

## APPENDIX B: CONSISTENCY SCORES OF THE FEATURES

Node and edge features of all the datasets together with their consistency scores  $c_j$  are shown in Tables 1 to 8.

Table 1. Consistency scores of the features of loS nodes.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>ChildLnameMatchFatherLname</i>	16431	213	416	553	0.70
<i>ChildLnameMatchMotherLname</i>	16431	213	416	553	0.70
<i>FatherOccPresent</i>	16434	216	413	550	0.69
<i>FatherFnamePresent</i>	16441	217	406	549	0.69
<i>FatherLnamePresent</i>	16444	218	403	548	0.69
....	...	...	...	...	...
<i>CommonDoBPopulation</i>	6064	238	10783	528	0.05
<i>AddressPresent</i>	16679	724	168	42	0.05
<i>CommonDoBParish</i>	3847	161	13000	605	0.02
<i>MotherFnamePresent</i>	16846	757	1	9	0.01
<i>MotherMnamePresent</i>	16843	759	4	7	0.01
<i>PrenupPregnancy</i>	16823	762	24	4	0.00
<i>CommonParishPopulation</i>	6704	305	10143	461	0.00

Table 2. Consistency scores of the features of loS edges.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>SameFnameMother</i>	40391	225	432	364	0.61
<i>SameParish</i>	37088	185	3735	404	0.60
<i>SameAddress</i>	28720	94	12103	495	0.54
<i>SameDoM</i>	19723	53	21100	536	0.39
<i>SameOccFather</i>	23478	142	17345	447	0.33
...	...	...	...	...	...
<i>SameLnameMother</i>	40823	480	0	109	0.19
<i>SameLnameFather</i>	40823	480	0	109	0.19
<i>SameFnameFather</i>	40823	535	0	54	0.09
<i>SameFname</i>	1369	52	39454	537	0.05
<i>SameDoB</i>	196	1	40627	588	0.00

Table 3. Consistency scores of the features of Israel nodes.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>HighAgeAbove60Count</i>	120	17	12	98	0.76
<i>HighGotShortBreathCount</i>	106	9	26	106	0.73
<i>HighContWithConfCaseCount</i>	100	5	32	110	0.71
<i>HighGotSoreThroatCount</i>	98	5	34	110	0.70
<i>HighGotFeverCount</i>	97	7	35	108	0.67
<i>HighGotHeadAcheCount</i>	94	5	38	110	0.66
<i>HighCoronaPosCount</i>	88	5	44	110	0.62
<i>HighGotCoughCount</i>	53	7	79	108	0.34
<i>HighMalesThanFemales</i>	48	4	84	111	0.33
<i>HighAcqOverseasCount</i>	34	10	98	105	0.17

Table 4. Consistency scores of the features of Israel temporal edges.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>IncGotFeverCount</i>	12	6	0	17	0.74
<i>IncGotHeadAcheCount</i>	12	6	0	17	0.74
<i>IncCoronaPosCount</i>	12	6	0	17	0.74
<i>IncGotSoreThroatCount</i>	12	7	0	16	0.70
<i>IncGotCoughCount</i>	12	7	0	16	0.70
<i>IncAgeAbove60Count</i>	12	7	0	16	0.70
<i>IncContWithConfCaseCount</i>	12	7	0	16	0.70
<i>IncMalesThanFemales</i>	9	3	3	20	0.62
<i>IncAcqOverseasCount</i>	11	7	1	16	0.61
<i>IncGotShortBreathCount</i>	12	10	0	13	0.56

Table 5. Consistency scores of the features of QLD nodes.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>HighYoungAgedCount</i>	1600	28	1141	503	0.53
<i>HighMalesThanFemales</i>	1374	19	1367	512	0.47
<i>HighOldAgedCount</i>	1344	33	1397	498	0.43
<i>HighPatientCount</i>	928	12	1813	519	0.32
<i>HighOverseasAcquiredCount</i>	992	30	1749	501	0.31
...	...	...	...	...	...
<i>HighLocalAcqUnidentInterstateTravelCount</i>	145	42	2596	489	0.03
<i>HighDeceasedCount</i>	325	50	2416	481	0.02
<i>HighAdmittedICUCount</i>	36	15	2705	516	0.02
<i>HighVentilatedCount</i>	27	12	2714	519	0.01
<i>HighUnderInvestigationCount</i>	125	26	2616	505	0.00

Table 6. Consistency scores of the features of QLD temporal edges.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>HighIndigenousCount</i>	2052	452	126	378	0.40
<i>HighPatientCount</i>	1643	302	535	528	0.39
<i>HighOverseasAcqCount</i>	1548	360	630	470	0.28
<i>HighMalesThanFemales</i>	1590	376	588	454	0.28
<i>HighDeceasedCount</i>	2119	590	59	240	0.26
<i>HighLocalUnidenInterTravCount</i>	2178	655	0	175	0.21
<i>HighUnderInvestCount</i>	2178	689	0	141	0.17
<i>HighLocalAcqKnownCount</i>	2132	680	46	150	0.16
<i>HighICUCount</i>	2178	781	0	49	0.06
<i>HighVentilatedCount</i>	2178	793	0	37	0.05
<i>HighHospitalisedCount</i>	136	22	2042	808	0.04

Table 7. Consistency scores of the features of QLD spatial edges.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>HighVentilatedCount</i>	305567	140	3892	512	0.77
<i>HighICUCount</i>	304490	142	4969	510	0.77
<i>HighDeceasedCount</i>	273334	115	36125	537	0.71
<i>HighLocalAcqKnownCount</i>	283669	238	25790	414	0.55
<i>HighPatientCount</i>	179574	44	129885	608	0.51
<i>HighMalesThanFemales</i>	190395	69	119064	583	0.51
<i>HighUnderInvestCount</i>	293904	300	15555	352	0.49
<i>HighLocalUnidenInterTravCount</i>	291981	315	17478	337	0.46
<i>HighIndigenousCount</i>	249141	227	60318	425	0.46
<i>HighOverseasAcqCount</i>	182725	94	126734	558	0.45
<i>HighHospitalizedCount</i>	16326	6	293133	646	0.04

Table 8. Consistency scores of the features of QLD temporal and spatial edges.

Feature Name	$tn_j$	$ta_j$	$fn_j$	$fa_j$	$c_j$
<i>HighDeceasedCount</i>	547676	179	67716	944	0.73
<i>HighUnderInvestCount</i>	585976	342	29416	781	0.65
<i>HighLocalUnidenInterTravCount</i>	579397	357	35995	766	0.62
<i>HighVentilatedCount</i>	608222	429	7170	694	0.61
<i>HighICUCount</i>	605833	434	9559	689	0.60
<i>HighPatientCount</i>	372734	43	242658	1080	0.57
<i>HighMalesThanFemales</i>	388069	81	227323	1042	0.56
<i>HighIndigenousCount</i>	502601	330	112791	793	0.52
<i>HighOverseasAcqCount</i>	374904	124	240488	999	0.50
<i>HighLocalAcqKnownCount</i>	567540	505	47852	618	0.47
<i>HighHospitalisedCount</i>	37178	5	578214	1118	0.06