



Severity Descriptive Statistics

Basic Statistics

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Version 1.3

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1 Process Data

1.1 Basic statistics at Global level by low and high

Table 1: low basic statistics at Global level. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	2,168	3,421	2	6	6.3	48.1	0	0	0	1	61
B	124,831	196,279	2	6	6.7	55.6	0	0	0	1	68
C	9,541	7,583	1	2	4.5	26.3	0	0	0	1	17
D	4,235	4,016	1	3	5.1	32.4	0	0	0	1	23
E	3,178	8,848	3	17	14.2	254.2	0	0	0	1	382
F	12,271	12,104	1	3	4.9	30.5	0	0	0	1	23
G	18,362	51,270	3	16	11.8	181.1	0	0	0	1	394
H	9,509	7,280	1	2	4.0	20.7	0	0	0	1	13
I	6,119	4,432	1	2	4.0	21.3	0	0	0	1	12
J	42,357	90,323	2	9	8.7	93.9	0	0	0	1	150
K	53,500	37,089	1	2	3.9	20.5	0	0	0	1	12
L	53,466	98,157	2	7	7.7	73.8	0	0	0	1	100

Table 2: high basic statistics at Global level. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	20	6,242	312	403	1.7	4.4	64	81	95	324	1,336
B	1,327	638,503	481	2,443	15.2	287.7	68	91	138	257	56,653
C	346	54,842	159	689	11.3	145.2	17	25	44	100	9,982
D	112	10,475	94	105	4.2	27.5	23	37	59	106	856
E	2	25,310	12,655	13,789	0.0	1.0	2,905	7,780	12,655	17,530	22,405
F	355	62,919	177	781	11.1	145.3	24	35	51	92	11,675
G	29	112,653	3,885	13,359	5.0	26.0	400	549	788	1,403	72,676
H	380	45,880	121	481	10.2	122.3	13	19	32	63	6,532
I	244	35,175	144	817	13.1	187.2	13	19	31	59	12,042
J	198	154,977	783	1,803	6.4	52.9	151	203	278	579	18,237
K	2,406	446,647	186	2,217	23.9	611.6	12	18	30	66	62,347
L	378	454,173	1,202	10,210	16.7	297.7	101	136	185	361	187,438

1.2 Basic Statistics by Group and Type

Table 3: Statistics by type for Global. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	2,188	9,663	4	48	22.5	560.3	0	0	0	1	1,336
B	126,158	834,782	7	255	145.0	26,408.7	0	0	0	1	56,653
C	9,887	62,425	6	132	59.4	4,023.5	0	0	0	1	9,982
D	4,347	14,491	3	22	19.3	568.1	0	0	0	1	856
E	3,180	34,158	11	401	54.9	3,063.6	0	0	0	1	22,405
F	12,626	75,023	6	134	65.0	5,008.0	0	0	0	1	11,675
G	18,391	163,923	9	544	130.2	17,349.2	0	0	0	1	72,676
H	9,889	53,160	5	97	51.2	3,066.8	0	0	0	1	6,532
I	6,363	39,607	6	162	66.4	4,825.7	0	0	0	1	12,042
J	42,555	245,300	6	134	87.1	9,810.9	0	0	0	1	18,237
K	55,906	483,735	9	461	115.4	14,198.8	0	0	0	1	62,347
L	53,844	552,329	10	860	199.2	42,351.1	0	0	0	1	187,438

Table 4: Statistics by type for East. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	240	586	2	11	8.9	95.8	0	0	0	1	138
B	10,037	36,205	4	35	37.6	2,007.8	0	0	0	1	2,234
C	1,336	3,793	3	17	12.3	190.0	0	0	0	1	313
D	581	2,275	4	30	19.3	421.6	0	0	0	1	678
E	37	36	1	4	5.6	33.4	0	0	0	1	23
F	53	69	1	3	3.4	13.2	0	0	0	1	17
G	3,155	26,019	8	197	49.0	2,579.1	0	0	0	1	10,504
H	2,839	10,524	4	30	19.8	509.0	0	0	0	1	982
I	1,000	4,376	4	46	23.1	590.3	0	0	0	1	1,260
J	347	14,623	42	743	18.5	344.5	0	0	0	1	13,831
K	3,651	131,703	36	1,683	59.2	3,550.3	0	0	0	1	101,029
L	7,363	30,932	4	34	18.3	426.0	0	0	0	1	1,169

Table 5: Statistics by type for North. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	108	511	5	22	7.4	62.6	0	0	0	1	199
B	8,465	36,487	4	88	75.7	6,354.6	0	0	0	1	7,518
C	157	1,097	7	63	12.1	150.5	0	0	0	1	791
D	154	345	2	11	8.6	81.1	0	0	0	1	118
E	781	3,211	4	22	10.0	122.2	0	0	0	1	328
F	2,177	7,099	3	27	19.0	421.4	0	0	0	1	718
G	3,200	87,512	27	1,219	55.8	3,135.0	0	0	0	1	68,599
H	3,397	17,477	5	54	26.5	860.1	0	0	0	1	2,099
I	537	17,286	32	560	21.7	487.4	0	0	0	1	12,689
J	16,066	100,600	6	128	54.5	3,552.0	0	0	0	1	10,274
K	28,272	216,067	8	464	157.6	25,804.2	0	0	0	1	76,332
L	8,668	38,153	4	62	56.0	3,932.0	0	0	0	1	4,681

Table 6: Statistics by type for South. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	1,712	8,068	5	46	24.1	701.4	0	0	0	1	1,470
B	101,813	775,745	8	576	255.2	72,012.1	0	0	0	1	167,912
C	8,155	35,917	4	56	46.6	2,816.7	0	0	0	1	3,829
D	2,395	9,206	4	45	28.8	944.9	0	0	0	1	1,633
E	2,328	13,559	6	87	41.3	1,864.2	0	0	0	1	3,965
F	10,307	59,226	6	126	62.4	4,193.4	0	0	0	1	8,729
G	10,814	188,126	17	1,449	103.9	10,802.8	0	0	0	1	150,634
H	1,394	14,162	10	164	28.1	878.7	0	0	0	1	5,435
I	3,830	12,706	3	26	21.1	574.9	0	0	0	1	885
J	25,170	388,462	15	1,247	124.7	16,321.3	0	0	0	1	174,075
K	23,312	160,693	7	266	111.5	14,148.6	0	0	0	1	35,575
L	35,562	228,540	6	182	86.5	8,497.1	0	0	0	1	20,317

Table 7: Statistics by type for West. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	25	63	3	8	4.0	18.3	0	0	0	0	37
B	0										
C	5	1	0	0	1.1	2.7	0	0	0	0	0
D	3	17	6	10	0.7	1.5	0	0	0	9	17
E	37	52	1	3	2.5	7.6	0	0	0	0	12
F	0										
G	16	13	1	2	3.3	12.7	0	0	0	0	8
H	0										
I	16	8	0	1	1.4	3.6	0	0	0	1	2
J	205	379	2	10	10.1	115.3	0	0	0	1	123
K	0										
L	82	233	3	14	7.7	65.2	0	0	0	1	121

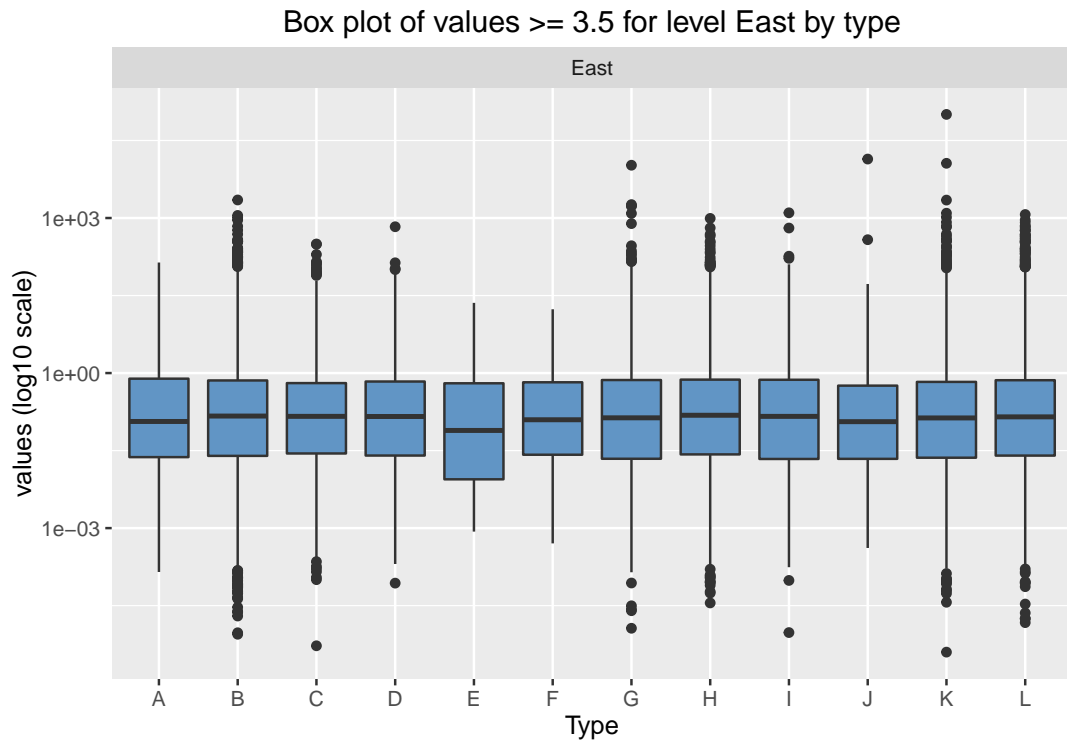
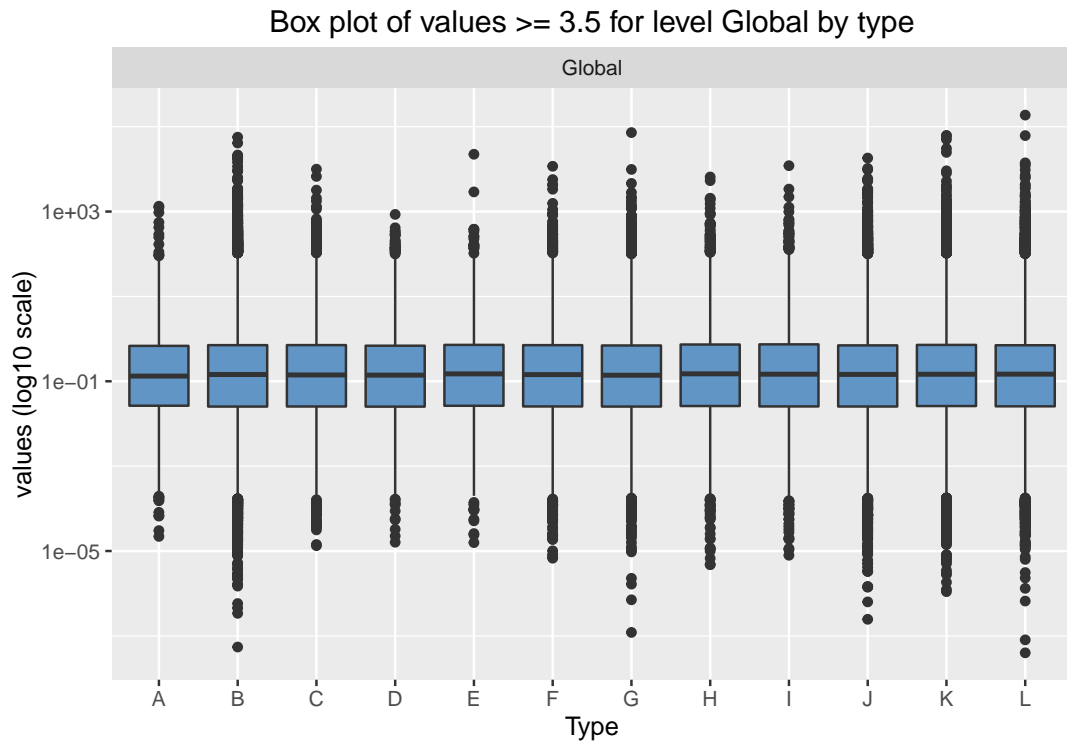
Table 8: Statistics by type for Small. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	96	123	1	2	3.3	16.4	0	0	0	1	16
B	5,843	41,714	7	156	64.5	4,572.2	0	0	0	1	11,203
C	232	862	4	20	9.4	100.9	0	0	0	1	239
D	979	3,563	4	33	22.4	588.2	0	0	0	1	898
E	5	8	2	3	1.5	3.2	0	0	0	0	7
F	89	104	1	4	6.5	51.2	0	0	0	1	32
G	842	3,540	4	46	20.9	492.2	0	0	0	1	1,154
H	1,888	4,618	2	17	22.9	691.7	0	0	0	1	579
I	242	689	3	15	11.1	144.7	0	0	0	1	206
J	758	1,744	2	10	8.4	84.0	0	0	0	1	131
K	605	2,222	4	17	9.0	101.1	0	0	0	1	226
L	1,525	5,520	4	26	16.8	332.3	0	0	0	1	630

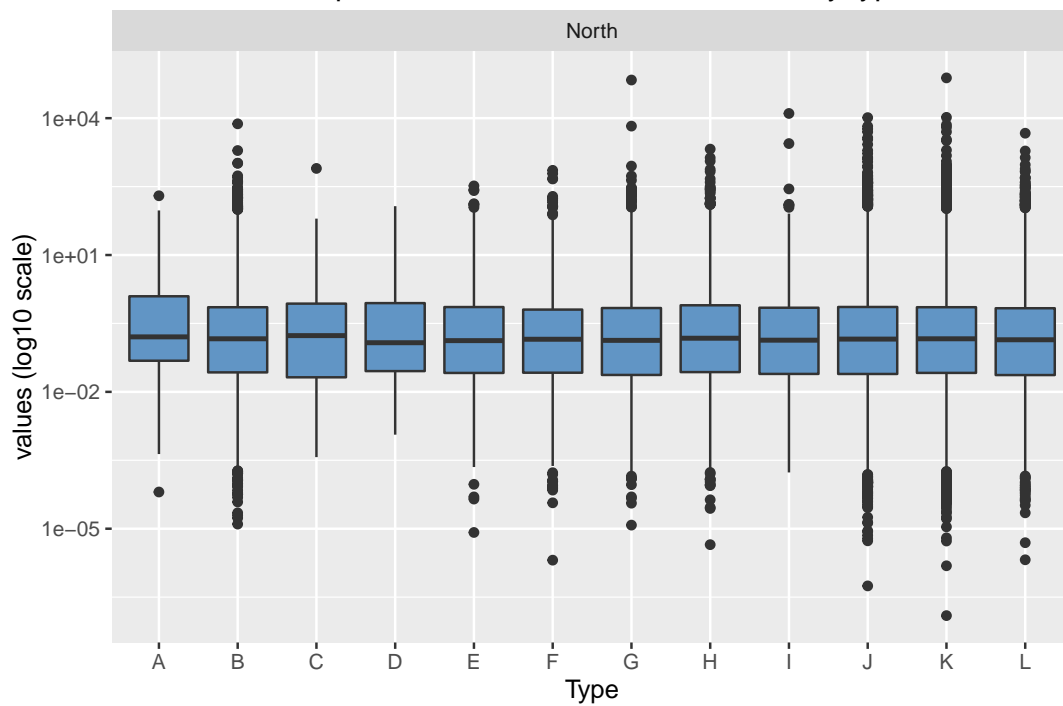
Table 9: Statistics by type for Big. Values greater than or equal to 3.5

type	n	sum	mean	sd	skw	krt	min	p25	median	p75	max
A	10	56	6	17	2.7	8.1	0	0	0	0	54
B	0										
C	3	700	233	403	0.7	1.5	0	1	1	350	699
D	235	340	1	5	5.8	42.7	0	0	0	1	42
E	0										
F	0										
G	364	809	2	10	7.7	68.5	0	0	0	1	112
H	371	1,261	3	16	9.4	108.7	0	0	0	1	218
I	739	2,362	3	17	11.3	163.4	0	0	0	1	306
J	10	28	3	5	1.3	3.1	0	0	0	4	13
K	66	241	4	18	7.0	53.7	0	0	0	1	140
L	644	10,226	16	337	25.2	638.0	0	0	0	1	8,533

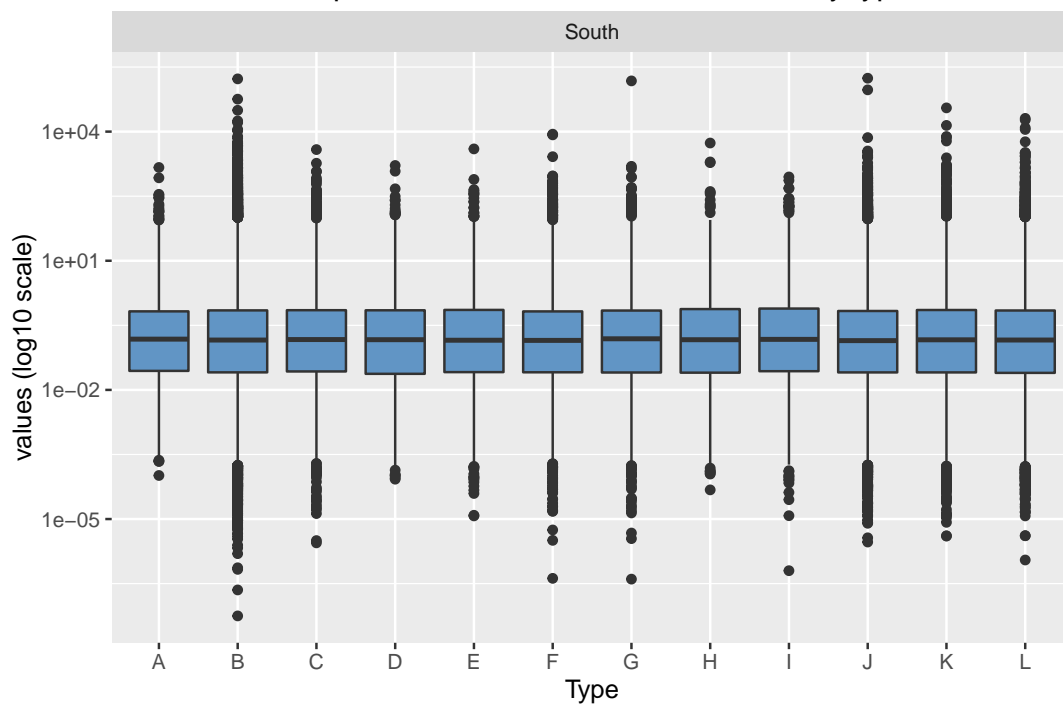
1.3 Box plot



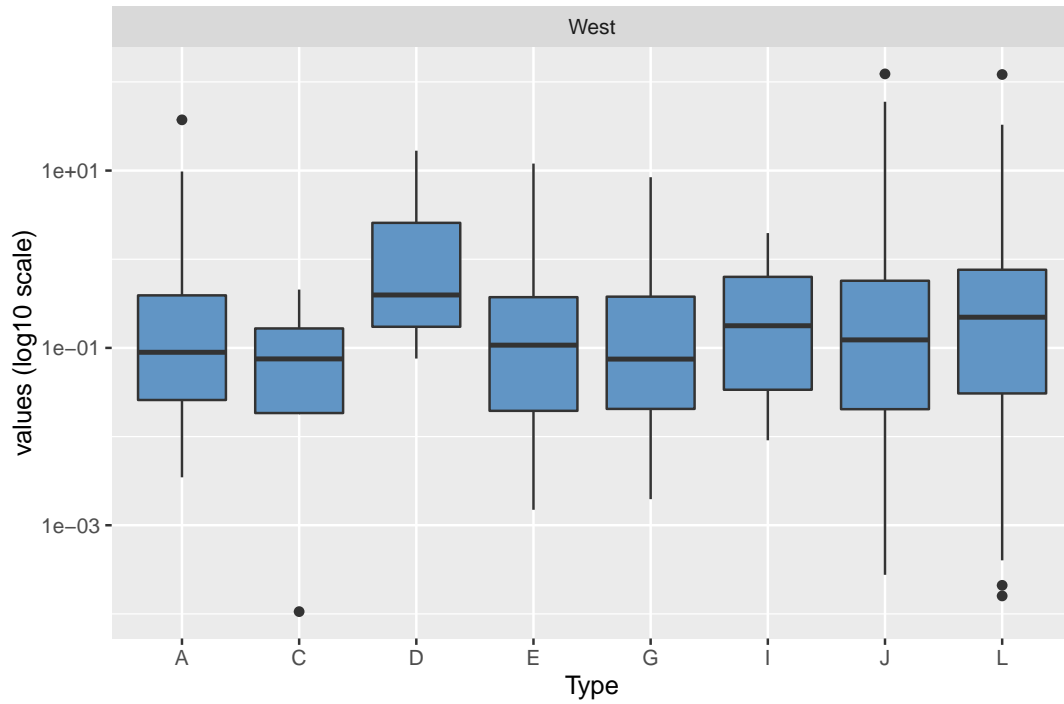
Box plot of values ≥ 3.5 for level North by type



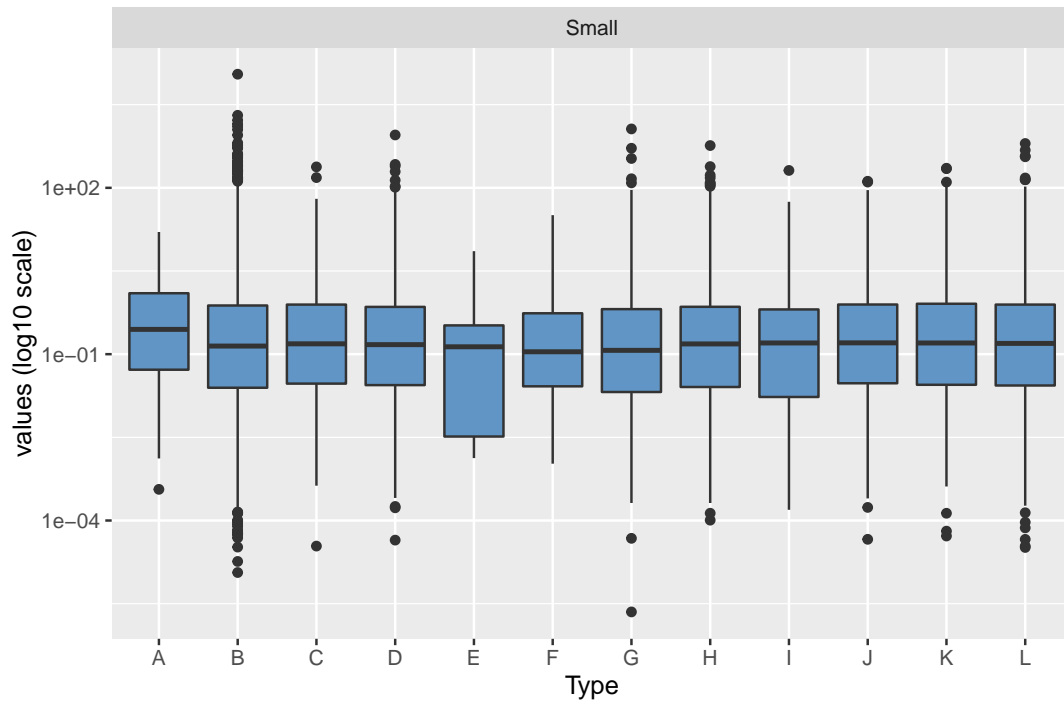
Box plot of values ≥ 3.5 for level South by type

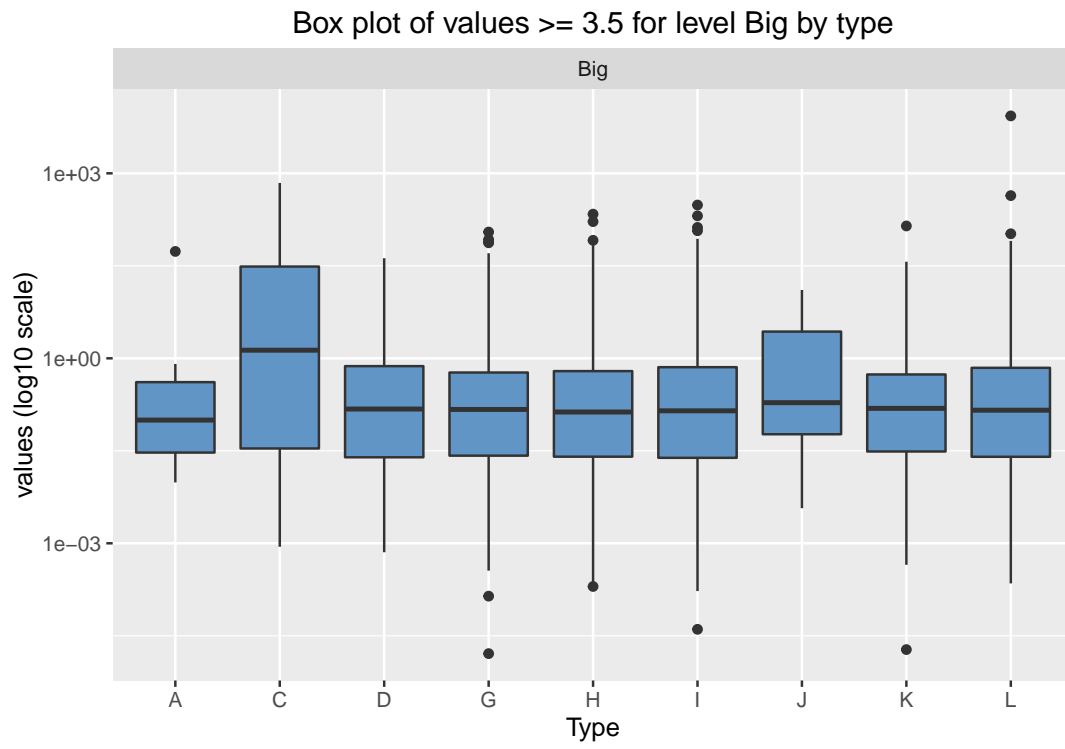


Box plot of values ≥ 3.5 for level West by type



Box plot of values ≥ 3.5 for level Small by type





1.4 Data values - IID Test

IID tests on values ordered by date (both single values and monthly aggregated values are considered) by group and type

Considered tests:

1. Ljung-Box with lag equal to 1
2. Wald-Wolfowitz (runs test)
3. Bartels' rank test

Table 10: Values tests by type for Global. Values greater than or equal to 3.5

type	n	n.pos	Ljung.Box	Wald.Wolfowitz	Bartels	p.Ljung.Box	p.Wald.Wolfowitz	p.Bartels
A	2,188	2,188	0.0315	-8.3376	0.6625	0.8591	0.5722	0.5077
B	126,158	126,158	0.0086	-32.9722	0.5667	0.9260	0.5403	0.5709
C	9,887	9,887	0.0062	-7.8134	0.8456	0.9374	0.5355	0.3978
D	4,347	4,347	0.2651	-25.7240	1.6228	0.6066	0.6563	0.1046
E	3,180	3,180	0.0011	-1.8257	0.4877	0.9741	0.5308	0.6258
F	12,626	12,626	0.0148	-13.6861	-0.9319	0.9030	0.5578	0.3514
G	18,391	18,391	0.0008	-3.9499	-0.1180	0.9768	0.5364	0.9061
H	9,889	9,889	0.0069	-8.2515	-0.7681	0.9339	0.5350	0.4424
I	6,363	6,363	0.0024	-3.9149	0.0891	0.9608	0.5296	0.9290
J	42,555	42,555	0.0228	-31.1167	-2.6637	0.8801	0.5661	0.0077
K	55,906	55,906	0.0031	13.2442	1.0985	0.9553	0.4722	0.2720
L	53,844	53,844	0.0007	-6.2160	-0.3883	0.9786	0.5194	0.6978

Table 11: Values tests by type for East. Values greater than or equal to 3.5

type	n	n.pos	Ljung.Box	Wald.Wolfowitz	Bartels	p.Ljung.Box	p.Wald.Wolfowitz	p.Bartels
A	240	240	0.0238	-2.3245	0.3476	0.8775	0.5441	0.7281
B	10,037	10,037	0.1527	-39.1539	1.0164	0.6960	0.6649	0.3094
C	1,336	1,336	2.7961	60.9762	0.5797	0.0945	0.0335	0.5621
D	581	581	0.0389	-4.7177	-1.6146	0.8437	0.6164	0.1064
E	37	37	0.0056	0.4372	-0.6799	0.9405	0.1340	0.4965
F	53	53	0.0095	-1.3364	-1.8737	0.9224	0.5216	0.0610
G	3,155	3,155	0.0003	-0.9698	0.6532	0.9862	0.4995	0.5136
H	2,839	2,839	0.1506	-20.6470	-0.6423	0.6979	0.6580	0.5207
I	1,000	1,000	0.0448	-6.7058	0.8590	0.8323	0.6112	0.3904
J	347	347	0.0037	-1.1163	1.1265	0.9517	0.5622	0.2600
K	3,651	3,651	0.0002	-0.9007	1.0764	0.9881	0.4960	0.2818
L	7,363	7,363	0.5063	-61.0238	0.8057	0.4767	0.7645	0.4204

Table 12: Values tests by type for North. Values greater than or equal to 3.5

type	n	n.pos	Ljung.Box	Wald.Wolfowitz	Bartels	p.Ljung.Box	p.Wald.Wolfowitz	p.Bartels
A	108	108	0.1420	-3.8048	1.1350	0.7063	0.6641	0.2564
B	8,465	8,465	0.0102	-9.2983	0.1252	0.9195	0.5717	0.9004
C	157	157	0.0227	-1.8499	0.8004	0.8802	0.6556	0.4235
D	154	154	0.0493	-2.6959	-0.7970	0.8242	0.5795	0.4254
E	781	781	3.1615	49.5619	0.9581	0.0754	0.0243	0.3380
F	2,177	2,177	4.2604	96.1981	-1.7000	0.0390	0.0102	0.0891
G	3,200	3,200	0.0006	-1.3438	-1.3241	0.9810	0.5173	0.1855
H	3,397	3,397	0.0446	-12.2928	-1.6132	0.8327	0.5887	0.1067
I	537	537	0.0033	-1.3299	0.1511	0.9539	0.5191	0.8799
J	16,066	16,066	0.0412	-25.7131	0.3089	0.8392	0.5874	0.7574
K	28,272	28,272	0.0007	-4.3647	0.1180	0.9793	0.5270	0.9060
L	8,668	8,668	0.0156	-11.6589	0.6227	0.9006	0.5616	0.5335

Table 13: Values tests by type for South. Values greater than or equal to 3.5

type	n	n.pos	Ljung.Box	Wald.Wolfowitz	Bartels	p.Ljung.Box	p.Wald.Wolfowitz	p.Bartels
A	1,712	1,712	0.1365	-15.2546	1.5583	0.7118	0.6732	0.1192
B	101,813	101,813	0.0014	-11.9580	0.5183	0.9701	0.5253	0.6042
C	8,155	8,155	0.0750	-24.7155	0.3176	0.7842	0.6273	0.7508
D	2,395	2,395	0.0031	2.7313	0.2578	0.9556	0.4610	0.7965
E	2,328	2,328	0.0071	-4.0425	-0.6198	0.9331	0.5563	0.5354
F	10,307	10,307	0.0103	-10.2748	0.0856	0.9194	0.5472	0.9318
G	10,814	10,814	0.0002	-1.3751	-2.2249	0.9894	0.5491	0.0261
H	1,394	1,394	0.0084	-3.4086	-0.6195	0.9271	0.5423	0.5356
I	3,830	3,830	0.0185	8.4265	0.2458	0.8918	0.4344	0.8059
J	25,170	25,170	0.0005	-3.5954	-0.5809	0.9819	0.5110	0.5613
K	23,312	23,312	0.0039	-9.5540	-1.9372	0.9501	0.5356	0.0527
L	35,562	35,562	0.0028	-9.9927	-0.9520	0.9577	0.5218	0.3411

Table 14: Values tests by type for West. Values greater than or equal to 3.5

type	n	n.pos	Ljung.Box	Wald.Wolfowitz	Bartels	p.Ljung.Box	p.Wald.Wolfowitz	p.Bartels
A	25	25	0.2910	-2.3351	1.3115	0.5896	0.7250	0.1897
B	0	0						
C	5	5	0.4277	-0.6408	0.5590	0.5131	0.3436	0.5762
D	3	3	0.2335	-1.0000	0.4330	0.6290	0.5000	0.6650
E	37	37	0.9808	-5.4952	1.7687	0.3220	0.8013	0.0769
F	0	0						
G	16	16	0.3805	-1.9861	-0.0176	0.5373	0.7883	0.9859
H	0	0						
I	16	16	0.1729	-1.1248	0.7353	0.6776	0.5149	0.4622
J	205	205	0.0244	2.2389	0.5384	0.8760	0.3650	0.5903
K	0	0						
L	82	82	0.1168	-2.9617	-0.8876	0.7325	0.6941	0.3748

Table 15: Values tests by type for Small. Values greater than or equal to 3.5

type	n	n.pos	Ljung.Box	Wald.Wolfowitz	Bartels	p.Ljung.Box	p.Wald.Wolfowitz	p.Bartels
A	96	96	0.2179	3.0324	-0.7657	0.6407	0.3245	0.4438
B	5,843	5,843	0.0155	-9.5131	0.4651	0.9009	0.5944	0.6418
C	232	232	0.2022	-6.7425	0.7026	0.6529	0.6930	0.4823
D	979	979	0.0825	-8.9507	-0.0171	0.7740	0.6565	0.9863
E	5	5	0.0492	-1.1630	0.7826	0.8245	0.9310	0.4338
F	89	89	0.2573	-4.8884	2.2080	0.6120	0.7408	0.0272
G	842	842	0.0461	-6.2012	0.1212	0.8301	0.6098	0.9036
H	1,888	1,888	0.0624	-10.8183	-0.6550	0.8028	0.6118	0.5125
I	242	242	0.2091	-7.0121	0.1911	0.6475	0.7306	0.8484
J	758	758	0.6159	-21.4929	0.2900	0.4326	0.7852	0.7718
K	605	605	0.2144	-11.4068	-0.7032	0.6433	0.6787	0.4820
L	1,525	1,525	0.5141	27.9717	-1.6097	0.4734	0.2006	0.1075

Table 16: Values tests by type for Big. Values greater than or equal to 3.5

type	n	n.pos	Ljung.Box	Wald.Wolfowitz	Bartels	p.Ljung.Box	p.Wald.Wolfowitz	p.Bartels
A	10	10	0.2266	-1.0676	0.6900	0.6341	0.8576	0.4902
B	0	0						
C	3	3	0.2059	-1.0000	-0.8660	0.6500		0.3865
D	235	235	2.3796	23.4760	0.5412	0.1229	0.0383	0.5884
E	0	0						
F	0	0						
G	364	364	0.0001	0.2041	-0.7889	0.9926	0.4720	0.4302
H	371	371	0.0114	-2.0057	0.1979	0.9149	0.5248	0.8431
I	739	739	0.1806	-11.4815	-0.6015	0.6708	0.6691	0.5475
J	10	10	1.0791	-3.2908	-0.5558	0.2989	0.8326	0.5784
K	66	66	0.0403	-1.5289	1.2575	0.8410	0.5651	0.2086
L	644	644	0.0008	-0.7152	-0.2109	0.9774	0.4433	0.8330

1.5 Autocorrelation plot

Autocorrelation plots by group and type for supporting iid tests results.

