Xukun (Frank) LIU
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Kaulkin Ginsberg Co.
Dec 2018
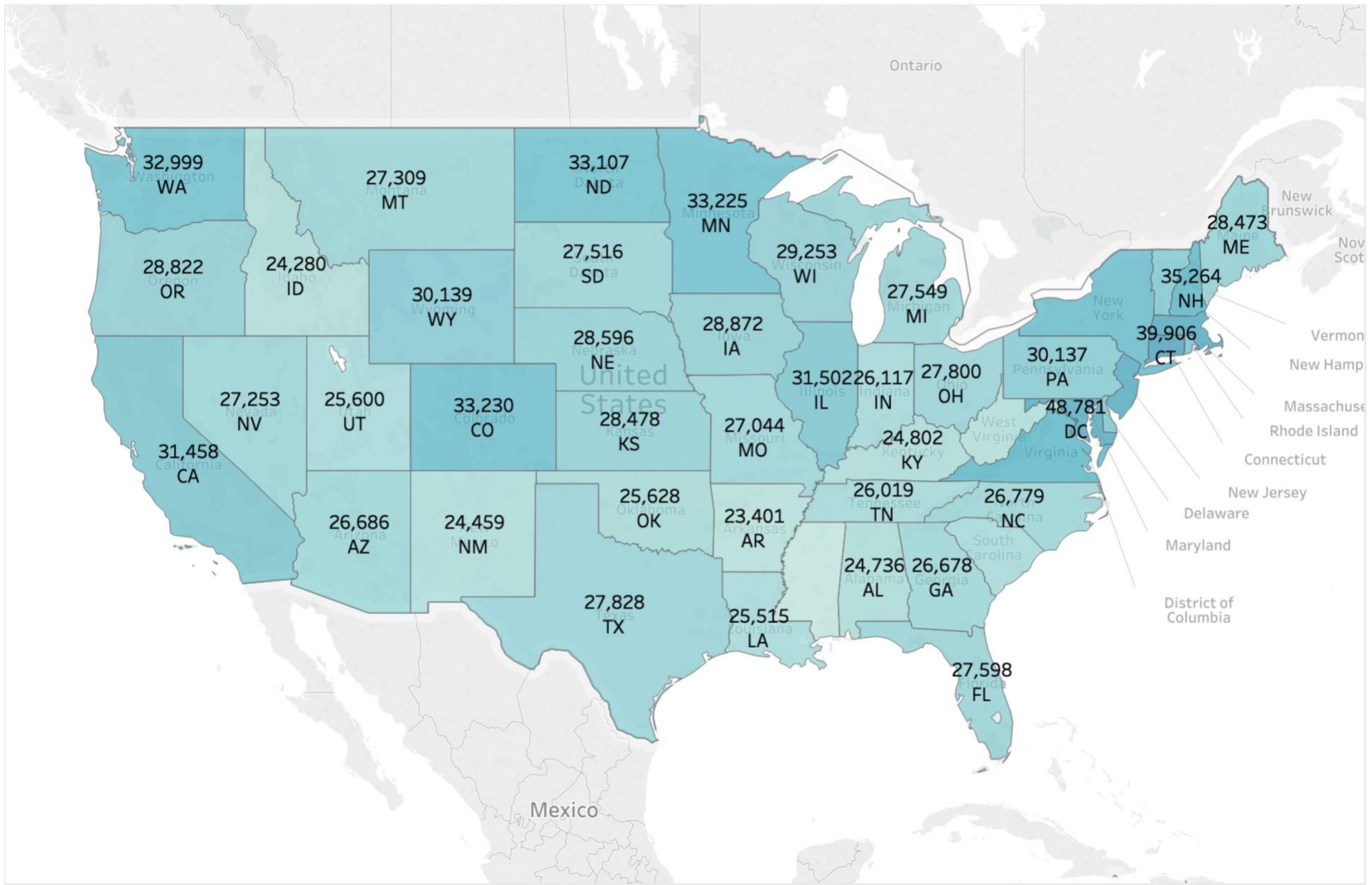
To see the full blog: http://www.kaulkin.com/

Data Source:
[1] United States Census Bureau - https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2016/
[2] Underwater on Student Debt - https://www.urban.org/sites/default/files/publication/98884/underwater_on_student_debt_0.pdf
[3] Federal Reserve Bank of New York -
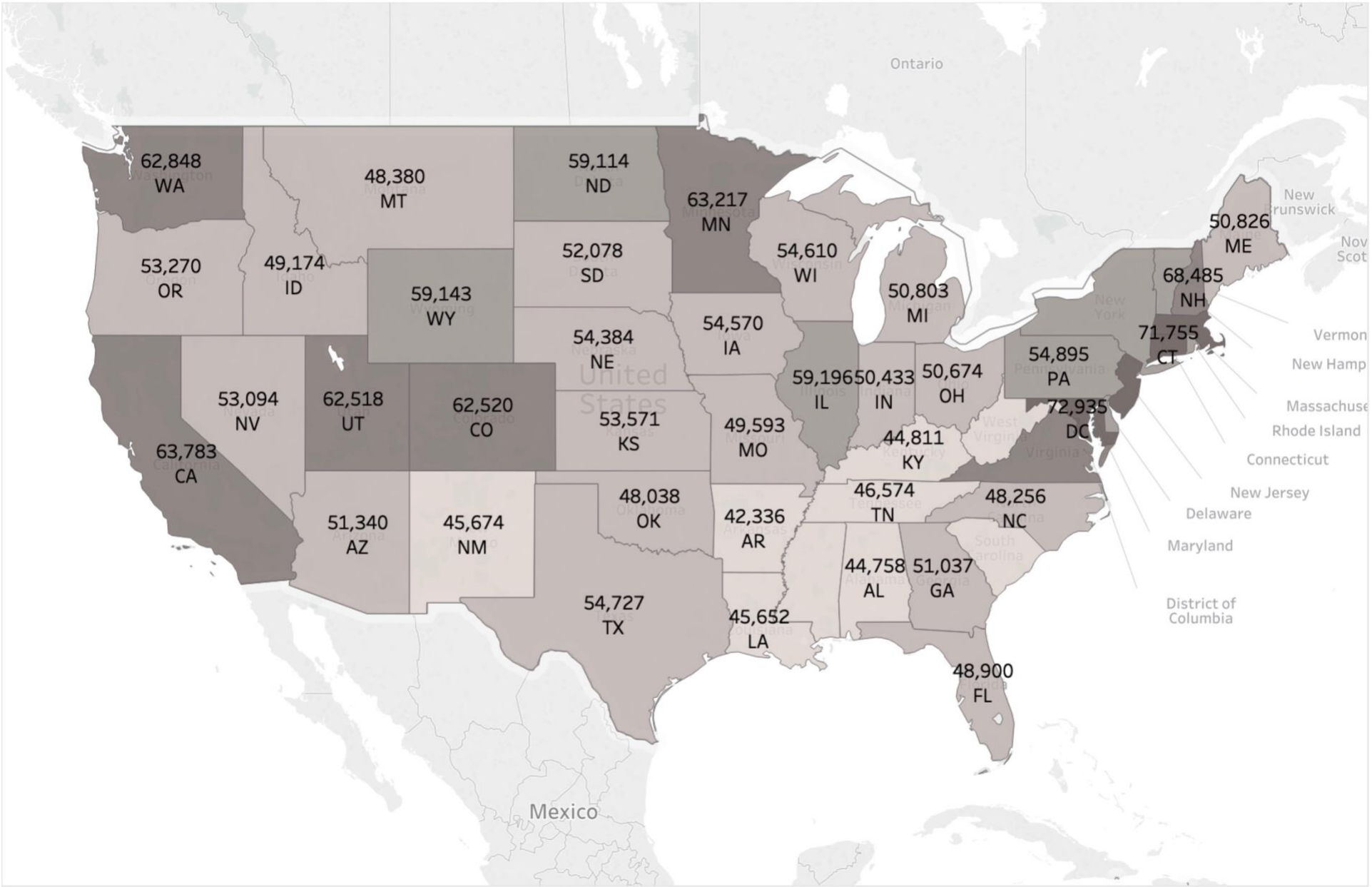https://www.newyorkfed.org/medialibrary/interactives/sce/sce/downloads/data/FRBNY_SCE_Housing_chartdata.xlsx

Data Visualization Result:

# Per Capita Income

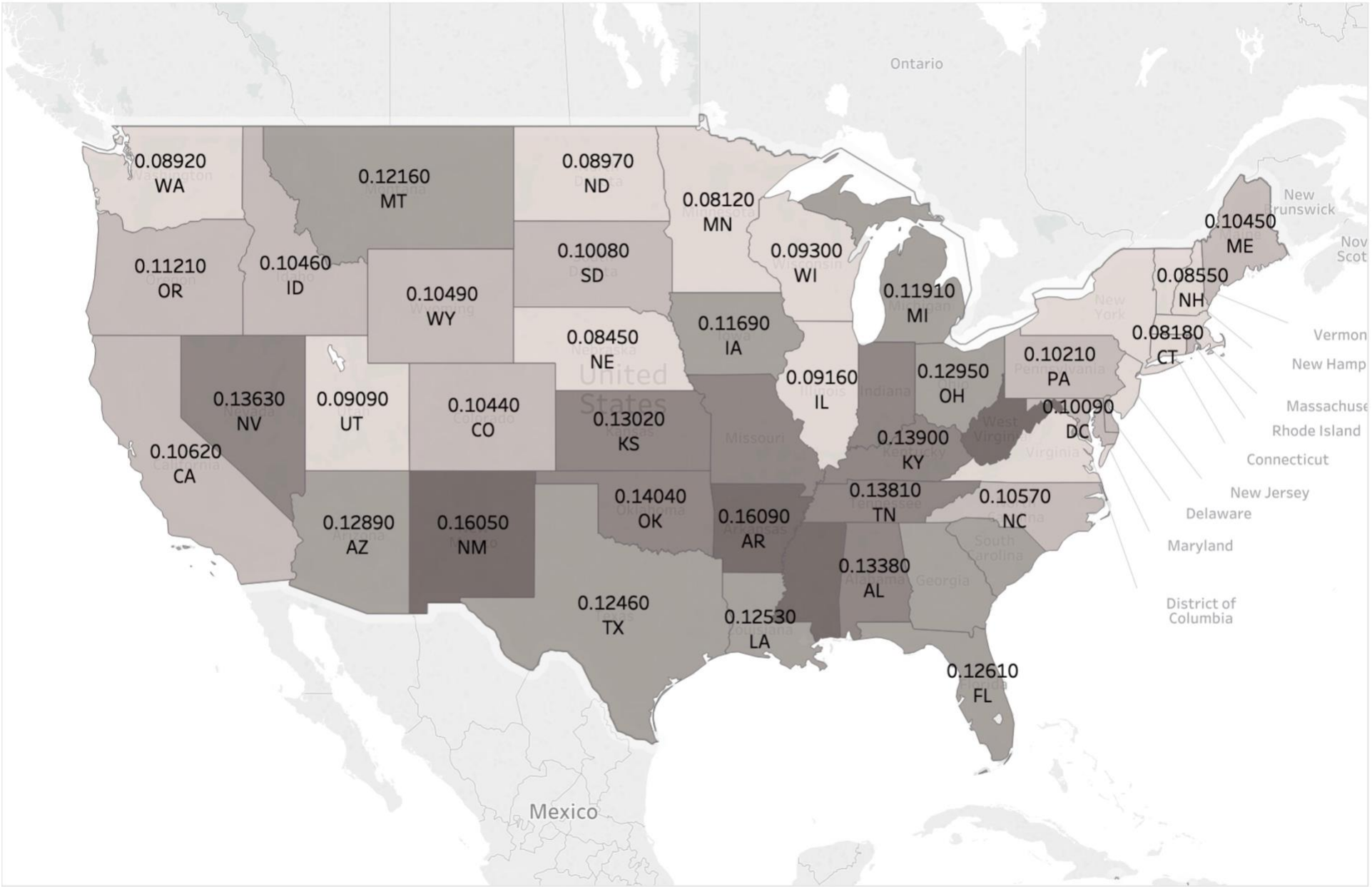| State | Per Capita Income |
|-------|-------------------|
| WA | 32,999 |
| MT | 27,309 |
| ND | 33,107 |
| MN | 33,225 |
| ME | 28,473 |
| OR | 28,822 |
| ID | 24,280 |
| WI | 29,253 |
| NH | 35,264 |
| WY | 30,139 |
| SD | 27,516 |
| MI | 27,549 |
| CT | 39,906 |
| NE | 28,596 |
| IA | 28,872 |
| PA | 30,137 |
| NV | 27,253 |
| UT | 25,600 |
| CO | 33,230 |
| IL | 31,502 |
| IN | 26,117 |
| OH | 27,800 |
| DC | 48,781 |
| CA | 31,458 |
| KS | 28,478 |
| MO | 27,044 |
| KY | 24,802 |
| AZ | 26,686 |
| NM | 24,459 |
| OK | 25,628 |
| AR | 23,401 |
| TN | 26,019 |
| NC | 26,779 |
| AL | 24,736 |
| GA | 26,678 |
| TX | 27,828 |
| LA | 25,515 |
| FL | 27,598 |

Map based on Longitude (generated) and Latitude (generated). Color shows Per capita Income as an attribute. The marks are labeled by Per capita Income as an attribute and State 1. The data is filtered on State, which excludes Alaska and Hawaii.

# Household Income (Median)



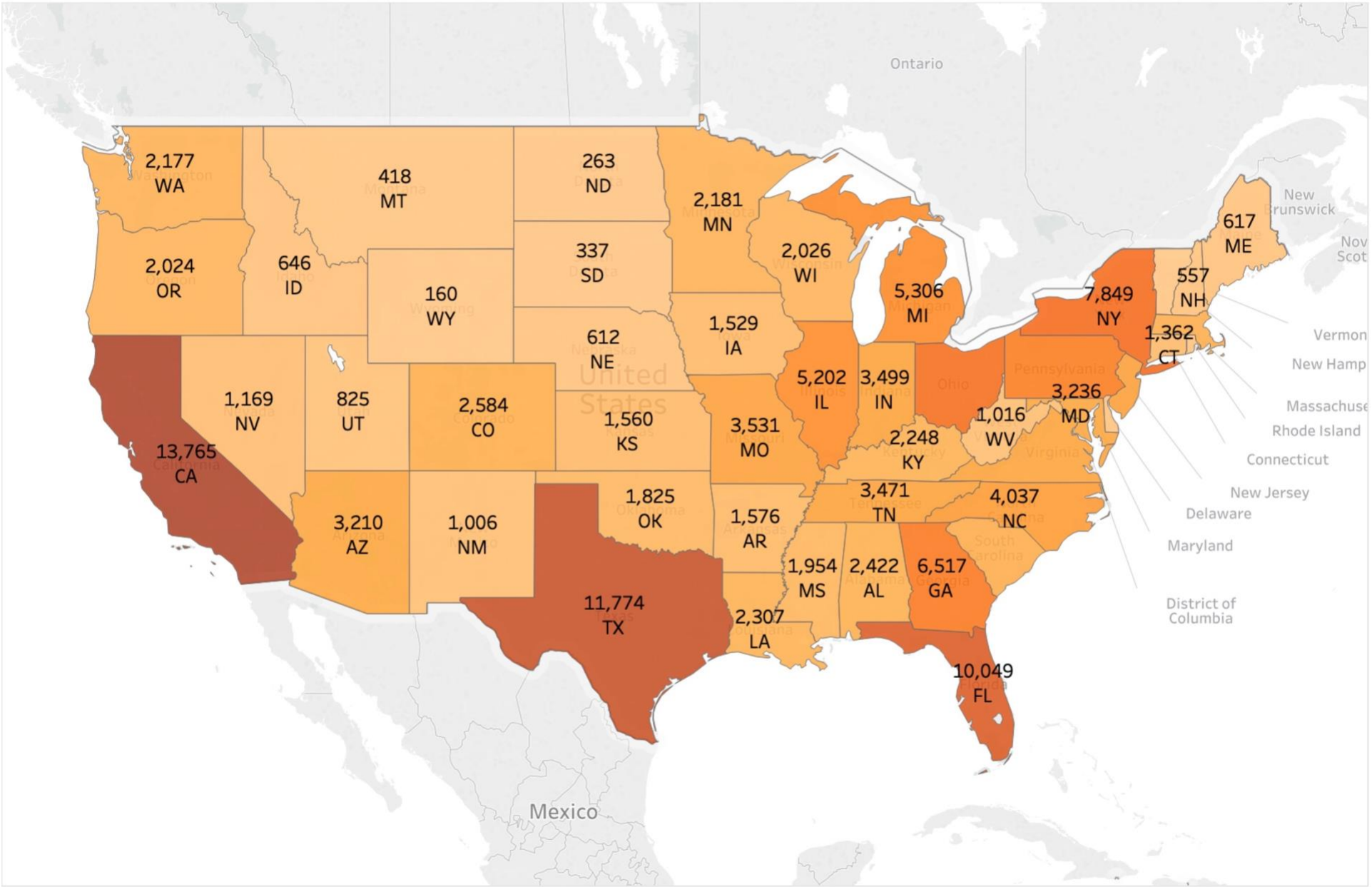| State | Value |
|-------|-------|
| WA | 62,848 |
| MT | 48,380 |
| ND | 59,114 |
| MN | 63,217 |
| ME | 50,826 |
| OR | 53,270 |
| ID | 49,174 |
| SD | 52,078 |
| WI | 54,610 |
| NH | 68,485 |
| WY | 59,143 |
| MI | 50,803 |
| CT | 71,755 |
| NV | 53,094 |
| IA | 54,570 |
| PA | 54,895 |
| NE | 54,384 |
| IL | 59,196 |
| IN | 50,433 |
| OH | 50,674 |
| DC | 72,935 |
| CA | 63,783 |
| UT | 62,518 |
| CO | 62,520 |
| KS | 53,571 |
| MO | 49,593 |
| KY | 44,811 |
| AZ | 51,340 |
| NM | 45,674 |
| OK | 48,038 |
| AR | 42,336 |
| TN | 46,574 |
| NC | 48,256 |
| TX | 54,727 |
| LA | 45,652 |
| AL | 44,758 |
| GA | 51,037 |
| FL | 48,900 |

Map based on Longitude (generated) and Latitude (generated). Color shows Household Income (Median) as an attribute. The marks are labeled by Household Income (Median) as an attribute and State 1. The view is filtered on State 1, which excludes AK and HI.
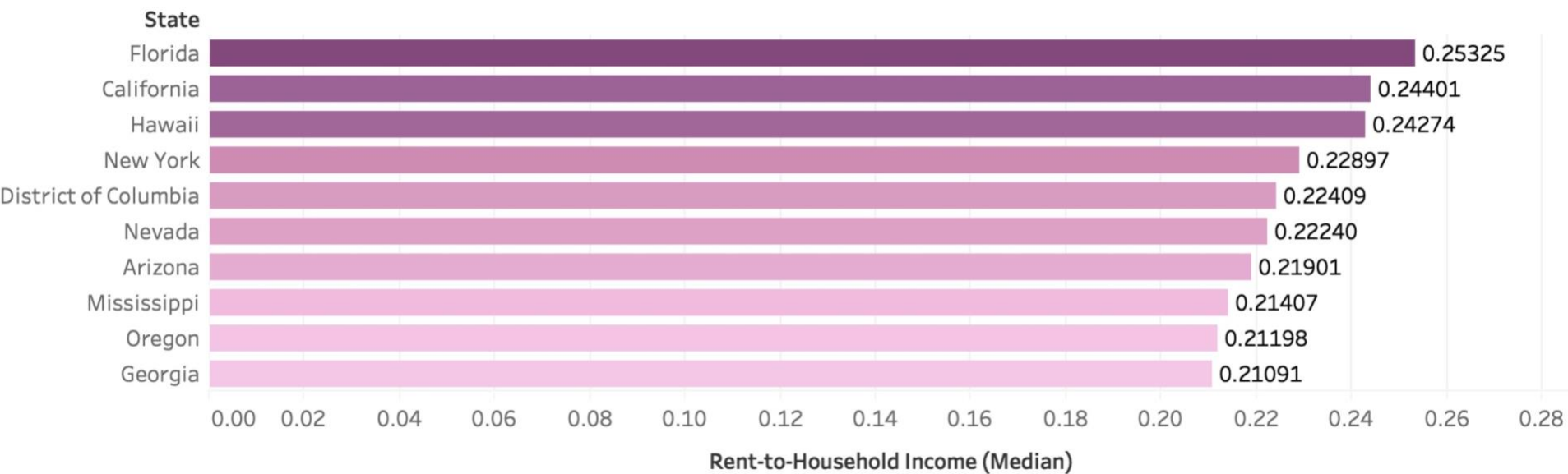
# Student Loan Delinquency Rate



| State | Rate |
|-------|------|
| WA | 0.08920 |
| MT | 0.12160 |
| ND | 0.08970 |
| MN | 0.08120 |
| ME | 0.10450 |
| NH | 0.08550 |
| OR | 0.11210 |
| ID | 0.10460 |
| SD | 0.10080 |
| WI | 0.09300 |
| MI | 0.11910 |
| CT | 0.08180 |
| WY | 0.10490 |
| NE | 0.08450 |
| IA | 0.11690 |
| PA | 0.10210 |
| NV | 0.13630 |
| UT | 0.09090 |
| CO | 0.10440 |
| IL | 0.09160 |
| OH | 0.12950 |
| DC | 0.10090 |
| CA | 0.10620 |
| KS | 0.13020 |
| KY | 0.13900 |
| AZ | 0.12890 |
| NM | 0.16050 |
| OK | 0.14040 |
| AR | 0.16090 |
| TN | 0.13810 |
| NC | 0.10570 |
| TX | 0.12460 |
| AL | 0.13380 |
| LA | 0.12530 |
| FL | 0.12610 |

Map based on Longitude (generated) and Latitude (generated). Color shows Studentloan Delinq Rate as an attribute. The marks are labeled by Studentloan Delinq Rate as an attribute and State 1. The data is filtered on State, which excludes Alaska and Hawaii.

# Total Student Loan Delinquency



| | | | | | |
|---|---|---|---|---|---|
| 2,177 WA | 418 MT | 263 ND | 2,181 MN | | 617 ME |
| 2,024 OR | 646 ID | 337 SD | 2,026 WI | 5,306 MI | 557 NH |
| | 160 WY | 612 NE | 1,529 IA | 7,849 NY | 1,362 CT |
| 1,169 NV | 825 UT | 2,584 CO | 1,560 KS | 5,202 IL | 3,499 IN | 3,236 MD |
| 13,765 CA | | | 3,531 MO | 2,248 KY | 1,016 WV |
| 3,210 AZ | 1,006 NM | 1,825 OK | 1,576 AR | 3,471 TN | 4,037 NC |
| | | 11,774 TX | 2,307 LA | 1,954 MS | 2,422 AL | 6,517 GA |
| | | | | 10,049 FL | |

Map based on Longitude (generated) and Latitude (generated). Color shows Total Student Loan Delinq as an attribute. The marks are labeled by ATTR([Total Student Loan Delinq])/1000000 and State 1. The view is filtered on State 1, which excludes AK and HI.

# Rent-to-Household Income (Median)

| State | Rent-to-Household Income (Median) |
|---|---|
| Florida | 0.25325 |
| California | 0.24401 |
| Hawaii | 0.24274 |
| New York | 0.22897 |
| District of Columbia | 0.22409 |
| Nevada | 0.22240 |
| Arizona | 0.21901 |
| Mississippi | 0.21407 |
| Oregon | 0.21198 |
| Georgia | 0.21091 |

Rent-to-Household Income (Median)

Rent-to-Household Income (Median) as an attribute for each State. Color shows Rent-to-Household Income (Median) as an attribute. The marks are labeled by Rent-to-Household Income (Median) as an attribute. The view is filtered on State, which keeps 10 of 51 members.

# Rent-to-Household Income (Median)



| | |
|---|---|
| 0.2016 WA | |
| 0.1816 MT | |
| 0.1494 ND | |
| 0.1657 MN | |
| 0.1865 ME | |
| 0.2120 OR | |
| 0.1864 ID | |
| 0.1558 SD | |
| 0.1734 WI | |
| 0.1789 NH | |
| 0.1627 WY | |
| 0.1887 MI | |
| 0.1830 CT | |
| 0.1572 IA | |
| 0.1644 NE | |
| 0.1956 PA | |
| 0.2224 NV | |
| 0.1751 UT | |
| 0.2029 CO | |
| 0.1875 IL | 0.1804 IN |
| 0.1759 OH | |
| 0.2241 DC | |
| 0.2440 CA | |
| 0.1736 KS | |
| 0.1924 MO | |
| 0.1848 KY | |
| 0.2190 AZ | |
| 0.2081 NM | |
| 0.1854 OK | |
| 0.1953 AR | |
| 0.2015 TN | |
| 0.2029 NC | |
| 0.1998 TX | |
| 0.1952 AL | 0.2109 GA |
| 0.2103 LA | |
| 0.2533 FL | |

Map based on Longitude (generated) and Latitude (generated).  Color shows Rent-to-Household Income (Median) as an attribute.  The marks are labeled by Rent-to-Household Income (Median) as an attribute and State 1. The view is filtered on State 1, which excludes AK and HI.

# Mortgage-to-Household Income (Median)

| State | Mortgage-to-Household Income (Median) |
|---|---|
| California | 0.40581 |
| New York | 0.40105 |
| New Jersey | 0.38653 |
| District of Columbia | 0.38434 |
| Hawaii | 0.37795 |
| Rhode Island | 0.36851 |
| Oregon | 0.35209 |
| Massachusetts | 0.34958 |
| Florida | 0.34896 |
| Connecticut | 0.34367 |

**Mortgage-to-Household Income (Median)**

Mortgage-to-Household Income (Median) as an attribute for each State.  Color shows Mortgage-to-Household Income (Median) as an attribute.  The marks are labeled by Mortgage-to-Household Income (Median) as an attribute. The view is filtered on State, which keeps 10 of 51 members.

# Mortgage-to-Household Income (Median)



WA 0.3301
MT 0.3242
ND 0.2594
MN 0.2823
ME 0.3164
OR 0.3521
ID 0.2877
SD 0.2813
WI 0.3057
NH 0.3247
NY — 0.3437 CT
WY 0.2749
MI 0.2934
IA 0.2595
PA 0.3117
NV 0.3203
UT 0.2743
CO 0.3042
NE 0.2829
IL 0.3290
IN 0.2610
OH 0.2932
DC 0.3843
CA 0.4058
KS 0.2876
MO 0.2928
KY 0.2989
AZ 0.3113
NM 0.3218
OK 0.2888
AR 0.2894
TN 0.3040
NC 0.3091
AL 0.3048
GA 0.3148
TX 0.3166
LA 0.3170
FL 0.3490
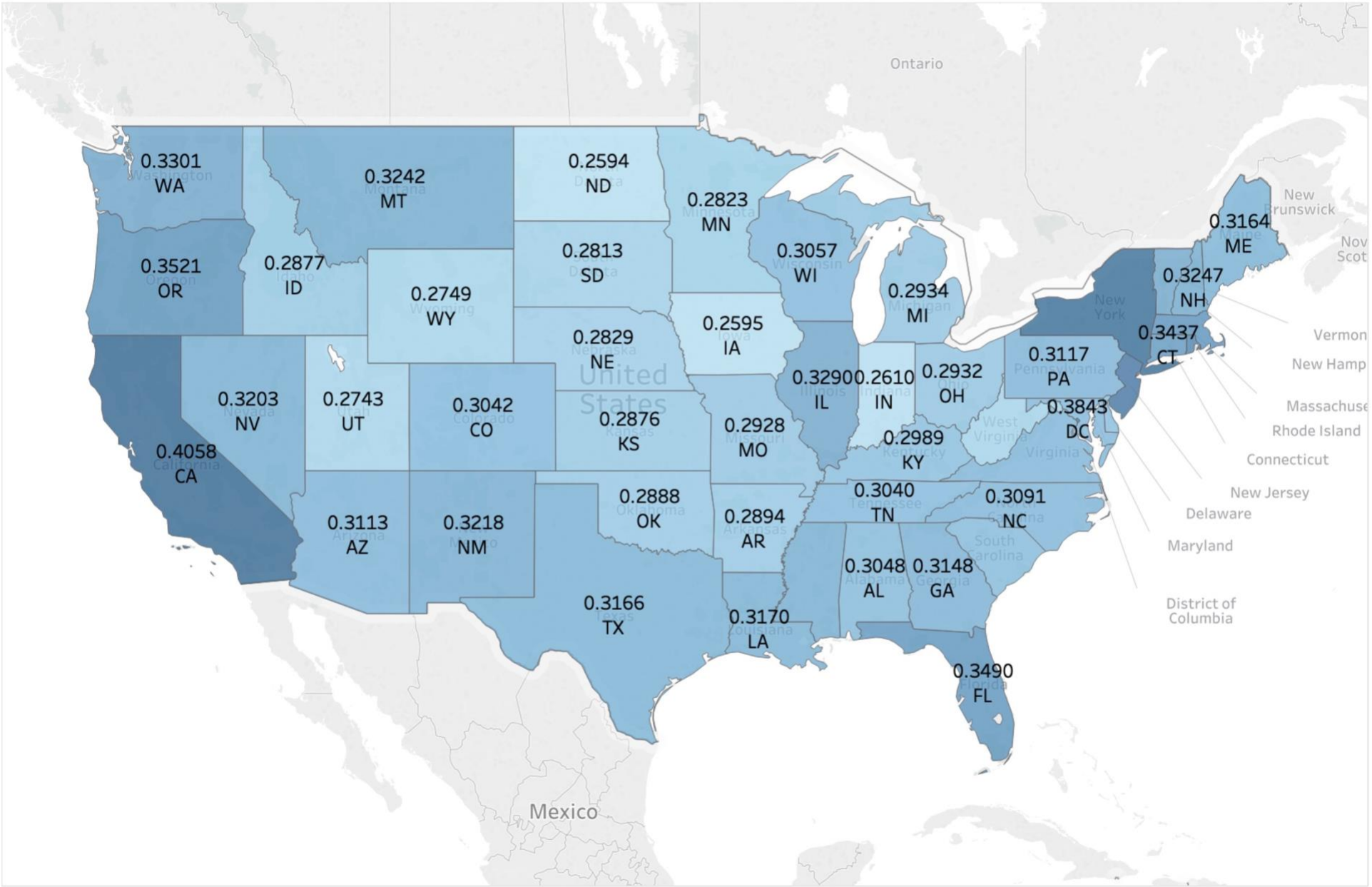
Map based on Longitude (generated) and Latitude (generated). Color shows Mortgage-to-Household Income (Median) as an attribute. The marks are labeled by Mortgage-to-Household Income (Median) as an attribute and State 1. The view is filtered on State 1, which excludes AK and HI.
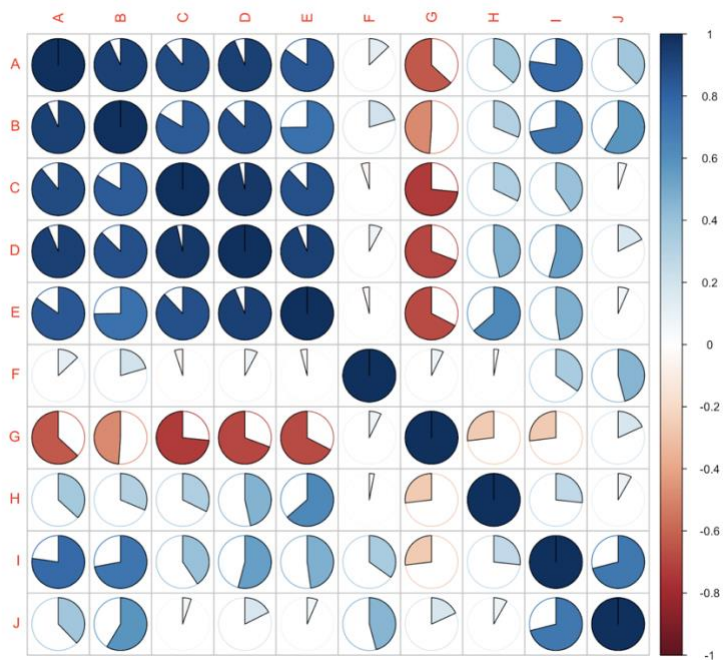
|   | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| A | 1 | 0.93 | 0.89 | 0.94 | 0.85 | 0.13 | -0.63 | 0.37 | 0.77 | 0.38 |
| B | 0.93 | 1 | 0.84 | 0.88 | 0.75 | 0.2 | -0.49 | 0.31 | 0.72 | 0.59 |
| C | 0.89 | 0.84 | 1 | 0.96 | 0.88 | -0.05 | -0.73 | 0.32 | 0.41 | 0.05 |
| D | 0.94 | 0.88 | 0.96 | 1 | 0.94 | 0.08 | -0.69 | 0.47 | 0.54 | 0.18 |
| E | 0.85 | 0.75 | 0.88 | 0.94 | 1 | -0.04 | -0.67 | 0.64 | 0.48 | 0.07 |
| F | 0.13 | 0.2 | -0.05 | 0.08 | -0.04 | 1 | 0.07 | 0.02 | 0.35 | 0.46 |
| G | -0.63 | -0.49 | -0.73 | -0.69 | -0.67 | 0.07 | 1 | -0.27 | -0.27 | 0.18 |
| H | 0.37 | 0.31 | 0.32 | 0.47 | 0.64 | 0.02 | -0.27 | 1 | 0.27 | 0.08 |
| I | 0.77 | 0.72 | 0.41 | 0.54 | 0.48 | 0.35 | -0.27 | 0.27 | 1 | 0.71 |
| J | 0.38 | 0.59 | 0.05 | 0.18 | 0.07 | 0.46 | 0.18 | 0.08 | 0.71 | 1 |