

# Swim Meet Simulation Report

Based on 670 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 %)

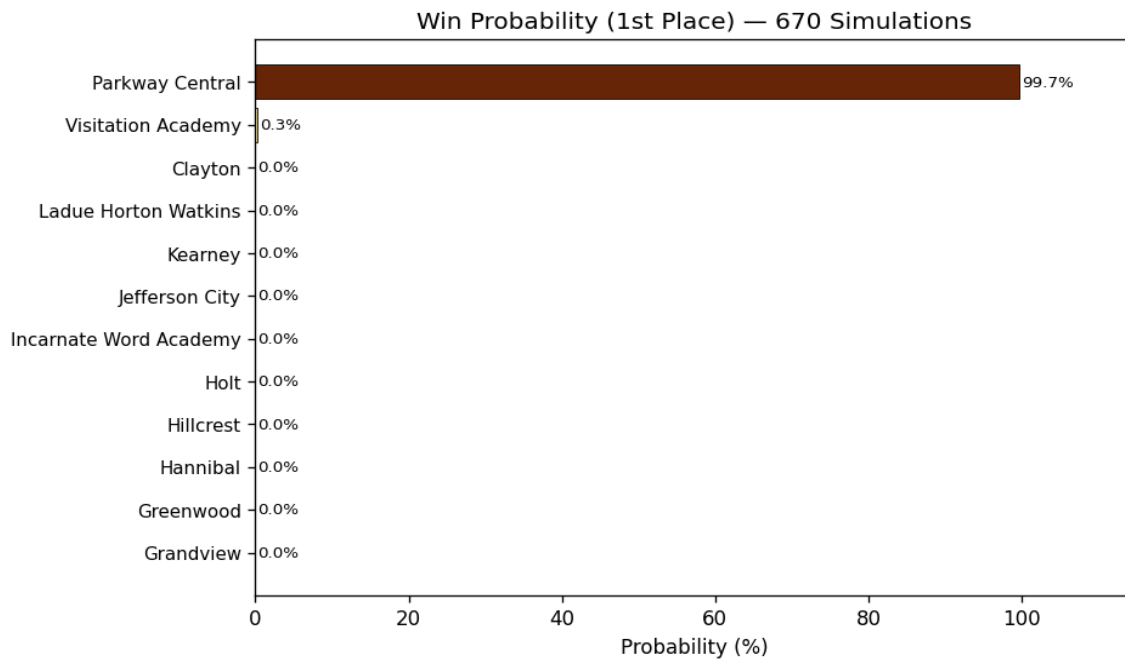
team	mean	std	min	max	win_probability_%
Parkway Central	227.7	11.5	189	264	99.7
Visitation Academy	174.7	9.5	148	220	0.3
St. Teresa's Academy	170.7	12.3	130	206	0.0
Father Tolton	145.8	10.1	108	181	0.0
Webster Groves	144.2	13.4	97	189	0.0
Villa Duchesne	135.6	13.0	97	172	0.0
John Burroughs	116.7	14.0	51	158	0.0
Notre Dame de Sion	105.9	14.7	57	153	0.0
Rockwood Summit	94.3	12.1	55	145	0.0
Parkway West	82.2	11.6	39	118	0.0
Nerinx Hall	73.4	13.2	39	115	0.0
St. Michael the Archangel	73.1	12.9	37	114	0.0
Grain Valley	71.3	12.2	26	105	0.0
Clayton	67.5	11.3	37	113	0.0
Louisiana	63.9	12.8	31	100	0.0

## Podium Probability (Top 3 Finish)

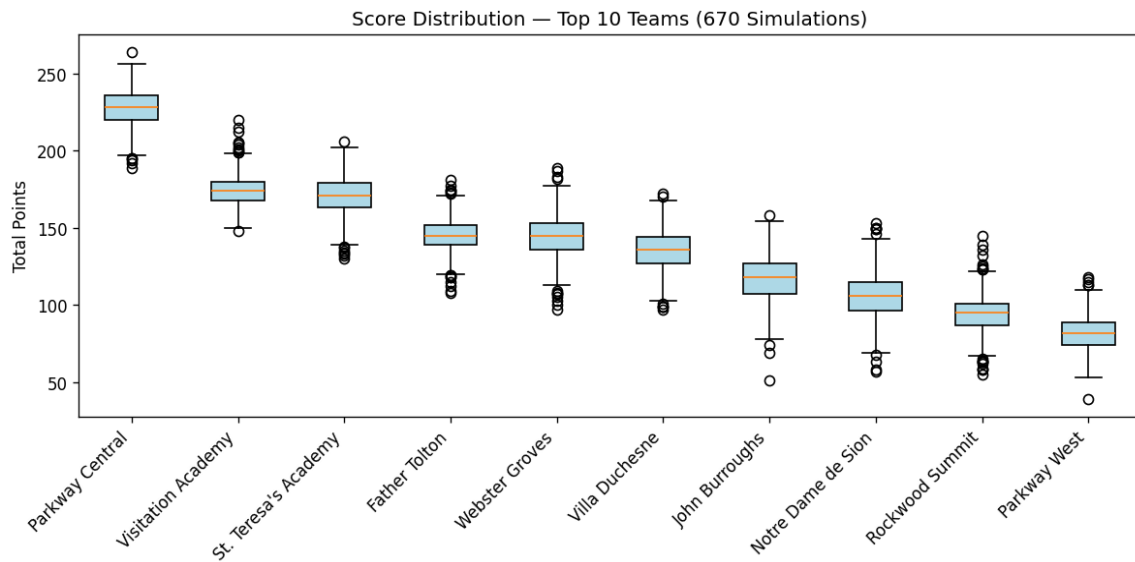
team	podium_probability	avg_rank
Parkway Central	1.0	1.003
Visitation Academy	0.966	2.44

team	podium_probability	avg_rank
St. Teresa's Academy	0.888	2.751
Webster Groves	0.073	4.825
Father Tolton	0.066	4.666
Villa Duchesne	0.019	5.612
John Burroughs	0.003	7.218
Rockwood Summit	0.0	9.237
Principia	0.0	28.803
Poplar Bluff	0.0	40.018
Platte County	0.0	39.125
Barstow	0.0	41.993

## Win Probability (1st Place)



## Score Distribution (Top 10 Teams)



## Analysis & Commentary

Based on 670 simulated meets, **Parkway Central** is the clear favorite, winning approximately **99.7%** of simulations with an average total score of **227.7 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 **0.3%** 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, Visitation Academy, 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.).