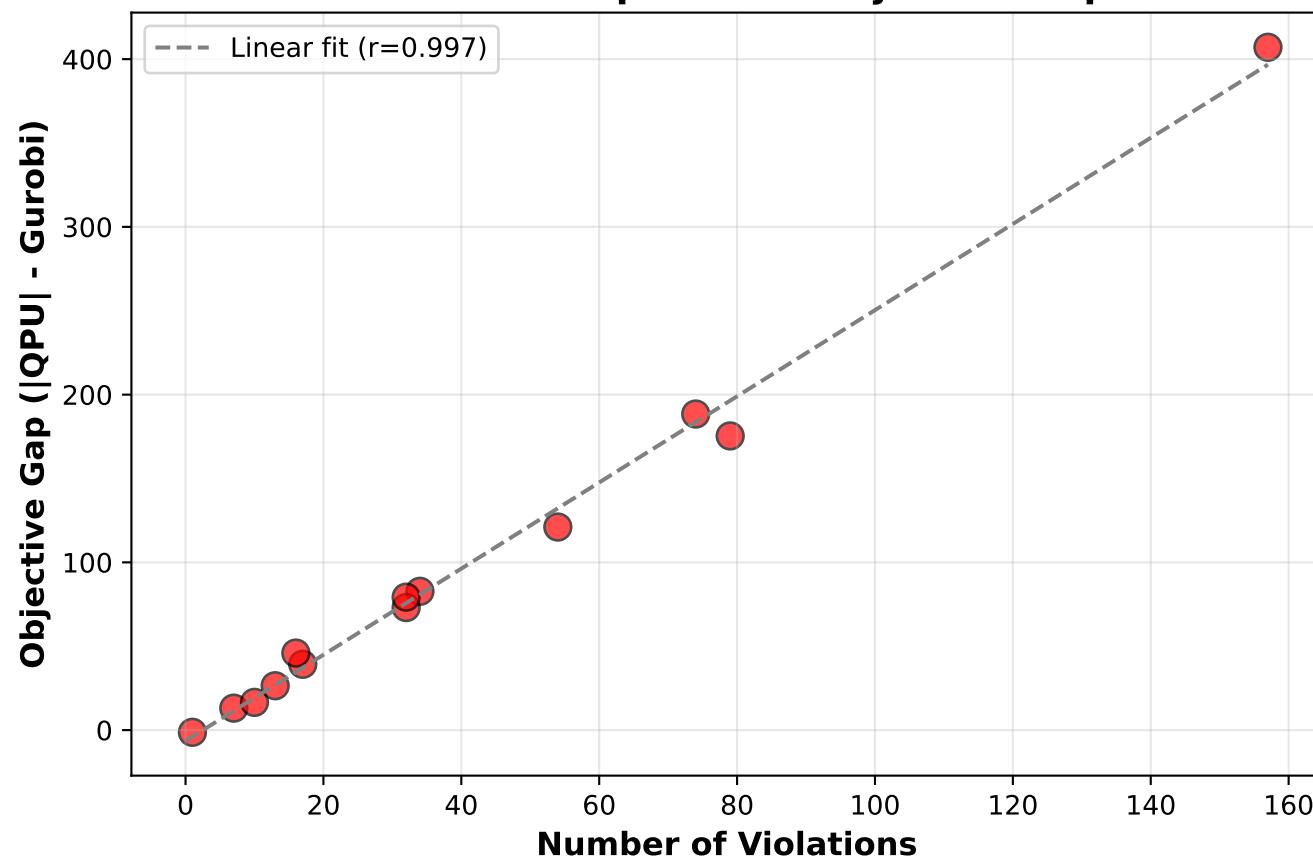
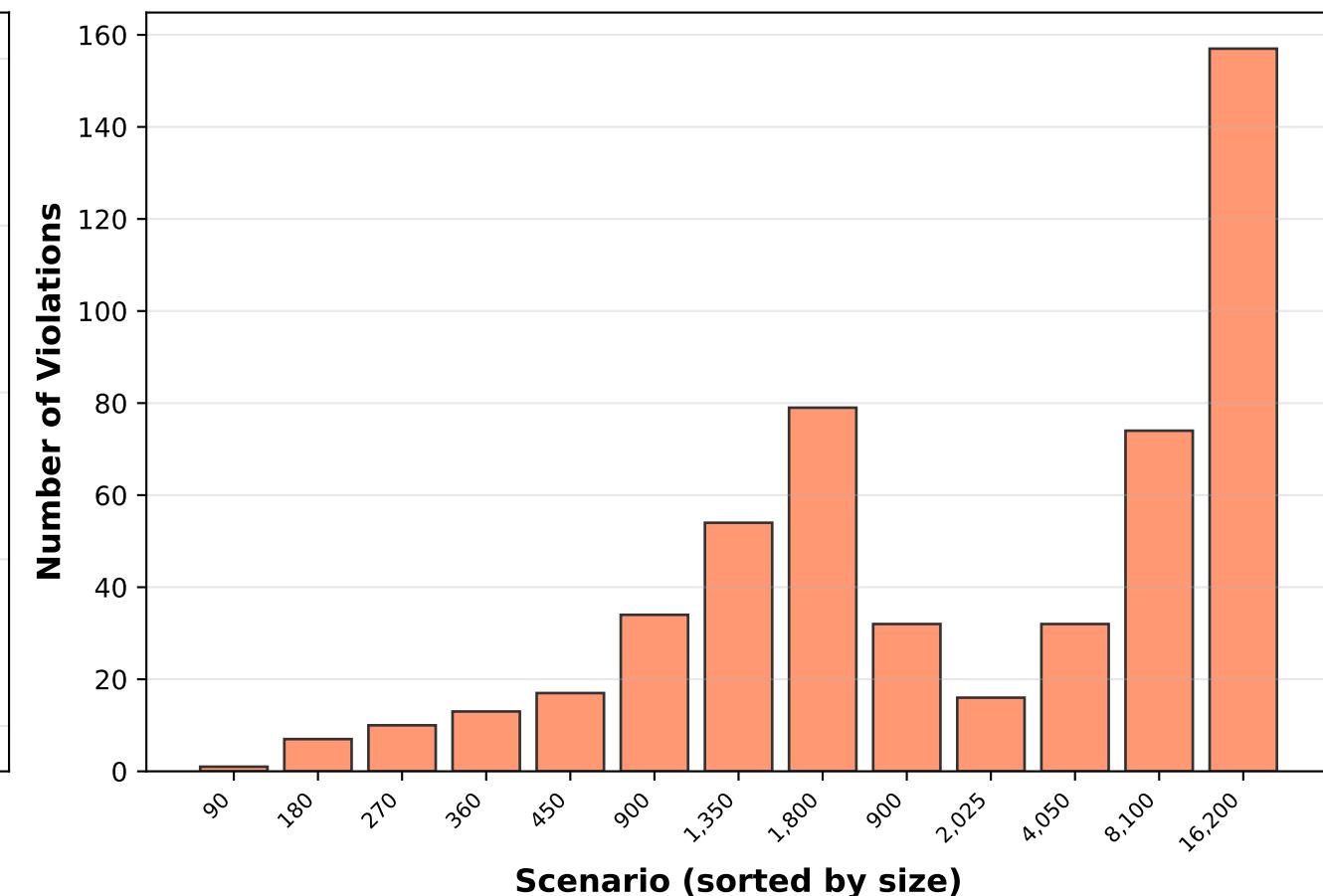


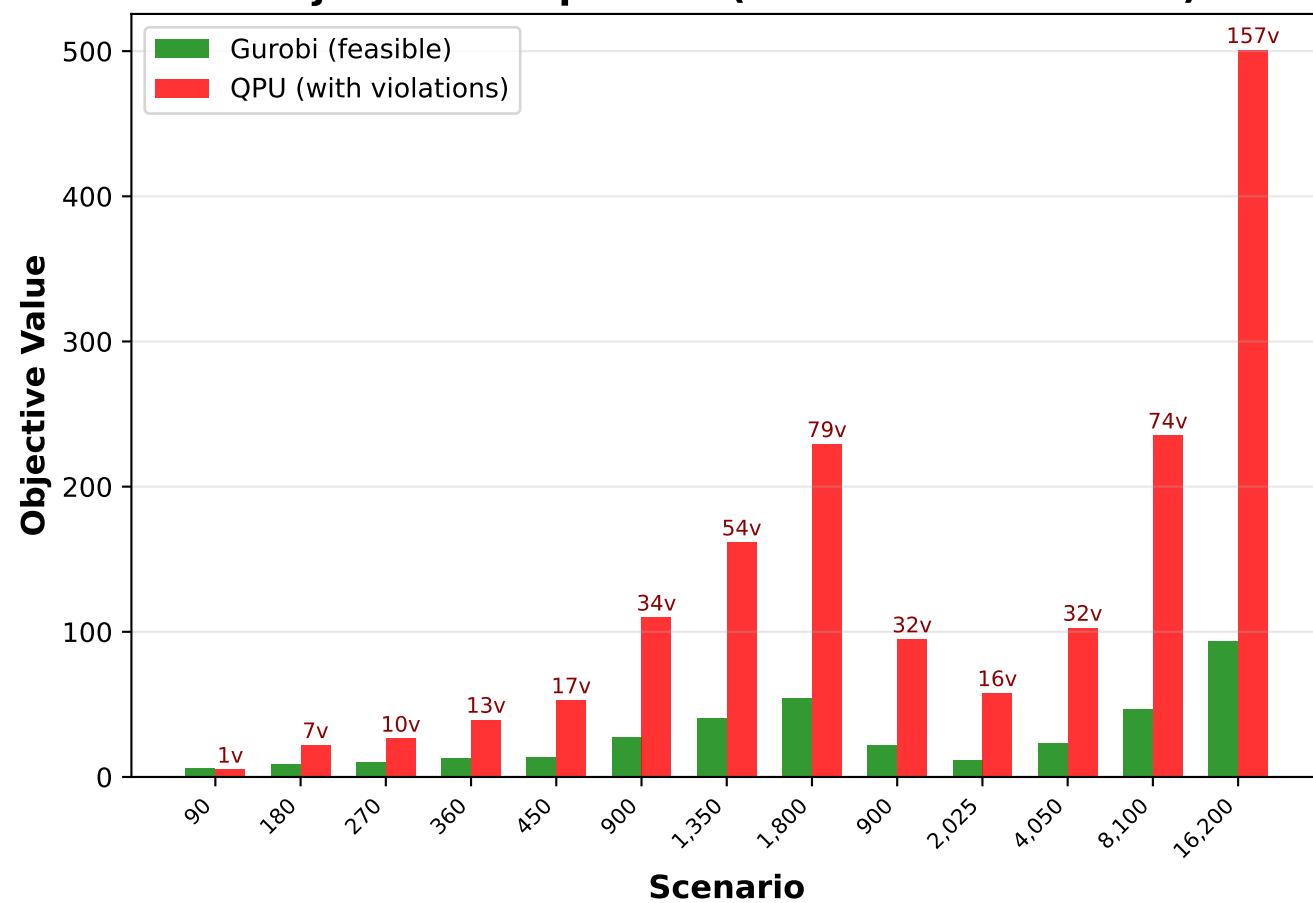
Violations Explain the Objective Gap



Violations Scale with Problem Size



Objective Comparison (violations annotated)



CONSTRAINT VIOLATION IMPACT SUMMARY

Total scenarios analyzed: 13
Scenarios with violations: 13 (100%)
Total violations: 526

Violation Type: 'min_crops' (one-hot failure)
- Farm-period has no crop assigned
- Expected: ≥ 1 crop per farm per period

Statistical Analysis:
- Correlation (viols vs gap): 0.9970
- Avg gap per violation: 2.41
- Linear fit: Gap = 2.57 * viols + -6.45

CONCLUSION:
The 3-5x objective gap is almost entirely explained by constraint violations.
QPU solutions are NOT truly feasible.