

EXECUTIVE SUMMARY

The American Booksellers Association and Civic Economics have long collaborated to study and describe the state of independent retail in America, but until now those efforts have focused on various classes of bricks and mortar stores. This report takes that research into a new era. It is designed to provide policymakers and consumers with a better understanding of the impact at the state and local level of the growth of online retail as a substitute for storefront purchases.

As Internet sales have risen unabated in recent years, little attention has been paid to the effects of that growth on American communities. Focusing on the industry leader, Amazon, this report looks at two broad classes of impact: **Fiscal** (relating to public revenue) and **Land Use** (relating to development patterns at the local level). This report looks at calendar year 2014, the last year for which good data is available. Online sales have, of course, only grown since then. In addition, we focus exclusively on Amazon, which likely accounts for only 1/3 or less of total online retail. Given those limitations, these findings should be seen as a sign of far bigger impacts to come.

To determine impacts, Civic Economics quantified Amazon sales at the state level to determine (a) how much sales tax went unpaid at the state and local level and (b) how the shift from bricks and mortar stores impacts property tax revenues. Nearly half of all states still collect no sales tax revenue from Amazon sales and others collect only partial sales taxes, producing a nationwide sales tax gap of \$625 million. In addition, we estimate that the shift to online sales has resulted in a national reduction in demand for retail space totaling over 100 million square feet, the equivalent of over 30,000 traditional storefronts employing 136,000 workers. These land use changes result in uncollected property taxes of \$420 million dollars.

Together, this billion-dollar revenue gap falls on state and local governments across the nation, and thus on the other sources of revenue that will be required to make up the large and growing shortfall. And the reality of constrained demand for retail space will affect every business district and shopping center in America.

To learn more about this study and the organizations behind it, please contact:

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AMAZON AND EMPTY STOREFRONTS

STUDY APPROACH

The first step in the analysis was to quantify and allocate Amazon's retail sales across the states. All statistics cited in this report are based upon calendar year 2014, which is the last full year for which Amazon has reported revenue.

Amazon zealously protects details about its operations. Sales are reported on a quarterly basis but only in very general terms. Total revenue is reported, and broken down into only three categories: Media, Electronics and Other General Merchandise, and Other. We estimate that \$48.6 billion in Amazon's retail sales revenue came from the United States.

To allocate that revenue among the states (and District of Columbia), we focused on disposable income as a strong predictor of retail sales. For each state, we calculated its share of total disposable income in the states and allocated Amazon sales on that basis. For example, California has 12.9% of the nation's disposable income and was therefore assigned 12.9% of Amazon's revenue which was \$6.5 billion in sales.

Finally, we estimated sales by retail segment, which was necessary to facilitate land use calculations.

ESTIMATED AMAZON RETAIL SALES, 2014

Retail Segment	Millions	%
Computer and Consumer Electronics	\$14,932	30.7%
Apparel and Accessories	\$11,628	23.9%
Books	\$5,618	11.6%
Music /Video	\$5,600	11.5%
Other	\$10,794	22.2%
Total	\$48,572	100.0%

AMAZON SALES BY STATE, 2014

	Amazon Sales (Millions)
Alabama	\$ 618.7
Alaska	\$ 132.8
Arizona	\$ 862.3
Arkansas	\$ 379.7
California	\$ 6,287.0
Colorado	\$ 856.3
Connecticut	\$ 703.9
Delaware	\$ 142.8
Florida	\$ 2,850.1
Georgia	\$ 1,320.7
Hawaii	\$ 222.4
Idaho	\$ 208.2
Illinois	\$ 2,020.9
Indiana	\$ 871.8
Iowa	\$ 468.4
Kansas	\$ 441.8
Kentucky	\$ 560.8
Louisiana	\$ 665.5
Maine	\$ 188.5
Maryland	\$ 1,076.3
Massachusetts	\$ 1,273.2
Michigan	\$ 1,334.1
Minnesota	\$ 863.0
Mississippi	\$ 353.6
Missouri	\$ 846.4
Montana	\$ 138.6
Nebraska	\$ 296.1
Nevada	\$ 382.2
New Hampshire	\$ 238.0
New Jersey	\$ 1,649.4
New Mexico	\$ 268.4
New York	\$ 3,514.7
North Carolina	\$ 1,319.9
North Dakota	\$ 131.9
Ohio	\$ 1,641.5
Oklahoma	\$ 564.5
Oregon	\$ 545.0
Pennsylvania	\$ 2,023.7
Rhode Island	\$ 172.1
South Carolina	\$ 605.3
South Dakota	\$ 134.6
Tennessee	\$ 917.4
Texas	\$ 4,119.3
Utah	\$ 371.7
Vermont	\$ 100.0
Virginia	\$ 1,359.9
Washington	\$ 1,177.1
West Virginia	\$ 230.3
Wisconsin	\$ 852.8
Wyoming	\$ 104.1
DC	\$ 164.3
Total	\$ 48,572.0

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IMPACTS AND IMPLICATIONS OF AMAZON GROWTH

As retail sales migrate from storefronts to the Internet, the fiscal impact on state and local governments has come from two sources: sales tax and property tax. The former is well understood, and many states have moved to close the sales tax advantage of online merchants. The latter, however, will only grow even as few local governments recognize the challenge.

Fiscal Impact: Sales Taxes

As of January 1, 2016 there are 27 states that charge sales tax on Amazon purchases. Some states force Amazon to collect the full sales tax rate including state and any applicable local levies, while a few others have agreed to only collect the state portion of the sales tax.

Here, we sought to quantify the real value of sales taxes foregone by both state and local governments, reporting those totals by state. Calculating the sales tax revenue lost for a state that does not collect any sales tax involved simply looking at the sales per state and multiplying it by the average combined sales tax rate.

These calculations of the sales tax gap are for calendar year 2014. Table 3 details the sales tax gap by state. Missouri leads all states in this dubious ranking at \$62 million, followed by Colorado, Louisiana, and Alabama which all have gaps over \$50 million. The total nationwide sales tax gap for Amazon in 2014 is estimated at \$625 million.

AMAZON SALES TAX GAP, 2014

	Sales Tax Gap (Millions)
Alabama	\$ 50.2
Alaska	\$ 2.1
Arizona	\$ 20.2
Arkansas	\$ 32.0
California	\$ -
Colorado	\$ 57.8
Connecticut	\$ -
Delaware	\$ -
Florida	\$ 16.8
Georgia	\$ -
Hawaii	\$ 8.8
Idaho	\$ 11.4
Illinois	\$ 36.1
Indiana	\$ -
Iowa	\$ 28.9
Kansas	\$ -
Kentucky	\$ -
Louisiana	\$ 54.4
Maine	\$ 9.4
Maryland	\$ -
Massachusetts	\$ -
Michigan	\$ -
Minnesota	\$ 2.7
Mississippi	\$ 22.7
Missouri	\$ 60.2
Montana	\$ -
Nebraska	\$ 18.4
Nevada	\$ -
New Hampshire	\$ -
New Jersey	\$ -
New Mexico	\$ 18.2
New York	\$ -
North Carolina	\$ -
North Dakota	\$ -
Ohio	\$ 20.7
Oklahoma	\$ 45.0
Oregon	\$ -
Pennsylvania	\$ 6.2
Rhode Island	\$ 10.9
South Carolina	\$ 39.7
South Dakota	\$ 7.1
Tennessee	\$ -
Texas	\$ -
Utah	\$ 22.6
Vermont	\$ 5.6
Virginia	\$ -
Washington	\$ -
West Virginia	\$ 0.2
Wisconsin	\$ 3.3
Wyoming	\$ 5.1
DC	\$ 8.6
Total	\$ 625.4

AMAZON AND EMPTY STOREFRONTS

Land Use Impact: Storefronts and Employment

For this study, Civic Economics analyzed three measures on this shift in sales from bricks and mortar retailers to the Internet: storefronts, square footage, and employment.

For the first and broadest measure, we calculated sales per square foot for the mix of segments in the study and allocated those “lost” square feet across the states according to their proportion of Amazon sales.

For the second measure, we collected the average sales per establishment in each segment from the Economic Census and calculated the number of stores Amazon sales equate to in each state. While it may be too simple to represent that number as displaced storefronts, it provides a useful gauge of the number of business establishments that might otherwise exist.

Finally, we calculated the loss of jobs associated with this shift. For each segment, we collected Economic Census data for sales per employee to calculate the total sales force that would be associated with Amazon’s retail sales in bricks and mortar stores.

As a component of the full study, we evaluated the current and developing state of Amazon’s distribution network. Though all retail goods pass through similar facilities, Amazon’s are somewhat more labor intensive. Therefore, we credited the company for all estimated distribution employment in each state.

AMAZON SPACE, SHOP, AND JOB DISPLACEMENT, 2014

	Square Feet Equivalent (Millions)	Equivalent Shops	Jobs, Including Amazon Dist.
Alabama	1.4	395	(3,439)
Alaska	0.3	85	(738)
Arizona	1.9	550	4,632
Arkansas	0.8	242	(2,110)
California	13.9	4,010	(21,251)
Colorado	1.9	546	(4,759)
Connecticut	1.6	449	(1,488)
Delaware	0.3	91	2,074
Florida	6.3	1,818	(10,306)
Georgia	2.9	842	(5,678)
Hawaii	0.5	142	(1,236)
Idaho	0.5	133	(1,157)
Illinois	4.5	1,289	(7,802)
Indiana	1.9	556	6,611
Iowa	1.0	299	(2,604)
Kansas	1.0	282	(1,922)
Kentucky	1.2	358	9,203
Louisiana	1.5	425	(3,699)
Maine	0.4	120	(1,048)
Maryland	2.4	687	(5,982)
Massachusetts	2.8	812	(5,683)
Michigan	2.9	851	(6,985)
Minnesota	1.9	550	(2,788)
Mississippi	0.8	226	(1,965)
Missouri	1.9	540	(4,704)
Montana	0.3	88	(770)
Nebraska	0.7	189	(1,646)
Nevada	0.8	244	1,050
New Hampshire	0.5	152	(1,193)
New Jersey	3.6	1,052	(2,810)
New Mexico	0.6	171	(1,492)
New York	7.8	2,242	(19,536)
North Carolina	2.9	842	(6,881)
North Dakota	0.3	84	(733)
Ohio	3.6	1,047	(9,124)
Oklahoma	1.2	360	(3,138)
Oregon	1.2	348	(3,029)
Pennsylvania	4.5	1,291	5,091
Rhode Island	0.4	110	(956)
South Carolina	1.3	386	1,272
South Dakota	0.3	86	(748)
Tennessee	2.0	585	4,849
Texas	9.1	2,628	(11,486)
Utah	0.8	237	(2,066)
Vermont	0.2	64	(556)
Virginia	3.0	867	(2,853)
Washington	2.6	751	(153)
West Virginia	0.5	147	(1,280)
Wisconsin	1.9	544	(1,467)
Wyoming	0.2	66	(579)
DC	0.4	105	(913)
Total	107.3	30,983	(135,973)

AMAZON AND EMPTY STOREFRONTS

Fiscal Impact: Property Tax

Above, we discuss the very real displacement of retail space from communities to the Internet. This displacement has contributed to a slowdown in the occupancy and development of commercial space. This, in turn, has an invisible but certain impact on an essential source of revenue for most states, cities, and schools: property taxes.

The displacement of retail square footage has a very real cost when calculating the effect that Amazon has upon tax revenue. The retail square footage that is being lost is generally valued at much higher rates than distribution centers that are located on the periphery of cities.

To calculate lost property tax revenue, we applied a common assessment rule of thumb for valuing revenue producing properties. The formula divides the total net income (assumed to be 5% of revenues) by the capitalization rate (assumed to be 7%) which gave a corresponding property value. This formulation provides a reasonable estimate when looking at the larger picture at the national and even state level. Statewide average property tax rates were then applied using estimates from the Tax Foundation.

Displaced retail space imposes hefty (and growing) cost of approximately \$420 million annually, as shown in Table 4 on page 12. Looking at the breakdowns by state, Texas is estimated to have the highest amount of lost revenue, with almost \$54 million being lost annually due the reduction of retail space associated with sales lost due to Amazon. However, all 50 states are losing money for the same reason.

We have been unable to come to a credible estimate of the property taxes associated with distribution facilities due to the complexities of state industrial property assessment and taxation.

AMAZON PROPERTY TAX GAP, 2014

	Lost Retail Property Tax (Millions)
Alabama	\$ 2.1
Alaska	\$ 0.9
Arizona	\$ 7.3
Arkansas	\$ 1.5
California	\$ 30.5
Colorado	\$ 7.6
Connecticut	\$ 7.4
Delaware	\$ 0.4
Florida	\$ 21.8
Georgia	\$ 8.4
Hawaii	\$ 0.9
Idaho	\$ 1.4
Illinois	\$ 23.6
Indiana	\$ 9.4
Iowa	\$ 6.4
Kansas	\$ 6.1
Kentucky	\$ 2.6
Louisiana	\$ 1.4
Maine	\$ 1.4
Maryland	\$ 6.0
Massachusetts	\$ 19.5
Michigan	\$ 15.8
Minnesota	\$ 10.6
Mississippi	\$ 1.7
Missouri	\$ 7.6
Montana	\$ 0.9
Nebraska	\$ 3.4
Nevada	\$ 2.1
New Hampshire	\$ 2.9
New Jersey	\$ 20.2
New Mexico	\$ 1.0
New York	\$ 39.0
North Carolina	\$ 6.7
North Dakota	\$ 1.3
Ohio	\$ 16.6
Oklahoma	\$ 2.8
Oregon	\$ 3.1
Pennsylvania	\$ 22.7
Rhode Island	\$ 2.4
South Carolina	\$ 3.9
South Dakota	\$ 1.3
Tennessee	\$ 5.3
Texas	\$ 53.7
Utah	\$ 2.0
Vermont	\$ 1.1
Virginia	\$ 5.9
Washington	\$ 7.0
West Virginia	\$ 1.2
Wisconsin	\$ 9.9
Wyoming	\$ 0.4
DC	\$ 0.8
Total	\$ 419.8

CONCLUSION

This study should not be read as tilting at the vast windmill that is Amazon. As with the big box stores that preceded it, individuals and communities are likely prepared to accept tradeoffs for the convenience that Amazon offers. We do not believe, though, that Americans yet comprehend the nature of the tradeoffs to come.

As tax fairness initiatives have gained the upper hand to begin closing the sales tax gap in many states, those that remain will face an ever-widening sales tax gap and budget shortfall. We also hope this study will contribute to a reasoned consideration of the potentially more impactful land use challenges presented.

American communities have adapted to monumental changes in the retail sector before, but our adaptations have not always been successful. This wave of change will go beyond who owns the store and how it is managed, it will see the store relocate to remote industrial parks and delivery vans. Managing these changes will be a defining challenge for 21st Century American communities.

Essential National Findings

- In 2014, Amazon sold **\$44.1 billion** worth of retail goods nationwide, all while avoiding **\$625 million** in state and local sales taxes.
- That is the equivalent of **31,000** retail storefronts, **107 million** square feet of commercial space, which might have paid **\$420 million** in property taxes.
- A total of more than **\$1 billion** in revenue lost to state and local governments, **\$8.48** for every household in America.
- Amazon also operated **65 million** square feet of distribution space, employing roughly **30,000** full-time workers and **104,000** part-time and seasonal workers.
- Even counting all the jobs in Amazon distribution centers, Amazon sales produced a net loss of **135,973** retail jobs.

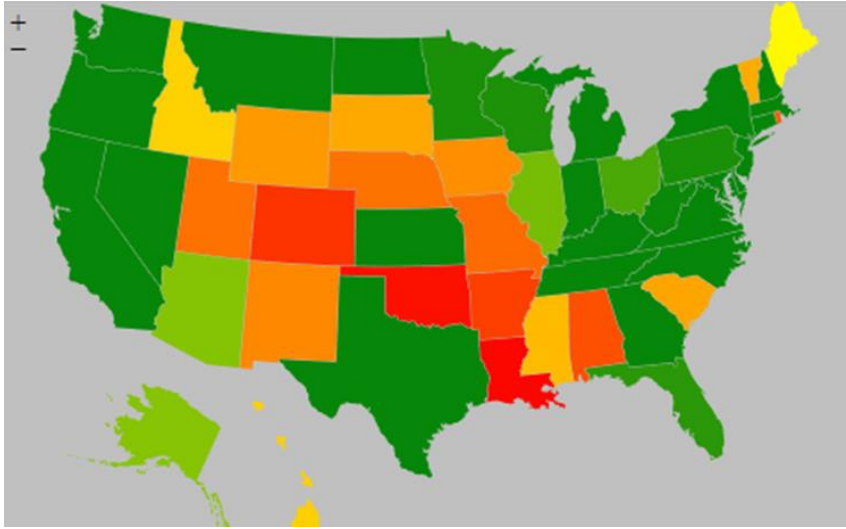
AMAZON AND EMPTY STOREFRONTS

STATE-LEVEL SUMMARY TABLE	FISCAL IMPACTS				LAND USE IMPACTS		
	Sales Tax Gap (Millions)	Property Tax Gap (Millions)	Combined Tax Gap (Millions)	Per Household	Square Feet (Millions)	Equivalent Shops	Net Jobs Including Distribution
Alabama	\$ 50.2	\$ 2.1	\$ 52.2	\$ 28.34	1.4	395	-3,439
Alaska	\$ 2.1	\$ 0.9	\$ 3.1	\$ 12.21	0.3	85	-738
Arizona	\$ 20.2	\$ 7.3	\$ 27.5	\$ 11.53	1.9	550	4,632
Arkansas	\$ 32.0	\$ 1.5	\$ 33.4	\$ 29.50	0.8	242	-2,110
California	\$ -	\$ 30.5	\$ 30.5	\$ 2.41	13.9	4,010	-21,251
Colorado	\$ 57.8	\$ 7.6	\$ 65.4	\$ 32.73	1.9	546	-4,759
Connecticut	\$ -	\$ 7.4	\$ 7.4	\$ 5.49	1.6	449	-1,488
Delaware	\$ -	\$ 0.4	\$ 0.4	\$ 1.09	0.3	91	2,074
Florida	\$ 16.8	\$ 21.8	\$ 38.6	\$ 5.35	6.3	1,818	-10,306
Georgia	\$ -	\$ 8.4	\$ 8.4	\$ 2.37	2.9	842	-5,678
Hawaii	\$ 8.8	\$ 0.9	\$ 9.7	\$ 21.47	0.5	142	-1,236
Idaho	\$ 11.4	\$ 1.4	\$ 12.7	\$ 21.74	0.5	133	-1,157
Illinois	\$ 36.1	\$ 23.6	\$ 59.8	\$ 12.51	4.5	1,289	-7,802
Indiana	\$ -	\$ 9.4	\$ 9.4	\$ 3.77	1.9	556	6,611
Iowa	\$ 28.9	\$ 6.4	\$ 35.2	\$ 28.60	1.0	299	-2,604
Kansas	\$ -	\$ 6.1	\$ 6.1	\$ 5.51	1.0	282	-1,922
Kentucky	\$ -	\$ 2.6	\$ 2.6	\$ 1.55	1.2	358	9,203
Louisiana	\$ 54.4	\$ 1.4	\$ 55.8	\$ 32.48	1.5	425	-3,699
Maine	\$ 9.4	\$ 1.4	\$ 10.8	\$ 19.49	0.4	120	-1,048
Maryland	\$ -	\$ 6.0	\$ 6.0	\$ 2.80	2.4	687	-5,982
Massachusetts	\$ -	\$ 19.5	\$ 19.5	\$ 7.69	2.8	812	-5,683
Michigan	\$ -	\$ 15.8	\$ 15.8	\$ 4.14	2.9	851	-6,985
Minnesota	\$ 2.7	\$ 10.6	\$ 13.3	\$ 6.29	1.9	550	-2,788
Mississippi	\$ 22.7	\$ 1.7	\$ 24.3	\$ 22.29	0.8	226	-1,965
Missouri	\$ 60.2	\$ 7.6	\$ 67.8	\$ 28.71	1.9	540	-4,704
Montana	\$ -	\$ 0.9	\$ 0.9	\$ 2.19	0.3	88	-770
Nebraska	\$ 18.4	\$ 3.4	\$ 21.8	\$ 29.74	0.7	189	-1,646
Nevada	\$ -	\$ 2.1	\$ 2.1	\$ 2.06	0.8	244	1,050
New Hampshire	\$ -	\$ 2.9	\$ 2.9	\$ 5.52	0.5	152	-1,193
New Jersey	\$ -	\$ 20.2	\$ 20.2	\$ 6.34	3.6	1,052	-2,810
New Mexico	\$ 18.2	\$ 1.0	\$ 19.3	\$ 25.24	0.6	171	-1,492
New York	\$ -	\$ 39.0	\$ 39.0	\$ 5.38	7.8	2,242	-19,536
North Carolina	\$ -	\$ 6.7	\$ 6.7	\$ 1.78	2.9	842	-6,881
North Dakota	\$ -	\$ 1.3	\$ 1.3	\$ 4.36	0.3	84	-733
Ohio	\$ 20.7	\$ 16.6	\$ 37.3	\$ 8.16	3.6	1,047	-9,124
Oklahoma	\$ 45.0	\$ 2.8	\$ 47.8	\$ 32.95	1.2	360	-3,138
Oregon	\$ -	\$ 3.1	\$ 3.1	\$ 2.02	1.2	348	-3,029
Pennsylvania	\$ 6.2	\$ 22.7	\$ 28.9	\$ 5.83	4.5	1,291	5,091
Rhode Island	\$ 10.9	\$ 2.4	\$ 13.3	\$ 32.54	0.4	110	-956
South Carolina	\$ 39.7	\$ 3.9	\$ 43.6	\$ 24.29	1.3	386	1,272
South Dakota	\$ 7.1	\$ 1.3	\$ 8.4	\$ 25.77	0.3	86	-748
Tennessee	\$ -	\$ 5.3	\$ 5.3	\$ 2.11	2.0	585	4,849
Texas	\$ -	\$ 53.7	\$ 53.7	\$ 5.95	9.1	2,628	-11,486
Utah	\$ 22.6	\$ 2.0	\$ 24.6	\$ 27.47	0.8	237	-2,066
Vermont	\$ 5.6	\$ 1.1	\$ 6.7	\$ 26.05	0.2	64	-556
Virginia	\$ -	\$ 5.9	\$ 5.9	\$ 1.94	3.0	867	-2,853
Washington	\$ -	\$ 7.0	\$ 7.0	\$ 2.65	2.6	751	-153
West Virginia	\$ 0.2	\$ 1.2	\$ 1.4	\$ 1.87	0.5	147	-1,280
Wisconsin	\$ 3.3	\$ 9.9	\$ 13.2	\$ 5.76	1.9	544	-1,467
Wyoming	\$ 5.1	\$ 0.4	\$ 5.5	\$ 24.50	0.2	66	-579
DC	\$ 8.6	\$ 0.8	\$ 9.4	\$ 35.22	0.4	105	-913
Total	\$ 625.4	\$ 419.8	\$ 1,045.1	\$ 8.48	107.3	30,983	-135,973

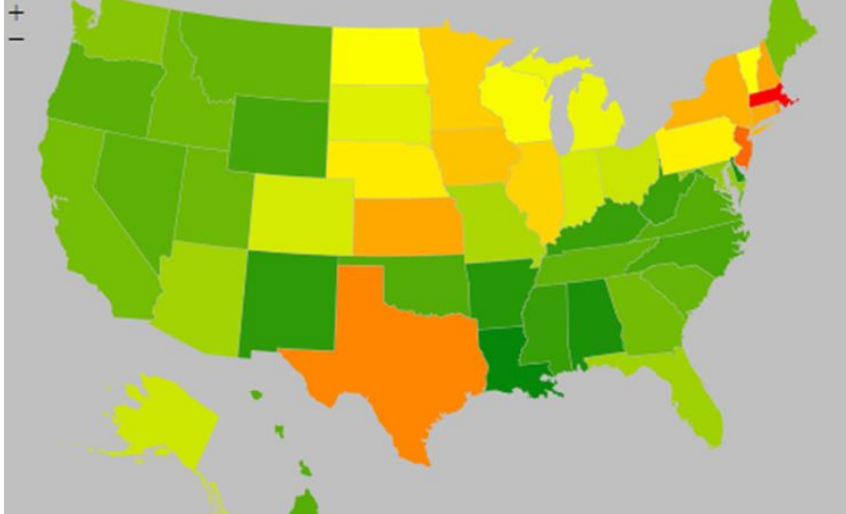
Source: Civic Economics

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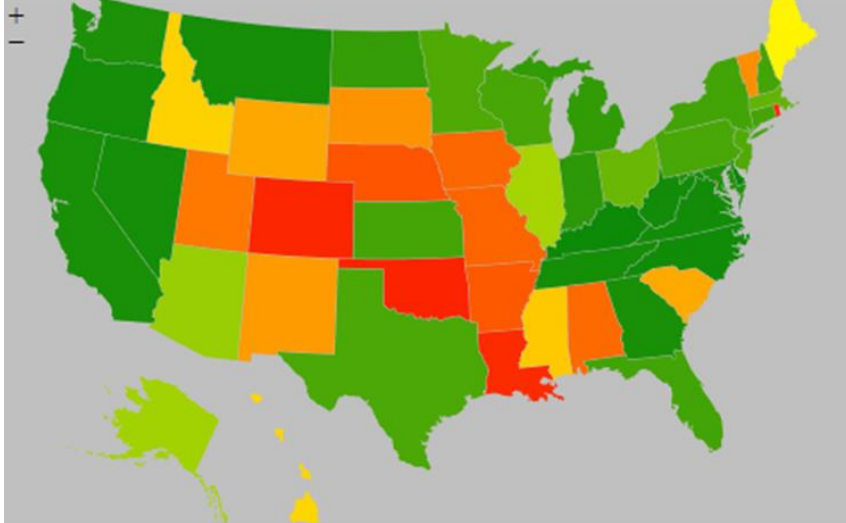
HEAT MAP 1: AMAZON SALES TAX GAP PER HOUSEHOLD, 2014



HEAT MAP 2: AMAZON PROPERTY TAX GAP PER HOUSEHOLD, 2014



HEAT MAP 3: TOTAL AMAZON TAX GAP PER HOUSEHOLD, 2014



Source: Civic Economics