

# Swim Meet Simulation Report

Based on 50 Monte Carlo simulations across 65 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 %)

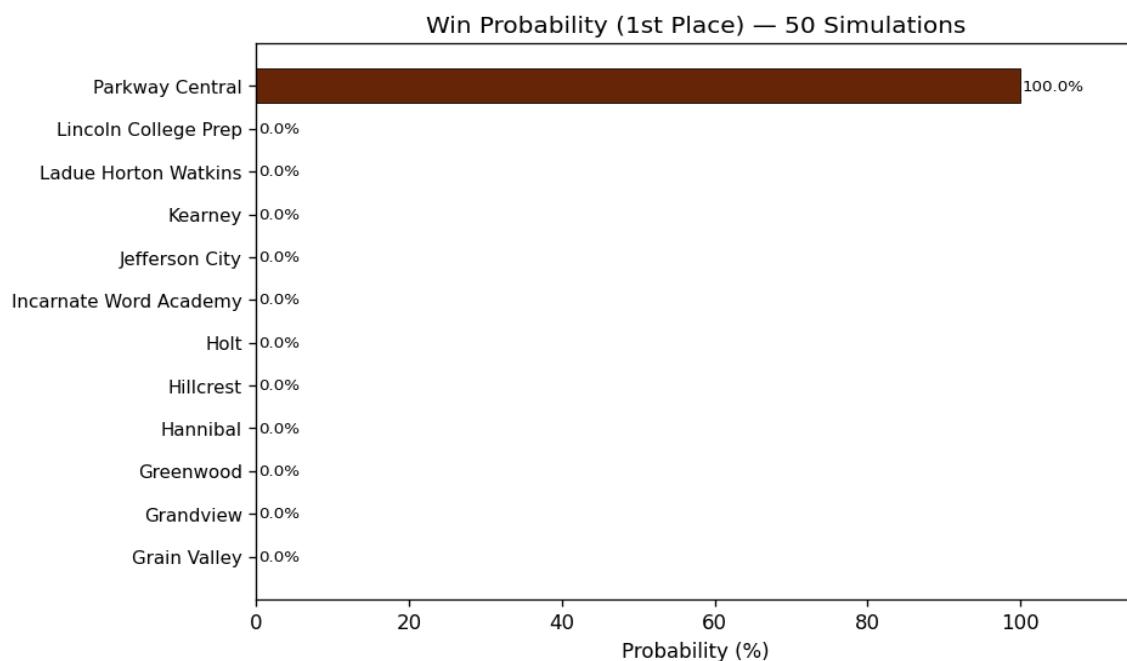
team	mean	std	min	max	win_probability_%
Parkway Central	227.0	11.0	202	252	100.0
Visitation Academy	176.0	7.7	159	197	0.0
St. Teresa's Academy	170.4	15.2	135	196	0.0
Father Tolton	145.1	9.8	117	168	0.0
Webster Groves	142.2	12.6	121	163	0.0
Villa Duchesne	133.6	11.7	104	159	0.0
John Burroughs	116.2	14.5	69	146	0.0
Notre Dame de Sion	107.1	12.3	78	132	0.0
Rockwood Summit	94.9	12.8	67	123	0.0
Parkway West	85.1	10.5	63	107	0.0
Nerinx Hall	75.0	15.5	38	120	0.0
Grain Valley	74.3	14.9	45	107	0.0
St. Michael the Archangel	71.3	13.0	43	95	0.0
Clayton	68.6	13.8	41	105	0.0
Louisiana	65.1	12.6	40	98	0.0

## Podium Probability (Top 3 Finish)

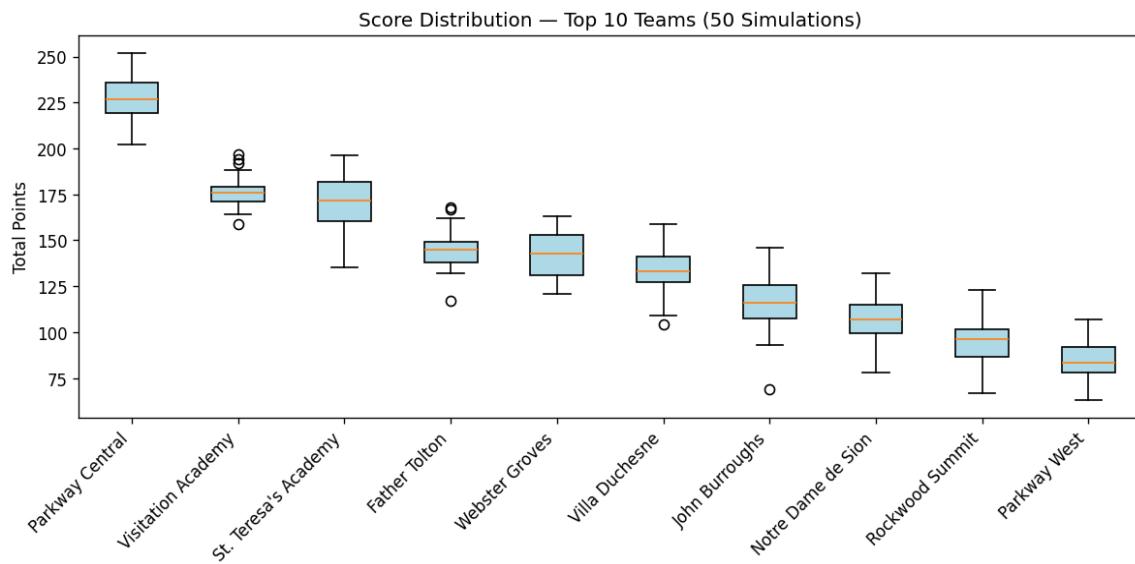
team	podium_probability	avg_rank
Visitation Academy	1.0	2.38
Parkway Central	1.0	1.0

team	podium_probability	avg_rank
St. Teresa's Academy	0.84	2.82
Father Tolton	0.08	4.58
Webster Groves	0.08	4.84
Villa Duchesne	0.02	5.76
Rockwood Summit	0.0	9.54
Principia	0.0	28.22
Poplar Bluff	0.0	41.02
Platte County	0.0	38.68
Parkway West	0.0	10.76
Barstow	0.0	42.14

## Win Probability (1st Place)



## Score Distribution (Top 10 Teams)



## Analysis & Commentary

Based on 50 simulated meets, **Parkway Central** is the clear favorite, winning approximately **100.0%** of simulations with an average total score of **227.0 points**. The model reflects seed times, event assignments, and a Markov-style performance state with team momentum. Total scores include both swimming and diving events.

The primary challenger is **Visitation 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 **Visitation Academy, Parkway Central, St. Teresa's 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.).