

# FloSports — A/B Experiment Report

We simulated an A/B test by randomizing customers within segments into groups A (control) and B (treatment). Treatment B was simulated to reduce churn (increase retention) and raise ARPU slightly in targeted segments. Overall sample sizes: A = 500, B = 500.

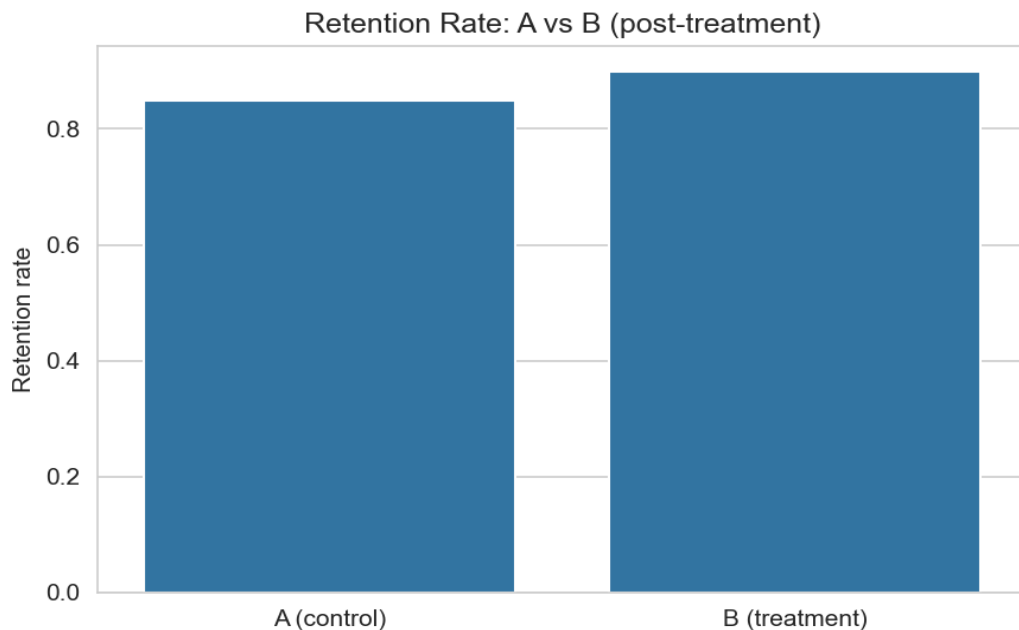
## Frequentist Test Results

Retention (proportions z-test): stat = -2.374, p-value = 0.0088 Chi-square for churn contingency: chi2 = 5.195, p = 0.0226 ARPU (Welch t-test): t = -4.002, p-value = 0.0001

## Bayesian Analysis (probabilities)

Probability(B has higher retention than A)  $\approx$  0.991 Probability(B has higher ARPU than A)  $\approx$  0.000

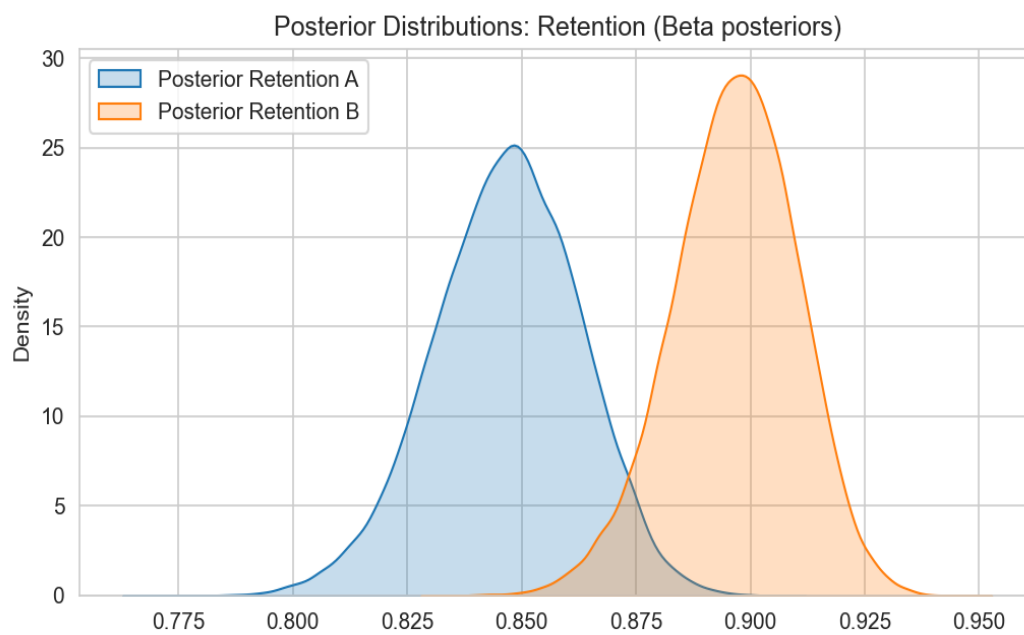
## Retention Rate (A vs B)



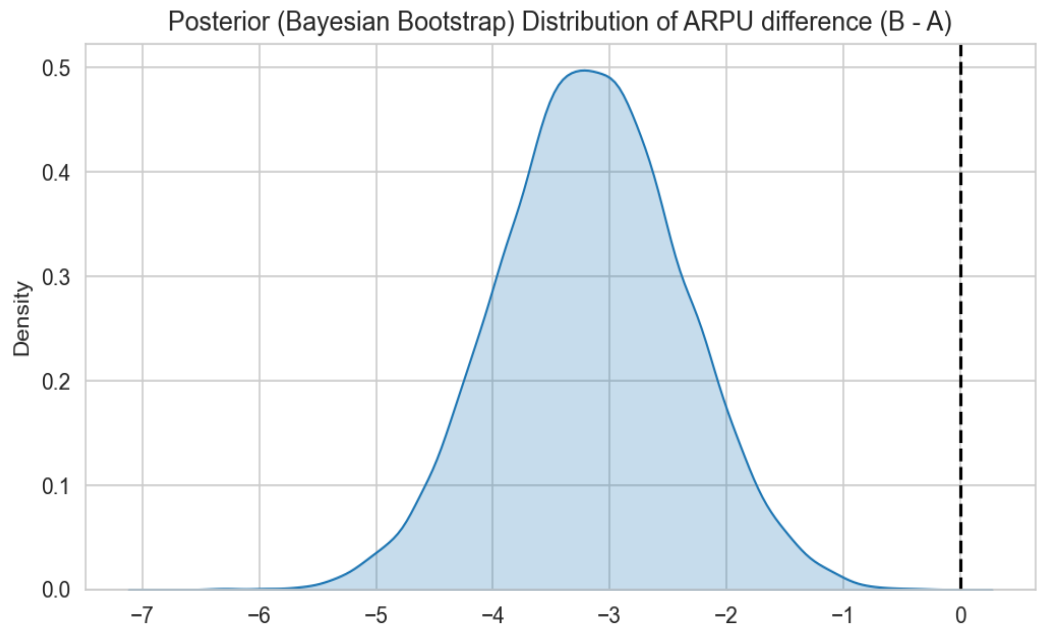
## ARPU (A vs B) — distribution



## Retention Posterior Distributions



## ARPU Posterior (Bayesian Bootstrap) Distribution



### Overall Summary (A vs B)

Group	Customers	RetentionRate	ARPU
A	500	0.152	19.62
B	500	0.102	22.79