

Example: USA Arrests Biplot

- **PC1**

High loadings for Murder (0.536), Assault (0.583), and Rape (0.543):

- These three variables contribute strongly and approximately equally to PC1.
- PC1 could represent a general “crime severity” axis, as it captures patterns where these types of crimes tend to vary together.

UrbanPop (0.279) has a smaller contribution:

- Population density has less influence on PC1 compared to the crime-related variables.

- **PC2**

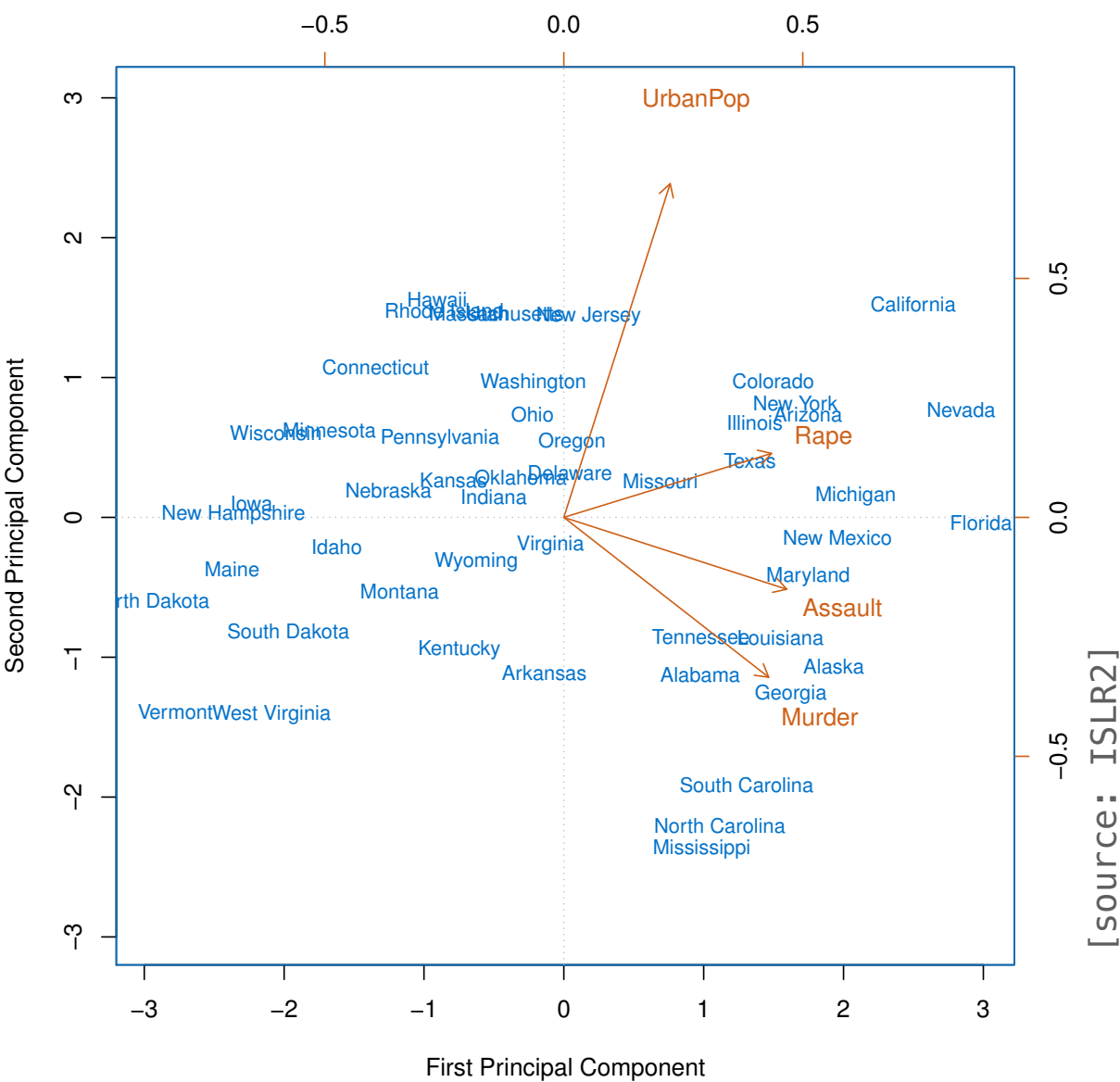
High loading for UrbanPop (0.873):

- PC2 is primarily influenced by UrbanPop.
- This suggests PC2 captures variation in population density that is independent of crime severity.

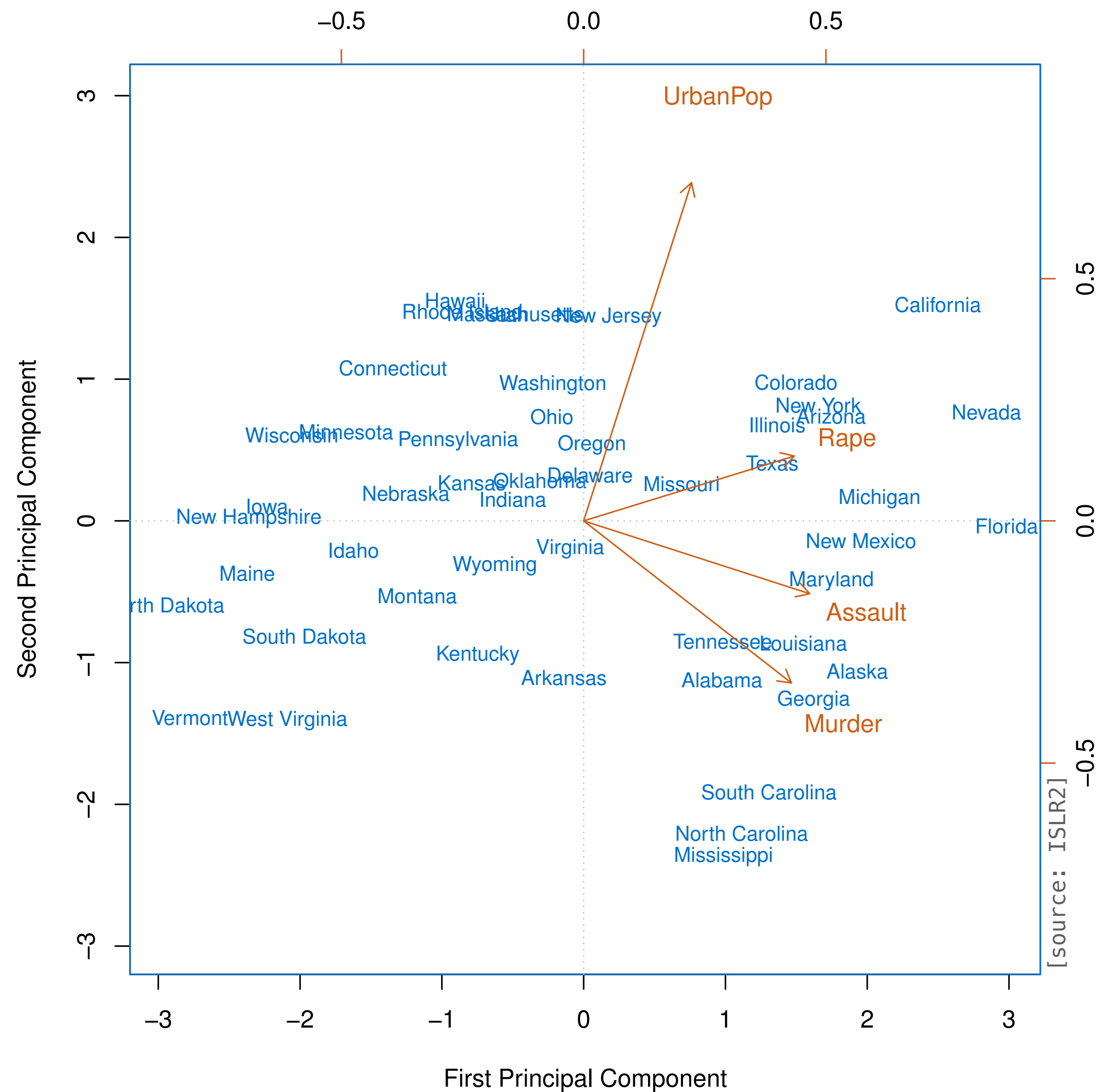
Negative contributions from Murder (-0.418) and Assault (-0.188):

- Murder and Assault negatively influence PC2, indicating areas with high UrbanPop might have slightly lower relative crime rates.

	PC1	PC2
Murder	0.5358995	−0.4181809
Assault	0.5831836	−0.1879856
UrbanPop	0.2781909	0.8728062
Rape	0.5434321	0.1673186



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