**Unit 3:** Spread About the Median (module 9)

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| **Eastern State** | **$ per Student** | **Western State** | **$ per Student** |
| Alabama | 5,166 | Alaska | 9,074 |
| Connecticut | 9,221 | Arizona | 5,122 |
| Delaware | 7,963 | Arkansas | 4,999 |
| D.C. | 9,225 | California | 5,795 |
| Florida | 6,183 | Colorado | 6,099 |
| Georgia | 5,947 | Hawaii | 6,409 |
| Illinois | 6,858 | Idaho | 5,012 |
| Indiana | 6,786 | Iowa | 6,295 |
| Kentucky | 6,125 | Kansas | 6,406 |
| Maine | 7,238 | Louisiana | 5,645 |
| Maryland | 7,812 | Minnesota | 6,795 |
| Massachusetts | 8,299 | Missouri | 6,096 |
| Michigan | 7,717 | Montana | 6,448 |
| Mississippi | 4,575 | Nebraska | 6,584 |
| New Hampshire | 6,487 | Nevada | 5,758 |
| New Jersey | 10,233 | New Mexico | 4,984 |
| New York | 9,970 | North Dakota | 5,353 |
| North Carolina | 5,667 | Oklahoma | 5,398 |
| Ohio | 6,808 | Oregon | 7,348 |
| Pennsylvania | 7,777 | South Dakota | 5,281 |
| Rhode Island | 8,627 | Texas | 5,910 |
| South Carolina | 5,643 | Utah | 4,256 |
| Tennessee | 5,374 | Washington | 6,534 |
| Vermont | 7,500 | Wyoming | 6,718 |
| Virginia | 5,938 |
| West Virginia | 6,779 |
| Wisconsin | 7,680 |

In 2000 the Department of Education published the *Digest for Education Statistics*, a collection of information about education in the United States. They reported the average amount (dollars per student) spent by public schools in each state during the school year 1997-1998. The above table divides the states according to whether they lie east or west of the Mississippi River. Write a report comparing the amounts eastern and western states spend to educate their children. In particular, create a histogram for each side (Eastern versus Western), then describe the distributions in terms of shape. Calculate the 5 Number Summaries for each side, then create a Boxplot for each side. In your comparison, you should be comparing shape, center and spread and determine which side spends more money on their students.