Q-Learning vs Param Policy - Per-Cluster Performance
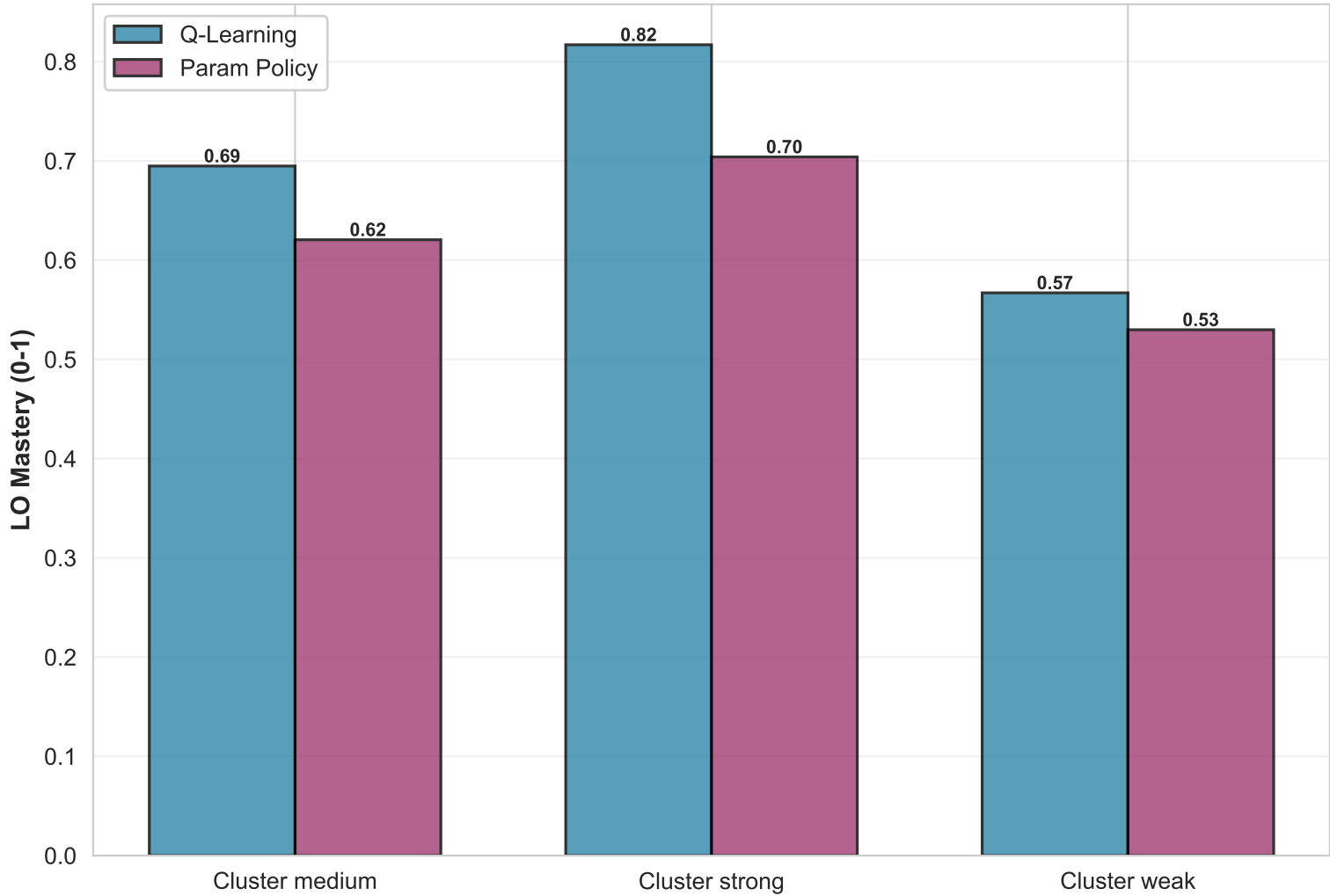
Average Reward by Cluster

Cluster	Q-Learning	Param Policy
Cluster medium	247.76	64.57
Cluster strong	264.68	68.42
Cluster weak	316.93	34.62
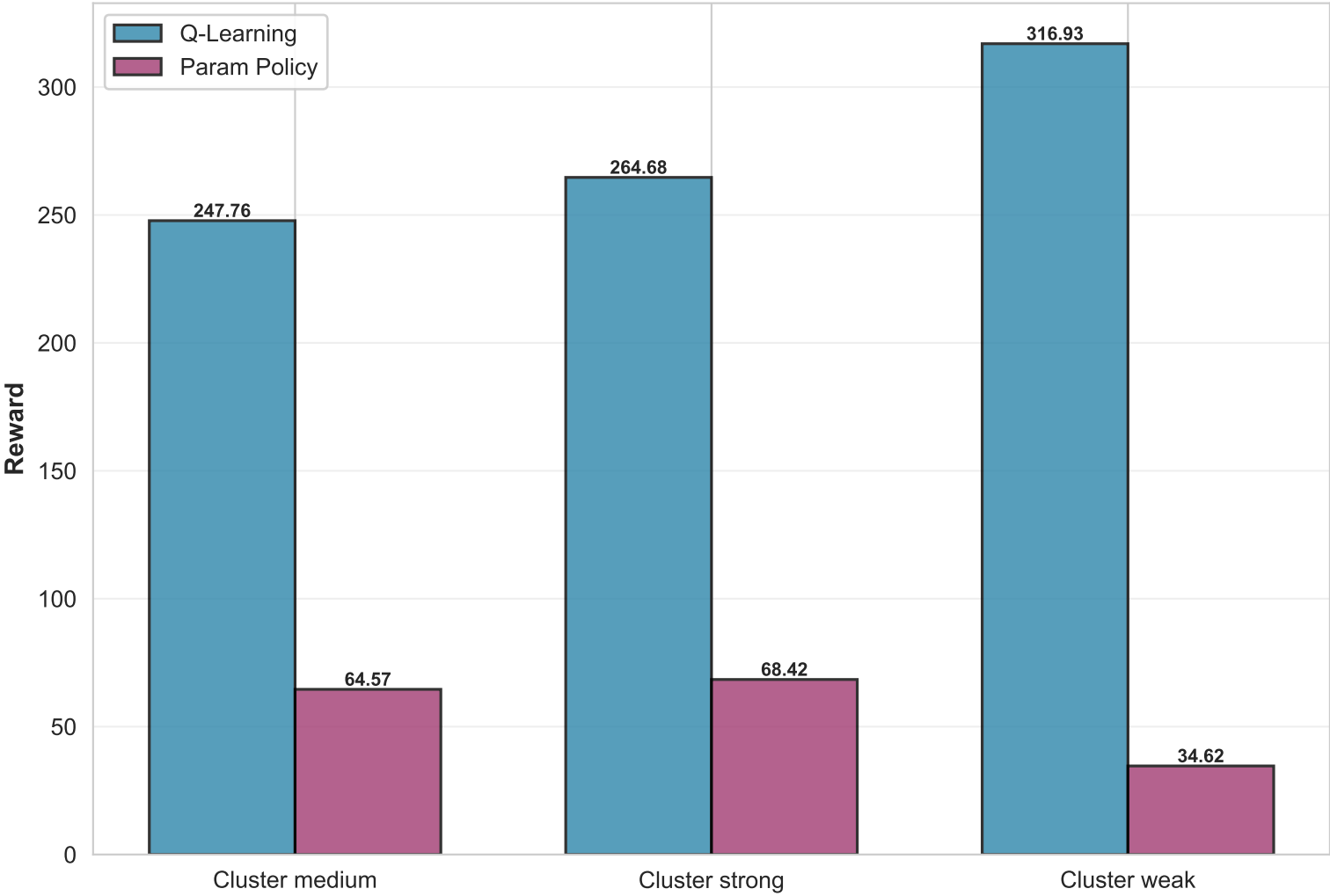
Average Midterm Score by Cluster

Cluster	Q-Learning	Param Policy
Cluster medium	7.03	5.82
Cluster strong	8.18	6.53
Cluster weak	5.76	5.05
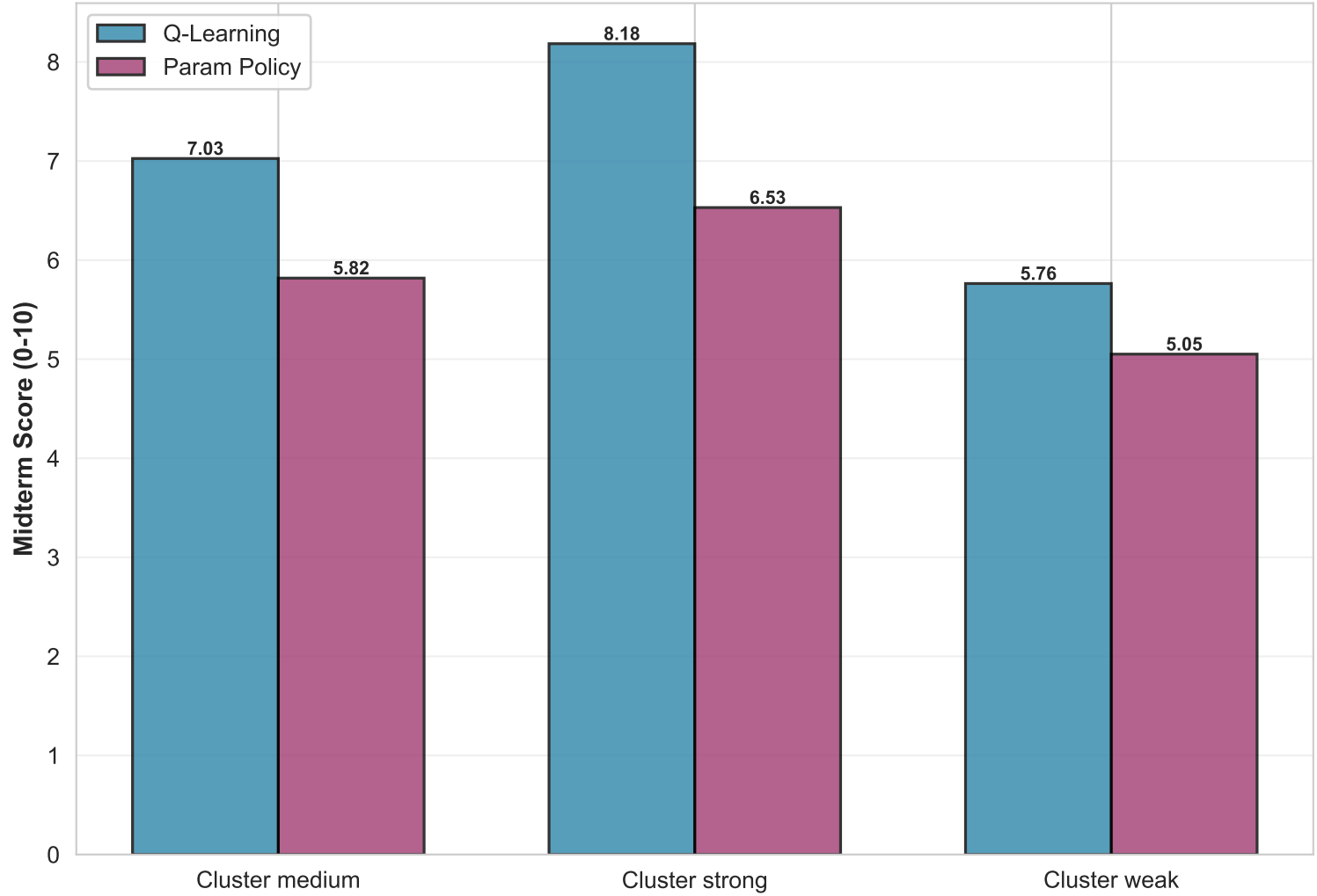
Average LO Mastery by Cluster

Cluster	Q-Learning	Param Policy
Cluster medium	0.69	0.62
Cluster strong	0.82	0.70
Cluster weak	0.57	0.53

Statistical Test Results

Metric	Value
T-statistic	67.744
P-value	0.0000
Significant?	✅ YES
Q-Learning Students	100
Param Policy Students	100