

**Table S6.** Partial correlation model of COVID-19 death with respect to the total population, when controlling for mobility.

estimate	p.value	statistic	n	Method	BH-FDR	(X ~ Y)   Z
-0.311243	2.35E-05	-4.34492	179	pearson	3.52E-05	(Death_Rate~Total_Pop Resident_Mob)
-0.355799	3.81E-07	-5.26155	194	pearson	2.29E-06	(Death_Rate~Total_Pop Work_Mob)
-0.333954	1.95E-06	-4.90925	195	pearson	3.90E-06	(Death_Rate~Total_Pop Retail_Mob)
-0.202029	0.019699691	-2.36101	134	pearson	0.0197	(Death_Rate~Total_Pop Parks_Mob)
-0.336833	1.57E-06	-4.95695	195	pearson	3.90E-06	(Death_Rate~Total_Pop Grocery_Mob)
-0.262370	0.002030448	-3.14742	137	pearson	0.002437	(Death_Rate~Total_Pop Transit_Mob)
-0.350358	5.14E-07	-5.19670	195	pearson	NA	(Death_Rate~Total_Pop NA)

*Note: Assess the correlation between Death\_Rate and Total\_Pop while controlling for Resident\_Mob using pcor.test(); Controlling for Parks\_Mob appears to have very significant impact on the relationship between Death\_Rate and Total\_Pop. So as Transit\_Mob*

Abbreviations:

<b>Death_Rate</b>	Rate of COVID related Death (percent)
<b>Total_Pop</b>	TOTAL POPULATION
<b>Retail_Mob</b>	GOOGLE RETAIL RECREATION MOBILITY
<b>Grocery_Mob</b>	GOOGLE GROCERY PHARMACY MOBILITY
<b>Parks_Mob</b>	GOOGLE PARKS MOBILITY
<b>Transit_Mob</b>	GOOGLE TRANSIT MOBILITY
<b>Work_Mob</b>	GOOGLE WORKPLACE MOBILITY
<b>Resident_Mob</b>	GOOGLE RESIDENTIAL MOBILITY