## STATE WEIGHTS

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Using the tried and tested process, let A=1, B=2, and so on, up to Z=26. Take each of the fifty US state names in turn and calculate the total value of the state name's constituent letters. These sums have been referred to as the weights of the corresponding words or names. The weights for the fifty state names, in increasing numerical order, are given in the first column in the table below. Now divide each of the weights by the number of letters in the corresponding state name. This gives an average weight per letter. Sort these averages into increasing numerical order; these results are given in the second column of the table.

12.33 New Mexico

31 Alabama	4.43 Alabama
37 Idaho	7.40 Idaho
42 Maine	7.43 Indiana
45 Alaska	7.50 Alaska
47 Nevada	7.83 Nevada
47 Ohio	8.00 Michigan
48 Iowa	8.40 Maine
50 Utah	8.50 Hawaii
51 Hawaii	8.63 Delaware
52 Indiana	8.80 California
62 Georgia	8.86 Georgia
64 Michigan	8.88 Nebraska
65 Florida	9.29 Florida
65 Kansas	9.50 Oklahoma
69 Delaware	9.91 Rhode Island
69 Texas	10.38 Colorado
71 Nebraska	10.50 Arkansas
74 Oregon	10.83 Kansas
76 Oklahoma	11.00 Maryland
78 Montana	11.13 Virginia
83 Colorado	11.14 Montana
84 Arizona	11.22 Louisiana
84 Arkansas	11.38 North Carolina
88 California	11.55 Connecticut
88 Maryland	11.55 North Dakota
89 Virginia	11.58 New Hampshir
99 Illinois	11.75 Ohio
101 Louisiana	11.78 Tennessee
106 Tennessee	12.00 Arizona
106 Wyoming	12.00 Iowa
107 Vermont	12.00 South Carolina
109 Rhode Island	12.22 Minnesota
110 Kentucky	12.27 South Dakota
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12.33 Oregon 111 New Mexico 12,38 Illinois 111 New York 12.50 Utah 123 Missouri 12.67 New Jersey 124 New Jersey 12.92 Massachusetts 125 Wisconsin 13.00 Washington 127 Connecticut 13.00 West Virginia 127 North Dakota 13.75 Kentucky 130 Washington 135 South Dakota 13.78 New Jersey 13.80 Texas 139 New Hampshire 148 North Carolina 13.89 Wisconsin 14.27 Mississippi 152 Pennsylvania 156 South Carolina 15.14 Wyoming 156 West Virginia 15.29 Vermont 157 Mississippi 15.38 Missouri 168 Massachusetts 15.86 New York

The weights vary from 31 to 168, a factor of 5.4. Yet the ratio of the shortest name (Iowa, Ohio, Utah) to the longest name (Massachusetts, North Carolina, South Carolina) is only 3.25. There are ten pairs of state names with the same weights. The total weight of all the letters is 4696, giving an average weight per state name of 93.92. The closest state name to this weight is Virginia at 89. It seems odd that there is a gap of ten (89 to 99); normally the weights ought to cluster around the average value.

The average weight per letter in the state names varies from 4.43 to 15.86, a factor of 3.58. The average letter in Alabama is somewhere between D and E, while the average letter in New York is somewhere between O and P. What a variation! The total number of letters in all 50 state names is 412. Given that the total weight of all state names is 4696, the average weight of a letter across all state names is 11.40, between K and L. North Carolina, with an average weight of 11.38, is the closest to this number.

Seven states have whole number averages; one can characterize each of these by means of a letter value. For example, Michigan (8.00) is characterized by the eighth letter of the alphabet, H, and in fact the state name contains this letter. Similarly, South Carolina (12.00) is characterized by an L, but none of the other five have this self-referential property.