livingston County      | Missouri   | 0.4402 | 8.087251687 | 65.40363986 | 2.361314354 |
| McDonald County        | Missouri   | 0.4379 | 2.310898986 | 5.340254123 | 1.347862238 |
| Macon County           | Missouri   | 0.4291 | 4.686284048 | 21.96125818 | 3.220197076  |
| Madison County         | Missouri   | 0.4032 | 8.183127396 | 66.96357398 | 0.615235166  |
| Maries County          | Missouri   | 0.4028 | 1.316747626 | 1.733824311 | 0.516597054  |
| Marion County          | Missouri   | 0.4564 | 15.97596831 | 255.2315633 | 5.640687838  |
| Mercer County          | Missouri   | 0.4051 | 0.272350611 | 0.074174856 | 0.401606426  |
| Miller County          | Missouri   | 0.4384 | 3.52682903  | 12.45828019 | 0.453724152  |
| Mississippi County     | Missouri   | 0.4469 | 20.79399461 | 432.3902118 | 23.98430933  |
| Monticello County      | Missouri   | 0.3842 | 7.530494374 | 56.70834552 | 3.651631783  |
| Monroe County          | Missouri   | 0.3707 | 20.3801833  | 415.377558  | 3.06017192   |
| Montgomery County      | Missouri   | 0.4172 | 17.11839891 | 293.0395814 | 0.829600133  |
| Morgan County          | Missouri   | 0.4316 | 8.137123752 | 66.21278295 | 1.265137344  |
| New Madrid County      | Missouri   | 0.496  | 29.74487629 | 884.7576654 | 16.0706592   |
| Newton County          | Missouri   | 0.4538 | 4.569725995 | 20.88239567 | 0.998585621  |
| Nodaway County         | Missouri   | 0.4473 | 2.429090171 | 5.90047906  | 2.755837912  |
| Oregon County          | Missouri   | 0.4441 | 1.024852597 | 1.050322846 | 0.173120729  |
| Osage County           | Missouri   | 0.3668 | 3.597437855 | 12.94155912 | 0.658847379  |
| Ozark County           | Missouri   | 0.3944 | 1.84990874  | 3.42246233  | 0.156054931  |
| Pemiscot County        | Missouri   | 0.4645 | 9.776033623 | 95.57083339 | 26.93503609  |
| Perry County           | Missouri   | 0.3884 | 8.107218652 | 65.72699427 | 0.430627035  |
| Pettis County          | Missouri   | 0.4381 | 19.8997118  | 395.9985297 | 2.74086182   |
| Phelps County          | Missouri   | 0.4485 | 1.462106315 | 2.137754878 | 2.494954647  |
| Pike County            | Missouri   | 0.4208 | 21.98761602 | 483.4552583 | 5.901039143  |
| Platte County          | Missouri   | 0.4237 | 17.97404987 | 323.0664686 | 6.329965599  |
| Polk County            | Missouri   | 0.4188 | 5.193291929 | 26.97028106 | 0.925390399  |
| Pulaski County         | Missouri   | 0.3776 | 1.462856869 | 2.139950218 | 11.48229383  |
| Putnam County          | Missouri   | 0.4208 | 0.349845434 | 0.122391828 | 0.549786194  |
| Ralls County           | Missouri   | 0.3696 | 20.79585269 | 432.4674893 | 0.733568075  |
| Randolph County        | Missouri   | 0.4243 | 22.89856022 | 524.34406  | 5.66590303   |
| Ray County             | Missouri   | 0.4114 | 14.87324336 | 221.2133679 | 1.368384702  |
| Reynolds County        | Missouri   | 0.4393 | 1.270009831 | 1.612924972 | 0.933172787  |
| Ripley County          | Missouri   | 0.4042 | 2.177228061 | 4.74032203  | 0.085372795  |
| St. Charles County     | Missouri   | 0.3866 | 12.7063684  | 161.4517978 | 4.568650093  |
| St. Clair County       | Missouri   | 0.4302 | 8.305811969 | 68.98651247 | 0.884587366  |
| Ste. Genevieve County  | Missouri   | 0.4226 | 7.700990752 | 59.3052586  | 0.482877283  |

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| County             | State    | 3406 | 3407 | 3408 | 3409 |
|--------------------|----------|------|------|------|------|
| St. Francois County| Missouri | 0.4383 | 11.98302365 | 143.5928557 | 4.518864054 |
| St. Louis County   | Missouri | 0.4858 | 2.297202392 | 5.27713883 | 23.30204324 |
| Saline County      | Missouri | 0.4158 | 32.9788519 | 1087.604673 | 5.431665454 |
| Schuyler County    | Missouri | 0.4314 | 0.579817289 | 0.336188089 | 0.706472197 |
| Scotland County    | Missouri | 0.4513 | 1.462921205 | 2.140138451 | 0.86384204 |
| Scott County       | Missouri | 0.4359 | 9.511693884 | 90.47232054 | 11.13268774 |
| Shannon County     | Missouri | 0.4464 | 0.594174562 | 0.35304341 | 0.33492823 |
| Shelby County      | Missouri | 0.415 | 9.884537832 | 97.70408815 | 1.31875201 |
| Stoddard County    | Missouri | 0.4811 | 2.822688064 | 7.967567907 | 1.346102331 |
| Stone County       | Missouri | 0.4071 | 0.97108759 | 0.94301107 | 0.060139904 |
| Sullivan County    | Missouri | 0.4176 | 1.15960976 | 1.344694795 | 0.976950084 |
| Taney County       | Missouri | 0.4352 | 2.333768937 | 5.446477453 | 0.668726218 |
| Texas County       | Missouri | 0.4527 | 0.928339928 | 0.861815022 | 2.647697317 |
| Vernon County      | Missouri | 0.4818 | 2.810285106 | 7.897702375 | 0.767251239 |
| Warren County      | Missouri | 0.414 | 11.7602516 | 138.3035177 | 1.917983377 |
| Washington County  | Missouri | 0.4453 | 10.42844508 | 108.7524668 | 1.943216661 |
| Wayne County       | Missouri | 0.4447 | 4.555979419 | 20.75694846 | 0.446760983 |
| Webster County     | Missouri | 0.4119 | 3.331785157 | 11.10079233 | 1.176599654 |
| Worth County       | Missouri | 0.4256 | 0.996531976 | 0.993075979 | 0 |
| Wright County      | Missouri | 0.4253 | 1.535631695 | 2.358164702 | 0.479396714 |
| St. Louis City     | Missouri | 0.5062 | 2.28107745 | 5.203314331 | 48.11484437 |
| Alamance County    | North Carolina | 0.4545 | 29.44700793 | 867.1262759 | 17.98481586 |
| Alexander County   | North Carolina | 0.4187 | 10.49741209 | 110.1956606 | 6.278412912 |
| Alleghany County   | North Carolina | 0.434 | 6.002122798 | 36.02547808 | 1.038819027 |
| Anson County       | North Carolina | 0.4518 | 50.53869112 | 255.41593 | 48.6414942 |
| Ashe County        | North Carolina | 0.4497 | 9.892067474 | 24.82935965 | 0.647701763 |
| Avery County       | North Carolina | 0.4863 | 8.354316101 | 69.79459752 | 4.346355488 |
| Beaufort County    | North Carolina | 0.4482 | 39.97046259 | 1597.63788 | 25.95246601 |
| Bertie County      | North Carolina | 0.4634 | 56.90324096 | 3237.978832 | 62.2339943 |
| Bladen County      | North Carolina | 0.4913 | 44.32735267 | 1964.914195 | 35.30001432 |
| Brunswick County   | North Carolina | 0.4488 | 43.16885903 | 1863.55039 | 10.87008086 |
| Buncombe County    | North Carolina | 0.4603 | 15.39767303 | 237.0883346 | 6.550312961 |
| Burke County       | North Carolina | 0.4444 | 25.29191812 | 639.6811222 | 6.28410521 |
| Cabarrus County    | North Carolina | 0.4203 | 28.78026149 | 828.3034515 | 16.07313841 |
| Caldwell County    | North Carolina | 0.4567 | 14.71484251 | 216.5269092 | 4.935476017 |
| Camden County      | North Carolina | 0.3626 | 38.7576187 | 1502.153007 | 13.70593463 |

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| County                | Latitude  | Longitude  | Population | Area (sq km) | Population Density |
|-----------------------|-----------|------------|------------|--------------|-------------------|
| Carteret County       | 34.71263  | -76.42974  | 7,181      | 266.9        | 27.0              |
| Caswell County        | 35.60101  | -78.67757  | 10,973     | 266.9        | 41.3              |
| Catawba County        | 35.60101  | -78.67757  | 13,947     | 266.9        | 52.2              |
| Chatham County        | 35.60101  | -78.67757  | 9,937      | 266.9        | 37.0              |
| Cherokee County       | 35.60101  | -78.67757  | 12,937     | 266.9        | 48.6              |
| Chatham County        | 34.71263  | -76.42974  | 7,181      | 266.9        | 27.0              |
| Chowan County         | 34.80443  | -75.68353  | 7,981      | 266.9        | 30.8              |
| Clay County           | 34.80443  | -75.68353  | 8,981      | 266.9        | 33.4              |
| Cleveland County      | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Columbus County       | 34.80443  | -75.68353  | 8,981      | 266.9        | 33.4              |
| Craven County         | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Cumberland County     | 35.60101  | -78.67757  | 13,947     | 266.9        | 52.2              |
| Currituck County      | 34.80443  | -75.68353  | 8,981      | 266.9        | 33.4              |
| Dare County           | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Davidson County       | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Davie County          | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Duplin County         | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Durham County         | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Edgecombe County      | 34.80443  | -75.68353  | 8,981      | 266.9        | 33.4              |
| Forsyth County        | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Franklin County       | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Gaston County         | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Gates County          | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Graham County         | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Granville County      | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Greene County         | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Guilford County       | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Halifax County        | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Harnett County        | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Haywood County        | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Henderson County      | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Hertford County       | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Hoke County           | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Hyde County           | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Iredell County        | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Jackson County        | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| Johnston County       | 34.71263  | -76.42974  | 7,981      | 266.9        | 29.0              |
| County                  | State          | Latitude   | Longitude  | Population | Density |
|------------------------|----------------|------------|------------|------------|---------|
| Jones County           | North Carolina| 34.685511  | -82.926171 | 10,599      | 148.32  |
| Lee County             | North Carolina| 35.435511  | -84.125511 | 21,022      | 275.83  |
| Lenoir County          | North Carolina| 35.125511  | -83.255511 | 32,345      | 444.17  |
| Lincoln County         | North Carolina| 35.075511  | -83.125511 | 35,022      | 481.78  |
| McDowell County        | North Carolina| 34.785511  | -83.985511 | 27,022      | 370.34  |
| Macon County           | North Carolina| 33.545511  | -83.295511 | 35,002      | 471.79  |
| Madison County         | North Carolina| 35.375511  | -84.085511 | 20,002      | 275.12  |
| Martin County          | North Carolina| 35.255511  | -84.295511 | 18,002      | 245.06  |
| Mecklenburg County     | North Carolina| 35.155511  | -84.155511 | 30,002      | 414.28  |
| Mitchell County        | North Carolina| 35.045511  | -84.055511 | 25,002      | 342.97  |
| Montgomery County      | North Carolina| 35.025511  | -84.025511 | 22,002      | 295.21  |
| Moore County           | North Carolina| 35.255511  | -84.155511 | 18,002      | 245.06  |
| Nash County            | North Carolina| 35.155511  | -84.155511 | 30,002      | 414.28  |
| New Hanover County     | North Carolina| 34.975511  | -84.025511 | 17,002      | 225.64  |
| Northampton County     | North Carolina| 35.105511  | -84.055511 | 25,002      | 342.97  |
| Onslow County          | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Orange County          | North Carolina| 35.025511  | -84.025511 | 22,002      | 295.21  |
| Pamlico County         | North Carolina| 35.105511  | -84.055511 | 25,002      | 342.97  |
| Pasquotank County      | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Pender County          | North Carolina| 34.975511  | -84.025511 | 17,002      | 225.64  |
| Perquimans County      | North Carolina| 35.105511  | -84.055511 | 25,002      | 342.97  |
| Person County          | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Pitt County            | North Carolina| 35.025511  | -84.025511 | 22,002      | 295.21  |
| Polk County            | North Carolina| 35.105511  | -84.055511 | 25,002      | 342.97  |
| Randolph County        | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Richmond County        | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Robeson County         | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Rockingham County      | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Rowan County           | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Rutherford County      | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Sampson County         | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Scotland County        | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Stanly County          | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Stokes County          | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Surry County           | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| Swain County           | North Carolina| 35.075511  | -84.085511 | 20,002      | 275.12  |
| County            | State       | Lat     | Long     | Pop     | Pct 1 | Pct 2 |
|-------------------|-------------|---------|----------|---------|-------|-------|
| Transylvania County | North Carolina | 0.4293  | 12.92311851 | 167.0069921 | 3.812646086 |
| Tyrrell County   | North Carolina | 0.438   | 32.89125572  | 1081.834703 | 28.13462906 |
| Union County     | North Carolina | 0.4354  | 20.34855224  | 414.0635781  | 11.80827845 |
| Vance County     | North Carolina | 0.4663  | 52.76091903   | 2783.714576  | 50.00222232 |
| Wake County      | North Carolina | 0.4428  | 37.45798678   | 1403.100774  | 20.75467736 |
| Warren County    | North Carolina | 0.4588  | 65.79737214   | 4329.29418   | 50.9550126 |
| Washington County| North Carolina | 0.472   | 38.90388718   | 1513.512438  | 50.29991431 |
| Watauga County   | North Carolina | 0.531   | 2.522896099   | 6.365004727  | 1.102055758 |
| Wayne County     | North Carolina | 0.4455  | 36.69902213   | 1346.818225  | 31.47881025 |
| Wilkes County    | North Carolina | 0.4676  | 8.366648083   | 70.00140255  | 4.30001447 |
| Wilson County    | North Carolina | 0.4584  | 37.132072     | 1378.800812  | 38.57347943 |
| Yadkin County    | North Carolina | 0.4662  | 13.64840685   | 186.278403   | 3.37864098 |
| Yancey County    | North Carolina | 0.4446  | 4.43702774    | 19.68721516  | 1.058770241 |
| Abbeville County | South Carolina  | 0.428   | 63.26102522   | 4001.9573    | 28.81673307 |
| Aiken County     | South Carolina  | 0.457   | 56.72629182   | 3217.872183  | 24.8989208 |
| Allendale County | South Carolina  | 0.4636  | 62.12191495   | 73.92041488  | 16.41310477 |
| Anderson County  | South Carolina  | 0.4458  | 36.9444056    | 1364.891688  | 62.36181226 |
| Bamberg County   | South Carolina  | 0.5167  | 57.54679439   | 3311.633545  | 44.80190245 |
| Barnwell County  | South Carolina  | 0.4843  | 56.61411783   | 3205.158338  | 48.10209245 |
| Beaufort County  | South Carolina  | 0.4604  | 81.18602408   | 17.0729521   | 28.81673307 |
| Berkeley County  | South Carolina  | 0.4231  | 53.28746185   | 2839.55359   | 24.76394736 |
| Calhoun County   | South Carolina  | 0.4564  | 63.84342583   | 4075.983022  | 42.2526778 |
| Charleston County | South Carolina  | 0.4965  | 57.22933902   | 3275.197244  | 28.91974819 |
| Cherokee County  | South Carolina  | 0.482   | 41.92658483   | 1757.838516  | 19.9597896 |
| Chester County   | South Carolina  | 0.4767  | 60.10929845   | 3613.12776   | 37.61465085 |
| Chesterfield County | South Carolina | 0.4606  | 37.04036598   | 1371.988712  | 32.88800639 |
| Clarendon County | South Carolina  | 0.4835  | 65.39201693   | 4276.115878  | 49.3800633 |
| Colleton County  | South Carolina  | 0.4541  | 77.04133676   | 5935.36757   | 38.49452245 |
| Darlington County | South Carolina  | 0.4745  | 58.27835787   | 3396.366996  | 40.56718651 |
| Dillon County    | South Carolina  | 0.4705  | 46.89051425   | 2198.720327  | 46.01795173 |
| Dorchester County | South Carolina  | 0.4081  | 76.16602338   | 5800.65389   | 25.34750705 |
| Edgefield County | South Carolina  | 0.4369  | 60.33331064   | 3640.108373  | 36.73653709 |
| Fairfield County | South Carolina  | 0.4976  | 70.11716149   | 4916.416335  | 57.65546147 |
| Florence County  | South Carolina  | 0.4697  | 55.89689319   | 3124.462668  | 41.57020962 |
| Georgetown County | South Carolina  | 0.4852  | 84.82752526   | 7195.709041  | 33.17822782 |
| Greenville County | South Carolina  | 0.4752  | 32.53560972   | 1058.56591   | 18.19339866 |
| County                | State     | A1 | A2       | A3       | A4       |
|-----------------------|-----------|----|----------|----------|----------|
| Greenwood County      | South Carolina | 0.4756 | 62.23931704 | 3873.732586 | 31.03087164 |
| Hampton County        | South Carolina | 0.4878 | 81.16739359  | 6588.145782  | 53.66231253  |
| Horry County          | South Carolina | 0.4453 | 29.88774445  | 893.2772682  | 13.76023722  |
| Jasper County         | South Carolina | 0.4263 | 80.84507363  | 6535.92593   | 44.86982567  |
| Kershaw County        | South Carolina | 0.4369 | 59.9278945   | 3591.352539  | 24.92861955  |
| Lancaster County      | South Carolina | 0.4489 | 48.60299581  | 2362.251201  | 23.20694209  |
| Laurens County        | South Carolina | 0.4478 | 55.54172298  | 3084.882992  | 25.42702214  |
| Lee County            | South Carolina | 0.4537 | 67.56511095  | 4565.044217  | 63.99935856  |
| Lexington County      | South Carolina | 0.4271 | 40.10658044  | 1608.537794  | 14.30310475  |
| McCormick County      | South Carolina | 0.4869 | 62.10243294  | 3856.712177  | 49.47517545  |
| Marion County         | South Carolina | 0.4802 | 47.00335241  | 2209.315138  | 55.86374996  |
| Marlboro County       | South Carolina | 0.4741 | 55.30945805  | 3059.137406  | 50.84470206  |
| Newberry County       | South Carolina | 0.4416 | 64.8997499   | 4211.977538  | 30.31149416  |
| Oconee County         | South Carolina | 0.4721 | 21.42749202  | 459.1374142  | 7.56670598   |
| Orangeburg County     | South Carolina | 0.475 | 63.83099096  | 4074.395406  | 62.1233372  |
| Pickens County        | South Carolina | 0.4504 | 21.74302581  | 472.7591715  | 6.531356365  |
| Richland County       | South Carolina | 0.4643 | 59.54554568  | 3545.672011  | 45.93466715  |
| Saluda County         | South Carolina | 0.4531 | 60.2037299   | 3624.489094  | 26.34055976  |
| Spartanburg County    | South Carolina | 0.4476 | 31.07638141  | 965.7414814  | 20.65577291  |
| Sumter County         | South Carolina | 0.4407 | 69.636506    | 4849.24299   | 46.47087612  |
| Union County          | South Carolina | 0.4416 | 55.13226328  | 3039.566455  | 30.79176815  |
| Williamsburg County   | South Carolina | 0.5016 | 66.41463868  | 4410.904231  | 66.01013111  |
| York County           | South Carolina | 0.4495 | 46.62868603  | 2174.234361  | 18.64207238  |
| Anderson County       | Tennessee | 0.4579 | 8.28314152   | 68.61043344  | 3.94851145   |
| Bedford County        | Tennessee | 0.4443 | 31.55856373  | 995.9429446  | 6.154183092  |
| Benton County         | Tennessee | 0.4347 | 10.59115879  | 112.1726446  | 3.55403854   |
| Bledsoe County        | Tennessee | 0.4443 | 15.24508492  | 232.4126141  | 4.350453172  |
| Blount County         | Tennessee | 0.4434 | 10.24652568  | 104.9912885  | 2.939687387  |
| Bradley County        | Tennessee | 0.4649 | 10.04952054  | 100.992863   | 4.505762148  |
| Campbell County       | Tennessee | 0.4412 | 5.405544665  | 29.21991313  | 0.587200515  |
| Cannon County         | Tennessee | 0.4502 | 10.60060117  | 112.4872608  | 1.487015813  |
| Carroll County        | Tennessee | 0.4536 | 23.25367096  | 540.7332133  | 9.999649258  |
| Carter County         | Tennessee | 0.4575 | 5.233562105  | 27.39017231  | 1.230409438  |
| Cheatham County       | Tennessee | 0.3945 | 26.41214908  | 697.6016192  | 1.561387448  |
| Chester County        | Tennessee | 0.4584 | 25.58245657  | 654.462084  | 10.49797336  |
| Claiborne County      | Tennessee | 0.4581 | 7.662761636  | 58.71791588  | 0.90763481   |
| County          | State    | Value1 | Value2 | Value3  | Value4  |
|-----------------|----------|--------|--------|---------|---------|
| Clay County     | Tennessee| 0.4406 | 9.787776402 | 95.80056689 | 2.076390669 |
| Cocke County     | Tennessee| 0.4793 | 8.129347524  | 66.08629116 | 1.399035343 |
| Coffee County    | Tennessee| 0.4577 | 15.86247982  | 251.6182659 | 2.1655284  |
| Crockett County  | Tennessee| 0.4257 | 44.78487339  | 2005.684885  | 13.35022947 |
| Cumberland County| Tennessee| 0.4336 | 3.783489928  | 14.31479604 | 0.55902145 |
| Davidson County  | Tennessee| 0.4905 | 31.49204049   | 991.748614  | 27.68483199 |
| Decatur County   | Tennessee| 0.5101 | 12.34856847   | 152.4871432 | 2.869379015 |
| DeKalb County    | Tennessee| 0.5062 | 10.14021653   | 102.8239912 | 1.481442429 |
| Dickson County   | Tennessee| 0.438  | 22.50150482   | 506.3177193 | 3.962885364 |
| Dyer County      | Tennessee| 0.4536 | 25.12350912   | 631.1907106 | 13.67281686 |
| Fayette County   | Tennessee| 0.4645 | 63.41383266   | 4021.314173 | 27.82433271 |
| Fentress County  | Tennessee| 0.4542 | 3.702998822   | 13.71220028 | 0.18971097 |
| Franklin County  | Tennessee| 0.4635 | 25.47452738   | 648.9515452 | 3.51599065 |
| Gibson County    | Tennessee| 0.4401 | 28.13361215   | 791.5001327 | 18.68149581 |
| Giles County     | Tennessee| 0.4374 | 41.32282334   | 1707.575   | 10.56289568 |
| Grainger County  | Tennessee| 0.4389 | 9.65207912    | 1673.718068 | 41.43825301 |
| Greene County    | Tennessee| 0.4401 | 6.840233093   | 46.78878876 | 2.290221004 |
| Grundy County    | Tennessee| 0.4588 | 10.00518643   | 100.1037555 | 0.272579932 |
| Hamblen County   | Tennessee| 0.4608 | 12.28201198   | 150.8478183 | 3.657159219 |
| Hamilton County  | Tennessee| 0.4789 | 10.74443433   | 115.442869  | 20.00191431 |
| Hancock County   | Tennessee| 0.4553 | 3.56321178    | 12.69647819 | 0.596480763 |
| Hardeman County  | Tennessee| 0.4479 | 40.91109957   | 1673.718068 | 41.43825301 |
| Hardin County    | Tennessee| 0.5155 | 14.51196531   | 210.5971371 | 4.46684338 |
| Hawkins County   | Tennessee| 0.4476 | 11.37371002   | 129.3612797 | 1.349993832 |
| Haywood County   | Tennessee| 0.4795 | 57.1225772    | 3262.988826 | 49.68731307 |
| Henderson County | Tennessee| 0.4358 | 22.58488624   | 510.0770863 | 7.70306155 |
| Henry County     | Tennessee| 0.4657 | 28.79947605   | 829.4098207 | 8.593822609 |
| Hickman County   | Tennessee| 0.4373 | 19.12005262   | 365.5764122 | 4.73022912 |
| Houston County   | Tennessee| 0.4167 | 23.20300159   | 538.3792827 | 1.998563906 |
| Humphreys County | Tennessee| 0.4364 | 15.97406986   | 255.1709078 | 3.880510723 |
| Jackson County   | Tennessee| 0.4701 | 10.33627538   | 106.835888  | 0.752920814 |
| Jefferson County | Tennessee| 0.4408 | 13.0031658    | 169.082321  | 2.722079515 |
| Johnson County   | Tennessee| 0.4337 | 4.608109674   | 21.23467477 | 2.863618774 |
| Knox County      | Tennessee| 0.4814 | 10.3559041    | 107.2382526 | 9.150231887 |
| Lake County      | Tennessee| 0.4695 | 19.25938695   | 370.9239858 | 26.34304207 |
| Lauderdale County| Tennessee| 0.4653 | 37.79430013   | 1428.409122 | 35.10626742 |

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| County          | State    | Latitude | Longitude | Population | Income | Growth Rate |
|-----------------|----------|----------|-----------|------------|--------|-------------|
| Lawrence County | Tennessee| 35.6817  | -85.5086  | 38,577     | 4,291  | 2.1%        |
| Lewis County    | Tennessee| 35.7402  | -85.5407  | 36,294     | 4,991  | 2.7%        |
| Lincoln County  | Tennessee| 35.8565  | -85.5605  | 37,657     | 5,216  | 3.0%        |
| Loudon County   | Tennessee| 35.8817  | -85.5605  | 30,002     | 3,798  | 2.6%        |
| McMinn County   | Tennessee| 35.9356  | -85.5987  | 29,953     | 3,879  | 3.0%        |
| McNairy County  | Tennessee| 35.9815  | -85.5865  | 31,953     | 4,321  | 3.4%        |
| Macon County    | Tennessee| 36.0015  | -85.6186  | 31,653     | 4,423  | 3.6%        |
| Macon County    | Tennessee| 36.0715  | -85.6545  | 29,353     | 3,832  | 3.2%        |
| Madison County  | Tennessee| 36.1356  | -85.6845  | 30,502     | 4,156  | 3.4%        |
| Marion County   | Tennessee| 36.2086  | -85.7123  | 31,253     | 4,378  | 3.6%        |
| Marshall County | Tennessee| 36.2586  | -85.7345  | 27,002     | 3,456  | 2.5%        |
| Maury County    | Tennessee| 36.2915  | -85.7686  | 29,002     | 3,843  | 3.2%        |
| Meigs County    | Tennessee| 36.3356  | -85.7945  | 28,002     | 3,721  | 2.9%        |
| Monroe County   | Tennessee| 36.3986  | -85.8286  | 29,502     | 4,156  | 3.4%        |
| Montgomery County| Tennessee| 36.4415 | -85.8623  | 30,253     | 4,378  | 3.6%        |
| Moore County    | Tennessee| 36.5086  | -85.9045  | 29,002     | 3,843  | 3.2%        |
| Morgan County   | Tennessee| 36.5686  | -85.9386  | 27,002     | 3,456  | 2.5%        |
| Obion County    | Tennessee| 36.6115  | -85.9745  | 28,002     | 3,721  | 2.9%        |
| Overton County  | Tennessee| 36.6815  | -85.9986  | 29,502     | 4,156  | 3.4%        |
| Perry County    | Tennessee| 36.7515  | -86.0545  | 29,002     | 3,843  | 3.2%        |
| Pickett County  | Tennessee| 36.8086  | -86.1345  | 28,002     | 3,721  | 2.9%        |
| Polk County     | Tennessee| 36.8686  | -86.1686  | 29,502     | 4,156  | 3.4%        |
| Putnam County   | Tennessee| 36.9415  | -86.2345  | 27,002     | 3,456  | 2.5%        |
| Rhea County     | Tennessee| 37.0015  | -86.2686  | 28,002     | 3,721  | 2.9%        |
| Roane County    | Tennessee| 37.0815  | -86.3045  | 29,502     | 4,156  | 3.4%        |
| Robertson County| Tennessee| 37.1515  | -86.3486  | 29,002     | 3,843  | 3.2%        |
| Rutherford County| Tennessee| 37.2286 | -86.4286  | 30,253     | 4,378  | 3.6%        |
| Sevier County   | Tennessee| 37.2715  | -86.4845  | 29,002     | 3,843  | 3.2%        |
| Sequatchie County| Tennessee| 37.3515 | -86.5345  | 28,002     | 3,721  | 2.9%        |
| Shelby County   | Tennessee| 37.4915  | -86.6686  | 28,002     | 3,721  | 2.9%        |
| Smith County    | Tennessee| 37.5715  | -86.7345  | 29,002     | 3,843  | 3.2%        |
| Stewart County  | Tennessee| 37.6615  | -86.8045  | 28,002     | 3,721  | 2.9%        |
| Sullivan County | Tennessee| 37.7515  | -86.8686  | 29,502     | 4,156  | 3.4%        |
| Sumner County   | Tennessee| 37.8315  | -87.0086  | 27,002     | 3,456  | 2.5%        |
| Tipton County   | Tennessee| 37.9215  | -87.0986  | 28,002     | 3,721  | 2.9%        |
| Trousdale County| Tennessee| 38.0115  | -87.1486  | 29,502     | 4,156  | 3.4%        |
| County                | State     | Population_2016 | Population_2020 | Population_2010 |
|-----------------------|-----------|------------------|------------------|------------------|
| Unicoi County         | Tennessee | 48,212           | 56,243           | 46,598           |
| Union County          | Tennessee | 43,644           | 43,843           | 42,733           |
| Van Buren County      | Tennessee | 47,002           | 46,947           | 46,070           |
| Warren County         | Tennessee | 47,416           | 45,980           | 45,485           |
| Washington County     | Tennessee | 49,090           | 48,070           | 47,150           |
| Wayne County          | Tennessee | 43,376           | 44,792           | 45,207           |
| Weakley County        | Tennessee | 45,826           | 46,872           | 47,160           |
| White County          | Tennessee | 45,456           | 45,372           | 45,372           |
| Williamson County     | Tennessee | 44,401           | 50,027           | 46,007           |
| Wilson County         | Tennessee | 41,718           | 47,300           | 45,082           |
| Accomack County       | Virginia  | 47,211           | 59,124           | 47,890           |
| Albemarle County      | Virginia  | 48,611           | 52,264           | 52,665           |
| Alleghany County      | Virginia  | 42,266           | 14,497,0206     | 17,751,0208      |
| Amelia County         | Virginia  | 40,803           | 70,893,74509    | 50,259,903       |
| Amherst County        | Virginia  | 41,111           | 45,585,2203     | 20,780,12312     |
| Appomattox County     | Virginia  | 41,239           | 51,618,44183    | 26,641,46353     |
| Arlington County      | Virginia  | 43,681           | 120,627,2254    | 8,336,17201      |
| Augusta County        | Virginia  | 42,322           | 20,402,69919    | 416,270,1341     |
| Bath County           | Virginia  | 50,505           | 25,471,42477    | 648,793,4798     |
| Bedford County        | Virginia  | 42,233           | 40,565,83128    | 1645,586,667     |
| Bland County          | Virginia  | 38,204           | 14,484,48943    | 209,800,4339     |
| Botetourt County      | Virginia  | 43,135           | 24,154,27349    | 583,428,928      |
| Brunswick County      | Virginia  | 45,356           | 61,673,8722     | 3803,666,512     |
| Buchanan County       | Virginia  | 45,550           | 1,195,436587    | 1,429,066,834    |
| Buckingham County     | Virginia  | 42,111           | 57,669,06797    | 3325,7214        |
| Campbell County       | Virginia  | 42,166           | 44,274,65125    | 1960,244,743     |
| Caroline County       | Virginia  | 40,029           | 57,703,59128    | 3329,704,446     |
| Carroll County        | Virginia  | 42,426           | 3,464,160827    | 12,0004,1023     |
| Charles City County   | Virginia  | 44,007           | 51,042,95021    | 2605,382,766     |
| Charlotte County      | Virginia  | 44,266           | 63,434,822      | 4023,976,642     |
| Chesterfield County   | Virginia  | 40,075           | 43,795,42687    | 1918,039,415     |
| Clarke County         | Virginia  | 43,739           | 46,667,24729    | 2177,831,969     |
| Craig County          | Virginia  | 39,397           | 12,157,68495    | 147,809,033     |
| Culpeper County       | Virginia  | 39,974           | 55,080,80507    | 3033,895,088     |
| Cumberland County     | Virginia  | 43,999           | 67,077,67953    | 4499,415,091     |
| Dickenson County      | Virginia  | 43,096           | 1,376,04244     | 1,893,492,797    |

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| County                  | State    | X Coordinate | Y Coordinate | Area (sq mi) | Population | Density (per sq mi) |
|------------------------|----------|--------------|--------------|-------------|------------|---------------------|
| Dinwiddle County       | Virginia | 0.4011       | 42.5733671   | 1812.491586 | 32.74390026 | 17.48 |
| Essex County            | Virginia | 0.4135       | 63.81920577  | 4072.891026  | 37.34551316 | 10.38 |
| Fairfax County          | Virginia | 0.4202       | 26.33808184  | 693.6945552  | 9.317483564 | 28.63 |
| Fauquier County        | Virginia | 0.4274       | 48.01882516  | 2305.807569  | 7.538290921 | 3.23 |
| Floyd County            | Virginia | 0.3866       | 6.671207441  | 44.50500873  | 2.090344292 | 0.51 |
| Fluvanna County         | Virginia | 0.4127       | 48.39486463  | 2342.062923  | 1.239353891 | 2.75 |
| Franklin County         | Virginia | 0.4378       | 31.7189734   | 1006.093273  | 8.381831086 | 8.34 |
| Frederick County        | Virginia | 0.398        | 13.65432292  | 186.4405345  | 4.497555271 | 1.33 |
| Giles County            | Virginia | 0.4293       | 11.30372783  | 127.774275   | 1.239353891 | 2.36 |
| Gloucester County       | Virginia | 0.3925       | 52.43195592  | 1286.214194  | 29.57780472 | 0.77 |
| Goochland County        | Virginia | 0.503        | 57.72903801  | 3332.64183   | 19.67910482 | 5.88 |
| Grayson County          | Virginia | 0.4734       | 65.0934689   | 4237.159693  | 59.69272101 | 12.53 |
| Greene County           | Virginia | 0.3794       | 39.30480994  | 1544.868085  | 6.74091442  | 0.76 |
| Greensville County      | Virginia | 0.4504       | 56.19211242  | 3157.553498  | 37.01546045 | 11.61 |
| Hanover County          | Virginia | 0.3914       | 54.00011149  | 2916.012041  | 9.263176712 | 0.29 |
| Henrico County          | Virginia | 0.4461       | 32.6325857   | 1064.88565   | 29.57780472 | 0.67 |
| Henry County            | Virginia | 0.425        | 41.40619347  | 1714.472858  | 21.87311178 | 1.26 |
| Highland County         | Virginia | 0.4246       | 9.65130      | 8926         | 93.14776398 | 0.01 |
| Isle of Wight County    | Virginia | 0.4166       | 35.86328849  | 1286.214194  | 23.3796948  | 0.07 |
| James City County       | Virginia | 0.433        | 44.47476448  | 1978.004676  | 37.01546045 | 1.89 |
| King and Queen County   | Virginia | 0.3835       | 59.56514398  | 3548.006377  | 28.09274707 | 0.84 |
| King George County      | Virginia | 0.3727       | 55.77476979  | 3110.824945  | 18.38304105 | 5.91 |
| King William County     | Virginia | 0.3653       | 64.44046592  | 4152.573648  | 19.04643191 | 5.40 |
| Lancaster County        | Virginia | 0.4421       | 55.62390252  | 3094.018532  | 28.18959373 | 0.10 |
| Lee County              | Virginia | 0.4315       | 7.370293472  | 54.3212257  | 3.475177305 | 0.06 |
| Loudoun County          | Virginia | 0.36         | 25.44712953  | 647.5564014  | 7.34105206  | 0.03 |
| Louisa County           | Virginia | 0.4034       | 60.9002135   | 3708.836004  | 16.71161426 | 0.44 |
| Lunenburg County        | Virginia | 0.4277       | 61.11073817  | 3734.52232  | 34.46751401 | 0.46 |
| Madison County          | Virginia | 0.4387       | 49.28409307  | 2428.92183  | 9.57752877 | 0.39 |
| Mathews County          | Virginia | 0.4063       | 42.45375845  | 1802.321606  | 9.951809929 | 0.10 |
| Mecklenburg County      | Virginia | 0.4449       | 61.79270697  | 3818.338635  | 35.53410836 | 0.97 |
| Middlesex County        | Virginia | 0.4442       | 54.68860778  | 2990.843821  | 19.37690672 | 0.67 |
| Montgomery County       | Virginia | 0.4891       | 20.88349783  | 436.1204817  | 4.217810621 | 0.10 |
| Nelson County           | Virginia | 0.4677       | 47.79239403  | 2284.112927  | 13.64491002 | 0.15 |
| New Kent County         | Virginia | 0.3741       | 56.98760711  | 3247.587364  | 12.99317246 | 0.04 |
| County                | State       | Population | Latitude  | Longitude |
|-----------------------|-------------|------------|-----------|-----------|
| Northampton County    | Virginia    | 0.526      | 49.42195854 | 2442.529986 | 36.8777542 |
| Northumberland County | Virginia    | 0.4325     | 45.68152335 | 2086.801576 | 29.4724026 |
| Nottoway County       | Virginia    | 0.4476     | 72.96026461 | 5323.200213 | 39.35643564 |
| Orange County         | Virginia    | 0.4111     | 56.25526711 | 3164.655078 | 12.76906452 |
| Page County           | Virginia    | 0.4239     | 10.62722062 | 112.937818  | 1.627274629 |
| Patrick County        | Virginia    | 0.4136     | 22.46088737 | 504.4914616 | 6.583174517 |
| Pittsylvania County   | Virginia    | 0.4083     | 44.6424045  | 1992.94428  | 21.39941228 |
| Powhatan County       | Virginia    | 0.3954     | 64.4930954  | 4159.359355 | 12.71237541 |
| Prince Edward County  | Virginia    | 0.4644     | 61.94029774 | 3836.600484 | 33.56957649 |
| Prince George County  | Virginia    | 0.3652     | 59.0417688  | 3485.930462 | 32.26244836 |
| Prince William County | Virginia    | 0.3717     | 27.66778709 | 765.5064423 | 20.10322502 |
| Pulaski County        | Virginia    | 0.4217     | 28.7451623  | 826.4196893 | 6.009240543 |
| Rappahannock County   | Virginia    | 0.4754     | 39.5906306  | 1567.444356 | 3.814128391 |
| Richmond County       | Virginia    | 0.4551     | 36.23345722 | 1312.863422 | 27.44708995 |
| Roanoke County        | Virginia    | 0.4161     | 32.84366874 | 1078.706576 | 5.54864047 |
| Rockbridge County     | Virginia    | 0.4402     | 23.19300213 | 537.9153477 | 2.865829123 |
| Rockingham County     | Virginia    | 0.4518     | 10.29354622 | 105.9570937 | 1.58122697 |
| Russell County        | Virginia    | 0.4579     | 10.69791722 | 114.4454328 | 1.350021094 |
| Scott County          | Virginia    | 0.4657     | 4.146893921 | 17.19672919 | 0.706729292 |
| Shenandoah County     | Virginia    | 0.4123     | 5.544589238 | 30.74246982 | 2.164766718 |
| Smyth County          | Virginia    | 0.4693     | 11.5762056  | 134.008536  | 2.079934747 |
| Southampton County    | Virginia    | 0.4202     | 42.24838262 | 1784.456908 | 36.32106295 |
| Spotsylvania County   | Virginia    | 0.3862     | 48.57591512 | 2359.61953  | 15.8526149 |
| Stafford County       | Virginia    | 0.3688     | 38.87912521 | 1511.586377 | 17.20402162 |
| Surry County          | Virginia    | 0.3695     | 41.36900191 | 1711.394319 | 46.39070443 |
| Sussex County         | Virginia    | 0.4183     | 62.33543518 | 3885.706479 | 57.03262602 |
| Tazewell County       | Virginia    | 0.477     | 12.07014041 | 145.6882895 | 2.7542803 |
| Warren County         | Virginia    | 0.4152     | 24.45847095 | 598.2168011 | 3.791096429 |
| Washington County     | Virginia    | 0.4688     | 14.99974839 | 224.9924519 | 1.448033119 |
| Westmoreland County   | Virginia    | 0.4213     | 44.93676445 | 2019.312799 | 29.6209613 |
| Wise County           | Virginia    | 0.4718     | 1.670946503 | 2.792062214 | 5.243198278 |
| Wythe County          | Virginia    | 0.4505     | 17.6904775  | 310.0785627 | 3.718513962 |
| York County           | Virginia    | 0.3926     | 38.9621943  | 1518.052584 | 13.45125213 |
| Alexandria City       | Virginia    | 0.4402     | 12.38546237 | 153.3996782 | 21.59107774 |
| Bristol City          | Virginia    | 0.4616     | 14.84813911 | 220.4672352 | 6.643932935 |
| Buena Vista City      | Virginia    | 0.4273     | 23.10412801 | 533.8007313 | 3.187191381 |

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| City                  | State         | Latitude | Longitude | Population | Median Income |
|----------------------|---------------|----------|-----------|------------|---------------|
| Charlottesville City | Virginia      | 38.4450  | -78.4750  | 232,600    | 60,000        |
| Chesapeake City      | Virginia      | 37.2950  | -76.3750  | 314,000    | 52,000        |
| Colonial Heights City| Virginia      | 38.4350  | -78.5050  | 30,000     | 40,000        |
| Covington City       | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Danville City        | Virginia      | 38.4300  | -78.4800  | 30,000     | 35,000        |
| Emporia City         | Virginia      | 38.4250  | -78.4550  | 18,000     | 25,000        |
| Fairfax City         | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Falls Church City    | Virginia      | 38.4300  | -78.4800  | 30,000     | 35,000        |
| Franklin City        | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Fredericksburg City  | Virginia      | 38.4250  | -78.4550  | 18,000     | 25,000        |
| Galax City           | Virginia      | 38.4300  | -78.4800  | 30,000     | 35,000        |
| Hampton City         | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Harrisonburg City    | Virginia      | 38.4300  | -78.4800  | 30,000     | 35,000        |
| Hopewell City        | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Lexington City       | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Lynchburg City       | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Manassas City        | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Manassas Park City   | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Martinsville City    | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Newport News City    | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Norfolk City         | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Norton City          | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Petersburg City      | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Poquoson City        | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Portsmouth City      | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Radford City         | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Richmond City        | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Roanoke City         | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Salem City           | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Staunton City        | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Suffolk City         | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Virginia Beach City  | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Waynesboro City      | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Williamsburg City    | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Winchester City      | Virginia      | 38.4400  | -78.4700  | 22,000     | 30,000        |
| Barbour County       | West Virginia | 38.4400  | -78.4700  | 22,000     | 30,000        |
| County                | State          | Lat     | Lon      | Altitude | Population | Area    |
|-----------------------|----------------|---------|----------|-----------|------------|---------|
| Berkeley County       | West Virginia | 40.020  | -82.927  | 0         | 132,930    | 26.7    |
| Boone County          | West Virginia | 39.577  | -82.673  | 0         | 104,095    | 24.1    |
| Braxton County        | West Virginia | 39.444  | -82.786  | 0         | 29,078     | 13.5    |
| Brooke County         | West Virginia | 39.410  | -82.976  | 0         | 54,093     | 11.8    |
| Cabell County         | West Virginia | 39.004  | -82.939  | 0         | 27,049     | 15.5    |
| Calhoun County        | West Virginia | 39.444  | -82.954  | 0         | 27,049     | 11.9    |
| Clay County           | West Virginia | 39.423  | -82.931  | 0         | 54,093     | 11.5    |
| Doddridge County      | West Virginia | 39.391  | -82.798  | 0         | 29,078     | 13.5    |
| Fayette County        | West Virginia | 39.432  | -82.952  | 0         | 27,049     | 11.9    |
| Gilmer County         | West Virginia | 39.472  | -82.974  | 0         | 54,093     | 11.8    |
| Grant County          | West Virginia | 39.388  | -82.850  | 0         | 27,049     | 11.9    |
| Greenbrier County     | West Virginia | 39.465  | -82.940  | 0         | 27,049     | 11.9    |
| Hampshire County      | West Virginia | 39.451  | -82.877  | 0         | 27,049     | 11.9    |
| Hancock County        | West Virginia | 39.449  | -82.874  | 0         | 27,049     | 11.9    |
| Hardy County          | West Virginia | 39.449  | -82.874  | 0         | 27,049     | 11.9    |
| Harrison County       | West Virginia | 39.449  | -82.874  | 0         | 27,049     | 11.9    |
| Jackson County        | West Virginia | 39.452  | -82.874  | 0         | 27,049     | 11.9    |
| Jefferson County      | West Virginia | 39.414  | -82.874  | 0         | 27,049     | 11.9    |
| Kanawha County        | West Virginia | 39.469  | -82.877  | 0         | 27,049     | 11.9    |
| Lewis County          | West Virginia | 39.439  | -82.874  | 0         | 27,049     | 11.9    |
| Lincoln County        | West Virginia | 39.437  | -82.874  | 0         | 27,049     | 11.9    |
| Logan County          | West Virginia | 39.447  | -82.874  | 0         | 27,049     | 11.9    |
| McDowell County       | West Virginia | 39.483  | -82.874  | 0         | 27,049     | 11.9    |
| Marion County         | West Virginia | 39.436  | -82.874  | 0         | 27,049     | 11.9    |
| Marshall County       | West Virginia | 39.458  | -82.874  | 0         | 27,049     | 11.9    |
| Mason County          | West Virginia | 39.425  | -82.874  | 0         | 27,049     | 11.9    |
| Mercer County         | West Virginia | 39.454  | -82.874  | 0         | 27,049     | 11.9    |
| Mineral County        | West Virginia | 39.453  | -82.874  | 0         | 27,049     | 11.9    |
| Mingo County          | West Virginia | 39.464  | -82.874  | 0         | 27,049     | 11.9    |
| Monongalia County     | West Virginia | 39.515  | -82.874  | 0         | 27,049     | 11.9    |
| Monroe County         | West Virginia | 39.389  | -82.874  | 0         | 27,049     | 11.9    |
| Morgan County         | West Virginia | 39.454  | -82.874  | 0         | 27,049     | 11.9    |
| Nicholas County       | West Virginia | 39.504  | -82.874  | 0         | 27,049     | 11.9    |
| Ohio County           | West Virginia | 39.495  | -82.874  | 0         | 27,049     | 11.9    |
| Pendleton County      | West Virginia | 39.456  | -82.874  | 0         | 27,049     | 11.9    |
| Pleasants County      | West Virginia | 39.428  | -82.874  | 0         | 27,049     | 11.9    |

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| County                | State     | Value  | Value  | Value  | Value  |
|-----------------------|-----------|--------|--------|--------|--------|
| Pocahontas            | West Virginia | 0.4293 | 6.554245797 | 42.95813796 | 1.469575201 |
| Preston               | West Virginia | 0.3976 | 0.530429493 | 0.281355447 | 3.018979834 |
| Putnam                | West Virginia | 0.4298 | 9.201885317 | 84.67469339 | 1.192419618 |
| Raleigh               | West Virginia | 0.4547 | 1.898170606 | 3.603051648 | 8.280157814 |
| Randolph              | West Virginia | 0.4409 | 3.637375381 | 13.23049966 | 1.409359506 |
| Ritchie               | West Virginia | 0.3879 | 0.555936874 | 0.309065808 | 0.361999804 |
| Roane                 | West Virginia | 0.4639 | 1.363949193 | 1.860357401 | 0.027120483 |
| Summers               | West Virginia | 0.429 | 9.184835212 | 84.36119787 | 4.489378787 |
| Taylor                | West Virginia | 0.4405 | 1.502532261 | 2.257603195 | 1.031292357 |
| Tucker                | West Virginia | 0.4305 | 1.620928702 | 2.627409856 | 0.157232704 |
| Tyler                 | West Virginia | 0.4362 | 0.278701864 | 0.077674729 | 0.231175694 |
| Upshur                | West Virginia | 0.427 | 2.910680064 | 8.472058437 | 0.9433577 |
| Wayne                 | West Virginia | 0.4517 | 2.148837483 | 4.61750253 | 0.165328861 |
| Webster               | West Virginia | 0.4586 | 1.450380944 | 2.103604881 | 0.044419767 |
| Wetzel                | West Virginia | 0.4566 | 0.154308294 | 0.02381105 | 0.091945568 |
| Wirt                  | West Virginia | 0.4567 | 0.648410126 | 0.420435691 | 0.86085198 |
| Wood                  | West Virginia | 0.456 | 1.590390613 | 2.529342302 | 1.068191004 |
| Wyoming               | West Virginia | 0.4444 | 2.277398869 | 5.186545608 | 0.706805155 |

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