

Obs	Player	ERA	WHIP
1	DeGrom, J	1.70	0.912
2	Snell, B	1.90	0.977
3	Bauer, T	2.21	1.091
4	Nola, A	2.38	0.976
5	Verlander, J	2.52	0.902
6	Scherzer, M	2.53	0.913
7	Mikolas, M	2.83	1.074
8	Foltynewicz, M	2.85	1.082
9	Freeland, K	2.85	1.247
10	Cole, G	2.88	1.034

The MEANS Procedure

Variable	Label	Mean	Std Dev	Skewness	Kurtosis
HR	HR	22.4385965	5.9522431	0.3292311	0.6947814
SO	SO	181.8596491	41.2381752	0.9998917	0.8188295
WHIP		1.1979298	0.1329627	-0.2484639	-0.0769280

The MEANS Procedure

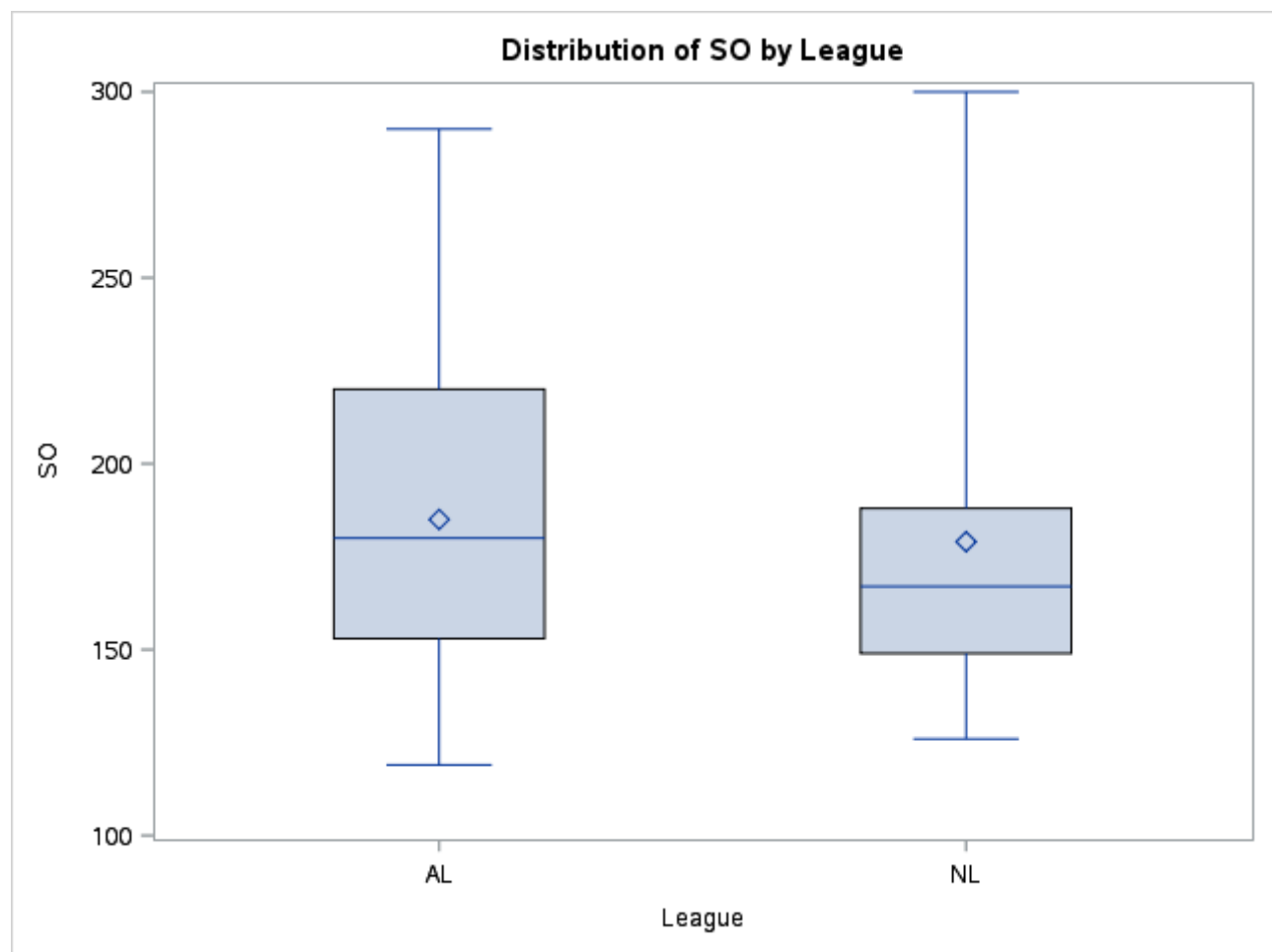
Analysis Variable : ERA	
Lower 95% CL for Mean	Upper 95% CL for Mean
3.4553400	3.8983442

Obs	Player	G	GS	IP	H	R	ER	HR	BB	SO	ERA	WHIP	Team	League
1	Anderson, T	32	32	176	165	94	89	30	59	164	4.55	1.273	COL	NL
2	Arrieta, J	31	31	172.2	165	93	76	21	57	138	3.97	1.289	PHI	NL
3	Bauer, T	28	27	175.1	134	51	43	9	57	221	2.21	1.091	CLE	AL
4	Berrios, J	32	32	192.1	159	83	82	25	61	202	3.84	1.145	MIN	AL
5	Boyd, M	31	31	170.1	146	87	83	27	51	159	4.39	1.158	DET	AL
6	Bundy, D	31	31	171.2	188	116	104	41	54	184	5.47	1.414	BAL	AL
7	Carrasco, C	32	30	192	173	78	72	21	43	231	3.38	1.125	CLE	AL
8	Castillo, L	31	31	169.2	158	89	81	28	49	165	4.31	1.223	CIN	NL
9	Chacin, J	35	35	192.2	153	83	75	18	71	156	3.51	1.165	MIL	NL
10	Clevinger, M	32	32	200	164	71	67	21	67	207	3.02	1.155	CLE	AL
11	Cole, G	32	32	200.1	143	68	64	19	64	276	2.88	1.034	HOU	AL
12	Corbin, P	33	33	200	162	70	70	15	48	246	3.15	1.050	ARI	NL
13	DeGrom, J	32	32	217	152	48	41	10	46	269	1.70	0.912	NYM	NL
14	Fiers, M	31	30	172	166	71	68	32	37	139	3.56	1.180	OAK	AL
15	Foltynewicz, M	31	31	183	130	65	58	17	68	202	2.85	1.082	ATL	NL
16	Freeland, K	33	33	202.1	182	64	64	17	70	173	2.85	1.247	COL	NL
17	Gausman, K	31	31	183.2	189	85	80	26	50	148	3.93	1.305	ATL	NL
18	Gibson, K	32	32	196.2	177	88	79	23	79	179	3.62	1.305	MIN	AL
19	Giolito, L	32	32	173.1	166	123	118	27	90	125	6.14	1.479	CWS	AL
20	Godley, Z	33	32	178.1	177	103	94	16	81	185	4.75	1.449	ARI	NL
21	Gonzales, M	29	29	166.2	172	76	74	17	32	145	4.01	1.227	SEA	AL

Obs	Player	G	GS	IP	H	R	ER	HR	BB	SO	ERA	WHIP	Team	League
22	Gonzalez, G	32	32	171	167	84	80	17	80	148	4.21	1.444	MIL	NL
23	Gray, J	31	31	172.1	180	102	98	27	52	183	5.12	1.348	COL	NL
24	Greinke, Z	33	33	207.2	181	77	74	28	43	199	3.21	1.081	ARI	NL
25	Hamels, C	32	32	190.2	176	93	80	29	65	188	3.79	1.267	CHC	NL
26	Happ, J	31	31	177.2	150	81	72	27	51	193	3.66	1.134	NYN	AL
27	Heaney, A	30	30	180	171	91	83	27	45	180	4.15	1.200	LAA	AL
28	Hendricks, K	33	33	199	184	82	76	22	44	161	3.44	1.146	CHC	NL
29	Holland, D	36	30	171.1	154	74	68	19	67	169	3.58	1.292	SF	NL
30	Junis, J	30	30	177	182	94	86	32	43	164	4.37	1.271	KC	AL
31	Keuchel, D	34	34	204.2	211	92	85	18	58	153	3.75	1.317	HOU	AL
32	Kluber, C	33	33	215	179	75	69	25	34	222	2.89	0.991	CLE	AL
33	LeBlanc, W	32	27	162	151	74	67	24	40	130	3.72	1.179	SEA	AL
34	Leake, M	31	31	185.2	207	98	90	23	34	119	4.37	1.301	SEA	AL
35	Lester, J	32	32	181.2	174	75	67	24	64	149	3.33	1.313	CHC	NL
36	Lopez, R	32	32	188.2	165	88	82	25	75	151	3.92	1.275	CWS	AL
37	Marquez, G	33	33	196	179	90	82	24	57	230	3.77	1.204	COL	NL
38	Mikolas, M	32	32	200.2	186	70	63	16	29	146	2.83	1.074	STL	NL
39	Morton, C	30	30	167	130	63	58	18	64	201	3.13	1.162	HOU	AL
40	Newcomb, S	31	30	164	137	74	71	18	81	160	3.90	1.329	ATL	NL
41	Nola, A	33	33	212.1	149	57	56	17	58	224	2.38	0.976	PHI	NL
42	Odorizzi, J	32	32	164.1	151	89	82	20	70	162	4.50	1.347	MIN	AL
43	Pivetta, N	33	32	164	163	91	87	24	51	188	4.77	1.305	PHI	NL
44	Porcello, R	33	33	191.1	177	97	91	27	48	190	4.29	1.177	BOS	AL
45	Price, D	30	30	176	151	75	70	25	50	177	3.58	1.142	BOS	AL
46	Quintana, J	32	32	174.1	162	81	78	25	68	158	4.03	1.321	CHC	NL
47	Roark, T	31	30	180.1	181	90	87	24	50	146	4.35	1.283	WSH	NL
48	Scherzer, M	33	33	220.2	150	66	62	23	51	300	2.53	0.913	WSH	NL
49	Severino, L	32	32	191.1	173	76	72	19	46	220	3.39	1.146	NYN	AL
50	Shields, J	34	33	204.2	190	115	103	34	78	154	4.54	1.312	CWS	AL
51	Snell, B	31	31	180.2	112	41	38	16	64	221	1.90	0.977	TB	AL
52	Taillon, J	32	32	191	179	69	68	20	46	179	3.20	1.178	PIT	NL
53	Teheran, J	31	31	175.2	122	80	77	26	84	162	3.96	1.176	ATL	NL
54	Urena, J	31	31	174	155	78	77	19	51	130	3.98	1.184	MIA	NL
55	Verlander, J	34	34	214	156	63	60	28	37	290	2.52	0.902	HOU	AL
56	Wheeler, Z	29	29	182.1	150	69	67	14	55	179	3.31	1.126	NYM	NL
57	Williams, T	31	31	170.2	146	64	59	15	55	126	3.12	1.181	PIT	NL

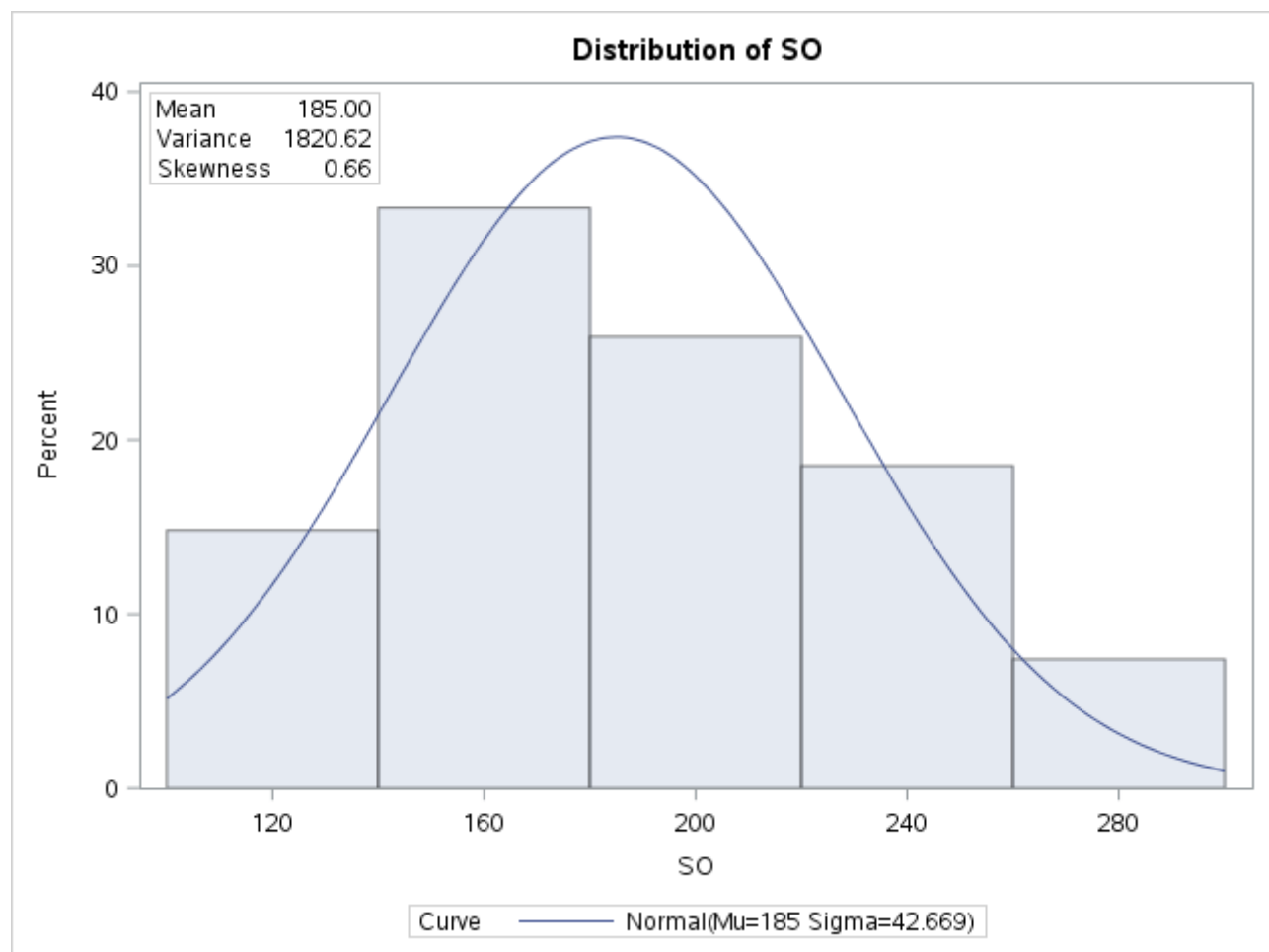
The MEANS Procedure

League	N Obs	Variable	Label	Median	Quartile Range
AL	27	ERA		3.7200000	1.2400000
		WHIP		1.1770000	0.1670000
		HR	HR	25.0000000	8.0000000
		BB	BB	51.0000000	21.0000000
NL	30	ERA		3.6750000	0.8800000
		WHIP		1.2135000	0.1790000
		HR	HR	20.5000000	8.0000000
		BB	BB	56.0000000	18.0000000



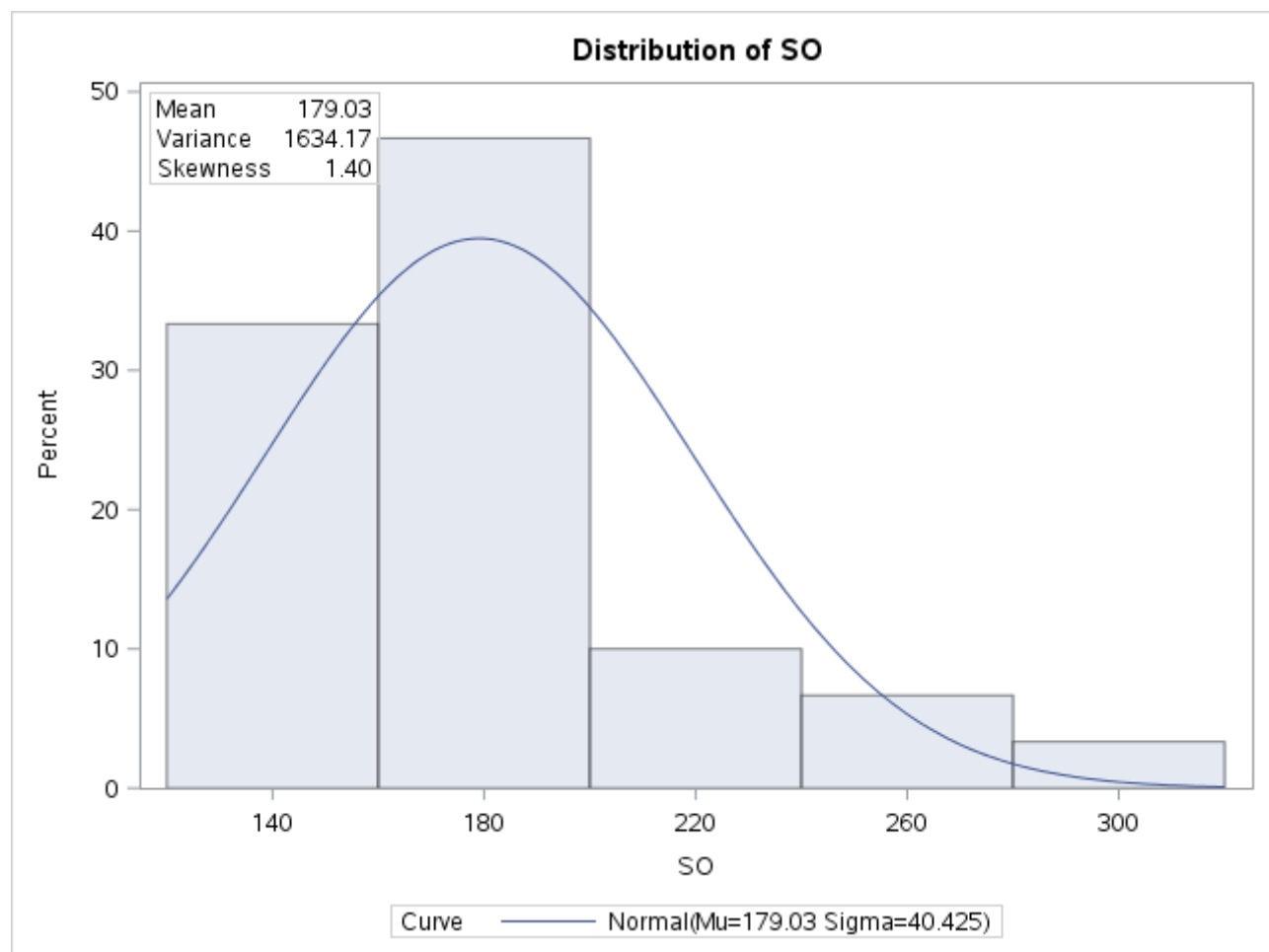
The UNIVARIATE Procedure

League=AL



The UNIVARIATE Procedure

League=NL



The UNIVARIATE Procedure
Variable: SO (SO)

Tests for Normality				
Test	Statistic		p Value	
Shapiro-Wilk	W	0.928874	Pr < W	0.0024
Kolmogorov-Smirnov	D	0.11481	Pr > D	0.0608
Cramer-von Mises	W-Sq	0.178918	Pr > W-Sq	0.0095
Anderson-Darling	A-Sq	1.144196	Pr > A-Sq	<0.0050