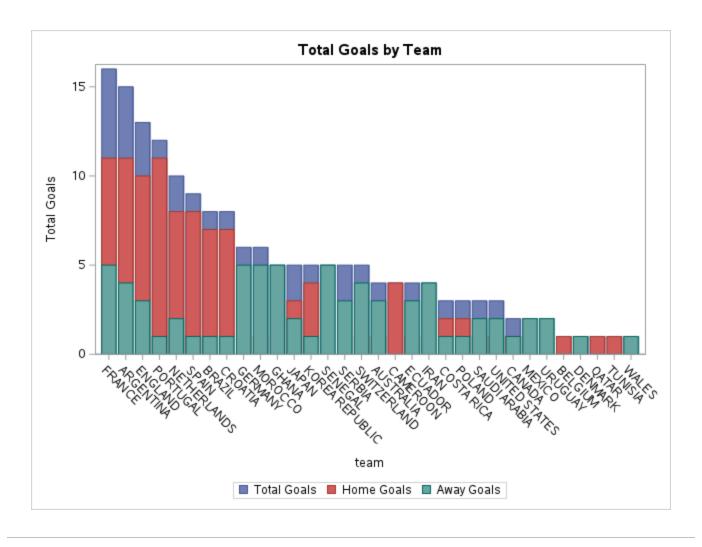
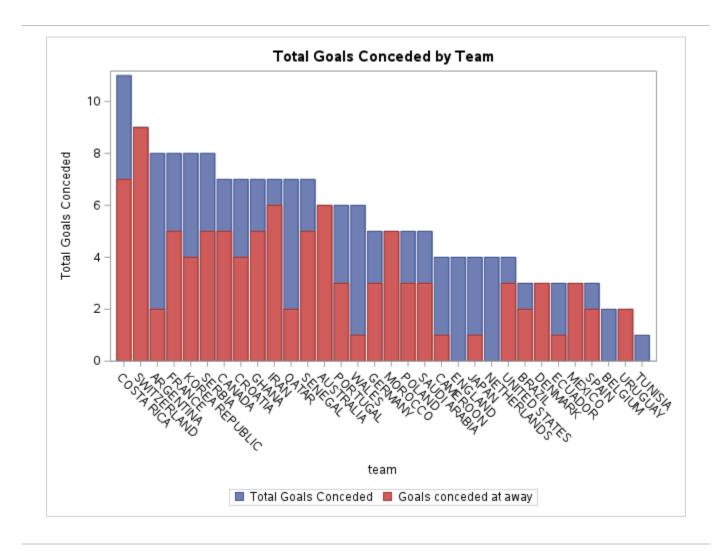
Obs	team	goals_team1	goals_team2	total_goals
1	FRANCE	11	5	16
2	ARGENTINA	11	4	15
3	ENGLAND	10	3	13
4	PORTUGAL	11	1	12
5	NETHERLANDS	8	2	10
6	SPAIN	8	1	9
7	BRAZIL	7	1	8
8	CROATIA	7	1	8
9	GERMANY	1	5	6
10	MOROCCO	1	5	6
11	GHANA	0	5	5
12	JAPAN	3	2	5
13	KOREA REPUBLIC	4	1	5
14	SENEGAL	0	5	5
15	SERBIA	2	3	5
16	SWITZERLAND	1	4	5
17	AUSTRALIA	1	3	4
18	CAMEROON	4	0	4
19	ECUADOR	1	3	4
20	IRAN	0	4	4
21	COSTA RICA	2	1	3
22	POLAND	2	1	3
23	SAUDI ARABIA	1	2	3
24	UNITED STATES	1	2	3
25	CANADA	1	1	2
26	MEXICO	0	2	2
27	URUGUAY	0	2	2
28	BELGIUM	1	0	1
29	DENMARK	0	1	1
30	QATAR	1	0	1
31	TUNISIA	1	0	1
32	WALES	0	1	1



## **Total Goals by Team**

Obs	team	conceded_team1	conceded_team2	total_conceded
1	COSTA RICA	4	7	11
2	SWITZERLAND	0	9	9
3	ARGENTINA	6	2	8
4	FRANCE	3	5	8
5	KOREA REPUBLIC	4	4	8
6	SERBIA	3	5	8
7	CANADA	2	5	7
8	CROATIA	3	4	7
9	GHANA	2	5	7
10	IRAN	1	6	7
11	QATAR	5	2	7
12	SENEGAL	2	5	7
13	AUSTRALIA	0	6	6
14	PORTUGAL	3	3	6
15	WALES	5	1	6
16	GERMANY	2	3	5
17	MOROCCO	0	5	5
18	POLAND	2	3	5
19	SAUDI ARABIA	2	3	5
20	CAMEROON	3	1	4

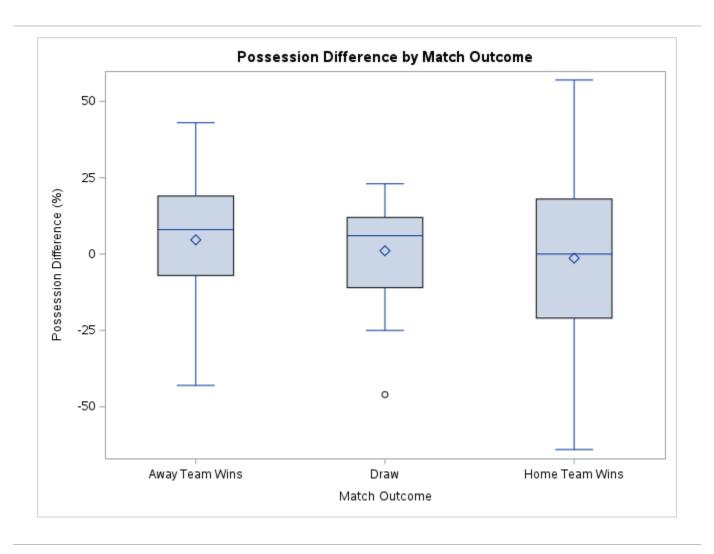
Obs	team	conceded_team1	conceded_team2	total_conceded
21	ENGLAND	4	0	4
22	JAPAN	3	1	4
23	NETHERLANDS	4	0	4
24	UNITED STATES	1	3	4
25	BRAZIL	1	2	3
26	DENMARK	0	3	3
27	ECUADOR	2	1	3
28	MEXICO	0	3	3
29	SPAIN	1	2	3
30	BELGIUM	2	0	2
31	URUGUAY	0	2	2
32	TUNISIA	1	0	1



**Total Goals Conceded by Team** 

The MEANS Procedure

Analysis Variable : possession_diff					
outcome N Obs Mean Std Dev					
Away Team Wins	20	4.6500000	23.1181747		
Draw	15	1.0666667	19.2036703		
Home Team Wins	29	-1.3448276	26.6569153		



## **Logistic Regression of Winning on Possession Difference**

#### The LOGISTIC Procedure

Model Information				
Data Set NEWRSLT.LOGISTIC_DATA				
Response Variable	win			
Number of Response Levels	2			
Model	binary logit			
Optimization Technique	Fisher's scoring			

Number of Observations Read	64
Number of Observations Used	49

Response Profile				
Ordered Total				
Value	win	Frequency		

Response Profile				
Ordered Total				
1	1	29		
2	0	20		

Probability modeled is win=1.

**Note:** 15 observations were deleted due to missing values for the response or explanatory variables.

Model Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics				
Criterion Intercept Only Intercept and Covariates				
AIC	68.266	69.575		
sc	70.158	73.359		
-2 Log L	66.266	65.575		

Testing Global Null Hypothesis: BETA=0						
Test Chi-Square DF Pr > ChiSq						
Likelihood Ratio	0.6907	1	0.4059			
Score	0.6839	1	0.4082			
Wald	0.6744	1	0.4115			

Analysis of Maximum Likelihood Estimates							
Parameter DF Estimate Error Chi-Square Pr > ChiSq							
Intercept	1	0.3880	0.2939	1.7424	0.1868		
possession_diff	1	-0.00982	0.0120	0.6744	0.4115		

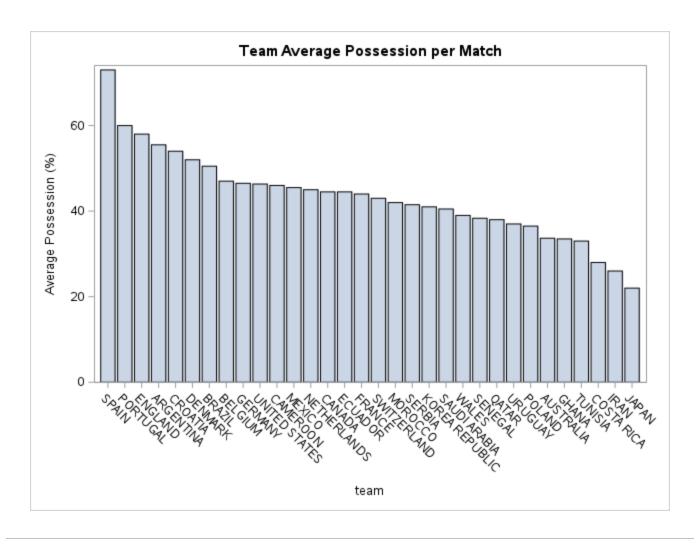
Odds Ratio Estimates					
Effect	95% Wald Point Estimate Confidence Limits				
possession_diff	0.990	0.967 1.014			

Association of Predicted Probabilities and Observed Responses					
Percent Concordant 56.2 Somers' D 0.148					
Percent Discordant	41.4	Gamma	0.152		
Percent Tied	2.4	Tau-a	0.073		
Pairs	580	С	0.574		

## **Team Average Possession per Match**

Obs	team	avg_possession
1	SPAIN	73.0000
2	PORTUGAL	60.0000
3	ENGLAND	58.0000
4	ARGENTINA	55.5000
5	CROATIA	54.0000
6	DENMARK	52.0000

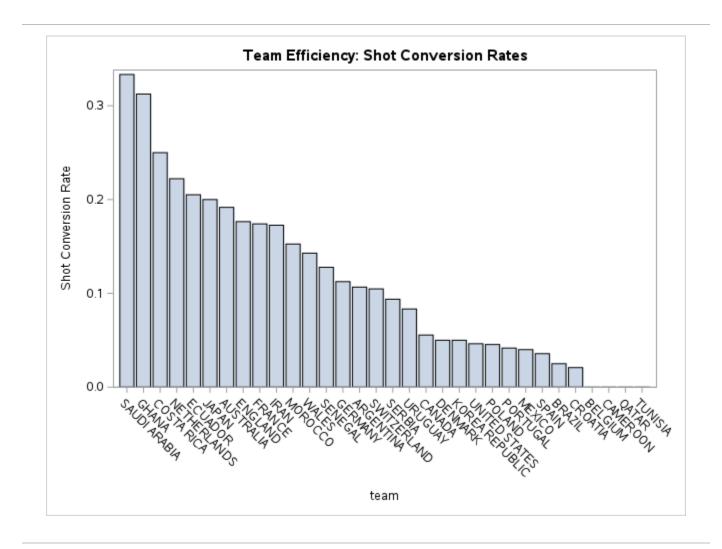
Obs	team	avg_possession
7	BRAZIL	50.5000
8	BELGIUM	47.0000
9	GERMANY	46.5000
10	UNITED STATES	46.3333
11	CAMEROON	46.0000
12	MEXICO	45.5000
13	NETHERLANDS	45.0000
14	CANADA	44.5000
15	ECUADOR	44.5000
16	FRANCE	44.0000
17	SWITZERLAND	43.0000
18	MOROCCO	42.0000
19	SERBIA	41.5000
20	KOREA REPUBLIC	41.0000
21	SAUDI ARABIA	40.5000
22	WALES	39.0000
23	SENEGAL	38.3333
24	QATAR	38.0000
25	URUGUAY	37.0000
26	POLAND	36.5000
27	AUSTRALIA	33.6667
28	GHANA	33.5000
29	TUNISIA	33.0000
30	COSTA RICA	28.0000
31	IRAN	26.0000
32	JAPAN	22.0000



## **Team Efficiency: Shot Conversion Rates**

Obs	team	conversion_rate	
1	SAUDI ARABIA	0.33333	
2	GHANA	0.31250	
3	COSTA RICA	0.25000	
4	NETHERLANDS	0.22222	
5	ECUADOR	0.20513	
6	JAPAN	0.20000	
7	AUSTRALIA	0.19167	
8	ENGLAND	0.17647	
9	FRANCE	0.17407	
10	IRAN	0.17262	
11	MOROCCO	0.15260	
12	WALES	0.14286	
13	SENEGAL	0.12778	
14	GERMANY	0.11250	
15	ARGENTINA	0.10667	
16	SWITZERLAND	0.10476	
17	SERBIA	0.09375	
18	URUGUAY	0.08333	
19	CANADA	0.05556	
20	DENMARK	0.05000	

Obs	team	conversion_rate	
21	KOREA REPUBLIC	0.05000	
22	UNITED STATES	0.04630	
23	POLAND	0.04545	
24	PORTUGAL	0.04167	
25	MEXICO	0.04000	
26	SPAIN	0.03571	
27	BRAZIL	0.02500	
28	CROATIA	0.02083	
29	BELGIUM	0.00000	
30	CAMEROON	0.00000	
31	QATAR	0.00000	
32	TUNISIA	0.00000	



# **Defensive Performance Metric by Team**

Obs	team	clean_sheets	goal_preventions	defensive_pressures	forced_turnovers	defensive_performance_score
1	MOROCCO	4	77	2516	544	605.65
2	CROATIA	2	82	2113	548	526.10
3	FRANCE	1	80	1986	524	496.20
4	JAPAN	0	62	1829	319	429.15
5	ARGENTINA	3	45	1688	494	424.15

Obs	team	clean_sheets	goal_preventions	defensive_pressures	forced_turnovers	defensive_performance_score
6	NETHERLANDS	2	67	1550	412	389.35
7	BRAZIL	2	34	1477	361	358.85
8	AUSTRALIA	2	63	1383	307	339.20
9	POLAND	2	72	1354	270	330.10
10	PORTUGAL	1	51	1267	303	312.00
11	COSTA RICA	1	63	1257	221	300.70
12	UNITED STATES	2	34	1150	293	283.25
13	SWITZERLAND	1	41	1150	280	282.65
14	KOREA REPUBLIC	1	50	1139	242	277.00
15	SENEGAL	0	36	1077	266	264.30
16	ENGLAND	3	45	995	280	253.45
17	IRAN	1	35	987	219	239.40
18	CAMEROON	1	44	922	240	231.80
19	GHANA	0	44	898	249	227.95
20	TUNISIA	2	31	904	222	222.65
21	URUGUAY	2	29	895	230	221.55
22	SERBIA	0	51	848	226	216.25
23	QATAR	0	32	886	171	210.85
24	SPAIN	2	23	827	240	207.95
25	CANADA	0	29	860	185	207.00
26	SAUDI ARABIA	0	49	803	215	205.10
27	BELGIUM	2	43	824	180	203.35
28	WALES	0	45	781	210	198.95
29	GERMANY	0	27	781	233	197.90
30	MEXICO	1	23	749	216	188.35
31	ECUADOR	1	22	748	183	182.95
32	DENMARK	1	40	669	211	175.85

