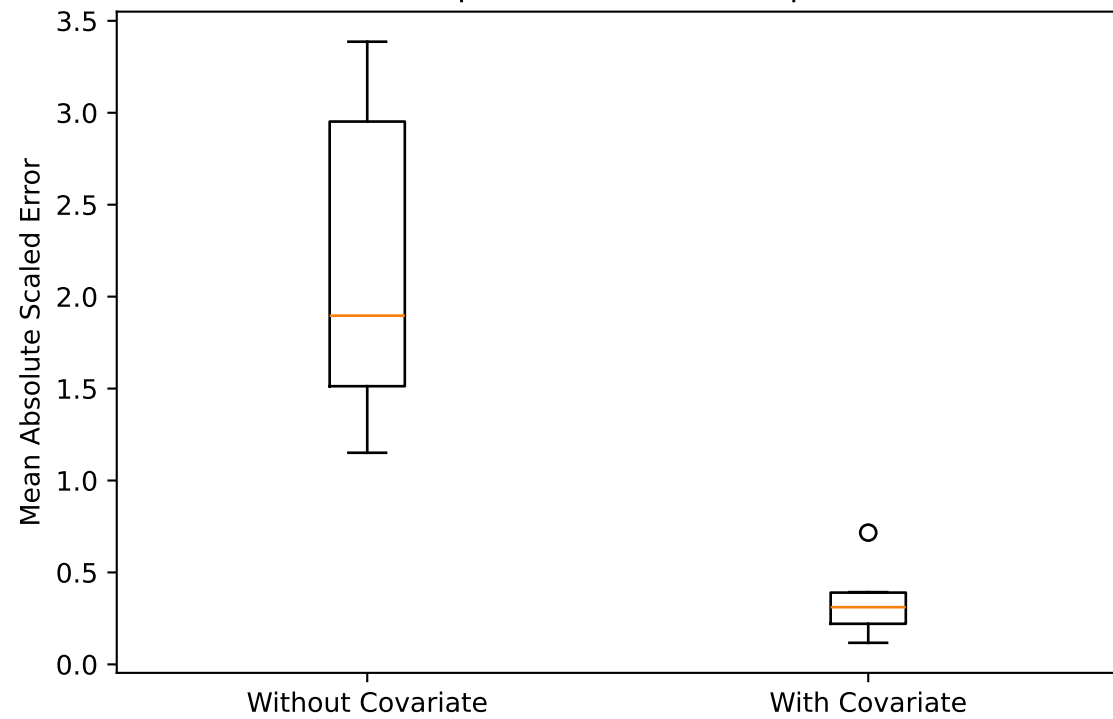
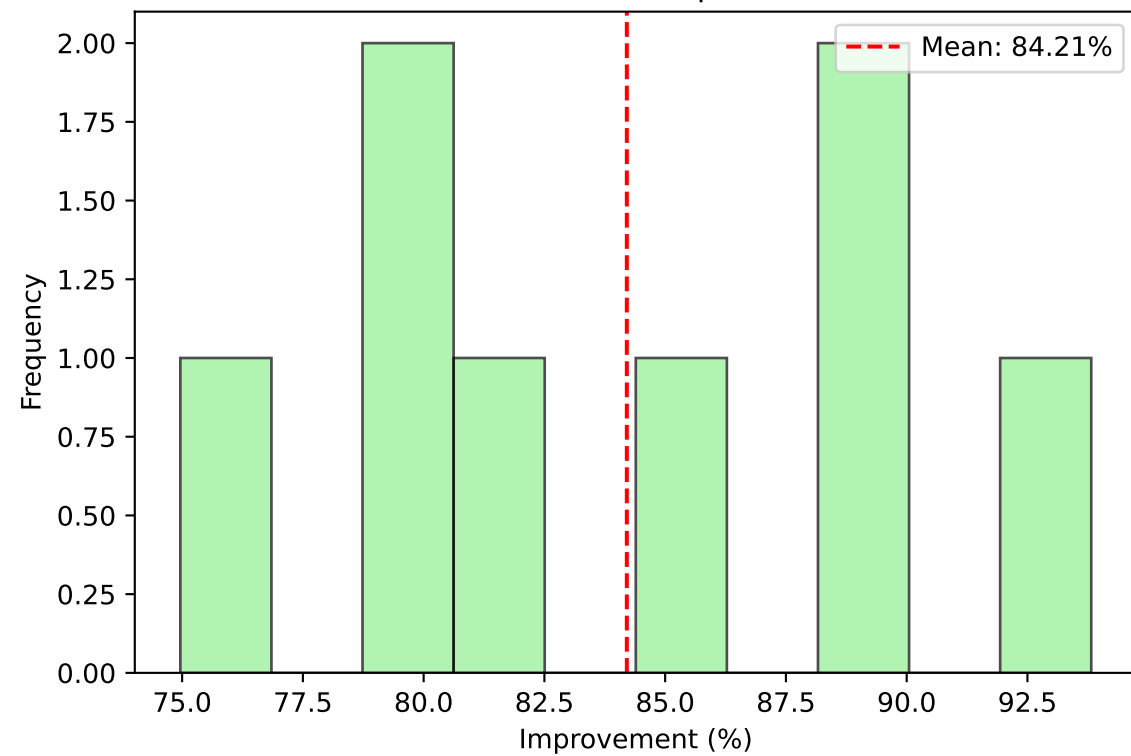


Covariate Study Summary: Ar1, Steps, Ramps

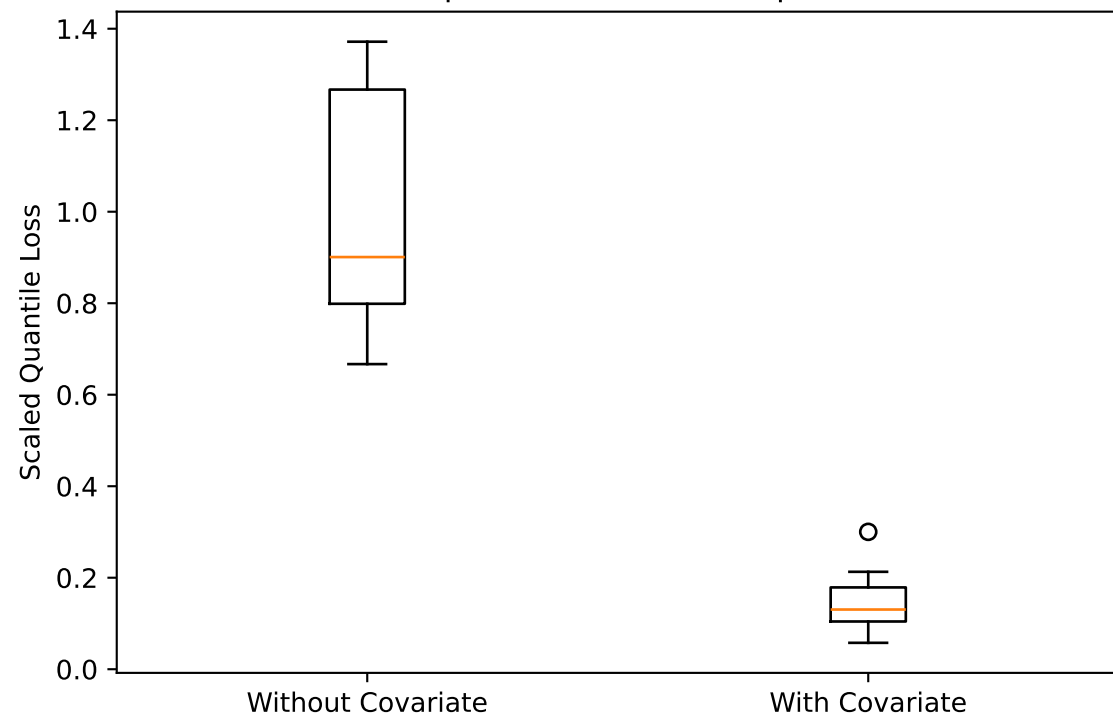
MASE Comparison Across All Experiments



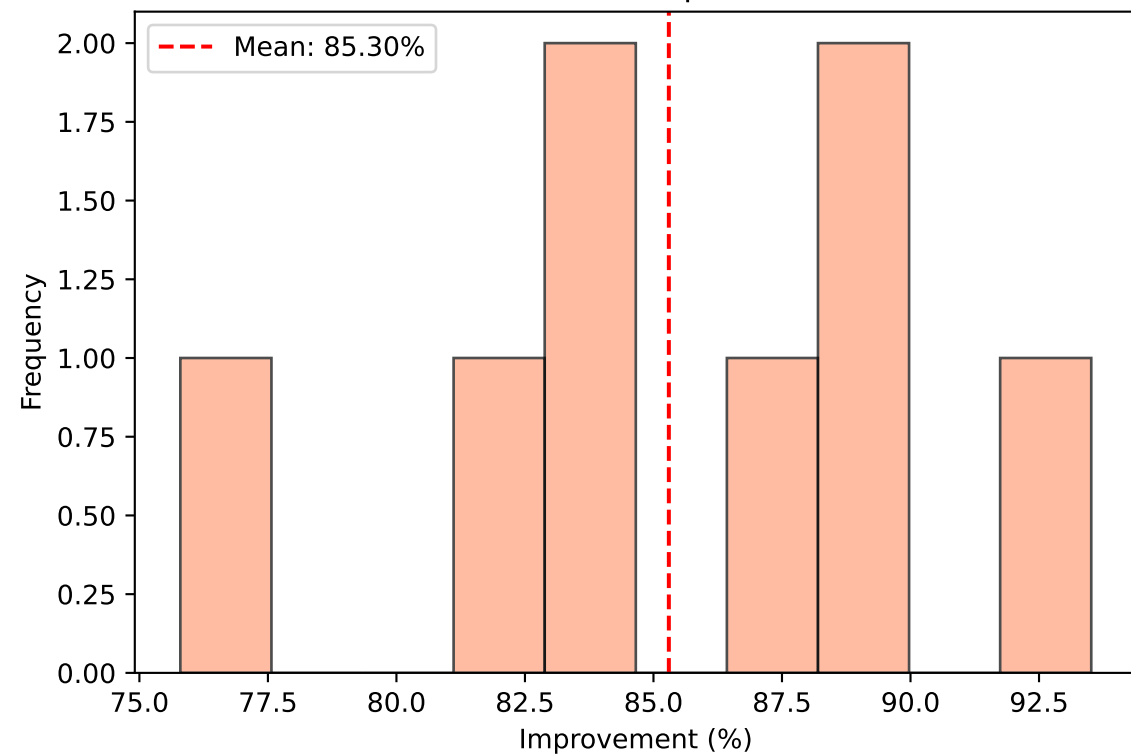
Distribution of MASE Improvements (%)



SQL Comparison Across All Experiments



Distribution of SQL Improvements (%)



Detailed Statistics

Covariate Study Detailed Results
Covariate Types: ar1, steps, ramps
Number of Experiments: 8

MASE Results:

- Without Covariate: 2.1626 ± 0.8179
- With Covariate: 0.3319 ± 0.1712
- Average Improvement: 84.21%
- Median Improvement: 83.78%

SQL Results:

- Without Covariate: 0.9925 ± 0.2691
- With Covariate: 0.1488 ± 0.0735
- Average Improvement: 85.30%
- Median Improvement: 85.51%

Study Parameters:

- Weight: 1.0
- Relation: multiplicative
- Train Ratio: 0.6
- Covariate Weights: Randomized per experiment (Dirichlet distribution)

Best Performing Experiment (MASE):

- Experiment 1: 93.82% improvement

Worst Performing Experiment (MASE):

- Experiment 3: 74.96% improvement