

COVID-19 and the Remaking of U.S. Immigration Policy? Empirically Evaluating the Myth of Immigration and Disease

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Introduction

The myth that immigration brings disease is a centuries-old trope used to heighten anti-immigrant fears and anxieties. To be clear, the myth of immigration and disease is not supported by the academic literature. A recent [multi-year study](#) conducted by the UCL-Lancet Commission on Migration and Health provides the most up-to-date review of the academic literature. As one of the authors of the study states explicitly, “There is no evidence to show that migrants are spreading disease.”¹

However, the myth of immigration and disease continues to have significant policy consequences. Against the backdrop of the current global COVID-19 pandemic, [President Trump claimed](#) that a wall along our southern border is necessary to “keep the infection and those carrying the infection from entering our country.”² Fact checkers at the Washington Post, citing statements made directly by the Centers for Disease Control and Prevention (CDC), gave President Trump four Pinocchios for “an inflammatory claim about people arriving at the southern border and spreading misinformation on a public-health concern.”³ Still, in addition to partially closing the southern border, the Trump administration invoked a provision of the 1944 Public Health Service Act to turn away nearly all persons, including asylum seekers, who attempt to enter the U.S. without authorization at the southern border. This means that those seeking protection from persecution—including families and unaccompanied minors per a [leaked U.S. Customs and Border Protection directive](#)—will no longer be able to request asylum.⁴ As the founder and former director of the American Civil Liberties Union Immigrants’ Rights Project (IRP) puts it, this move “is designed to accomplish under the guise of public health a dismantling of legal protections governing border arrivals that the Trump administration has been unable to achieve under the immigration laws.”⁵ Most recently, President Trump [tweeted](#) that he intends to temporarily suspend immigration into the U.S. due to the global COVID-19 pandemic.⁶

¹UCL–Lancet Commission on Migration and Health. 2018. “*The Health of a World on the Move*,” *The Lancet* 392(10164): 2606-2654. In fact, the study confirms an empirical regularity described as the immigrant mortality advantage, wherein foreign-born persons tend to be, on average, healthier than native-born persons.

²President Trump, February 28, 2020. See here (last accessed April 21, 2020): <https://www.washingtonpost.com/politics/2020/03/12/trumps-wobbly-claim-that-his-wall-could-stop-coronavirus/>

³Salvador Rizzo, “Trump’s wobbly claim that his wall could stop the coronavirus,” *Washington Post*, March 12, 2020. See here: (last accessed April 21, 2020): <https://www.washingtonpost.com/politics/2020/03/12/trumps-wobbly-claim-that-his-wall-could-stop-coronavirus/>

⁴See here (last accessed April 21, 2020): <https://www.documentcloud.org/documents/6824221-COVID-19-CAPIO.html>

⁵Lucas Guttentag, “Coronavirus Border Expulsions: CDC’s Assault on Asylum Seekers and Unaccompanied Minors,” *Just Security*, April 13, 2020. See here (last accessed April 21, 2020): <https://www.justsecurity.org/69640/coronavirus-border-expulsions-cdcs-assault-on-asylum-seekers-and-unaccompanied-minors/>

⁶President Trump, April 20, 2020. See here (last accessed April 21, 2020): <https://twitter.com/realDonaldTrump/status/1252418369170501639>

Is there any empirical evidence to suggest that closing the southern border, restricting access to asylum, or temporarily suspending immigration into the U.S. will produce beneficial public health outcomes? There is no study that we are aware of that examines the relationship between the spread of infectious disease in the U.S. and immigration indicators that are specific to the southern border, that speak directly to the asylum process, or that measure immigration into the country using U.S. Citizenship and Immigration Services (USCIS) approvals across *all* visa application types. When combining monthly data from the CDC on the prevalence of the flu from 2000 to present—a 20-year period that includes the H1N1 pandemic in 2009 and the early months of the global COVID-19 pandemic—with a number of immigration indicators, the data show that neither the monthly total number of persons entering the U.S. through southern border ports of entry, the monthly total number of persons requesting asylum, the monthly total number of asylum seekers who establish credible fear, nor the quarterly total number of USCIS approvals across all visa application types have any effect on the monthly percentage of patients who present at healthcare providers with influenza-like illnesses.

Data and Method

To empirically evaluate the myth of immigration and disease, I use data from the CDC FluView Interactive portal. I use the monthly percentage of patients who present at healthcare providers with influenza-like illnesses as an indicator of the prevalence of the flu. I then run a series of regressions to estimate the effects that the monthly total number of persons entering the U.S. through southern border ports of entry, the monthly total number of persons requesting asylum, the monthly total number of asylum seekers who establish credible fear, and the quarterly total number of USCIS approvals by all visa application types have on the percentage of patients who present at healthcare providers with influenza-like illnesses.

Data on the monthly percentage of patients who present at healthcare providers with influenza-like illnesses from fiscal year 2000 to present ($n = 234$ months) come from the [CDC FluView Interactive portal](#).⁷ Weekly data are collapsed into year-month observations. From fiscal year 2000 to present, the mean is 1.9%, the low is 0.6% (July 2003), and the high is 6.9% (October 2009). These data are complete except for eight observations with missing or incomplete data (June, July, August, and September of 2001 and 2002). Data on the monthly total number of persons entering the U.S. through southern border ports of entry come from the [U.S. Department of Transportation](#).⁸ The monthly total number of persons entering the U.S. through southern border ports of entry includes the monthly total number of pedestrians, vehicle passengers, bus passengers, and train passengers who enter the U.S. through any port of entry along the U.S.-Mexico border. At the time of this

⁷To access the data, see here (last accessed April 21, 2020): <https://gis.cdc.gov/grasp/fluview/fluportaldashboard.html>

⁸To access the data, see here (last accessed April 21, 2020: <https://www.bts.gov/content/border-crossingentry-data>

writing, data for March 2020 is not yet available. The mean is 22.1 million, the low is 14.0 million (February 2020), and the high is 33.4 million (July 2001). Data on the monthly total number of persons requesting asylum, defined as the monthly total number of USCIS credible fear case receipts, as well as the monthly total number of asylum seekers who establish credible fear, defined as the monthly total number of credible fear interviews where fear is established, come from [U.S. Citizenship and Immigration Services](#).⁹ Data on the monthly total number of persons requesting asylum are publicly available from fiscal year 2009 to present ($n = 138$ months). The mean is 4,193, the low is 346 (May 2009), and the high is 11,608 (July 2019). Data on the monthly total number of asylum seekers who establish credible fear are publicly available from fiscal year 2011 to present ($n = 114$ months). The mean is 3,632, the low is 441 (January 2012), and the high is 8,245 (August 2016). Data on the number of USCIS approvals by all visa application types also come from [U.S. Citizenship and Immigration Services](#).¹⁰ These data are publicly available from fiscal year 2012 to present ($n = 33$ observations), but are only available by quarter. The mean is 1,595,377, the low is 1,050,612 (Q1 of fiscal year 2012), and the high is 2,053,416 (Q3 of fiscal year 2015).

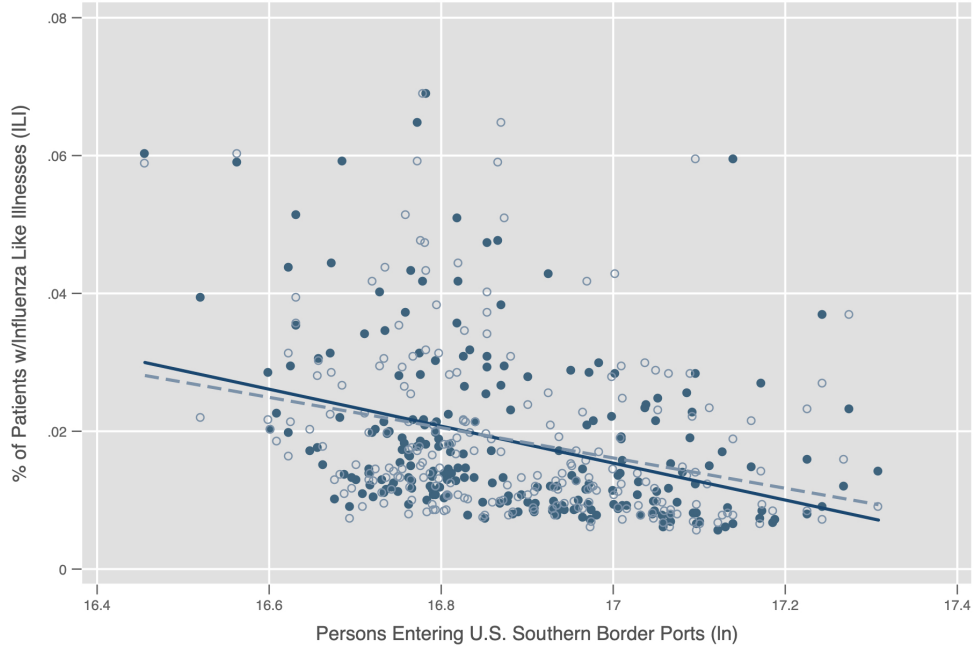
I analyze the natural logs of these data using OLS regressions with heteroskedasticity robust standard errors clustered by month¹¹ and check the robustness of the results by: estimating additional models with lagged (one month) values of the monthly total number of persons entering the U.S. through southern border ports of entry, the monthly total number of persons requesting asylum, and the monthly total number of asylum seekers who establish credible fear, as well as lagged (one quarter) values of the quarterly total number of USCIS approvals by all visa application types; estimating additional models that de-trend the seasonality of the flu by removing the spring (April, May, and June) and summer (July, August, and September) months; estimating additional models that de-trend the seasonality of the flu by using the first difference of the monthly percentage of patients who present at healthcare providers with influenza-like illnesses as the dependent variable; and by re-estimating all models using robust regression, which creates weights using the residuals from a first-stage OLS regression to account for observations that exert unusual leverage on the results. The entirety of these analyses support the main conclusions.

⁹To access the data, see here (last accessed April 21, 2020): <https://www.uscis.gov/tools/reports-studies/immigration-forms-data/semi-monthly-credible-fear-and-reasonable-fear-receipts-and-decisions>. Data for fiscal years 2009 and 2010 are for total completions (closings + served).

¹⁰To access the data, see here (last accessed April 21, 2020): <https://www.uscis.gov/tools/reports-studies/immigration-forms-data>

¹¹I begin by testing the stationarity of the monthly percentage of patients who present at healthcare providers with influenza-like illnesses using augmented Dickey-Fuller tests, which show we can reject the null hypothesis of a unit root ($p < .001$). Despite the seasonality of the flu, certain flu seasons are more acute than others, which means a plot of the monthly percentage of patients who present at healthcare providers with influenza-like illnesses over time does not (perhaps counterintuitively) resemble a sine function. Nevertheless, I check the robustness of the results by estimating additional de-trended models.

Figure 1: Persons Entering Through Southern Border



Results

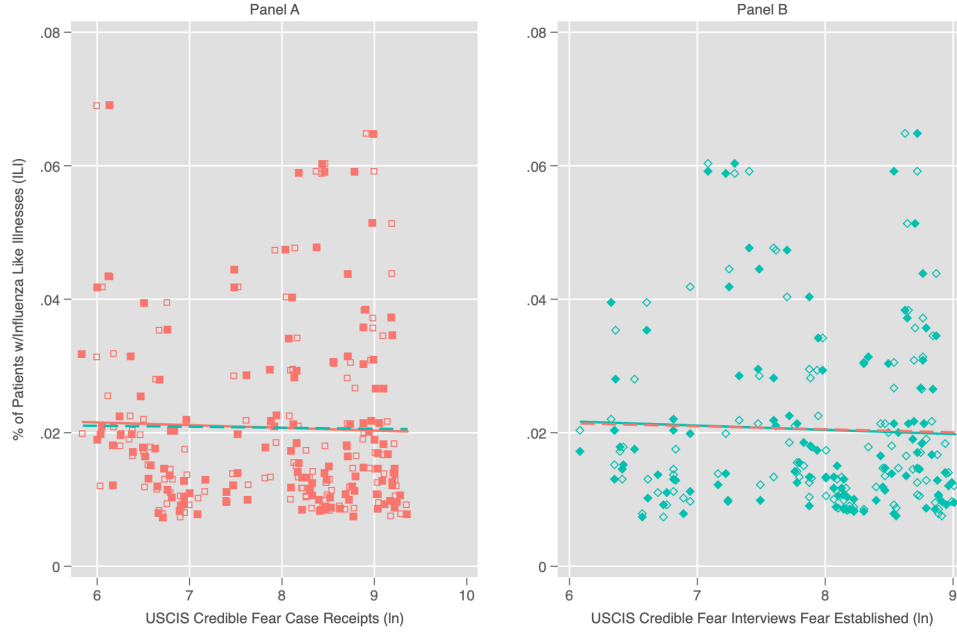
Persons Entering the U.S. Through Southern Border Ports of Entry

Figure 1 shows the relationship between the monthly total number of persons entering the U.S. through southern border ports of entry, defined as the monthly total number of pedestrians, vehicle passengers, bus passengers, and train passengers who enter the U.S. through any port of entry along the U.S.-Mexico border, and the monthly percentage of patients identified by the CDC who present at healthcare providers with influenza-like illnesses from October 2000 to present.¹² As the figure shows, there is a negative relationship, meaning more persons entering the U.S. through southern border ports of entry is related to a lower percentage of patients who present at healthcare providers with influenza-like illnesses. This is likely attributable to persons being less likely to travel when they themselves are sick, as well as to persons being less likely to travel to visit family members or friends in the U.S. when they are sick.

The figure shows both the contemporaneous relationship, indicated by the solid blue circles and the solid blue fit line, and the lagged relationship ($t-1$), indicated by

¹²At the time of this writing, the Department of Transportation has not yet updated port traffic data for March 2020. As noted previously, the CDC flu data are complete except for June, July, August, and September of 2001 and 2002.

Figure 2: USCIS Credible Fear

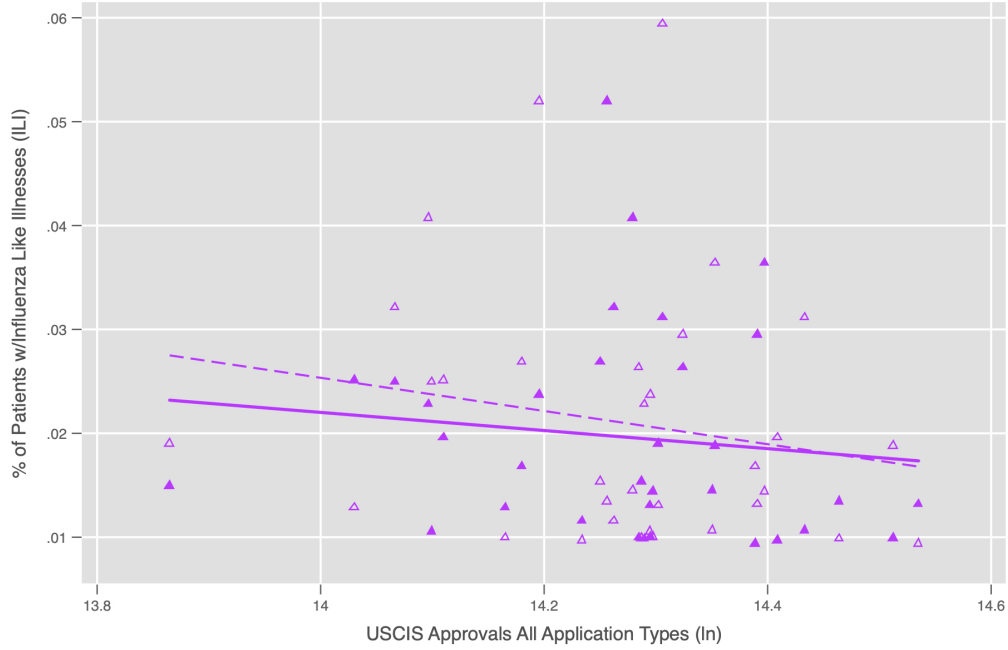


the hollow blue circles and the dotted blue fit line. The logic of the lagged relationship is that it may take some time after immigration into the U.S. for the prevalence of an infectious disease such as the flu to increase. As the data show, this is not the case.

Persons Requesting Asylum

Panel A in Figure 2 shows the relationship between the monthly total number of persons requesting asylum, defined as the monthly total number of credible fear case receipts received by U.S. Citizenship and Immigration Services (USCIS), and the monthly percentage of patients identified by the CDC who present at healthcare providers with influenza-like illnesses from October 2008 through March 2020 ($n = 135$ months). Although this period represents fewer monthly observations than the previous analysis, this represents the entirety of publicly available data from USCIS on credible fear case receipts and, importantly, includes the 2009 H1N1 pandemic and several months of the current COVID-19 pandemic. As the figure shows, there is no relationship, as both the contemporaneous (solid squares and solid fit line) and lagged (hollow squares and dotted fit line) relationships are essentially flat lines. In other words, there is no statistically significant relationship between persons requesting asylum and the prevalence of the flu.

Figure 3: USCIS Approvals All Visa Application Types



Asylum Seekers Establishing Credible Fear

I also analyze the monthly total number of USCIS credible fear interviews that result in credible fear being established. If USCIS determines that an asylum seeker has met the credible fear threshold, this begins the process of the asylum seeker being admitted into the U.S. Panel B in Figure 2 shows the relationship between the monthly total number of credible fear interviews that result in fear being established and the monthly percentage of patients identified by the CDC who present at healthcare providers with influenza-like illnesses from October 2010 through March 2020 ($n = 114$ months). This period represents the entirety of publicly available data from USCIS on credible fear interviews that result in fear being established and includes several months of the current COVID-19 pandemic. As the figure shows, there is no relationship, as both the contemporaneous (solid diamonds and solid fit line) and lagged (hollow diamonds and dotted fit line) relationships are essentially flat lines. In other words, there is no statistically significant relationship between asylum seekers being given a credible fear interview, establishing credible fear, and then presumably being admitted into the U.S. and the prevalence of the flu.

USCIS Approvals All Visa Application Types

Figure 3 shows the relationship between the quarterly total number of USCIS approvals across all visa application types, defined as the quarterly total number of all

visa applications approved by USCIS for all visa applications reviewed by the agency across all visa application types (53 categories plus waivers), and the quarterly percentage of patients identified by the CDC who present at healthcare providers with influenza-like illnesses from October 2011 to present ($n = 33$ months). As the figure shows, there is no relationship, as the contemporaneous (solid triangles and solid fit line) and lagged (hollow triangles and dotted fit line) relationships are essentially flat lines. Despite their negative slopes, the fit lines are statistically indistinguishable from zero. In other words, there is no statistically significant relationship between the quarterly total number of USCIS approvals across all visa application types and the prevalence of the flu.

Multivariate Analysis

Table 1 adds a number of control variables into the analysis. Importantly, the analysis controls for the month of the year, which is needed to take into account the seasonality of the flu, as well as the specific year in the analysis, which is needed to take into account how the prevalence of the flu varies by year (e.g., the 2009 H1N1 pandemic).

I begin by regressing the monthly percentage of patients who present at healthcare providers with influenza-like illnesses on month and year fixed effects. As Model 1 in Table 1 shows, this model explains 69.9% of the variation in the monthly percentage of patients who present at healthcare providers with influenza-like illnesses. Because a Breusch-Pagan test confirms linear heteroskedasticity (a White's general test for heteroskedasticity does not indicate non-linear heteroskedasticity), I re-estimate all models with heteroskedasticity robust standard errors clustered by month. Models 2-4 show that neither the natural logs of the monthly total number of persons entering the U.S. through southern border ports of entry, the monthly total number of persons requesting asylum, nor the monthly total number of asylum seekers who establish credible fear, are statistically significantly related to the monthly percentage of patients who present at healthcare providers with influenza-like illnesses. Moreover, an F-test comparing Model 2 to Model 1 shows that the natural log of the monthly total number of persons entering the U.S. through southern border ports of entry does not add to the explanatory power of the baseline model ($p = .614$); an F-test comparing Model 3 to Model 1 shows that the natural log of the monthly total number of persons requesting asylum does not add to the explanatory power of the baseline model ($p = .476$); and an F-test comparing Model 4 to Model 1 shows that the natural log of the monthly total number of asylum seekers who establish credible fear also does not add to the explanatory power of the baseline model ($p = .669$). I note here that the quarterly total number of USCIS approvals across all visa application types is excluded here given the availability of only 33 quarterly observations.¹³

¹³Multivariate regressions showing the null effects of the quarterly total number of USCIS approvals across all visa application types on the quarterly percentage of patients who present at healthcare providers with influenza-like illnesses can be made available upon request.

Table 1

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Southern Border Port Entries (ln)		.008 (.016)			-.061 (.051)	-.061 (.051)	.006 (.029)	.007 (.031)
Asylum Requests (ln)			-.002 (.002)		-.002 (.003)	-.003 (.003)		
Credible Fear Established (ln)				.001 (.003)			.001 (.003)	.002 (.003)
MPP						-.001 (.001)		.000 (.001)
Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	.009*** (.001)	-.116 (.273)	.077** (.021)	.053* (.014)	1.050 (.856)	1.041 (.847)	-.074 (.475)	-.094 (.507)
Observations	226	225	138	114	137	137	113	113
r^2	.699	.687	.696	.825	.687	.688	.815	.816

OLS regression with heteroskedasticity robust standard errors clustered by month. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Models 5 and 7 show that the results hold when modeling monthly southern border port of entry data and USCIS credible fear data simultaneously. Because the monthly total number of persons requesting asylum and the monthly total number of asylum seekers who establish credible fear are not independent (i.e., the number of asylum seekers who establish credible fear is dependent on the number of asylum requests) and are highly collinear ($r = .965$), these two variables are separately estimated. Models 6 and 8 also estimate the effects of the Migrant Protection Protocols (MPP), known as the “Remain in Mexico” policy, using a time duration variable.¹⁴ As the results show, MPP is also not statistically significantly related to the monthly percentage of patients who present at healthcare providers with influenza-like illnesses. Models 9-15 repeat the analysis using 1-month lagged terms for the natural logs of the monthly total number of persons entering the U.S. through southern border ports of entry, the monthly total number of persons requesting asylum, and the monthly total number of asylum seekers who establish credible fear. Table 2 reports these results. Because the monthly total number of persons entering the U.S. through southern border ports of entry exhibits seasonality (and thus becomes collinear with certain months), I also re-estimate all models that include this factor using its de-trended first difference, which effectively brings the variance inflation factor down to tolerable levels. The results are qualitatively the same. Moreover, because the monthly total number of persons requesting asylum increases over time during the series (and thus becomes collinear with certain years), I also re-estimate all models that include this factor using its de-trended first difference. This also brings the variance inflation factor down to tolerable levels and the results are also qualitatively the same.

Conclusion

The global COVID-19 pandemic has changed our lives in unprecedented ways and it is incumbent upon all of us, including our decision makers, to rely on the best available empirical evidence, not centuries old anti-immigrant tropes, to help chart our path forward. The results presented here bolster the argument that the Trump administration may, indeed, be using the global COVID-19 pandemic as a guise to further change U.S. immigration policies, which in this case means effectively choking off access to our asylum system, as well as suspending immigration into the U.S. more generally. Ours is a strong and resilient country and we will overcome the enormity of our current moment. However, the onset of a global pandemic does not absolve the U.S. from our legal obligations to provide due process to asylum seekers, nor should it be used as an opportunity to slam shut our golden doors.

¹⁴Data on the monthly total number of asylum seekers returned to Mexico under MPP are not publicly available at the time of this writing.

Table 2

	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Southern Border Port Entries Lag (ln)	.012 (.018)			-.017 (.028)	-.018 (.029)	.009 (.032)	.011 (.032)
Asylum Requests Lag (ln)		-.001 (.003)		-.001 (.005)	-.002 (.004)		
Credible Fear Established Lag (ln)			.000 (.004)			.000 (.004)	.001 (.003)
MPP					-.000 (.001)		.000 (.000)
Month	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-.201 (.311)	.029 (.038)	.010 (.024)	.324 (.476)	.316 (.493)	-.155 (.533)	-.145 (.542)
Observations	225	137	113	137	137	113	113
r^2	.701	.694	.824	.695	.696	.824	.825

OLS regression with heteroskedasticity robust standard errors clustered by month. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$



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