EVALUATING THE QUALITY OF ASSET CRITICALITY RANKINGS THROUGH HISTOGRAM SHAPE ANALYSIS

To ensure an asset criticality ranking exercise is effective, it's important to assess how well it **uses the full scale of rankings** and whether it **delineates assets with adequate granularity**. One powerful method for this is analyzing the **distribution shape of the asset score histogram**.

Here are the **7 basic distribution shapes** and what they reveal:

- **Normal Distribution** – Uses the full range but clusters around the center, providing **poor differentiation**.

- **Bi-Modal** – Slight improvement over normal, but **still concentrated**, limiting usable granularity.

- **Right Tailed** – Skewed left, with many assets scoring low; **poor delineation**.

- **Left Tailed** – Skewed right, favoring high scores; again, **limited distinction**.

- **Right Shorted** – Underutilized high end of the scale; **diminished resolution**.

- **Left Shorted** – Same as above, but **low scores are underused**.

- **Non-Modal/Random** – The **ideal shape**. It uses the **entire scale evenly**, avoids clustering, and provides the **best asset differentiation**.

A well-executed ranking exercise should aim for a **non-modal** distribution to ensure clarity in criticality across the asset population.

Foundational Elements – Criticality1

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