This database is structured by game. This means that each line has all information for home and away team in the same line. Betting data is found for both home and away teams, however for betting data you can just take the inverse of the home or away spreads to get the other. There are both opening spread (use OPENINGSPREAD_away to get opening spread and spread_line_home for closing) and closing spread and opening goes back to 2008. If you want to make power ratings you can split the data into home away data via the _home:_away stats and then stack these data aka set these data on top of one another, this will give you a week by week database of each team with MOV and points scored. All rolling averages have been assessed for normality and in situations where this was not true the median was used.

game_id= game ID

posteam_home: home team

season_home: season the game took place in

week_home: week of season game took place in

home_team: home team

away_team: away team

off_epa_into_week_home: this is the home teams in season EPA/play (Expected points added) for that season. Important notes; for week 1 this is weeks 1-16 of the previous season, after week 1 it is the rolling average of epa/play for all weeks previous. Example week 6 prediction is weeks 1-5 of that season.

plays_avg_home: this is the home teams in season offensive plays per game for that season. Important notes; for week 1 this is weeks 1-16 of the previous season, after week 1 it is the rolling average of offensive play for all weeks previous. Example week 6 prediction is weeks 1-5 of that season.

succsess_rate_into_week_home: Defined as % of plays that results as positive EPA. this is the home teams in season Success rate/play for that season. Important notes; for week 1 this is weeks 1-16 of the previous season, after week 1 it is the rolling average of offensive play for all weeks previous. Example week 6 prediction is weeks 1-5 of that season.

turnovers_per_game_home: defined as median number of TO/game

off_pass_epa_into_week_home: this is the home teams in season EPA/pass play (Expected points added) for that season.

passes_avg_home: average number of pass plays per game.

off_rush_epa_into_week_home: this is the home teams in season EPA/rush play (Expected points added) for that season.

rushes_avg_home: average number of rushes plays per game.

third_down_convert_home: % of third downs home team converts (results in a first down) per game

third_down_avg_home: number of third downs/game

ma15_home: 15 game moving average of the EPA/play. This will use games in previous season until after week 16 of the current season. This adds stability to the EPA into week for early week in the season

ma15_sd_home: standard devation of 15 game moving average of the EPA/play. eckel_rate_into_week_home

drives_into_week_home: % of drives that get to opponents 40 or better OR a drive that has a 60 yard TD for home team (this is used in our model).

off_redzone_home:

off_redzone_success_home: success rate in redzone

off_redzone_drive_points_home: points per redzone appearance

def_epa_into_week_home: this is the teams in season EPA/play in Defense (Expected points added) for that season

def_plays_avg_home: average # if plays on defense.

Def_succsess_rate_into_week_home: Defined as % of plays that results as negative EPA for Def team.

def_turnovers_per_game_home: median turnovers on Def:

def_rank_of_week_home: rank of the teams def EPA/play that week. High error rate with this variable use cation

def_pass_epa_into_week_home: In season EPA/play on def for pass plays they defend

Def_passes_avg_home: average number of passed defended/game

def_rush_epa_into_week_home: In season EPA/play on def for run plays they defend

Def_rushes_avg_home: average number of rushes defended/game

def_ma15_home: 15 game rolling average (for in season when there is less than 15 games this is using previous seasons games, we use this in our model).

def_ma15_sd_home: 15 game rolling standard deviation.
home_home: home team

away_home away team

indicator_home: just for the code ignore:

posteam_away: ignore

*** all of the away variables are the same as above but for the away team. If you want to make a data

off_epa_into_week_away
plays_avg_away
succsess_rate_into_week_away
turnovers_per_game_away
off_pass_epa_into_week_away
passes_avg_away
off_rush_epa_into_week_away
rushes_avg_away
third_down_convert_away
third_down_avg_away
ma15_away
ma15_sd_away
eckel_rate_into_week_away
drives_into_week_away
off_redzone_away
off_redzone_success_away
off_redzone_drive_points_away
def_epa_into_week_away
def_plays_avg_away
Def_succsess_rate_into_week_away
def_turnovers_per_game_away
def_rank_of_week_away
def_pass_epa_into_week_away
Def_passes_avg_away
def_rush_epa_into_week_away
Def_rushes_avg_away
def_ma15_away

def_ma15_sd_away
home_away
away_away
indicator_away
score_home
spread_line_home
stadium_id_home
QB.me_home
wind_home
temp_home
surface_home
referee_home
QBID_home
total_line_home
game_type_home
overtime_home
score_away
QB.me_away
QBID_away
overtime_away
mov
total
percenthomerun
percenthomepass
percentawayrun
percentawaypass
homenetTO
awaynetTO
rest_home
rest_away
.me_home
epa_into_week_home
ma10_epa_play_home
ma10_epa_sd_home
ma10_sack_rate_home
.me_away
epa_into_week_away
ma10_epa_play_away
ma10_epa_sd_away
ma10_sack_rate_away
SB_odds_home
Win.Total_home
SB_odds_away
Win.Total_away

OPENINGSPREAD_home
CLOSINGSPREAD_home
MONEYLINE_home
OPENINGSPREAD_away
CLOSINGSPREAD_away
MONEYLINE_away
season_away
week_away
off_ma18_home
off_ma18_sd_home
def_ma18_home
def_ma18_sd_home
prior_home
sd_prior_home
sigma_home
mu_home
season week
off_ma18_away
off_ma18_sd_away
def_ma18_away
def_ma18_sd_away
prior_away
sd_prior_away
sigma_away
mu_away:

gameday: Date of game

spread OU

Home_starts: how many home starts the home QB has had via their qbID

Away_starts: how many away starts the home QB has had via their qbID