Appendix

Fig. A: Numbers of new confirmed cases in China within the Lunar Calendar
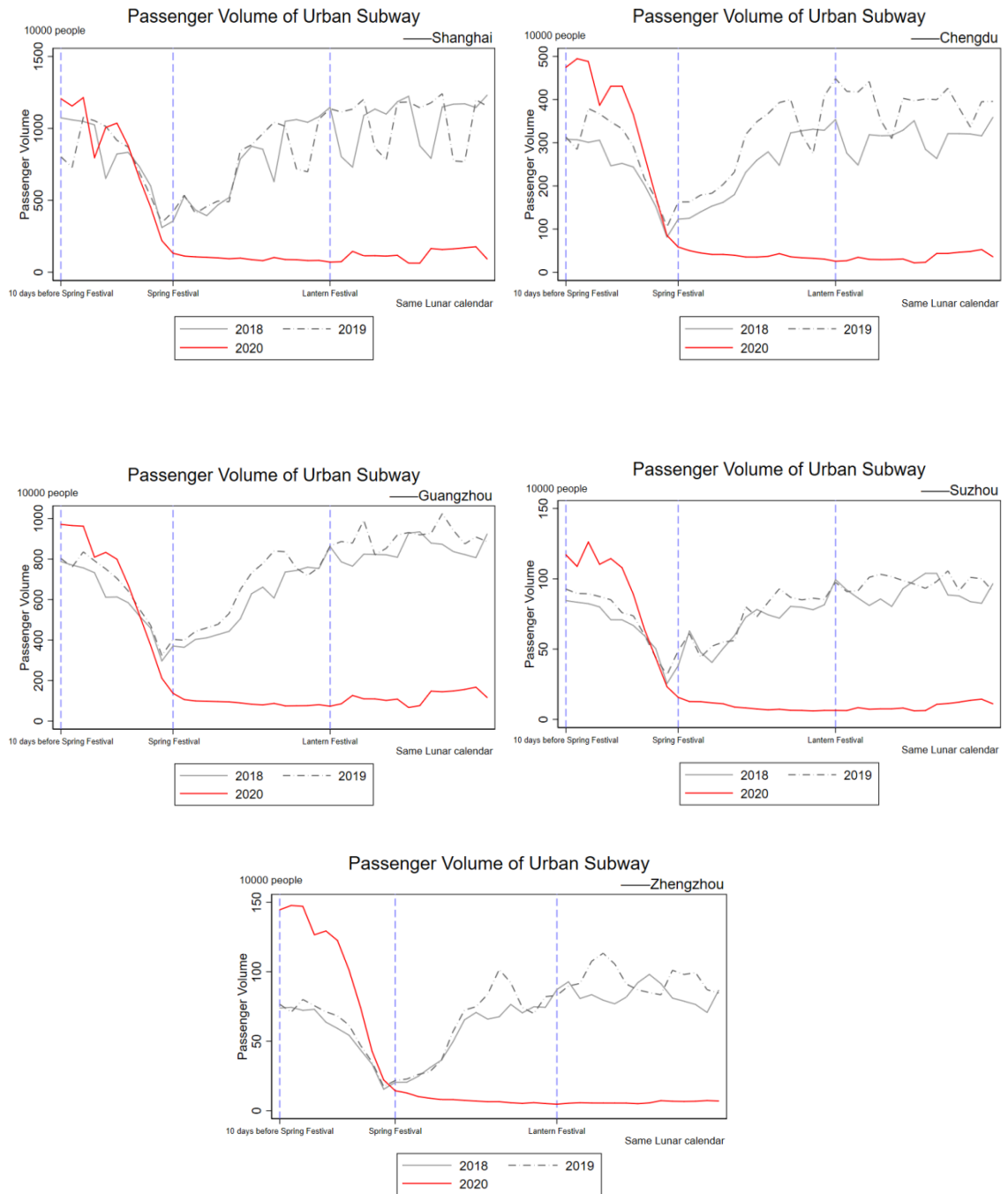
Passenger Volume of Urban Subway

Shanghai

Chengdu

Guangzhou

Suzhou

Zhengzhou

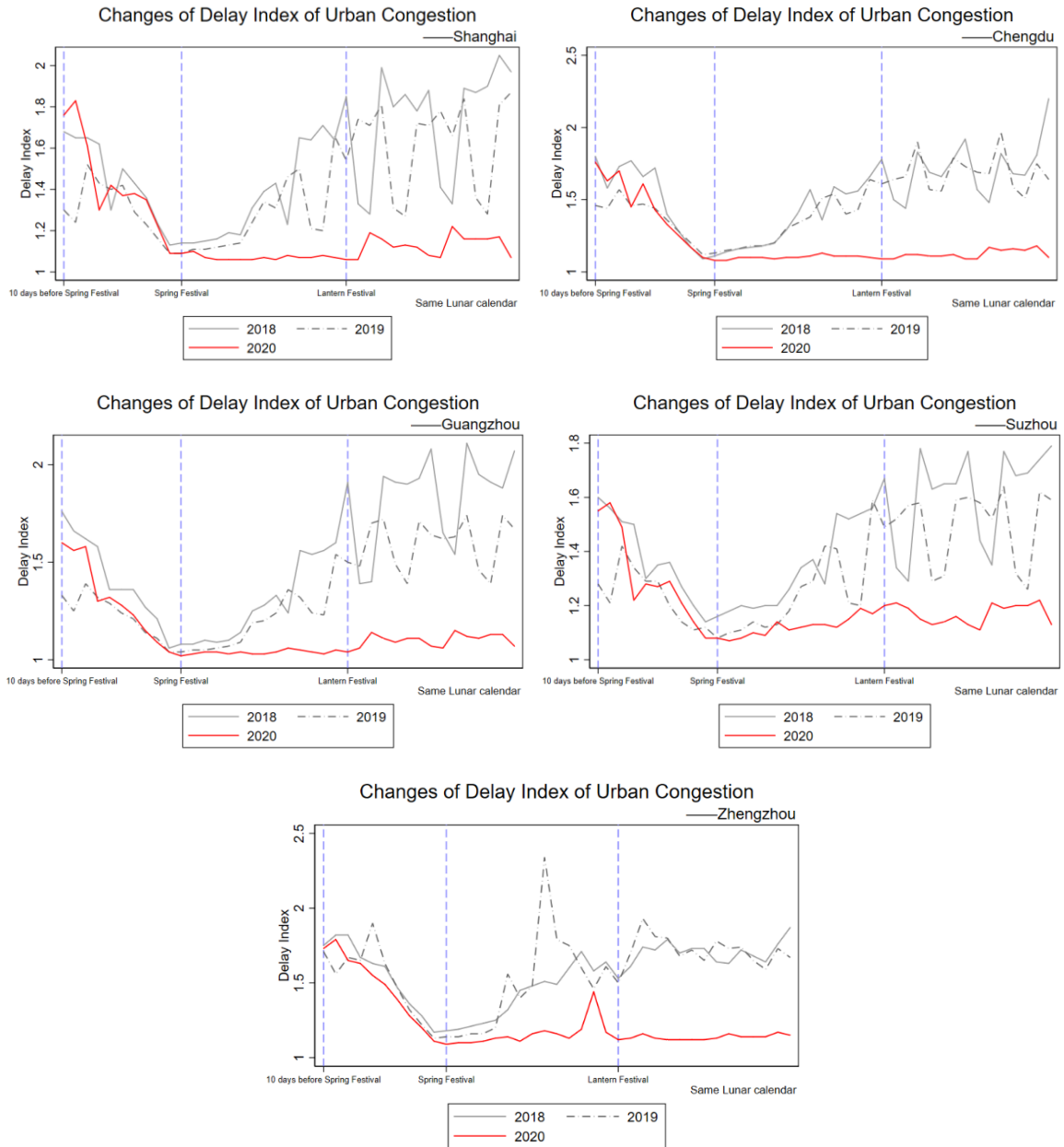**Fig. B: Passenger Volume of Urban Subway in five cities**

Fig. C: Changes of Delay Index of Urban Congestion in five cities
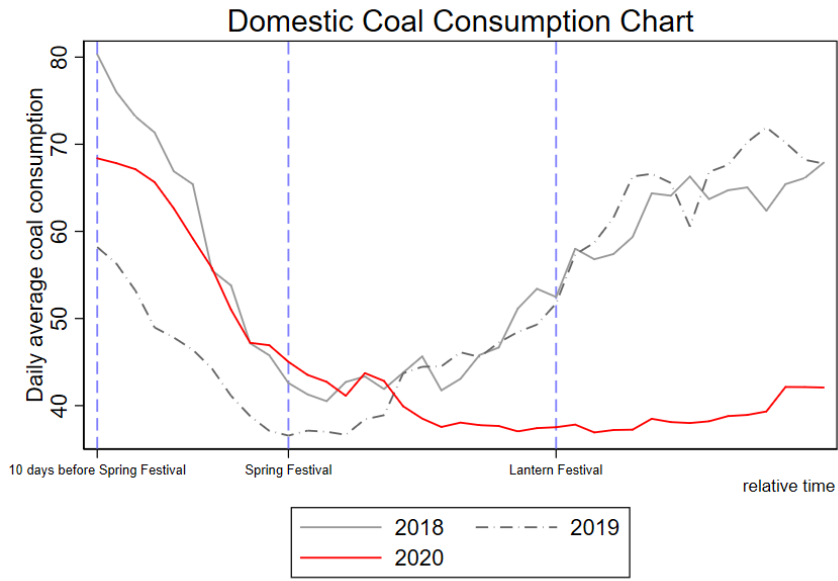
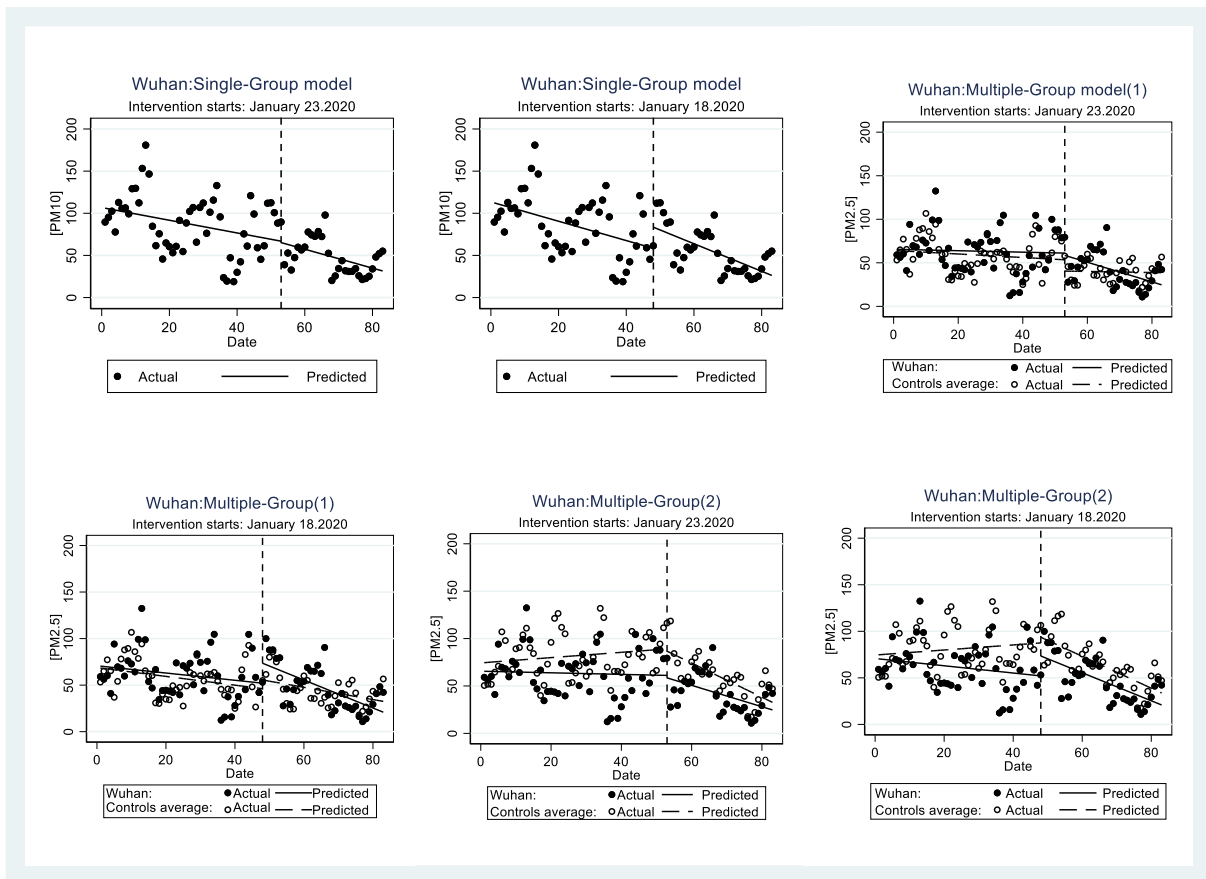**Fig. D: Domestic Coal Consumption (Units: Ten thousand tons)**

Fig. E: Single and Multiple Groups Estimation Graph of ITSA

Table A

Three stages average air quality from 2018-2020

	2018			2019			2020		
Variable	Stage1[*]	Stage2[*]	Stage3[*]	Stage1	Stage2	Stage3	Stage1	Stage2	Stage3
$PM_{2.5}$	59.62	58.91	54.5	59.36	50.46	73.36	77.63	60.58	41.39
PM_{10}	109.02	86.65	95.11	93.91	72.01	98.74	92.76	68.19	58.21
SO_2	21.83	19.56	17.5	14.76	12.67	13.68	13.15	12.08	10.4

Note: Stage1 is ten days before spring festive; Stage2 is 15 days between Chinese New Year to Lantern Festival; Stage 3 is 14 days after Lantern Festival. The mean values are reported.

Table B

Single and Multiple Groups Empirical Results of ITSA

	(1) Single A	(2) Single B	(3) M_C1	(4) M_C1 B	(5) M_C2 A	(6) M_C2 B
T	-0.752*** (0.282)	-1.147*** (0.326)	-0.203 (0.167)	-0.471** (0.189)	0.279 (0.223)	0.271 (0.276)
Z			1.506 (8.560)	2.083 (8.937)	-9.120 (9.524)	-4.354 (9.995)
Z×T			0.119 (0.316)	0.081 (0.369)	-0.362 (0.348)	-0.661 (0.419)
X53	-1.678 (11.730)		-12.947* (6.665)		-2.384 (13.582)	
X53×T	-0.369 (0.466)		0.142 (0.332)		-2.077*** (0.634)	
Z×X53			10.357 (13.558)		-0.207 (17.984)	
Z×X53×T			-1.185** (0.597)		1.034 (0.805)	
X48		25.019** (12.498)		9.358 (7.458)		6.153 (12.481)
X48×T		-0.488 (0.481)		-0.186 (0.321)		-1.982*** (0.484)
Z×X48				12.069 (14.518)		15.274 (17.618)
Z×X48×T				-0.927 (0.585)		0.869 (0.688)
Constant	106.052*** (8.009)	112.369*** (8.327)	64.006*** (4.993)	68.342*** (5.128)	74.631*** (6.521)	74.779*** (6.820)
F-test	24	25.54	8.45	8.33	10.86	11.25
Postintervention Trends	1.121*** (0.37)	-1.634*** (0.35)				
Postintervention Trends-Treated			-1.127*** (0.411)	-1.504*** (0.37)	-1.127*** (0.411)	-1.504*** (0.369)
Postintervention Trends-Control			-0.061 (0.281)	-0.658 (0.258)	-1.799*** (0.585)	-1.711*** (0.388)
Difference			-1.066** (0.498)	-0.846* (0.451)	0.672 (0.715)	0.207 (0.535)
Observations	83	83	415	415	498	498