Monash Time-Series Forecasting Archive Replication

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Abstract

The "Monash Time Series Forecasting Archive" significantly enhances research in time series forecasting, unveiling a meticulously selected assortment of 25 datasets across diverse sectors like energy, banking, and tourism.

This initiative tackles the pressing need for diverse, comprehensive datasets to benchmark a broad spectrum of forecasting models, spanning from conventional univariate to modern global and multivariate methodologies.

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Table 1: Datasets in the current time series forecasting archive

	Dataset	Domain	No: of Series	Min. Length	Max. Length	No: of Freq	Missing	Competition	Multivariate
0	M1	Multiple	1023	18	150	3	No	Yes	No
1	M3	Multiple	3003	20	144	4	No	Yes	No
2	M4	Multiple	100000	19	9933	6	No	Yes	No
3	Tourism	Tourism	1311	11	333	3	No	Yes	No
4	CIF 2016	Banking	72	28	120	1	No	Yes	No
5	London Smart Meters	Energy	5560	288	39648	1	Yes	No	No
6	Aus. Electricity Demand	Energy	5	230736	232272	1	No	No	No
7	Wind Farms	Energy	339	6345	527040	1	Yes	No	No
8	Dominick	Sales	115704	28	393	1	No	No	No
9	Bitcoin	Economic	18	4581	4581	1	Yes	No	No
10	Pedestrian Counts	Transport	66	576	96424	1	No	No	No
11	Vehicle Trips	Transport	329	70	243	1	Yes	No	No
12	KDD Cup 2018	Transport	270	9504	10920	1	Yes	Yes	No
13	Weather	Weather	3010	1332	65981	1	No	No	No
14	NN5	Banking	111	791	791	2	Yes	Yes	Yes
15	Web Traffic	Web	145063	803	803	1	Yes	Yes	Yes
16	Solar	Energy	137	52560	52560	2	No	No	Yes
17	Electricity	Energy	321	26304	26304	2	No	No	Yes
18	Car Parts	Sales	2674	51	51	1	Yes	No	Yes
19	FRED-MD	Economics	107	728	728	1	No	No	Yes
20	San Francisco Traffic	Transport	862	17544	17544	2	No	No	Yes
21	Rideshare	Transport	2304	541	541	1	Yes	No	Yes
22	Hospital	Health	767	84	84	1	No	No	Yes
23	COVID Deaths	Nature	266	212	212	1	No	No	Yes
24	Temperature Rain	Nature	32072	725	725	1	Yes	No	Yes
25	Sunspot	Nature	1	73924	73924	1	Yes	No	No
26	Saugeen River Flow	Nature	1	23741	23741	1	No	No	No
27	US Births	Nature	1	7305	7305	1	No	No	No
28	Solar Power	Energy	1	7397222	7397222	1	No	No	No
29	Wind Power	Energy	1	7397147	7397147	1	No	No	No

Table 2: Mean MASE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	4.938	4.191	3.771	-	4.588	-	4.479	**3.499**
1	M1 Quarterly	1.929	1.702	**1.658**	-	1.892	-	1.787	1.694
2	M1 Monthly	1.379	1.091	**1.074**	-	1.123	-	1.165	1.118
3	M3 Quarterly	1.417	**1.117**	1.170	-	1.248	-	1.240	1.256
4	M3 Monthly	1.091	0.864	0.865	-	1.010	-	0.873	**0.861**
5	M4 Yearly	-	-	-	-	-	-	-	**3.437**
6	M4 Quarterly	-	-	-	-	-	-	-	**1.186**
7	M4 Weekly	-	-	-	-	-	-	-	**0.505**
8	Tourism Yearly	3.253	**3.015**	3.395	-	3.516	-	3.775	3.685
9	Tourism Quarterly	3.210	1.661	**1.592**	-	1.643	-	1.776	1.835
10	Tourism Monthly	3.306	1.649	**1.526**	-	1.678	-	1.587	1.751
11	Vehicle Trips	2.273	1.914	1.964	-	2.196	-	2.051	**1.856**
12	NN5 Daily	-	-	-	-	-	0.970	-	**0.858**
13	NN5 Weekly	0.903	0.885	0.911	0.887	**0.854**	-	-	0.872
14	Solar Weekly	1.215	1.224	1.134	**0.848**	1.053	-	-	0.916
15	Electricity Weekly	1.536	1.476	1.526	0.878	0.916	-	-	**0.792**
16	Traffic Weekly	**1.116**	1.121	1.125	1.191	1.122	-	-	1.148
17	Hospital	0.813	**0.761**	0.765	-	0.782	-	0.788	0.768
18	Sunspot	0.128	0.128	0.128	-	0.099	-	0.067	**0.064**
19	Bitcoin	5.289	5.223	**4.538**	-	4.616	-	5.498	4.602
20	CIF 2016	1.291	0.997	**0.841**	-	1.019	-	0.927	0.861
21	COVID Deaths	7.776	7.793	**5.326**	-	8.731	-	6.104	5.719
22	Car Parts	0.897	0.914	0.925	-	**0.755**	-	0.927	1.002
23	Fred Md	0.617	0.698	**0.468**	-	8.827	-	0.532	0.502
24	M3 Yearly	3.167	**2.774**	2.860	-	3.223	-	3.417	3.127
25	Saugeen River Flow	1.426	**1.425**	2.036	-	1.674	-	1.548	1.477
26	US Births	4.343	2.138	1.529	-	2.094	-	1.917	**1.453**

Table 3: Mean MAE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	171353.408	152799.258	146110.106	-	134246.383	-	145608.869	**103006.950**
1	M1 Quarterly	2206.272	1981.960	2088.154	-	**1630.379**	-	2191.104	2326.464
2	M1 Monthly	2259.039	2166.182	**1905.277**	-	2088.248	-	2080.255	2237.507
3	M3 Quarterly	571.959	**486.307**	513.058	-	519.297	-	559.038	561.766
4	M3 Monthly	743.412	**623.706**	626.464	-	692.969	-	654.973	630.577
5	M4 Yearly	-	-	-	-	-	-	-	**960.446**
6	M4 Quarterly	-	-	-	-	-	-	-	**570.217**
7	M4 Weekly	-	-	-	-	-	-	-	**296.808**
8	Tourism Yearly	95579.234	90653.602	94818.891	-	**82682.969**	-	95033.239	94121.085
9	Tourism Quarterly	15014.193	**7656.490**	8925.520	-	9092.579	-	10448.861	9972.417
10	Tourism Monthly	5302.099	2069.960	**2004.512**	-	2187.277	-	2532.246	2940.081
11	Vehicle Trips	29.980	23.299	21.258	-	27.243	-	23.456	**21.045**
12	NN5 Daily	-	-	-	-	-	4.200	-	**3.701**
13	NN5 Weekly	15.665	15.305	15.698	15.383	**14.937**	-	-	14.985
14	Solar Weekly	1202.387	1210.825	1131.012	**839.884**	1044.984	-	-	908.651
15	Electricity Weekly	74149.179	74111.141	67737.816	28455.901	44882.524	-	-	**24351.984**
16	Traffic Weekly	**1.125**	1.131	1.144	1.222	1.125	-	-	1.166
17	Hospital	21.761	18.539	17.966	-	19.237	-	19.742	**17.429**
18	Sunspot	4.933	4.933	4.933	-	3.833	-	2.567	**2.467**
19	Bitcoin	177338866551415449 6.000	177338866655430220 8.000	110364862733916300 8.000	-	**66636182801495462 4.000**	-	104719879668106764 8.000	990417434784583808.000
20	CIF 2016	581875.967	714818.577	642421.423	-	563205.570	-	**469132.082**	855578.358
21	COVID Deaths	353.709	321.323	**85.591**	-	347.979	-	85.768	96.288
22	Car Parts	0.548	0.530	0.564	-	**0.407**	-	0.561	0.583
23	Fred Md	2798.221	3492.842	2041.415	-	8921.936	-	2956.959	**1989.973**
24	M3 Yearly	1022.268	**957.404**	1031.402	-	1018.483	-	1416.307	1192.847
25	Saugeen River Flow	21.497	**21.486**	30.693	-	25.241	-	23.338	22.262
26	US Births	1192.200	586.933	419.733	-	574.933	-	526.333	**399.000**

Table 4: Mean RMSE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	193829.492	171458.069	167739.018	-	152038.685	-	175343.756	**116850.923**
1	M1 Quarterly	2545.734	2282.647	2408.453	-	**1909.312**	-	2538.446	2673.911
2	M1 Monthly	2725.825	2564.877	**2263.963**	-	2478.878	-	2450.498	2594.483
3	M3 Quarterly	670.556	**567.701**	598.735	-	605.502	-	650.650	653.614
4	M3 Monthly	893.876	**753.992**	755.261	-	830.044	-	790.855	765.240
5	M4 Yearly	-	-	-	-	-	-	-	**1099.947**
6	M4 Quarterly	-	-	-	-	-	-	-	**672.697**
7	M4 Weekly	-	-	-	-	-	-	-	**357.536**
8	Tourism Yearly	106665.199	99914.211	104700.515	-	**89645.614**	-	106082.605	105799.355
9	Tourism Quarterly	17270.571	**9254.630**	10812.342	-	11746.847	-	12533.464	12001.480
10	Tourism Monthly	7039.349	2701.956	**2542.962**	-	2739.425	-	3128.189	3661.512
11	Vehicle Trips	36.525	27.814	26.153	-	31.692	-	28.535	**25.503**
12	NN5 Daily	-	-	-	-	-	5.715	-	**5.204**
13	NN5 Weekly	18.825	18.647	18.816	18.550	18.615	-	-	**18.528**
14	Solar Weekly	1331.262	1341.547	1264.429	**967.869**	1168.177	-	-	1049.014
15	Electricity Weekly	77067.872	76935.581	70368.973	32593.363	47802.075	-	-	**28040.934**
16	Traffic Weekly	1.514	1.529	1.534	1.545	**1.503**	-	-	1.528
17	Hospital	26.551	22.592	22.023	-	23.479	-	23.837	**21.281**
18	Sunspot	4.946	4.946	4.946	-	3.954	-	2.938	**2.595**
19	Bitcoin	19637372666617722880.000	19637372675076963840.000	12234957177514119680.000	-	**829205149080918912.000**	-	11980583119917893120.000	11642791793977477120.000
20	CIF 2016	657112.422	804654.191	722397.372	-	648890.305	-	**526445.797**	940099.906
21	COVID Deaths	403.415	370.141	102.081	-	394.066	-	**100.463**	112.998
22	Car Parts	0.784	0.782	0.802	-	**0.729**	-	0.811	0.837
23	Fred Md	3103.000	3898.722	2341.721	-	9736.928	-	3312.245	**2295.745**
24	M3 Yearly	1172.847	**1106.054**	1189.215	-	1181.808	-	1662.168	1386.329
25	Saugeen River Flow	39.794	**39.787**	50.392	-	47.703	-	45.536	42.576
26	US Births	1369.497	735.511	607.197	-	732.085	-	705.506	**606.541**

Table 5: Mean sMAPE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	0.231	0.202	0.186	-	0.188	-	0.195	**0.174**
1	M1 Quarterly	0.181	**0.163**	0.174	-	0.166	-	0.166	0.166
2	M1 Monthly	0.171	0.155	**0.146**	-	0.148	-	0.153	0.148
3	M3 Quarterly	0.109	**0.092**	0.097	-	0.098	-	0.102	0.102
4	M3 Monthly	0.162	0.139	0.141	-	0.152	-	0.143	**0.138**
5	M4 Yearly	-	-	-	-	-	-	-	**0.149**
6	M4 Quarterly	-	-	-	-	-	-	-	**0.102**
7	M4 Weekly	-	-	-	-	-	-	-	**0.073**
8	Tourism Yearly	0.341	**0.319**	0.365	-	0.469	-	0.334	0.339
9	Tourism Quarterly	0.274	0.154	**0.151**	-	0.159	-	0.165	0.172
10	Tourism Monthly	0.364	0.199	**0.190**	-	0.211	-	0.196	0.212
11	Vehicle Trips	0.362	0.301	0.313	-	0.350	-	0.308	**0.291**
12	NN5 Daily	-	-	-	-	-	0.239	-	**0.211**
13	NN5 Weekly	0.122	0.120	0.123	0.118	**0.114**	-	-	0.116
14	Solar Weekly	0.246	0.248	0.229	**0.179**	0.217	-	-	0.191
15	Electricity Weekly	0.142	0.146	0.141	0.108	0.100	-	-	**0.085**
16	Traffic Weekly	**0.124**	0.125	0.126	0.134	0.125	-	-	0.128
17	Hospital	0.179	**0.173**	0.175	-	0.176	-	0.178	0.176
18	Sunspot	1.924	1.924	1.924	-	1.901	-	**1.730**	1.860
19	Bitcoin	0.208	0.302	**0.191**	-	0.215	-	0.269	0.200
20	CIF 2016	0.149	0.130	0.122	-	0.123	-	**0.114**	0.122
21	COVID Deaths	0.153	0.156	**0.086**	-	0.183	-	0.092	0.087
22	Car Parts	0.649	0.593	0.658	-	**0.432**	-	0.657	0.659
23	Fred Md	0.087	0.097	0.084	-	0.308	-	0.080	**0.080**
24	M3 Yearly	0.178	**0.168**	0.170	-	0.171	-	0.188	0.174
25	Saugeen River Flow	0.360	**0.360**	0.675	-	0.453	-	0.398	0.373
26	US Births	0.118	0.058	0.041	-	0.058	-	0.052	**0.038**

Table 6: Median MAE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	379.284	255.754	191.237	-	245.666	-	179.979	**173.359**
1	M1 Quarterly	22.296	19.554	19.588	-	19.195	-	**16.228**	18.871
2	M1 Monthly	45.333	38.230	38.508	-	37.365	-	40.538	**35.776**
3	M3 Quarterly	371.949	**294.163**	304.535	-	325.437	-	333.743	335.693
4	M3 Monthly	517.092	420.802	408.924	-	479.184	-	412.467	**406.592**
5	M4 Yearly	-	-	-	-	-	-	-	**429.689**
6	M4 Quarterly	-	-	-	-	-	-	-	**255.646**
7	M4 Weekly	-	-	-	-	-	-	-	**163.678**
8	Tourism Yearly	4312.773	**4085.983**	4271.056	-	4340.899	-	4623.591	4789.949
9	Tourism Quarterly	1921.000	1114.299	1003.244	-	**992.119**	-	1021.678	1176.187
10	Tourism Monthly	967.571	478.452	**457.035**	-	474.722	-	462.532	492.461
11	Vehicle Trips	6.033	4.667	4.667	-	6.967	-	4.967	**4.433**
12	NN5 Daily	-	-	-	-	-	3.684	-	**3.458**
13	NN5 Weekly	14.183	13.904	14.273	14.824	**12.837**	-	-	13.727
14	Solar Weekly	1091.235	1103.196	1073.108	**760.627**	942.228	-	-	780.039
15	Electricity Weekly	10983.750	10447.125	10992.500	6789.750	7090.875	-	-	**6149.875**
16	Traffic Weekly	**0.918**	0.924	0.918	0.976	0.930	-	-	0.942
17	Hospital	**6.667**	6.667	6.667	-	6.667	-	6.833	6.833
18	Sunspot	4.933	4.933	4.933	-	3.833	-	2.567	**2.467**
19	Bitcoin	23205.448	20282.365	**19387.453**	-	25108.360	-	29911.050	27294.269
20	CIF 2016	107.092	103.393	70.431	-	95.132	-	80.656	**67.118**
21	COVID Deaths	2.233	4.417	**1.650**	-	6.767	-	1.783	1.800
22	Car Parts	0.333	**0.250**	0.333	-	0.250	-	0.333	0.417
23	Fred Md	**1.894**	1.940	2.350	-	41.359	-	2.732	1.992
24	M3 Yearly	703.335	660.491	641.073	-	711.860	-	701.323	**637.810**
25	Saugeen River Flow	21.497	**21.486**	30.693	-	25.241	-	23.338	22.262
26	US Births	1192.200	586.933	419.733	-	574.933	-	526.333	**399.000**

Table 7: Median MASE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	3.772	3.155	2.324	-	2.847	-	**2.127**	2.215
1	M1 Quarterly	1.417	1.264	1.196	-	1.376	-	**1.171**	1.200
2	M1 Monthly	1.167	0.885	**0.851**	-	0.947	-	0.896	0.902
3	M3 Quarterly	1.073	**0.831**	0.855	-	0.902	-	0.917	0.914
4	M3 Monthly	0.861	0.721	0.712	-	0.825	-	0.704	**0.699**
5	M4 Yearly	-	-	-	-	-	-	-	**2.402**
6	M4 Quarterly	-	-	-	-	-	-	-	**0.915**
7	M4 Weekly	-	-	-	-	-	-	-	**0.365**
8	Tourism Yearly	2.442	2.360	2.373	-	**2.356**	-	2.719	2.518
9	Tourism Quarterly	2.309	1.348	**1.275**	-	1.361	-	1.388	1.478
10	Tourism Monthly	2.336	1.382	**1.276**	-	1.484	-	1.333	1.491
11	Vehicle Trips	1.402	0.999	0.964	-	1.429	-	1.020	**0.963**
12	NN5 Daily	-	-	-	-	-	0.902	-	**0.834**
13	NN5 Weekly	0.781	0.805	0.775	**0.769**	0.781	-	-	0.827
14	Solar Weekly	1.231	1.241	1.209	**0.861**	1.063	-	-	0.894
15	Electricity Weekly	1.341	1.303	1.337	0.798	0.842	-	-	**0.705**
16	Traffic Weekly	**0.973**	0.983	0.977	1.035	0.980	-	-	0.996
17	Hospital	0.745	**0.723**	0.731	-	0.740	-	0.736	0.734
18	Sunspot	0.128	0.128	0.128	-	0.099	-	0.067	**0.064**
19	Bitcoin	3.089	2.955	**2.686**	-	3.166	-	3.542	3.207
20	CIF 2016	0.862	0.662	**0.532**	-	0.746	-	0.559	0.537
21	COVID Deaths	1.554	2.192	0.614	-	5.313	-	0.982	**0.605**
22	Car Parts	0.562	0.482	0.562	-	**0.375**	-	0.600	0.596
23	Fred Md	0.430	0.407	0.385	-	8.458	-	**0.355**	0.370
24	M3 Yearly	2.261	1.985	1.907	-	2.267	-	2.003	**1.900**
25	Saugeen River Flow	1.426	**1.425**	2.036	-	1.674	-	1.548	1.477
26	US Births	4.343	2.138	1.529	-	2.094	-	1.917	**1.453**

Table 8: Median RMSE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	416.373	323.314	230.388	-	304.766	-	207.818	**204.193**
1	M1 Quarterly	24.459	22.811	21.858	-	22.529	-	**20.232**	22.320
2	M1 Monthly	54.669	46.396	44.392	-	45.346	-	47.105	**44.038**
3	M3 Quarterly	436.253	**355.795**	368.908	-	378.310	-	405.868	400.010
4	M3 Monthly	633.562	516.786	495.969	-	582.040	-	499.898	**493.189**
5	M4 Yearly	-	-	-	-	-	-	-	**495.022**
6	M4 Quarterly	-	-	-	-	-	-	-	**302.405**
7	M4 Weekly	-	-	-	-	-	-	-	**200.317**
8	Tourism Yearly	4718.365	**4615.953**	4626.737	-	4717.099	-	5174.760	5156.832
9	Tourism Quarterly	2295.668	1392.888	1207.242	-	**1184.480**	-	1187.153	1470.608
10	Tourism Monthly	1250.260	675.095	598.878	-	**596.256**	-	606.487	670.852
11	Vehicle Trips	8.103	5.802	5.925	-	8.725	-	6.506	**5.580**
12	NN5 Daily	-	-	-	-	-	5.320	-	**4.749**
13	NN5 Weekly	17.524	16.816	17.523	17.487	**16.263**	-	-	16.990
14	Solar Weekly	1193.898	1214.270	1163.097	**878.010**	1016.249	-	-	885.590
15	Electricity Weekly	12460.162	11805.765	12460.162	8268.546	8237.572	-	-	**7278.042**
16	Traffic Weekly	1.201	1.215	1.210	1.211	**1.195**	-	-	1.214
17	Hospital	8.256	**8.196**	8.251	-	8.251	-	8.391	8.357
18	Sunspot	4.946	4.946	4.946	-	3.954	-	2.938	**2.595**
19	Bitcoin	30307.404	26276.808	**24301.687**	-	31356.350	-	38188.457	33027.853
20	CIF 2016	129.055	118.287	85.771	-	109.089	-	103.142	**79.025**
21	COVID Deaths	3.087	5.290	2.205	-	8.283	-	2.164	**2.129**
22	Car Parts	0.707	0.645	0.707	-	**0.577**	-	0.707	0.707
23	Fred Md	**2.306**	2.362	2.702	-	45.182	-	3.490	2.515
24	M3 Yearly	803.708	**740.102**	758.616	-	824.549	-	814.676	752.691
25	Saugeen River Flow	39.794	**39.787**	50.392	-	47.703	-	45.536	42.576
26	US Births	1369.497	735.511	607.197	-	732.085	-	705.506	**606.541**

Table 9: Median RMSE results. The best model across each dataset is highlighted in boldface.

	Dataset	SES	Theta	ETS	(DHR-) ARIMA	PR	Cat Boost	ARIMA	TBATS
0	M1 Yearly	0.173	0.147	0.130	-	0.135	-	**0.120**	0.127
1	M1 Quarterly	0.112	0.086	**0.084**	-	0.101	-	0.097	0.086
2	M1 Monthly	0.143	0.112	**0.108**	-	0.119	-	0.115	0.113
3	M3 Quarterly	0.067	**0.052**	0.055	-	0.057	-	0.064	0.062
4	M3 Monthly	0.107	0.093	0.091	-	0.104	-	**0.090**	0.090
5	M4 Yearly	-	-	-	-	-	-	-	**0.088**
6	M4 Quarterly	-	-	-	-	-	-	-	**0.058**
7	M4 Weekly	-	-	-	-	-	-	-	**0.048**
8	Tourism Yearly	0.188	**0.168**	0.192	-	0.169	-	0.227	0.206
9	Tourism Quarterly	0.225	0.132	**0.129**	-	0.133	-	0.131	0.148
10	Tourism Monthly	0.302	0.174	**0.172**	-	0.185	-	0.180	0.190
11	Vehicle Trips	0.342	0.235	0.232	-	0.327	-	0.236	**0.228**
12	NN5 Daily	-	-	-	-	-	0.229	-	**0.196**
13	NN5 Weekly	0.109	0.110	0.108	0.111	**0.105**	-	-	0.110
14	Solar Weekly	0.248	0.249	0.244	**0.176**	0.218	-	-	0.184
15	Electricity Weekly	-	0.117	-	**0.070**	-	-	-	-
16	Traffic Weekly	**0.097**	0.098	0.098	0.105	0.098	-	-	0.101
17	Hospital	0.166	**0.159**	0.161	-	0.161	-	0.168	0.163
18	Sunspot	1.962	1.962	1.962	-	1.956	-	**1.943**	1.947
19	Bitcoin	0.182	0.187	0.188	-	**0.172**	-	0.192	0.175
20	CIF 2016	0.114	0.080	**0.066**	-	0.084	-	0.077	0.070
21	COVID Deaths	-	-	-	-	-	-	-	-
22	Car Parts	-	-	-	-	-	-	-	-
23	Fred Md	0.016	0.015	0.015	-	0.291	-	0.016	**0.013**
24	M3 Yearly	0.124	0.115	**0.115**	-	0.129	-	0.124	0.115
25	Saugeen River Flow	0.360	**0.360**	0.676	-	0.454	-	0.398	0.374
26	US Births	0.118	0.058	0.041	-	0.058	-	0.052	**0.038**