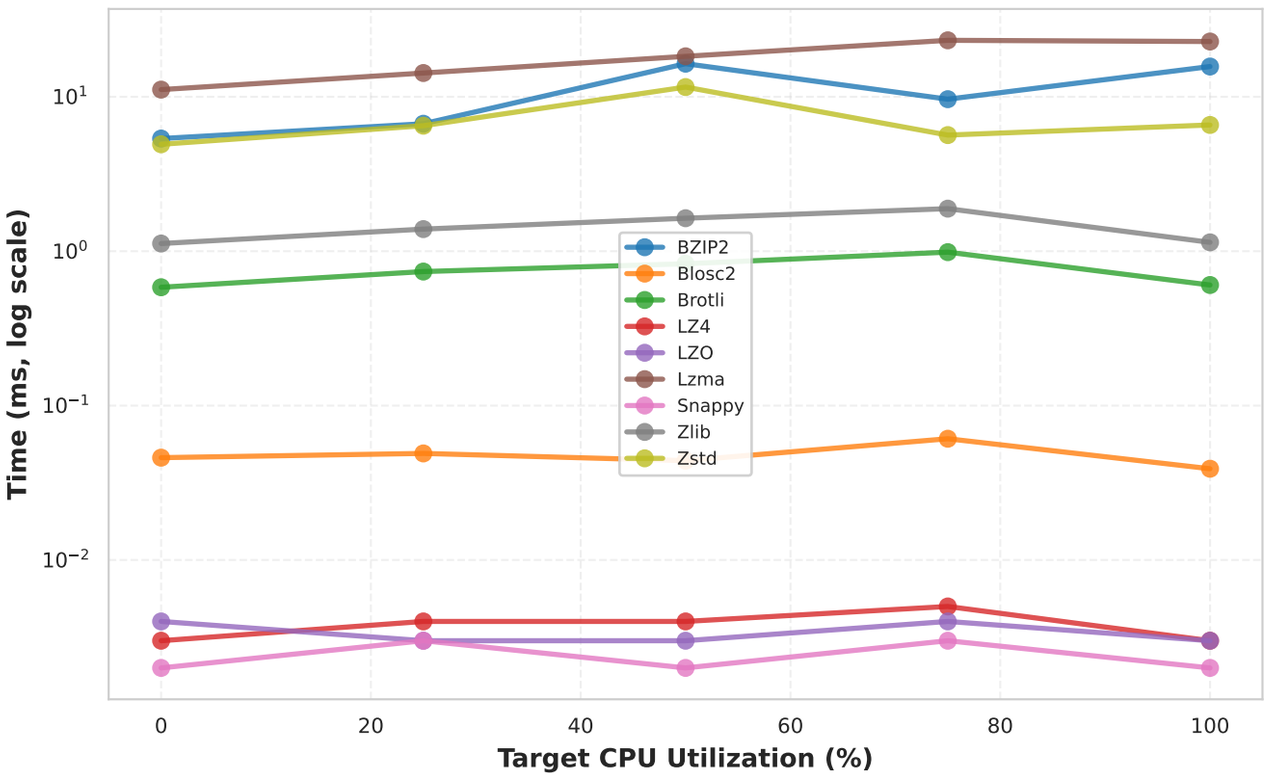
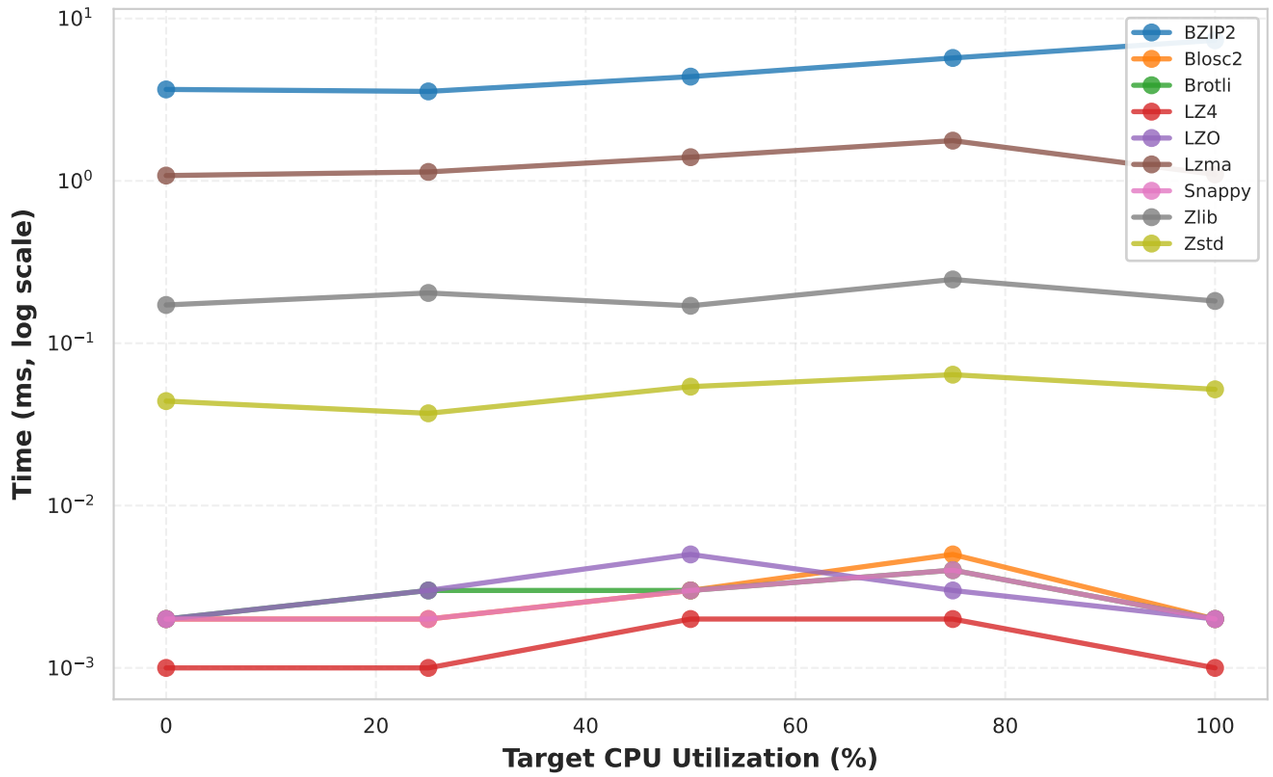
CPU Utilization Impact: exponential_high
Exponential(λ=0.05) × 2.0: Fast decay, clustering near zero
Char Data Type, 64KB Chunk Size

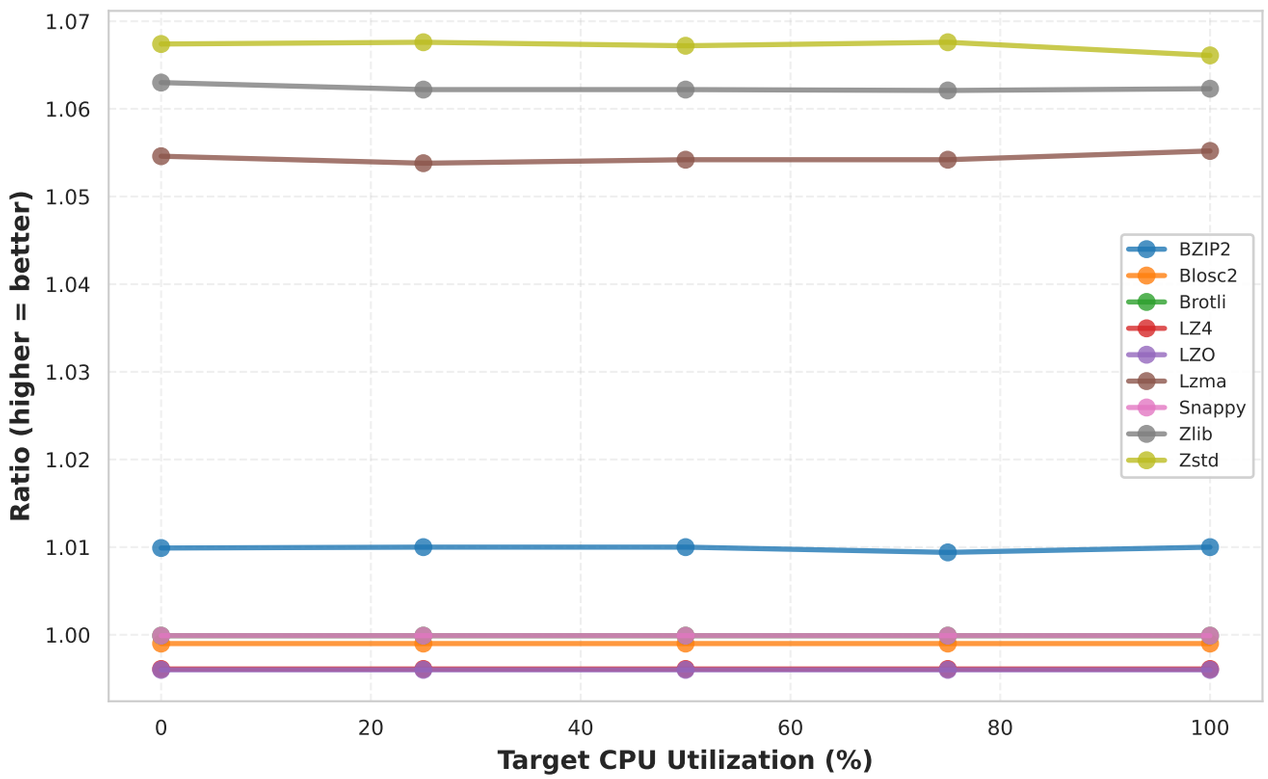
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

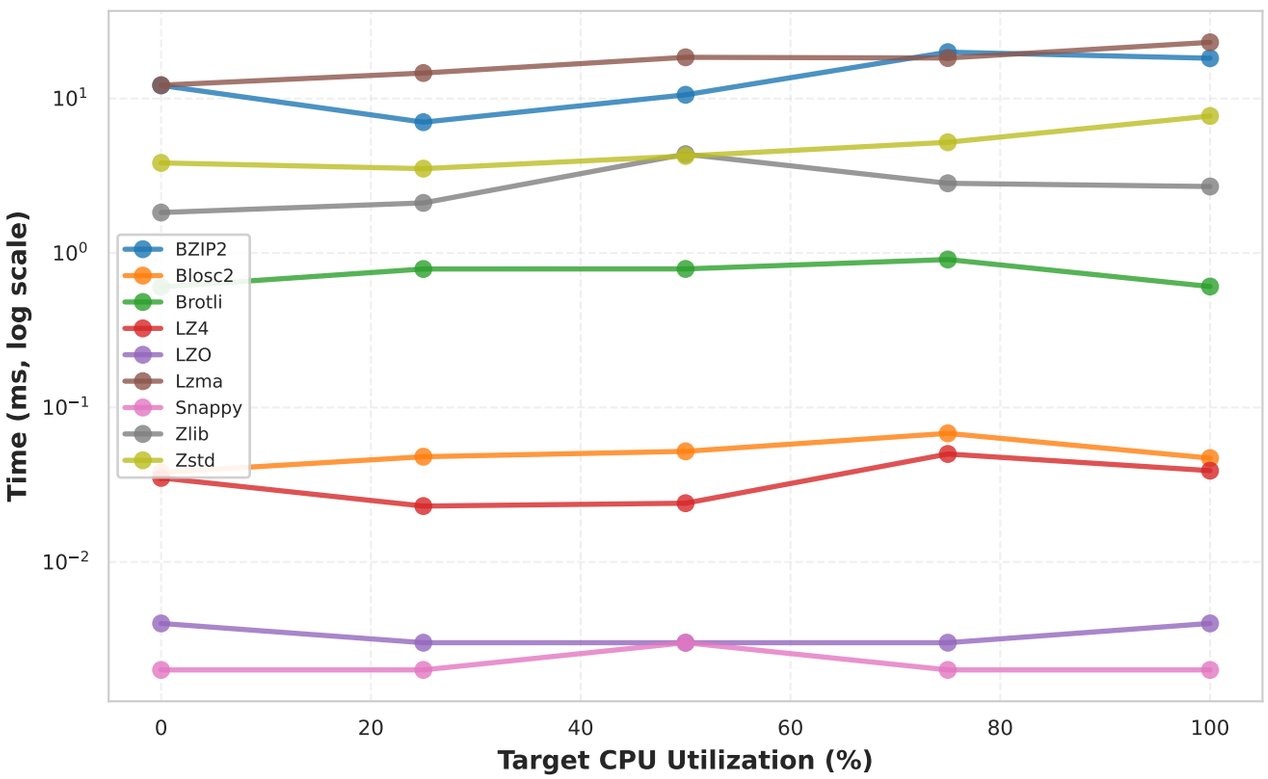


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

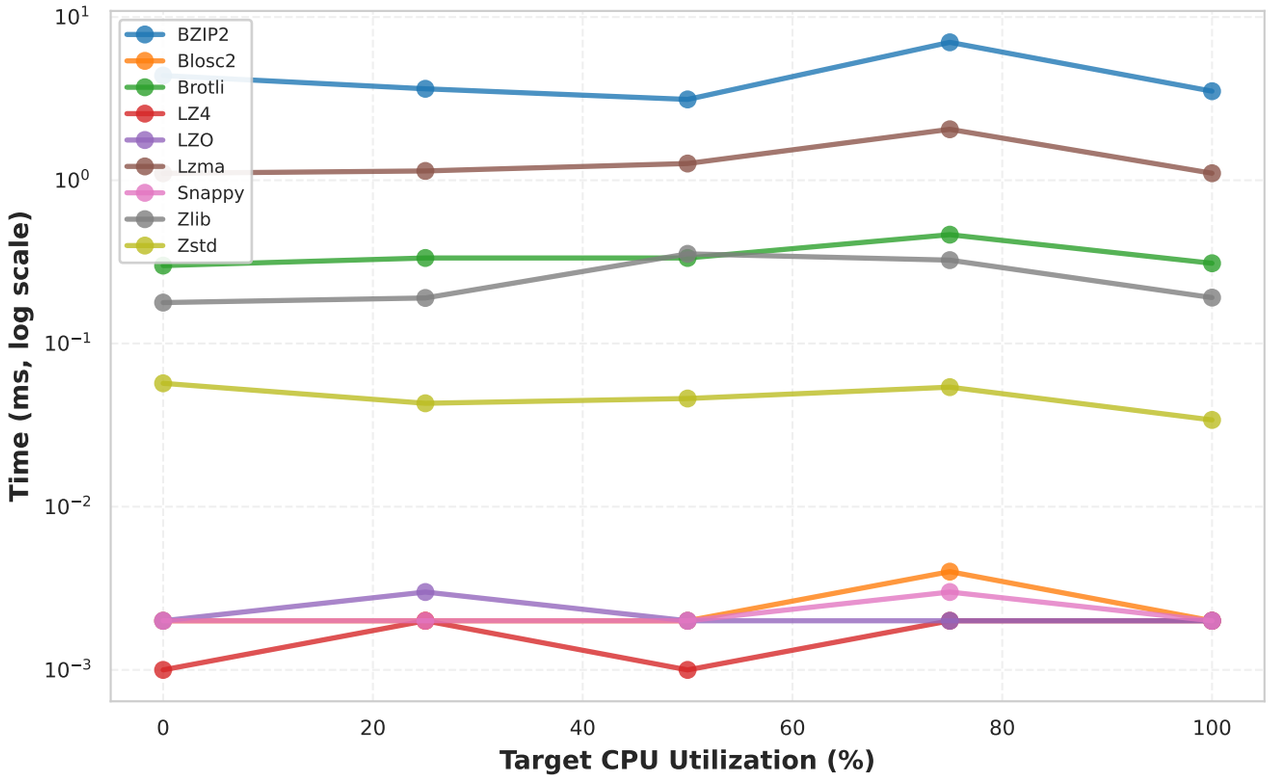
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: exponential_incomp
Exponential(λ=0.01) × 1.5 + noise: Slow decay, high entropy
Char Data Type, 64KB Chunk Size

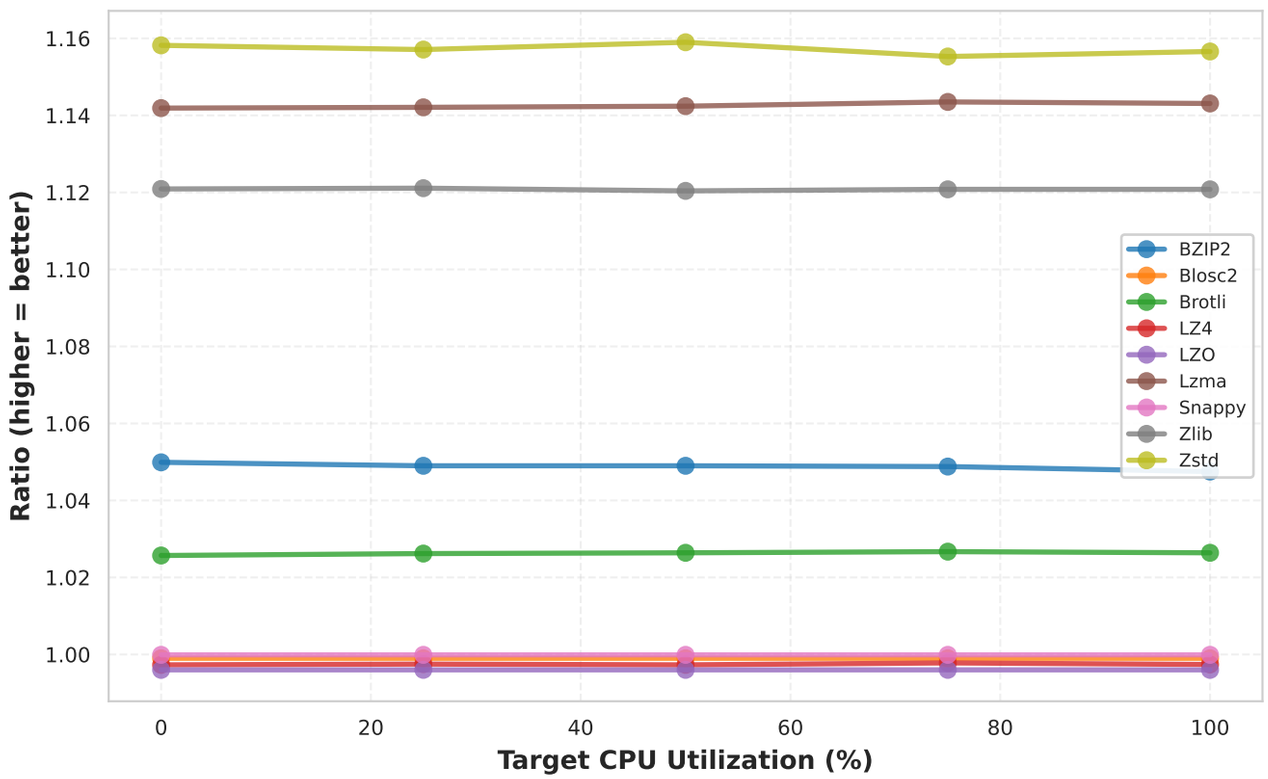
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

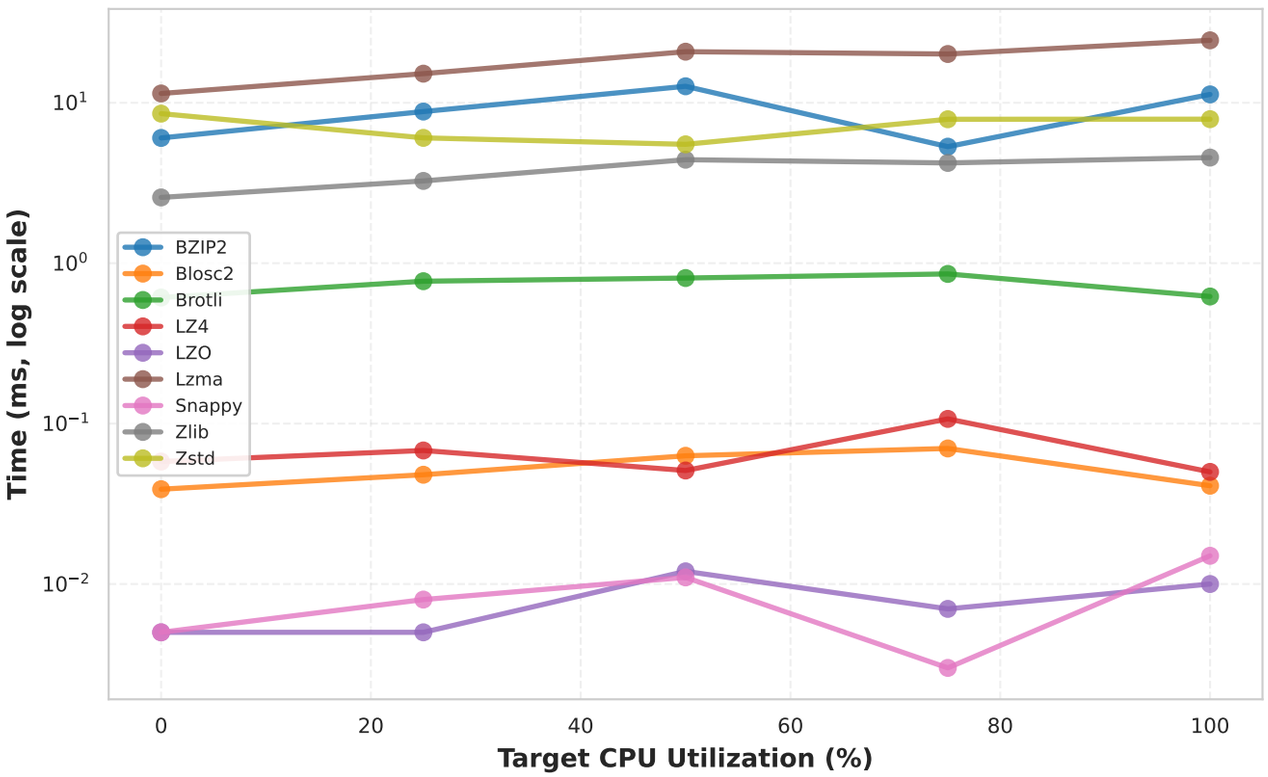


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

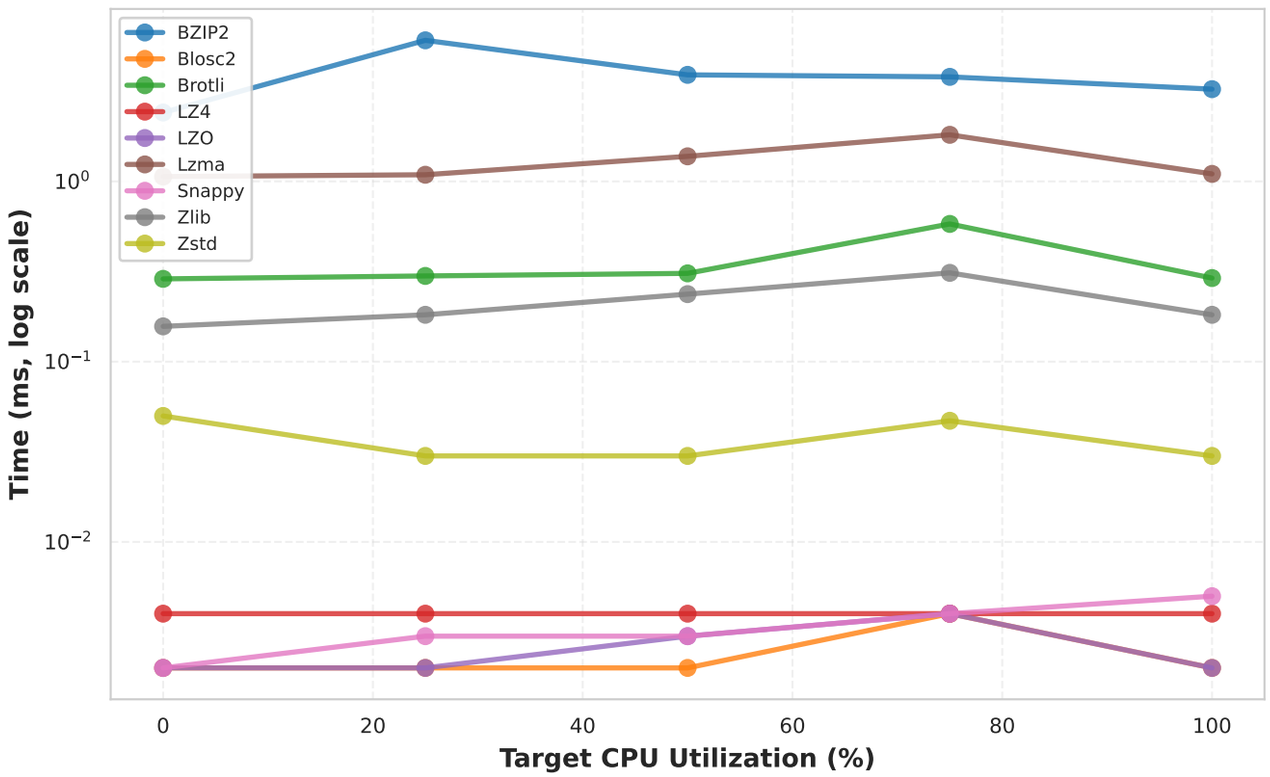
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: exponential_light
Exponential(λ=0.012) × 2.5 + 10: Slow decay, wide spread
Char Data Type, 64KB Chunk Size

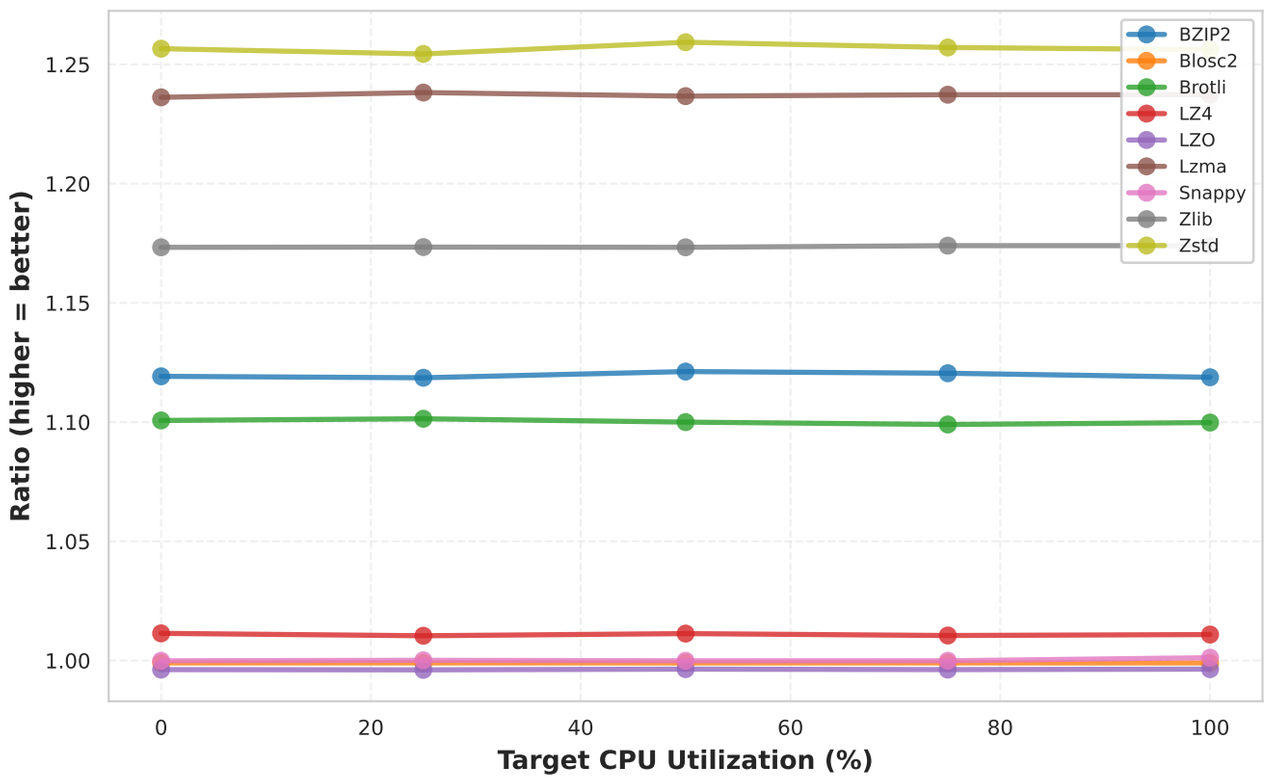
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

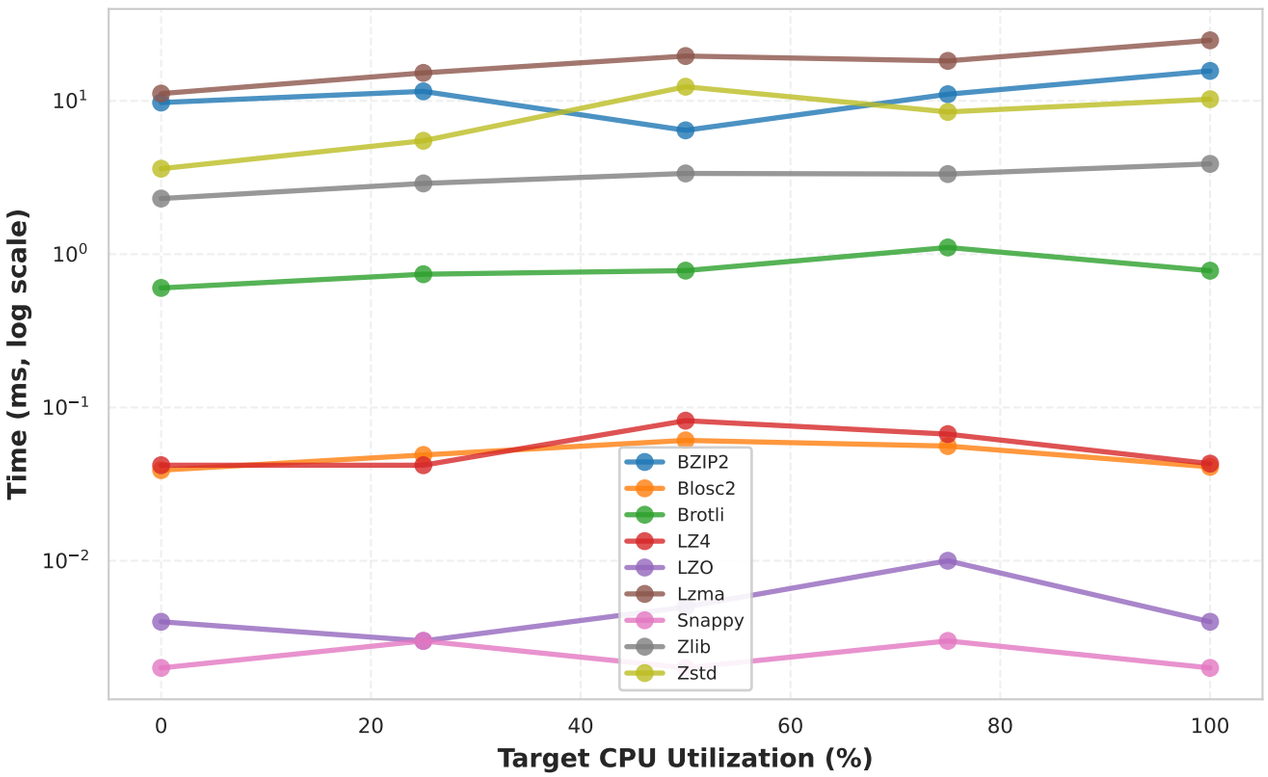


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

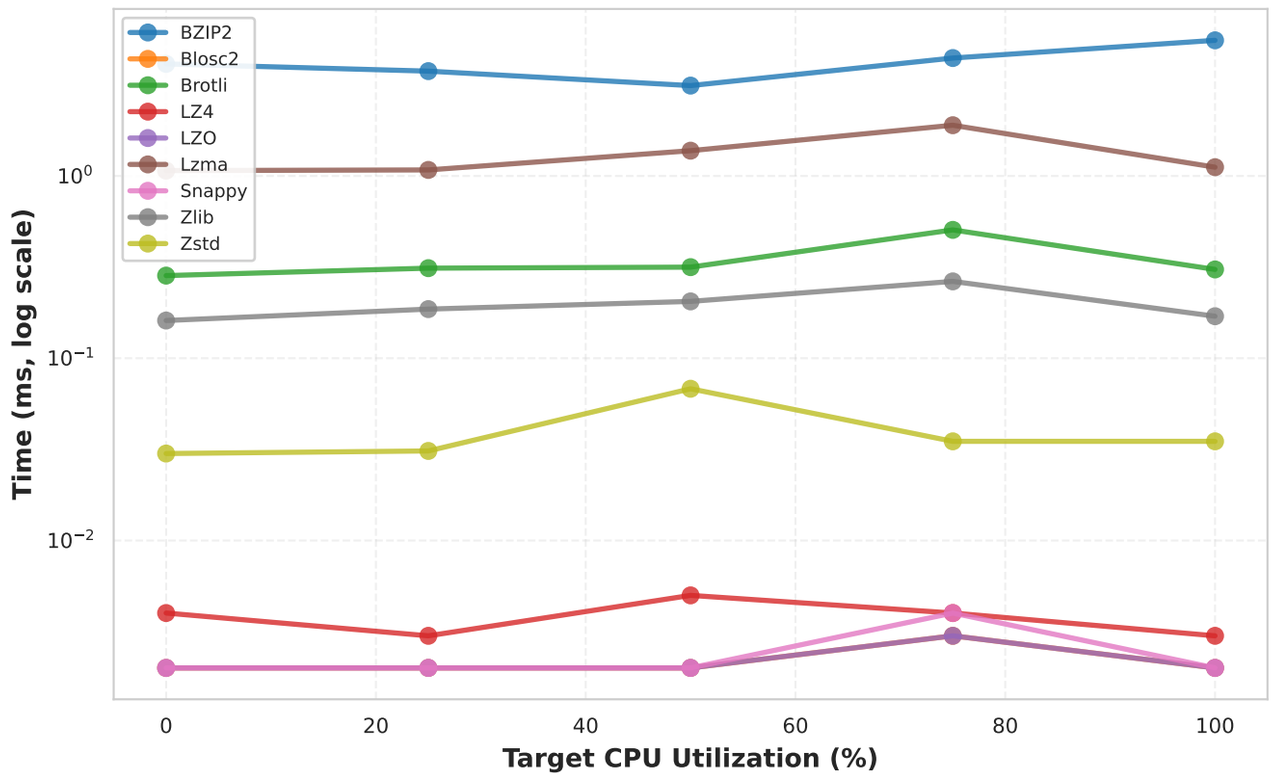
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: exponential_medium
Exponential(λ=0.02) × 3.0 + 5: Moderate decay
Char Data Type, 64KB Chunk Size

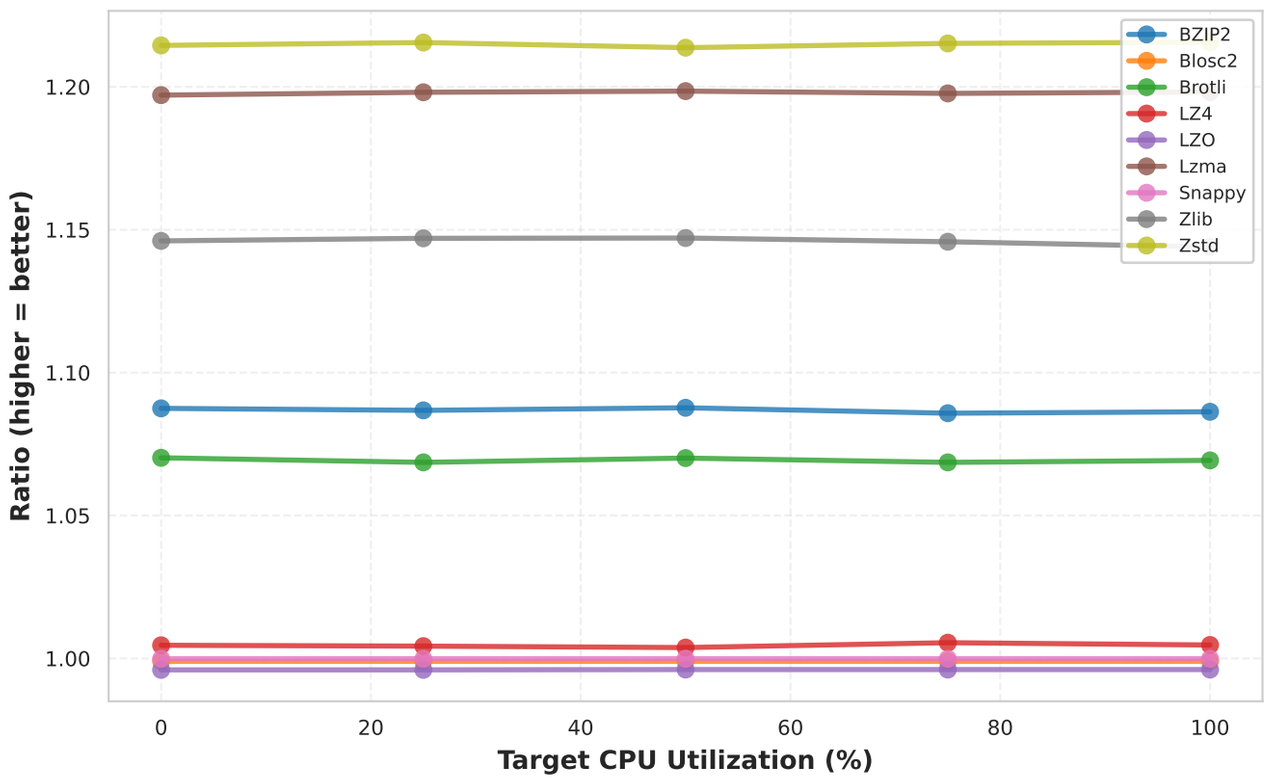
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

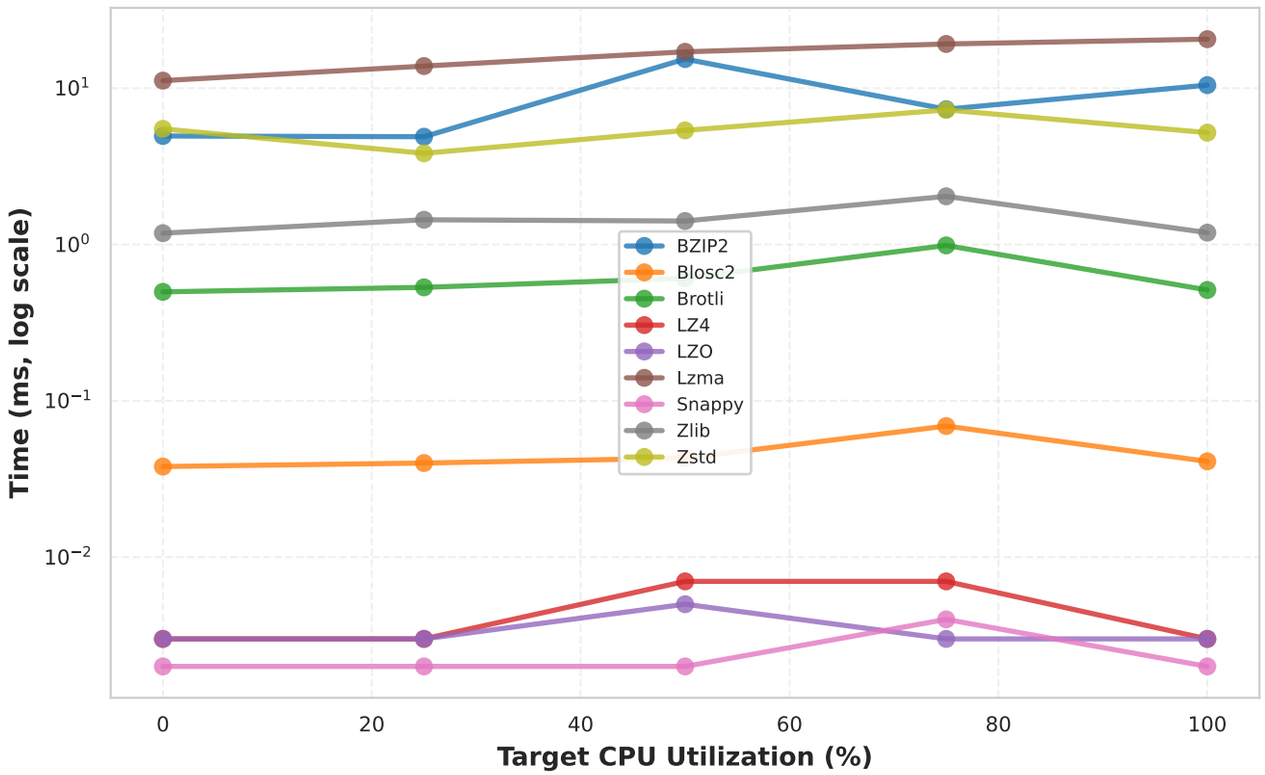


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

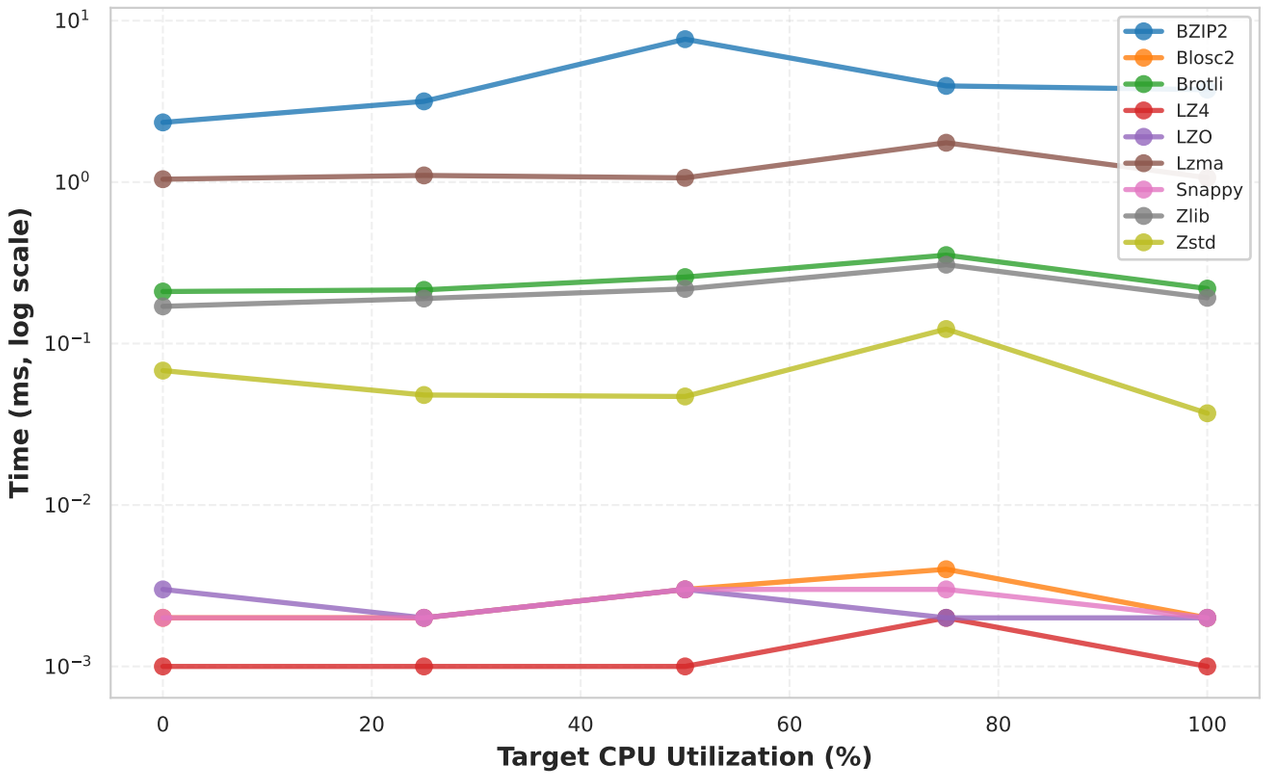
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: gamma_high
Gamma(α=1, β=2) × 20: Tight clustering at low values
Char Data Type, 64KB Chunk Size

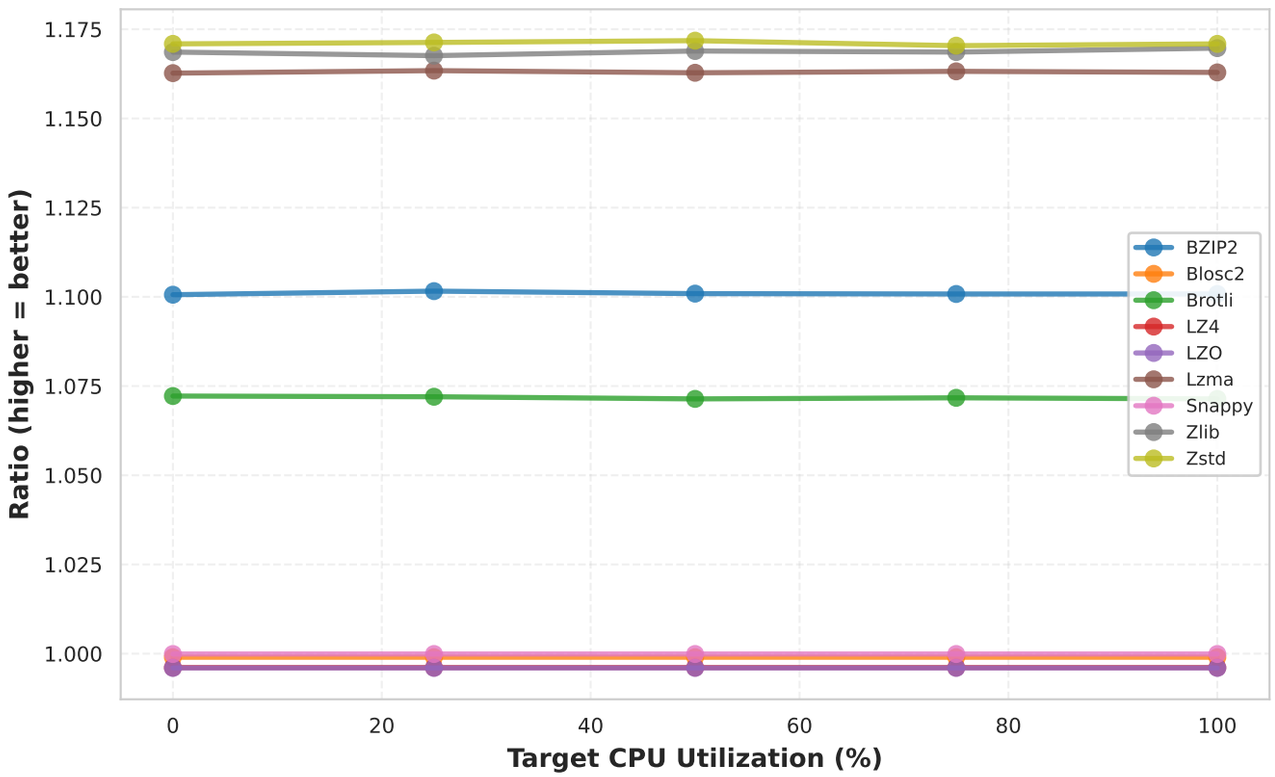
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

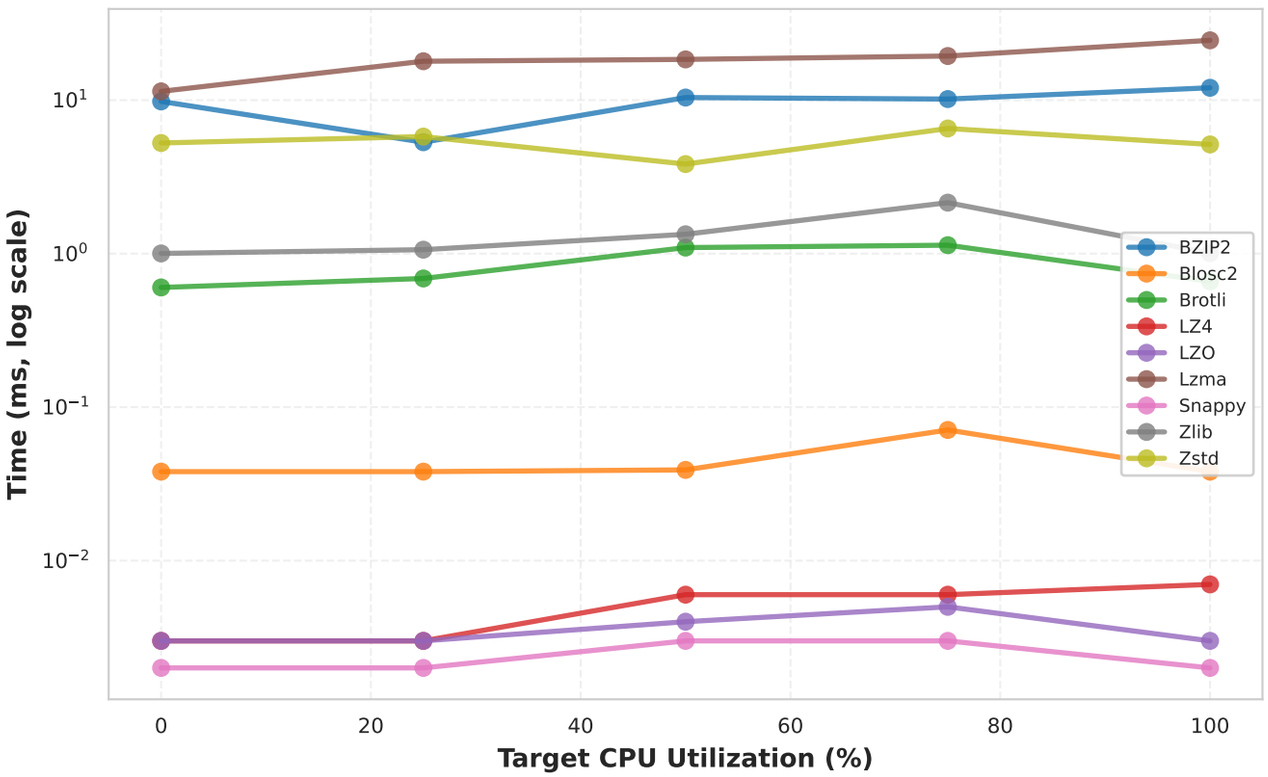


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

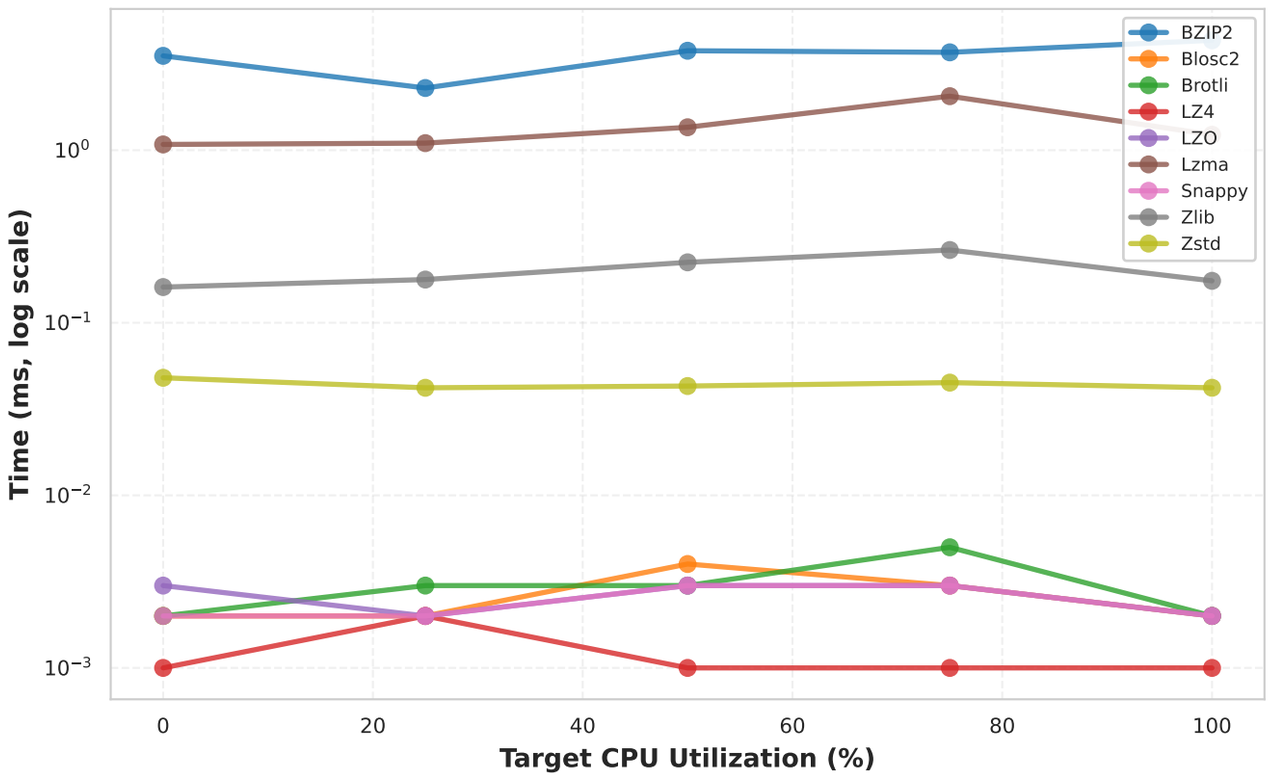
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: gamma_incomp
Gamma(α=5, β=5) × 5 + noise: Wide spread, high entropy
Char Data Type, 64KB Chunk Size

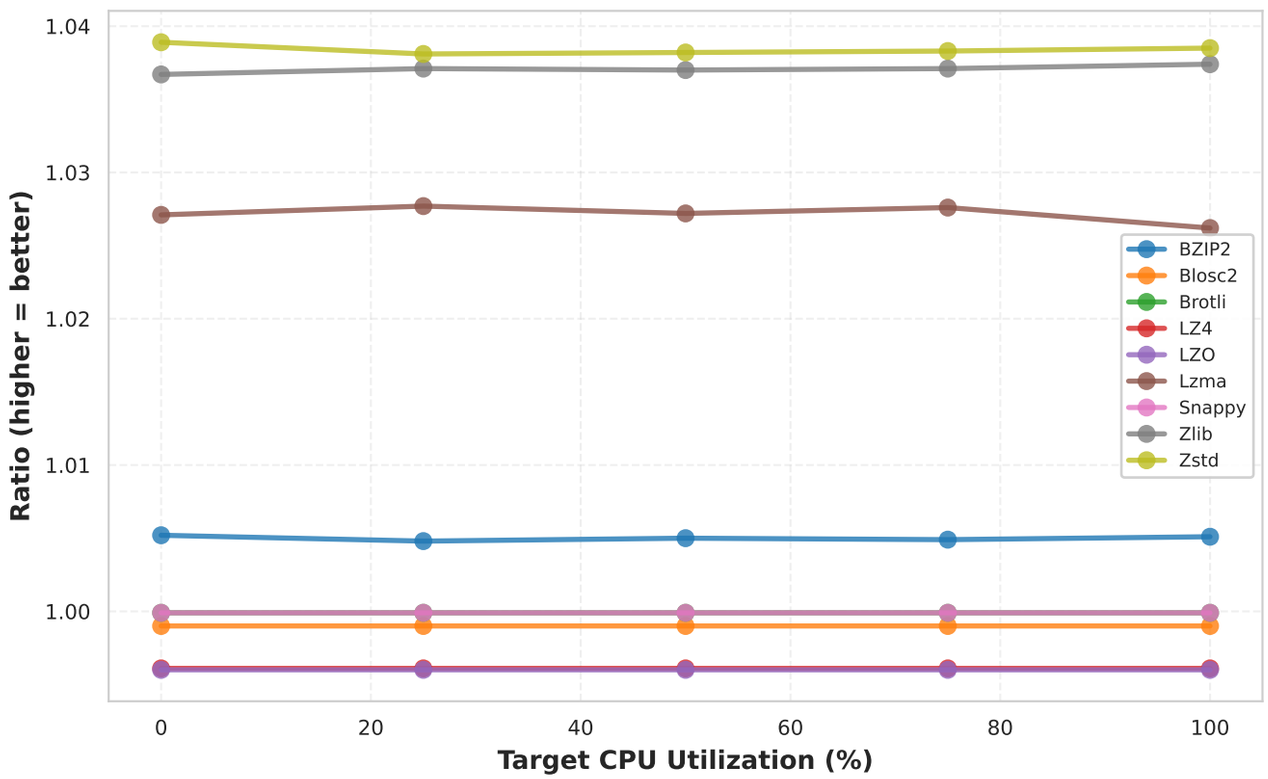
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

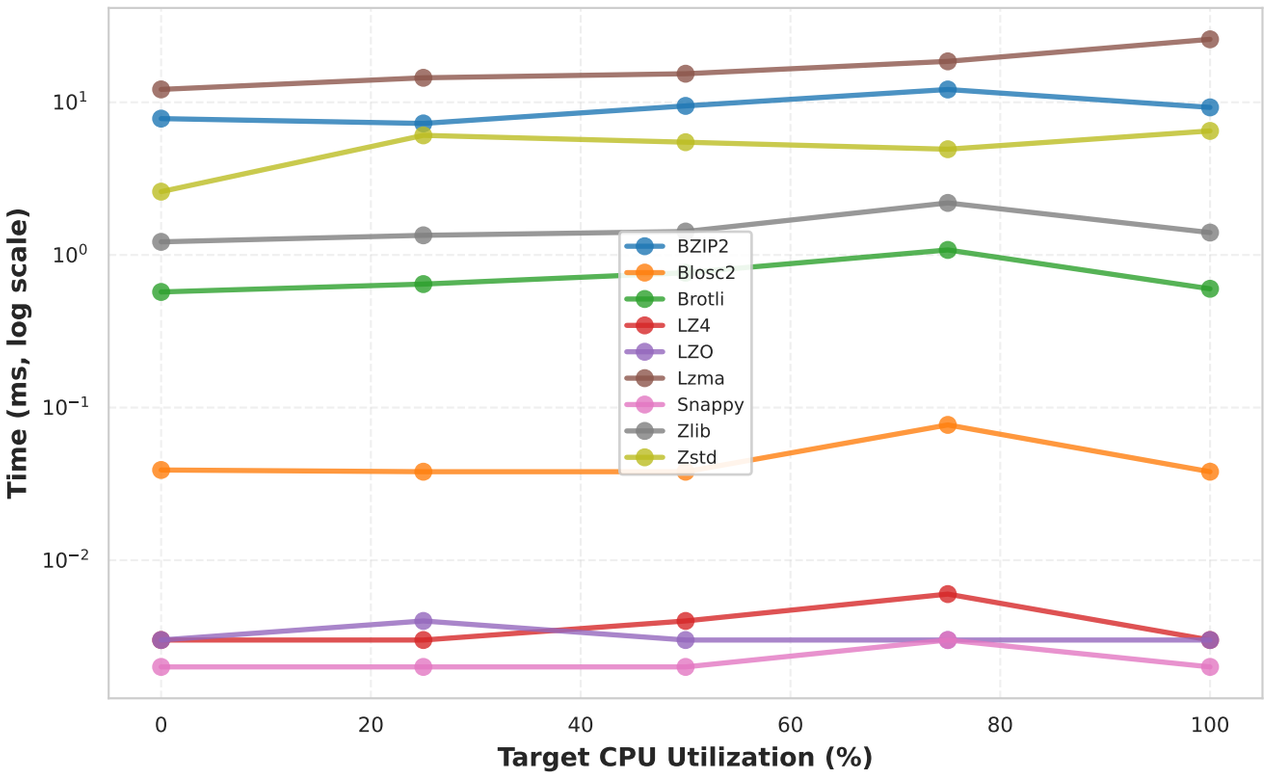


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

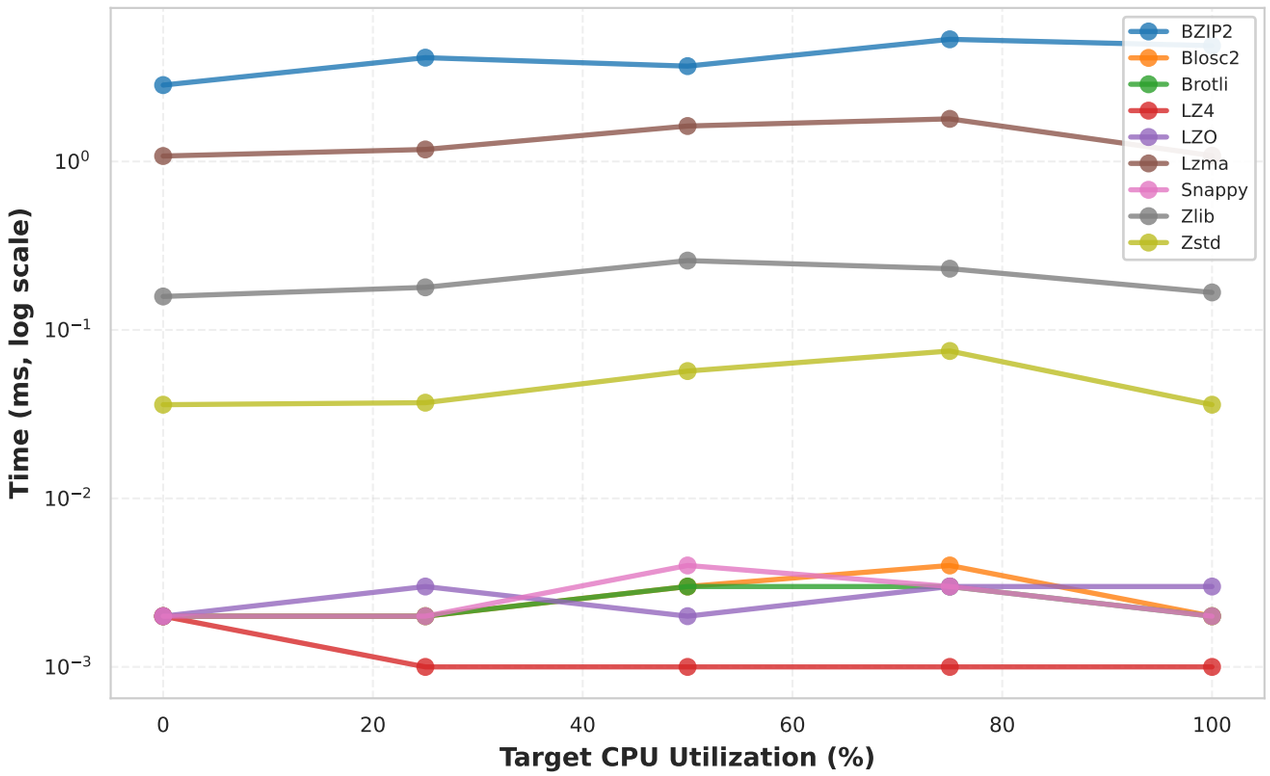
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: gamma_light
Gamma(α=5, β=8) × 4: Moderate spread, some clustering
Char Data Type, 64KB Chunk Size

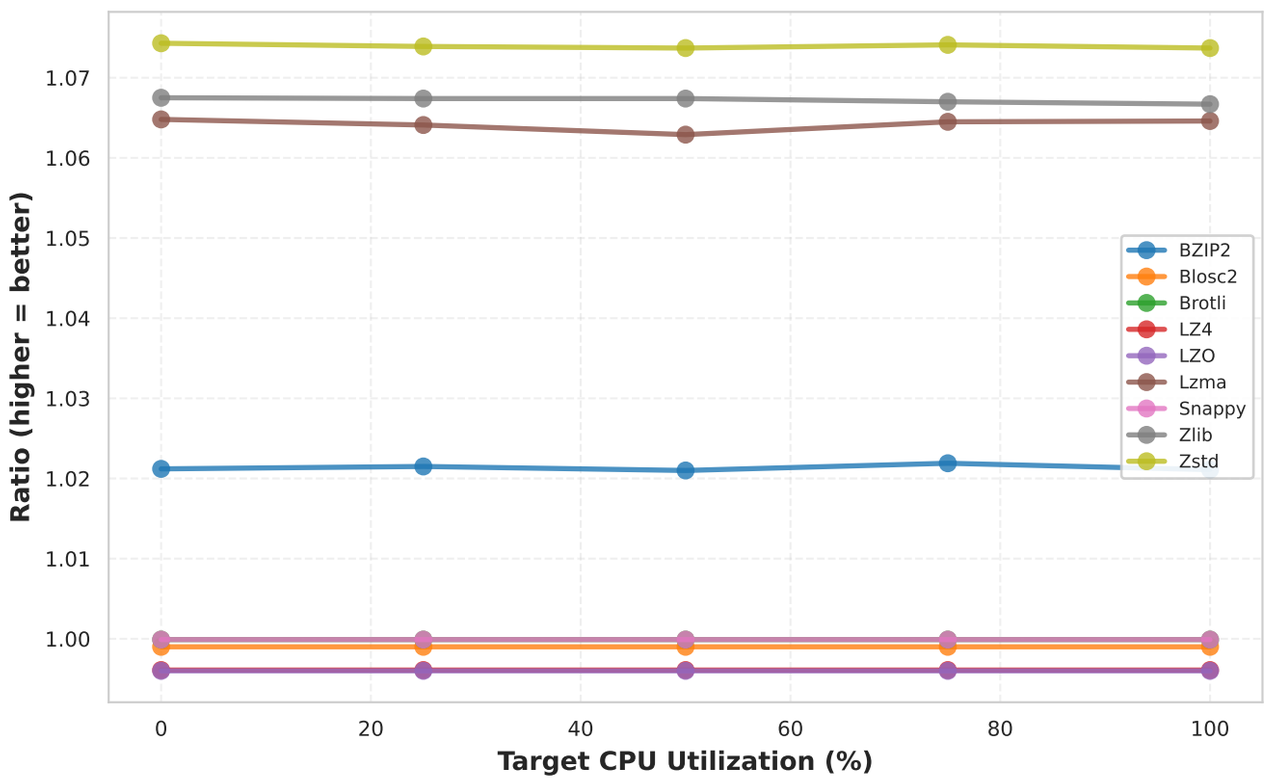
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

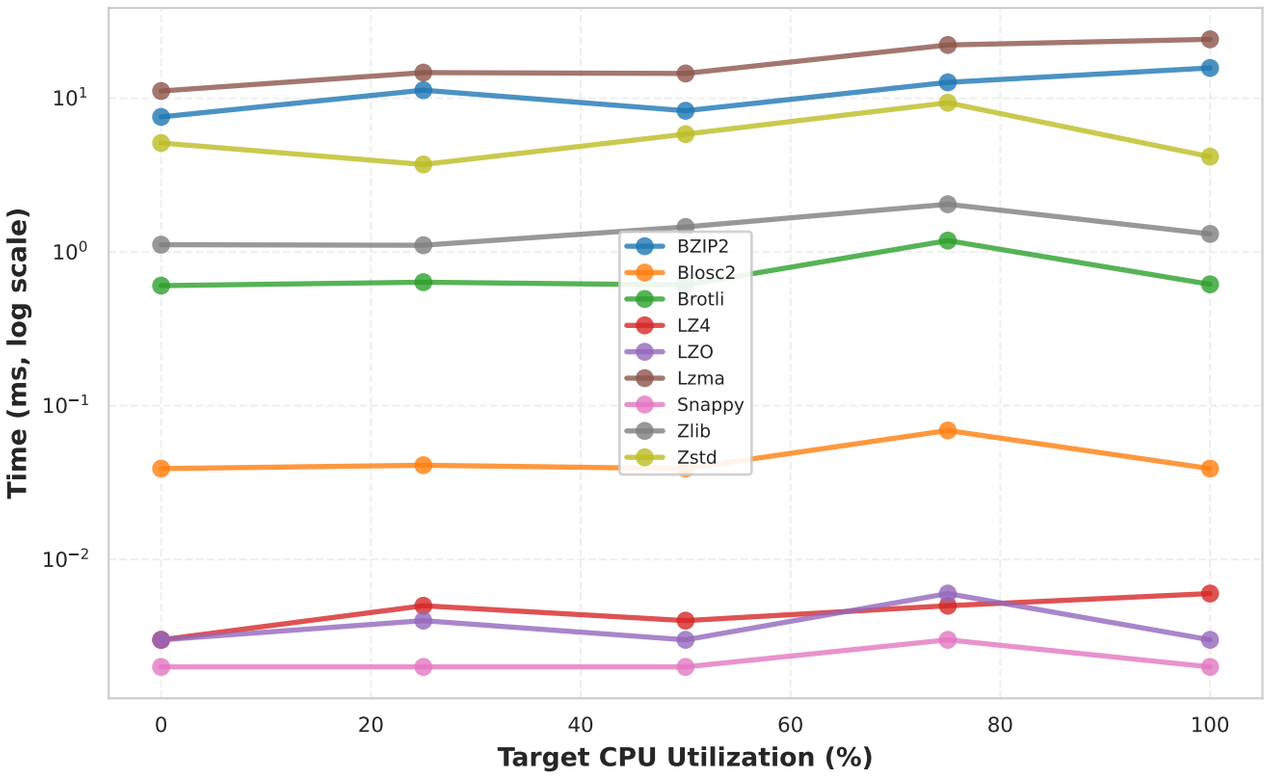


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

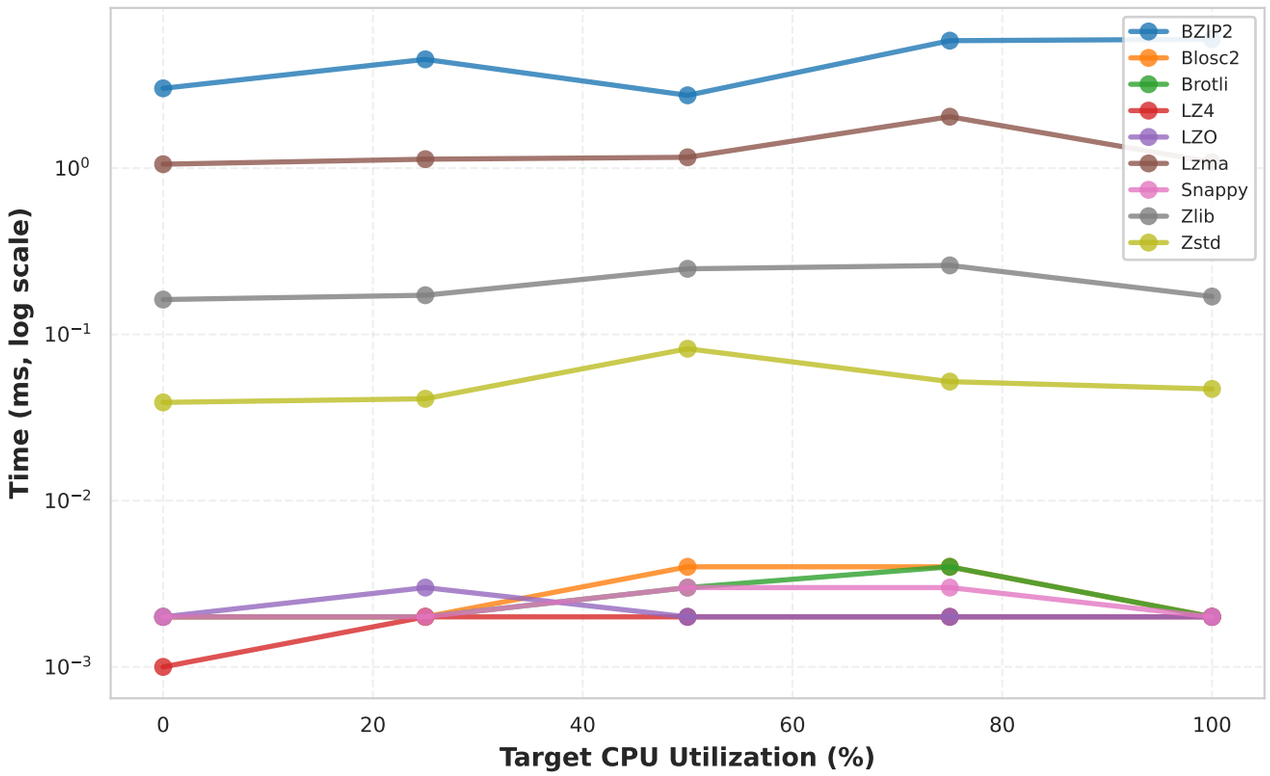
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: gamma_medium
Gamma(α=2, β=4) × 15: Medium clustering
Char Data Type, 64KB Chunk Size

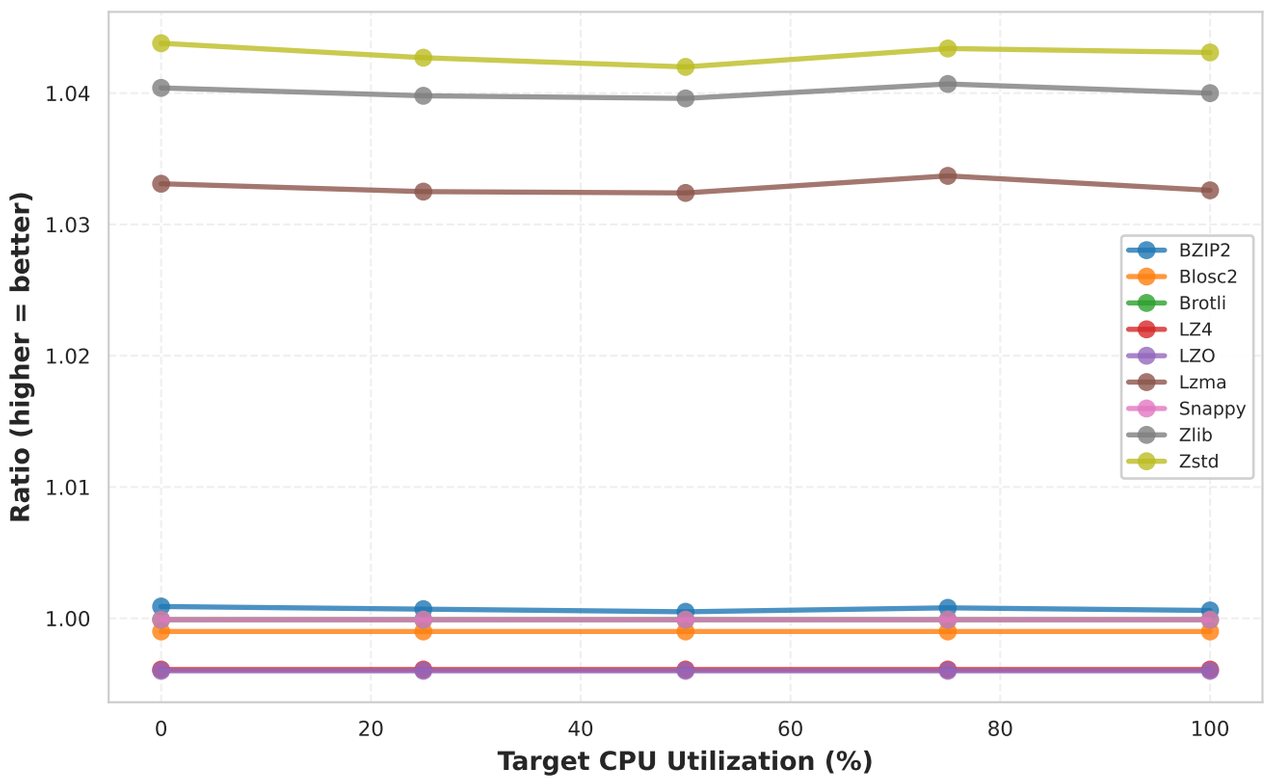
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

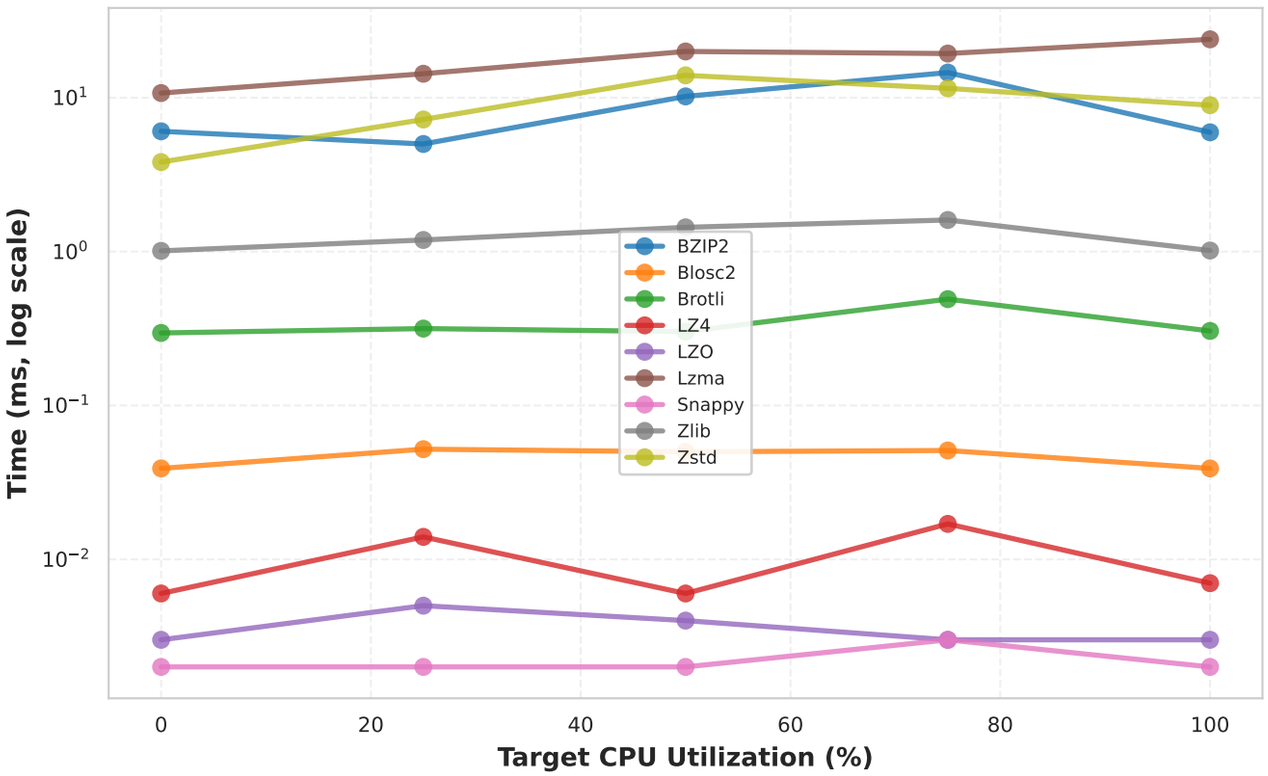


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

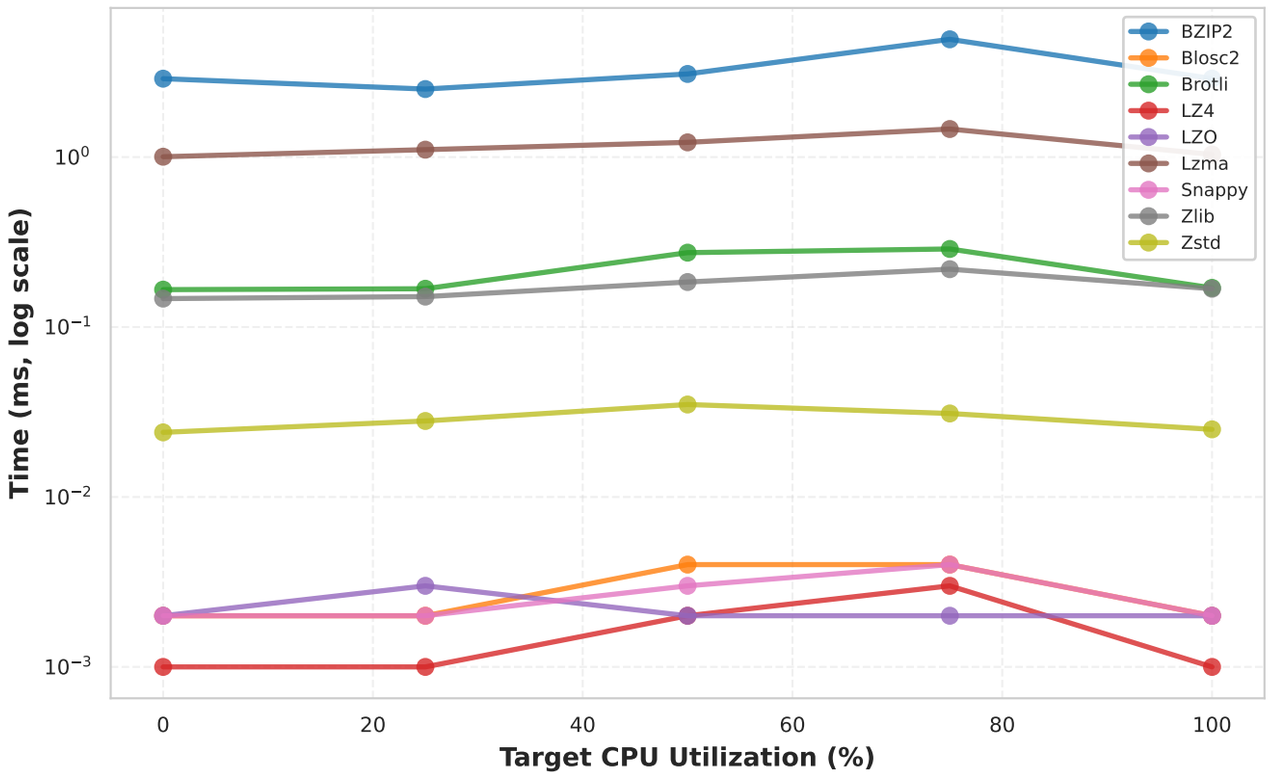
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: normal_10
Standard deviation σ = 10 (controls clustering)
Char Data Type, 64KB Chunk Size

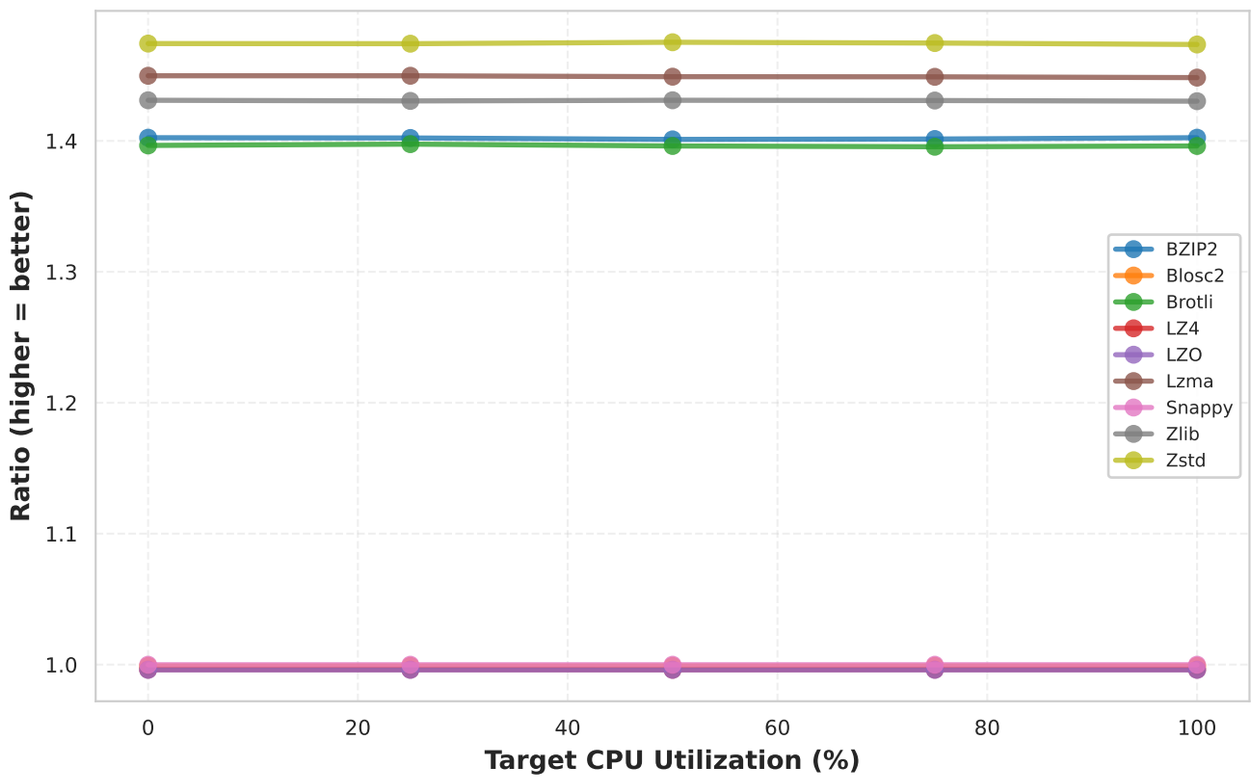
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

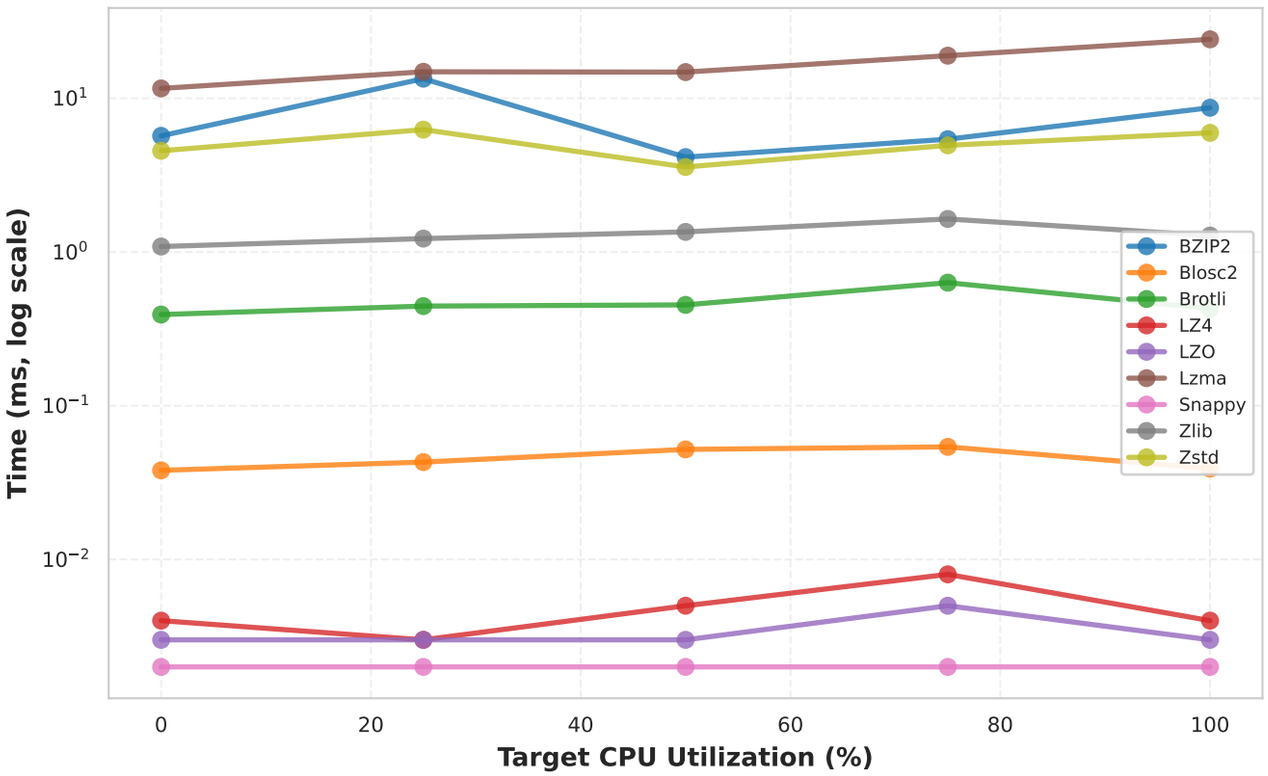


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

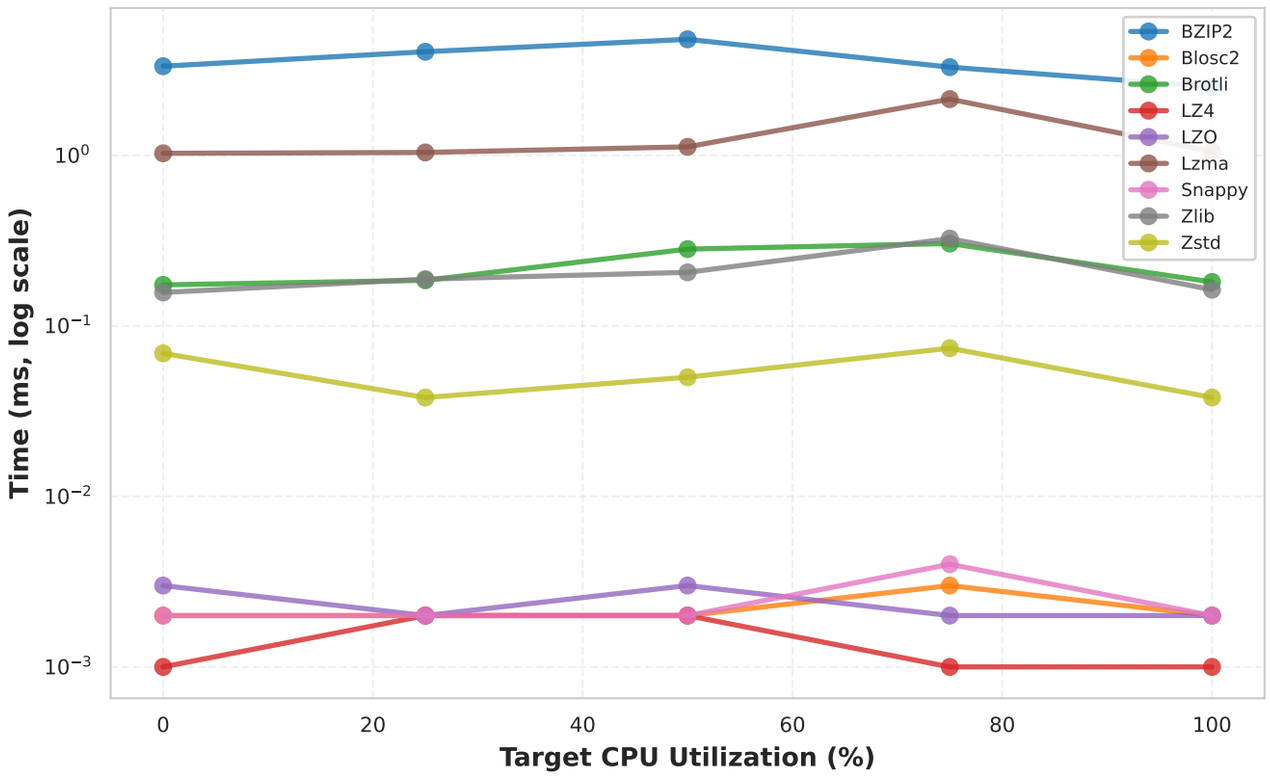
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: normal_20
Standard deviation σ = 20 (controls clustering)
Char Data Type, 64KB Chunk Size

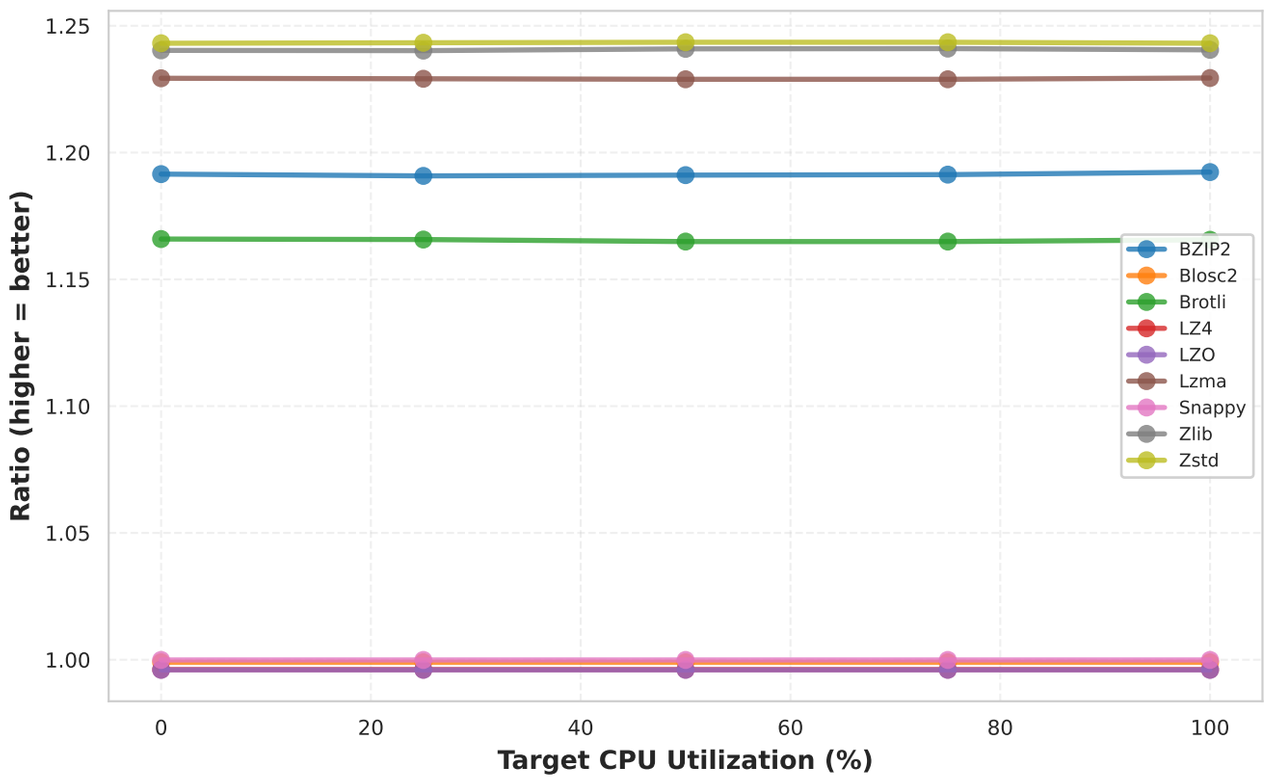
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

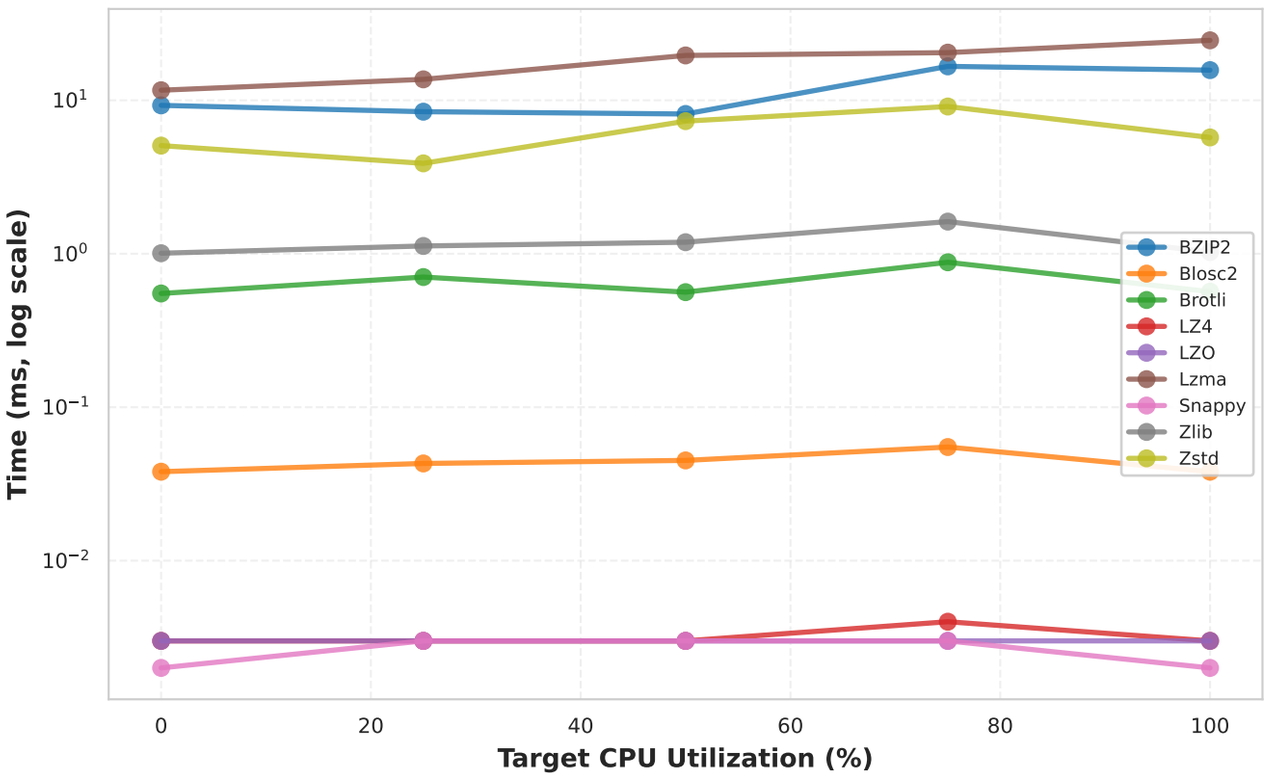


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

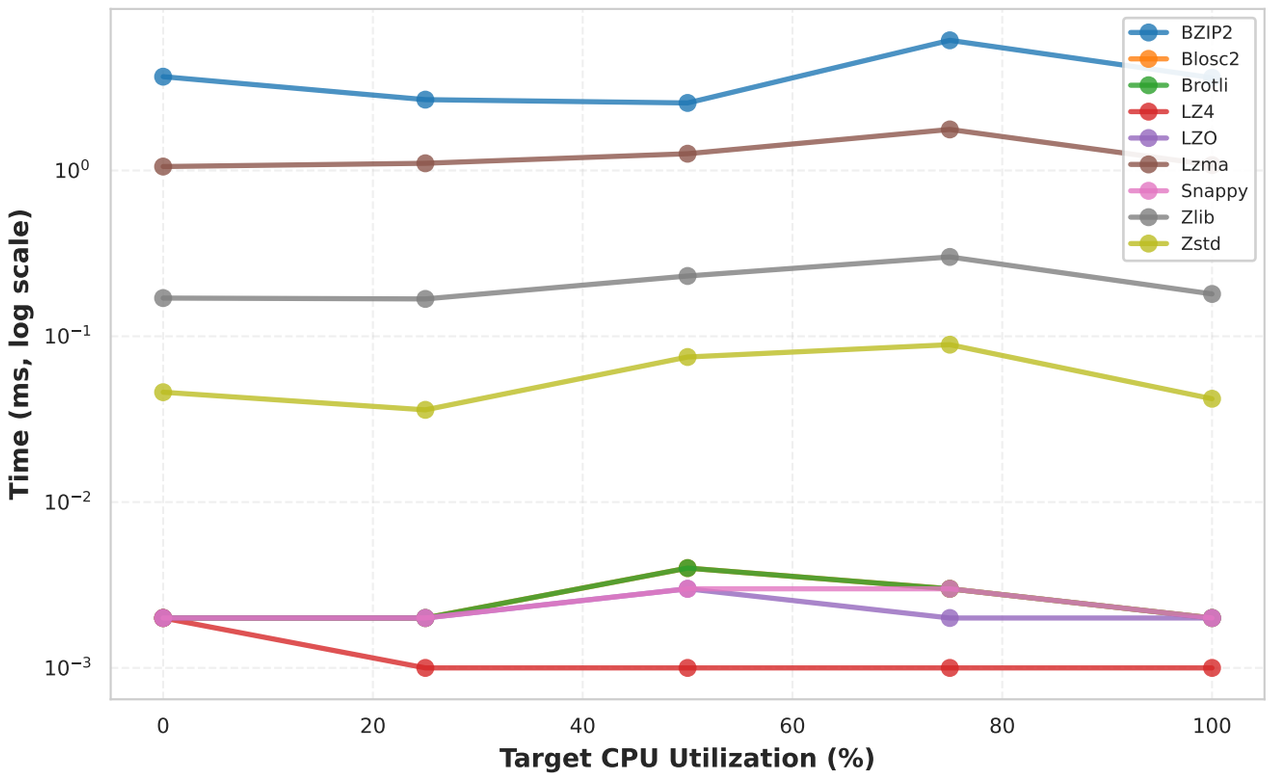
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: normal_40
Standard deviation σ = 40 (controls clustering)
Char Data Type, 64KB Chunk Size

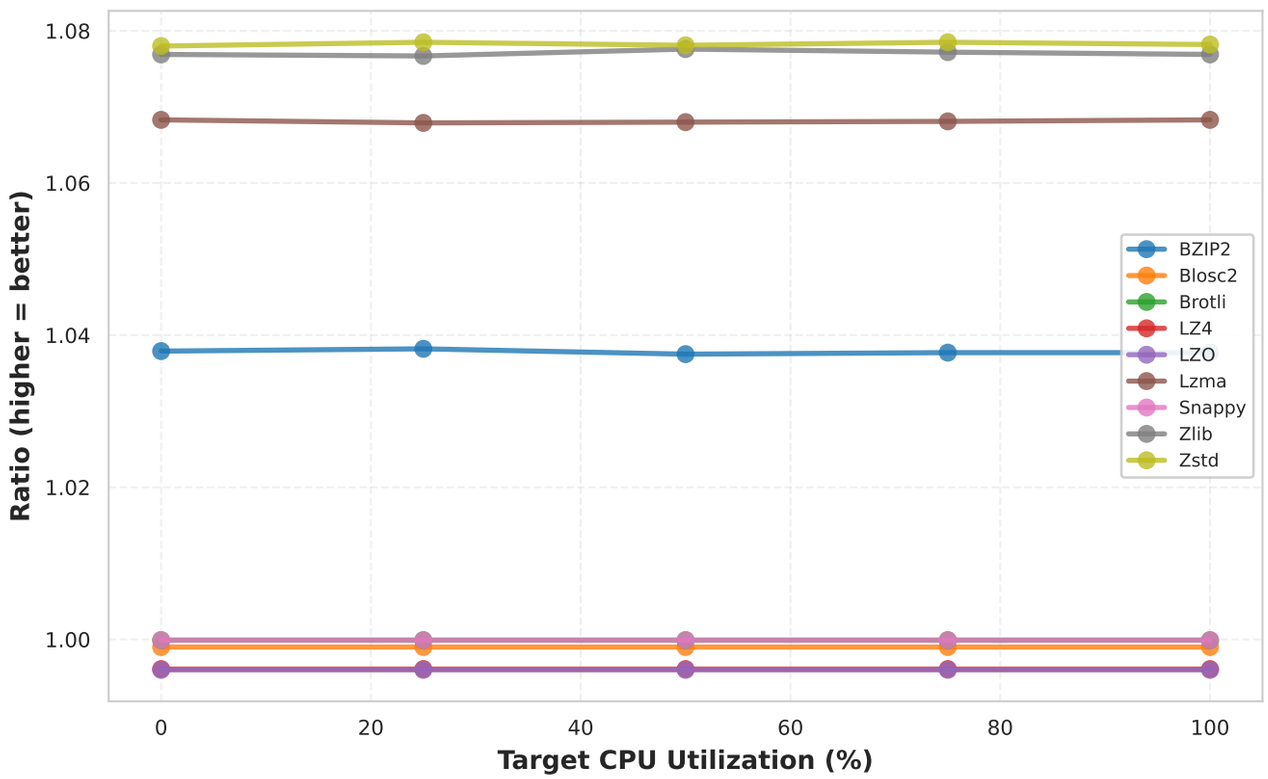
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

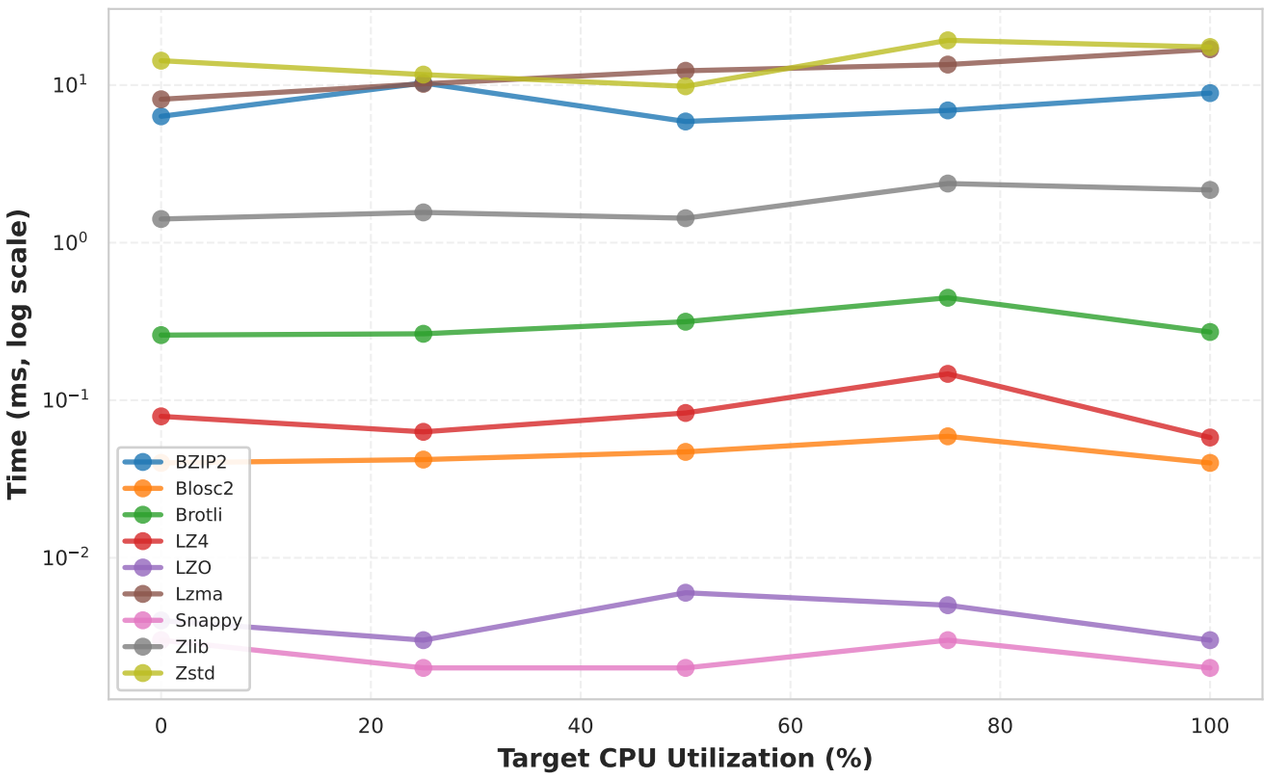


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

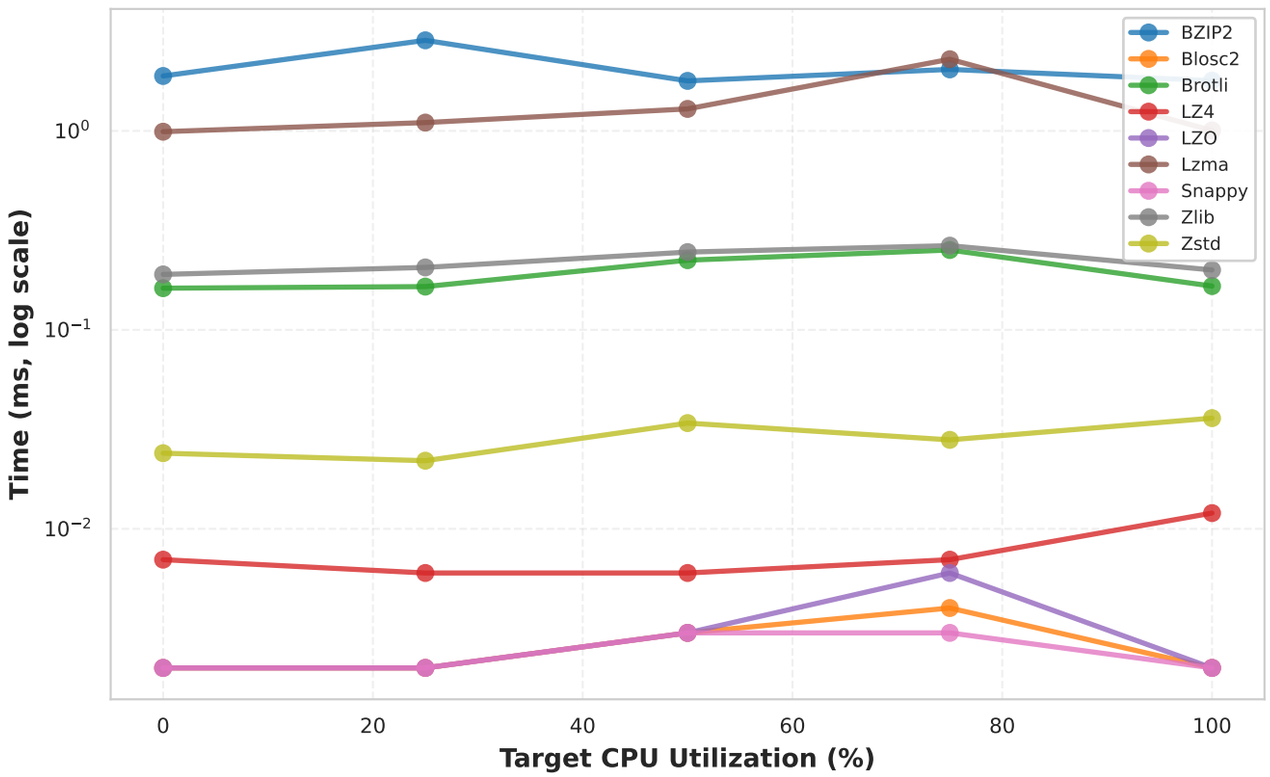
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: normal_5
Standard deviation σ = 5 (controls clustering)
Char Data Type, 64KB Chunk Size

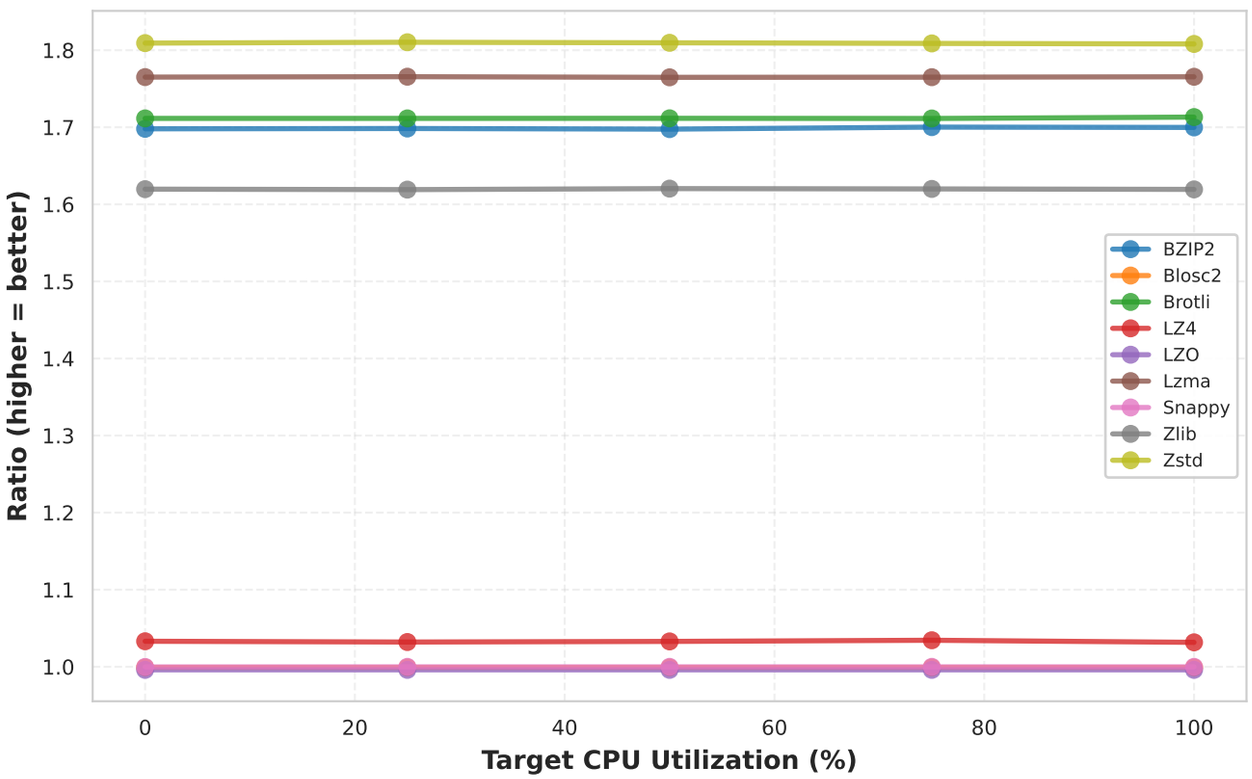
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

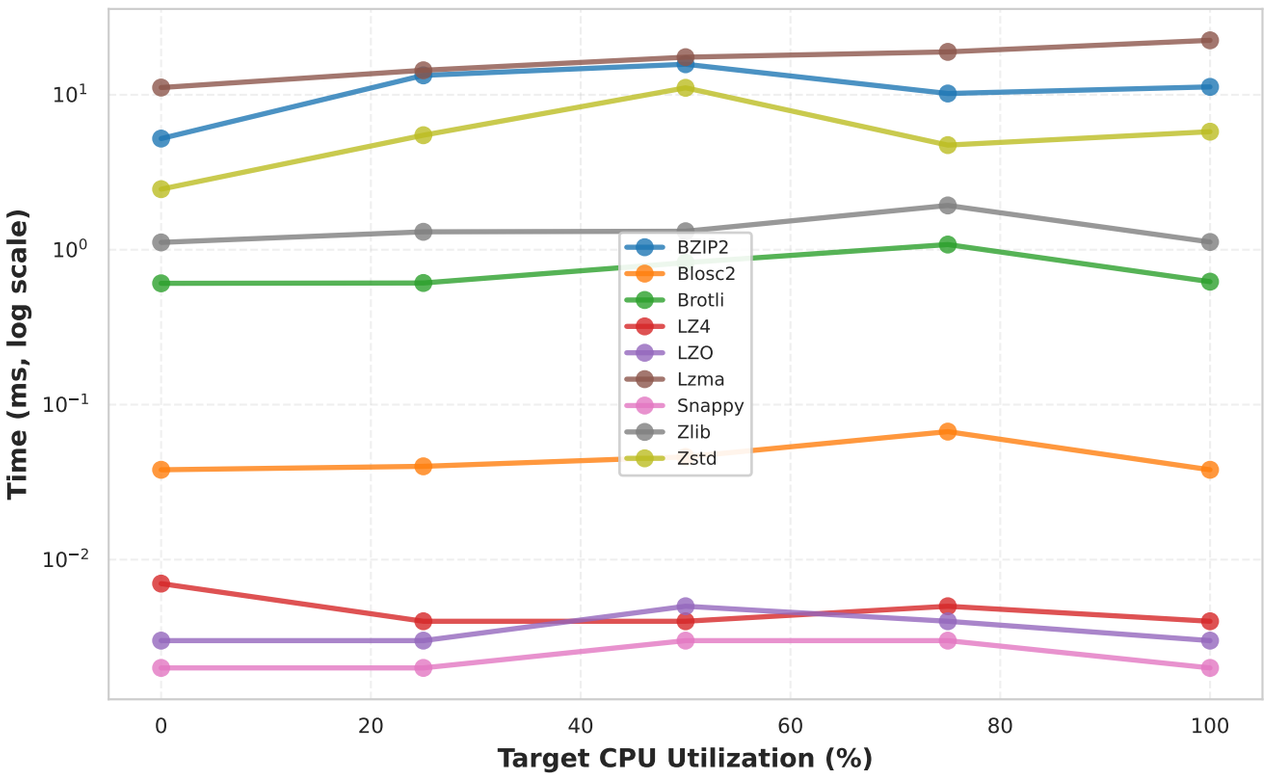


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

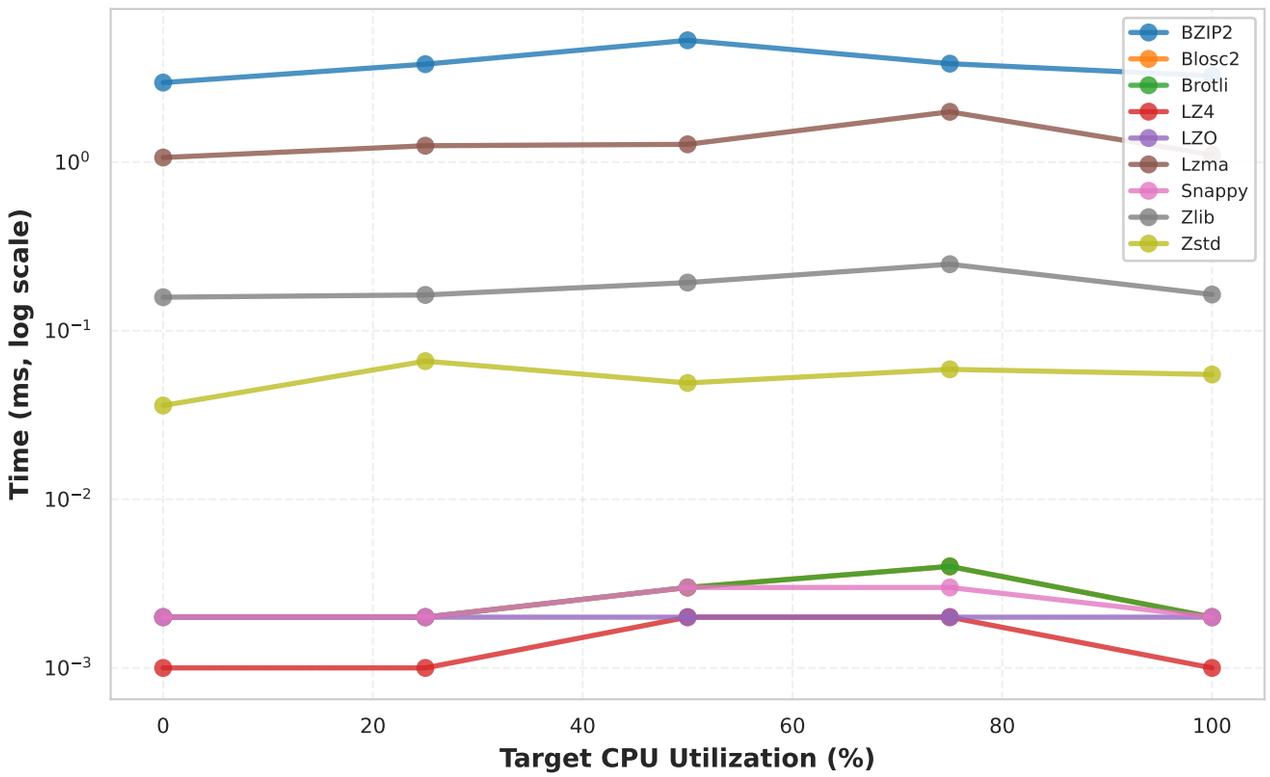
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: normal_80
Standard deviation σ = 80 (controls clustering)
Char Data Type, 64KB Chunk Size

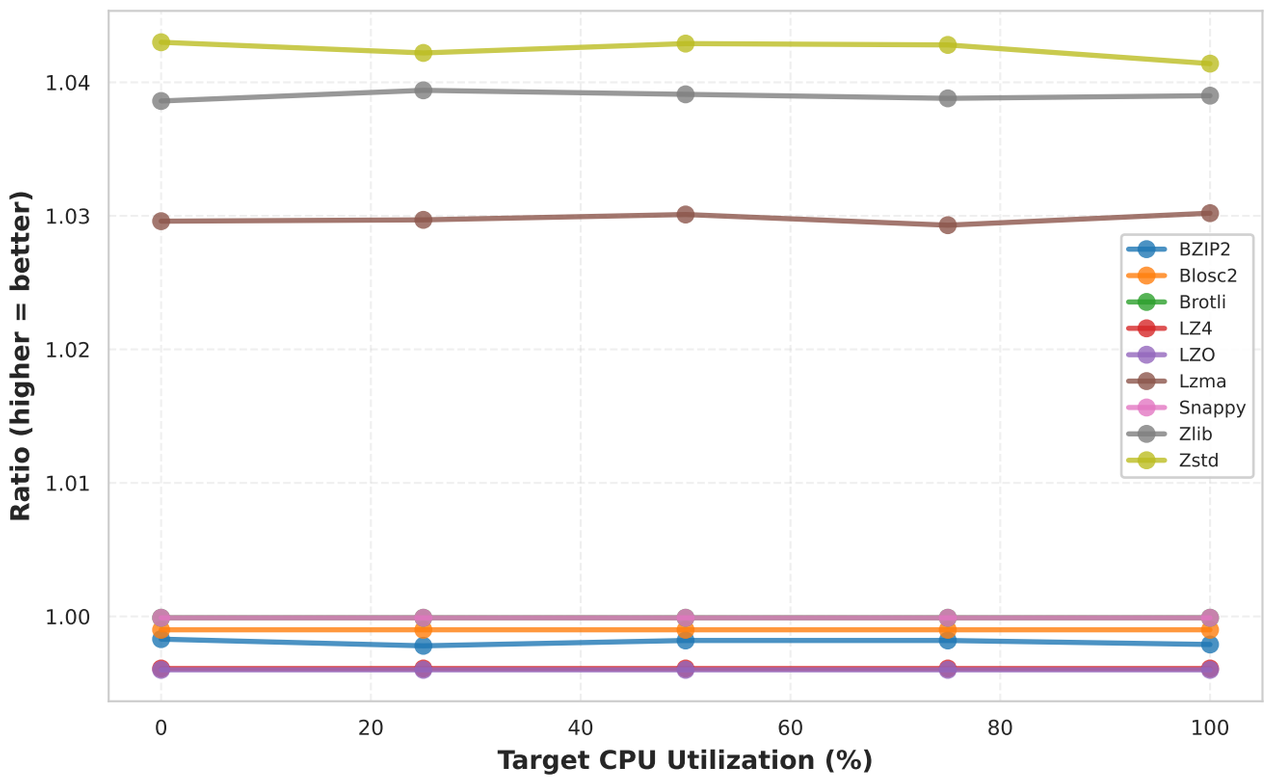
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

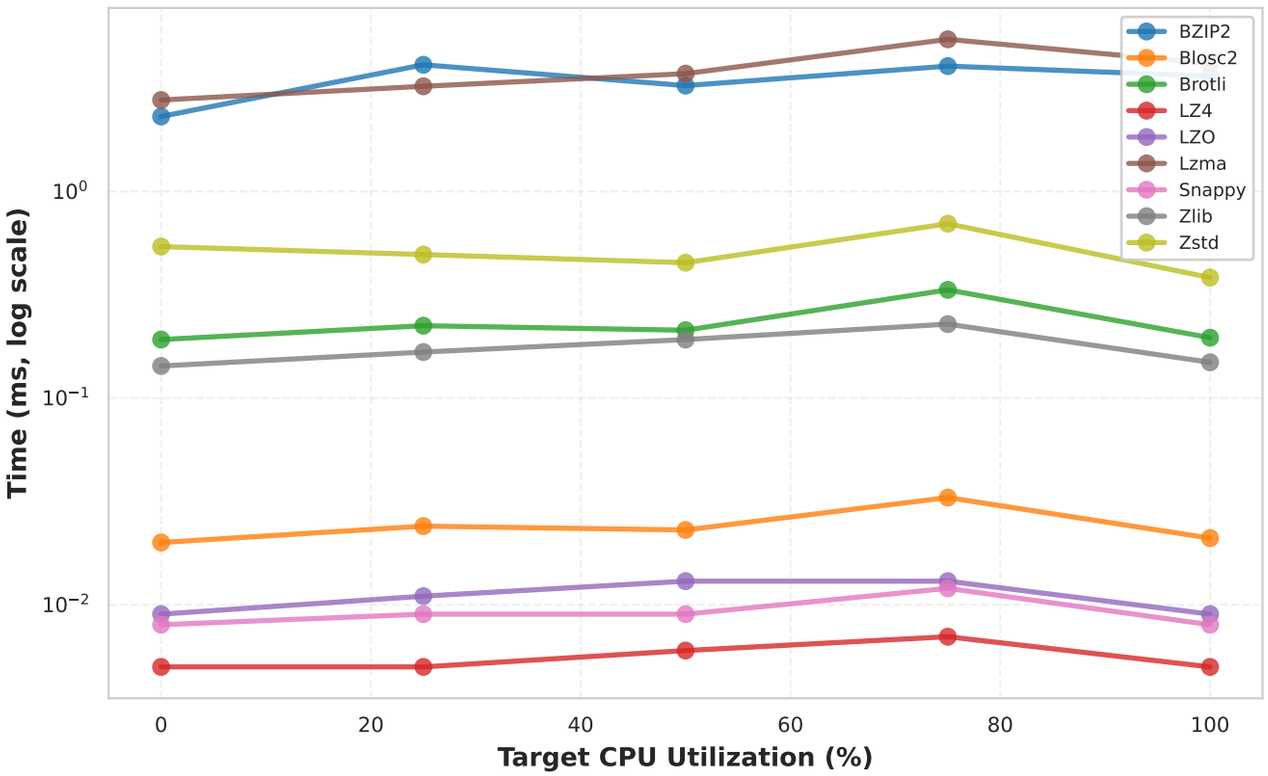


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

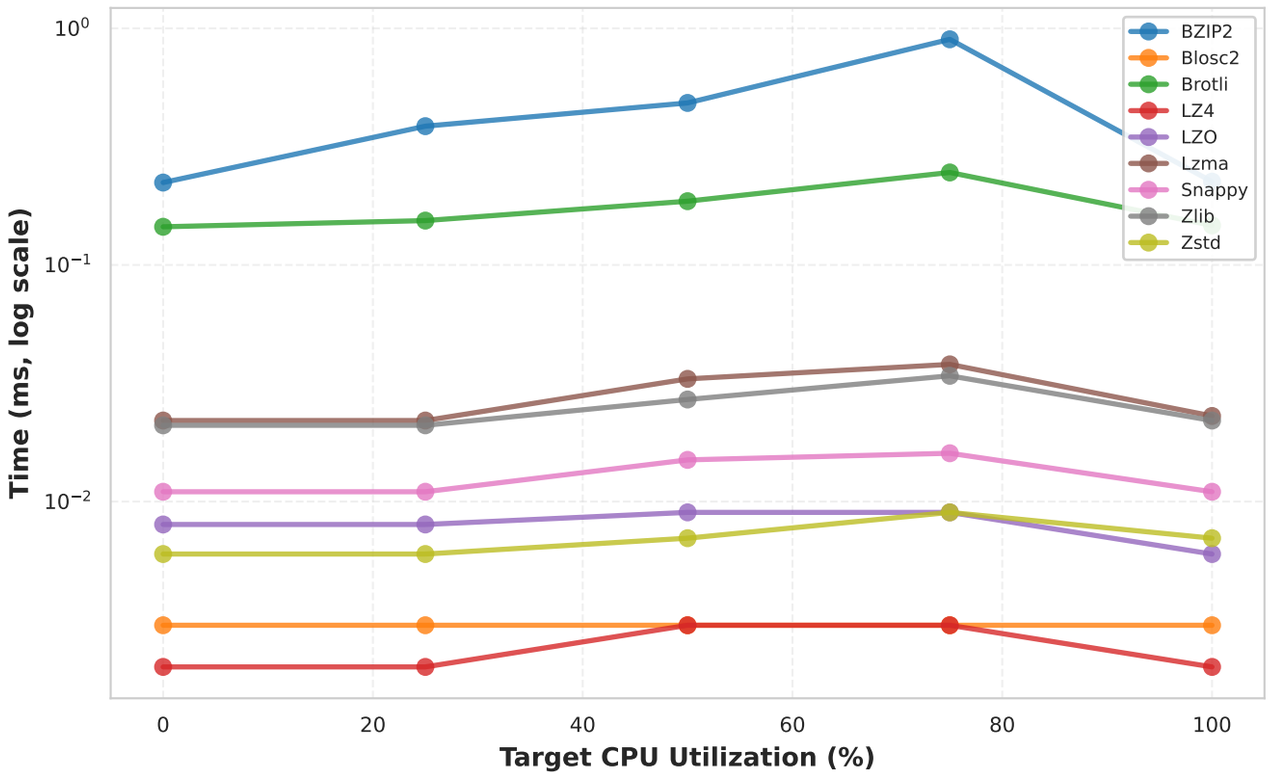
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: repeating
Deterministic pattern (AAABBBCCC...): Extremely compressible
Char Data Type, 64KB Chunk Size

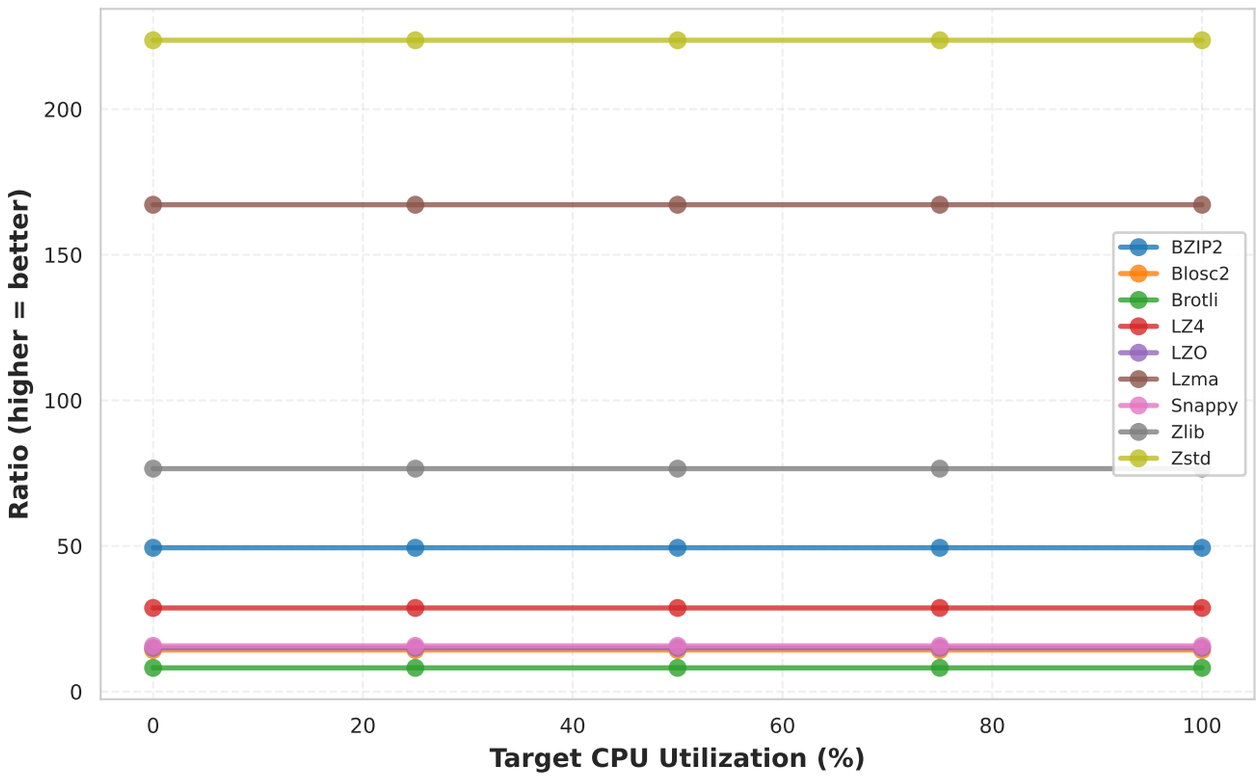
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

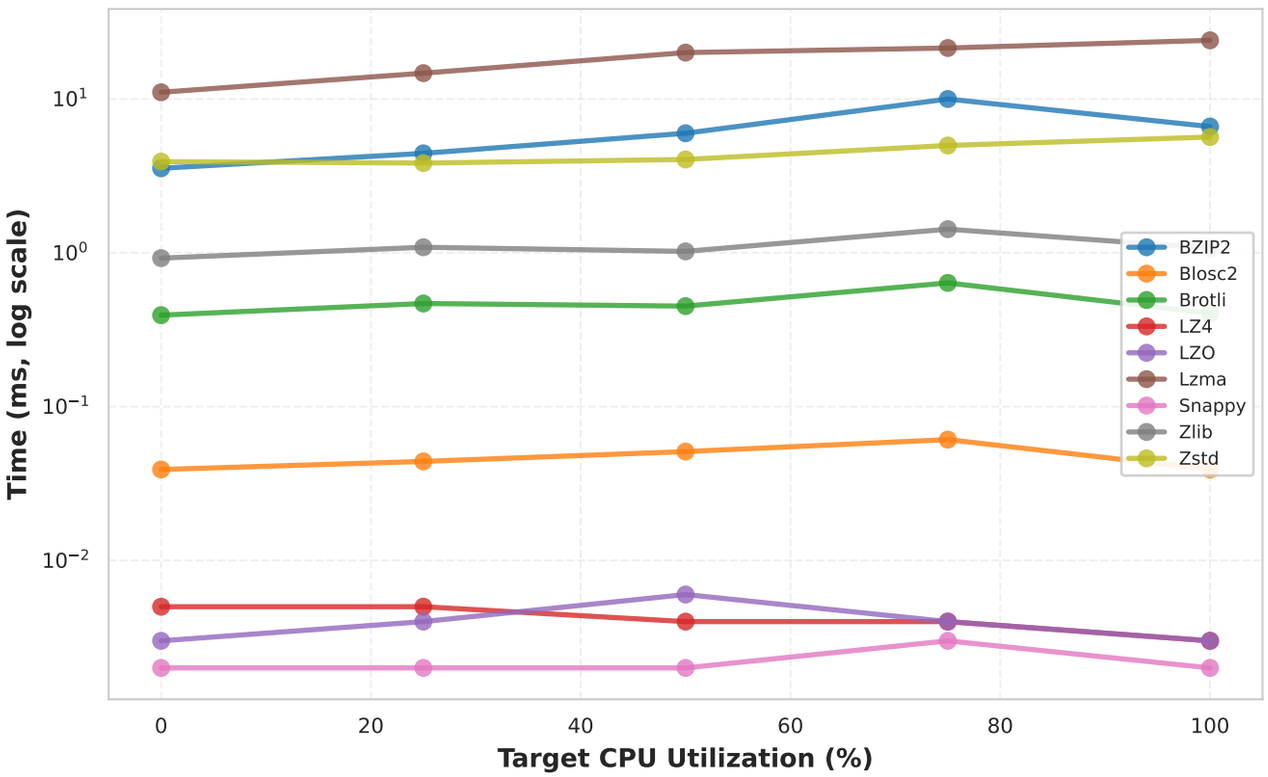


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

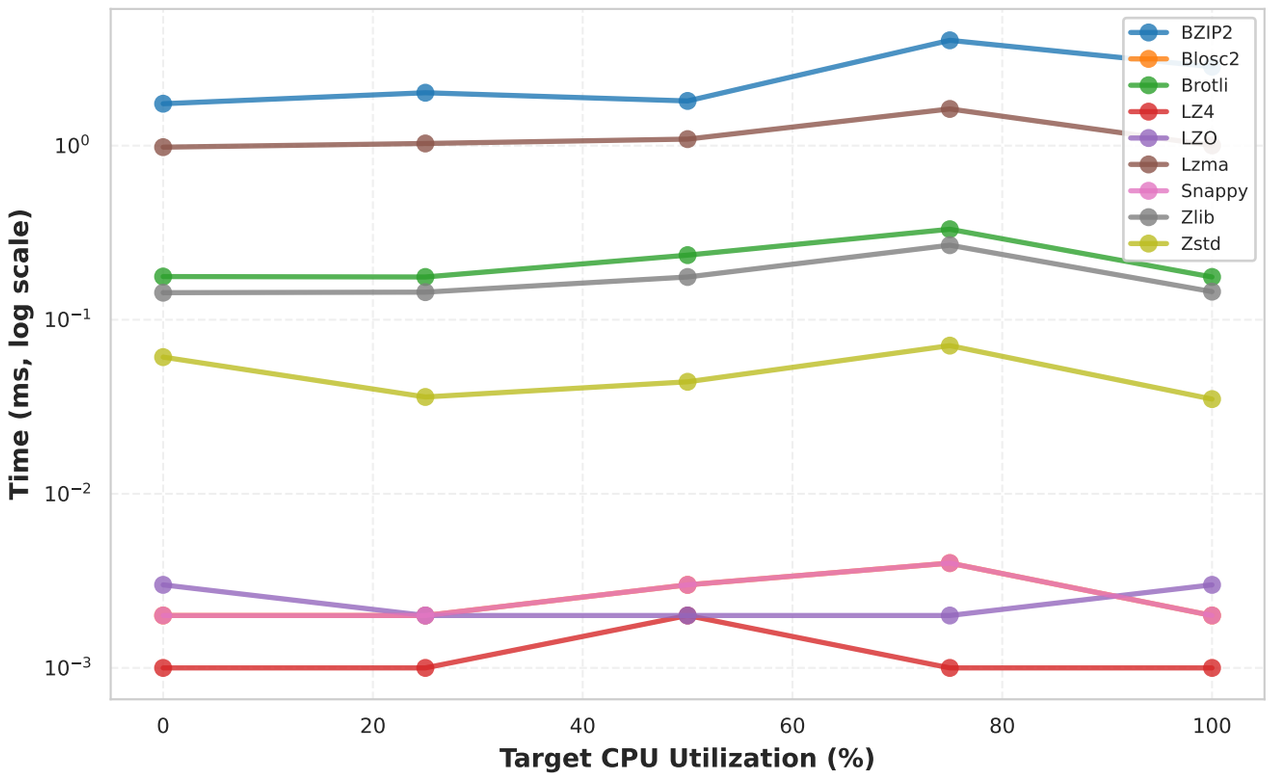
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: uniform_127
Max value = 127 (controls entropy/bit usage)
Char Data Type, 64KB Chunk Size

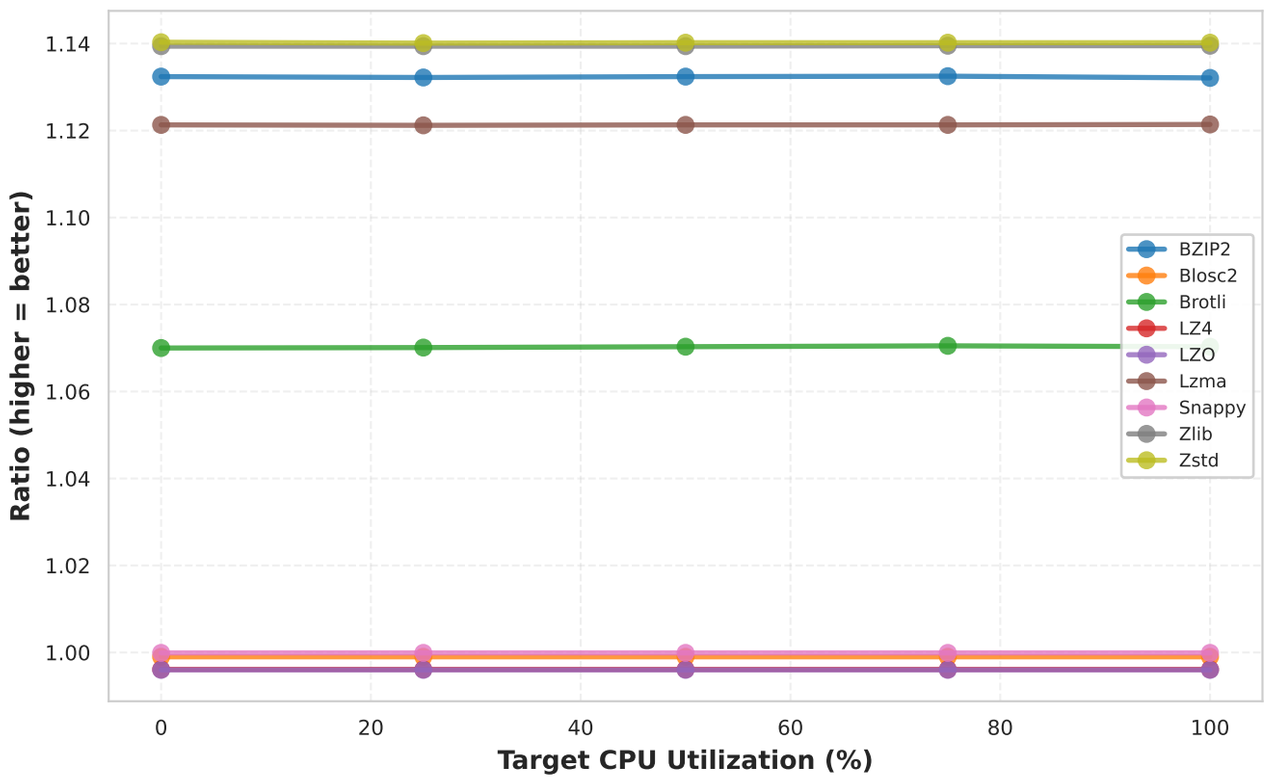
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

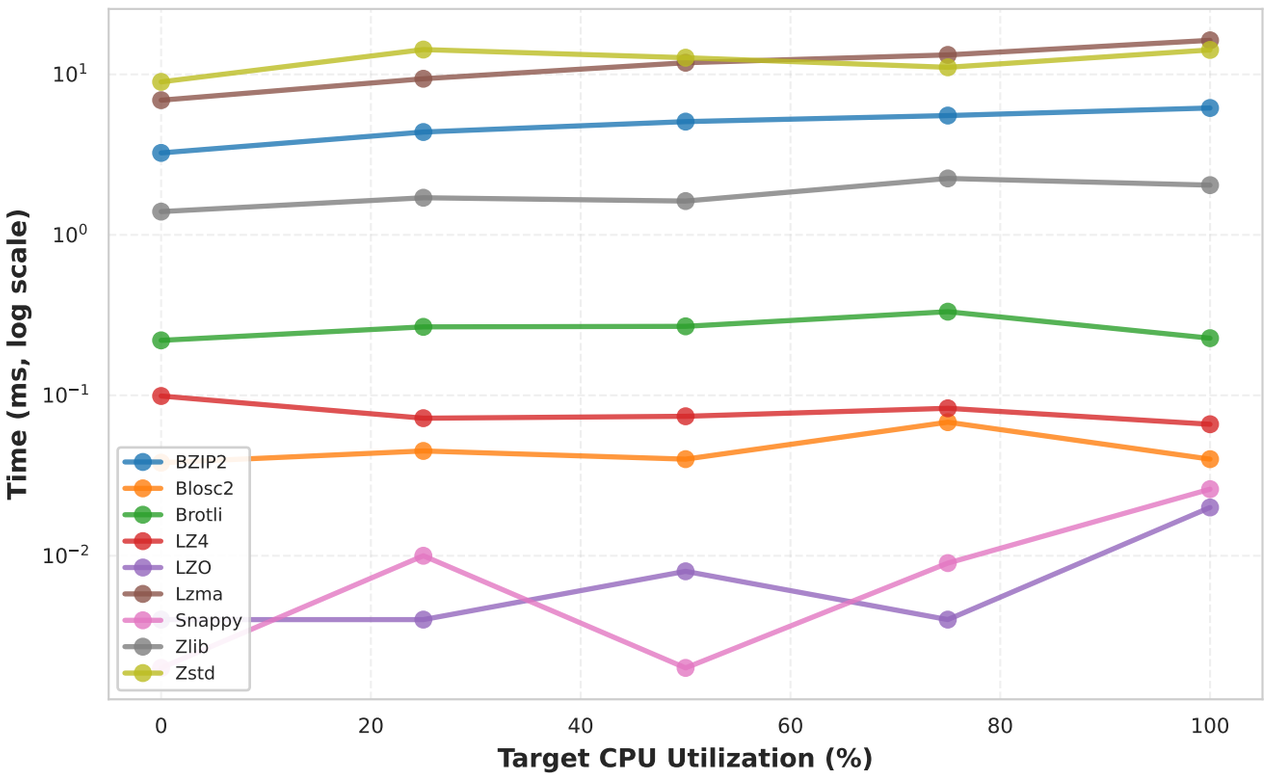


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

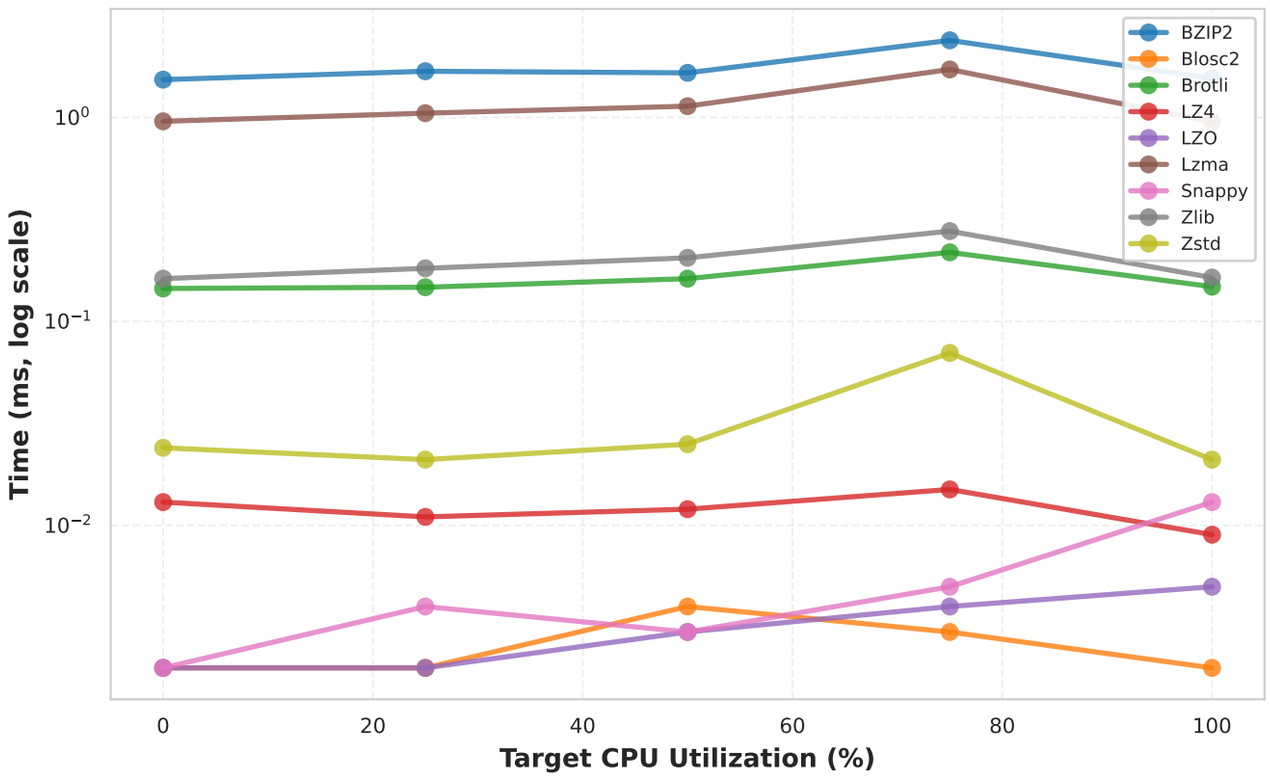
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: uniform_15
Max value = 15 (controls entropy/bit usage)
Char Data Type, 64KB Chunk Size

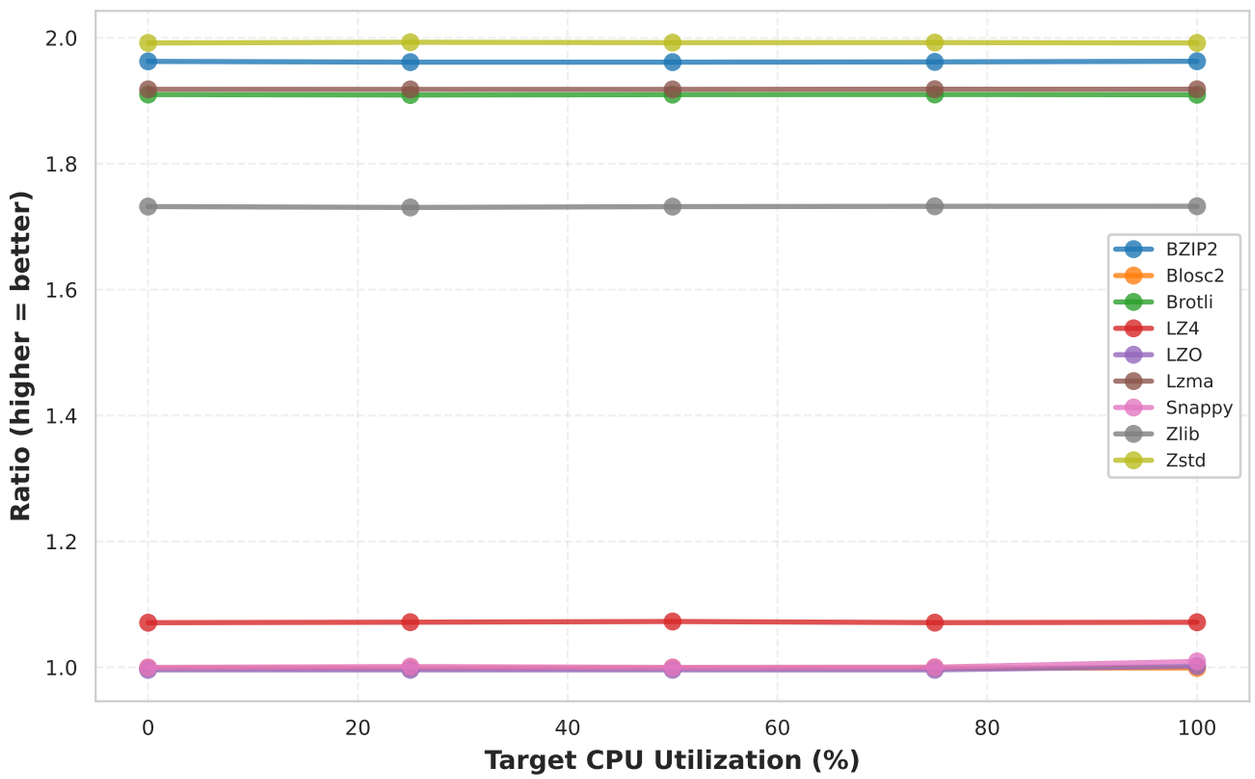
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

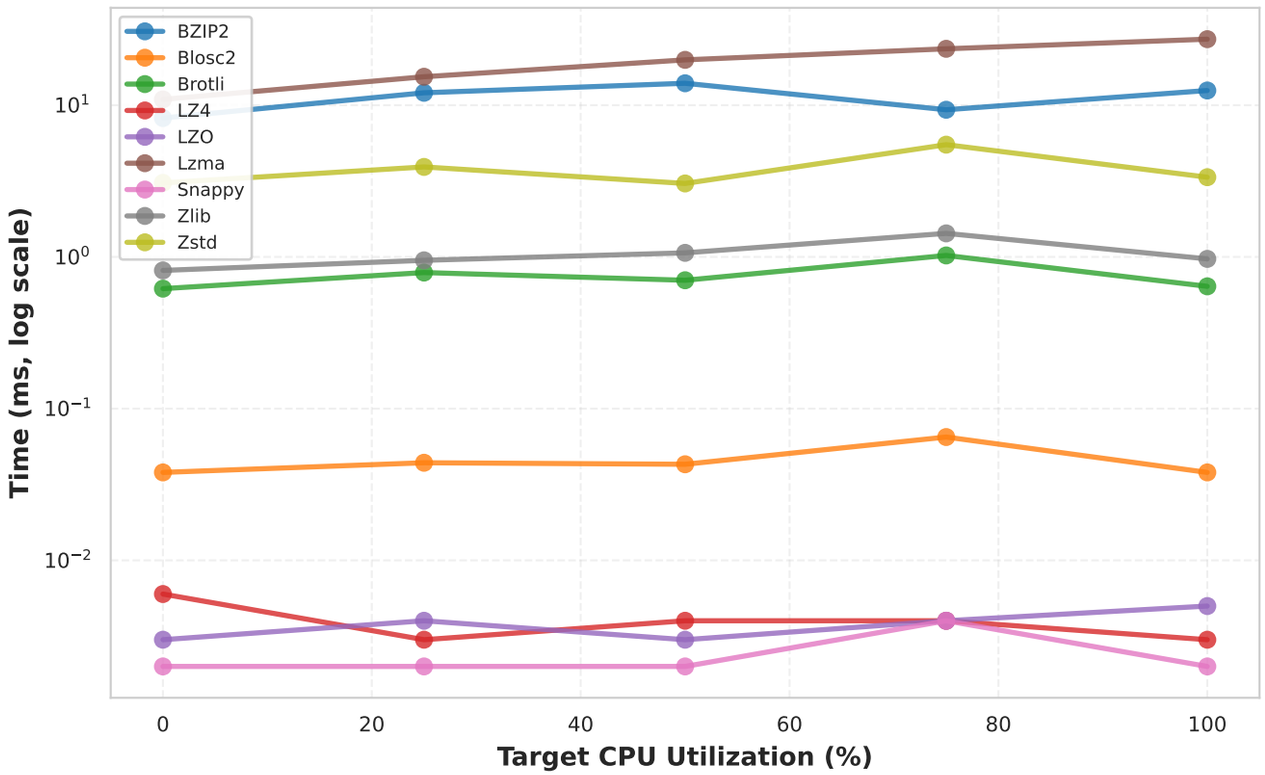


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

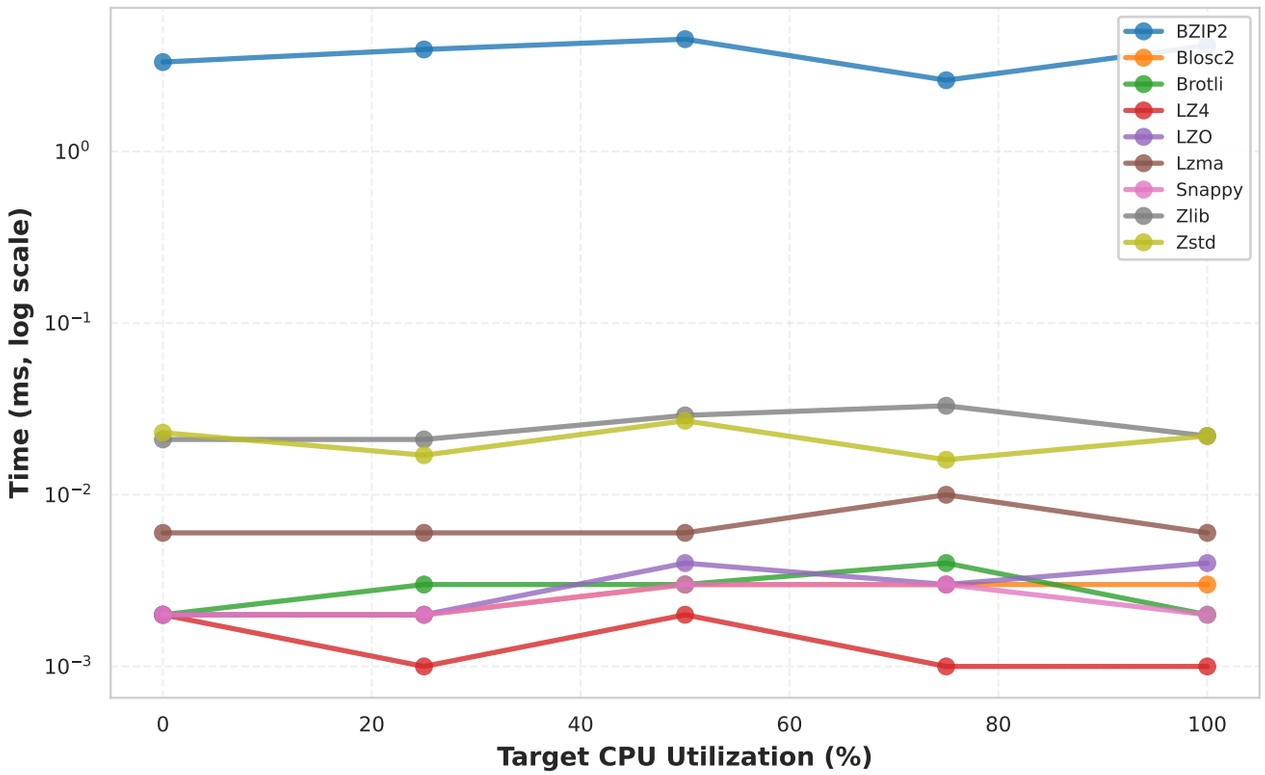
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: uniform_255
Max value = 255 (controls entropy/bit usage)
Char Data Type, 64KB Chunk Size

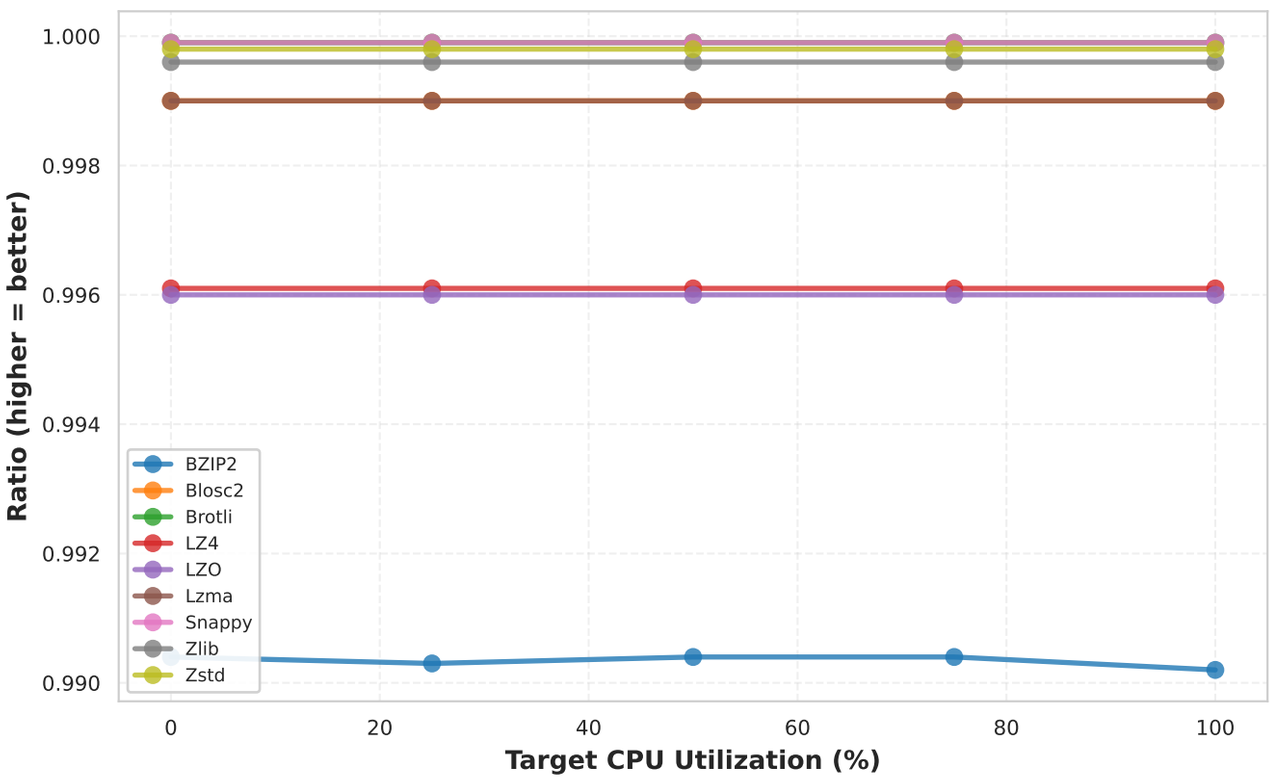
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

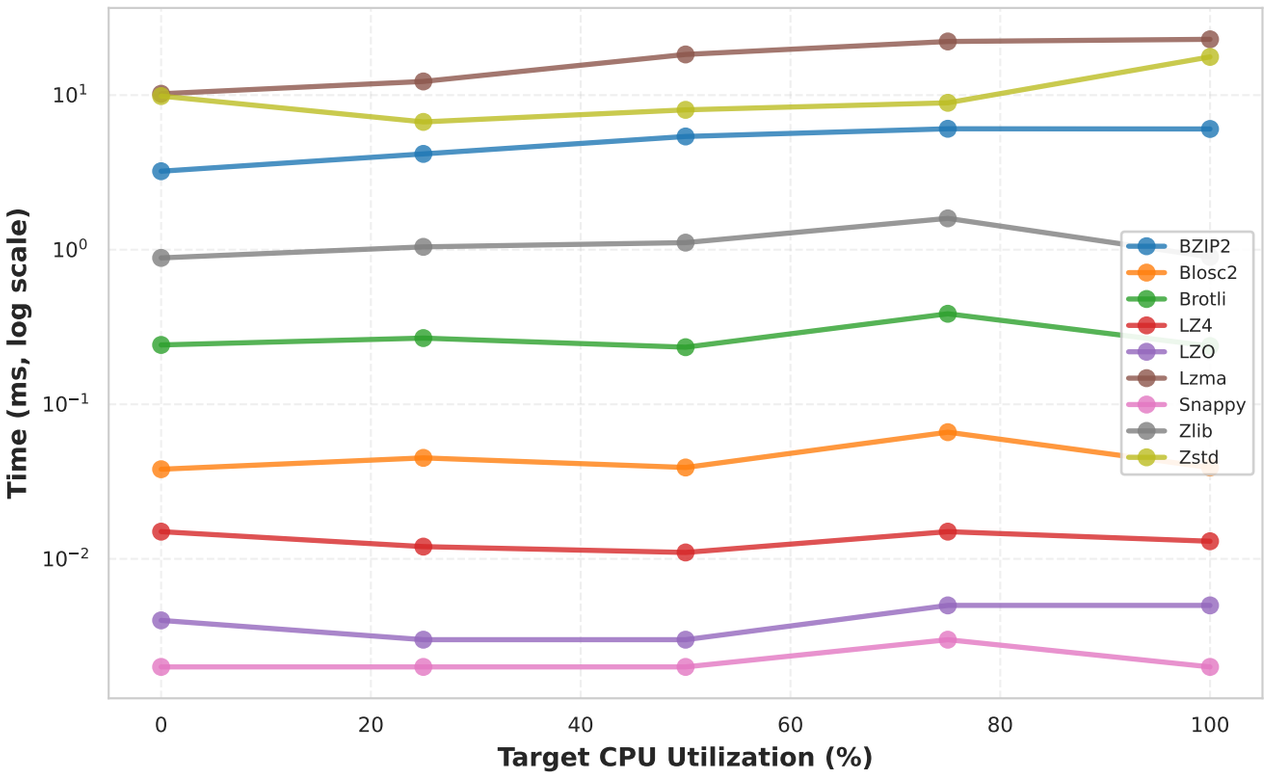


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

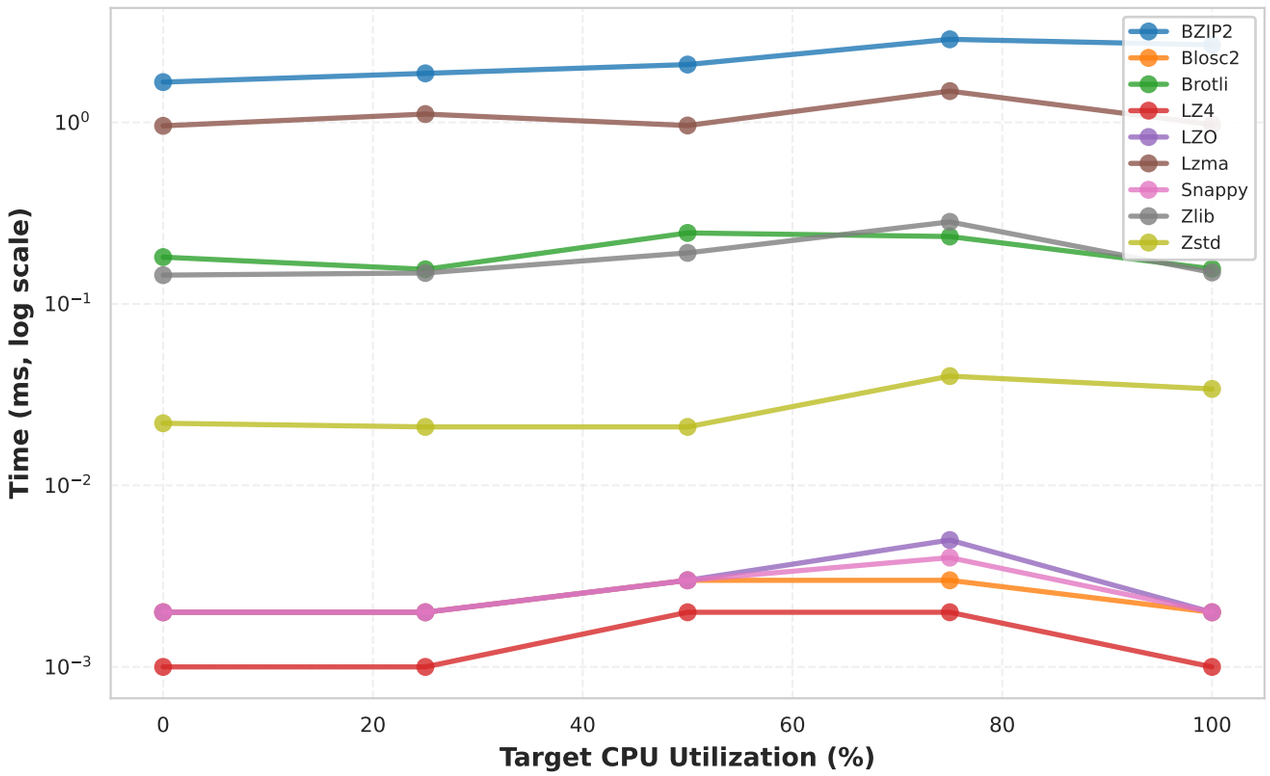
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: uniform_31
Max value = 31 (controls entropy/bit usage)
Char Data Type, 64KB Chunk Size

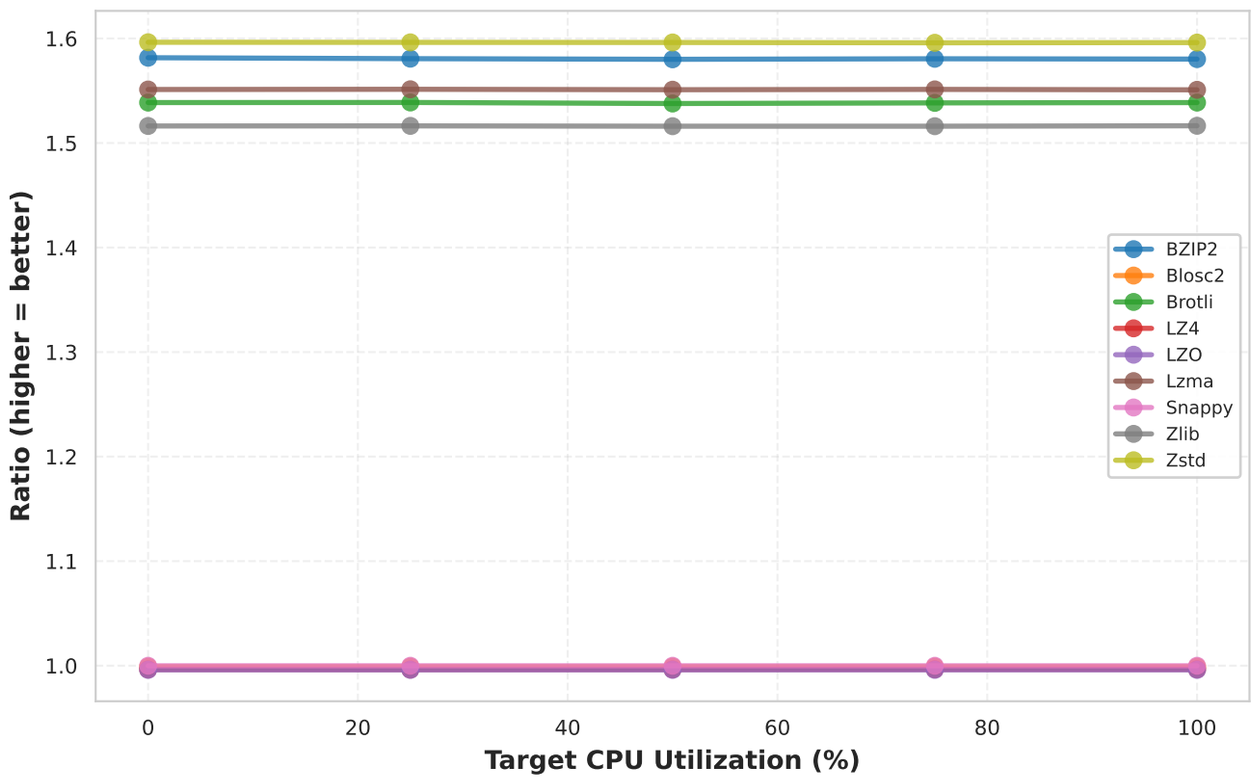
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

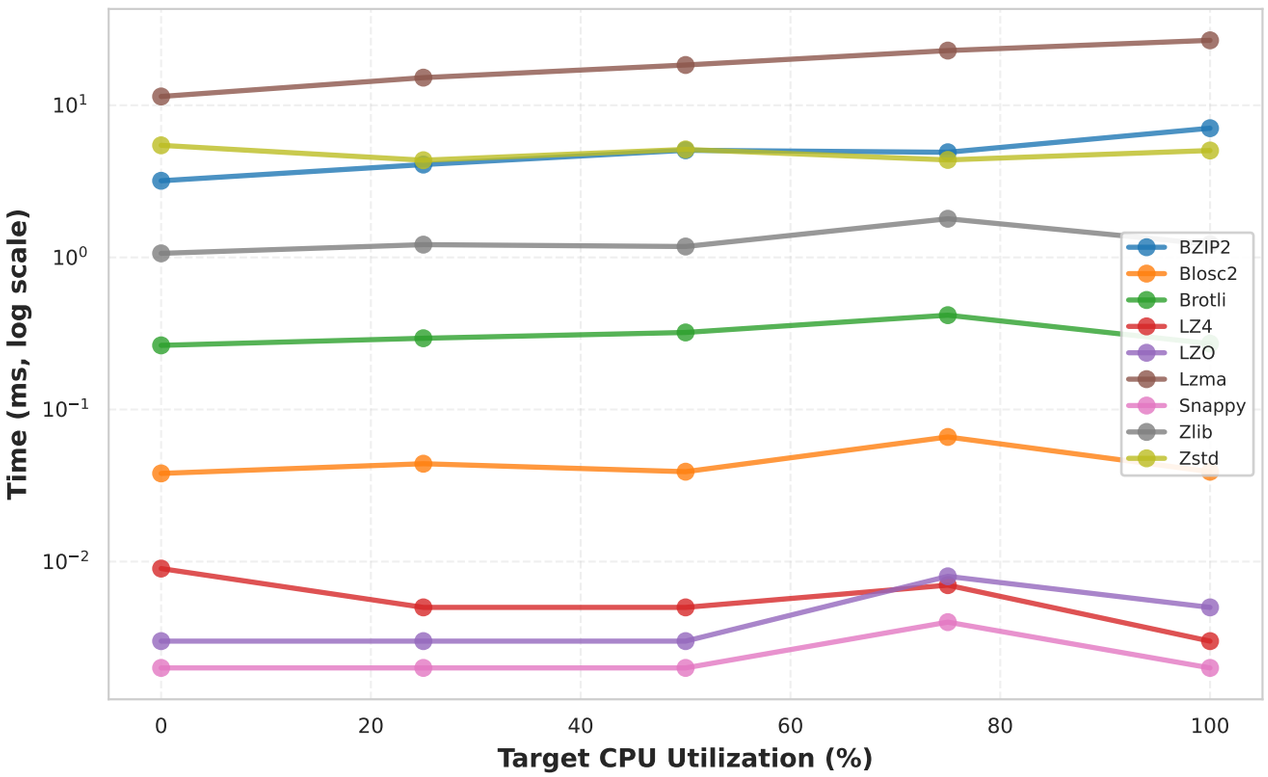


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

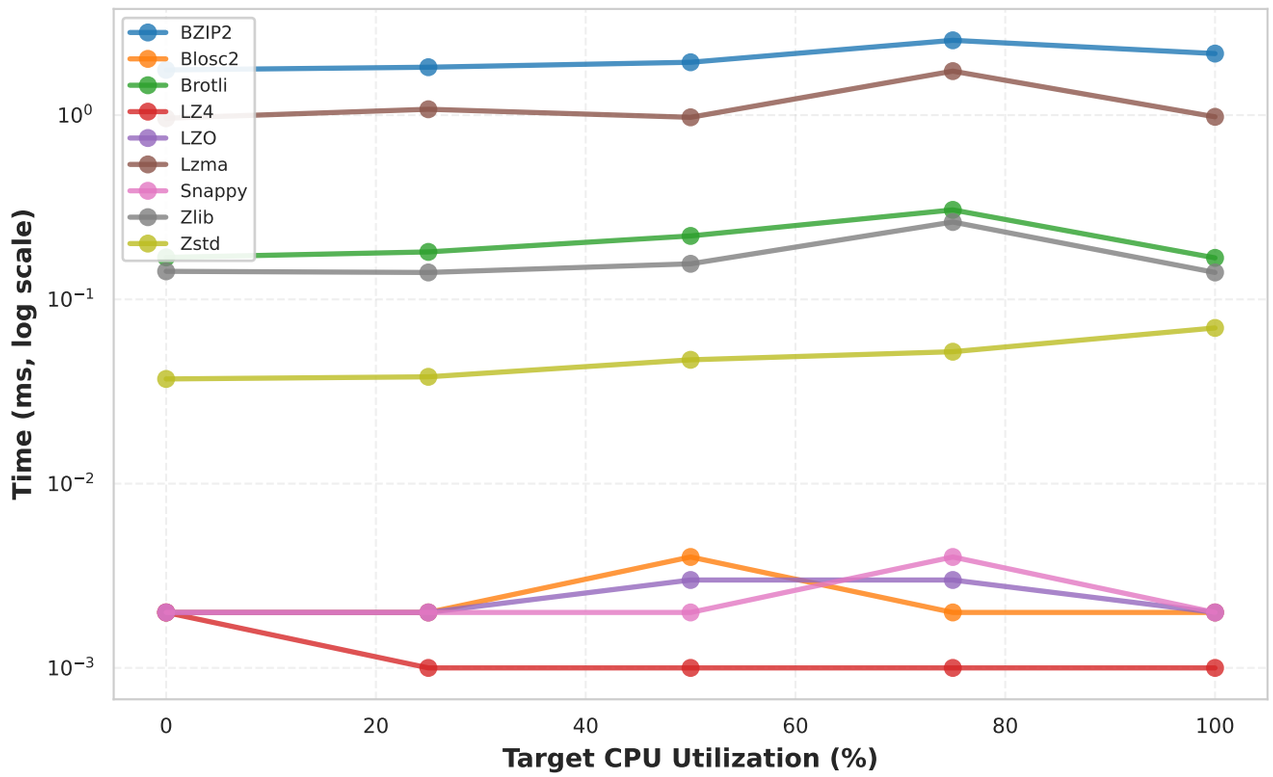
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: uniform_63
Max value = 63 (controls entropy/bit usage)
Char Data Type, 64KB Chunk Size

Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



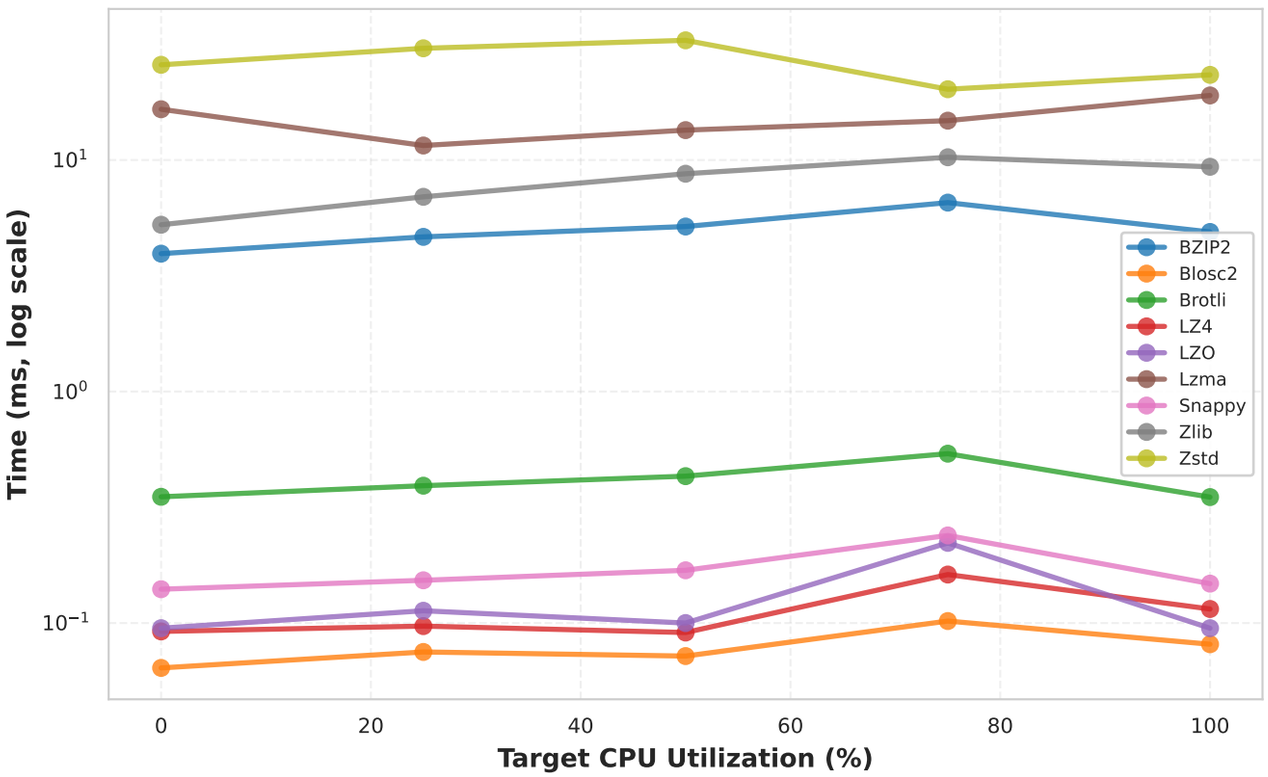
Compression Ratio vs CPU Utilization

Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

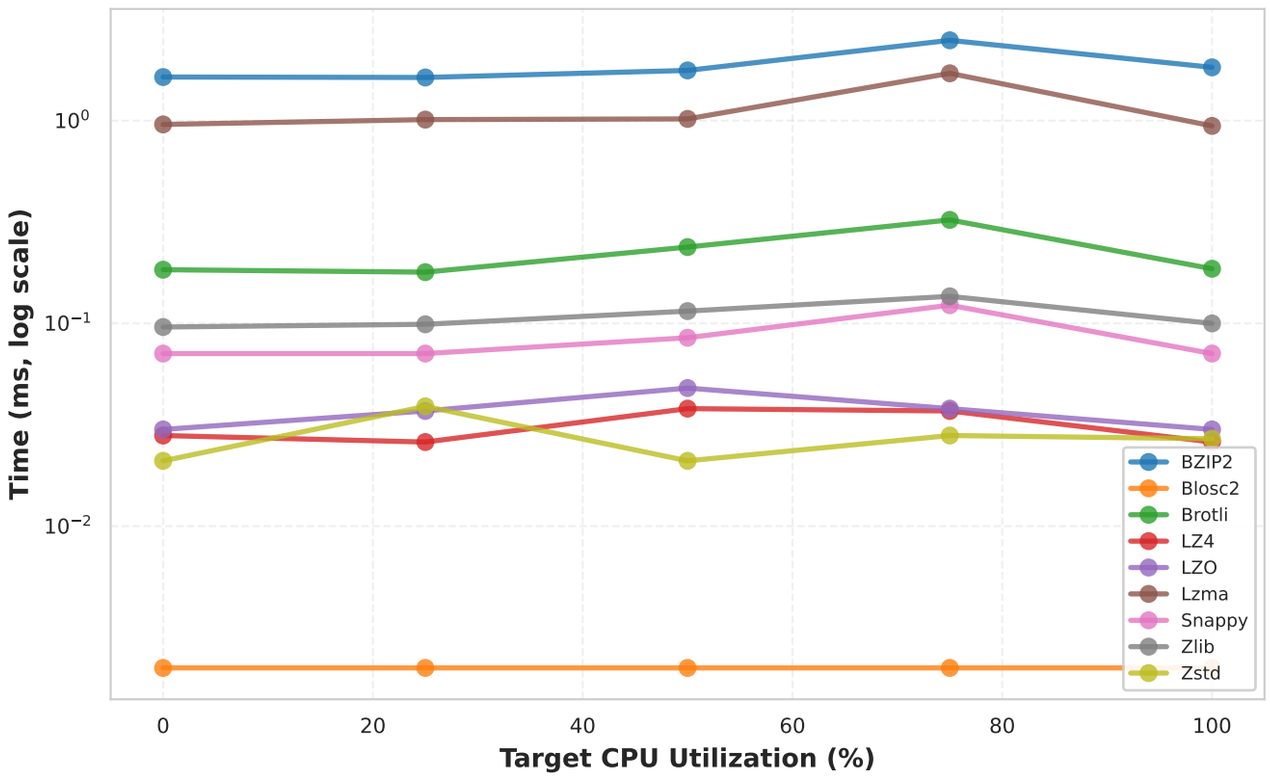
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: uniform_7
Max value = 7 (controls entropy/bit usage)
Char Data Type, 64KB Chunk Size

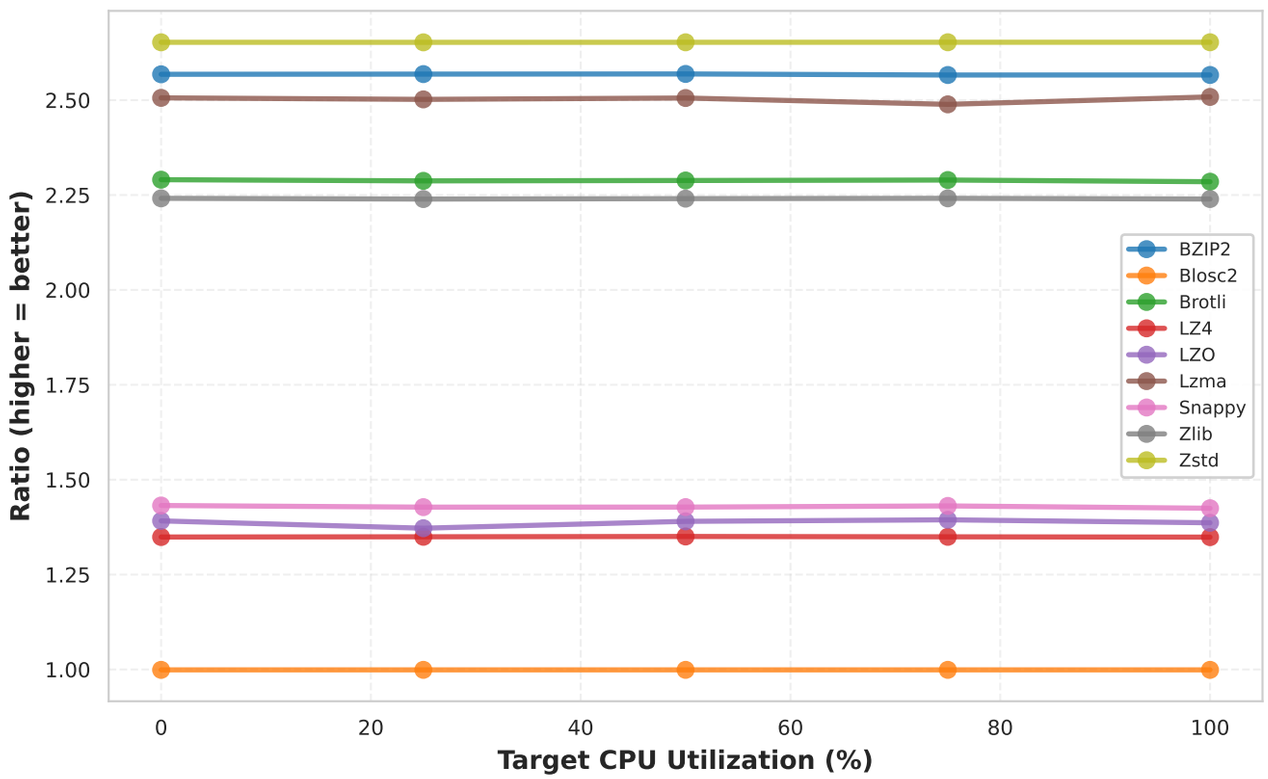
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

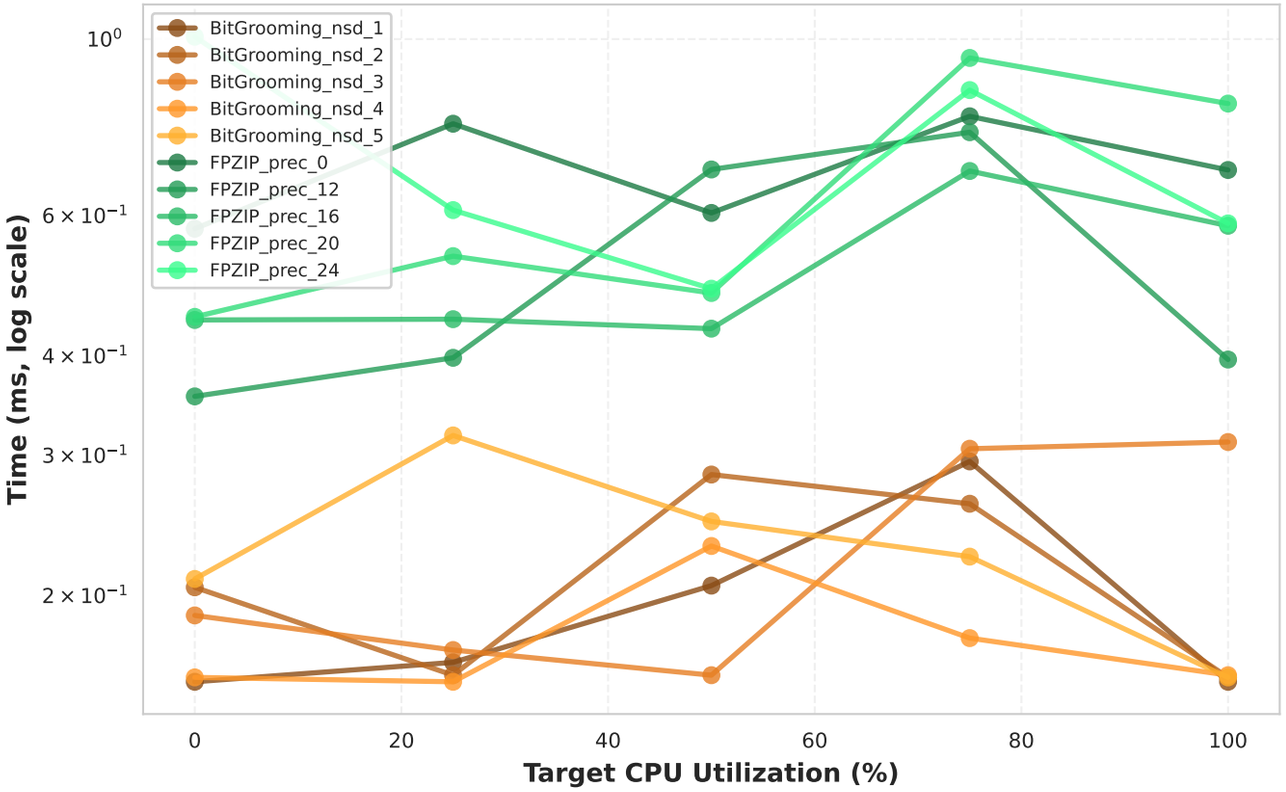


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

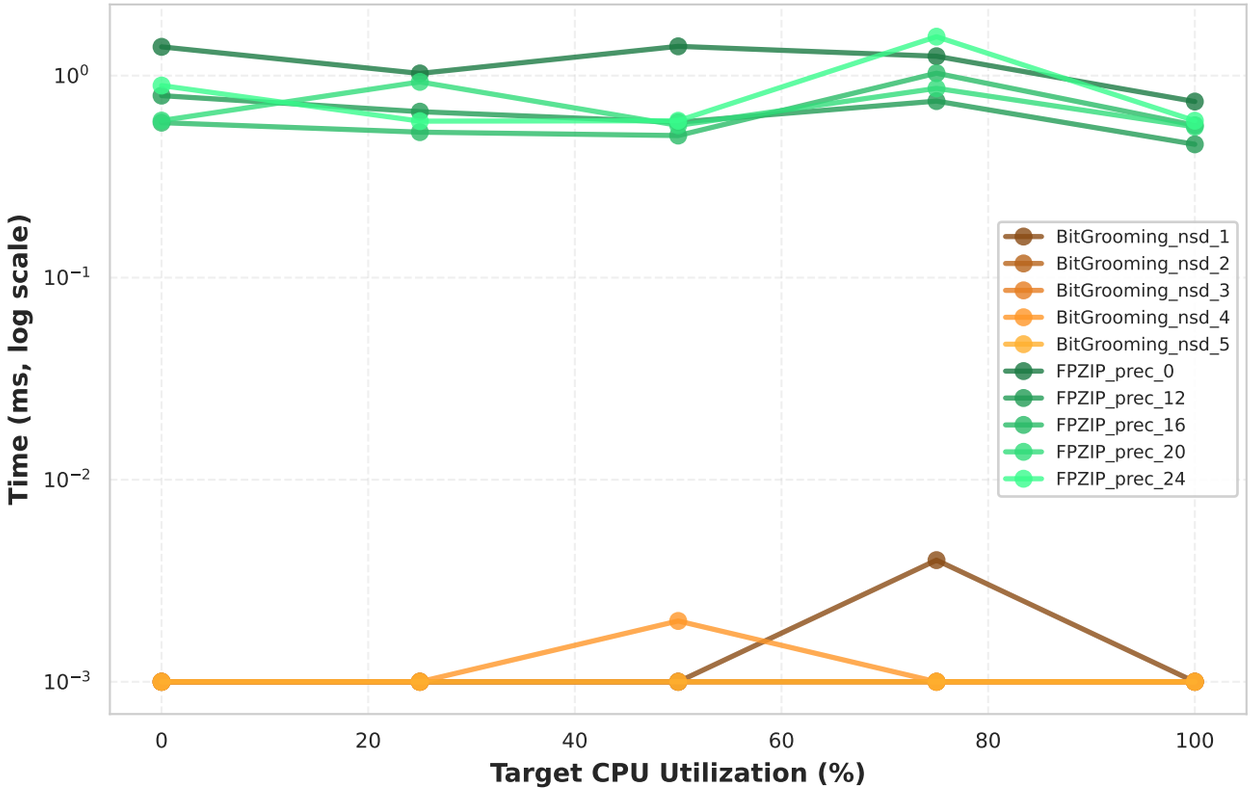
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: noisy_float
Float Data Type, 64KB Chunk Size

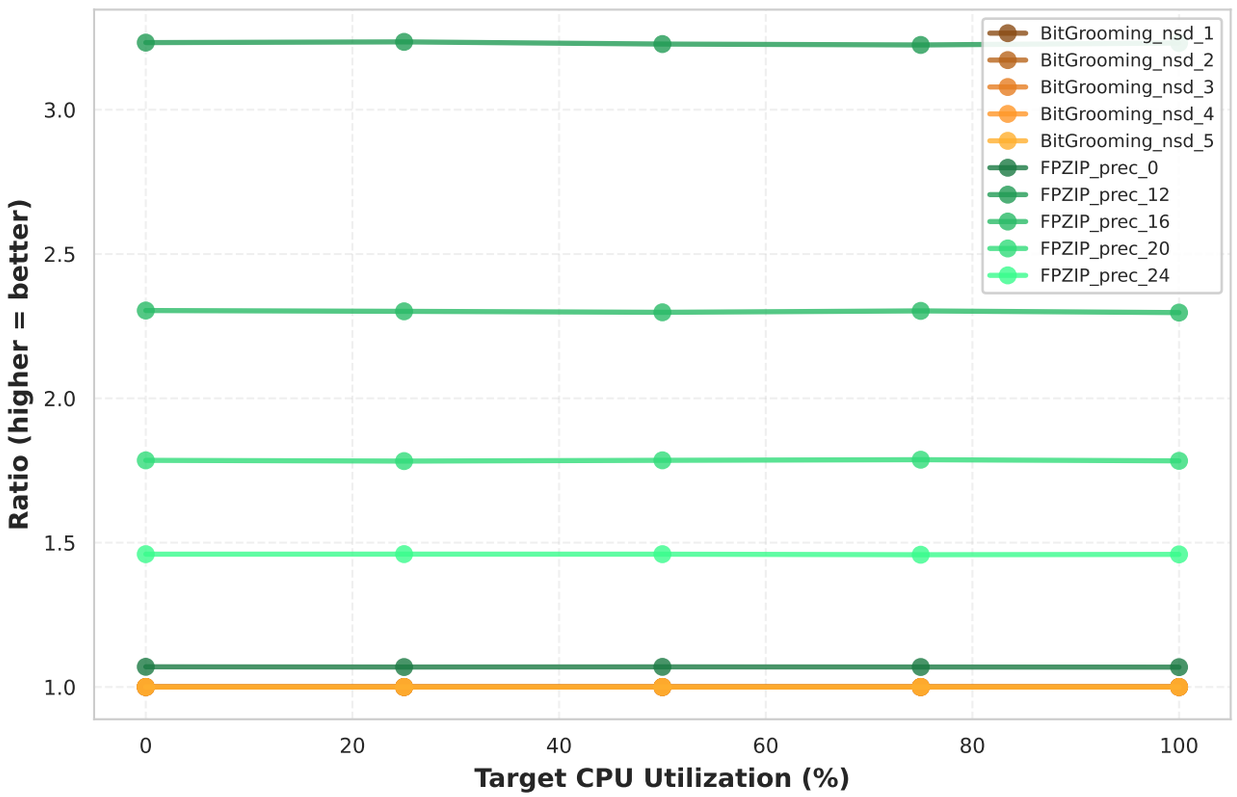
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

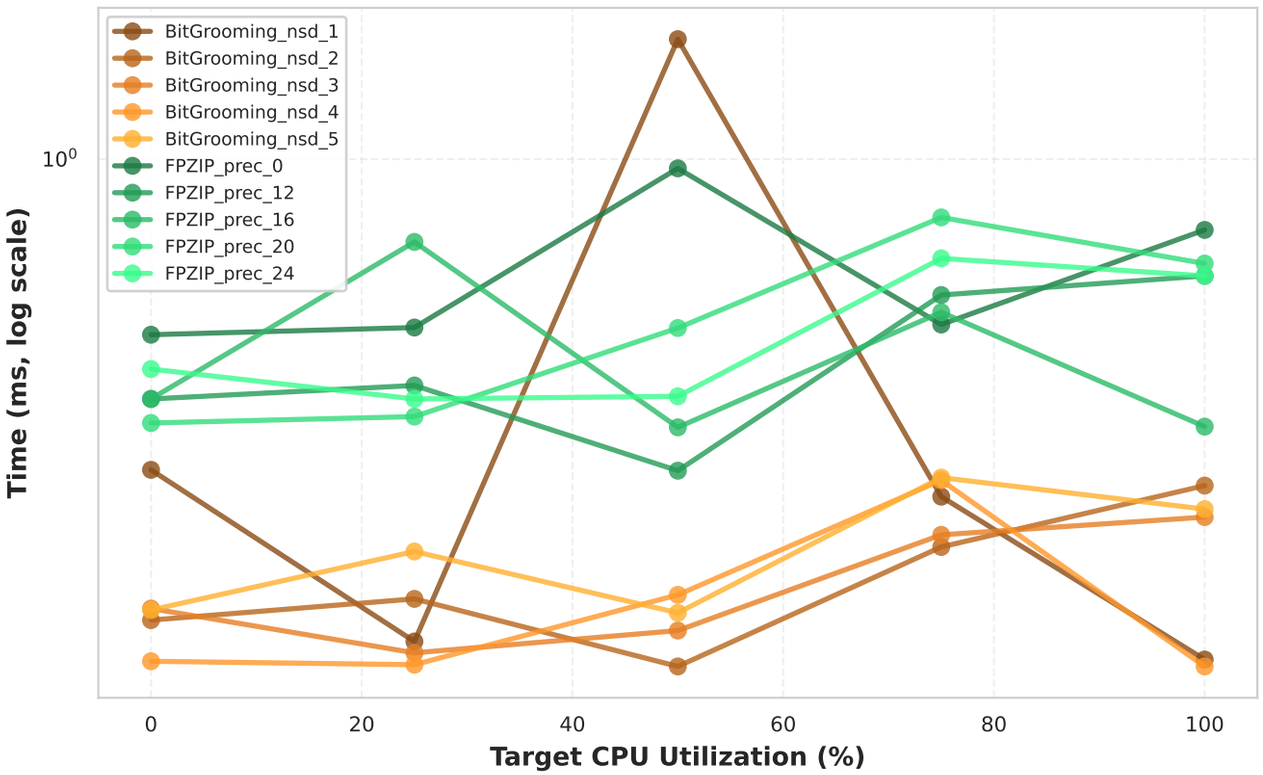


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

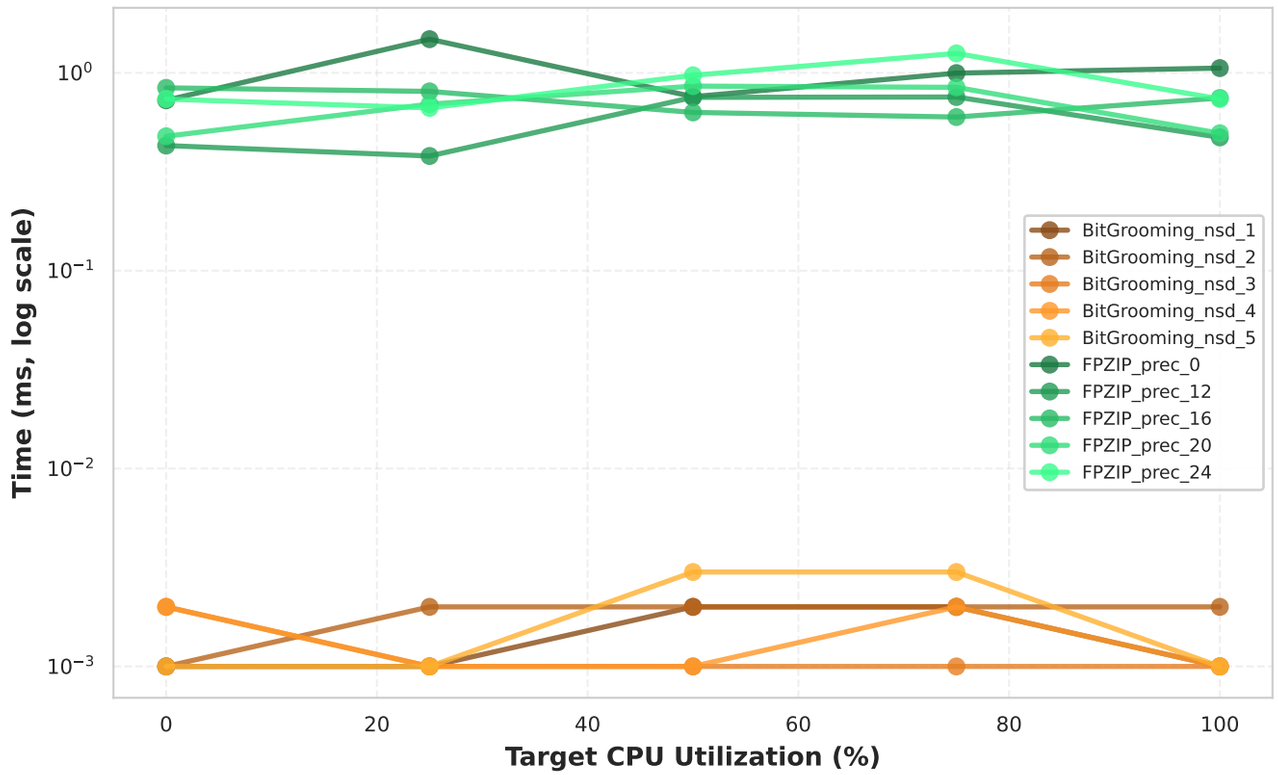
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: normal_float
Float data: Normal distribution (μ=500, σ=200)
Float Data Type, 64KB Chunk Size

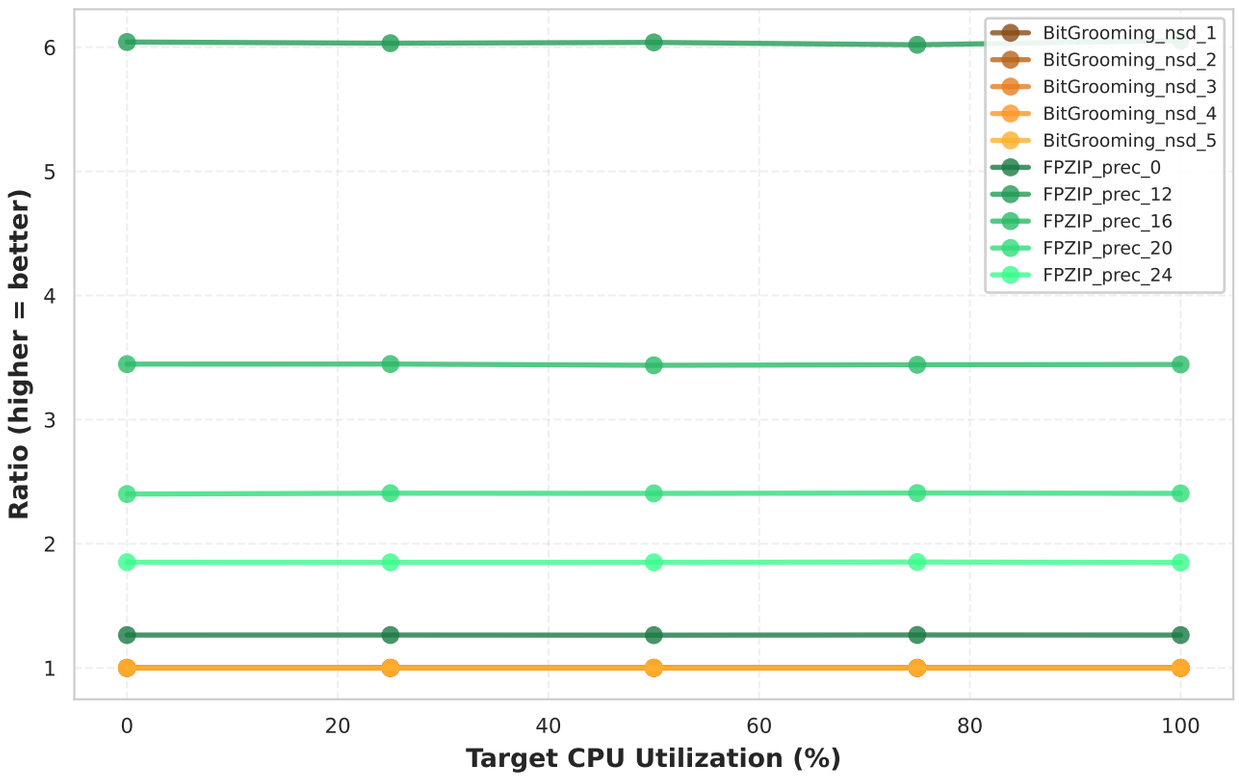
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

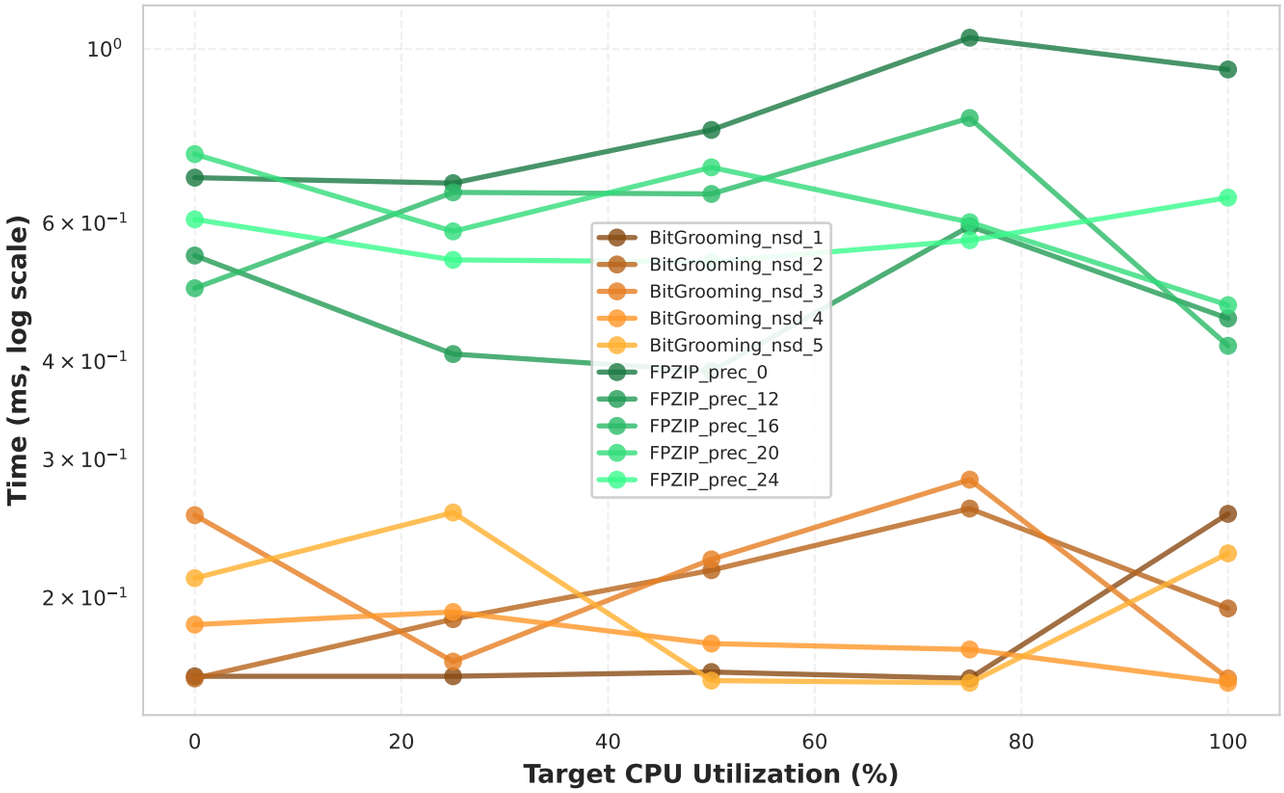


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

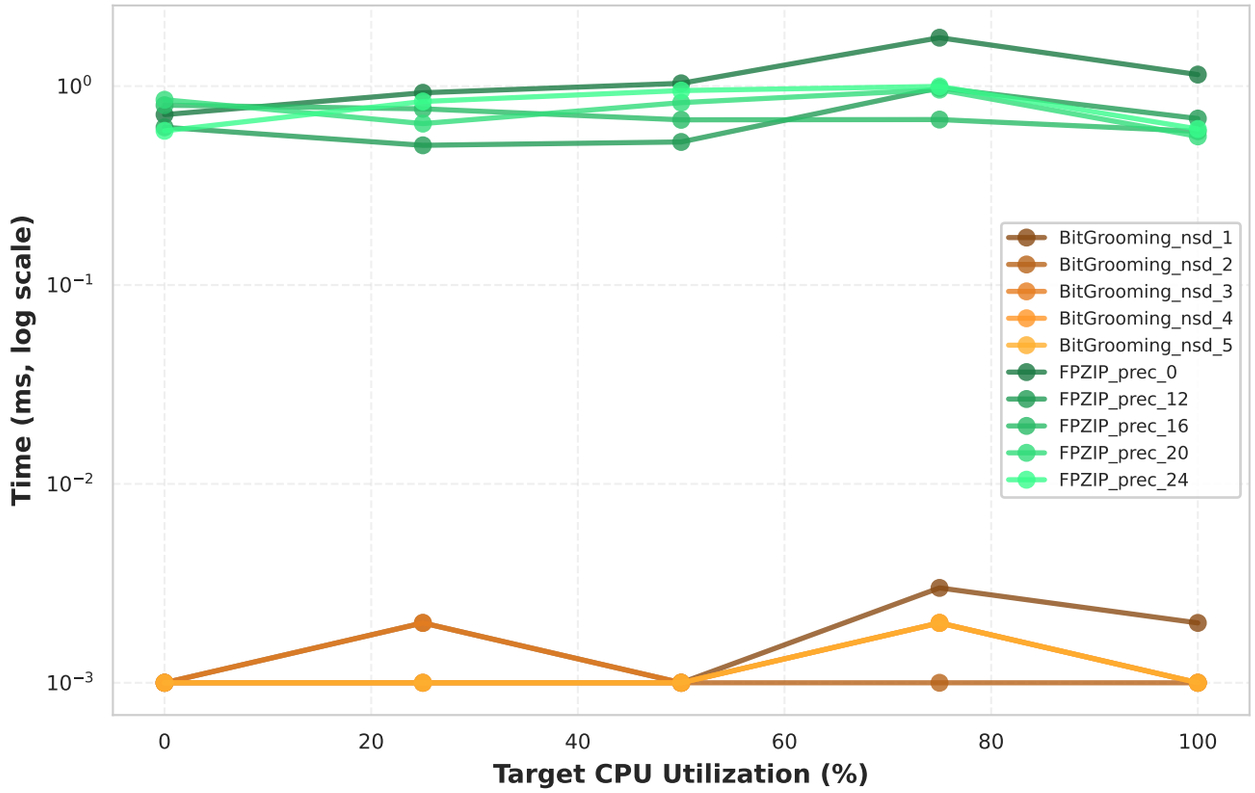
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: random_float
Float Data Type, 64KB Chunk Size

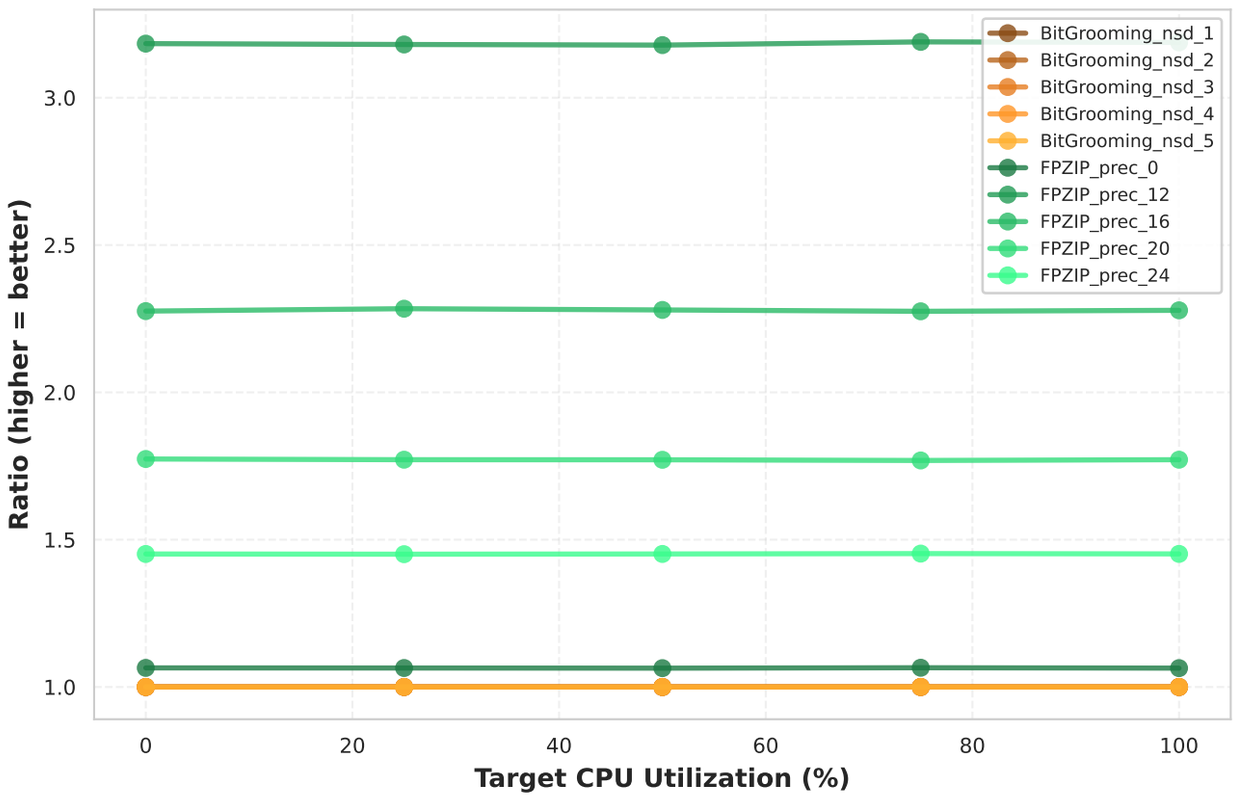
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

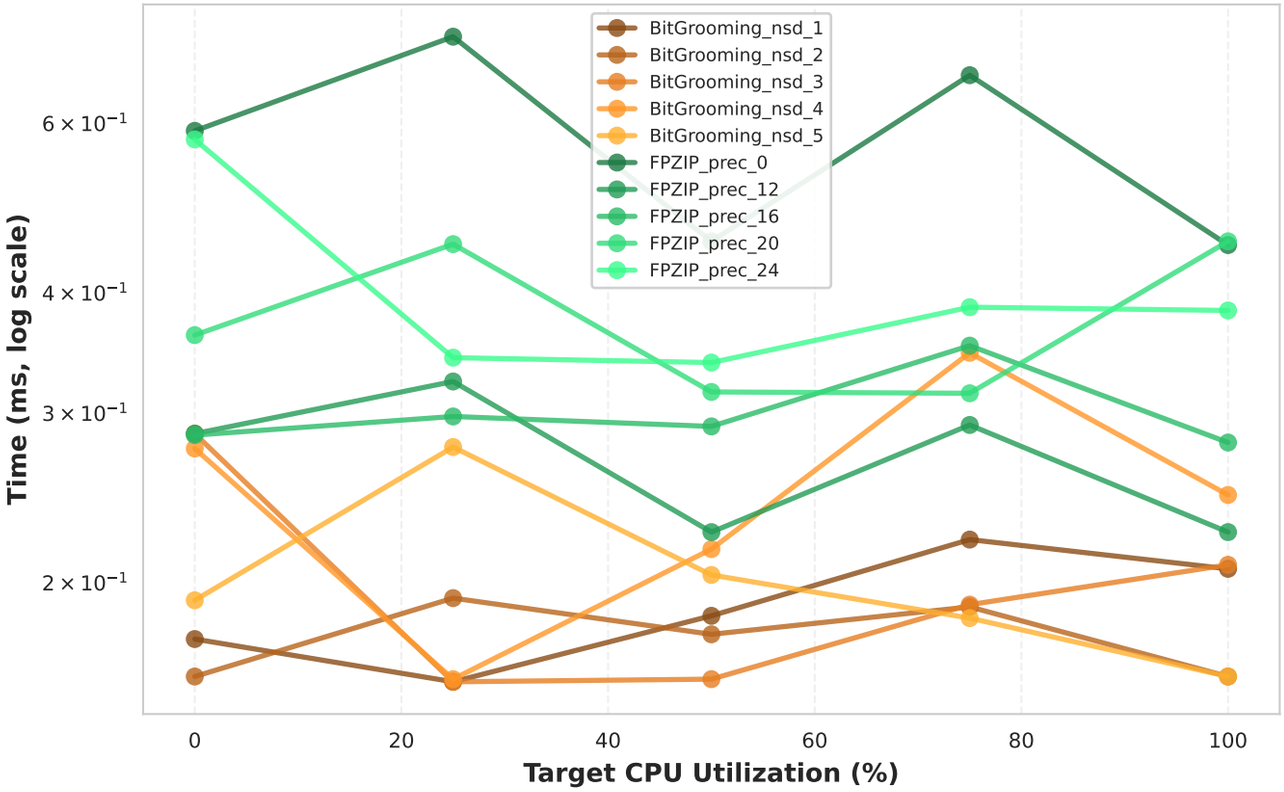


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

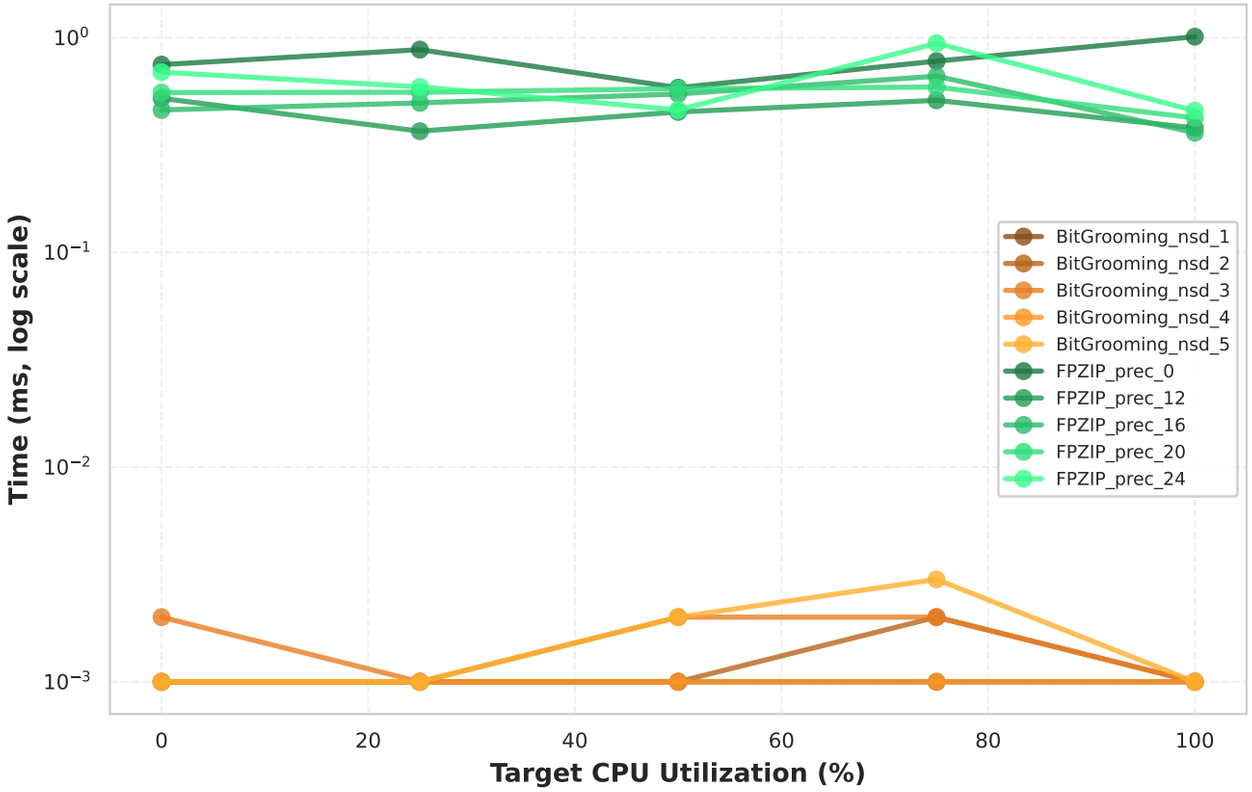
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: repeating_float
Float Data Type, 64KB Chunk Size

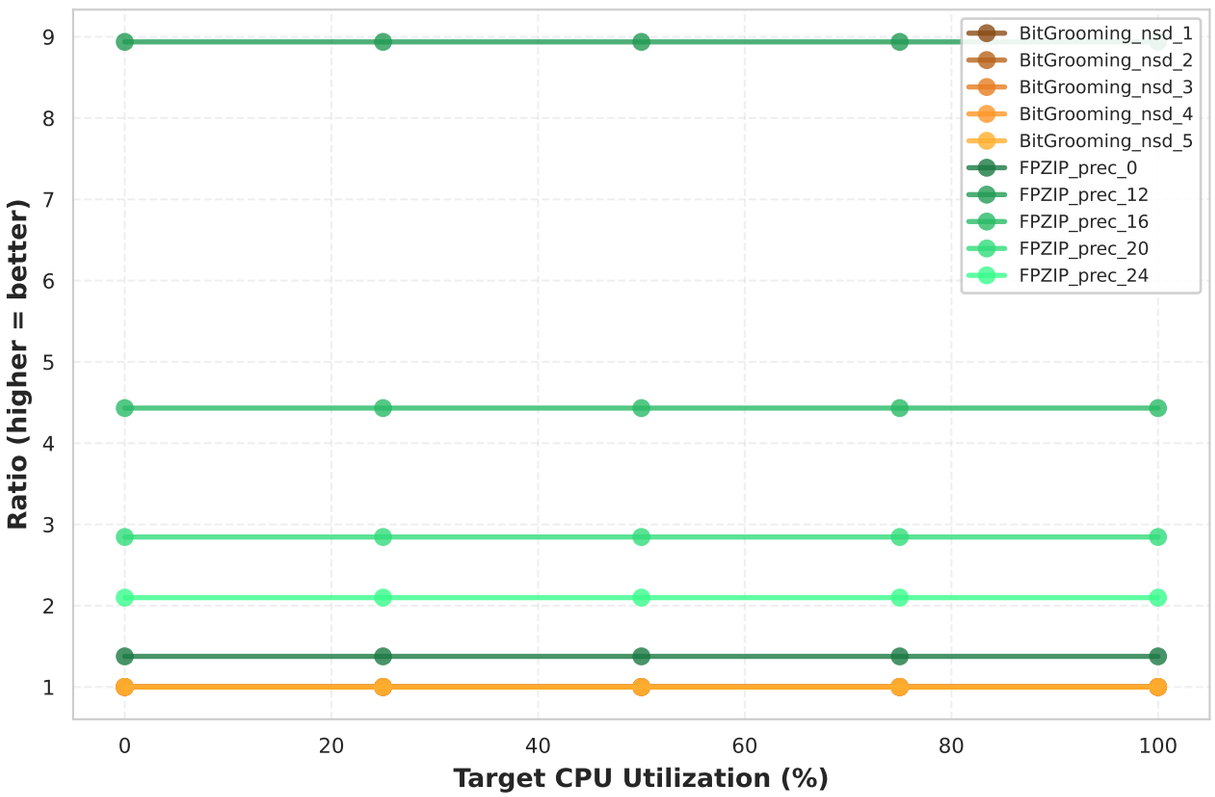
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

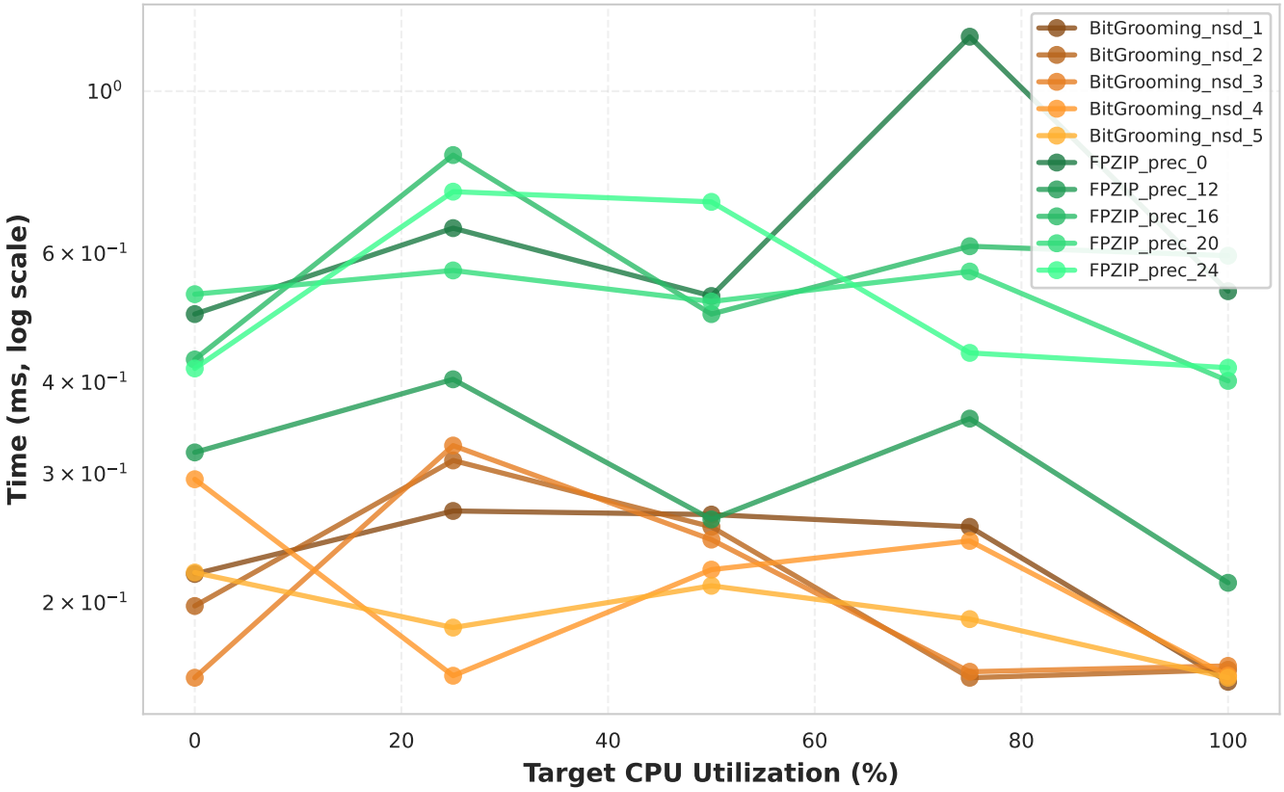


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

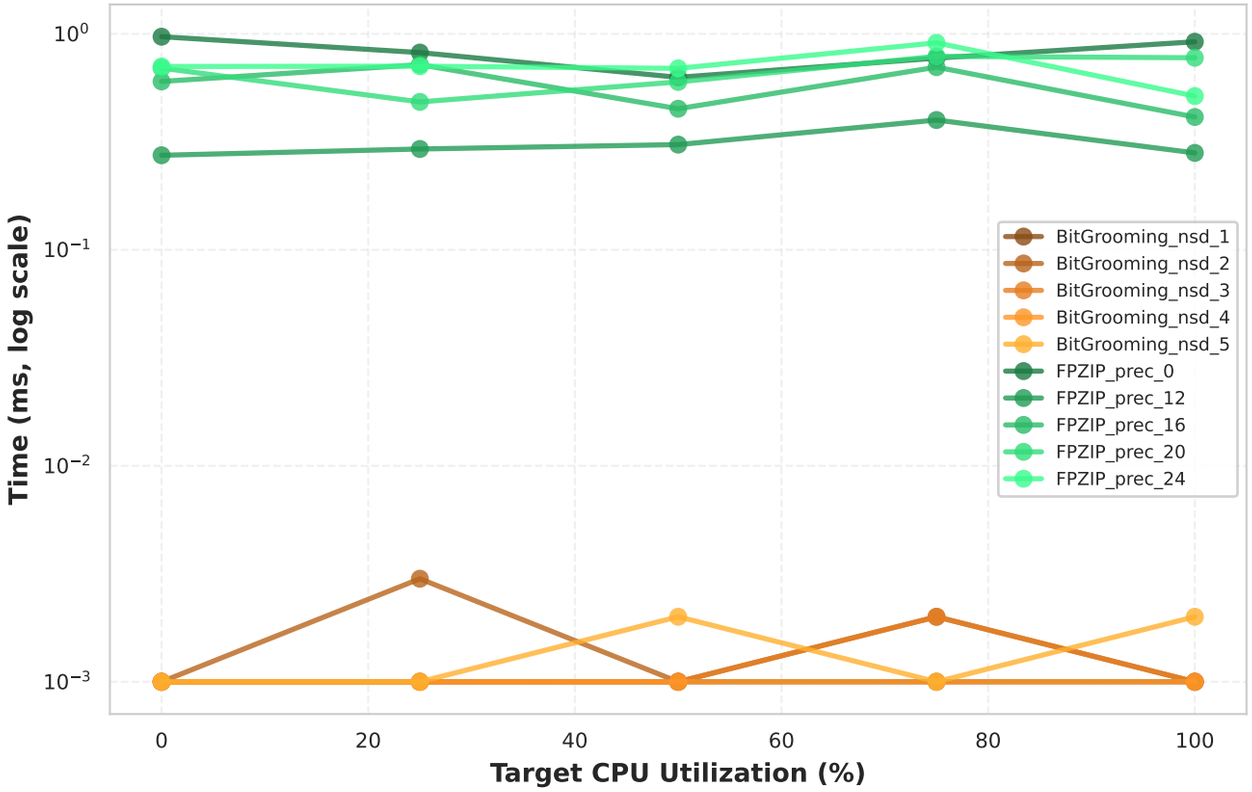
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: structured_float
Float Data Type, 64KB Chunk Size

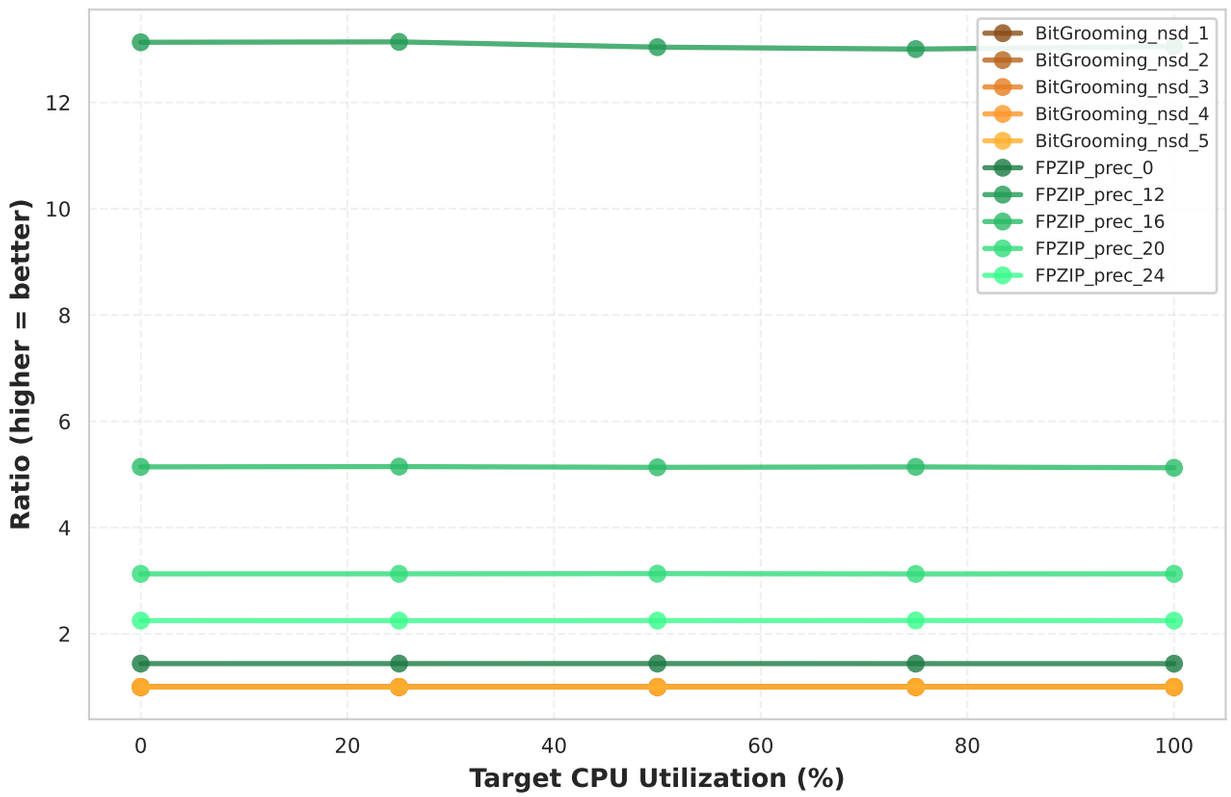
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization

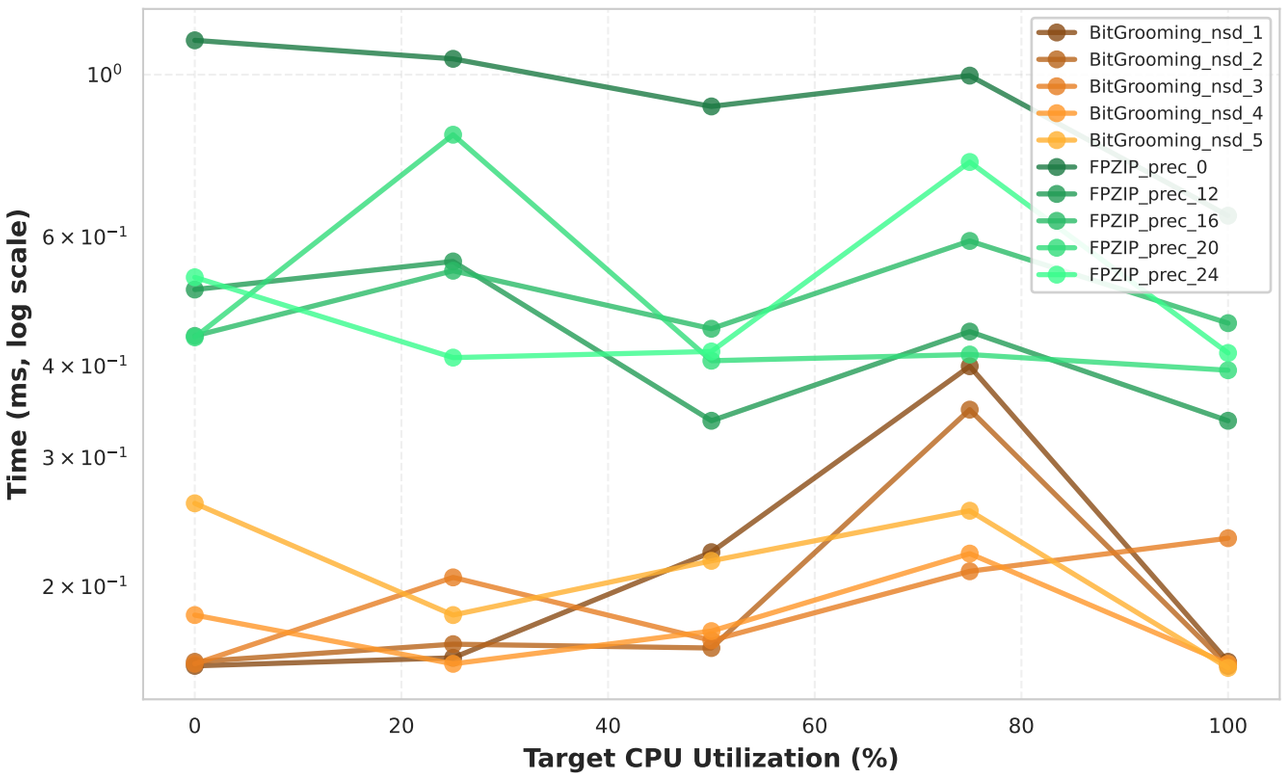


Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

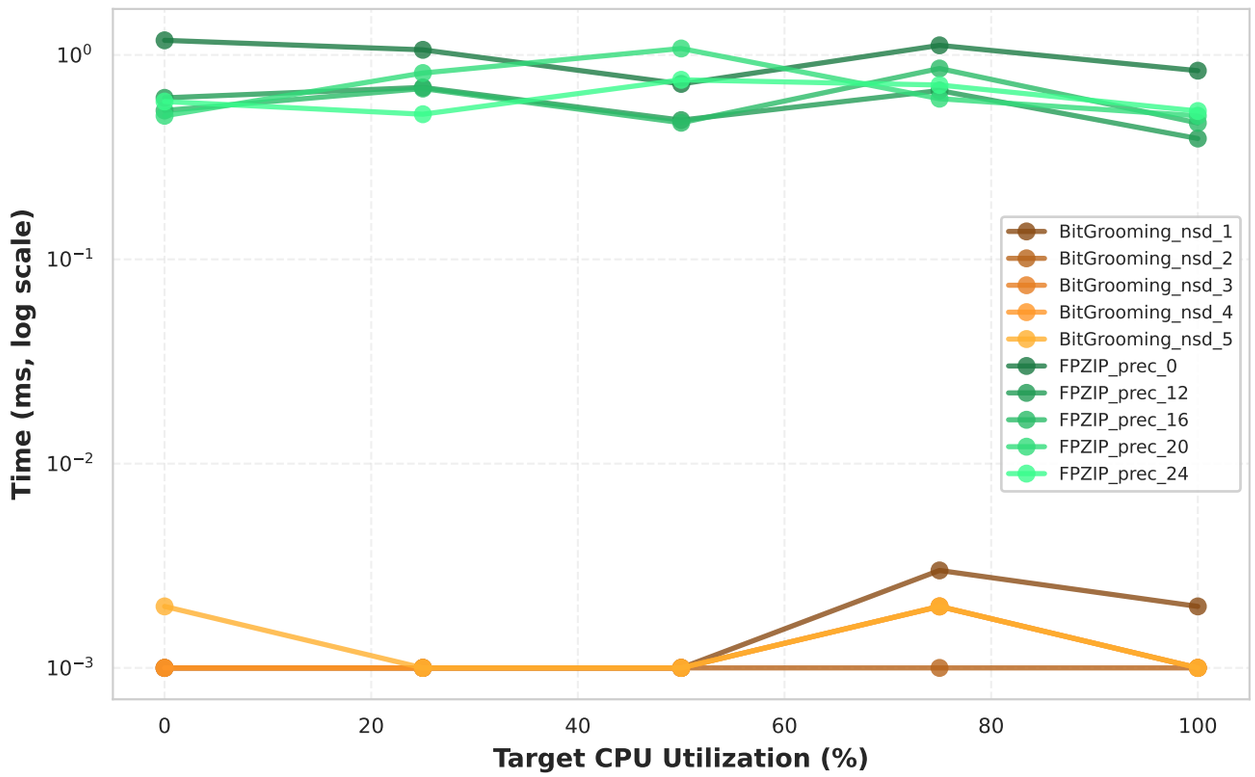
These statistics are included in the CSV output for
training the dynamic compression selection model.

CPU Utilization Impact: uniform_float
Float data: Uniform distribution [0.0, 1000.0]
Float Data Type, 64KB Chunk Size

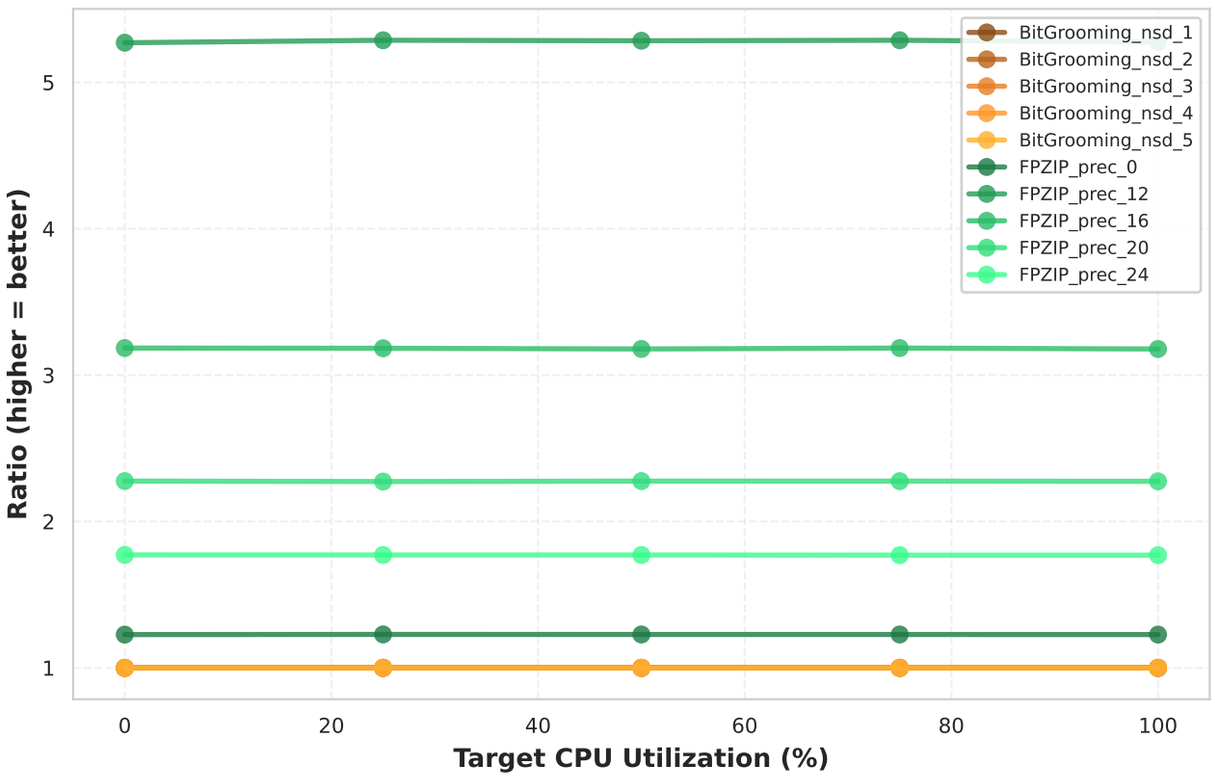
Compression Time vs CPU Utilization



Decompression Time vs CPU Utilization



Compression Ratio vs CPU Utilization



Data Statistics (Shannon Entropy, MAD, Second Derivative)
are constant per distribution and do not vary with CPU utilization.

These statistics are included in the CSV output for
training the dynamic compression selection model.