

Swim Meet Simulation Report

Based on 1000 Monte Carlo simulations across 60 teams.

Methodology

The simulator uses seed times from the state performance list, event assignments (up to 2 individual events per swimmer, plus relays), and a Markov-style performance state (Good/Average/Bad) with team momentum. Each simulation samples swim times and ranks finishers to compute team points; win and podium probabilities are estimated from the fraction of simulations in which each team placed 1st or top 3.

Team Summary (Mean, Std, Min, Max, Win %)

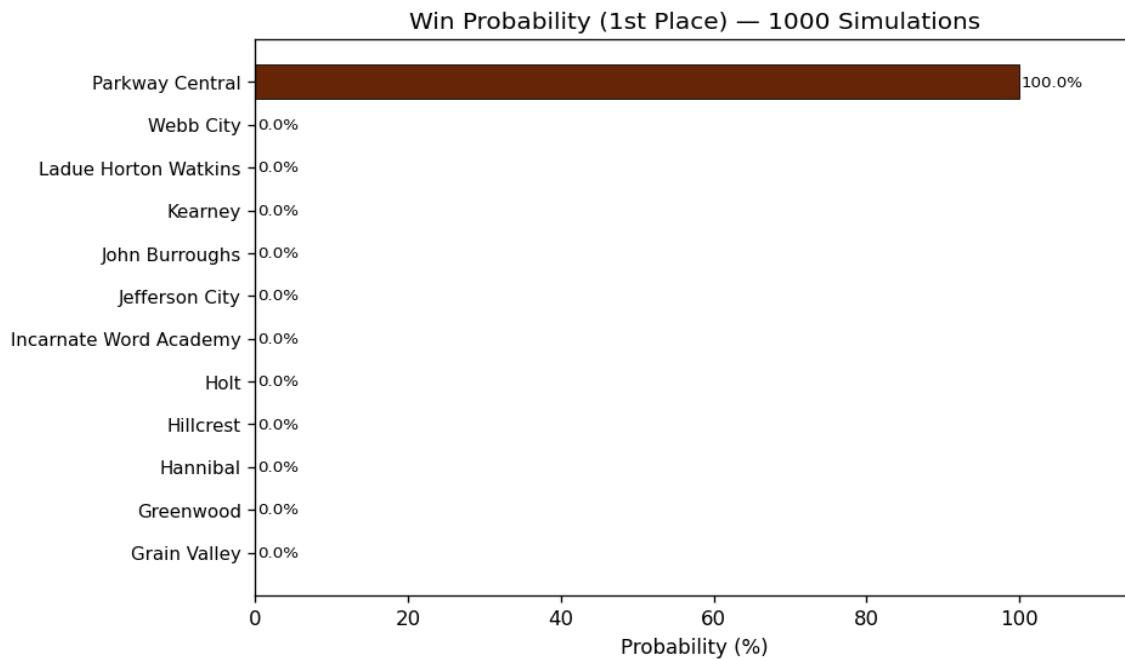
team	mean	std	min	max	win_probability_%
Parkway Central	227.8	9.0	189	252	100.0
St. Teresa's Academy	155.2	9.8	106	183	0.0
Visitation Academy	152.5	8.4	112	191	0.0
Webster Groves	149.0	11.0	105	180	0.0
Villa Duchesne	147.0	11.0	102	189	0.0
Father Tolton	145.2	10.1	92	181	0.0
Rockwood Summit	105.6	11.4	65	166	0.0
John Burroughs	103.4	11.7	32	136	0.0
Grain Valley	82.6	12.4	39	121	0.0
Parkway West	79.6	10.9	45	110	0.0
Louisiana	77.9	9.9	45	115	0.0
Nerinx Hall	71.7	9.7	44	105	0.0
Notre Dame de Sion	65.2	10.9	28	108	0.0
Clayton	62.2	8.7	39	105	0.0
Central (Cape Girardeau)	62.0	4.3	48	87	0.0

Podium Probability (Top 3 Finish)

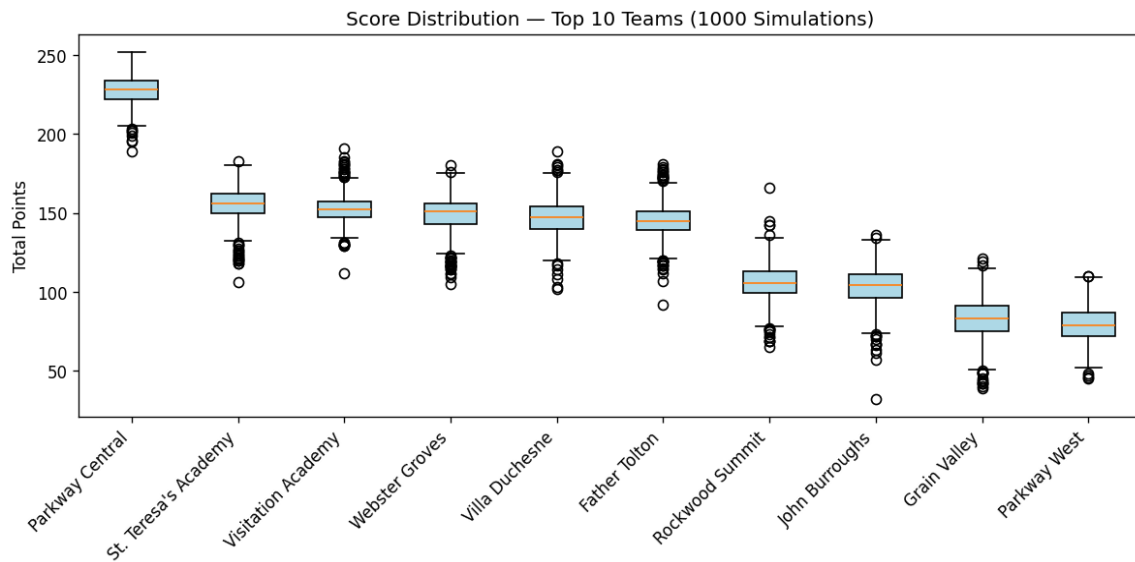
team	podium_probability	avg_rank
Parkway Central	1.0	1.0
St. Teresa's Academy	0.675	3.169

team	podium_probability	avg_rank
Visitation Academy	0.511	3.575
Webster Groves	0.402	4.0
Villa Duchesne	0.287	4.378
Father Tolton	0.21	4.656
Rockwood Summit	0.001	7.612
Platte County	0.0	33.129
Principia	0.0	37.415
Poplar Bluff	0.0	38.768
Belton	0.0	43.669
Parkway West	0.0	10.538

Win Probability (1st Place)



Score Distribution (Top 10 Teams)



Analysis & Commentary

Based on 1000 simulated meets, **Parkway Central** is the clear favorite, winning approximately **100.0%** of simulations with an average total score of **227.8 points**. The model reflects seed times, event assignments, and a Markov-style performance state with team momentum.

The primary challenger is **St. Teresa's Academy**, with a **0.0%** chance of winning. The gap between the top two teams indicates that the state title is likely a two-school race unless seed data or day-of-meet variance shifts significantly.

The most likely podium (top 3) consists of **Parkway Central, St. Teresa's Academy, Visitation Academy**, with each of these teams having a high probability of finishing in the top three. Coaches and athletes can use these probabilities to set realistic goals (e.g., contending for a podium spot vs. winning the meet).

This report is generated from a stochastic simulator and should be interpreted as a probabilistic outlook, not a prediction of a single outcome. Actual results depend on many factors not in the model (injuries, taper, relay order, etc.).