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Analyzing Links between Spatio-Temporal Metrics of Built-Up Areas and Socio-Economic Indicators on a Semi-Global Scale

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Supplementary Material

Table S1. Availability and values of socio-economic variables and geospatial databases by functional urban area (FUA). It refers to data available as of February 2020. An empty row means the variable is not available for the given FUA. The units are: for GDP per capita and income USD, Gini is a ratio, Air quality is the fine particular matter in μg/m³, and employment rate is a percentage. The last four columns indicate the availability in the geospatial databases (✓). The errors in the Global Human Settlement Layer (GHSL) are due to misclassification or cloud coverage, the Climate Change Initiative Land Cover (CCI) is complete, missing data on the Global Roads Inventory Project (GRIP) or in the population counts (POP) from the OECD are also shown, since they are necessary for the calculation of spatio-temporal metrics.

Code	FUA name	GDP 2014	Gini 2014	Income 2014	Air quality 2014	Air quality 2000/14	Employment 2000/14	GHSL	CCI	GRIP	POP
Australia (AUS)											
AUS01	Greater Sydney	43214		43229	7.8	-1		✓	✓	✓	✓
AUS02	Greater Melbourne	40335		38054	15.8	-2.4		✓	✓	✓	✓
AUS03	Greater Brisbane	39851		40977	5.9	-1		✓	✓	✓	✓
AUS04	Greater Perth	60275		46324	8.3	-1		✓	✓	✓	✓
AUS05	Greater Adelaide	39455		35630	6.8	-0.9		✓	✓	✓	✓
AUS06	Gold Coast	38907		40494	5.8	-0.9		✓	✓	✓	✓
AUS07	Australian Capital Territory	57147			16.4	-2.1		✓	✓	✓	✓
AUS08	Newcastle	44671			7.4	-1.1		✓	✓	✓	✓
AUS10	Wollongong	42960			7.3	-1		✓	✓	✓	✓
AUS14	Geelong	40913			13.7	-2.1		✓	✓	✓	✓
Austria (AUT)											
AT001	Vienna	46779	0.2737	28725	14.7	-2.2	-2.712	✓	✓	✓	✓
AT002	Graz	45985	0.2709	30441	17.2	-2.7	-4.786	✓	✓	✓	✓
AT003	Linz	46231	0.2523	32032	14	-1.8	1.713	✓	✓	✓	✓
AT004	Salzburg	54480			12.5	-1.9	-1.279	✓	✓	✓	✓
AT005	Innsbruck	46050			12.5	-1.5	1.910	✓	✓	✓	✓
Belgium (BEL)											
BE001	Brussels	54186		28647	14.6	-2.7		✓	✓	✓	✓
BE002	Antwerp	49682	0.2952	28389	14.6	-2.8		✓	✓	✓	✓
BE003	Gent	44875	0.2937	29363	14.5	-2.8		✓	✓	✓	✓
BE004	Charleroi	27911			12.2	-2.4		✓	✓	✓	✓
BE005	Liege	30924	0.3130	24802	12	-2.3		✓	✓	✓	✓
Canada (CAN)											
CAN01	Toronto	41800	0.4140	39408	8	-1		✓	✓	✓	✓
CAN02	Montreal	34690	0.3500	38802	8.7	-1.1		✓	✓	✓	✓
CAN03	Vancouver	40824	0.4050	34471	6.5	-0.8		✓	✓	✓	✓
CAN04	Ottawa	40740		45473	6.6	-0.8		✓	✓	✓	✓
CAN05	Calgary	70821	0.4480	34782	7.5	-0.9		✓	✓	✓	✓
CAN06	Edmonton	70468		29673	7.1	-0.7		✓	✓	✓	✓
CAN07	Quebec	35465		32758	8.2	-1.1		✓	✓	✓	✓
CAN08	Winnipeg	38464	0.3560	33290	5.9	-0.6		✓	✓	✓	✓
CAN09	Hamilton	40604	0.3430	32332	9	-1.2		✓	✓	✓	✓
CAN10	London	41175	0.3510	30121	8.4	-1.1	-3.314	✓	✓	✓	✓
CAN11	Kitchener	41107		28517	8.2	-1.1		✓	✓	✓	✓
CAN12	Halifax	32541	0.3440	28617	5.4	-0.7		✓	✓	✓	✓

CAN13	Saanich	37072	0.3490	33423	6.1	-0.9		✓	✓	✓	✓
CAN14	Windsor	37474	0.3570	30777	9.1	-1.2	-4.642	✓	✓	✓	✓
CAN15	Saskatoon	57417	0.3590	33720	10.1	-1.2		✓	✓	✓	✓
CAN16	Sherbrooke	35510	0.3040	28196	6.6	-0.9		✓	✓	✓	✓
Switzerland (CHE)											
CH001	Zurich	64140			12.1	-1.5		✓	✓	✓	✓
CH002	Geneva	63515			13.5	-1.8		✓	✓	✓	✓
CH003	Basel	70399			12.5	-1.6		✓	✓	✓	✓
CH004	Bern	51815			11.6	-1.6		✓	✓	✓	✓
CH005	Lausanne	46028			12.5	-1.6		✓	✓	✓	✓
Chile (CHL)											
CL004	Antofagasta	62620			11.8	-1.4		ERROR	✓	✓	✓
CL006	Coquimbo-La Serena	14113			15.3	-2.4		✓	✓	✓	✓
CL010	Valparaiso	15504		14811	18	-2.5		✓	✓	✓	✓
CL011	Santiago	21048		20695	26.6	-4.5		✓	✓	✓	✓
CL014	Rancagua	18521			30.5	-4.7		ERROR	✓	✓	✓
CL017	Talca	11182			26.6	-3.1		ERROR	✓	✓	✓
CL020	Concepcion	12121		11859	20.3	-3		✓	✓	✓	✓
CL022	Temuco	9623			33.4	-4.3		✓	✓	✓	✓
CL025	Puerto Montt	13842			30.8	-4.1		ERROR	✓	✓	✓
Colombia (COL) – *Not included in the analysis*											
COL01	*Bogota D.C.*				*24.4*	*-2.7*		*ERROR*	✓	✓	✓
COL02	*Medellin*				*26.1*	*-2.9*		✓	✓	✓	✓
COL03	*Cali*				*12.9*	*-1.9*		*ERROR*	✓	✓	✓
COL04	*Barranquilla*				*22.9*	*-2.6*		✓	✓	✓	✓
COL05	*Cartagena*				*18.8*	*-1.9*		✓	✓	✓	✓
COL06	*Bucaramanga*				*25.7*	*-2.1*		✓	✓	✓	✓
COL07	*Cucuta*				*26.6*	*-1.3*		*ERROR*	✓	✓	✓
COL08	*Pereira*				*17.8*	*-2.2*		*ERROR*	✓	✓	✓
COL09	*Ibague*				*17*	*-2*		*ERROR*	✓	✓	✓
COL10	*Manizales*				*18.2*	*-2.2*		✓	✓	✓	✓
COL11	*Santa Marta*				*17*	*-1.8*		*ERROR*	✓	✓	✓
COL12	*Pasto*				*14.4*	*-2.1*		*ERROR*	✓	✓	✓
COL13	*Armenia*				*16.5*	*-2.1*		*ERROR*	✓	✓	✓
COL14	*Villavicencio*				*21.6*	*-2.7*		*ERROR*	✓	✓	✓
COL15	*Monteria*				*18.1*	*-1.8*		✓	✓	✓	✓
COL16	*Valledupar*				*20.2*	*-1.8*		*ERROR*	✓	✓	✓
COL17	*Buenaventura*				*9.9*	*-1.3*		*ERROR*	✓	✓	✓
COL18	*Neiva*				*16.4*	*-2.8*		*ERROR*	✓	✓	✓
COL19	*Palmira*				*11.3*	*-1.8*		*ERROR*	✓	✓	✓
COL20	*Popayan*				*12.2*	*-1.8*		*ERROR*	✓	✓	✓
COL21	*Sincelejo*				*19.9*	*-1.7*		✓	✓	✓	✓
Czech Republic (CZE)											
CZ001	Prague	44881			15.8	-2.4	1.425	✓	✓	✓	✓
CZ002	Brno	28423			17.6	-3	3.731	✓	✓	✓	✓
CZ003	Ostrava	24077			28.8	-5.1	2.533	✓	✓	✓	✓
CZ004	Plzen	27239			16.4	-2.7	0.531	✓	✓	✓	✓
Germany (DEU)											
DE001	Berlin	36906		23241	16.1	-2.5		✓	✓	✓	✓
DE002	Hamburg	52494		31075	12.6	-1.6		✓	✓	✓	✓
DE003	Munich	68938		38751	13.2	-1.9		✓	✓	✓	✓
DE004	Cologne	52146		29750	13.9	-2.6		✓	✓	✓	✓
DE005	Frankfurt am Main	61403		31820	12.6	-2.3		✓	✓	✓	✓
DE007	Stuttgart	57288		32623	13.4	-2		✓	✓	✓	✓
DE008	Leipzig	34398		21257	14.6	-2.6		✓	✓	✓	✓
DE009	Dresden	32099		21376	14.6	-2.3		✓	✓	✓	✓
DE011	Dusseldorf	62517		32357	14.2	-2.7		✓	✓	✓	✓
DE012	Bremen	42345		26131	12.6	-1.6		✓	✓	✓	✓
DE013	Hanover	44917		27623	12.8	-1.9		✓	✓	✓	✓
DE014	Nuremberg	49491		30642	13.2	-2.3		✓	✓	✓	✓
DE017	Bielefeld	43422			13.7	-2		✓	✓	✓	✓
DE018	Halle an der Saale	32952			14.4	-2.4		✓	✓	✓	✓

DE019	Magdeburg	33782		14.2	-2.1	✓	✓	✓	✓
DE020	Wiesbaden	52823		11.6	-2.1	✓	✓	✓	✓
DE021	Gottingen	36050		11.1	-1.9	✓	✓	✓	✓
DE025	Darmstadt	47039		12.7	-2.2	✓	✓	✓	✓
DE026	Trier	33687		10.8	-1.8	✓	✓	✓	✓
DE027	Freiburg im Breisgau	40680	28802	11.3	-1.5	✓	✓	✓	✓
DE028	Regensburg	51358		13.8	-2.3	✓	✓	✓	✓
DE031	Schwerin	30069		12.1	-1.6	✓	✓	✓	✓
DE032	Erfurt	34516	21545	12	-1.9	✓	✓	✓	✓
DE033	Augsburg	40531	29326	13.3	-2	✓	✓	✓	✓
DE034	Bonn	49759	31212	12	-2.3	✓	✓	✓	✓
DE035	Karlsruhe	50970	29929	12.7	-1.9	✓	✓	✓	✓
DE036	Monchengladbach	36079		13.8	-2.8	✓	✓	✓	✓
DE037	Mainz	50386		11.6	-1.9	✓	✓	✓	✓
DE038	Ruhr	36133	23898	15.5	-3	✓	✓	✓	✓
DE039	Kiel	37644	25927	12.7	-1.4	✓	✓	✓	✓
DE040	Saarbrucken	41933	24751	10.8	-1.8	✓	✓	✓	✓
DE042	Koblenz	48879		11.1	-2	✓	✓	✓	✓
DE043	Rostock	33009		13.1	-1.7	✓	✓	✓	✓
DE044	Kaiserslautern	32503		10.6	-1.7	✓	✓	✓	✓
DE045	Iserlohn	39429		13.6	-2.5	✓	✓	✓	✓
DE052	Flensburg	34170		12.3	-1.4	✓	✓	✓	✓
DE054	Constance	37858		11.9	-1.4	✓	✓	✓	✓
DE057	Giessen	37958		13	-2.4	✓	✓	✓	✓
DE061	Aschaffenburg	43026		11.7	-2.1	✓	✓	✓	✓
DE064	Neubrandenburg	28137		12.8	-2	✓	✓	✓	✓
DE069	Rosenheim	38360		12.5	-1.9	✓	✓	✓	✓
DE073	Offenburg	42910		11.8	-1.6	✓	✓	✓	✓
DE074	Gorlitz	27691		14.6	-2.6	✓	✓	✓	✓
DE077	Schweinfurt	45161		11	-2	✓	✓	✓	✓
DE079	Wetzlar	36473		12.5	-2.3	✓	✓	✓	✓
DE083	Braunschweig-Salzgitter Wolfsburg	50079	28790	12.4	-1.9	✓	✓	✓	✓
DE084	Mannheim-Ludwigshafen	49162	28617	13	-2.2	✓	✓	✓	✓
DE504	Muenster	49835	29866	13.9	-2.4	✓	✓	✓	✓
DE507	Aachen	40910	24917	10.4	-2.1	✓	✓	✓	✓
DE510	Lubeck	35523		12.4	-1.4	✓	✓	✓	✓
DE513	Kassel	43074		12.6	-2.3	✓	✓	✓	✓
DE517	Osnabruck	38532	26851	12.9	-1.9	✓	✓	✓	✓
DE520	Oldenburg (Oldenburg)	36265		12.9	-1.6	✓	✓	✓	✓
DE522	Heidelberg	41825	31795	12.8	-2.1	✓	✓	✓	✓
DE523	Paderborn	39496		13.2	-2	✓	✓	✓	✓
DE524	Wurzburg	41888		12.4	-2.3	✓	✓	✓	✓
DE527	Bremerhaven	31653		12.3	-1.6	✓	✓	✓	✓
DE529	Heilbronn	57145		13.7	-2.3	✓	✓	✓	✓
DE532	Ulm	47626		13.4	-2	✓	✓	✓	✓
DE533	Pforzheim	38197		12.5	-1.9	✓	✓	✓	✓
DE534	Ingolstadt	67374		12.7	-2	✓	✓	✓	✓
DE537	Reutlingen	44404		12.6	-1.7	✓	✓	✓	✓
DE540	Siegen	38774		10.4	-1.9	✓	✓	✓	✓
DE542	Hildesheim	30082		12.2	-2	✓	✓	✓	✓
DE544	Zwickau	31627		13.1	-2.5	✓	✓	✓	✓
DE546	Wuppertal	40884		14.8	-3	✓	✓	✓	✓
DE548	Duren, Stadt	31271		11.3	-2.3	✓	✓	✓	✓
DE549	Bocholt, Stadt	38643		13.4	-2.5	✓	✓	✓	✓
Denmark (DNK)									
DK001	Copenhagen	52672		11.7	-0.9	✓	✓	✓	✓
DK002	Aarhus	37702		11.3	-1.4	✓	✓	✓	✓
DK003	Odense	34069		12.1	-1.4	✓	✓	✓	✓
DK004	Aalborg	36570		10.5	-1.5	✓	✓	✓	✓
Spain (ESP)									

ES001	Madrid	42102			9.8	-1.9	-2.248	✓	✓	✓	✓
ES002	Barcelona	43858			12.7	-2.5	6.958	✓	✓	✓	✓
ES003	Valencia	28637			10.9	-1.6	-5.397	✓	✓	✓	✓
ES004	Seville	25148			12.4	-2.4	-1.888	✓	✓	✓	✓
ES005	Saragossa	34712			10.7	-2.4	-2.466	✓	✓	✓	✓
ES006	Malaga	22983			12	-2	1.104	✓	✓	✓	✓
ES007	Murcia	25881			12.8	-2	-3.709	✓	✓	✓	✓
ES008	Las Palmas	25299			7.1	-1.5	-3.996	✓	✓	✓	✓
ES009	Valladolid	31338			10.1	-1.9	-0.500	✓	✓	✓	✓
ES010	Palma de Mallorca	35005			8.4	-1.3	-1.253	✓	✓	✓	✓
ES012	Vitoria	47698			8.2	-1.5	-2.779	✓	✓	✓	✓
ES013	Oviedo	28114			11	-1.9	-1.222	✓	✓	✓	✓
ES014	Pamplona	38629			8.6	-1.6	-5.468	✓	✓	✓	✓
ES015	Santander	28189			10.6	-1.7	1.238	✓	✓	✓	✓
ES019	Bilbao	37808			9.5	-1.8	0.378	✓	✓	✓	✓
ES020	Cordoba	22170			12.3	-2.5	0.797	✓	✓	✓	✓
ES021	Alicante	23787			10.8	-1.6	-3.122	✓	✓	✓	✓
ES022	Vigo	25685			8.9	-1.5	-3.791	✓	✓	✓	✓
ES023	Gijon	25478			11.5	-2	1.292	✓	✓	✓	✓
ES025	Santa Cruz de Tenerife	27335			6.9	-1.3	-2.185	ERROR	✓	✓	✓
ES026	Coruna (A)	27657			11.3	-2.1	-0.790	✓	✓	✓	✓
ES501	Granada	23208			14.3	-2.7	-0.995	✓	✓	✓	✓
ES505	Elche/Elx	25788			12.2	-1.8	-1.884	✓	✓	✓	✓
ES510	Donostia-San Sebastian	39899			8	-1.5	-4.324	✓	✓	✓	✓
ES533	Marbella	23426			10.5	-1.7	-7.059	✓	✓	✓	✓
Estonia (EST)											
EE001	Tallinn	37171		22474	7.7	-0.7	5.000	✓	✓	✓	✓
Finland (FIN)											
FI001	Helsinki	49252		29421	7.6	-0.6	-6.188	✓	✓	✓	✓
FI002	Tampere	34922			7.4	-0.6	-4.780	ERROR	✓	✓	✓
FI003	Turku	34636			6.4	-0.6	-6.340	ERROR	✓	✓	✓
France (FRA)											
FR001	Paris	61469	0.3338	32222	14.5	-2.8	-3.673	✓	✓	✓	✓
FR003	Lyon	45349	0.2809	29823	14.6	-2.2	1.298	✓	✓	✓	✓
FR004	Toulouse	42799	0.2720	29542	11.7	-2.4	1.017	✓	✓	✓	✓
FR006	Strasbourg	36353	0.2745	27692	14.9	-2.1	-2.602	✓	✓	✓	✓
FR007	Bordeaux	36025	0.2602	29156	12.4	-2.5	-2.804	✓	✓	✓	✓
FR008	Nantes	36452	0.2415	29226	11.5	-2	5.197	✓	✓	✓	✓
FR009	Lille	31537	0.2783	27057	15.3	-3	-1.567	✓	✓	✓	✓
FR010	Montpellier	31255	0.2785	27754	12.8	-2	6.455	✓	✓	✓	✓
FR011	Saint-Etienne	29289	0.2501	26047	12.2	-1.9	0.745	✓	✓	✓	✓
FR012	Le Havre	33351			12.2	-2.4	0.931	✓	✓	✓	✓
FR013	Rennes	36292	0.2479	28137	9.9	-1.6	-3.800	✓	✓	✓	✓
FR014	Amiens	28506			12.8	-2.6	-2.384	✓	✓	✓	✓
FR016	Nancy	31060			12.3	-1.9	-5.402	✓	✓	✓	✓
FR017	Metz	27883			12.5	-2.2	-6.539	✓	✓	✓	✓
FR018	Reims	32739			13.9	-2.8	0.328	✓	✓	✓	✓
FR019	Orleans	34118			12.4	-2.4	-4.758	✓	✓	✓	✓
FR020	Dijon	36126			11.8	-2.2	1.020	✓	✓	✓	✓
FR021	Poitiers	31119			12.5	-2.1	2.084	✓	✓	✓	✓
FR022	Clermont-Ferrand	35806			10.5	-1.7	0.706	✓	✓	✓	✓
FR023	Caen	32014			11.3	-2.1	5.525	✓	✓	✓	✓
FR024	Limoges	30020			10.6	-1.6	2.347	✓	✓	✓	✓
FR025	Besancon	30679			11.7	-1.8	-7.767	✓	✓	✓	✓
FR026	Grenoble	34346	0.2665	30127	15	-2.1	2.386	✓	✓	✓	✓
FR028	Saint Denis	25375						✓	✓	NO DATA	NO DATA
FR030	Fort-de-France	27943						✓	✓	NO DATA	NO DATA
FR032	Toulon	25055	0.2638	27964	13.8	-2.1	6.789	✓	✓	✓	✓
FR034	Valenciennes	32080			14.9	-3.1	1.641	✓	✓	✓	✓
FR035	Tours	32017			12.1	-2.1	-2.968	✓	✓	✓	✓
FR036	Angers	28648			11.7	-2.2	3.253	✓	✓	✓	✓
FR037	Brest	29638			10.7	-1.8	-0.738	✓	✓	✓	✓

FR038	Le Mans	31330			12.4	-2.5	1.915	✓	✓	✓	✓
FR039	Avignon	31788			14.4	-2.2	5.552	✓	✓	✓	✓
FR040	Mulhouse	29902			12.8	-1.8	-3.624	✓	✓	✓	✓
FR042	Dunkerque	30377			13.1	-2.4	-2.304	✓	✓	✓	✓
FR043	Perpignan	24467			11.1	-2	2.728	✓	✓	✓	✓
FR044	Nimes	24385			12.9	-2	3.851	✓	✓	✓	✓
FR045	Pau	34304			11.1	-2.2	-0.971	✓	✓	✓	✓
FR048	Annecy	32010			14.1	-1.9	-1.691	✓	✓	✓	✓
FR203	Marseille	37481	0.2884	27984	16.1	-2.5	7.641	✓	✓	✓	✓
FR205	Nice	36752	0.2840	29200	13.9	-2.2	8.150	✓	✓	✓	✓
FR215	Rouen	34146	0.2669	26550	12.8	-2.7	-2.640	✓	✓	✓	✓
United Kingdom (GBR)											
UK001	London	58243		35113	12.7	-2.5		✓	✓	✓	✓
UK002	West Midlands urban area	30114		24508	11.3	-2		✓	✓	✓	✓
UK003	Leeds	31143		25127	11.3	-1.9		✓	✓	✓	✓
UK004	Glasgow	34451			9	-1		✓	✓	✓	✓
UK006	Liverpool	30356		24178	10.5	-1.8		✓	✓	✓	✓
UK007	Edinburgh	43414			7.4	-0.9		✓	✓	✓	✓
UK008	Manchester	33434		25046	11.4	-1.8		✓	✓	✓	✓
UK009	Cardiff	27379		23319	10.5	-1.6		✓	✓	✓	✓
UK010	Sheffield	26051		24049	12	-2.1		✓	✓	✓	✓
UK011	Bristol	43108		28862	10.9	-1.8		✓	✓	✓	✓
UK012	Belfast	33694			10	-1.3		✓	✓	✓	✓
UK013	Newcastle upon Tyne	29160		24460	9.1	-1.3		✓	✓	✓	✓
UK014	Leicester	32180		25636	11.6	-2.2		✓	✓	✓	✓
UK016	Aberdeen	56259			6.8	-0.8		✓	✓	✓	✓
UK017	Cambridge	40731			11.4	-2.4		✓	✓	✓	✓
UK018	Exeter	28799			9.5	-1.6		✓	✓	✓	✓
UK019	Lincoln	27036			11	-2.1		✓	✓	✓	✓
UK023	Portsmouth	35986		30445	11.4	-1.9		✓	✓	✓	✓
UK025	Coventry	37101		25168	11.1	-2.2		✓	✓	✓	✓
UK026	Kingston upon Hull	26898		24005	10.6	-1.9		✓	✓	✓	✓
UK027	Stoke-on-Trent	26700			12	-2		✓	✓	✓	✓
UK029	Nottingham	30260		25218	11.7	-2.2		✓	✓	✓	✓
UK030	Wirral	21214			9.3	-1.6		✓	✓	✓	✓
UK033	Guildford	49758			10.7	-2		✓	✓	✓	✓
UK506	Doncaster	23183			11.9	-2.1		✓	✓	✓	✓
UK510	Sunderland	30087			9.4	-1.4		✓	✓	✓	✓
UK513	Medway	24487			12.8	-2.4		✓	✓	✓	✓
UK515	Brighton and Hove	33397			10.6	-1.9		✓	✓	✓	✓
UK516	Plymouth	28712			10	-1.5		✓	✓	✓	✓
UK517	Swansea	26917			10.5	-1.6		✓	✓	✓	✓
UK518	Derby	33424			11.6	-2.1		✓	✓	✓	✓
UK520	Southampton	37622		31497	11.1	-1.9		✓	✓	✓	✓
UK525	Milton Keynes	60288			10.8	-2		✓	✓	✓	✓
UK528	Northampton	36197			9.5	-1.7		✓	✓	✓	✓
UK539	Bournemouth	31125		27028	9.4	-1.7		✓	✓	✓	✓
UK546	Colchester	26196			12	-2.4		✓	✓	✓	✓
UK550	Dundee City	30325			7	-0.9		✓	✓	✓	✓
UK552	Reading	60019			10.1	-1.8		✓	✓	✓	✓
UK553	Blackpool	26386			9	-1.4		✓	✓	✓	✓
UK557	Blackburn with Darwen	29287			9.9	-1.6		✓	✓	✓	✓
UK559	Middlesbrough	26217		24431	9.8	-1.5		✓	✓	✓	✓
UK560	Oxford	45829		34463	10.3	-1.9		✓	✓	✓	✓
UK562	Preston	37192			10.4	-1.6		✓	✓	✓	✓
UK566	Norwich	30879			12	-2		✓	✓	✓	✓
UK568	Cheshire West and Chester	37915			9.8	-1.6		✓	✓	✓	✓
UK569	Ipswich	32100			12.2	-2.2		✓	✓	✓	✓
Greece (GRC)											
EL001	Athens	32112			18.7	-2.6		✓	✓	✓	✓

EL002	Thessaloniki	19363			16	-2.8		✓	✓	✓	✓
Hungary (HUN)											
HU001	Budapest	36601		14151	18.2	-2.9	3.347	✓	✓	✓	✓
HU002	Miskolc	15175			18.6	-3.9	4.281	✓	✓	✓	✓
HU004	Pecs	15028			19.3	-3	2.775	✓	✓	✓	✓
HU005	Debrecen	17005			16	-2.6	2.567	✓	✓	✓	✓
HU009	Szekesfehervar	22259			14.6	-2.7	2.547	✓	✓	✓	✓
Ireland (IRL)											
IE001	Dublin				9.2	-1.4	-15.037	✓	✓	✓	✓
IE002	Cork	58831			8.8	-1.3	-10.958	✓	✓	✓	✓
Iceland (ISL)											
IS001	Reykjavik				6.8	-1		ERROR	✓	✓	✓
Italy (ITA)											
IT001	Rome	41849	0.3170	27126	16.7	-2.7	2.445	✓	✓	✓	✓
IT002	Milan	51217	0.3118	32218	26.4	-2.8		✓	✓	✓	✓
IT003	Naples	21571	0.3177	17847	16.6	-3.1	-1.743	✓	✓	✓	✓
IT004	Turin	36373	0.3280	29477	24.5	-3.4	-2.668	✓	✓	✓	✓
IT005	Palermo	21579	0.2991	16870	15.6	-2.8	-2.459	✓	✓	✓	✓
IT006	Genoa	39617	0.3031	29132	13.9	-1.8	2.086	✓	✓	✓	✓
IT007	Florence	43282	0.3017	30553	16.3	-1.2	5.472	✓	✓	✓	✓
IT008	Bari	23928	0.3297	23165	12.9	-2.5		✓	✓	✓	NO DATA
IT009	Bologna	46975	0.3125	35186	19.1	-1.8	1.985	✓	✓	✓	✓
IT010	Catania	20999	0.2908	17410	14.3	-2.7	-4.216	✓	✓	✓	✓
IT011	Venice	34813	0.2960	28133	24.5	-3.4	-5.376	✓	✓	✓	✓
IT012	Verona	37616	0.3105	29055	24.3	-2.8	1.702	✓	✓	✓	✓
IT016	Perugia	29871			13.5	-1.4	-0.241	✓	✓	✓	✓
IT022	Taranto	20630			11.1	-2.1	-3.321	✓	✓	✓	✓
IT027	Cagliari	27580			12.5	-1.9		✓	✓	✓	NO DATA
IT028	Padua	38846	0.3086	29795	25.4	-3.2	-0.286	✓	✓	✓	✓
IT029	Brescia	37470			26.7	-2.4	-3.432	✓	✓	✓	✓
IT030	Modena	43584			20.9	-2.2	-5.477	✓	✓	✓	✓
IT502	Prato	33769			21.5	-1.4	-5.737	✓	✓	✓	✓
IT503	Parma	42552			20.3	-1.6	2.457	✓	✓	✓	✓
IT505	Reggio nell'Emilia	39500			21	-1.6	-7.653	✓	✓	✓	✓
IT511	Bergamo	36186			24.2	-2.4	-5.241	✓	✓	✓	✓
Japan (JPN)											
JPN01	Tokyo	42551		26947	14.2	-2.2	-0.201	✓	✓	✓	✓
JPN02	Higashiosaka	35820		24151	13.7	-1.7	-1.047	✓	✓	✓	✓
JPN03	Toyota	41837		24553	13.1	-1.9	-2.101	✓	✓	✓	✓
JPN04	Fukuoka	31761		22986	16.5	-1.9	-5.745	✓	✓	✓	✓
JPN05	Sapporo	30964		21362	9.3	-0.9	-9.015	✓	✓	✓	✓
JPN06	Sendai	35675		22801	9.8	-1.3	-3.935	✓	✓	✓	✓
JPN07	Kurashiki	34246		21242	12	-1.4	-4.739	✓	✓	✓	✓
JPN08	Hiroshima	35999		23192	11.3	-1.4	-4.355	✓	✓	✓	✓
JPN09	Kitakyushu	32224		21065	12.9	-1.5	2.997	✓	✓	✓	✓
JPN10	Naha	26354		19724	15.6	-1.8	-0.631	✓	✓	✓	✓
JPN11	Kumamoto	29559		20567	15.7	-1.8		✓	✓	✓	✓
JPN12	Yokkaichi	38264		22847	11.8	-1.8	-4.479	✓	✓	✓	✓
JPN13	Takasaki	36729		21721	12.4	-2	-4.157	✓	✓	✓	✓
JPN14	Hamamatsu	38282		22325	11.3	-1.7	-3.830	✓	✓	✓	✓
JPN15	Niigata	33442		20662	11	-1.6	-7.436	✓	✓	✓	✓
JPN16	Utsunomiya	37229		22912	11.6	-1.9	-5.133	✓	✓	✓	✓
JPN17	Kanazawa	39364		21619	12.8	-1.6	-5.617	✓	✓	✓	✓
JPN18	Oita	31846		20528	12.8	-1.5	-4.704	✓	✓	✓	✓
JPN19	Kagoshima	29049		20949	16.5	-1.7	-3.512	✓	✓	✓	✓
JPN20	Himeji	31754		22277	12.5	-1.5	-0.259	✓	✓	✓	✓
JPN21	Mito	36152		22389	10.8	-1.8	-3.749	✓	✓	✓	✓
JPN22	Shizuoka	37135		22746	12	-2	-1.339	ERROR	✓	✓	✓
JPN23	Toyohashi	44325		22707	11.9	-1.8	0.787	✓	✓	✓	✓
JPN24	Nagasaki	28476		20434	16.4	-1.6	-2.603	✓	✓	✓	✓
JPN25	Matsuyama	31739		20964	12	-1.4	-5.804	✓	✓	✓	✓
JPN26	Toyama	37389		21134	12.2	-1.7	-4.962	✓	✓	✓	✓

JPN27	Kofu	33724	20975	12.2	-2	-4.667	✓	✓	✓	✓
JPN28	Takamatsu	34654	21360	12.2	-1.4	-3.042	✓	✓	✓	✓
JPN29	Nagano	34170	20724	12.5	-1.8	-5.079	✓	✓	✓	✓
JPN30	Tokushima	36122	21275	11.8	-1.4	-4.836	✓	✓	✓	✓
JPN31	Numazu	38056	22577	11.8	-2	-1.971	✓	✓	✓	✓
JPN32	Fukui	36343	20288	12.3	-1.6	-3.770	✓	✓	✓	✓
JPN33	Wakayama	33950	22238	12	-1.6	-2.079	✓	✓	✓	✓
JPN34	Koriyama	34361	20285	10.4	-1.6	-6.470	✓	✓	✓	✓
JPN35	Kochi	29096		12.3	-1.4	-3.944	✓	✓	✓	✓
JPN36	Miyazaki	29750		14.4	-1.7	-3.121	✓	✓	✓	✓
JPN37	Morioka	37001		8.5	-0.9	-10.404	✓	✓	✓	✓
JPN38	Fujieda	38010		12.4	-1.9	-2.720	✓	✓	✓	✓
JPN39	Fukushima	34136		10	-1.5	-4.102	✓	✓	✓	✓
JPN40	Matsumoto	33665		11.9	-1.8	-7.636	✓	✓	✓	✓
JPN41	Yamagata	29748		9.6	-1.4	-6.862	✓	✓	✓	✓
JPN42	Kurume	33521		14.7	-1.6	0.829	✓	✓	✓	✓
JPN43	Akita	29715		9.3	-1.2	-4.737	✓	✓	✓	✓
JPN44	Asahikawa	32096		9.1	-0.9	-1.737	✓	✓	✓	✓
JPN45	Kusatsu	37559		12.5	-1.5	-5.961	✓	✓	✓	✓
JPN46	Fuji	38343		12.2	-2.1	-3.126	ERROR	✓	✓	✓
JPN47	Isesaki	36827		12.1	-2	-4.168	✓	✓	✓	✓
JPN48	Hakodate	30418		8.8	-0.7	0.417	✓	✓	✓	✓
JPN49	Hachinohe	30071		8.3	-0.9	-2.894	✓	✓	✓	✓
JPN50	Hitachi	35825		10.2	-1.6	1.906	✓	✓	✓	✓
JPN51	Aomori	30490		8.8	-1	-0.203	✓	✓	✓	✓
JPN52	Shimonoseki	38361		10.3	-1.3	-1.888	✓	✓	✓	✓
JPN53	Obihiro	31219		8.7	-0.9	-6.459	✓	✓	✓	✓
Korea (KOR)										
KOR01	Seoul	33254		27.3	-2.8		✓	✓	✓	✓
KOR02	Gimhae	28549		25.1	-2.5		✓	✓	✓	✓
KOR03	Dalseong	21327		28.8	-2.8		✓	✓	✓	✓
KOR04	Gwangsan	25389		27.8	-2.6		✓	✓	✓	✓
KOR05	Seo	24460		27.7	-3.3		✓	✓	✓	✓
KOR06	Seongsan	35516		26.3	-2.6		✓	✓	✓	✓
KOR07	Nam	64137		24.9	-2		✓	✓	✓	✓
KOR08	Heungdeok	36995		30.8	-3.1		✓	✓	✓	✓
KOR09	Deokjin	30112		33.5	-3.6		✓	✓	✓	✓
KOR10	Sebuk	60981		28	-2.7		✓	✓	✓	✓
KOR11	Gyeongsan	39849		26	-2.2		✓	✓	✓	✓
KOR12	Nam	35203		26.3	-2.4		✓	✓	✓	✓
KOR13	Gumi	35219		26	-2.3		✓	✓	✓	✓
KOR14	Jeju	27903		25.7	-1.9		✓	✓	✓	✓
KOR15	Jinju	39446		26.7	-2.6		✓	✓	✓	✓
KOR16	Wonju	31942		31.3	-2.6		✓	✓	✓	✓
KOR17	Iksan	29027		30.4	-3.2		✓	✓	✓	✓
KOR18	Chuncheon	31010		29	-2.3		✓	✓	✓	✓
KOR19	Gunsan	26013		29.5	-3.1		✓	✓	✓	✓
Lithuania (LTU)										
LT001	Vilnius	37707		13.9	-2.1		✓	✓	✓	✓
LT002	Kaunas	24871		13.8	-2		✓	✓	✓	✓
Luxembourg (LUX)										
LU001	Luxembourg	87887		10.7	-1.7	-0.022	✓	✓	✓	✓
Latvia (LVA)										
LV001	Riga	29467		18.7	-2.3		✓	✓	✓	✓
Mexico (MEX)										
MEX01	Mexico City	22587	6676	24.5	-4.3		✓	✓	✓	✓
MEX02	Guadalajara	17636	6893	29.2	-6.5		✓	✓	✓	✓
MEX03	Monterrey	28251	9248	29.8	-6.9		✓	✓	✓	✓
MEX04	Puebla	10681	4503	24.3	-4.1		✓	✓	✓	✓
MEX05	Toluca	10633	5815	19.6	-3		ERROR	✓	✓	✓
MEX06	Tijuana	19047	7276	20.2	-2.7		✓	✓	✓	✓
MEX07	Leon	14428	6384	26	-4		✓	✓	✓	✓

MEX08	Queretaro	21741	6057	21.6	-3.1	✓	✓	✓	✓
MEX09	Merida	13672	6203	33.4	-5.7	✓	✓	✓	✓
MEX10	Juarez	18101	6589	21.6	-3.3	✓	✓	✓	✓
MEX11	San Luis Potosi	15303	6029	24.3	-3.6	✓	✓	✓	✓
MEX12	Torreon	20015	6033	26.4	-2.8	✓	✓	✓	✓
MEX13	Mexicali	19048	7374	39.1	-4.9	✓	✓	✓	✓
MEX14	Cuernavaca	11947	5667	23	-4.3	ERROR	✓	✓	✓
MEX15	Centro	22348	5743	31	-5.3	✓	✓	✓	✓
MEX16	Culiacan	14894	7115	31.2	-4.5	✓	✓	✓	✓
MEX17	Morelia	10430	5195	20.9	-3.4	✓	✓	✓	✓
MEX18	Chihuahua	18101	7494	28.4	-4.2	✓	✓	✓	✓
MEX19	Veracruz	12006	6209	28.1	-4.8	✓	✓	✓	✓
MEX20	Hermosillo	22840	9725	34.5	-4.1	✓	✓	✓	✓
MEX21	Aguascalientes	19528	6338	25.4	-3.7	✓	✓	✓	✓
MEX22	Acapulco de Juarez	8039	4930	25.2	-4.1	✓	✓	✓	✓
MEX23	Tampico	17203	5899	24.3	-4.6	✓	✓	✓	✓
MEX24	Oaxaca de Juarez	8275	5623	25.4	-3.4	✓	✓	✓	✓
MEX25	Reynosa	17549	5650	24.3	-3	✓	✓	✓	✓
MEX26	Xalapa	12105	4905	23.4	-3.4	✓	✓	✓	✓
MEX27	Saltillo	24490	8073	24.5	-3.2	✓	✓	✓	✓
MEX28	Benito Juarez	19406	8117	39	-5.5	✓	✓	✓	✓
MEX29	Celaya	14428	5646	21.8	-3.4	✓	✓	✓	✓
MEX30	Durango	13849	5333	28.8	-4.1	✓	✓	✓	✓
MEX31	Tuxtla Gutierrez	6696	6697	35.3	-7.7	✓	✓	✓	✓
MEX32	Pachuca de Soto	11366	5703	20.1	-2.9	✓	✓	✓	✓
MEX33	Irapuato	14428	5460	24.1	-3.5	✓	✓	✓	✓
MEX34	Ahome	14894	5700	28.7	-3.8	✓	✓	✓	✓
MEX35	Matamoros	17580	5332	25.5	-3.6	✓	✓	✓	✓
MEX36	Ensenada	19041	7425	27.8	-3.3	✓	✓	✓	✓
MEX37	Poza Rica de Hidalgo	12105	4504	22.6	-3.2	✓	✓	✓	✓
MEX38	Tepic	11647		25.2	-3.5	✓	✓	✓	✓
MEX39	Orizaba	12105	3823	23.5	-3.6	✓	✓	✓	✓
MEX40	Mazatlan	14894		30.1	-4.2	✓	✓	✓	✓
MEX41	Cajeme	22840		35.3	-4.2	✓	✓	✓	✓
MEX42	Nuevo Laredo	17581		24.1	-3.4	✓	✓	✓	✓
MEX43	Guadalupe	12285		21.4	-3.1	✓	✓	✓	✓
MEX44	Coatzacoalcos	12105		28.6	-5	✓	✓	✓	✓
MEX45	Tapachula	6696		29	-4.8	✓	✓	✓	✓
MEX46	Victoria	17581		29.7	-4.7	✓	✓	✓	✓
MEX47	Tlaxcala	9431		21.8	-3.3	✓	✓	✓	✓
MEX48	Cordoba	12105		24.3	-3.8	✓	✓	✓	✓
MEX49	Uruapan	10430		21.8	-3.3	✓	✓	✓	✓
MEX50	Tehuacan	10828		22.3	-3.6	✓	✓	✓	✓
MEX51	Minatitlan	12105		26.1	-4.3	✓	✓	✓	✓
MEX52	Cuautla	11947		22.8	-4	ERROR	✓	✓	✓
MEX53	Chilpancingo de los Bravo	8062		19.6	-3.3	✓	✓	✓	✓
MEX54	Monclova	24490		24.1	-3.5	✓	✓	✓	✓
MEX55	Los Cabos	21431		27.6	-1	ERROR	✓	✓	✓
MEX56	Colima	16240		28.5	-4.3	ERROR	✓	✓	✓
MEX57	La Paz	21431		28.6	-2.8	ERROR	✓	✓	✓
MEX58	Campeche			31.9	-5.6	✓	✓	✓	✓
MEX59	Puerto Vallarta	17454		26.2	-3.3	✓	✓	✓	✓
MEX60	Salamanca	14428		21.2	-3.3	✓	✓	✓	✓
MEX61	San Juan del Rio	22936		19.6	-2.6	✓	✓	✓	✓
MEX62	Zamora	10430		22	-3.8	✓	✓	✓	✓
MEX63	Tulancingo de Bravo	11366		19.5	-2.5	✓	✓	✓	✓
Netherlands (NLD)									
NL001	The Hague	47334	26970	12.8	-2.2	✓	✓	✓	✓
NL002	Amsterdam	58850	29310	12.9	-2.2	✓	✓	✓	✓
NL003	Rotterdam	49377	27631	12.8	-2.3	✓	✓	✓	✓
NL004	Utrecht	52463	29739	12.9	-2.1	✓	✓	✓	✓
NL005	Eindhoven	52723	27318	12.4	-2.4	✓	✓	✓	✓

NL006	Tilburg	37512			13.4	-2.6		✓	✓	✓	✓
NL007	Groningen	68548		24265	12.2	-1.5		✓	✓	✓	✓
NL008	Enschede	34716			13.1	-2.1		✓	✓	✓	✓
NL009	Arnhem	39010			13.7	-2.6		✓	✓	✓	✓
NL010	Heerlen	36887			11.4	-2.3		✓	✓	✓	✓
NL012	Breda	44476			13.1	-2.6		✓	✓	✓	✓
NL013	Nijmegen	43450			13.4	-2.5		✓	✓	✓	✓
NL015	Leeuwarden				11.6	-1.4		✓	✓	✓	NO DATA
NL503	s-Hertogenbosch	44820			13.1	-2.5		✓	✓	✓	✓
NL507	Leiden	37118			13.5	-2.4		✓	✓	✓	✓
NL511	Zwolle	39872			12.1	-1.7		✓	✓	✓	✓
NL514	Alkmaar				12.9	-2.1		✓	✓	✓	NO DATA
Norway (NOR)											
NO001	Oslo	61473	0.2742	47541	9.2	-1.3	-1.054	✓	✓	✓	✓
NO002	Bergen	49789			6.3	-1	-1.997	✓	✓	✓	✓
NO003	Trondheim	45238			7	-0.9	-2.193	ERROR	✓	✓	✓
NO004	Stavanger	54333			7.8	-1.1	0.822	ERROR	✓	✓	✓
Poland (POL)											
PL001	Warsaw	48592			22.9	-4		✓	✓	✓	✓
PL002	Lodz	26904			25.7	-4.7		✓	✓	✓	✓
PL003	Cracow	28136			32.1	-5.8		✓	✓	✓	✓
PL004	Wroclaw				23.9	-3.5		✓	✓	✓	NO DATA
PL005	Poznan	38022			20.9	-2.8		✓	✓	✓	✓
PL006	Gdansk	27066			14	-1.7		✓	✓	✓	✓
PL008	Bydgoszcz				18.1	-2.6		✓	✓	✓	NO DATA
PL009	Lublin				20.9	-4.2		✓	✓	✓	NO DATA
PL010	Katowice	26293			31.2	-5.2		✓	✓	✓	✓
PL011	Bialystok	19398			19.2	-3.2		✓	✓	✓	✓
PL012	Kielce	18192			23.5	-4.4		✓	✓	✓	✓
PL013	Torun				17.9	-2.7		✓	✓	✓	NO DATA
PL014	Olsztyn	18912			16.4	-2.7		✓	✓	✓	✓
PL015	Rzeszow	19578			22.4	-4.2		✓	✓	✓	✓
PL016	Opole	21151			22.6	-3.6		✓	✓	✓	✓
PL020	Nowy Sacz	14901			27.2	-4.9		✓	✓	✓	✓
PL024	Czestochowa	19832			26.5	-4.8		✓	✓	✓	✓
PL025	Radom	17152			24.1	-4.6		✓	✓	✓	✓
PL506	Bielsko-Biala	23288			29.1	-5		✓	✓	✓	✓
PL511	Walbrzych				21.6	-2		✓	✓	✓	NO DATA
PL514	Tarnow	15124			26.8	-5.3		✓	✓	✓	✓
Portugal (PRT)											
PT001	Lisbon	34598	0.3994	16849	10	-1.5		✓	✓	✓	✓
PT002	Porto	24282	0.3863	14295	8.7	-1.5		✓	✓	✓	✓
PT005	Coimbra	23487			11	-1.8		✓	✓	✓	✓
Slovak Republic (SVK)											
SK001	Bratislava	65117			17.1	-3.2	0.364	✓	✓	✓	✓
SK002	Kosice	21360			19.8	-4.3	3.453	✓	✓	✓	✓
Slovenia (SVN)											
SI001	Ljubljana	39177			18.4	-2.6		✓	✓	✓	✓
SI002	Maribor	22920			17.6	-3.1		✓	✓	✓	✓
Sweden (SWE)											
SE001	Stockholm	59470	0.3033	35822	6.6	-0.4	-1.780	✓	✓	✓	✓
SE002	Gothenburg	41210	0.2761	32294	7.6	-0.8	-2.023	✓	✓	✓	✓
SE003	Malmo	36895	0.3264	31115	10.4	-0.9	-2.098	✓	✓	✓	✓
SE006	Uppsala	40982			5.6	-0.4		✓	✓	✓	✓
United States (USA)											
USA01	New York (Greater)	71862	0.4208	46187	8.2	-1.3	-1.940	✓	✓	✓	✓
USA02	Los Angeles (Greater)	54632	0.4189	38728	9.6	-1.5	-6.190	✓	✓	✓	✓
USA03	Chicago	59224	0.4111	44515	10.2	-1.5	-4.825	✓	✓	✓	✓
USA04	Washington (Greater)	68146	0.3562	55768	8.6	-1.5	-4.511	✓	✓	✓	✓
USA05	San Francisco (Greater)	88562		58881	7.9	-1	-4.600	✓	✓	✓	✓
USA06	Philadelphia (Greater)	62180	0.3937	46934	9.1	-1.5	-3.727	✓	✓	✓	✓
USA07	Dallas	62215	0.4117	48009	9.2	-1.6	-6.792	✓	✓	✓	✓

USA08	Houston	71576	0.4273	48665	10.2	-1.5	-3.262	✓	✓	✓	✓
USA09	Miami (Greater)	45179	0.4367	40561	6.6	-1.1	-3.189	✓	✓	✓	✓
USA10	Atlanta	54079	0.3954	42842	9.6	-1.8	-11.877	✓	✓	✓	✓
USA11	Boston	74376	0.3823	52606	6.4	-0.9		✓	✓	✓	✓
USA12	Phoenix	43603	0.4042	40477	7.3	-1.1	-9.312	✓	✓	✓	✓
USA13	Detroit (Greater)	49846	0.3824	40689	9	-1.3	-8.621	✓	✓	✓	✓
USA14	Seattle	75078	0.3893	53882	5.3	-0.8	-3.146	✓	✓	✓	✓
USA15	Minneapolis	62821	0.3314	49597	7.3	-1	-8.010	✓	✓	✓	✓
USA16	San Diego	58518	0.3907	41802	9.4	-1.4	-6.356	✓	✓	✓	✓
USA17	St. Louis	49931	0.4029	44836	9.7	-1.6	-5.127	✓	✓	✓	✓
USA18	Denver	63027	0.3659	48824	6.3	-1	-5.172	✓	✓	✓	✓
USA19	San Antonio	43708	0.3920	40340	8.7	-1.3	-3.542	✓	✓	✓	✓
USA20	Portland	61416	0.3566	44681	6.1	-0.9	-8.109	✓	✓	✓	✓
USA21	Cincinnati	54754	0.3681	40565	10.1	-1.7	-4.793	✓	✓	✓	✓
USA22	Las Vegas	41260	0.3906	32888	6.8	-1	-9.486	✓	✓	✓	✓
USA23	Orange	46069	0.3837	37078	6.6	-1.1	-6.967	✓	✓	✓	✓
USA24	Jackson (MO)	53355	0.3767	44466	8.1	-1.4	-3.463	✓	✓	✓	✓
USA25	Indianapolis	60708	0.3932	39854	10	-1.6	-6.896	✓	✓	✓	✓
USA26	Cuyahoga	55751	0.3873	38054	9.5	-1.5	-5.208	✓	✓	✓	✓
USA27	New Haven	70279	0.4346	53383	7.6	-1.2		✓	✓	✓	✓
USA28	Charlotte	56162	0.3784	41815	8.7	-1.7	-9.232	✓	✓	✓	✓
USA29	Sacramento	45361	0.3854	39278	7.5	-0.9	-9.820	✓	✓	✓	✓
USA30	Austin	56942		51345	8.5	-1.2	-7.173	✓	✓	✓	✓
USA31	Columbus	56107	0.3601	40230	9.5	-1.4	-6.622	✓	✓	✓	✓
USA32	Milwaukee	59082	0.3857	41135	8.9	-1.3	-3.871	✓	✓	✓	✓
USA33	Jacksonville	39440	0.3851	40353	7.5	-1.3	-5.885	✓	✓	✓	✓
USA34	Salt Lake	52157	0.3561	43792	8.1	-1.4	-5.000	✓	✓	✓	✓
USA35	Tampa-Pinellas	40213	0.3939	38640	7	-1.3		✓	✓	✓	✓
USA36	Jefferson (KY)	46947	0.3530	38103	10.1	-1.7	-4.982	✓	✓	✓	✓
USA37	Memphis	47735	0.3905	37875	8.9	-1.3	-8.255	✓	✓	✓	✓
USA38	Davidson	55245	0.3835	44769	8.6	-1.5	-5.187	✓	✓	✓	✓
USA39	Oklahoma	49758	0.3860	42526	8.7	-1.3	-3.224	✓	✓	✓	✓
USA40	Hartford	63840	0.3558	45385	7.1	-1.1		✓	✓	✓	✓
USA41	Pittsburgh	52187	0.3836	45463	10	-1.7	-0.633	✓	✓	✓	✓
USA42	New Orleans	57696	0.4142	38051	8.2	-1.6	-1.544	✓	✓	✓	✓
USA43	Virginia Beach	46199	0.3320	37958	7.6	-1.4	-1.622	✓	✓	✓	✓
USA44	Erie (NY)	44471	0.3392	33554	7.7	-1.1	-3.240	✓	✓	✓	✓
USA45	Fresno (Greater)	35538	0.4072	28374	12.5	-1.8	-6.070	✓	✓	✓	✓
USA46	Richmond (Greater)	52098	0.3600	41765	7.8	-1.4	-5.148	✓	✓	✓	✓
USA47	Wake	51658	0.3453	45728	8.2	-1.5	-9.849	✓	✓	✓	✓
USA48	Jefferson (AL)	47955	0.3763	40755	10	-1.8	-5.521	✓	✓	✓	✓
USA49	Tampa-Hillsborough	40848	0.3992	40754	7.4	-1.4	-9.155	✓	✓	✓	✓
USA50	Pima	33806	0.4088	36386	6.4	-1	-5.914	✓	✓	✓	✓
USA51	Tulsa	64079	0.3920	41309	9.4	-1.5	-5.372	✓	✓	✓	✓
USA52	Albany	46193	0.3272	37587	6	-0.9	-4.565	✓	✓	✓	✓
USA53	Providence	43250	0.3850	40541	6.8	-1		✓	✓	✓	✓
USA54	Albuquerque	39854	0.4260	37164	5.1	-0.9	-8.414	✓	✓	✓	✓
USA55	Douglas (NE)	58741	0.3425	44333	8.3	-1.3	-4.286	✓	✓	✓	✓
USA56	Rochester (NY)	45012	0.3424	33797	7	-1	-6.577	✓	✓	✓	✓
USA57	Kern	42171	0.3892	29243	11.3	-1.6	-2.215	✓	✓	✓	✓
USA58	Ventura	53656	0.3699	46314	8.5	-1.3	-6.363	✓	✓	✓	✓
USA59	El Paso (TX)	29705	0.3969	30277	10.3	-1.5	-0.467	✓	✓	✓	✓
USA60	East Baton Rouge	57531	0.3811	38139	8.7	-1.7	1.549	✓	✓	✓	✓
USA61	Worcester	37806	0.3371	42349	6	-0.9		✓	✓	✓	✓
USA62	Hidalgo	20734	0.4305	26040	10.3	-1.6	1.819	✓	✓	✓	✓
USA63	Richland	43955	0.3304	34668	8.9	-1.7	-5.385	✓	✓	✓	✓
USA64	Lehigh	43868	0.3367	42823	9.4	-1.5	-4.928	✓	✓	✓	✓
USA65	Sarasota	32649	0.3994	43342	7.1	-1.2	-3.676	✓	✓	✓	✓
USA66	Montgomery (OH)	44407	0.3641	35261	9.9	-1.6	-5.438	✓	✓	✓	✓
USA67	San Joaquin	30333	0.3748	32227	8.9	-1.1	-7.393	✓	✓	✓	✓
USA68	Kent	46753	0.3597	38292	8	-1.2	-5.109	✓	✓	✓	✓
USA69	Charleston	44471	0.3502	38983	7.9	-1.4	-1.232	✓	✓	✓	✓

USA70	Onondaga	43866	0.3397	33490	6.4	-1	-6.198	✓	✓	✓	✓
USA71	El Paso (CO)	39062	0.3310	41374	5.5	-0.9	-9.557	✓	✓	✓	✓
USA72	Ada	39294	0.3657	36843	5.9	-0.7	-9.502	✓	✓	✓	✓
USA73	Hampden	37207	0.3591	35331	6.5	-1		✓	✓	✓	✓
USA74	Lee	32357	0.4028	39528	6.9	-1.1	-6.032	✓	✓	✓	✓
USA75	Sedgwick	43855	0.3486	36557	8.1	-1.2	-6.790	✓	✓	✓	✓
USA76	Polk	67825	0.3435	44533	8.2	-1.3	-3.935	✓	✓	✓	✓
USA77	Dauphin	53249	0.3295	43122	10.2	-1.7	-3.855	✓	✓	✓	✓
USA78	Lucas	51340	0.3826	34060	9.3	-1.3	-4.745	✓	✓	✓	✓
USA79	Pulaski	45842	0.3611	38814	10	-1.3	-3.963	✓	✓	✓	✓
USA80	Dane	60719	0.3416	45889	8.4	-1.2	-6.844	✓	✓	✓	✓
USA81	Brevard	31132	0.3642	38278	6.1	-1	-6.890	✓	✓	✓	✓
USA82	Summit	44009	0.3738	37750	9.7	-1.6	-4.377	✓	✓	✓	✓
USA83	Hamilton (TN)	40317	0.3769	36168	8.7	-1.7	-9.490	✓	✓	✓	✓
USA84	Utah	31128	0.3406	37273	7.2	-1.1	-3.732	✓	✓	✓	✓
USA85	Lancaster (PA)	44227	0.3180	41232	10.4	-1.6	-6.278	✓	✓	✓	✓
USA86	Stanislaus	32333	0.3774	30900	10.3	-1.2	-6.556	✓	✓	✓	✓
USA87	Greene	30616	0.3748	33524	8.1	-1.3	-4.311	✓	✓	✓	✓
USA88	Fayette	46223	0.3639	39042	9.2	-1.5	-3.863	✓	✓	✓	✓
USA89	Spokane	38021	0.3802	37009	7.3	-1.1	-5.964	✓	✓	✓	✓
USA90	Volusia-Daytona Beach	22465	0.3773	33492	6.4	-1.1	-0.593	✓	✓	✓	✓
USA91	Guilford	47639	0.3925	35918	8.3	-1.6	-11.573	✓	✓	✓	✓
USA92	Sonoma	45347			6.6	-0.9	-9.020	✓	✓	✓	✓
USA93	Forsyth	38517	0.3887	34837	8.2	-1.6	-10.732	✓	✓	✓	✓
USA94	Washoe	41910	0.4003	35818	6.4	-1	-13.587	✓	✓	✓	✓
USA95	Ingham	39630			7.9	-1.2	-8.652	✓	✓	✓	✓
USA96	Montgomery (AL)	33405			9.6	-1.7	-2.796	✓	✓	✓	✓
USA97	Knox	39163			9	-1.8	-9.051	✓	✓	✓	✓
USA98	Greenville	39286			8.6	-1.7	-12.556	✓	✓	✓	✓
USA99	Mahoning	32714			9.4	-1.5	-2.992	✓	✓	✓	✓
USA100	Escambia	31663			8.1	-1.4	-2.364	✓	✓	✓	✓
USA101	Caddo	45623			9.7	-1.6	-3.231	✓	✓	✓	✓
USA102	Tulare	31049			11.8	-1.7	-7.044	✓	✓	✓	✓
USA103	Newport News	46418			7.7	-1.4	2.803	✓	✓	✓	✓
USA104	York	36477			9.8	-1.6	-5.565	✓	✓	✓	✓
USA105	Genesee	28341			7.8	-1.1	-9.323	✓	✓	✓	✓
USA106	Jefferson (TX)	53346			9	-1.4	-2.770	✓	✓	✓	✓
USA107	Santa Barbara	49880			7.4	-1	-3.988	✓	✓	✓	✓
USA108	Lafayette	40965			8	-1.5	-0.263	✓	✓	✓	✓
USA109	Monterey	45220			5.8	-0.8	-2.002	✓	✓	✓	✓
USA110	Mobile	40333			8.7	-1.5	-4.615	✓	✓	✓	✓
USA111	Berks	40319			9.7	-1.6	-3.765	✓	✓	✓	✓
USA112	Cameron	21429			11.7	-1.8	-0.654	✓	✓	✓	✓
USA113	Bell	35110			8.3	-1.3	-2.609	✓	✓	✓	✓
USA114	Nueces	50562			9.6	-1.4	-1.239	✓	✓	✓	✓
USA115	Marion (OR)	32543			5.6	-0.9	-8.040	✓	✓	✓	✓
USA116	Allen	42632			9.5	-1.3	-7.320	✓	✓	✓	✓
USA117	Scott	46281			9	-1.4	-4.342	✓	✓	✓	✓
USA118	Stark	38758			9.9	-1.6	-3.986	✓	✓	✓	✓
USA119	Tallahassee	35748			7.8	-1.5	-7.228	✓	✓	✓	✓
USA120	Cumberland (NC)	40814			8.4	-1.8	-4.212	✓	✓	✓	✓
USA121	Lane	35433			5.6	-0.8	-7.942	✓	✓	✓	✓
USA122	Winnebago (IL)	38706			8.9	-1.3	-6.417	✓	✓	✓	✓
USA123	Chatham	40501			8.7	-1.5	-6.041	✓	✓	✓	✓
USA124	Vanderburgh	45490			10.2	-1.7	-4.470	✓	✓	✓	✓
USA125	Washtenaw	52326			8.6	-1.3	-10.944	✓	✓	✓	✓
USA126	Lubbock	32381			6.3	-0.9	-2.713	✓	✓	✓	✓
USA127	Madison	49575			8.8	-1.5	-8.531	✓	✓	✓	✓
USA128	Marion (FL)	20552			6.6	-1.2	-5.938	✓	✓	✓	✓
USA129	Peoria	49398			8.9	-1.4	-3.118	✓	✓	✓	✓
USA130	Collier	40823			7.3	-1.2	-5.193	✓	✓	✓	✓
USA131	Luzerne	36178			8.9	-1.5	-0.592	✓	✓	✓	✓

USA132	Lancaster (NE)	50583	7.6	-1.2	-5.167	✓	✓	✓	✓
USA133	Thurston	29399	4.6	-0.7	-5.596	✓	✓	✓	✓
USA134	Sebastian	31256	8.9	-1.4	-5.580	✓	✓	✓	✓
USA135	Roanoke	42658	7.7	-1.6	-3.545	✓	✓	✓	✓
USA136	Muscogee	38561	9.6	-1.7	-5.745	✓	✓	✓	✓
USA137	Brown	50710	7.7	-1	-6.423	✓	✓	✓	✓
USA138	Alachua	34582	6.9	-1.3	-5.496	✓	✓	✓	✓
USA139	Larimer	41134	5.3	-0.9	-8.103	✓	✓	✓	✓
USA140	Boulder	66556	5.5	-1	-6.067	✓	✓	✓	✓
USA141	Potter	41369	6.1	-1	-0.997	✓	✓	✓	✓
USA142	Cumberland (ME)	49661	5.7	-0.8		✓	✓	✓	✓
USA143	Erie (PA)	36224	8.8	-1.3	-4.207	✓	✓	✓	✓
USA144	St. Lucie	26072	6.3	-1	-8.686	✓	✓	✓	✓
USA145	Nashville	59276	8.6	-1.4		✓	✓	✓	✓
USA146	Atlantic City	43214	7.7	-1.2	-8.713	✓	✓	✓	✓
USA147	McLennan	35970	8.8	-1.5	-2.951	✓	✓	✓	✓
USA148	Durham	72243	8.3	-1.5	-7.351	✓	✓	✓	✓
USA149	Lackawanna	29183	8	-1.3	-1.665	✓	✓	✓	✓
USA150	St. Joseph	36988	9.6	-1.4	-3.742	✓	✓	✓	✓
USA151	Santa Cruz	41919	6.2	-0.8	-11.329	✓	✓	✓	✓
USA152	Webb	27054	12	-1.7	4.699	✓	✓	✓	✓
USA153	Minnehaha	57112	7.6	-1	-0.912	✓	✓	✓	✓
USA154	Merced	28665	10.3	-1.2	-4.316	✓	✓	✓	✓
USA155	Benton (WA)	39732	6.8	-1	-8.007	✓	✓	✓	✓
USA156	Weld	36857	5.6	-0.8	-2.505	✓	✓	✓	✓
USA157	Kalamazoo	40013	8.5	-1.2	-10.653	✓	✓	✓	✓
USA158	Butte	26042	7.2	-1	-3.741	✓	✓	✓	✓
USA160	Yakima	33880	5.6	-0.9	-1.002	✓	✓	✓	✓
USA161	Brazos	33771	9.6	-1.2	-2.060	✓	✓	✓	✓
USA162	Tuscaloosa	41731	9.6	-1.6	-2.749	✓	✓	✓	✓
USA170	Benton (AR)	44532	8.5	-1.3	-14.214	✓	✓	✓	✓

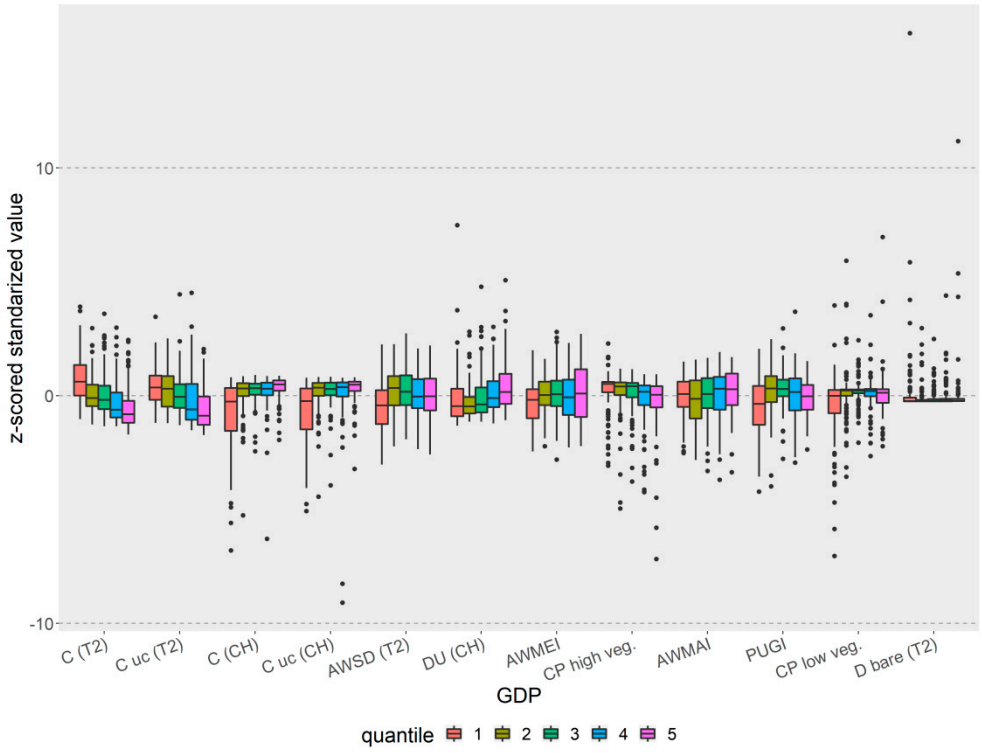

Figure S1. GDP boxplots of relevant spatio-temporal metrics sorted according to their importance. GDP is divided into five quantiles (Q1 to Q5, from low to high values) and the standardized values of metrics are shown for each quantile.

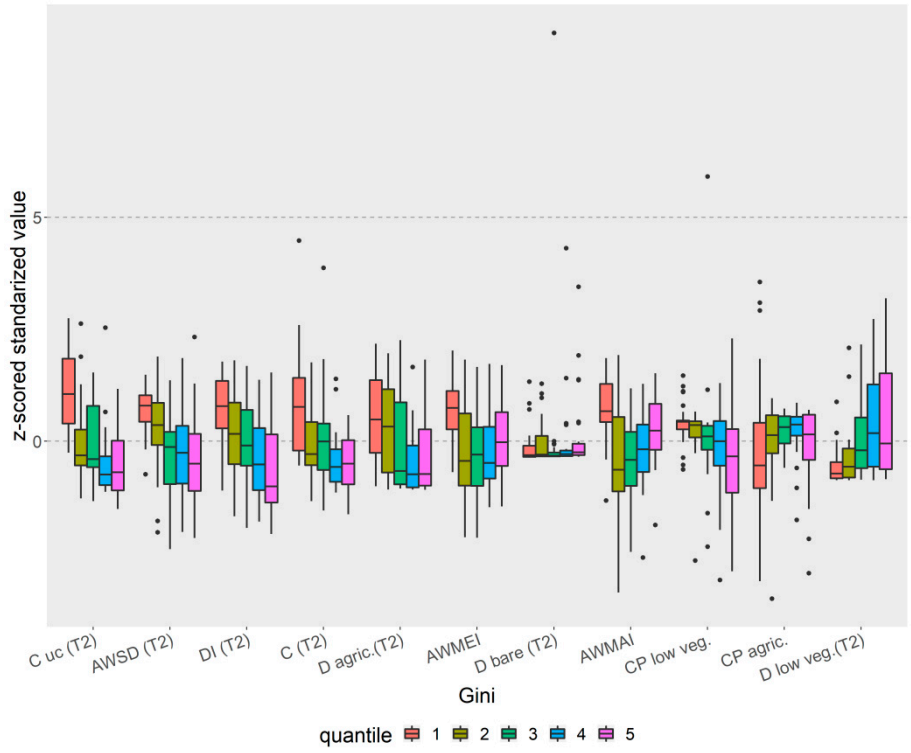

Figure S2. Gini boxplots of relevant spatio-temporal metrics sorted according to their importance. Gini is divided into five quantiles (Q1 to Q5, from low to high values) and the standardized values of metrics are shown for each quantile.

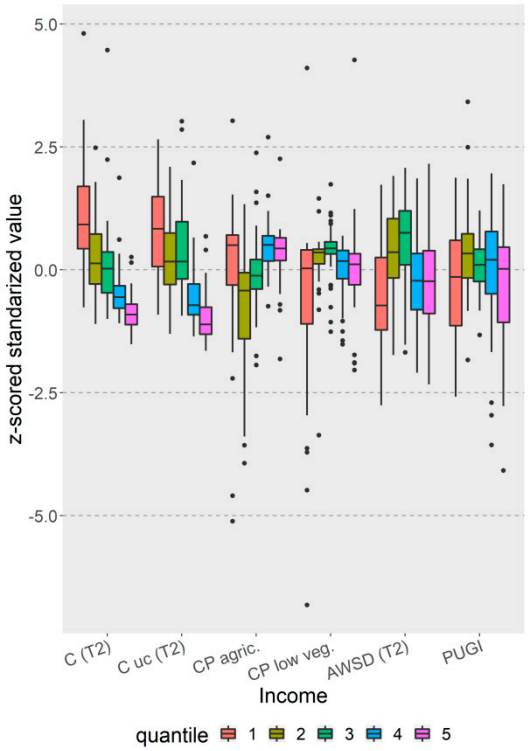

Figure S3. Income boxplots of relevant spatio-temporal metrics sorted according to their importance. Income is divided into five quantiles (Q1 to Q5, from low to high values) and the standardized values of metrics are shown for each quantile.

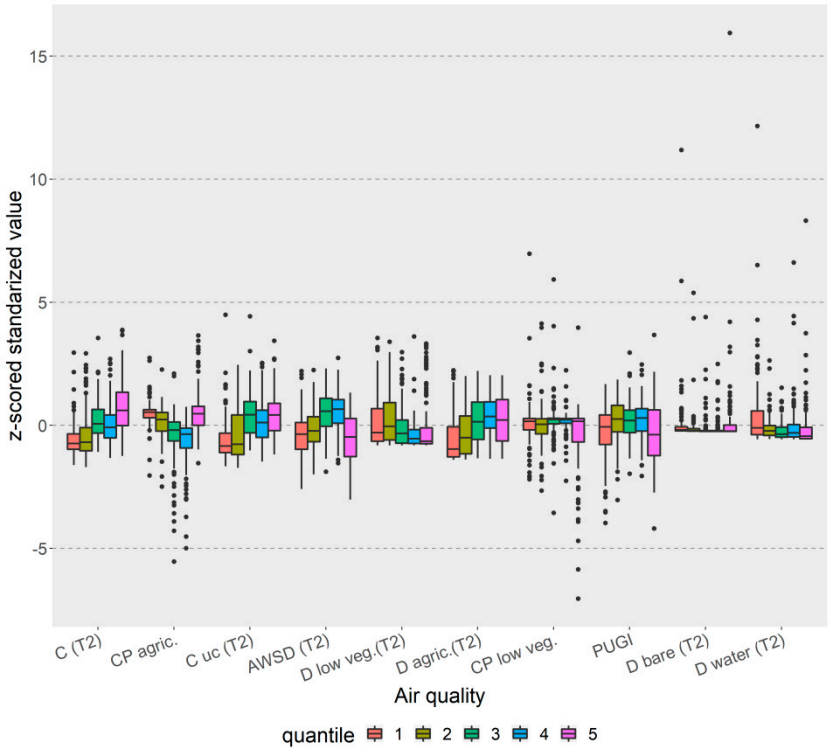

Figure S4. Air quality boxplots of relevant spatio-temporal metrics sorted according to their importance. Air quality is divided into five quantiles (Q1 to Q5, from low to high values) and the standardized values of metrics are shown for each quantile. Air quality measures the fine particulate matter (higher values mean more pollutants and lower air quality)

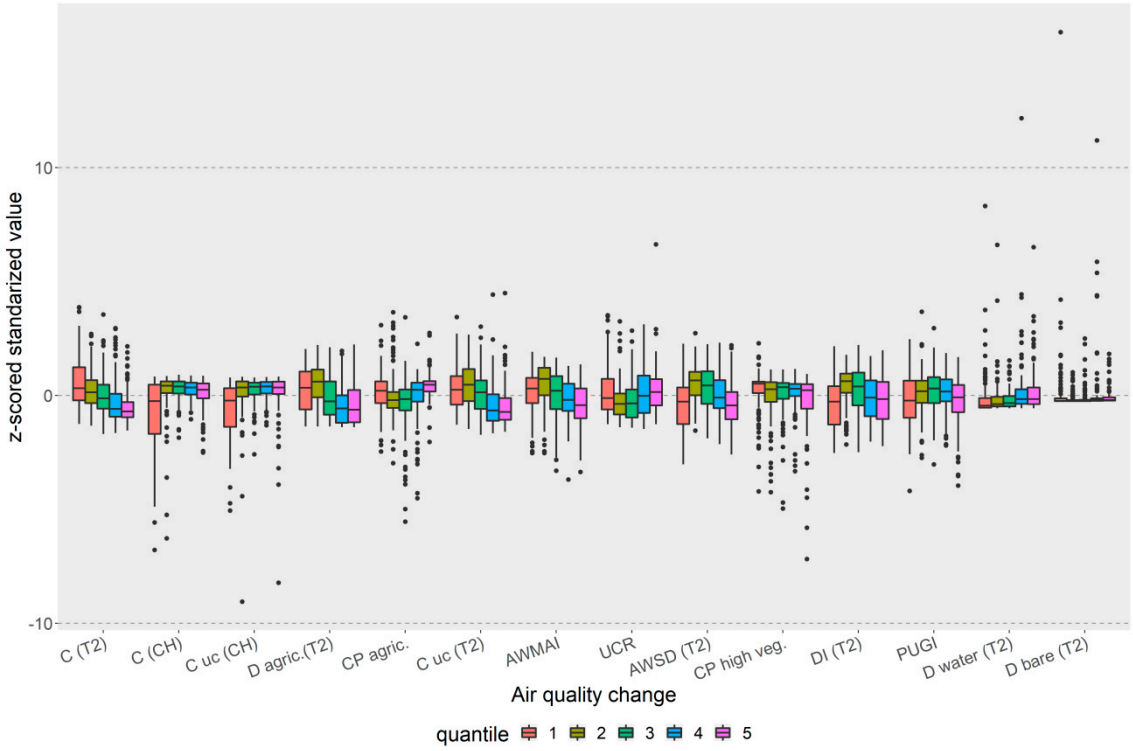

Figure S5. Air quality change boxplots of relevant spatio-temporal metrics sorted according to their importance. Air quality change is divided into five quantiles (Q1 to Q5, from low to high values) and the

standardized values of metrics are shown for each quantile. Air quality measures the fine particulate matter (higher values mean more pollutants and lower air quality).

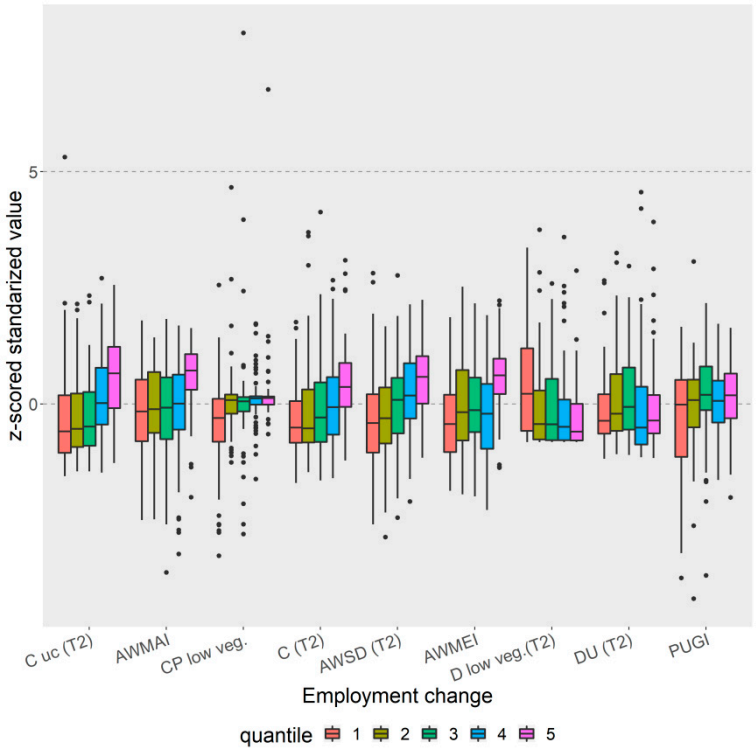

Figure S6. Employment change boxplots of relevant spatio-temporal metrics sorted according to their importance. Employment change is divided into five quantiles (Q1 to Q5, from low to high values) and the standardized values of metrics are shown for each quantile.