Online Appendix to "Origin Country Information and Immigrant Behavior: Evidence from the COVID-19 Pandemic in the U.S."

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1 Robustness Checks

1.1 MSA-by-Date Fixed Effects

I run the preferred specification, which is shown in column 4 of Table (**??**), including the MSA-by-date fixed effects. Recall that in the ideal hypothetical specification at the individual level expressed in equation (**??**), I control for tract-by-time fixed effects to account for the local evolution of the COVID-19 outbreak. However, once aggregated up to the tract level, it is impossible to have these fixed effects as they are at the same level as the treatment. To ensure the local development of COVID-19 is not interfering with the results, I include the MSA-by-date fixed effects as a robustness check. The robustness results in Table 1 confirm that the significance and sign of the main results regarding severity and NPI status in the origin country weighted by the fraction of first generation immigrants as well as severity weighted by the fraction of second-plus-generation do not change. The sign and significance for the NPI status weighted by the fraction of second-plus-generation from relevant origin countries in each census tract do change. The coefficient estimate loses significance and becomes positive. However, the interpretation does not change as I have previously explained that the negative effect reported in Table (**??**) was negligible given the small magnitude of

the effect and the high precision of the estimate.

Table 1: Robustness Check: Include MSA-by-Date Fixed Effects

Dependent Variable: % completely home	Measure of Severity:	
	cases per 100,000	deaths per 100,000
	(1)	(2)
$Severity^{OC}$	0.495***	3.423***
(*country of birth*)	(0.0488)	(0.468)
NPI^{OC}	0.00942*	0.00920*
(*country of birth*)	(0.00546)	(0.00545)
$Severity^{OC}$	0.134***	0.999***
(*ancestry*)	(0.00541)	(0.0450)
NPI^{OC}	0.00466	0.00285
(*ancestry*)	(0.00475)	(0.00475)
MSA × Date FE	yes	yes
Tract × NPI^{US} FE	yes	yes
N	328708	328708
adj. R^2	0.874	0.874

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

1.2 Excluding Immigrant Groups from the Control

I perform the robustness check of excluding an immigrant group one by one from the control group to make sure the results are not driven by one particular immigrant group. To address this issue, As I am trying to identify off of multiple immigrant communities with arguably different characteristics, it is less likely that the set of all immigrant groups whose origin countries faced a severe outbreak would have had a similar behavior before March 13th, 2020. However, if there are particular groups that are biasing the estimates this exercise

would show that.

Figure 1 shows that excluding an immigrant group from the treatment does not significantly change the result for the responsiveness of immigrants to the COVID-19 outbreak in their origin country except for when Iranians are excluded from the control group. However, excluding Iranians increases the coefficient, which suggests that the main result reported is a lower bound. As for the responsiveness of immigrants to the implementation of NPI in the origin country, dropping Italian immigrants from the control group seems to push down the estimate of the effect of among first generation immigrants. Nevertheless, the result remains positive and significant. The robustness check on the coefficient representing the responsiveness of second-plus-generation to the severity of the COVID-19 outbreak in the origin country seems a little bit troubling. The estimate is positive and significant for all specifications, but when the Italian immigrants are excluded from the control group, the coefficient seems to jump significantly. No significant change is detected for the coefficient estimating the effect of NPI in the origin country on the second-plus-generation due to exclusion of any immigrant population from the control group.

One potential explanation for the jump in the estimated effect of severity in the origin country on the social distancing behavior among second-plus-generation when Italians are excluded from the control group is that people claiming ancestry from Italy are significantly more likely to be distant descents. Table 2 shows the percentage of second-plus-generation of each immigrant group that speaks a language from their origin country. If descents are less likely to know a language from the origin country the further away in generations they are from the ancestors who immigrated, this table shows that Italian descents consist of the largest number of descents furthest in generations from the ancestors who immigrated to the U.S. As it is less likely to be connected to the country of origin as a distant descent, it is not surprising that much smaller effect of the severity of COVID-19 outbreak in the origin country on the social distancing behavior among the descents living in the U.S. was found among Italian descents.

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Figure 1: Robustness Check: Exclude Immigrant Group from Control One by One
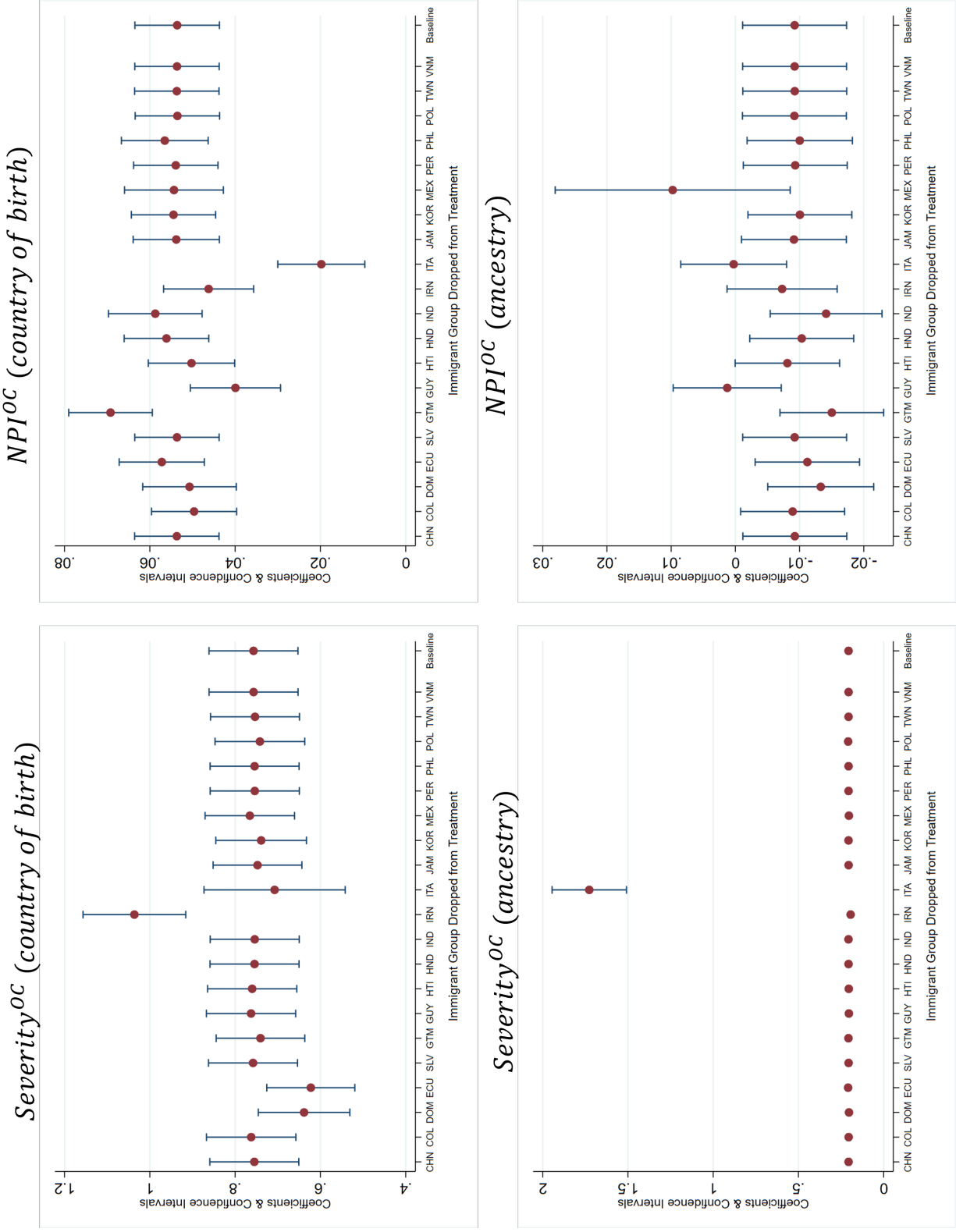
Table 2: Percentage of second-plus-generation of Each Immigrant Group that Speaks the Language of Origin Country

Immigrant group	Number of observations	% speaking language of origin country at home among second-plus-generation*
Chinese	34,314	48.84%
Colombian	4,843	57.77%
Dominican	13,265	65.53%
Ecuadorian	5,590	64.76%
Guatemalan	7,718	69.36%
Haitian	3,662	40.63%
Honduran	3,085	63.66%
Iranian	2,858	33.80%
Italian	152,641	2.71%
Korean	9,735	42.17%
Mexican	178,236	60.37%
Peruvian	3,055	58.10%
Polish	74,690	4.31%
Salvadoran	13,020	71.26%
Taiwanese	2,565	53.53%
Vietnamese	7,750	49.26%
Filipino	15,078	12.87%
Indian	39,995	14.62%

second-plus-generation*: Individuals claiming ancestry from a origin country who were not born in the given origin country

This table reports the percentage of second-plus-generation individuals, of the 20 immigrant groups selected for this study, in the four largest MSAs speaking a language of the corresponding origin country at home.

Guyanese and Jamaican are excluded from this table because the official language in these countries is English and therefore it is difficult to distinguish the language of origin country from the language most commonly spoken in the U.S.

Filipino and Indian are reported separately from the rest because a significant population of the Philippines and India speak English, which again makes it more difficult to distinguish the language of origin country from the language most commonly spoken in the U.S.

2   Figures on Google Search Trends

Figure 2: Comparison in Google Search Trends

Panel A. Comparison in Google Search Trends of "Coroniavirus" in each corresponding language in Los Angeles Metropolitan vs. Origin Country
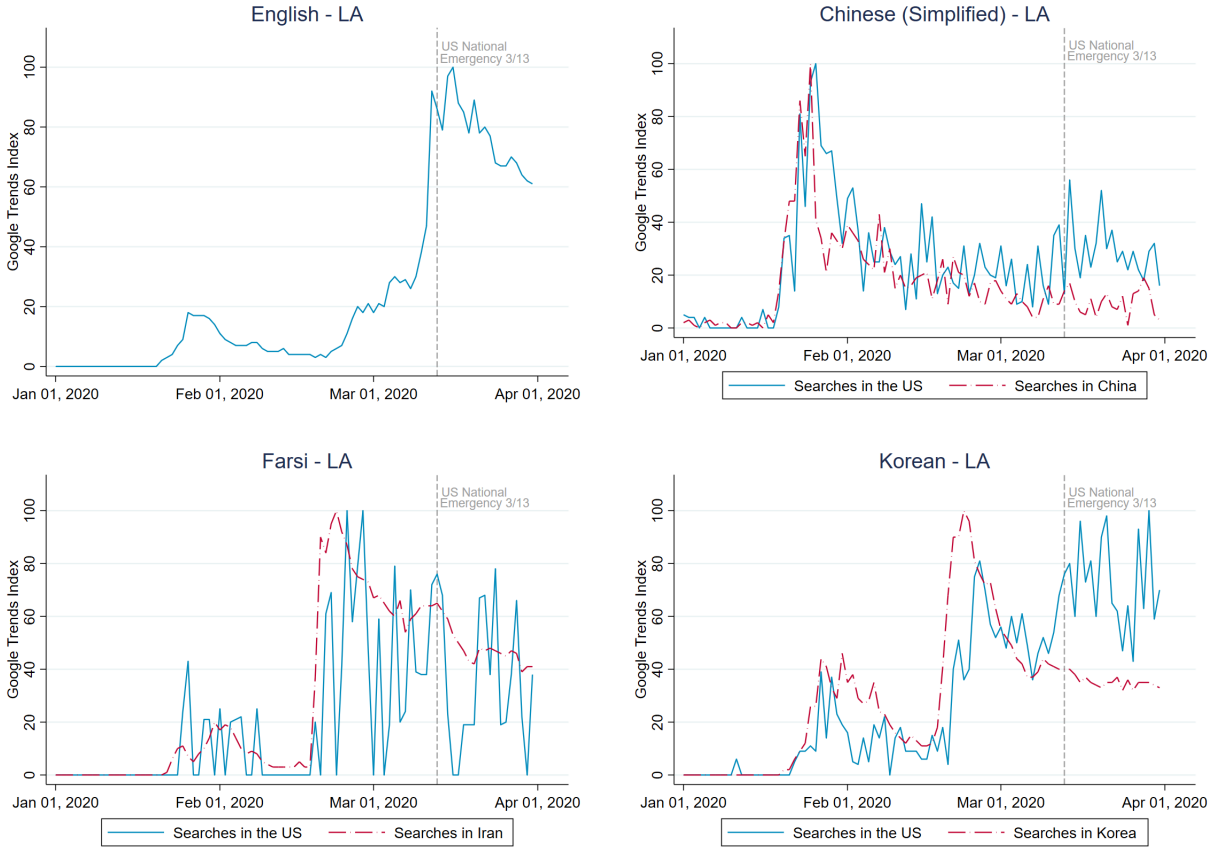
Panel B. Comparison in Google Search Trends of *coronavirus Italia* in the United States vs. Origin Country