

Online Appendices

(Not for publication)

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A Data and descriptive statistics

This section presents additional summary statistics on the geographic variation in exposure to social distancing behavior across U.S. counties for each Mexican source region (*municipio*). It also includes time series data on remittance flows, Google Trends data showing searches for Covid-related terms both in the U.S. and Mexico, and summary statistics of mobility declines before and after the pandemic.

A.1 Weeks of the year in 2020

Table A1 shows the correspondence between the dates and the week of the year in 2020. January 1, 2020 is defined as the first day of the first week of 2020. Week 9 to Week 21 are covered in both Facebook and Unacast datasets used to measure local mobility, as explained in section 3.

Table A1: Week of the year table, 2020

Week Number	From Date	To date
Week 4	January 22	January 28
Week 5	January 29	February 4
Week 6	February 5	February 11
Week 7	February 12	February 18
Week 8	February 19	February 25
Week 9	February 26	March 3
Week 10	March 4	March 10
Week 11	March 11	March 17
Week 12	March 18	March 24
Week 13	March 25	March 31
Week 14	April 1	April 7
Week 15	April 8	April 14
Week 16	April 15	April 21
Week 17	April 22	April 28
Week 18	April 29	May 5
Week 19	May 6	May 12
Week 20	May 13	May 19
Week 21	May 20	May 26

A.2 Additional mobility data

Table A2 shows the Facebook data coverage by week in Mexico and in the United States. The coverage varies by week since the number of unique active users may change from week to week.

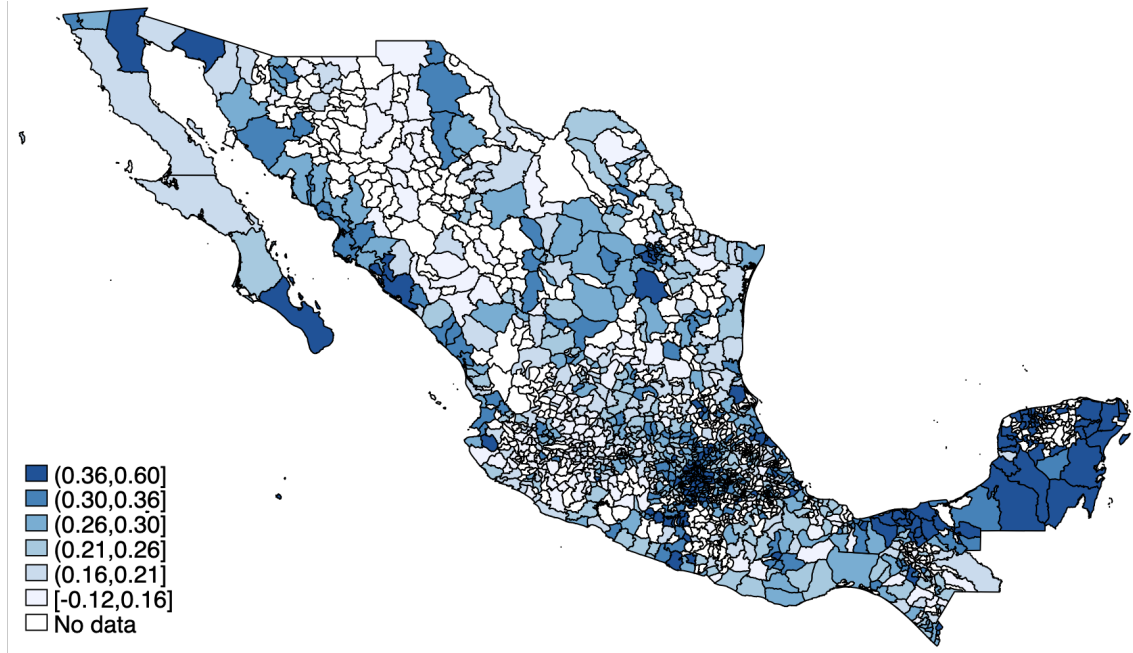
Table A2: Geographic coverage of Facebook mobility data in the U.S. and in Mexico

Week	Num. US counties	Num. MX <i>municipios</i>
9	2,656	1,047
10	2,662	1,057
11	2,662	1,063
12	2,655	1,065
13	2,656	1,071
14	2,658	1,075
15	2,658	1,080
16	2,653	1,078
17	2,650	1,075
18	2,644	1,078
19	2,641	1,078
20	2,637	1,077
21	2,645	1,074
Any week	2,691	1,082

Note: This table presents the number of U.S. counties and Mexican *municipios* covered by the Facebook mobility data. In the Mexican dataset, the observations in the State of Oaxaca are at the district level instead of the *municipio* level, and we refer to districts when we use *municipios* in this state. The number of regions covered vary by week due to the constraint that only regions with more than 300 unique users are included. In the Unacast data, 3,054 US counties are covered for all weeks (9–21).

As discussed in section 3, Figure A1 maps the change in the social distancing measure from the Facebook dataset across Mexican *municipios*, used as our main dependent variable in equation 3. There was substantial geographic variation in the increase in social distancing across Mexican *municipios* from Week 9 to Week 21, with Mexican regions in dark blue representing places with larger declines in mobility.

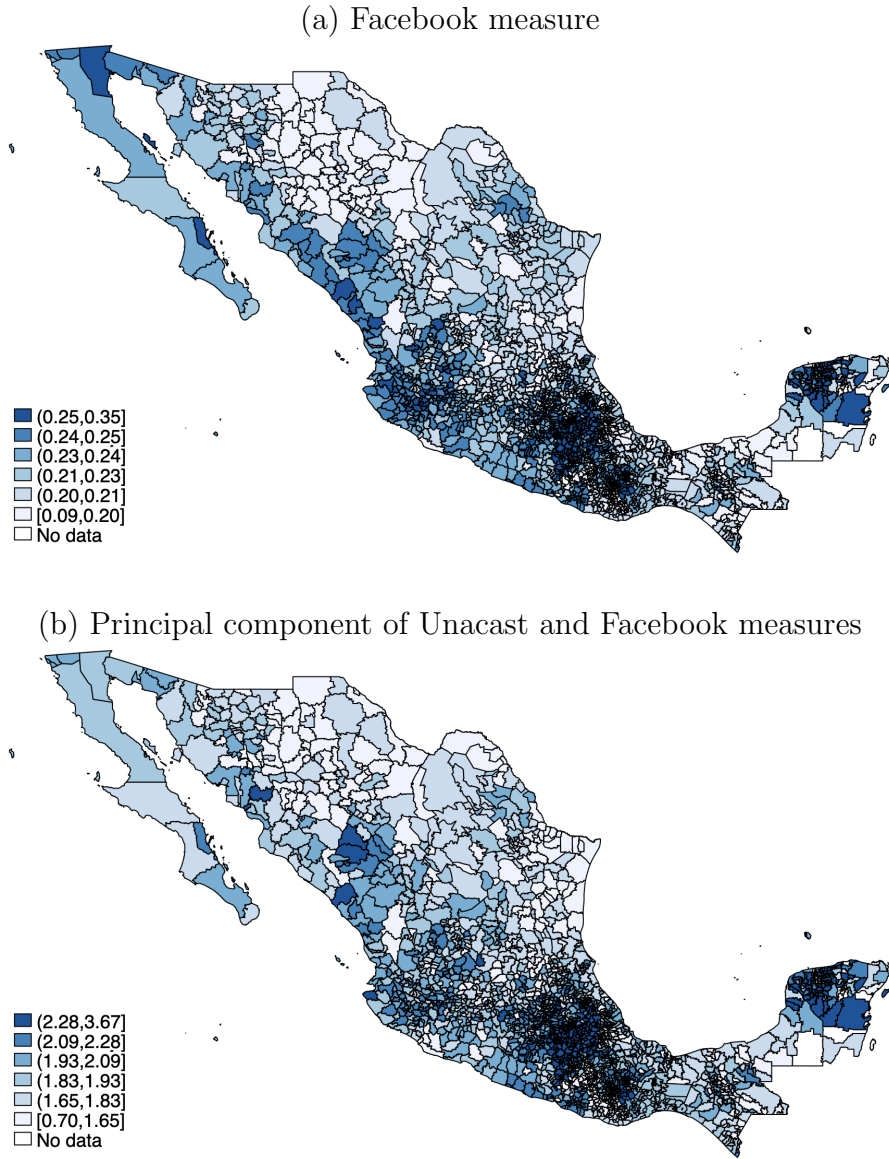
Figure A1: Distribution of changes in social distancing in Mexico, Week 9 to Week 21



Note: The changes in social distancing in Mexico are calculated as $socdist_{21} - socdist_9$, using the Facebook data. There are 1047 *municipios* with non-missing values of social distancing in Week 9, and 1,074 *municipios* in Week 21.

Panel (a) of Figure A2 maps the change in exposure faced by each Mexican *municipio* to U.S. social distancing from the Facebook dataset, while Panel (b) maps the principal component of the Unacast and Facebook social distancing measures as defined in Equation (1). These measures combined geographic variation in U.S. social distancing behavior with geographic variation in the destination distribution of Mexican source regions. This creates the geographic differences in exposure for each Mexican region to different social distancing practices in the U.S. observed in Figure A2.

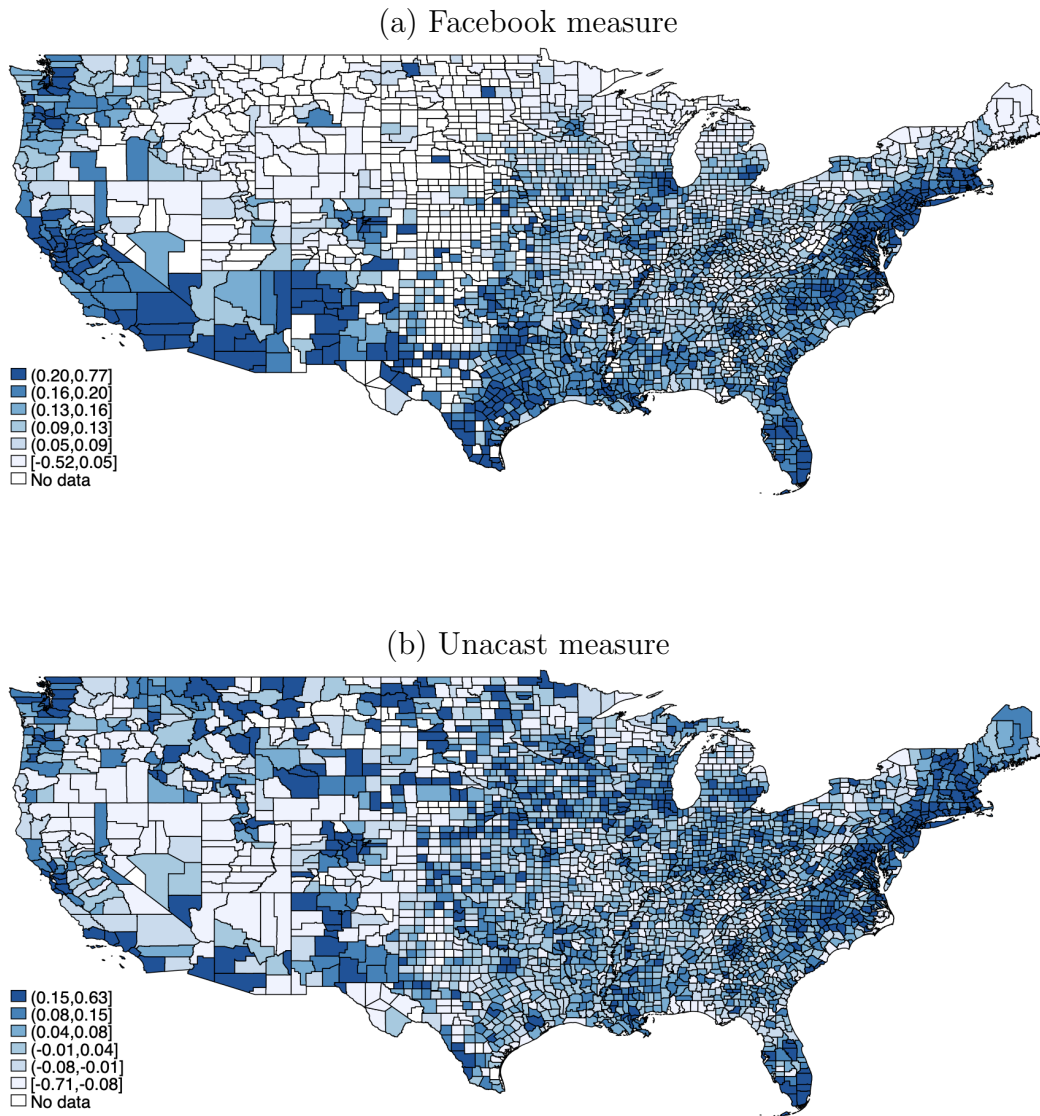
Figure A2: Distribution of changes in exposure to social distancing in the United States, Week 9 to Week 21



Note: The changes in exposure to social distancing in the United States are calculated as $exposure_{21}^s - exposure_9^s$, where s = Facebook in Panel (a) and $s = pc$ in Panel (b). There are 37 *municipios* with no data, and 1,880 *municipios* with data.

Panel (a) of Figure A3 maps the change in the social distancing measure from the Facebook dataset across U.S. counties, while panel (b) of Figure A3 shows the same measure using data from Unacast. There was a great deal of geographic variation in the increase in social distancing across U.S. counties from Week 9 to Week 21, with counties in dark blue representing places with larger mobility declines. These maps show part of the geographic variation in social distancing behavior that we use to construct our exposure measure as defined in equation 1.

Figure A3: Distribution of changes in social distancing in the United States, Week 9 to Week 21



Note: The changes in social distancing in the United States are calculated as $socdist_{21} - socdist_9$. Panel (a) uses the Facebook data and includes 2,531 counties, and Panel (b) uses the Unacast data and includes 3,033 counties. Hawaii and Alaska are not included.

A.3 Sample restrictions and summary statistics

Table A3 shows the sample size restrictions yielding the 13,010 observations in Table 3 Columns (5)–(8). There are 1,880 *municipios* from the MCAS dataset, after excluding Yaxkukul in the State of Yucatan with only one migrant in one U.S. county. There are 1,081 *municipios* with Facebook mobility measures. There are 1,078 *municipios* and 13,866 *municipio*-week observations satisfying both conditions. One *municipio*, San Miguel De Horcasitas in the State of Sonora, only has the mobility measure in Week 21 and is excluded in the panel regression as a singleton.

Table A3: How we arrive at the final sample size

Week	Num. MX <i>municipios</i>		
	(1)	(2)	(3)
9	1,880	1,046	1,043
10	1,880	1,056	1,053
11	1,880	1,062	1,059
12	1,880	1,064	1,061
13	1,880	1,070	1,067
14	1,880	1,074	1,071
15	1,880	1,079	1,076
16	1,880	1,077	1,074
17	1,880	1,074	1,071
18	1,880	1,077	1,074
19	1,880	1,077	1,074
20	1,880	1,076	1,073
21	1,880	1,073	1,070
Any week	1,880	1,081	1,078
With mobility exposure measure	Yes		Yes
With mobility measure		Yes	Yes
Total number of obs.	24,440	13,905	13,866

Note: This table presents sample size for Mexican *municipios* covered in the analysis. Yaxkukul in the State of Yucatan is dropped since the population size is very small (2,868 in 2010) and it is only has one destination county with one migrant count in the MCAS dataset, Horry in South Carolina. MCAS data includes 1,881 *municipios*. Thus, 1,880 *municipios* have the measure of exposure to U.S. social distancing after dropping Yaxkukul (Column 1). In Column (2), there are 1,081 *municipios* with Facebook mobility measure. When we restrict to the *municipio*-weeks with both the Facebook mobility measure and the exposure to U.S. social distancing, we have 1,078 *municipios*. The panel regression in the main analysis with all *municipios* includes 13,866 observations instead of 13,865 in Column (3) since San Miguel De Horcasitas in the State of Sonora only has mobility measure in Week 21 and is excluded in the panel regression as a singleton.

In all of our empirical regression tables, we provide the means and standard deviations of the main variables used. Table A4 compiles this information together in a single location for easy reference.

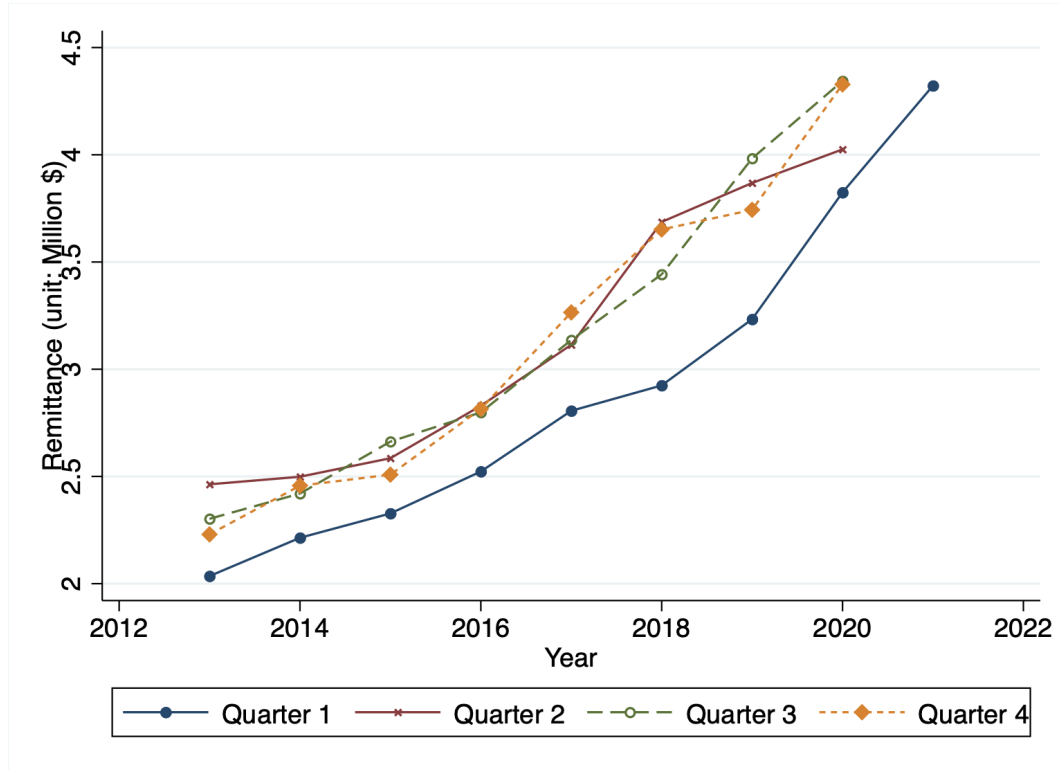
Table A4: Summary statistics of main variables

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Municipios with cases > 0</i> N	mean	sd	<i>All municipios</i> N	mean	sd
MX mobility decline, FB	11,989	0.21	0.15	13,865	0.21	0.15
MX mobility decline, FB stay-put	11,989	0.24	0.07	13,865	0.24	0.07
Exposure to US mobility decline, FB	11,989	0.23	0.14	13,865	0.23	0.14
Exposure to US mobility decline, FB stay-put	11,989	0.24	0.06	13,865	0.24	0.06
Exposure to US mobility decline, UN	11,989	0.28	0.16	13,865	0.28	0.16
Exposure to US mobility decline, shares sum to 1, FB	11,989	0.23	0.14	13,865	0.23	0.14
Exposure to US mobility decline, pca	11,989	-0.01	1.38	13,865	-0.01	1.38
Exposure to US mobility decline, pca, lagged one week	11,083	0.04	1.42	12,822	0.04	1.42
Exposure to US mobility decline, pca, lagged two weeks	10,172	0.06	1.48	11,769	0.06	1.48
Exposure to US mobility decline, pca, FB stay-put	11,989	-0.02	1.37	13,865	-0.02	1.36
Exposure to US mobility decline, pca, shares sum to 1, FB	11,989	-0.01	1.38	13,865	-0.01	1.38
Per capita cumulative cases, MX, in current week	11,989	0.14	0.34	13,865	0.12	0.32
Per capita cumulative cases, MX, lagged one week	11,989	0.10	0.28	13,865	0.09	0.26
Exposure to per capita US cases, in current week	11,989	1.38	1.61	13,865	1.38	1.60
Exposure to per capita US cases, lagged one week	11,989	1.08	1.40	13,865	1.08	1.39
Exposure to per capita US cases, lagged two weeks	11,989	0.81	1.18	13,865	0.81	1.17
Hype cumulative cases, MX, in current week	11,989	1.44	1.82	13,865	1.25	1.77
Hype cumulative cases, MX, lagged one week	11,989	1.19	1.71	13,865	1.03	1.64
Exposure to hype US cases, in current week	11,989	5.64	2.80	13,865	5.64	2.80
Exposure to hype US cases, lagged one week	11,989	5.02	3.02	13,865	5.02	3.02
Exposure to hype US cases, lagged two weeks	11,989	4.41	3.11	13,865	4.41	3.11

A.4 Remittance flows

Figure A4 shows the trends of remittances from 2013 to 2021 by quarter using data from the Mexican Central Bank. There was no change in the remittance patter in 2020 with an increaing trend throughout the Covid period.

Figure A4: Size of remittances increasing over years (by quarter), even in 2020

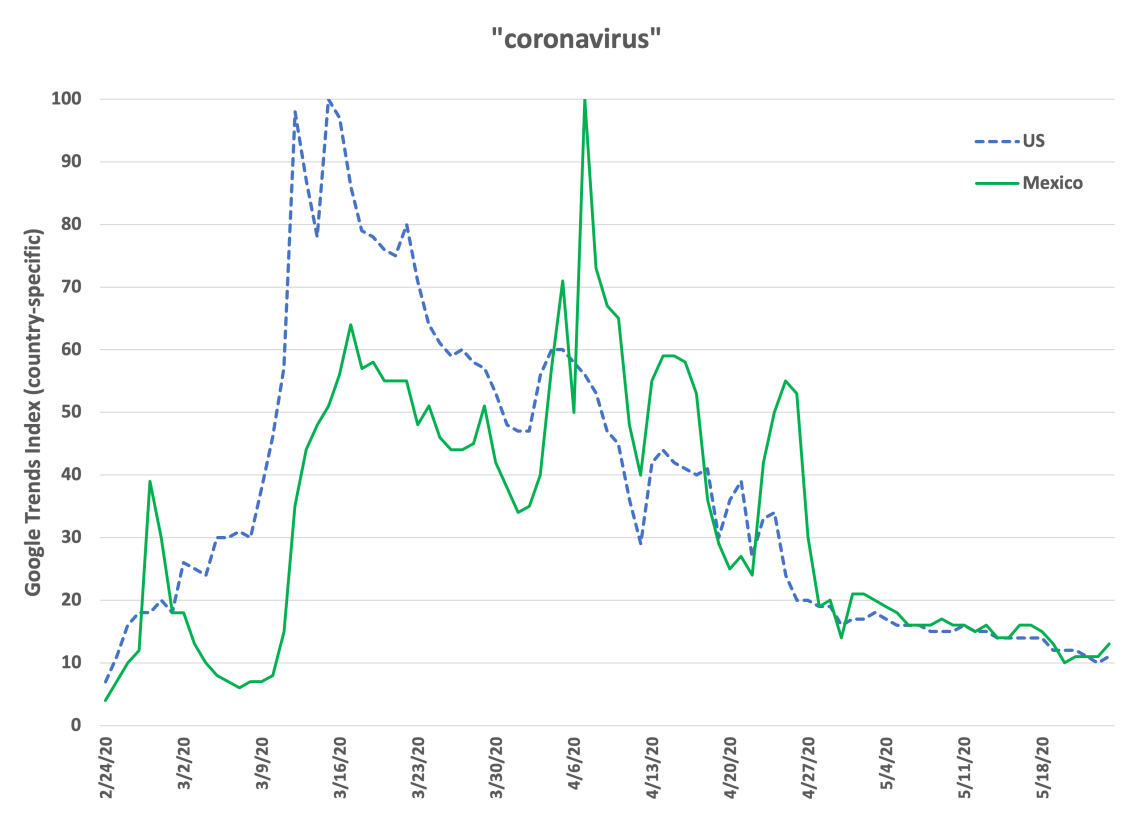


Note: This figure shows the amount of remittances received across municipios in each quarter from 2013 to 2020. The data covers information for 2,456 municipios in each year.

A.5 Google trends time series

Figure A5 shows Google Trends data from both the U.S. and Mexico showing when, where, and to what extent people were searching for Covid-related terms. The time-series information indicates that Covid awareness peaked in Mexico after than in the US.

Figure A5: Google trends on Covid-related terms



Note: This figure shows national time-series information indicating when people in Mexico were seeking more information about Covid-19. These trends suggests that Covid awareness peaked in Mexico weeks after it did so in the US.

A.6 Pre-trends

Table A5 presents summary statistics for mobility declines in both the the Facebook and Unacast mobility data separately for the weeks 9 and 10 (before the pandemic) and the weeks 11 to 21 (after the pandemic). Mobility declines were effectively zero in the period before week 11, ruling out the possibility of substantially confounding pre-trends. The Mexican sample includes all the *municipios* where the mobility measure and the exposure to US mobility declines are available.

Table A5: Mobility declines in Weeks 9 and 10 (Before) essentially zero in Mexico, compared with Week 11 to Week 21 (After)

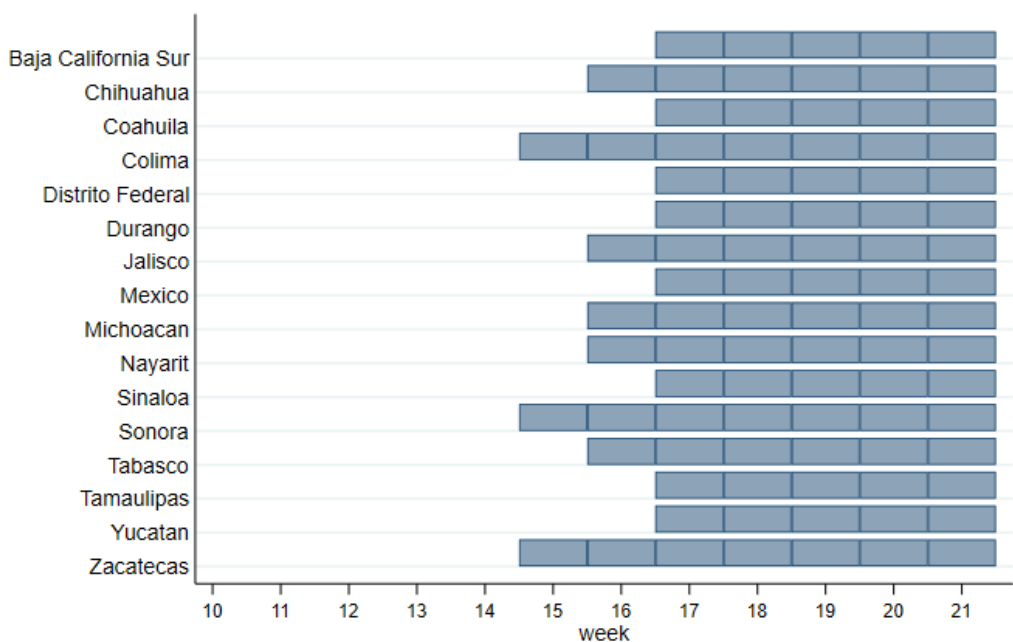
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Weeks 11-21					Weeks 9-10				
	N	mean	sd	min	max	N	mean	sd	min	max
US mobility decline, FB	11,770	0.28	0.09	0.03	0.55	2,096	-0.02	0.02	-0.08	0.08
US mobility decline, Unacast	11,770	0.33	0.11	-0.00	0.68	2,096	-0.004	0.02	-0.08	0.13
MX mobility decline, FB	11,770	0.24	0.12	-0.45	0.62	2,096	-0.004	0.05	-0.44	0.25

Note: This table presents summary statistics for mobility declines in both the the Facebook and Unacast mobility data separately for Weeks 9 and 10 (before the pandemic) and Weeks 11 to 21 (after the pandemic).

A.7 US and Mexican state-level stay-at-home orders

Figure A6 and Table A6 describe state-level stay-at-home orders across Mexican states, based on Mexican States’ official decrees. Table A6 provides details on the specific measures imposed by each state, along with the date of the relevant decree, and Figure A6 depicts the decrees graphically, with blue bars showing weeks in which relevant decrees were in place. States without specific stay-at-home orders are omitted from Figure A6 and Table A6 (see the note to Table A6 for a list). These states declared states of emergency and closure of nonessential businesses in the first week of April following the federal government order.

Figure A6: Mexico State-level Stay-at-home Orders, by week



Note: This figure shows the Mexican states imposing mandatory stay-at-home orders or mobility restrictions in the weeks under study (see Table A6 for details) based on Mexican States’ Official decrees. The blue bars represent the week in which a state had an active staty-at-home order.

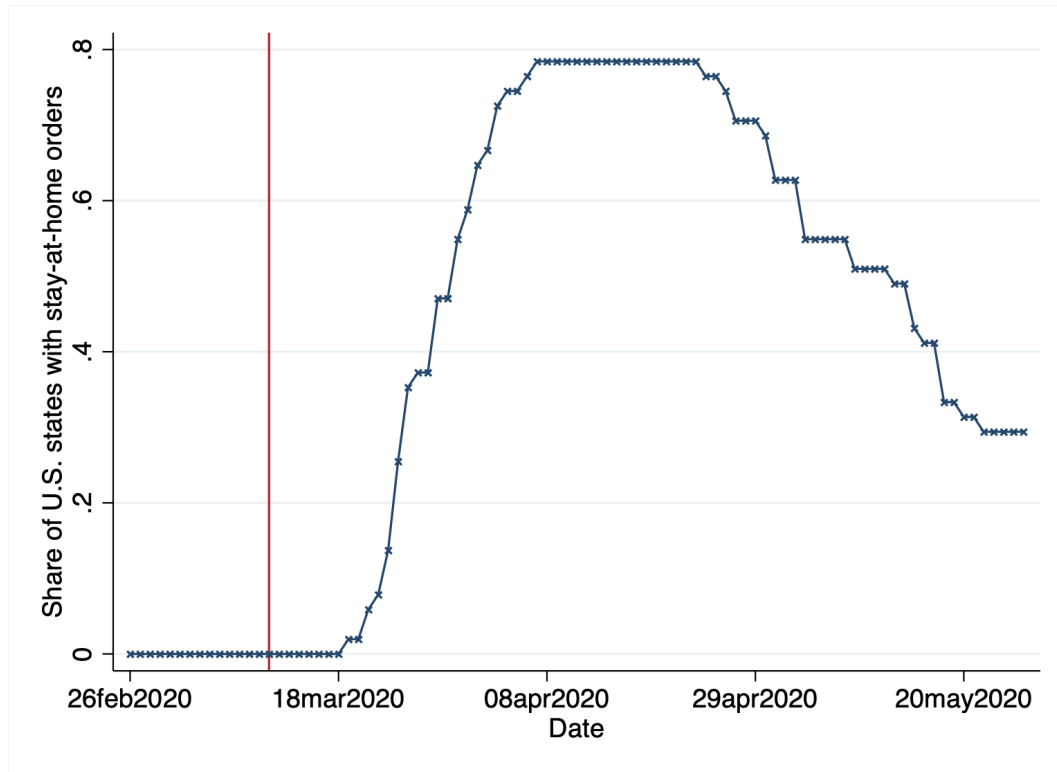
Figure A7 shows the proportion of U.S. states imposing stay-at-home orders since the beginning of the pandemic.

Table A6: Mexico State-level Stay-at-home Orders

State	Measures	Date
Baja California Sur	Imposed measures to restrict mobility within the state. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Friday, April 24, 2020
Chihuahua	Installed check points in main highways and roads.	Sunday, April 19, 2020
Coahuila	Imposed measures to restrict mobility within the state. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Wednesday, April 22, 2020
Colima	Imposed measures to restrict mobility within the state. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Thursday, April 9, 2020
Distrito Federal	Imposed measures to restrict mobility within the state. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Wednesday, April 22, 2020
Durango	Imposed measures to restrict mobility within the state. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Sunday, April 26, 2020
Jalisco	Mandatory stay-at-home measures were imposed. Penalties included fines.	Monday, April 20, 2020
México	Imposed measures to restrict mobility within the state. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Wednesday, April 22, 2020
Michoacán	Mandatory stay-at-home measures were imposed. Penalties included fines and jail time.	Monday, April 20, 2020
Nayarit	Imposed measures to restrict mobility within the state. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Saturday, April 18, 2020
Sinaloa	Following the federal government announcement, the state of emergency was extended and the closure of nonessential businesses continued. In addition, measures to restrict mobility within the state were imposed. Lowered public transportation capacity, and limit the number of persons who could travel in personal vehicles.	Wednesday, April 22, 2020
Sonora	State of emergency was declared and nonessential businesses were ordered to close, before the announcement from the federal government was made.	Wednesday, March 25, 2020
	Mandatory stay-at-home measures were imposed. Penalties included fines and jail time.	Monday, April 13, 2020
Tabasco	Following the federal government announcement, the state of emergency was extended and the closure of nonessential businesses continued. In addition, measures to restrict mobility within the state were imposed. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Tuesday, April 21, 2020
Tamaulipas	Following the federal government announcement, the state of emergency was extended and the closure of nonessential businesses continued. In addition, measures to restrict mobility within the state were imposed. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Thursday, April 23, 2020
Yucatán	Following the federal government announcement, the state of emergency was extended and the closure of nonessential businesses continued. In addition, measures to restrict mobility within the state were imposed. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Thursday, April 23, 2020
Zacatecas	Following the federal government announcement, the state of emergency was extended and the closure of nonessential businesses continued. In addition, measures to restrict mobility within the state were imposed. Lowered public transportation capacity and limit the number of persons who could travel in personal vehicles.	Wednesday, April 8, 2020

Note: This table presents a description of the mandatory stay-at-home orders or mobility restrictions imposed by each Mexican state government as well as the dates for each mandate, based on Mexican States' Official decrees. The following states declared states of emergency and closure of nonessential businesses on the first week of April along with the federal government order: Aguascalientes, Baja California, Hidalgo, Morelos, Nuevo Len, Oaxaca, and Tlaxcala. Between the third and fourth week of April the following states extended the state of emergency and maintained closure of nonessential businesses: Campeche, Chiapas, Guanajuato, Guerrero, Puebla, Quertaro, Quintana Roo, San Luis Potos, and Veracruz.

Figure A7: The Dynamic of Stay-At-Home Orders in the U.S.



Note: This figure shows the share of U.S. states that have stay-at-home orders on a particular date. All 50 states and the District of Columbia are included. Stay-at-home or shelter-in-place orders only include directives and orders, but not guidance, and the order must apply to the entire states. According to this definition, 11 states never enacted the order, including: Arkansas, Connecticut, Iowa, Kentucky, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming. Similarly, the end of the order must also apply to the entire state. See details of the definition at Raifman et al. (2020). The vertical line shows when the national emergency was announced in the US.

A.8 Mexican workable-at-home measures

As shown in Dingel and Neiman (2020), different industries and occupations have different shares of jobs that can be performed at home. In Table A7, we present the crosswalk of industries in Mexico and in the United States. The share of jobs facilitating work from home at the 2-digit NAICS sector level is from Table 3 in Dingel and Neiman (2020), and out of the 20 industries, 14 industries have direct matches with the IPUMS general industry code used in the 2015 Intercensal Count (Panel A), and 6 industries do not have exact matches (Panel B). In later analysis, we construct the *municipio*-level shares allowing work from home using the individual level industry code in the 2015 Intercensal Count and the Mexican industry level workable-at-home job shares. Given the imperfect matching, we use two matching methods. In the first one, “Other services” and “Private household services” in Mexico are assigned the value of 0.31 and 0.43 (unweighted and weighted by wage) to match “Other services (except for public administration)” in the U.S. The second method match these two Mexican industries to the average of unmatched U.S. industries, including “Professional, scientific, and technical services”, “Management of companies and enterprises”, “Information”, “Other services (except public administration)”, “Administrative and support and waste management and remediation services”, and “Arts, entertainment, and recreation”.

Table A7: Share of jobs facilitating work at home, by industry in Mexico

Panel A. Matched		Share of jobs doable at home	
Mexican industry (IPUMS general industry)	US industry (2-digit NAICS sector)	Unweighted	Weighted by wage
Agriculture, fishing, and forestry	Agriculture, forestry, fishing and hunting	0.08	0.13
Mining and extraction	Mining, quarrying, and oil and gas extraction	0.25	0.37
Manufacturing	Manufacturing	0.22	0.36
Electricity, gas, water and waste mngmt.	Utilities	0.37	0.41
Construction	Construction	0.19	0.22
Wholesale and retail trade	Wholesale trade	0.52	0.67
	Retail trade	0.14	0.22
Hotels and restaurants	Accommodation and food services	0.04	0.07
Transportation, storage, and comm.	Transportation and warehousing	0.19	0.25
Financial services and insurance	Finance and insurance	0.76	0.85
Public administration and defense	Federal, state, and local government	0.41	0.47
Business services and real estate	Real estate and rental and leasing	0.42	0.54
Education	Educational services	0.83	0.71
Health and social work	Health care and social assistance	0.25	0.24
Panel B. Unmatched			
Other services	Professional, scientific, and technical services	0.80	0.86
Private household services	Management of companies and enterprises	0.79	0.86
	Information	0.72	0.80
	Other services (except public administration)	0.31	0.43
	Administrative and support and waste management and remediation services	0.31	0.43
	Arts, entertainment, and recreation	0.30	0.36

Notes: This table reports the crosswalk between Mexican industries and U.S. industries, where U.S. industries have the share of jobs doable at home from Dingel and Neiman (2020). The U.S. industries are at the 2-digit NAICS sector level, and the Mexican industries are from the IPUMS International general industry code, where the grouping “roughly conform to the International Standard Industrial Classification (ISIC)” (IPUMS International). Panel A shows the list of matched industries, and Panel B shows the list of unmatched industries.

A.9 Correlation of *municipio* characteristics

In Table A8, we present the correlation between the *municipio* characteristics used in Table 4 and Table 5.

Table A8: The correlation between *municipio* characteristics

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Pop den	1.000							
(2) % urban	0.364	1.000						
(3) % aged 16–65, 2015	0.464	0.641	1.000					
(4) Years of schooling	0.453	0.638	0.807	1.000				
(5) Log earned income	0.344	0.571	0.713	0.790	1.000			
(6) % employed	0.280	0.595	0.658	0.632	0.607	1.000		
(7) Per capita remit., 2019	-0.124	-0.038	-0.230	-0.164	-0.045	-0.149	1.000	
(8) % HH receiving remit., 2015	-0.202	-0.233	-0.346	-0.246	-0.142	-0.298	0.608	1.000

Notes: This table reports the correlation between the *municipio* characteristics used in Table 4 and Table 5.

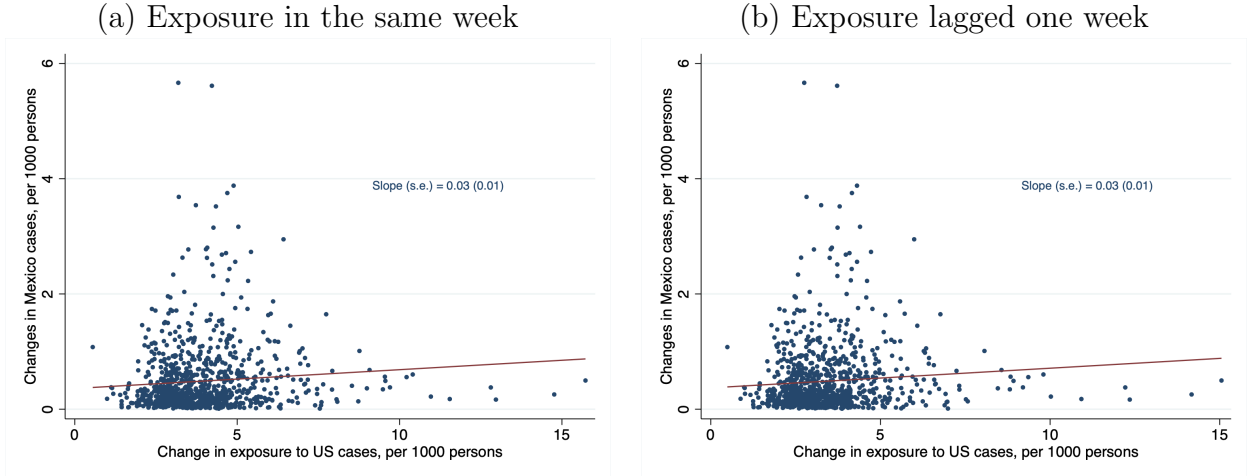
B Additional empirical results

This section outlines several robustness checks to support the validity of our main results presented in section 4. Our main results are robust to: 1) calculating the exposure measures as a weighted average of inverse hyperbolic sine-transformed case counts. 2) including controls for Mexican state-level stay-at-home orders, 3) dropping outlier regions in Mexico, 4) introducing lagged exposure measures, 5) using the exposure measure constructed from Facebook and Unacast data separately instead the principal component exposure measure, 6) flexibly controlling for the local cases and the exposure to U.S. cases, and 7) including Mexican *municipios* with no cases.

B.1 Correlations between the number of cases in Mexico and the exposure to cases in the US

Figure B1 Panel (a) shows the relationship between changes in the per capita cumulative cases in Mexican *municipios* and changes in the exposure to per capita cumulative U.S. cases. The horizontal axis is the change in exposure to U.S. cumulative cases ($exposure_{i21}^{cases} - exposure_{i11}^{cases}$), and the vertical axis is the change in the per capita cumulative cases in Mexico (cum cases p.c._{i21} – cum cases p.c._{i11}). The fitted line has slope of 0.03 and is statistically significant at the 1% level. Panel (b) shows a similar relationship when the exposure to US cases is lagged by one week.

Figure B1: A positive correlation between in per capita cases in Mexico and the exposure to U.S. cases



Note: This figure includes 916 Mexican *municipios* with at least one Covid-19 case in Week 21, and each dot is a *municipio*. Panel (a) shows the cumulative case result, where the horizontal axis is the change in exposure to per capita U.S. cumulative cases from Week 11 to Week 21 ($exposure_{i21}^{cases} - exposure_{i11}^{cases}$), and the vertical axis is the change in the per capita of cumulative cases in a Mexican *municipio* between Week 21 and Week 11 (cum cases p.c._{i21} – cum cases p.c._{i11}). Panel (b) horizontal axis is the one-week-lagged change in the exposure to US case, and the vertical axis is the same as in Panel (a). The mean (s.d.) of the x-axis is 6.1 (0.5), and the mean (s.d.) of the y-axis is 3.9 (1.5) in Panel (a) and 3.4 (1.4) in Panel (b).

Table B1 firms the relationship between the exposure to US cases and the number of Mexican cases in Figure B1 by using the panel of Week 9 to Week 21.

Table B1: Larger exposure to US cases is associated with more cases in Mexico, Week 9 to Week 21

Outcome: Per capita cases in Mexico in current week	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Municipios</i> with cases > 0			All <i>municipios</i>		
Exposure to per capita US cases lagged two weeks	0.027** (0.012)			0.020** (0.008)		
Exposure to per capita US cases lagged one week		0.025** (0.010)			0.018** (0.007)	
Exposure to per capita US cases in current week			0.023** (0.009)			0.016** (0.006)
Constant	0.114*** (0.010)	0.109*** (0.011)	0.104*** (0.013)	0.081*** (0.007)	0.078*** (0.008)	0.075*** (0.009)
Observations	17,394	17,394	17,394	24,440	24,440	24,440
R-squared	0.568	0.568	0.568	0.531	0.531	0.531

Note: Standard errors clustered at the municipio level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table shows the results for the potential disease transmission between the US and Mexico. Week fixed effects and *municipio* fixed effects are included in all columns. Columns (1)–(3) include the *municipios* with at least one Covid-19 case at the end of Week 21, and Columns (4)–(6) include all *municipios*. The mean (s.d.) of Mexican per capita cases in the first four columns is 0.14 (0.36), and the mean (s.d.) of the exposure to U.S. cases is 1.4 (1.7) in the current week, 1.1 (1.5) when lagged week, and 0.8 (1.2) when lagged two weeks. The corresponding numbers for the last four columns are: 0.10 (0.31), 1.4 (1.7), 1.1 (1.5), and 0.8 (0.12).

B.2 Robustness of the main results after using alternative measures of the case controls

In this section, we present several pieces of evidence on the robustness of our results after using alternative measures of cases controls, including (1) using inverse-hyperbolic-sine transformation of the number of cases in the US and in Mexico instead of using per capita cases; (2) flexibly controlling for the number of cases in Mexico; (3) using the number of current-week cases instead of the ones lagged by one week; and (4) adding distance weighted exposure to US cases.

B.2.1 Inverse hyperbolic sine instead of per capita cases

In our main analysis, we measure the severity of the local Covid-19 outbreak in Mexico and in the US using the number of cases per 1000 population. Table B2 uses an alternative measure of the severity, by generating the hyperbolic-sine-transformed number of cases. We use hyperbolic-sine transformation to include places with zero cases, which were common in earlier weeks of the pandemic. The coefficient estimates for the exposure to US social distancing is very similar to the ones in Table 3.

Table B2: Larger exposure to U.S. social distancing led to more social distancing in Mexico, Week 9 to Week 21, robustness to using log cases

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome:								
Mexico social dist.		<i>Municipios</i> with cases > 0				All <i>municipios</i>		
Exposure to US social distancing	0.055*** (0.007)	0.053*** (0.007)	0.047*** (0.007)	0.048*** (0.007)	0.052*** (0.007)	0.051*** (0.006)	0.045*** (0.006)	0.046*** (0.006)
Exposure to U.S. cases, lagged one week		0.004 (0.004)		-0.000 (0.004)		0.002 (0.004)		-0.002 (0.003)
Cumulative cases in <i>municipio</i> , lagged one week			0.021*** (0.001)	0.021*** (0.001)			0.021*** (0.001)	0.021*** (0.001)
Constant	0.213*** (0.000)	0.191*** (0.020)	0.188*** (0.001)	0.189*** (0.019)	0.207*** (0.000)	0.198*** (0.018)	0.186*** (0.001)	0.198*** (0.016)
Observations	11,989	11,989	11,989	11,989	13,865	13,865	13,865	13,865
R-squared	0.914	0.914	0.926	0.926	0.908	0.908	0.921	0.921

Note: Standard errors clustered at the *municipio* level are shown in parentheses. ***p<0.01, ** p<0.05, * p<0.1. This table replicates Table 3 by calculating the exposure-to-US-cases measures as a weighted average of inverse-hyperbolic-sine-transformed case counts and also using the inverse-hyperbolic-sine-transformed cumulative cases in Mexico. Week fixed effects and *municipio* fixed effects are included in all columns. Columns (1)–(4) include the *municipios* with at least one Covid-19 case at the end of Week 21, and Columns (5)–(8) include all *municipios*. The mean (s.d.) of Mexican social distancing in the first four columns is 0.21 (0.15), and the mean (s.d.) of the exposure to U.S. social distancing is -0.01 (1.4). The mean (s.d.) of the exposure to U.S. cases is 5.0 (3.0), and the mean (s.d.) of the per capita cumulative cases in Mexico is 1.2 (1.7). The corresponding numbers for the last four columns are: 0.21 (0.15), -0.01 (1.4), 5.0 (3.0), and 1.0 (1.6).

B.2.2 Flexible functional form for local Mexican cases

Table B3 shows the robustness of the results in Table 3 Columns (4) and (8) by flexibly controlling for the number of cases in Mexico. In Column (1), we add the squared term of the per capita cases in Mexico. Column (2) controls for a dummy for whether there is any local case. Column (3) classify the observations in groups according to the number of local cases, and controls for the group dummy. Columns (4)–(6) replicate the analysis by using all *municipios*. The coefficient estimate for the exposure to US social distancing remains stable across the columns.

Table B3: Results robust to flexibly controlling for Mexican cases

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)
Mexico social dist.	<i>Municipios</i> with cases > 0			All <i>municipios</i>		
Exposure to US social distancing	0.043*** (0.007)	0.049*** (0.007)	0.047*** (0.007)	0.040*** (0.007)	0.046*** (0.007)	0.043*** (0.007)
Exposure to US cases, lagged one week	0.001 (0.001)	0.004** (0.001)	0.004*** (0.001)	0.002 (0.001)	0.004*** (0.001)	0.004*** (0.001)
Cumulative cases in <i>municipio</i> , lagged one week	0.136*** (0.009)			0.141*** (0.009)		
Squared cum. cases in <i>municipio</i> , lagged one week	-0.030*** (0.003)			-0.031*** (0.003)		
Dummy (cumulative case>0), <i>municipio</i> lagged one week		0.016*** (0.002)			0.023*** (0.002)	
Cumulative cases in (0, 100], <i>municipio</i> lagged one week			0.023*** (0.002)			0.028*** (0.002)
Cumulative cases in (100, 1000], <i>municipio</i> lagged one week			0.088*** (0.005)			0.097*** (0.005)
Cumulative cases >1000, <i>municipio</i> lagged one week			0.138*** (0.010)			0.149*** (0.010)
Constant	0.200*** (0.002)	0.201*** (0.002)	0.195*** (0.002)	0.195*** (0.001)	0.194*** (0.002)	0.189*** (0.002)
Observations	11,989	11,989	11,989	13,865	13,865	13,865
R-squared	0.923	0.915	0.920	0.918	0.910	0.915

Note: Standard errors clustered at the municipio level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table replicates Table 3 but uses more flexibly forms of Mexican case controls. Week fixed effects and *municipio* fixed effects are included in all columns. Columns (1)–(4) include the *municipios* with at least one Covid-19 case at the end of Week 21, and Columns (5)–(8) include all *municipios*. In the first four columns, the mean (s.d.) of Mexican social distancing is 0.21 (0.15), of exposure to U.S. social distancing is -0.01 (1.4), of lagged U.S. cases is 1.1 (1.4), of lagged *municipio* cases is 0.1 (0.3), and of the share of *municipios* with at least one case is 0.5 (0.5). The corresponding numbers for the last four columns are 0.21 (0.15), -0.01 (1.4), 1.1 (1.4), 0.1 (0.3), and 0.4 (0.5). In the first four columns, there are 42% of observations with the number of cases in between 0 and 100, 4% of observations in between 100 and 1000, and 0.4% of observations with more than 1000 cases. In the last four columns, the numbers are 37%, 3%, and 0.4%, respectively.

B.2.3 Current-week cases instead of lagged cases

Table B4 replicates Table 3 by controlling for the number of cases in Mexico and exposure to US cases in the current week instead of one-week lags, and the results are very similar.

Table B4: Larger exposure to U.S. social distancing led to more social distancing in Mexico, Week 9 to Week 21, robustness to controlling for current week cases

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome:								
Mexico social dist.	<i>Municipios</i> with cases > 0				All <i>municipios</i>			
Exposure to U.S. social distancing	0.055*** (0.007)	0.050*** (0.008)	0.048*** (0.007)	0.046*** (0.007)	0.052*** (0.007)	0.047*** (0.007)	0.045*** (0.006)	0.042*** (0.007)
Exposure to U.S. cases, current week		0.003** (0.001)		0.002 (0.001)		0.003** (0.001)		0.002 (0.001)
Cumulative cases in <i>municipio</i> , current week			0.058*** (0.007)	0.057*** (0.007)			0.062*** (0.007)	0.061*** (0.007)
Constant	0.213*** (0.000)	0.208*** (0.002)	0.205*** (0.001)	0.202*** (0.002)	0.207*** (0.000)	0.203*** (0.002)	0.200*** (0.001)	0.197*** (0.002)
Observations	11,989	11,989	11,989	11,989	13,865	13,865	13,865	13,865
R-squared	0.914	0.914	0.921	0.921	0.908	0.908	0.916	0.916

Note: Standard errors clustered at the municipio level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table replicates Table 3 but including controls for the current-week case controls. Week fixed effects and *municipio* fixed effects are included in all columns. Columns (1)–(4) include the *municipios* with at least one Covid-19 case at the end of Week 21, and Columns (5)–(8) include all *municipios*. The mean (s.d.) of Mexican social distancing in the first four columns is 0.21 (0.15), and the mean (s.d.) of the exposure to U.S. social distancing is -0.01 (1.4). The mean (s.d.) of the exposure to U.S. cases is 1.4 (1.6), and the mean (s.d.) of the per capita cumulative cases in Mexico is 0.14 (0.34). The corresponding numbers for the last four columns are: 0.21 (0.15), -0.01 (1.4), 1.4 (1.6), and 0.12 (0.32).

B.2.4 Distance weighted cases in addition to migrant-network weighted cases

Table B5 shows the robustness of the results by adding the distance weighted exposure to US cases in addition to the migrant-network-weighted cases. Column (1) replicates Table 3, Column (2) adds the exposure to per capita cases in the US weighted by the inverse of log of the physical distance between the *municipio* and US counties, and Column (3) adds the exposure to US cases by using the inverse of the squared log physical distance. The coefficient estimates for the exposure to US social distancing and the exposure to US migrant-network-weighted cases are very similar across the three columns, and the coefficient estimates for the exposure to US distance-weighted cases are statistically insignificant in Columns (2) and (3).

Table B5: Robustness to adding exposure to US cases with distance weights

VARIABLES	(1) MX mobility decline FB	(2) MX mobility decline FB	(3) MX mobility decline FB
Exposure to US mobility decline, pca	0.0462*** (0.0073)	0.0460*** (0.0072)	0.0460*** (0.0072)
Exposure to US cumulative cases, lagged one week	0.0024* (0.0014)	0.0029** (0.0014)	0.0028** (0.0014)
Cumulative cases in <i>municipio</i> , lagged one week	0.0613*** (0.0111)	0.0614*** (0.0110)	0.0614*** (0.0110)
Exposure to US cases, weighted by $1/\log(\text{distance})$, lagged one week		0.0002 (0.0002)	
Exposure to US cases, weighted by $1/\log(\text{distance})^2$, lagged one week			0.0008 (0.0009)
Constant	0.2037*** (0.0017)	0.1336* (0.0685)	0.1739*** (0.0334)
Observations	11,989	11,989	11,989
R-squared	0.9198	0.9198	0.9198

Note: Standard errors clustered at the municipio level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Week fixed effects and *municipio* fixed effects are included in all columns. Each column replicates the regression in Table 3 Column (4) by including alternative measures of exposure to US cases using distance weights rather than migration-network weights. All columns include *municipios* with at least one Covid-19 case at the end of Week 21. The mean (s.d.) of Mexican social distancing is 0.21 (0.15), and the mean (s.d.) of the exposure to U.S. social distancing is -0.01 (1.4). The mean (s.d.) of the exposure to U.S. cases is 1.4 (1.6), and the mean (s.d.) of the per capita cumulative cases in Mexico is 0.14 (0.34). The mean (s.d.) of the weighted inverse of log distance is 282 (324), and the mean (s.d.) of the weighted inverse of log distance to the power of two is 36 (42).

B.3 Robustness of the main results after controlling for Mexican state-level stay-at-home orders and US state-level stay-at-home orders

Table B6 replicates Table 3 Columns (1)–(4) in our main analysis with an additional control for stay-at-home orders imposed in Mexican states that differ from those imposed by the federal government (as described in Appendix A.7) and exposure to state-level stay-at-home orders in the US. We construct each *municipio*’s exposure to U.S. stay-at-home orders as the share of its migrant network in U.S. states with a stay-at-home order in week t .

$$exposure_{it}^{USorders} = \sum_j \frac{m_{ij}}{\sum_{j'} m_{ij'}} \mathbf{1}(stayhome_{jt}), \quad (6)$$

where $\mathbf{1}(stayhome_{jt})$ is equal to one if state j enacted stay-at-home orders in week t . Both policy measures are lagged one week to allow for the full effect of the policies to take place. The coefficient estimates for the exposure to US mobility declines are nearly identical to those of Table 3, and we find that both the Mexican policy changes and exposure to US policy changes had minimal effects on mobility declines in Mexico, once the main explanatory variables are controlled for.

Table B6: Larger exposure to U.S. social distancing led to more social distancing in Mexico, Week 9 to Week 21, robustness to controlling for policy changes in Mexico and in the US

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome: Mexico social dist.								
Exposure to U.S. social distancing	0.055*** (0.007)	0.050*** (0.008)	0.049*** (0.007)	0.047*** (0.007)	0.055*** (0.007)	0.050*** (0.008)	0.049*** (0.007)	0.047*** (0.007)
Exposure to U.S. cases lagged one week		0.003** (0.001)		0.001 (0.001)		0.004** (0.002)		0.002 (0.001)
Cumulative cases in <i>municipio</i> , lagged one week			(0.011) (0.015)	(0.011) (0.015)			(0.011) (0.015)	(0.011) (0.015)
Mexican state-level stay-at-home orders, lagged one week	-0.006* (0.003)	-0.005 (0.003)	-0.012*** (0.003)	-0.012*** (0.003)	-0.006* (0.003)	-0.004 (0.003)	-0.012*** (0.003)	-0.012*** (0.003)
Exposure to U.S. state-level stay-at-home orders, lagged one week					-0.001 (0.007)	-0.004 (0.007)	-0.004 (0.007)	-0.005 (0.007)
Constant	0.213*** (0.001)	0.210*** (0.002)	0.208*** (0.001)	0.206*** (0.002)	0.214*** (0.003)	0.211*** (0.004)	0.210*** (0.004)	0.209*** (0.004)
Observations	11,989	11,989	11,989	11,989	11,989	11,989	11,989	11,989
R-squared	0.913	0.913	0.916	0.916	0.913	0.913	0.916	0.916

Note: Standard errors clustered at the *municipio* level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table replicates Table 3 Columns (1)–(4) by including controls for Mexican state-level stay-at-home order and the exposure to US state-level stay-at-home orders in the previous week. Week fixed effects and *municipio* fixed effects are included in all columns. All columns include *municipios* with at least one Covid-19 case at the end of Week 21. Columns (1)–(4) control for the Mexican orders, and Columns (5)–(8) include both Mexican orders and exposure to US orders. The mean (s.d.) of Mexican social distancing is 0.21 (0.15), of exposure to U.S. social distancing is 0.01 (1.4), of lagged U.S. cases is 1.1 (1.4), and of lagged *municipio* cases is 0.1 (0.3). The mean (s.d.) of Mexican orders is 0.16 (0.37), and the mean (s.d.) of the exposure to US orders is 0.46 (0.37).

B.4 Robustness of the main results using alternative measures of mobility

In this section, we present several pieces of evidence on the robustness of our results after using alternative measures for mobility, including (1) using Facebook and Unacast data directly to measure the US mobility change, instead of the principal component; (2) rescaling the Facebook measure for US mobility; and (3) using the stay-put metric from Facebook to measure mobility decline instead of using the change in the number of tiles visited.

B.4.1 Facebook and Unacast measures separately instead of principal component

Table B7 replicate Table 3 Columns (1)–(4) in our main analysis, but separately use the exposure to U.S. social distancing constructed with the Facebook and Unacast data, respectively. The table shows that the results are robust to constructing the exposure to social distancing practices in the U.S. separately for each dataset as opposed to constructing it as the principal component of the two social distancing measures together.

Table B7: Larger exposure to U.S. social distancing led to more social distancing in Mexico, Week 9 to Week 21, Facebook and Unacast measure separately as the outcome

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Facebook measure				Unacast measure			
Exposure to U.S. social distancing, Facebook	0.377*** (0.064)	0.317*** (0.066)	0.346*** (0.062)	0.304*** (0.064)				
Exposure to U.S. social distancing, Unacast					0.462*** (0.055)	0.427*** (0.059)	0.413*** (0.053)	0.392*** (0.056)
Exposure to U.S. cases, lagged one week		0.006*** (0.002)		0.004*** (0.001)		0.003** (0.001)		0.002 (0.001)
Cumulative cases in <i>municipio</i> lagged one week			0.063*** (0.015)	0.062*** (0.015)			0.061*** (0.015)	0.061*** (0.015)
Constant	0.124*** (0.015)	0.132*** (0.015)	0.125*** (0.014)	0.131*** (0.015)	0.081*** (0.016)	0.088*** (0.016)	0.089*** (0.015)	0.093*** (0.015)
Observations	11,989	11,989	11,989	11,989	11,989	11,989	11,989	11,989
R-squared	0.913	0.913	0.919	0.919	0.914	0.914	0.920	0.920

Note: Standard errors clustered at the municipio level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table replicates Table 3 by using the exposure to U.S. social distancing that is measured using the Facebook data in Columns (1)–(4) and the exposure to U.S. social distancing that is measured using the Unacast data in Columns (5)–(8). Week fixed effects and *Municipio* fixed effects are controlled in all columns. All columns include the *municipios* with at least one Covid-19 case at the end of Week 21. The mean (s.d.) of Mexican social distancing is 0.21 (0.15), of lagged U.S. cases is 1.1 (1.4), and of lagged *municipio* cases is 0.1 (0.3). The mean (s.d.) of the exposure to US mobility declines using Facebook measure is 0.23 (0.14) and of 0.28 (0.16) for the measure using Unacast data.

B.4.2 Rescaled Facebook measure

Since the Facebook data for the United States do not cover all U.S. counties, it is possible that counties covered in the MCAS data are not included in the Facebook data. When this is the case, the shares in equation (1) do not sum to 1. Out of the 800,811 migrants in the MCAS data, 1,865 are in counties not covered by the Facebook data (about 0.2%). We construct the share of migrants in MCAS data covered in Facebook counties for each *municipio*, and rescale the exposure to U.S. social distancing using Facebook data to make the shares to sum to 1. Then we construct the exposure to U.S. social distancing using the principal component of the rescaled Facebook exposure and the Unacast measure.

Table B8 presents the results using the rescaled measures, where Columns (1)–(4) replicate Table 3 Columns (1)–(4) with the principal component exposure measure, and Columns (5)–(8) replicate Table B7 Columns (1)–(4) with the Facebook exposure measure. The results are very similar. This is not surprising since in the sample used in Table B8, the mean (s.d.) of the share of migrants in counties covered by the Facebook data is 0.997 (0.009), with a minimum of 0.88 and the maximum of 1.

Table B8: Results robust to using rescaled Facebook exposure measures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome: Mexico social dist.	Principal component				Only Facebook measure			
Exposure to U.S. social distancing	0.055*** (0.007)	0.050*** (0.008)	0.050*** (0.007)	0.046*** (0.007)				
Exposure to U.S. social distancing Facebook					0.378*** (0.064)	0.318*** (0.066)	0.347*** (0.062)	0.304*** (0.064)
Exposure to U.S. cases, lagged one week		0.004** (0.001)		0.002* (0.001)		0.006*** (0.002)		0.004*** (0.001)
Cumulative cases in <i>municipio</i> , lagged one week			0.062*** (0.011)	0.061*** (0.011)			0.063*** (0.011)	0.062*** (0.011)
Constant	0.213*** (0.000)	0.208*** (0.002)	0.206*** (0.001)	0.204*** (0.002)	0.124*** (0.015)	0.132*** (0.015)	0.125*** (0.014)	0.130*** (0.015)
Observations	11,989	11,989	11,989	11,989	11,989	11,989	11,989	11,989
R-squared	0.914	0.914	0.920	0.920	0.913	0.913	0.919	0.919

Note: Standard errors clustered at the municipio level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. This table replicates Table 3 Columns (1)–(4) and Table B7 (1)–(4) by using the exposure to U.S. social distancing using the rescaled Facebook exposure measure. Since the Facebook data in the U.S. does not cover all counties, the migrant shares in the migration network data does not sum up to 1. In the sample used in this table, the mean (s.d.) of the share of migrants in counties covered by the Facebook data is 0.997 (0.009), with a minimum of 0.88 and the maximum of 1. Here we rescale the exposure to Facebook U.S. social distancing such that the migrant shares sum up to 1. Columns (1)–(4) use the principal component of the rescaled Facebook measure and the Unacast measure, and Columns (5)–(8) use the rescale Facebook measure. Week fixed effects and *municipio* fixed effects are controlled in all columns. The sample is the Week-9-to-21 panel of *municipios* with at least one Covid-19 case by the end of Week 21. The mean (s.d.) of Mexican social distancing is 0.21 (0.15), of lagged U.S. cases is 1.1 (1.4), and of lagged *municipio* cases is 0.1 (0.3). The mean (s.d.) of the exposure to US mobility declines using principal component measure is -0.01 (1.4) and of 0.23 (0.14) for the measure using Facebook data.

B.4.3 Alternative Facebook measure: stay put

Our main measure for mobility decline from Facebook is the percentage change in the number of 0.6 km by 0.6 km tiles visited, and it is similar in spirit with the Unacast measure, which measures the percentage change in distance travelled. Facebook also provides an alternative measure for mobility decline, called "stay-put metric", which is the percentage change in the share of eligible people who are only observed in a single 0.6 km by 0.6 km tile during the course of a day.⁴² In Table B9, we show the robustness of our main results using the stay-put measure instead of the mobility decline measure from Facebook. Columns (1)–(4) replicate Table 3 Columns (1)–(4), and Columns (5)–(8) replicate Table B7 Columns (1)–(4), but use the corresponding stay-put metric instead of the change in tiles visited, both in the exposure to US social distancing, and in the Mexican social distancing measure. Results are similar to the ones in the main analysis.

Table B9: Results robust to using alternative measure for mobility reduction from Facebook (stay-put)

Outcome: Mexico social dist. Facebook stay-put	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Principal component, stay-put				Only Facebook measure, stay-put			
Exposure to U.S. social distancing	0.021*** (0.004)	0.019*** (0.004)	0.018*** (0.003)	0.017*** (0.004)				
Exposure to U.S. social distancing Facebook					0.216*** (0.060)	0.177*** (0.060)	0.194*** (0.058)	0.173*** (0.059)
Exposure to U.S. cases, lagged one week		0.002** (0.001)		0.001 (0.001)		0.003*** (0.001)		0.001** (0.001)
Cumulative cases in <i>municipio</i> , lagged one week			0.045*** (0.008)	0.045*** (0.008)			0.046*** (0.008)	0.045*** (0.008)
Constant	0.244*** (0.000)	0.242*** (0.001)	0.239*** (0.001)	0.239*** (0.001)	0.192*** (0.014)	0.199*** (0.014)	0.193*** (0.014)	0.196*** (0.014)
Observations	11,989	11,989	11,989	11,989	11,989	11,989	11,989	11,989
R-squared	0.890	0.890	0.903	0.903	0.889	0.889	0.902	0.903

Note: Standard errors clustered at the municipio level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. This table replicates Table 3 Columns (1)–(4) and Table B7 (1)–(4) by using the exposure to U.S. social distancing using the Facebook stay-put measure, and also using the stay-put metric to measure the decline in Mexican mobility. Columns (1)–(4) use the principal component of the Facebook stay-put measure and the Unacast measure, and Columns (5)–(8) use the Facebook stay-put measure. Week fixed effects and *municipio* fixed effects are controlled in all columns. The sample is the Week-9-to-21 panel of *municipios* with at least one Covid-19 case by the end of Week 21. The mean (s.d.) of Mexican social distancing is 0.24 (0.07), of lagged U.S. cases is 1.1 (1.4), and of lagged *municipio* cases is 0.1 (0.3). The mean (s.d.) of the exposure to US mobility declines using principal component measure is -0.02 (1.4) and of 0.24 (0.06) for the measure using Facebook data.

⁴²Source: <https://dataforgood.facebook.com/dfg/tools/movement-range-maps>

B.5 Robustness of the main results after controlling for additional socio-economic conditions

In this section, we present several pieces of evidence on the robustness of our results after flexibly controlling for additional *municipio* characteristics, including (1) adding all major characteristics in one regression; (2) using alternative measures for out-migration intensity; and (3) using the share of jobs facilitating work from home.

B.5.1 All major characteristics in one regression

Table B10 replicates table 4 by including all the interaction of a *municipio* characteristic related to the migrant sorting hypothesis (Columns 1–6) with week fixed effects in the same regression. The coefficient estimates for the exposure to U.S. social distancing is smaller, but very similar to those in Table 4.

Table B10: Flexibly controls for socio-economic conditions, including all the controls in one specification

Outcome: Mexico social dist.	(1) pop den	(2) %urban	(3) % age 16-65	(4) Years of sch.	(5) Log income	(6) % employed
Exposure to U.S. social distancing	0.035*** (0.007)					
Week 10 interaction	0.001** (0.001)	-0.002 (0.009)	-0.040 (0.081)	0.002 (0.002)	0.009 (0.008)	0.021 (0.033)
Week 11 interaction	0.002*** (0.001)	0.018* (0.010)	-0.155 (0.106)	-0.002 (0.003)	0.041*** (0.012)	0.102** (0.042)
Week 12 interaction	0.000 (0.001)	0.005 (0.013)	0.075 (0.126)	0.009** (0.004)	0.048*** (0.017)	0.205*** (0.047)
Week 13 interaction	0.003*** (0.001)	-0.007 (0.014)	0.418*** (0.119)	0.012*** (0.003)	0.012 (0.013)	0.084* (0.048)
Week 14 interaction	0.005*** (0.001)	-0.009 (0.016)	0.434*** (0.132)	0.014*** (0.003)	-0.005 (0.013)	0.138*** (0.050)
Week 15 interaction	0.005*** (0.001)	-0.007 (0.015)	0.385*** (0.137)	0.015*** (0.004)	0.011 (0.014)	0.149*** (0.054)
Week 16 interaction	0.004*** (0.001)	-0.003 (0.015)	0.361** (0.146)	0.021*** (0.004)	-0.014 (0.015)	0.093* (0.056)
Week 17 interaction	0.005*** (0.001)	-0.010 (0.015)	0.492*** (0.151)	0.021*** (0.004)	-0.012 (0.016)	0.031 (0.055)
Week 18 interaction	0.008*** (0.001)	-0.021 (0.017)	0.503*** (0.160)	0.020*** (0.004)	-0.018 (0.017)	0.039 (0.059)
Week 19 interaction	0.008*** (0.001)	-0.042** (0.018)	1.009*** (0.175)	0.022*** (0.005)	-0.041** (0.018)	0.001 (0.065)
Week 20 interaction	0.008*** (0.001)	-0.035** (0.017)	1.103*** (0.167)	0.021*** (0.004)	-0.050*** (0.018)	0.012 (0.061)
Week 21 interaction	0.008*** (0.001)	-0.031* (0.018)	1.170*** (0.166)	0.020*** (0.005)	-0.067*** (0.019)	-0.031 (0.066)
Constant						-0.151* (0.078)
Observations						11,951
R-squared						0.931

Note: Standard errors clustered at the municipio level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Week fixed effects and *municipio* fixed effects are controlled in all columns. Each column replicates the regression in Table 4 but including all the interaction of major *municipio* characteristics with week fixed effects in the same regression. The sample is the Week-9-to-21 panel of *municipios* with at least one Covid-19 case by the end of Week 21.

B.5.2 Additional measures on out-migration intensity

Table B11 replicates table 4 Columns (7) and (8), but uses alternative measures of out-migration intensity, finding minimal effects on our main coefficient of interest. Data used to measure the emigration intensity is from the population census. "Excluding 0" means that the measure is constructed using households with at least one migrant, and "including 0" means that the measure is constructed using all households.

Table B11: Robust to flexibly control for migrant related variables

Outcome:	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Mexico social distancing	% households with remittance 2010	% of migrants in households, 2010 including 0	excluding 0	% remittance of total household income, 2000 including 0	excluding 0	Log emigration 2005 to 2010	1995 to 2000
Exposure to US soc. distancing	0.045*** (0.007)	0.043*** (0.007)	0.056*** (0.007)	0.047*** (0.007)	0.051*** (0.007)	0.052*** (0.007)	0.049*** (0.007)
Week 10 Interaction	-0.153*** (0.049)	-0.365*** (0.099)	0.023 (0.027)	-0.068* (0.038)	-0.027* (0.014)	-0.002 (0.001)	-0.000 (0.001)
Week 11 Interaction	-0.127** (0.063)	-0.261* (0.135)	0.083** (0.036)	-0.027 (0.054)	-0.041** (0.016)	0.001 (0.001)	0.003*** (0.001)
Week 12 Interaction	-0.417*** (0.077)	-1.227*** (0.207)	0.269*** (0.048)	-0.278*** (0.057)	-0.154*** (0.026)	0.001 (0.002)	0.005*** (0.002)
Week 13 Interaction	-0.554*** (0.069)	-1.387*** (0.206)	0.156*** (0.051)	-0.372*** (0.054)	-0.158*** (0.026)	0.000 (0.002)	0.002 (0.002)
Week 14 Interaction	-0.653*** (0.074)	-1.641*** (0.228)	0.159*** (0.056)	-0.457*** (0.058)	-0.176*** (0.030)	-0.000 (0.002)	0.001 (0.002)
Week 15 Interaction	-0.674*** (0.077)	-1.870*** (0.240)	0.178*** (0.060)	-0.443*** (0.061)	-0.172*** (0.031)	0.001 (0.002)	0.002 (0.002)
Week 16 Interaction	-0.767*** (0.080)	-2.110*** (0.247)	0.191*** (0.061)	-0.499*** (0.067)	-0.174*** (0.029)	-0.001 (0.002)	-0.001 (0.002)
Week 17 Interaction	-0.821*** (0.080)	-2.239*** (0.246)	0.142** (0.060)	-0.535*** (0.069)	-0.176*** (0.032)	-0.003 (0.002)	-0.002 (0.002)
Week 18 Interaction	-0.812*** (0.082)	-2.149*** (0.256)	0.059 (0.062)	-0.496*** (0.076)	-0.162*** (0.032)	-0.003 (0.002)	-0.003 (0.002)
Week 19 Interaction	-1.090*** (0.096)	-2.613*** (0.311)	0.017 (0.071)	-0.674*** (0.088)	-0.191*** (0.036)	-0.006** (0.002)	-0.006** (0.002)
Week 20 Interaction	-1.122*** (0.094)	-2.665*** (0.302)	0.037 (0.070)	-0.697*** (0.084)	-0.190*** (0.034)	-0.006** (0.002)	-0.006*** (0.002)
Week 21 Interaction	-1.169*** (0.101)	-2.726*** (0.311)	-0.005 (0.070)	-0.733*** (0.087)	-0.186*** (0.036)	-0.007*** (0.002)	-0.007*** (0.002)
Constant	0.230*** (0.002)	0.236*** (0.003)	0.183*** (0.013)	0.228*** (0.002)	0.237*** (0.004)	0.221*** (0.009)	0.218*** (0.009)
Mean (s.d.) of the var for interaction	0.03 (0.03)	0.01 (0.01)	0.28 (0.05)	0.04 (0.05)	0.18 (0.11)	5.6 (1.5)	5.9 (1.6)
Observations	11,989	11,989	11,899	11,989	11,747	11,743	11,674
R-squared	0.920	0.920	0.915	0.919	0.917	0.915	0.916

Note: Standard errors clustered at the municipio level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Each column replicates the regressions in Column (1) of Table 4 Columns (7)–(8) by using a different measure of emigration intensity. The sample is the Week-9-to-21 panel of *municipios* with at least one Covid-19 case by the end of Week 21. "Excluding 0" means that the measure is constructed using households with at least one migrant, and "including 0" means that the measure is constructed using all households.

B.5.3 Share of jobs facilitating work from home

Table B12 controls flexibly for the share of jobs facilitating work from home by using the interaction of the share with week fixed effects, using information from Table A7. The coefficient estimates for the exposure to U.S. social distancing are very similar to those in Table 3, indicating that migrants are either not sorting into U.S. regions with similar ability to work from home, or that sorting is not influencing the effects of U.S. social distancing on Mexican social distancing.

Table B12: Results robust to flexibly controlling for the share of people whose job is workable at home

Outcome:	(1)	(2)	(3)	(4)
Mexico social distancing	Matching method 1		Matching method 2	
	Unweighted	Weighted	Unweighted	Weighted
Exposure to US soc. distancing	0.043*** (0.007)	0.042*** (0.007)	0.042*** (0.007)	0.041*** (0.007)
Week 10 Interaction	0.070** (0.034)	0.065** (0.030)	0.059* (0.031)	0.056* (0.029)
Week 11 Interaction	0.251*** (0.045)	0.302*** (0.040)	0.228*** (0.041)	0.276*** (0.038)
Week 12 Interaction	0.735*** (0.059)	0.721*** (0.053)	0.680*** (0.054)	0.676*** (0.049)
Week 13 Interaction	0.704*** (0.059)	0.652*** (0.053)	0.652*** (0.054)	0.614*** (0.049)
Week 14 Interaction	0.731*** (0.063)	0.680*** (0.056)	0.673*** (0.058)	0.638*** (0.052)
Week 15 Interaction	0.816*** (0.066)	0.777*** (0.059)	0.741*** (0.060)	0.720*** (0.056)
Week 16 Interaction	0.738*** (0.066)	0.679*** (0.059)	0.669*** (0.060)	0.630*** (0.055)
Week 17 Interaction	0.822*** (0.067)	0.737*** (0.059)	0.746*** (0.061)	0.685*** (0.056)
Week 18 Interaction	0.794*** (0.068)	0.715*** (0.061)	0.722*** (0.062)	0.666*** (0.057)
Week 19 Interaction	0.912*** (0.076)	0.805*** (0.067)	0.839*** (0.069)	0.758*** (0.063)
Week 20 Interaction	0.876*** (0.074)	0.787*** (0.066)	0.807*** (0.068)	0.740*** (0.063)
Week 21 Interaction	0.800*** (0.075)	0.683*** (0.068)	0.736*** (0.069)	0.644*** (0.064)
Constant	0.049*** (0.013)	0.021 (0.015)	0.051*** (0.013)	0.024 (0.015)
Mean (s.d.) of the var for interaction	0.26 (0.04)	0.32 (0.05)	0.28 (0.05)	0.34 (0.05)
Observations	11,951	11,951	11,951	11,951
R-squared	0.921	0.921	0.921	0.921

Note: Standard errors clustered at the municipio level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Municipio* fixed effects are controlled in all Columns. The workable-at-home measure is the mean of workable at home job shares using the industry code of working age population (aged 16–65) in a *municipio* and the industry-level workable at home job shares. The workable-at-home share for “Wholesale and retail trade” in Mexico is calculated as the mean of the workable-at-home shares for “Wholesale trade” and “Retail trade” in the U.S. (Table A7). In Columns (1)–(2), “Other services” and “Private household services” in Mexico are matched to “Other services (except public administration)” in the U.S., while in Columns (3)–(4), “Other services” and “Private household services” in Mexico are matched to “Other services (except public administration)”, “Professional, scientific, and technical services”, “Management of companies and enterprises”, “Information”, “Administrative and support and waste management and remediation services”, “Arts, entertainment, and recreation” in the U.S. (all unmatched service items in Table A7). Columns (1) and (3) use the unweighted shares, and Columns (2) and (4) use the weighted by wage shares.

B.6 Additional heterogeneous effects

In this section, we present addition evidence on heterogeneous effects, including (1) using the share of jobs facilitating work from home; and (2) using the average distance to US destinations.

B.6.1 Workability at home

Table B13 shows the heterogeneous effect of the exposure to U.S. social distancing with respect to the workable-at-home shares. We find that Mexican regions with higher workable-at-home job shares responding more strongly to U.S. social distancing. This is consistent with the heterogeneous effects found in Table 5, since as shown in Dingel and Neiman (2020), higher income is associated with higher shares of workable-at-home jobs (at the country level).

Table B13: *Municipios* with higher workable-at-home shares respond more strongly to U.S. social distancing

Outcome: Mexico social dist.	(1)	(2)	(3)	(4)
	Matching method 1 Unweighted	Matching method 1 Weighted	Matching method 2 Unweighted	Matching method 2 Weighted
Exposure to U.S. social distancing	0.002 (0.008)	-0.007 (0.008)	0.001 (0.008)	-0.007 (0.008)
Interaction with workable at home shares	0.181*** (0.013)	0.166*** (0.012)	0.166*** (0.012)	0.156*** (0.011)
Constant	0.213*** (0.000)	0.213*** (0.000)	0.212*** (0.000)	0.212*** (0.000)
Mean (s.d.) of workable at home shares	0.26 (0.04)	0.33 (0.05)	0.28 (0.05)	0.34 (0.05)
$\hat{\delta}$	15%	17%	17%	9%
Observations	11,951	11,951	11,951	11,951
R-squared	0.919	0.919	0.919	0.919

Note: Standard errors clustered at the municipio level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Week fixed effects and *municipio* fixed effects are included in all columns. The sample is the Week-9-to-21 panel of *municipios* with at least one case in Week 21. Each column replicates the regressions in Column (1) of Table 3 and adds the interaction of a *municipio*'s workable-at-home job share. Similar as in Table B12, Columns (1) and (2) match "Other services" and "Private household services" in Mexico to "Other services (except public administration)" in the U.S., while Columns (3) and (4) match these two Mexican industries to the average of the unmatched service industries in Table A7 Panel B. Columns (1) and (3) use the unweighted shares, and Columns (2) and (4) use the weighted by wage shares.

B.6.2 Average distance to U.S. destinations

Table B14 examines heterogeneity in the effect of US social distancing on Mexican mobility based on the average distance to destination locations associated with each source *municipio*. The interaction terms are negative but small.

Table B14: Heterogeneous effect w.r.t. the migrant network weighted distance

Outcome: Mexico social distancing	(1)	(2)
Exposure to U.S. social distancing	0.064*** (0.008)	0.054*** (0.008)
Migr network weighted distance, in 1000 kilometerst Interacted with exposure to us mobility decline	-0.005*** (0.001)	
Migr network weighted log distance, in 1000 kilometers Interacted with exposure to us mobility decline		-0.006*** (0.001)
Exposure to U.S. cases, lagged one week	0.002* (0.001)	0.003* (0.001)
Cumulative cases in <i>municipio</i> , lagged one week	0.061*** (0.011)	0.061*** (0.011)
Constant	0.204*** (0.002)	0.204*** (0.002)
Mean (s.d.) of the var for interaction	2.2 (0.6)	0.6 (0.5)
Observations	11,989	11,989
R-squared	0.920	0.920

Note: Standard errors clustered at the *municipio* level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Week fixed effects and *municipio* fixed effects are included in all columns. Each column replicates the regression in Table 3 Column (4) and adds interactions of the average distance to destination locations associated with each source *municipio* with the exposure to U.S. social distancing. The sample is the Week-9-to-21 panel of *municipios* with at least one case in Week 21. The mean (s.d.) of the migrant weighted distance is 2.2 (0.6), and of the migrant weighted log distance is 0.6 (0.5).

B.7 Robustness of the main results when including all municipios

Table B15 replicates Table 4, but includes *municipios* with no cases. The results are similar in magnitude and significance to those in our main analysis, indicating that dropping *municipios* with no cases does not substantially affect the results.

Table B15: The results in Table 4 hold when all municipios are included

Variable for interaction	(1) population density	(2) % urban	(3) % age 16–65	(4) years education	(5) log income	(6) % employed capita, 2019	(7) remit. per	(8) % hh remit. > 0, 2015
Exposure to US soc. distancing	0.043*** (0.007)	0.042*** (0.007)	0.041*** (0.006)	0.039*** (0.007)	0.054*** (0.007)	0.042*** (0.006)	0.039*** (0.006)	0.040*** (0.006)
Week 10 Interaction	0.002*** (0.000)	0.015** (0.006)	0.131*** (0.040)	0.004*** (0.001)	0.018*** (0.004)	0.064*** (0.024)	-0.009*** (0.002)	-0.068 *** (0.026)
Week 11 Interaction	0.005*** (0.001)	0.055*** (0.006)	0.409*** (0.051)	0.011*** (0.001)	0.050*** (0.006)	0.175*** (0.034)	-0.006*** (0.003)	-0.101** (0.027)
Week 12 Interaction	0.010*** (0.001)	0.106*** (0.009)	1.029*** (0.062)	0.029*** (0.002)	0.111*** (0.007)	0.425*** (0.037)	-0.017*** (0.004)	-0.189 *** (0.033)
Week 13 Interaction	0.013*** (0.001)	0.090*** (0.009)	1.049*** (0.059)	0.027*** (0.002)	0.089*** (0.007)	0.356*** (0.034)	-0.031*** (0.004)	-0.248*** (0.031)
Week 14 Interaction	0.014*** (0.001)	0.096*** (0.009)	1.120*** (0.064)	0.028*** (0.002)	0.088*** (0.007)	0.397*** (0.034)	-0.041*** (0.004)	-0.306 *** (0.034)
Week 15 Interaction	0.016*** (0.001)	0.110*** (0.009)	1.247*** (0.067)	0.032*** (0.002)	0.105*** (0.008)	0.429*** (0.040)	-0.044*** (0.004)	-0.340*** (0.035)
Week 16 Interaction	0.015*** (0.001)	0.099*** (0.009)	1.151*** (0.069)	0.031*** (0.002)	0.091*** (0.008)	0.381*** (0.037)	-0.051*** (0.004)	-0.358*** (0.035)
Week 17 Interaction	0.016*** (0.001)	0.099*** (0.009)	1.205*** (0.070)	0.032*** (0.002)	0.094*** (0.007)	0.367*** (0.037)	-0.054*** (0.004)	-0.381*** (0.037)
Week 18 Interaction	0.018*** (0.001)	0.088*** (0.010)	1.155*** (0.074)	0.030*** (0.002)	0.086*** (0.008)	0.334*** (0.038)	-0.054*** (0.005)	-0.386*** (0.038)
Week 19 Interaction	0.020*** (0.002)	0.097*** (0.011)	1.434*** (0.079)	0.035*** (0.002)	0.091*** (0.009)	0.385*** (0.043)	-0.069*** (0.006)	-0.508*** (0.043)
Week 20 Interaction	0.020*** (0.002)	0.100*** (0.010)	1.470*** (0.076)	0.035*** (0.002)	0.090*** (0.009)	0.407*** (0.044)	-0.072*** (0.005)	-0.504*** (0.041)
Week 21 Interaction	0.020*** (0.002)	0.091*** (0.011)	1.374*** (0.078)	0.032*** (0.002)	0.075*** (0.009)	0.361*** (0.042)	-0.074*** (0.006)	-0.523*** (0.042)
Constant	0.201*** (0.001)	0.161*** (0.004)	-0.401*** (0.033)	-0.007 (0.012)	-0.433*** (0.050)	0.046*** (0.016)	0.225*** (0.001)	0.248 *** (0.004)
Observations	13,865	13,865	13,865	13,827	13,827	13,865	13,865	13,865
R-squared	0.914	0.912	0.920	0.919	0.914	0.913	0.916	0.914

Note: Standard errors clustered at the municipio level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. *Municipio* fixed effects and week fixed effects are controlled in all columns. Each column replicates the regression in Table 4 by using all *municipios*. Week 9 is the baseline week.

Table B16 replicates Table 5, evaluating heterogeneity in the effects of exposure to U.S. social distancing based on the characteristics of Mexican *municipios*, but includes *municipios* with no cases. The results are similar in magnitude and significance to those in our main analysis, indicating that dropping *municipios* with no cases does not substantially affect the results.

Table B16: The results in Table 5 hold when all *municipios* are included

Outcome: Mexico social dist.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Exposure to U.S. social distancing	0.046*** (0.007)	0.032*** (0.007)	-0.116*** (0.011)	-0.014* (0.008)	-0.124*** (0.015)	-0.002 (0.008)	0.054*** (0.006)	0.049*** (0.007)
Interact: population density	0.003*** (0.000)							
Interact: share urban		0.022*** (0.002)						
Interact: aged 16-65 share			0.263*** (0.013)					
Interact: yrs of schooling				0.007*** (0.000)				
Interact: log income					0.021*** (0.002)			
Interact: % employed						0.090*** (0.008)		
Interact: pc. remit 2019							-0.009*** (0.001)	
Interact:% hh remit 2015								-0.065*** (0.007)
Constant	0.207*** (0.000)	0.207*** (0.000)	0.207*** (0.000)	0.207*** (0.000)	0.208*** (0.000)	0.207*** (0.000)	0.207*** (0.000)	0.207*** (0.000)
Mean (s.d.) of the interaction	0.51 (1.72)	0.59 (0.26)	0.62 (0.03)	8.5 (1.3)	8.4 (0.35)	0.51 (0.08)	0.43 (0.53)	0.14 (0.07)
$\hat{\delta}$	11%	13%	17%	20%	16%	16%	-11%	-10%
Observations	13,865	13,865	13,865	13,827	13,827	13,865	13,865	13,865
R-squared	0.911	0.911	0.915	0.915	0.913	0.912	0.910	0.910

Note: Standard errors clustered at the municipio level are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Week fixed effects and *municipio* fixed effects are included in all columns. Each column replicates the regression in Table 5 with all *municipios*.

Table B17 replicates Table 6, evaluating heterogeneity in the effects of exposure to U.S. social distancing based on the characteristics of Mexican *municipios*, but includes *municipios* with no cases. The results are similar in magnitude and significance to those in our main analysis, indicating that dropping *municipios* with no cases does not substantially affect the results.

Table B17: Results in Table 6 hold when all *municipios* are included

Outcome: Mexico soc dist.	(1)	(2)	(3)	(4)	(5)	(6)
Exposure to U.S. social distancing	0.044*** (0.007)	0.048*** (0.007)	0.044 (0.030)	0.078*** (0.025)	0.057 (0.078)	0.086 (0.072)
Interact: % Hispanic	0.023*** (0.007)					
Interact: % Mexican		0.026*** (0.007)				
Interact: Hispanic education			0.001 (0.003)			
Interact: education				-0.002 (0.002)		
Interact: log Hispanic income					-0.000 (0.007)	
Interact: log income						-0.003 (0.007)
Constant	0.207*** (0.000)	0.207*** (0.000)	0.207*** (0.000)	0.207*** (0.000)	0.207*** (0.000)	0.207*** (0.000)
Mean (s.d.) of the interaction	0.30 (0.08)	0.23 (0.08)	10.3 (0.22)	13.0 (0.26)	10.9 (0.07)	11.2 (0.08)
$\hat{\delta}$	3.6%	3.9%	0.4%	1%	0%	-0.5%
Observations	13,865	13,865	13,865	13,865	13,865	13,865
R-squared	0.908	0.908	0.908	0.908	0.908	0.908

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Week fixed effects and *municipio* fixed effects are included in all columns. Each column replicates the regression in Table 6 by using all *municipios*.

Table B18 replicates Table 3 Columns (1) and (2) using the subset of *municipios* with zero cases throughout the sample period. The results are much smaller than in the sample of *municipios* with strictly positive case counts and are statistically indistinguishable from zero once the exposure to US cases is controlled, confirming that social distancing is unlikely to response to information from the US in a substantial way if there are no local cases.

Table B18: *Municipios* with zero cases throughout the sample period do not show strong learning patterns

Outcome:	(1)	(2)
Mexican social distancing		
Exposure to US social distancing	0.025* (0.015)	0.018 (0.015)
Exposure to US cumulative cases, lagged one week		0.005 (0.004)
Constant	0.174*** (0.000)	0.169*** (0.004)
Observations	1,876	1,876
R-squared	0.877	0.877

Note: Standard errors clustered at the municipio level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Week fixed effects and *municipio* fixed effects are included in all columns. Each column replicates the regression in Table 3 Columns (1) and (2) and use the *municipios* with zero cases at the end of Week 21. The mean (s.d.) of Mexican social distancing is 0.17 (0.13), of the exposure to US social distancing is -0.02 (1.4), and of exposure to US cases is 1.0 (1.3).

B.8 Dynamics of the main results

In this section, we investigate the dynamics of the results by 1) using lagged exposure to US social distancing and 2) running week-by-week regressions to investigate the effect of US social distancing over time.

B.8.1 Lagged exposure to US social distancing

Table B19 investigates the dynamics in the main effect by including contemporaneous and lagged exposure to US social distancing. We can see that contemporaneous exposure to US social distancing has a larger impact on Mexican social distancing.

Table B19: Larger exposure to U.S. social distancing led to more social distancing in Mexico, Week 9 to Week 21, using lagged exposure to US mobility decline

Outcome: Mexico social dist.	(1)	(2)	(3)	(4)	(5)	(6)
Exposure to U.S. social distancing	0.035*** (0.007)			0.027*** (0.007)	0.030*** (0.006)	0.036*** (0.007)
Exposure to U.S. social distancing, lagged one week		0.025*** (0.007)		0.012* (0.007)		-0.010* (0.006)
Exposure to U.S. social distancing, lagged two week			0.022*** (0.006)		0.017*** (0.006)	0.022*** (0.006)
Exposure to U.S. cases, lagged one week	0.006*** (0.001)	0.006*** (0.001)	0.005*** (0.001)	0.005*** (0.001)	0.004*** (0.001)	0.004*** (0.001)
Cumulative cases in <i>municipio</i> , lagged one week	0.051*** (0.007)	0.051*** (0.007)	0.051*** (0.007)	0.051*** (0.007)	0.051*** (0.007)	0.051*** (0.007)
Constant	0.222*** (0.003)	0.230*** (0.002)	0.237*** (0.002)	0.223*** (0.003)	0.225*** (0.003)	0.225*** (0.003)
Observations	10,172	10,172	10,172	10,172	10,172	10,172
R-squared	0.915	0.914	0.914	0.915	0.915	0.915

Note: Standard errors clustered at the *municipio* level are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. This table replicates Table 3 Column (4) but includes both contemporaneous and lagged exposure to US social distancing. Week fixed effects and *municipio* fixed effects are included in all columns. Columns (1)–(3) show that reductions in contemporaneous, 1-week lagged, and 2-week lagged exposure to US mobility all reduce mobility in Mexico, as expected, when included separately. The mean (s.d.) of Mexican social distancing is 0.25 (0.12), of same-week exposure to US social distancing is 0.44 (0.95), of lagged one week exposure is 0.28 (1.23), and of two-week-lagged exposure is 0.06 (1.45). The mean (s.d.) of exposure to US cases is 1.3 (1.4), and the mean (s.d.) of cumulative Mexican cases is 0.1 (0.3).

B.8.2 Week-by-week regressions

Table B20 shows separate regressions by calendar week, finding that the coefficient is increasing from week 12 onwards, consistent with US mobility changes affecting Mexican social distancing over time.

Table B20: Larger exposure to U.S. social distancing led to more social distancing in Mexico, week-by-week regression

Outcome: Mexico social dist.						
Week	11	12	13	14	15	16
Exposure to U.S. social distancing	0.03*** (0.01)	0.03*** (0.01)	0.04*** (0.01)	0.06*** (0.01)	0.05*** (0.01)	0.06*** (0.01)
Constant	0.03*** (0.01)	0.12*** (0.00)	0.19*** (0.01)	0.20*** (0.01)	0.26*** (0.01)	0.24*** (0.01)
Mean (s.d.) of Mexican social dist.	-0.01 (0.05)	0.13 (0.07)	0.24 (0.07)	0.28 (0.08)	0.34 (0.08)	0.30 (0.08)
Mean (s.d.) of US social dist.	-1.45 (0.27)	0.54 (0.37)	1.22 (0.33)	1.37 (0.30)	1.49 (0.31)	1.04 (0.33)
Observations	1,059	1,061	1,067	1,071	1,076	1,074
R-squared	0.02	0.02	0.03	0.05	0.04	0.06
Week	17	18	19	20	21	
Exposure to U.S. social distancing	0.06*** (0.01)	0.06*** (0.01)	0.06*** (0.01)	0.07*** (0.01)	0.07*** (0.01)	
Constant	0.26*** (0.01)	0.27*** (0.00)	0.28*** (0.00)	0.27*** (0.00)	0.30*** (0.01)	
Mean (s.d.) of Mexican social dist.	0.32 (0.08)	0.30 (0.09)	0.28 (0.10)	0.25 (0.10)	0.25 (0.10)	
Mean (s.d.) of US social dist.	0.98 (0.34)	0.47 (0.35)	-0.03 (0.40)	-0.16 (0.37)	-0.66 (0.38)	
Observations	1,071	1,074	1,074	1,073	1,070	
R-squared	0.06	0.06	0.06	0.07	0.07	

Note: Robust standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. This table replicates Table 3 Column (1) by performing the analysis separately for each week in our study period.

B.9 Cross-sectional evidence and long-difference specifications

In our main analysis, we use the panel of *municipios* from Week 9 to Week 21. In this section, we present additional results by using the Week-21 cross section and the long-difference specification with changes from Week 9 to Week 21. We find consistent results with the panel specification.

B.9.1 Cross-sectional evidence

Tables B21 to B24 present cross-sectional regressions in which the dependent variable is the change in mobility by Week 21, demonstrating the relevance of the controls included in 4. These controls are relevant for explaining the level of social distancing in Week 21, and they do not have a large impact on the coefficient estimate for the exposure to US social distancing, indicating that migrant sorting is unlikely. The *municipio* characteristics are from the 2015 Intercensal Count (*Conteo*) if not stated otherwise.

Table B21: Week 21 cross-sectional regression, including other *municipios* characteristics do not affect the estimate for mobility exposure (Demographics and income measures)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Outcome: Mexico social dist.								
Exposure to US social distancing	0.070*** (0.007)	0.065*** (0.007)	0.073*** (0.007)	0.060*** (0.007)	0.066*** (0.008)	0.062*** (0.007)	0.060*** (0.007)	0.059*** (0.007)
Log mean household income		0.058*** (0.006)						
Log earned income			0.065*** (0.009)					
Years of schooling				0.031*** (0.002)				
% male					-0.660** (0.279)			
% aged 16–65						1.330*** (0.076)		
% in the labor force							0.331*** (0.039)	
% employed								0.318*** (0.038)
Constant	0.297*** (0.006)	-0.204*** (0.053)	-0.245*** (0.077)	0.024 (0.018)	0.616*** (0.135)	-0.529*** (0.048)	0.113*** (0.022)	0.127*** (0.021)
Mean (s.d.) of the control var.		8.5 (0.5)	8.4 (0.4)	8.5 (1.4)	0.5 (0.01)	0.6 (0.03)	0.5 (0.08)	0.5 (0.08)
Observations	1,070	1,067	1,067	1,067	1,070	1,070	1,070	1,070
R-squared	0.072	0.151	0.123	0.252	0.078	0.285	0.140	0.137

Note: Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Each column present cross-sectional regressions with the Week-21 change in *municipio* mobility as the dependent variable. The mean (s.d.) of the Mexican social distancing is 0.25 (0.10), and of the exposure to US social distancing is -0.66 (0.38).

Table B22: Week 21 cross-sectional regression, including other municipios characteristics do not affect the estimate for mobility exposure (types of employment and population density)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Outcome: Mexico social dist.							
Exposure to US social distancing	0.061*** (0.007)	0.036*** (0.008)	0.034*** (0.009)	0.059*** (0.007)	0.062*** (0.007)	0.070*** (0.007)	0.063*** (0.007)
% urban	0.081*** (0.010)						
Log population density		0.026*** (0.002)					
Log population density of state			0.005* (0.003)				
Log population density of <i>municipios</i>			0.024*** (0.002)				
% agriculture, fishing, and forestry				-0.259*** (0.019)			
% manufacturing				-0.255*** (0.030)			
% hotels and restaurants					0.782*** (0.102)		
% wage/salary worker						0.061** (0.025)	
Workability at home							0.845*** (0.067)
Constant	0.244*** (0.008)	0.336*** (0.006)	0.142*** (0.016)	0.388*** (0.010)	0.248*** (0.008)	0.253*** (0.018)	0.080*** (0.018)
Mean (s.d.) of the control var.	0.6 (0.3)	-2.4 (1.7)	4.6 (1.3)	0.2 (0.2)	0.1 (0.03)	0.7 (0.1)	0.3 (0.04)
Mean (s.d.) of the control var.			4.4 (1.7)	0.1 (0.1)			
Observations	1,070	1,070	1,070	1,067	1,067	1,067	1,067
R-squared	0.124	0.251	0.253	0.232	0.121	0.074	0.209

Note: Robust standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Each column present cross-sectional regressions with the Week-21 change in *municipio* mobility as the dependent variable. The mean (s.d.) of the Mexican social distancing is 0.25 (0.10), and of the exposure to US social distancing is -0.66 (0.38).

Table B23: Week 21 cross-sectional regression, including other municipios characteristics do not affect the estimate for mobility exposure (infrastructure, healthcare access)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Outcome: Mexico social dist.							
Exposure to US social distancing	0.071*** (0.007)	0.068*** (0.007)	0.067*** (0.007)	0.074*** (0.007)	0.071*** (0.007)	0.073*** (0.007)	0.071*** (0.007)
% with phone	0.114*** (0.018)						
% with computer		0.219*** (0.022)					
% with internet			0.198*** (0.020)				
Social Security-IMSS, coverage				0.104*** (0.016)			
Public insurance, coverage					-0.111*** (0.014)		
Social Security-IMSS, facility used						0.071*** (0.017)	
Ministry of public health, facility used							-0.097*** (0.015)
Constant	0.215*** (0.013)	0.249*** (0.007)	0.256*** (0.006)	0.280*** (0.006)	0.360*** (0.010)	0.284*** (0.006)	0.349*** (0.010)
Mean (s.d.) of the control var.	0.7 (0.2)	0.2 (0.1)	0.2 (0.1)	0.2 (0.2)	0.6 (0.2)	0.2 (0.2)	0.5 (0.2)
Observations	1,067	1,067	1,067	1,070	1,070	1,070	1,070
R-squared	0.102	0.151	0.155	0.103	0.127	0.085	0.111

Note: Robust standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Each column present cross-sectional regressions with the Week-21 change in *municipio* mobility as the dependent variable. The mean (s.d.) of the Mexican social distancing is 0.25 (0.10), and of the exposure to US social distancing is -0.66 (0.38).

Table B24: Week 21 cross-sectional regression, including other municipios characteristics do not affect the estimate for mobility exposure (migrant related)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Outcome: Mexico social dist.									
Exposure to US social distancing	0.061*** (0.007)	0.065*** (0.007)	0.063*** (0.007)	0.070*** (0.007)	0.060*** (0.007)	0.069*** (0.007)	0.071*** (0.007)	0.069*** (0.008)	0.066*** (0.007)
% hh receiving remittances 2015	-0.512*** (0.039)								
% hh receiving remittances 2010		-1.104*** (0.084)							
Share of migrants out of household size 2010			-2.446*** (0.267)						
Share of migrants out of household size, excluding 0, 2010				-0.047 (0.062)					
Per capita remittance, 2019					-0.067*** (0.006)				
Share of remittance income out of total income, 2000						-0.731*** (0.063)			
Share of remittance income out of total income, excluding 0, 2000							-0.181*** (0.033)		
Log emigration, 2005-2010								-0.002 (0.002)	
Log emigration, 1995-2000									-0.006*** (0.002)
Constant	0.361*** (0.007)	0.327*** (0.006)	0.329*** (0.007)	0.309*** (0.017)	0.319*** (0.006)	0.326*** (0.006)	0.329*** (0.008)	0.305*** (0.012)	0.328*** (0.012)
Mean (s.d.) of the control var.	0.1 (0.1)	0.03 (0.04)	0.01 (0.01)	0.3 (0.1)	0.4 (0.5)	0.04 (0.05)	0.2 (0.1)	5.4 (1.4)	5.9 (1.6)
Observations	1,070	1,070	1,070	1,064	1,070	1,070	1,047	1,051	1,043
R-squared	0.209	0.223	0.182	0.075	0.200	0.208	0.114	0.073	0.078

Note: Robust standard errors are shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Each column present cross-sectional regressions with the Week-21 change in *municipio* mobility as the dependent variable. The mean (s.d.) of the Mexican social distancing is 0.25 (0.10), and of the exposure to US social distancing is -0.66 (0.38). "Excluding 0" means the measure is constructed using the households with at least one migrant. The 2000 and 2010 measures are from the population census, and the 2019 measure is from Mexican Central Bank.

Table B25 shows the results where remittance intensity is interacted with exposure to US social distancing. The results are similar as in Table 5 Columns (7) and (8), where we find a negative effect of receiving more remittances.

Table B25: Week 21 cross-sectional regression, remittance intensity interactions

Outcome: Mexican social distancing	(1)	(2)
Exposure to US social distancing	0.071*** (0.015)	0.064*** (0.009)
% households receiving remittances, 2015	-0.566*** (0.078)	
% households receiving remittances interacted with exposure to US soc. distancing	-0.082 (0.103)	
Per capita remittance, 2019		-0.074*** (0.013)
Per capita remittance, 2019 interacted with exposure to US soc. distancing		-0.010 (0.015)
Constant	0.367*** (0.011)	0.322*** (0.007)
Observations	1,070	1,070
R-squared	0.210	0.200

Note: Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Each column present cross-sectional regressions with the Week-21 change in *municipio* mobility as the dependent variable. The mean (s.d.) of the Mexican social distancing is 0.25 (0.10), and of the exposure to US social distancing is -0.66 (0.38). The mean (s.d.) of the share of households receiving remittance is 0.1 (0.1) and of per capita remittance is 0.4 (0.5).

B.9.2 Long-difference specification results

Table B26 presents a long-difference specification in which the dependent variable is the change in mobility reduction from Week 9 to Week 21. The results in Columns (1)–(4) are similar to the ones using the panel specification. We show that controlling for the full vector of characteristics simultaneously has a small effect on the effect of exposure to US mobility changes in Column (5). This finding indicates that migrants are not sorting across locations.

Table B26: Long difference regressions, Week 9 to Week 21

Outcome: Change in Mexican social distancing	(1)	(2)	(3)	(4)	(5)
Change in US social distancing	0.078*** (0.010)	0.089*** (0.013)	0.061*** (0.010)	0.073*** (0.012)	0.061*** (0.012)
Change in exposure to US cum. cases, lagged one week		-0.004* (0.002)		-0.005** (0.002)	-0.001 (0.002)
Change in cases in <i>municipios</i> , lagged one week			0.078*** (0.011)	0.078*** (0.011)	0.055*** (0.012)
Population density					0.005*** (0.002)
% urban					-0.025 (0.019)
% aged 16–65					1.081*** (0.166)
Years of schooling					0.016*** (0.005)
Log earned income					-0.070*** (0.019)
% employed					-0.044 (0.067)
Constant	0.116*** (0.021)	0.110*** (0.021)	0.119*** (0.019)	0.111*** (0.020)	-0.028 (0.125)
Observations	905	905	905	905	903
R-squared	0.059	0.061	0.228	0.231	0.341

Note: Robust standard errors are shown in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Each column present regressions with the Week 9–21 change in *municipio* mobility as the dependent variable and adds controls for changes in *municipios*' characteristics. The sample includes municipios with at least one Covid-19 case by the end of Week 21. The mean (s.d.) of the change in Mexican social distancing is 0.3 (0.1), of the change in exposure to US social distancing is 2.0 (0.3), of the change in exposure to US cases is 3.4 (1.4), and of the change in Mexican cases is 0.4 (0.5). The mean (s.d.) of urban share is 0.6 (0.3), of the share of aged 16 to 65 is 0.6 (0.03), of year of schooling is 8.6 (1.4), of log income is 8.4 (0.3), and of share of employed is 0.5 (0.1).