

## Appendix A Analytical Results

Table 1 Statistical error metrics of simulation results for cumulative team wins results

Setup	Teams within 90% interval	MSE	Mean Absolute Error	Mean Absolute % Error	Correlation	RMSE
1a.	17	18.0553	2.9983	0.5766	0.9972	4.2492
1b.	11	137.1043	7.3039	0.5014	0.9892	11.7092
1c.	5	1739.0776	21.4256	0.7643	0.8909	41.7022
1d.	8	1005.3860	15.6106	0.6889	0.9402	31.7078
2a.	17	24.3548	3.6750	0.5853	0.9965	4.9351
2b.	10	140.1486	7.5117	0.5170	0.9877	11.8384
2c.	6	1732.5175	21.2400	0.7589	0.8914	41.6235
2d.	6	995.2262	15.1878	0.6838	0.9412	31.5472
3a.	17	74.1933	5.3683	0.5368	0.9886	8.6136
3b.	8	201.8394	8.8483	0.6037	0.9758	14.2070
3c.	4	2287.2314	24.0839	0.8130	0.8349	47.8250
3d.	7	1361.6474	19.2294	0.7292	0.8907	36.9005
4a.	17	79.6260	5.4850	0.5543	0.9879	8.9233
4b.	4	227.7444	10.8683	2.2925	0.9870	15.0912
4c.	8	86.3887	5.8233	0.5542	0.9866	9.2946
4d.	3	227.7243	10.1183	2.1194	0.9801	15.0905

Table 2 Error metrics of simulation results for longitudinal team wins results

Setup	Team	UM Fraction of Um MSE due to bias	Us Fraction of MSE due to unequal variation	Uc Fraction of MSE due to unequal covariation	MSE	MAE	Correlation
<b>1a</b>	Ferrari	-1.1036	-7.2692	0.4500	67.6857	6.2089	0.9948
	McLaren	-1.0539	-1.9558	0.8504	36.1684	4.8599	0.9956
	Williams	-1.0541	-1.7556	0.9122	32.9294	3.7619	0.9931
<b>1b</b>	Ferrari	-0.8555	0.0200	0.6818	98.0064	8.1832	0.9895
	McLaren	-0.6601	3.7180	0.0631	444.7172	17.2341	0.9967
	Williams	-1.4540	-1.9487	0.2255	180.0657	11.2081	0.9900
<b>1c</b>	Ferrari	-0.3376	2.0625	0.1766	2261.6775	32.4293	0.9599
	McLaren	-1.2448	-0.6500	0.7270	458.4478	17.5238	0.9505
	Williams	-0.5796	3.6482	0.1684	496.3823	15.7419	0.9860
<b>1d</b>	Ferrari	-0.4374	2.2283	0.1980	1490.0335	27.4723	0.9675
	McLaren	-0.8820	3.1914	0.7922	282.5444	12.6316	0.9716
	Williams	-0.8913	5.1433	0.5630	177.1635	10.5738	0.9811
<b>2a</b>	Ferrari	-1.1316	-6.5537	0.3740	87.9144	6.8300	0.9943
	McLaren	-1.1172	-3.2803	0.5620	58.7958	6.1524	0.9952
	Williams	-1.0931	-3.0259	0.7732	40.5515	4.0244	0.9927
<b>2b</b>	Ferrari	-0.9059	-1.4197	0.8316	70.3889	7.0556	0.9906
	McLaren	-0.6566	3.6775	0.0594	452.1775	17.3899	0.9969
	Williams	-1.4985	-1.9199	0.2043	206.9449	12.1029	0.9895
<b>2c</b>	Ferrari	-0.3350	2.0608	0.1738	2280.5053	32.6137	0.9603
	McLaren	-1.2079	-0.4403	0.7821	435.3477	17.0330	0.9503
	Williams	-0.6431	4.0086	0.2324	409.6116	14.3150	0.9837
<b>2d</b>	Ferrari	-0.4586	2.3477	0.2137	1422.3316	25.9842	0.9665
	McLaren	-0.8139	3.0313	0.6876	353.4671	13.6158	0.9698
	Williams	-0.9459	4.9471	0.6621	151.9956	9.8507	0.9804
<b>3a</b>	Ferrari	-0.9264	6.5032	0.7068	46.2729	5.3652	0.9951
	McLaren	-1.4479	-2.6431	0.0914	370.3604	16.2252	0.9943
	Williams	-1.1248	-4.5622	0.5922	41.4311	4.1913	0.9942
<b>3b</b>	Ferrari	-0.6929	3.5977	0.1384	301.7748	14.6606	0.9943
	McLaren	-1.1996	-0.8052	0.3508	94.5228	8.0152	0.9952
	Williams	-1.5169	-1.9119	0.1951	218.1576	12.4640	0.9894
<b>3c</b>	Ferrari	-0.2273	1.8345	0.1021	3134.1458	39.8113	0.9699
	McLaren	-2.0434	-0.9740	0.2080	1582.8081	32.3618	0.9377
	Williams	-1.0039	4.0808	0.6580	219.8954	11.8626	0.9725
<b>3d</b>	Ferrari	-0.3408	2.0529	0.1152	2085.5353	32.7851	0.9753
	McLaren	-1.6667	-1.2588	0.2620	827.4124	23.2869	0.9633
	Williams	-0.9826	4.7273	0.6412	175.9395	10.7636	0.9783
<b>4a</b>	Ferrari	-0.9277	6.0684	0.7208	41.0177	5.0074	0.9955
	McLaren	-1.4740	-2.5073	0.0895	405.0858	17.0156	0.9939
	Williams	-1.1134	-4.4367	0.6356	38.4490	3.9558	0.9943
<b>4b</b>	Ferrari	-1.5284	-2.6675	0.0210	465.5622	17.4866	0.9980
	McLaren	-1.4333	-3.0459	0.0547	452.6789	16.8689	0.9955
	Williams	-1.3025	-4.1712	0.1643	188.9513	10.3962	0.9913
<b>4c</b>	Ferrari	-0.8989	7.2642	0.5320	62.6364	6.1651	0.9951
	McLaren	-1.4665	-2.6463	0.0780	405.9666	16.8593	0.9946
	Williams	-1.1463	-4.4804	0.5332	48.9166	4.6161	0.9938
<b>4d</b>	Ferrari	-1.2288	-4.9906	0.1164	102.5649	8.2986	0.9979
	McLaren	-1.6064	-2.2370	0.0413	711.1010	21.3723	0.9944
	Williams	-1.4143	-3.4265	0.0826	272.9726	12.2072	0.9933

## Appendix B F1 Team listing 1970-2013

Team	Seasons	Team	Seasons
Andrea Moda Formula	1992	Modena Team SpA (Lamborghini)	1991
Arrows Grand Prix International Ltd	1978-2003	Moneytron Onyx	1989-1990
Auto Technisches Spezialzubehor	1978-1984	MTV Simtek	1994-1995
Automobiles Gonfaronaise Sportive	1986-1991	Osella Squadra Corse	1980-1990
Beatrice Lola	1986	Pacific Grand Prix	1994-1995
Sauber	1993-today	Penske Cars	1974-1976
Brabham Motor Racing	1962-1992	Pinch (Plant) Ltd	1974-1975
British Racing Motors	1951-1977	RAM Racing	1977-1985
Caterham	2010-today	Toleman - Benetton-Renault F1-Lotus	1981-1985/1986-2001/2002-2011/2011-today
Chris Amon Racing	1974	Rial Racing	1988-1989
Darnvall Connew Racing Team	1972	Scuderia Ferrari	1950-today
Embassy Hill Racing	1975	Scuderia Italia	1988-1992
Enzo Coloni Racing Car Systems	1987-1991	Shadow Racing Team	1973-1980
Equipe Ligier/Prost	1976-1996/1997-2001	Spirit Racing	1983-1985
Equipe Matra	1966-1972	Spyker F1 Team	2006 - 2007
EuroBrun Racing	1988-1990	Stewart Grand Prix-Jaguar-Red Bull	1997-1999/2000-2004/2005-today
Fittipaldi Automotive	1975-1982	Super Aguri F1	2006 - 2008
Fondmetal SpA	1991-1992	Team Alfa Romeo	1950-1985
Jordan/Spyker/Force India	1991-2005/2006-2007/2008-today	Team Eifelland Caravans	1972
Forti Grand Prix Racing	1995-1996	Team Ensign	1973-1982
Hesketh Racing	1973-1978	Team Lotus	1959-1994
HRT F1 Team	2010-2012	Team Merzario	1978-1979
Kojima Engineering	1976-1977	Team Rebaque	1979
Larrousse	1987-1995	Team Surtees	1970-1978
LEC Refrigeration Racing	1977	Tecno Racing Team	1972-1973
Leyton House Racing	1991-1993	Theodore Racing Team	1978-1983
Life Racing Engines	1990	Token Racing	1974
Lola	1962-1993, 1997	Toyota Motorsports GmbH	2002 - 2009
Lyncar	1974-1975	Trojan-Tauranac Racing	1974
Maki Engineering	1974-1976	Tyrrell-B.A.R Honda F1-Honda-Brawn, Mercedes	1970-1998, 1999-2005, 2006-2008, 2009, 2010-today
March Engineering	1970-77, 1981-83, 1987-92	Vel's Parnelli Jones Racing	1974-1976
Martini Racing Team	1972-1973	Walter Wolf Racing	1977-1979
Marussia	2010-today	West Zakspeed Racing	1985-1989
McLaren	1996-today	Willi Kauhsen Racing Team	1979
Midland F1	2006	Williams	1973-today
Minardi Team SpA/Scuderia Toro Rosso	1985-2005/2006-today		

## Appendix C F1 team wins and pole positions 1970-2013

Source: F1stats.com

List of teams that won races. Teams in bold have won constructors championships.

	Constructor	Wins	Poles
1	<b>Ferrari</b>	179	159
2	<b>McLaren</b>	168	155
3	<b>Williams</b>	117	128
4	Toleman/ <b>Benetton</b> / <b>Renault</b> /Lotus	49	36
5	Stewart/Jaguar/ <b>Red Bull</b>	48	57
6	<b>Lotus</b> <sup>1</sup>	43	57
7	<b>Tyrrell</b> /BAR/Honda/ <b>Brawn</b> / <b>Mercedes</b>	36	31
8	<b>Brabham</b>	23	26
9	<b>Renault</b>	15	31
10	March/Leyton House/March	13	5
11	Ligier/Prost	9	9
12	BRM	4	2
13	Jordan/MF1/Spyker/Force India	4	2
14	Hesketh	1	0
15	Minardi/Toro Rosso	1	1
16	Penske	1	0
17	Sauber	1	1
18	Shadow	1	3

<sup>1</sup> Renault acquired the rights to using the Team Lotus colour and logo in 2011.

# Appendix D Team Timeline

Sources: [www.statsf1.com](http://www.statsf1.com), [www.chicanef1.com](http://www.chicanef1.com)







