

# MASSEY RATINGS

- **Inputs**

The computer considers the outcome of each game. Optionally, some games may be assigned more or less weight than usual (e.g. playoffs or exhibitions). All games are analyzed in concert, so that the impressiveness of each win is constantly being re-evaluated in light of the other results.

- **Model**

The mathematical rating model is based on maximizing the retrospective probability of the observed game results. Each outcome generates a “force” on the teams involved, attempting to push the winner above the loser. But as the algorithm adjusts the ratings to create an equilibrium, a ripple effect occurs throughout the entire network of teams. Opponents’ opponents’ opponents’ ... ad infinitum are influenced by some degree. By chains of interaction, it is possible to compare teams that are geographically dispersed.

- **Margin of Victory**

Each game score is translated to a probability that the winner is really the better team. A narrow win of 27-24 might translate to 58%, while a blowout of 45-14 gives 98%. The cap of 100% enforces diminishing returns to running up the score.

- **Pace**

The model does not discriminate against styles of play that result in fewer total points. In football for example, a team that typically wins games 24-10 may be considered more impressive than a team that wins 49-31 barnburners.

- **Strength of Schedule**

Each team is measured by its performance relative to the opposition faced. Ratings and strength of schedule are calculated simultaneously so that schematically

$$\text{rating} = \text{performance} + \text{strength of schedule}$$

The model is able to accurately compare e.g. a team that went 9-1 against weak competition to a team that went 6-4 against a brutal schedule.

- **Mismatches**

The model derives most of its information from games between teams of similar strength. Therefore there should be no incentive to scheduling inferior opponents, since there is limited reward to wins and potentially large downside in the unlikely event of an upset. With regard to strength of schedule, it is more difficult for an elite team to face #2 and #100 than to face #39 and #40.

- **Head-to-Head**

Sometimes lower ranked teams defeat higher ranked teams. These “upsets” are inevitable and should be tolerated since each team is rated according to its entire “body of work”. A single head-to-head result is not always consistent with rankings derived as a best fit for the entire season.

- **Objectivity**

All teams are treated equally and anonymously, without regard to name brands or affiliations. The computer can assess bad or mediocre teams just as well as the teams at the top.

- **Rating and Power**

A team’s rating is designed to reward the most impressive resumes, giving more credit to wins, regardless of how dominant they were. In contrast, the “Power” of a team is more indicative of the true strength of the team. The power of a team is broken in to offensive and defensive components, which can be combined to forecast typical scores for a given matchup, as well as the associated probabilities of winning.

Team	New Power Ranking (20%&80%)	Division
Agoura	13.47261132	Division 1/2
Corona Del Mar	19.18535832	Division 1/2
Dos Pueblos	21.6781272	Division 1/2
El Toro	12.03218686	Division 1/2
FoothillSanta Ana	19.1565991	Division 1/2
HarvardWestlake	12.06355052	Division 1/2
Huntington Beach	15.0487917	Division 1/2
King Martin Luther	15.16131504	Division 1/2
La Canada	13.01378598	Division 1/2
Laguna Beach	22.74941144	Division 1/2
Los Alamitos	18.60315796	Division 1/2
Los Osos	14.12747568	Division 1/2
LutheranOrange	18.96759776	Division 1/2
Mater Dei	20.83692958	Division 1/2
Murrieta Valley	12.4802836	Division 1/2
Newport Harbor	16.15387652	Division 1/2
Rosary Academy	12.46052744	Division 1/2
Royal	12.37866264	Division 1/2
San Clemente	16.02041262	Division 1/2
San Marcos	18.21075796	Division 1/2
Santa Barbara	14.73436606	Division 1/2
Santa Margarita	16.73119426	Division 1/2
Schurr	13.16808914	Division 1/2
WilsonLong Beach	12.65498626	Division 1/2
Beckman	8.11760554	Division 3
Brea Olinda	7.96791842	Division 3
CanyonAnaheim	9.77762558	Division 3
Claremont	11.37849634	Division 3
Crescenta Valley	9.59151644	Division 3
Esperanza	7.64590378	Division 3
La Serna	9.56443044	Division 3
Mira Costa	11.8119881	Division 3
Newbury Park	7.77184872	Division 3
Notre DameSherman Oaks	7.0980136	Division 3
Oaks Christian	9.48852222	Division 3
Palos Verdes	7.82538632	Division 3
Peninsula	7.27817458	Division 3
PolyLong Beach	10.20245544	Division 3
PolyRiverside	9.66005036	Division 3
Redondo Union	10.13170404	Division 3
Rio Mesa	7.2971689	Division 3
Santa Monica	7.79497966	Division 3
SantiagoCorona	11.15655214	Division 3
Segerstrom	10.0401646	Division 3
South Pasadena	9.49022312	Division 3
St Lucys	10.109954	Division 3
Temescal Canyon	7.35921168	Division 3

Temple City	<b>8.4740478</b>	Division 3
Villa Park	<b>7.62448098</b>	Division 3
Alemanay	<b>3.01324098</b>	Division 4
Aliso Niguel	<b>4.92200352</b>	Division 4
Ayala Ruben	<b>5.51940372</b>	Division 4
Beaumont	<b>3.92667222</b>	Division 4
Bonita	<b>5.9467314</b>	Division 4
BurroughsBurbank	<b>3.39823708</b>	Division 4
Capistrano Valley	<b>5.37443022</b>	Division 4
Chaparral	<b>3.79934028</b>	Division 4
Corona	<b>4.28875756</b>	Division 4
Culver City	<b>3.45339262</b>	Division 4
Dana Hills	<b>6.75772784</b>	Division 4
Diamond Bar	<b>5.05639768</b>	Division 4
Downey	<b>6.2497028</b>	Division 4
Edison	<b>5.5731656</b>	Division 4
El Segundo	<b>6.22242844</b>	Division 4
Etiwanda	<b>3.67706162</b>	Division 4
Fullerton	<b>4.41854888</b>	Division 4
Great Oak	<b>3.30906284</b>	Division 4
Irvine	<b>6.65843138</b>	Division 4
La Habra	<b>4.54744896</b>	Division 4
La QuintaLa Quinta	<b>6.82170998</b>	Division 4
Millikan	<b>6.6470392</b>	Division 4
Mission Viejo	<b>3.89698134</b>	Division 4
Moorpark	<b>3.17480292</b>	Division 4
Northwood	<b>3.32772888</b>	Division 4
Oxnard	<b>6.27604644</b>	Division 4
PolyPasadena	<b>4.44978328</b>	Division 4
Rancho Cucamonga	<b>6.2855088</b>	Division 4
Sunny Hills	<b>6.95409598</b>	Division 4
Tesoro	<b>6.9727187</b>	Division 4
Thousand Oaks	<b>3.9321566</b>	Division 4
Troy	<b>6.0707605</b>	Division 4
University	<b>3.82700208</b>	Division 4
ValenciaPlacentia	<b>3.11545158</b>	Division 4
Ventura	<b>4.78712126</b>	Division 4
Vista Murrieta	<b>3.42909096</b>	Division 4
Warren	<b>6.47874658</b>	Division 4
Westlake	<b>5.00167518</b>	Division 4
Whittier	<b>3.42736438</b>	Division 4
Woodbridge	<b>4.14809132</b>	Division 4
Xavier Prep	<b>5.34856894</b>	Division 4
Yucaipa	<b>4.37039708</b>	Division 4
Alta Loma	<b>2.73411286</b>	Division 5
Arlington	<b>1.79494236</b>	Division 5
CabrilloLompoc	<b>0.8669583</b>	Division 5

Cajon	<b>0.64654876</b>	Division 5
Calabasas	<b>-0.40317842</b>	Division 5
California	<b>-0.33597276</b>	Division 5
Camarillo	<b>1.81468234</b>	Division 5
CentennialCorona	<b>-0.92227288</b>	Division 5
Chino	<b>0.9571016</b>	Division 5
Citrus Valley	<b>1.24671004</b>	Division 5
Costa Mesa	<b>-0.07917222</b>	Division 5
El Dorado	<b>2.64762164</b>	Division 5
Elsinore	<b>1.12803752</b>	Division 5
Foothill Technology	<b>1.91350526</b>	Division 5
Fountain Valley	<b>1.61404928</b>	Division 5
Garden Grove	<b>0.5369915</b>	Division 5
Glendale	<b>-0.8623076</b>	Division 5
Glendora	<b>2.92215902</b>	Division 5
Hemet	<b>1.47545844</b>	Division 5
Hillcrest	<b>-0.60163716</b>	Division 5
KennedyLa Palma	<b>1.10415848</b>	Division 5
Laguna Hills	<b>-0.9481515</b>	Division 5
LakesideLake Elsinore	<b>0.95075636</b>	Division 5
Los AltosHacienda Heights	<b>0.06938194</b>	Division 5
Malibu	<b>1.32820964</b>	Division 5
Marina	<b>-0.5510662</b>	Division 5
Marymount	<b>1.19910026</b>	Division 5
Monrovia	<b>2.56289698</b>	Division 5
Montebello	<b>0.3287001</b>	Division 5
Murrieta Mesa	<b>1.87379586</b>	Division 5
Norco	<b>-0.10308158</b>	Division 5
North JW	<b>-0.39716416</b>	Division 5
Ocean View	<b>1.90639556</b>	Division 5
Palm Desert	<b>1.276377</b>	Division 5
Roosevelt Eleanor	<b>2.69210078</b>	Division 5
San Dimas	<b>2.58238622</b>	Division 5
San Juan Hills	<b>1.0603157</b>	Division 5
San Marino	<b>0.66191456</b>	Division 5
Santa Ana Valley	<b>1.59825504</b>	Division 5
Temecula Valley	<b>2.93326828</b>	Division 5
Trabuco Hills	<b>1.36511172</b>	Division 5
Tustin	<b>1.25025754</b>	Division 5
Upland	<b>0.22049792</b>	Division 5
Valley View	<b>2.46564762</b>	Division 5
West Valley	<b>-0.47220738</b>	Division 5
Yorba Linda	<b>-0.3681085</b>	Division 5
Arcadia	<b>-1.35485458</b>	Division 6
Bell Gardens	<b>-4.71215662</b>	Division 6
Buena	<b>-3.56091372</b>	Division 6
Buena Park	<b>-1.8916897</b>	Division 6
Burbank	<b>-4.01552016</b>	Division 6

Canyon Springs	<b>-2.5337042</b>	Division 6
Cerritos	<b>-1.65301474</b>	Division 6
Chaffey	<b>-2.08631612</b>	Division 6
Charter Oak	<b>-4.20386108</b>	Division 6
Chino Hills	<b>-2.67331394</b>	Division 6
Cypress	<b>-1.62206034</b>	Division 6
Don Lugo	<b>-2.16519264</b>	Division 6
Flintridge Sacred Heart	<b>-3.7981426</b>	Division 6
Godinez	<b>-3.94073208</b>	Division 6
JSerra	<b>-2.82124468</b>	Division 6
Jurupa Valley	<b>-2.36426682</b>	Division 6
La Mirada	<b>-1.1160283</b>	Division 6
La Sierra	<b>-2.99006466</b>	Division 6
Lakewood	<b>-1.97475846</b>	Division 6
Los Amigos	<b>-1.20613172</b>	Division 6
Louisville	<b>-5.53228132</b>	Division 6
Mark Keppel	<b>-4.02757254</b>	Division 6
Marlborough	<b>-2.6486378</b>	Division 6
Mayfield	<b>-3.51172608</b>	Division 6
Montclair	<b>-3.9396483</b>	Division 6
Ontario	<b>-5.44644986</b>	Division 6
PacificaGarden Grove	<b>-4.21404494</b>	Division 6
PacificaOxnard	<b>-4.0202518</b>	Division 6
Palm Springs	<b>-2.17484812</b>	Division 6
Paloma Valley	<b>-4.6471901</b>	Division 6
Ramona	<b>-4.1209248</b>	Division 6
Redlands	<b>-2.20896148</b>	Division 6
Redlands East Valley	<b>-5.15178802</b>	Division 6
Rowland	<b>-5.7561258</b>	Division 6
Saddleback	<b>-4.91776738</b>	Division 6
Santa Fe	<b>-1.77913416</b>	Division 6
Santa Paula	<b>-5.61656486</b>	Division 6
Santa Ynez	<b>-1.5782786</b>	Division 6
Savanna	<b>-1.14397914</b>	Division 6
Sonora	<b>-2.14445722</b>	Division 6
Torrance	<b>-5.61475438</b>	Division 6
Villanova Prep	<b>-3.39686184</b>	Division 6
Walnut	<b>-1.12855276</b>	Division 6
Webb	<b>-2.33372216</b>	Division 6
West Torrance	<b>-2.91873712</b>	Division 6
Western	<b>-2.94298224</b>	Division 6
Westridge	<b>-4.78376248</b>	Division 6
WilsonHacienda Heights	<b>-4.8471949</b>	Division 6
Alhambra	<b>-9.70065336</b>	Division 7
Arroyo Valley	<b>-21.19524266</b>	Division 7
Baldwin Park	<b>-17.90150284</b>	Division 7
Beverly Hills	<b>-11.79652918</b>	Division 7
Bolsa Grande	<b>-15.20386434</b>	Division 7

Brentwood	-16.92935042	Division 7
CabrilloLong Beach	-10.23000532	Division 7
Carpinteria	-9.24915626	Division 7
Carter	-9.64682134	Division 7
Cate	-6.03332276	Division 7
Cathedral City	-11.28969878	Division 7
Chadwick	-9.46108972	Division 7
Channel Islands	-15.08574334	Division 7
Colony	-7.95121546	Division 7
Eisenhower	-11.91801016	Division 7
El Modena	-10.31489432	Division 7
El Rancho	-8.05396516	Division 7
Estancia	-6.25089622	Division 7
Fillmore	-16.9088414	Division 7
Flintridge Prep	-7.55268098	Division 7
Fontana	-7.62773724	Division 7
Gahr	-13.30620804	Division 7
Granite HillsApple Valley	-14.80508108	Division 7
Heritage	-13.3961528	Division 7
Hoover	-7.97612094	Division 7
Hueneme	-13.9752801	Division 7
Indian Springs	-11.36971714	Division 7
Indio	-16.74049876	Division 7
Jordan	-7.68961046	Division 7
Katella	-8.5118996	Division 7
La Puente	-21.03510372	Division 7
La QuintaWestminster	-9.1886174	Division 7
La Salle	-12.06208862	Division 7
Loara	-8.82378938	Division 7
Lompoc	-13.18734096	Division 7
Magnolia	-8.29769188	Division 7
Milken Community	-16.75274596	Division 7
Moreno Valley	-10.34808782	Division 7
Nogales	-16.7004262	Division 7
Nordhoff	-9.5049426	Division 7
Norte Vista	-9.91162728	Division 7
Notre DameRiverside	-9.55279492	Division 7
Orange	-11.57654764	Division 7
Pacific	-18.46446458	Division 7
Paramount	-14.62782612	Division 7
Pasadena	-6.07921304	Division 7
Perris	-11.86699166	Division 7
Pioneer	-6.65165652	Division 7
Pomona Catholic	-11.06998096	Division 7
Rancho Alamitos	-11.8189472	Division 7
Rancho Mirage	-9.38959854	Division 7
Rubidoux	-13.71493726	Division 7
San Bernardino	-10.54560206	Division 7

San Gorgonio	<b>-7.34988082</b>	Division 7
Santa Ana	<b>-11.3438499</b>	Division 7
Shadow Hills	<b>-9.48192394</b>	Division 7
Sierra Vista	<b>-11.37204554</b>	Division 7
St JosephLakewood	<b>-8.4363053</b>	Division 7
Summit	<b>-12.67559234</b>	Division 7
Tahquitz	<b>-6.03675536</b>	Division 7
West Covina	<b>-11.08777114</b>	Division 7
Westminster	<b>-17.02355376</b>	Division 7
Workman	<b>-11.41860878</b>	Division 7