**Objective**: Our objective was to calculate the average income, poverty percent and unemployment percent of each state of the United States. Using census tracts with over 3000 rows of data.

**Results:**

* **Average Income:**

Maryland has the highest average income 77.29 k

Puerto Rico has the lowest average income 19.91 k followed by Mississippi with 40.1k

* **Poverty Percent:**

Puerto Rico has the highest poverty percent at 45.5% people living under the poverty line. Followed by New Mexico with 21.04 %.

New Hampshire has the lowest poverty rate at 8.92%.

* **Unemployment Rate:**

Puerto Rico has the highest unemployment percent at 18.34% followed by Mississippi with 10.50%.

North Dakota has the lowest unemployment rate at 2.91%

* **Outlier** – Puerto Rico is an Outlier
* **Confidence Interval of Poverty**

80% Conf Level (alpha = 0.20), CI = 6.83 - 28.15

90% Conf Level (alpha = 0.10), CI = 3.81 - 31.17

* **Confidence Interval using SRSWR:**

80% Conf Level (alpha = 0.20), CI = 16.41 - 18.54

90% Conf Level (alpha = 0.10), CI = 16.11 - 18.84

* **Confidence Interval using SRSWOR:**

80% Conf Level (alpha = 0.20), CI = 16.41 - 18.54

90% Conf Level (alpha = 0.10), CI = 16.11 - 18.84

* **Confidence Interval using Systematic Sampling:**

80% Conf Level (alpha = 0.20), CI = 15.61 - 17.74

90% Conf Level (alpha = 0.10), CI = 15.31 - 18.04

* **Confidence Interval using Unequal Sampling:**

80% Conf Level (alpha = 0.20), CI = 13.67 - 15.80

90% Conf Level (alpha = 0.10), CI = 13.37 - 16.10

**Outcome:** The data below is the outcome of the project.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | state | Income | Poverty | Unemployment |
| 1 | Alabama | 44531.62 | 18.849 | 9.408 |
| 2 | Alaska | 72351.57 | 10.176 | 8.446 |
| 3 | Arizona | 50406.92 | 18.223 | 9.093 |
| 4 | Arkansas | 41977.09 | 19.321 | 7.815 |
| 5 | California | 63198.08 | 16.294 | 10.009 |
| 6 | Colorado | 61786.44 | 12.714 | 7.032 |
| 7 | Connecticut | 71152.86 | 10.514 | 8.822 |
| 8 | Delaware | 60931.3 | 12.053 | 7.717 |
| 9 | District of Columbia | 70848 | 18 | 9.6 |
| 10 | Florida | 47729.39 | 16.564 | 9.735 |
| 11 | Georgia | 50868.6 | 18.477 | 9.695 |
| 12 | Hawaii | 70038.98 | 11.233 | 6.079 |
| 13 | Idaho | 47955.1 | 15.474 | 7.23 |
| 14 | Illinois | 59086.68 | 14.364 | 9.067 |
| 15 | Indiana | 50163.79 | 15.41 | 7.872 |
| 16 | Iowa | 53796.17 | 12.528 | 4.954 |
| 17 | Kansas | 53995.06 | 13.625 | 5.981 |
| 18 | Kentucky | 44832.94 | 18.921 | 8.649 |
| 19 | Louisiana | 45500.02 | 19.814 | 8.2 |
| 20 | Maine | 49942.52 | 13.944 | 6.908 |
| 21 | Maryland | 77294.51 | 10.021 | 7.484 |
| 22 | Massachusetts | 70018.27 | 11.61 | 7.619 |
| 23 | Michigan | 50318.93 | 16.723 | 10.008 |
| 24 | Minnesota | 62873.88 | 11.308 | 5.611 |
| 25 | Mississippi | 40176.01 | 22.624 | 10.509 |
| 26 | Missouri | 49360.68 | 15.673 | 7.538 |
| 27 | Montana | 47397.28 | 15.202 | 6.339 |
| 28 | Nebraska | 53793.72 | 12.749 | 4.699 |
| 29 | Nevada | 52054.28 | 15.462 | 10.496 |
| 30 | New Hampshire | 67838.73 | 8.927 | 5.752 |
| 31 | New Jersey | 73198.51 | 10.836 | 8.829 |
| 32 | New Mexico | 45508.8 | 21.043 | 9.315 |
| 33 | New York | 62319.66 | 15.676 | 8.293 |
| 34 | North Carolina | 47891.92 | 17.399 | 9.525 |
| 35 | North Dakota | 57844.99 | 11.469 | 2.915 |
| 36 | Ohio | 50095.99 | 15.783 | 8.195 |
| 37 | Oklahoma | 47279.94 | 16.728 | 6.396 |
| 38 | Oregon | 52364.24 | 16.511 | 9.43 |
| 39 | Pennsylvania | 55320.72 | 13.492 | 7.97 |
| 40 | Rhode Island | 57414.11 | 14.231 | 8.595 |
| 41 | South Carolina | 45934.83 | 17.937 | 9.597 |
| 42 | South Dakota | 51216.94 | 14.14 | 4.813 |
| 43 | Tennessee | 46499.73 | 17.668 | 8.551 |
| 44 | Texas | 54654.32 | 17.281 | 7.082 |
| 45 | Utah | 60995.63 | 12.346 | 5.787 |
| 46 | Vermont | 55880.95 | 11.529 | 5.505 |
| 47 | Virginia | 71439.42 | 11.66 | 6.597 |
| 48 | Washington | 62330.22 | 13.284 | 7.939 |
| 49 | West Virginia | 42244.98 | 18.019 | 7.872 |
| 50 | Wisconsin | 54345.78 | 12.969 | 6.356 |
| 51 | Wyoming | 59636.72 | 11.559 | 4.876 |
| 52 | Puerto Rico | 19918.43 | 45.522 | 18.349 |