

Crime State Rankings 2009

Methodology

The methodology used to produce the statistics presented in this book is fairly straightforward. In the first analysis (unique to this book), a comparison score is calculated for each state that is a summary of the percent differences of the reported crime rate from the national rate of six crime types. This formula, unique to this book, is described below. The rest of the analyses are simple calculations of frequency, percent, rate, and percent change of reported crime and other criminal justice information. In each analysis, the states are presented in alphabetical order as well as rank order by their values of the variable under examination from highest to lowest. In the case of a tie, rankings are listed alphabetically. Parentheses indicate negative numbers and rates (except in the data distribution charts). Data reported as “NA” are not available or could not be calculated. The national totals and rates appearing at the top of each table are for the entire United States.

”Comparison Score” Methodology

The methodology for determining the state comparison crime rate rankings involves a multistep process in which the reported crime across six crime categories—murder, rape, robbery, aggravated assault, burglary, and motor vehicle theft—per 100,000 population rates is compared to the national reported crime per 100,000 population rates and then indexed to create a summary score and ranking across six areas of reported violent and property crime. Larceny-theft is not included in this analysis because the FBI and an advisory board of criminologists concluded in 2004 that the Crime Index (the six crimes listed above and larceny-theft) was inflated by the high number of larceny-thefts and was no longer a true indicator of crime. Although the FBI has not yet developed a solution, our methodology considers the listed six crimes only. Please note that in 2007, larceny-theft comprised 58 percent of all reported crimes.

The following are steps for the “comparison score” calculation and an example that illustrates the calculations:

1. For each of the six categories of reported crime, the crime rate per 100,000 residents of a state is calculated from the reported crime and population data provided to the FBI by local law enforcement agencies. For example, the per capita reported murder rate per 100,000 persons for Nevada is 7.5. Nevada’s murder count for 2007, 192, is divided by its population, 2,565,382, then multiplied by 100,000 to arrive at 7.5.
2. The percent difference between the state rate and the national rate for each of the six crimes is then computed. The use of percent difference for each crime separately eliminates weighting more frequent crimes more heavily (that is, typically there are many more property crimes than violence crimes). The formula for this calculation is:

$$\frac{\text{State Rate} - \text{National Rate}}{\text{National Rate}} \times 100$$

3. The number is then scaled to be one-sixth (.1667) of the index to make it comparable to scores in the previous editions of this book. A number of years ago, we weighted each of the six crimes based on the results of a telephone survey that determined which crimes were of greatest concern to Americans. The polls seemed to indicate that most Americans believe crimes such as burglary are more likely to happen in their lives than more heinous crimes such as murder. Thus, burglary received the highest weight and murder the lowest weight in the formula. However, we discontinued the polling and consequently eliminated the weights. We left this stage in the methodology, giving each crime equal weight, so that future scores would be more closely comparable to the earlier scores with the weighted factors.

- The final comparison score for each state is the sum of its individual scores for the six crimes. In this example, Nevada's final comparison score is 64.1. The interpretation of these scores is that the higher a state comparison score, the further above the national score; the lower the comparison score, the further below the national score; and a comparison score of zero is equal to the national score.

Example: Nevada

	Murder	Rape	Robbery	Aggravated Assault	Burglary	Motor Vehicle Theft
State Rate	7.5	42.7	270.2	430.2	968.3	870.5
National Rate	5.6	30	147.6	283.8	722.5	363.3
Percent Difference	33.9	42.3	83.1	51.6	34	139.6
Weighting Factor	0.1667	0.1667	0.1667	0.1667	0.1667	0.1667
Resulting Score	5.7	7.1	13.8	8.6	5.7	23.3

- The comparison scores are sorted from highest to lowest to produce the rankings. Note that the rankings do not indicate the actual difference between the scores, only their order.

This methodology results in a comparison score for each state that compares its rate to the national rates, providing a means of comparison among states in terms of how much higher or lower each state is than the national average.

References

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