

Supplementary Materials

Health Impact Attributable to Improvement of PM_{2.5} Pollution from 2014–2018 and its Potential Benefits by 2030 in China

Yu Ma ^{1,2}, Deping Li ^{1,2,*} and Liang Zhou ^{1,2}

¹ Hunan Key Laboratory of Geospatial Big Data Mining and Application, Hunan Normal University, Changsha 410081, China; mayu0411@hunnu.edu.cn (Y.M.); zhouliang@hunnu.edu.cn (L.Z.)

² School of Geographic Sciences, Hunan Normal University, Changsha 410081, China

* Correspondence: lideping106@aliyun.com; Tel.: +86-130-5518-4008

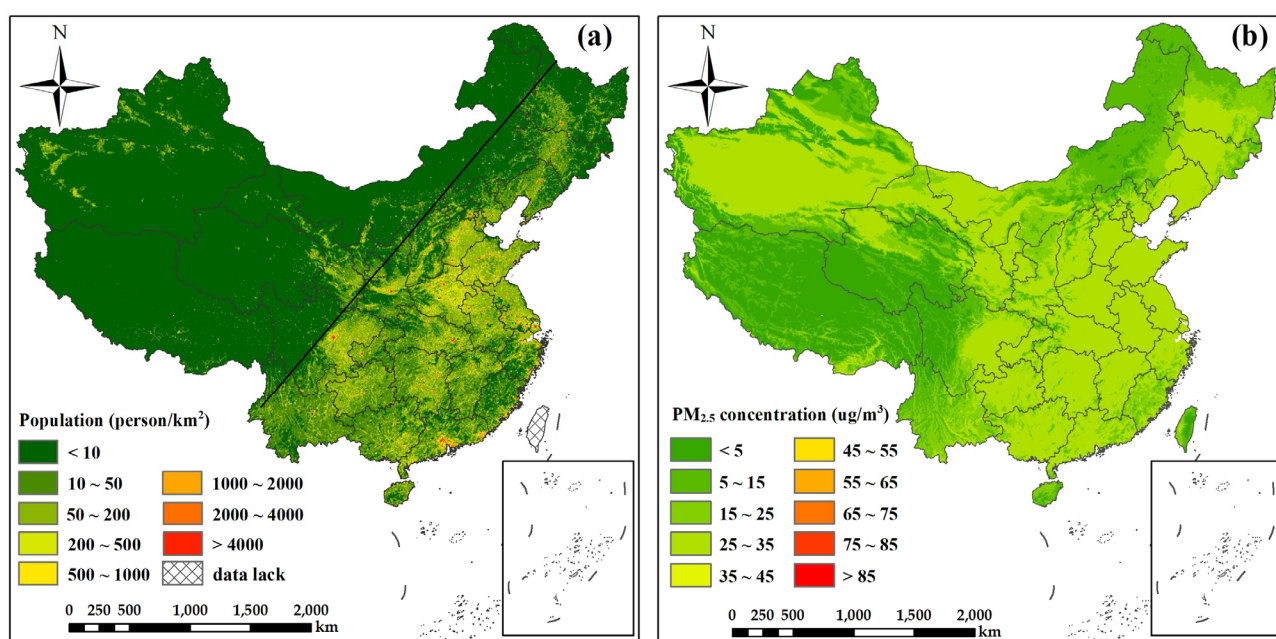


Figure S1. Spatial distribution of population density (a) and PM_{2.5} concentration (b) across China in 2030. The northeast–southwest black line represents the ‘Heihe–Tengchong Line’.

Table S1. List of the cities and division basis of six major regions in China (see Figure S2).

Region	City list	Division basis
BTHS (28)	1. Beijing, 2.Tianjin, 3.Shijiazhuang, 4.Tangshan, 5.Handan, 6.Xingtai, 7.Baoding, 8.Cangzhou, 9.Langfang, 10.Hengshui, 11.Taiyuan, 12.Yangquan, 13.Changzhi, 14.Jincheng, 15.Jinan, 16.Zibo, 17.Jining, 18.Dezhou, 19.Liaocheng, 20.Binzhou, 21.Heze, 22.Zhengzhou, 23.Kaifeng, 24.Anyang, 25.Hebi, 26.Xinxiang, 27.Jiaozuo, 28.Puyang.	Three-year plan on defending the blue sky
YRD (41)	1.Shanghai, 2.Nanjing, 3.Wuxi, 4.Xuzhou, 5.Changzhou, 6.Suzhou, 7.Nantong, 8.Lianyungang, 9.Huai'an, 10.Yancheng, 11.Yangzhou, 12.Zhenjiang, 13.Taizhou, 14.Suqian, 15.Hangzhou, 16.Ningbo, 17.Wenzhou, 18.Shaoxing, 19.Huzhou, 20.Jiaxing, 21.Jinhua, 22.Quzhou, 23.Taizhou, 24.Lishui, 25.Zhoushan, 26.Hefei, 27.Wuhu, 28.Bengbu, 29.Huainan, 30.Ma'an Shan, 31.Huaibei, 32.Tongling, 33.Anqing, 34.Huangshan, 35.Fuyang, 36.Suzhou, 37.Chuzhou, 38.Lu'an, 39.Xuancheng, 40.Chizhou, 41.Bozhou.	National urban air quality report
FWP (11)	1.Luliang, 2.Jinzhong, 3.Linfen, 4.Yuncheng, 5.Luoyang, 6.Sanmenxia, 7.Xi'an, 8.Xianyang, 9.Baoji, 10.Tongchuan, 11.Weinan.	National urban air quality report
CYR (16)	1.Chongqing, 2.Chengdu, 3.Zigong, 4.Luzhou, 5.Deyang, 6.Mianyang, 7.Suining, 8.Neijiang, 9.Leshan, 10.Meishan, 11.Yibin, 12.Ya'an, 13.Ziyang, 14.Nanchong, 15.Guang'an, 16.Dazhou.	National urban air quality report
TCC (22)	1.Wuhan, 2.Xianning, 3.Xiaogan, 4.Huanggang, 5.Huangshi, 6.Ezhou, 7.Xiangyang, 8.Yichang, 9.Jingmen, 10.Jingzhou, 11.Suizhou, 12.Nanchang, 13.Pingxiang, 14.Xinyu, 15.Yichun, 16.Jiujiang, 17.Changsha, 18.Zhuzhou, 19.Xiangtan, 20.Yueyang, 21.Changde, 22.Yiyang.	National urban air quality report
PRD (9)	1.Guangzhou, 2.Shenzhen, 3.Zhuhai, 4.Foshan, 5.Jiangmen, 6.Zhaoqing, 7.Huizhou, 8.Dongguan, 9.Zhongshan.	National urban air quality report

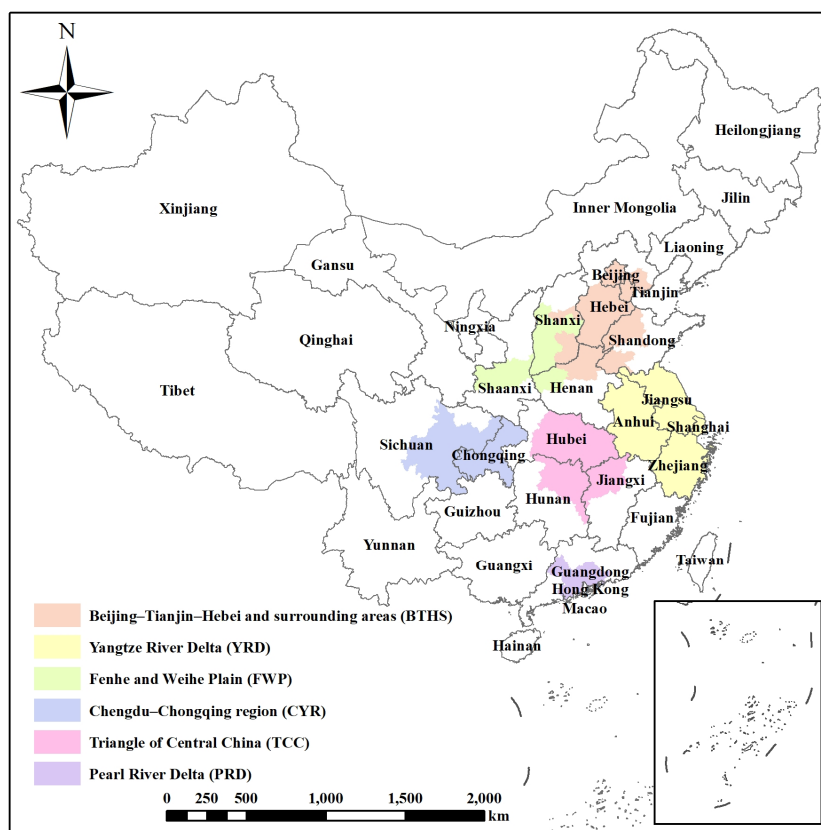


Figure S2. Geographical locations of Chinese provinces and the six major regions.

Table S2. Annual averaged PM_{2.5} concentrations in 31 provinces of China from 2014–2018 and changes from 2014 to 2018.

Province	PM _{2.5} concentration (µg/m ³)					
	2014	2015	2016	2017	2018	2018–2014
Beijing	51.24	47.76	40.38	35.58	32.33	−18.91
Tianjin	77.69	67.66	62.56	54.74	48.29	−29.40
Hebei	54.25	49.27	43.36	39.99	35.15	−19.09
Shanxi	39.12	37.21	32.83	31.70	30.09	−9.03
Inner Mongolia	16.17	16.29	13.57	13.83	14.95	−1.22
Liaoning	38.18	38.28	28.62	29.16	24.60	−13.58
Jilin	33.80	32.16	22.50	27.61	19.56	−14.24
Heilongjiang	23.91	20.63	13.87	18.96	14.19	−9.71
Shanghai	48.07	49.81	40.40	38.25	35.04	−13.03
Jiangsu	60.11	57.50	49.21	48.79	46.12	−13.99
Zhejiang	39.88	34.30	28.79	29.32	25.80	−14.08
Anhui	62.71	54.22	48.05	50.77	45.48	−17.23
Fujian	24.79	22.40	20.91	20.68	18.98	−5.81
Jiangxi	40.66	34.63	33.92	34.80	28.88	−11.78
Shandong	68.46	66.75	58.41	51.85	45.69	−22.76
Henan	68.77	64.79	57.45	53.96	51.28	−17.50
Hubei	51.64	46.20	41.49	39.75	35.42	−16.22
Hunan	49.46	41.93	38.32	35.61	32.08	−17.38
Guangdong	32.07	27.95	26.58	26.51	23.85	−8.22
Guangxi	35.96	31.63	28.99	28.00	26.08	−9.88
Hainan	14.17	14.00	13.80	13.71	14.19	0.02
Chongqing	41.63	36.32	35.95	30.49	26.88	−14.75
Sichuan	24.05	19.38	19.76	17.59	15.98	−8.08
Guizhou	33.71	30.59	28.95	25.88	23.37	−10.35
Yunnan	18.92	17.41	18.01	14.95	15.21	−3.71
Tibet	6.18	4.41	4.68	4.88	5.31	−0.87
Shaanxi	33.10	29.91	29.02	27.55	26.07	−7.03
Gansu	30.22	27.35	26.84	24.44	25.89	−4.33
Qinghai	13.92	9.47	8.70	9.75	12.26	−1.66
Ningxia	31.15	32.40	32.91	28.10	27.68	−3.47
Xinjiang	36.82	30.23	30.21	28.93	37.51	0.70

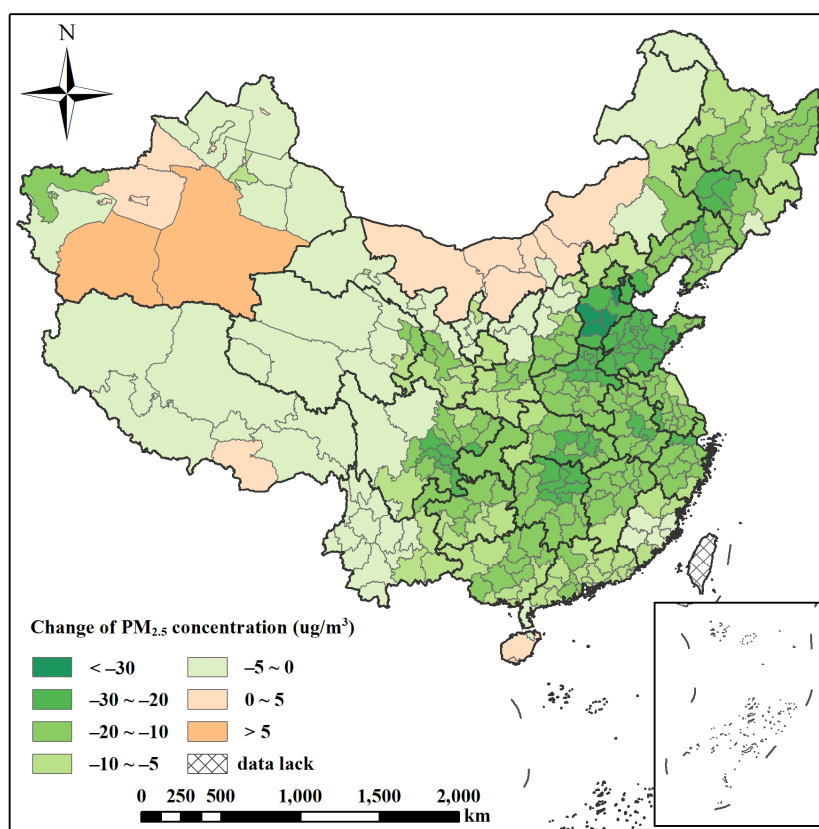


Figure S3. Changes of annual averaged $PM_{2.5}$ concentrations in Chinese cities from 2014 to 2018.

Table S3. Premature mortality caused by PM_{2.5} in Chinese cities from 2014–2030.

Province	City	Premature deaths (person)				
		2014	2018	2030	2018–2014	2030–2018
Beijing	Beijing	34944	26831	18174	−8113	−8657
Tianjin	Tianjin	24558	18969	13814	−5589	−5155
Hebei	Shijiazhuang	26075	20772	16637	−5303	−4135
	Tangshan	16778	12101	9998	−4677	−2103
	Qinhuangdao	5661	4142	4295	−1519	153
	Handan	22733	18248	11856	−4485	−6392
	Xingtai	17956	14140	7641	−3816	−6499
	Baoding	27479	21430	13869	−6049	−7561
	Zhangjiakou	6163	5163	4428	−1000	−735
	Chengde	5362	3744	2401	−1618	−1343
	Cangzhou	16989	13403	6245	−3586	−7158
	Langfang	10343	7861	4322	−2482	−3539
	Hengshui	10804	8481	3877	−2323	−4604
Shanxi	Taiyuan	8477	7063	8220	−1414	1157
	Datong	4970	4174	4358	−796	184
	Yangquan	2691	2240	1504	−451	−736
	Changzhi	6531	5096	3473	−1435	−1623
	Jincheng	4453	3469	2415	−984	−1054
	Shuozhou	2702	2302	1389	−400	−913
	Jinzhong	6376	5228	3410	−1148	−1818
	Yuncheng	10503	8674	4418	−1829	−4256
	Xinzhou	4985	4267	2235	−718	−2032
	Linfen	8448	7055	4418	−1393	−2637
Inner Mongolia	Luliang	5886	5051	3197	−835	−1854
	Hohhot	5397	4489	5692	−908	1203
	Baotou	5230	4237	6375	−993	2138
	Wuhai	917	818	609	−99	−209
	Chifeng	5911	4457	3699	−1454	−758
	Tongliao	4860	3325	2894	−1535	−431
	Ordos	2672	2472	1484	−200	−988
	Hulun Buir	3207	2317	2152	−890	−165
	Bayan Nur	2516	2322	1891	−194	−431
	Ulanqab	2608	2226	1708	−382	−518
	Hinggan	2136	1395	1163	−741	−232
	Xilingol	1043	887	515	−156	−372
	Alxa	370	348	111	−22	−237
Liaoning	Shenyang	18343	13222	12159	−5121	−1063
	Dalian	12251	8911	8503	−3340	−408
	Anshan	7782	5807	4645	−1975	−1162

	Fushun	4440	3431	2813	−1009	−618
	Benxi	3330	2439	2163	−891	−276
	Dandong	4019	3047	2449	−972	−598
	Jinzhou	6250	4778	2875	−1472	−1903
	Yingkou	4833	3733	2601	−1100	−1132
	Fuxin	3403	2567	1699	−836	−868
	Liaoyang	4186	3072	2076	−1114	−996
	Panjin	2778	2156	1684	−622	−472
	Tieling	5573	3925	2277	−1648	−1648
	Chaoyang	5059	3678	2465	−1381	−1213
	Huludao	4731	3589	2019	−1142	−1570
Jilin	Changchun	17547	11469	9886	−6078	−1583
	Jilin	8985	6238	5695	−2747	−543
	Siping	7193	4747	3401	−2446	−1346
	Liaoyuan	2465	1718	1257	−747	−461
	Tonghua	4475	3248	2637	−1227	−611
	Baishan	2038	1569	1386	−469	−183
	Songyuan	5702	3674	2588	−2028	−1086
	Baicheng	3225	2087	1886	−1138	−201
	Yanbian	3797	2733	2586	−1064	−147
Heilongjiang	Harbin	24588	16917	15452	−7671	−1465
	Qiqihar	8309	5897	5249	−2412	−648
	Jixi	3342	2350	2188	−992	−162
	Hegang	1768	1249	1288	−519	39
	Shuangyashan	2497	1639	1341	−858	−298
	Daqing	5603	3841	3056	−1762	−785
	Yichun	1978	1344	1023	−634	−321
	Jiamusi	4256	3043	2533	−1213	−510
	Qitaihe	1766	1272	1251	−494	−21
	Mudanjiang	5309	3589	3430	−1720	−159
	Heihe	2226	1628	1202	−598	−426
	Suihua	10861	7198	5194	−3663	−2004
	Daxing'anling	363	282	136	−81	−146
Shanghai	Shanghai	21713	16792	13390	−4921	−3402
Jiangsu	Nanjing	12529	9394	8880	−3135	−514
	Wuxi	9649	7495	6547	−2154	−948
	Xuzhou	13547	11581	6293	−1966	−5288
	Changzhou	6998	5548	4140	−1450	−1408
	Suzhou	15308	11515	9267	−3793	−2248
	Nantong	9758	7778	5177	−1980	−2601
	Lianyungang	6394	5041	2615	−1353	−2426
	Huai'an	6962	5778	3482	−1184	−2296

	Yancheng	9813	8117	4246	−1696	−3871
	Yangzhou	6672	5503	3610	−1169	−1893
	Zhenjiang	4739	3811	2710	−928	−1101
	Taizhou	6836	5515	3457	−1321	−2058
	Suqian	7059	5820	2900	−1239	−2920
Zhejiang	Hangzhou	10633	7669	7289	−2964	−380
	Ningbo	7769	5770	5601	−1999	−169
	Wenzhou	8412	6140	8405	−2272	2265
	Jiaxing	5504	3924	2661	−1580	−1263
	Huzhou	3565	2564	1637	−1001	−927
	Shaoxing	5709	4101	3504	−1608	−597
	Jinhua	6088	4358	3118	−1730	−1240
	Quzhou	2347	1685	762	−662	−923
	Zhoushan	757	566	474	−191	−92
	Taizhou	5623	4031	3779	−1592	−252
	Lishui	2046	1472	553	−574	−919
Anhui	Hefei	15328	12016	11830	−3312	−186
	Wuhu	6914	5391	4403	−1523	−988
	Bengbu	6462	5274	3799	−1188	−1475
	Huainan	4752	3680	3608	−1072	−72
	Ma'anshan	4544	3566	2515	−978	−1051
	Huaibei	4261	3654	2706	−607	−948
	Tongling	1474	1058	1200	−416	142
	Anqing	10153	7977	4737	−2176	−3240
	Huangshan	2421	1731	1239	−690	−492
	Chuzhou	7744	6167	3243	−1577	−2924
	Fuyang	15778	12930	8513	−2848	−4417
	Suzhou	11011	9441	5188	−1570	−4253
	Lu'an	11158	8699	4414	−2459	−4285
	Bozhou	10138	8444	3978	−1694	−4466
	Chizhou	2606	2034	1118	−572	−916
	Xuancheng	4797	3552	2114	−1245	−1438
Fujian	Fuzhou	7801	6267	8072	−1534	1805
	Xiamen	3852	3118	5151	−734	2033
	Putian	3070	2494	2432	−576	−62
	Sanming	2860	2279	1309	−581	−970
	Quanzhou	9292	7243	7811	−2049	568
	Zhangzhou	5847	4524	3501	−1323	−1023
	Nanping	3349	2505	1146	−844	−1359
	Longyan	2912	2355	1344	−557	−1011
	Ningde	2826	2186	1312	−640	−874
Jiangxi	Nanchang	8109	5691	8520	−2418	2829

	Jingdezhen	2450	1776	1773	−674	−3
	Pingxiang	3041	2249	2369	−792	120
	Jiujiang	7612	6072	4847	−1540	−1225
	Xinyu	1804	1403	1161	−401	−242
	Yingtian	1726	1313	1143	−413	−170
	Ganzhou	11065	9073	7095	−1992	−1978
	Ji'an	7433	5814	4136	−1619	−1678
	Yichun	8683	6557	4911	−2126	−1646
	Fuzhou	5742	4408	3636	−1334	−772
	Shangrao	10002	7434	6010	−2568	−1424
Shandong	Jinan	15716	12345	11055	−3371	−1290
	Qingdao	16729	12328	12883	−4401	555
	Zibo	10081	7937	6311	−2144	−1626
	Zaozhuang	8461	6853	4427	−1608	−2426
	Dongying	4384	3356	2060	−1028	−1296
	Yantai	12384	8727	7011	−3657	−1716
	Weifang	19799	15250	10347	−4549	−4903
	Jining	18727	14950	9216	−3777	−5734
	Taian	12765	9980	6402	−2785	−3578
	Weihai	4346	2941	2202	−1405	−739
	Rizhao	5764	4344	2561	−1420	−1783
	Laiwu	3132	2273	1622	−859	−651
	Linyi	22235	17255	10311	−4980	−6944
	Dezhou	13203	10186	5078	−3017	−5108
	Liaocheng	13921	11176	5351	−2745	−5825
	Binzhou	8252	6375	3360	−1877	−3015
	Heze	19435	16018	7318	−3417	−8700
Henan	Zhengzhou	21643	17372	18012	−4271	640
	Kaifeng	11646	9638	5672	−2008	−3966
	Luoyang	14965	12401	9515	−2564	−2886
	Pingdingshan	11781	9746	6771	−2035	−2975
	Anyang	13265	10700	7081	−2565	−3619
	Hebi	3961	3228	2294	−733	−934
	Xinxiang	14370	11855	7805	−2515	−4050
	Jiaozuo	10501	8671	6480	−1830	−2191
	Puyang	8881	7357	4446	−1524	−2911
	Xuchang	10597	8704	5566	−1893	−3138
	Luohe	6244	5225	3726	−1019	−1499
	Sanmenxia	4918	4091	2591	−827	−1500
	Nanyang	23750	19772	11077	−3978	−8695
	Shangqiu	18125	14933	8002	−3192	−6931
	Xinyang	13949	11274	5741	−2675	−5533

	Zhoukou	21680	17865	10241	−3815	−7624
	Zhumadian	17030	14228	7539	−2802	−6689
Hubei	Wuhan	20155	14726	15971	−5429	1245
	Huangshi	4391	3400	2891	−991	−509
	Shiyan	5398	4269	3012	−1129	−1257
	Yichang	7527	5621	3924	−1906	−1697
	Xiangfan	10465	8536	5040	−1929	−3496
	Ezhou	1966	1522	1244	−444	−278
	Jingmen	5759	4311	2093	−1448	−2218
	Xiaogan	9548	7333	5010	−2215	−2323
	jingzhou	11404	8619	5341	−2785	−3278
	Huanggang	11003	8624	5372	−2379	−3252
	Xianning	4543	3411	2306	−1132	−1105
	Suizhou	4122	3229	1618	−893	−1611
	Enshi	4260	3214	2173	−1046	−1041
	Provincial-controlled division	7245	5611	3364	−1634	−2247
Hunan	Changsha	13596	10048	10645	−3548	597
	Zhuzhou	6932	5209	4966	−1723	−243
	Xiangtan	5271	3907	3470	−1364	−437
	Hengyang	12726	9662	7831	−3064	−1831
	Shaoyang	12380	9152	6976	−3228	−2176
	Yueyang	10229	7687	5815	−2542	−1872
	Changde	10792	7914	5556	−2878	−2358
	Zhangjiajie	2351	1753	1056	−598	−697
	Yiyang	8037	5664	4217	−2373	−1447
	Chenzhou	7250	5532	3997	−1718	−1535
	Yongzhou	9024	6944	4134	−2080	−2810
	Huaihua	7797	5702	3968	−2095	−1734
	Loudi	6931	4991	4207	−1940	−784
	Xiangxi	3733	2724	1762	−1009	−962
Guangdong	Guangzhou	18897	14895	21898	−4002	7003
	Shaoguan	3999	3216	1960	−783	−1256
	Shenzhen	12802	10263	15461	−2539	5198
	Zhuhai	1948	1534	1438	−414	−96
	Shantou	6663	5281	7545	−1382	2264
	Foshan	10267	8207	9884	−2060	1677
	Jiangmen	6455	4986	3955	−1469	−1031
	Zhanjiang	7739	6445	4361	−1294	−2084
	Maoming	7285	5749	3593	−1536	−2156
	Zhaoqing	5657	4472	3008	−1185	−1464
	Huizhou	5990	4619	3204	−1371	−1415

	Meizhou	5151	4096	2219	−1055	−1877
	Shanwei	3349	2619	1994	−730	−625
	Heyuan	3684	2861	1036	−823	−1825
	Yangjiang	3202	2521	1615	−681	−906
	Qingyuan	5329	4224	1695	−1105	−2529
	Dongguan	11342	9372	9819	−1970	447
	Zhongshan	4381	3312	3082	−1069	−230
	Chaozhou	3487	2679	2752	−808	73
	Jieyang	7524	5960	5584	−1564	−376
	Yunfu	3270	2627	966	−643	−1661
Guangxi	Nanning	12507	9473	13504	−3034	4031
	Liuzhou	7603	5768	6712	−1835	944
	Guilin	9477	7291	6619	−2186	−672
	Wuzhou	5161	4010	4229	−1151	219
	Beihai	2462	1971	2666	−491	695
	Fangchenggang	1359	1045	997	−314	−48
	Qinzhou	5332	4236	3566	−1096	−670
	Guigang	7803	6010	5471	−1793	−539
	Yulin	9644	7602	7445	−2042	−157
	Baise	5332	4164	2909	−1168	−1255
	Hezhou	3817	2917	2102	−900	−815
	Hechi	5476	4130	2790	−1346	−1340
	Laibin	4043	3012	1986	−1031	−1026
	Chongzuo	3508	2618	1713	−890	−905
Hainan	Haikou	1482	1239	2270	−243	1031
	Sanya	474	433	618	−41	185
	Provincial-controlled division	4100	3761	2507	−339	−1254
Chongqing	Chongqing	51111	36429	29861	−14682	−6568
Sichuan	Chengdu	29083	22083	21808	−7000	−275
	Zigong	5701	4051	2934	−1650	−1117
	Panzhihua	1596	1414	1126	−182	−288
	Luzhou	8037	5646	3797	−2391	−1849
	Deyang	6883	5326	4042	−1557	−1284
	Mianyang	7973	6131	4495	−1842	−1636
	Guangyuan	3784	2917	1745	−867	−1172
	Suining	6125	4486	3692	−1639	−794
	Neijiang	7494	5344	4083	−2150	−1261
	Leshan	6484	4736	3066	−1748	−1670
	Nanchong	11112	8278	6368	−2834	−1910
	Meishan	6161	4338	2765	−1823	−1573
	Yibin	8852	6694	3746	−2158	−2948

	Guang'an	5934	4511	3289	−1423	−1222
	Dazhou	9421	7126	5312	−2295	−1814
	Ya'an	2714	2025	1099	−689	−926
	Bazhong	5102	3895	2294	−1207	−1601
	Ziyang	7249	5101	3312	−2148	−1789
	Aba	787	550	313	−237	−237
	Ganzi	668	487	203	−181	−284
	Liangshan	5218	3608	2183	−1610	−1425
Guizhou	Guiyang	8748	6450	11712	−2298	5262
	Liupanshui	5116	3895	4244	−1221	349
	Zunyi	12458	8514	9879	−3944	1365
	Anshun	4359	3194	3575	−1165	381
	Tongren	5986	4167	3838	−1819	−329
	Qianxinan	4639	3453	3075	−1186	−378
	Bijie	12226	8523	8070	−3703	−453
	Qiandongnan	6474	4860	4068	−1614	−792
	Qiannan	5601	4263	3776	−1338	−487
Yunnan	Kunming	8715	7127	12185	−1588	5058
	Qujing	7413	5705	5549	−1708	−156
	Yuxi	3012	2506	2690	−506	184
	Baoshan	2564	2223	1975	−341	−248
	zhaotong	7453	5122	4951	−2331	−171
	Lijiang	1286	1058	832	−228	−226
	Simao	2860	2415	1717	−445	−698
	Lincang	2645	2286	1663	−359	−623
	Chuxiong	2805	2324	1961	−481	−363
	Honghe	5906	4537	4340	−1369	−197
	Wenshan	3990	2917	2117	−1073	−800
	Xishuangbanna	1417	1175	797	−242	−378
	Dali	3487	2873	2629	−614	−244
	Dehong	1420	1237	888	−183	−349
	Nujiang	462	390	272	−72	−118
	Diqing	341	264	119	−77	−145
Tibet	Lhasa	552	397	723	−155	326
	Qamdo	378	274	166	−104	−108
	Lhoka	1200	1197	623	−3	−574
	Shigatse	496	389	335	−107	−54
	Naqu	143	107	56	−36	−51
	Ngari	66	53	26	−13	−27
	Nyingchi	609	505	221	−104	−284
Shaanxi	Xi'an	17489	15281	14984	−2208	−297
	Tongchuan	1352	1024	1025	−328	1

	Baoji	6847	5760	4151	−1087	−1609
	Xianyang	9830	8088	5673	−1742	−2415
	Weinan	10455	8679	4484	−1776	−4195
	Yan'an	2800	2394	1138	−406	−1256
	Hanzhong	5823	4722	3139	−1101	−1583
	Yulin	3861	3473	1595	−388	−1878
	Ankang	4303	3468	1781	−835	−1687
	Shangluo	3620	2976	1298	−644	−1678
Gansu	Lanzhou	6959	5563	7488	−1396	1925
	Jiayuguan	387	308	344	−79	36
	Jinchang	686	555	467	−131	−88
	Baiyin	2828	2348	1740	−480	−608
	Tianshui	5507	4271	3841	−1236	−430
	Wuwei	2735	2235	1491	−500	−744
	Zhangye	1837	1474	1147	−363	−327
	Pingliang	3168	2579	2152	−589	−427
	Jiuquan	1751	1472	909	−279	−563
	Qingyang	3067	2437	1854	−630	−583
	Dingxi	4640	3627	2537	−1013	−1090
	Longnan	3728	2727	1943	−1001	−784
	Linxia	3781	2848	2037	−933	−811
	Gannan	921	654	440	−267	−214
Qinghai	Xining	4932	3737	4818	−1195	1081
	Haidong	2971	2315	1315	−656	−1000
	Haibei	428	334	164	−94	−170
	Huangnan	415	299	159	−116	−140
	Hainan	626	467	246	−159	−221
	Guoluo	130	108	32	−22	−76
	Yushu	281	207	80	−74	−127
	Haixi	795	667	435	−128	−232
Ningxia	Yinchuan	3523	2901	3621	−622	720
	Shizuishan	1219	1021	1113	−198	92
	Wuzhong	2086	1719	1310	−367	−409
	Guyuan	1656	1429	1020	−227	−409
	Zhongwei	1768	1547	1037	−221	−510
Xinjiang	Urumqi	8285	7100	9086	−1185	1986
	Karamay	691	542	492	−149	−50
	Turpan	1556	1334	814	−222	−520
	Hami	1094	941	911	−153	−30
	Changji	2944	2516	2399	−428	−117
	Bortala	878	795	522	−83	−273
	Bayingol	3088	2757	2043	−331	−714

Aksu	5907	5452	3289	−455	−2163
Kizilsu	1467	1213	777	−254	−436
Kashgar	10803	9462	6051	−1341	−3411
Hotan	5025	4847	2581	−178	−2266
Ili	4952	4359	3571	−593	−788
Tarbagatay	1961	1793	1161	−168	−632
Altay	747	575	428	−172	−147
Provincial-controlled division	1843	1413	1547	−430	134

* The background color of the table represents the region to which a city belongs, and the correspondence between color and region is shown in Figure S2.