Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Group 1 Country of Origin: People Born in a Muslim Ban Order Targeted Nation (n=5,667)

Country	**N (%)**
Somalia	5231 (92.31)
Iraq	142 (2.51)
Sudan	130 (2.29)
Iran	109 (1.92)
Syria	29 (0.51)
Yemen	20 (0.35)
Libya	6 (0.11)

eTable 2. Group 1 Country of Origin: People Born in a Muslim-Majority Country Not Targeted by the Muslim Ban (n=1,254)

Country	**N (%)**
Pakistan	213 (16.99)
Egypt	177 (14.11)
Bosnia And Herzegovina	98 (7.81)
Sierra Leone	91 (7.26)
Afghanistan	84 (6.70)
United Arab Emirates	70 (5.58)
Bangladesh	58 (4.63)
Turkey	53 (4.23)
Guinea	49 (3.91)
Jordan	48 (3.83)
Lebanon	47 (3.75)
Kuwait	40 (3.19)
Morocco	37 (2.95)
Malaysia	36 (2.87)
Indonesia	33 (2.63)
Gambia	23 (1.83)
Djibouti	16 (1.28)
Algeria	14 (1.12)
Tunisia	11 (0.88)
Senegal	9 (0.72)
Uzbekistan	8 (0.64)
Bahrain	6 (0.48)
Azerbaijan	5 (0.40)
Kazakhstan	5 (0.40)
Albania	4 (0.32)
Burkina Faso	3 (0.24)
Kosovo	2 (0.16)
Country	**N (%)**
Kyrgyzstan	2 (0.16)
Mali	2 (0.16)
Niger	2 (0.16)
Qatar	2 (0.16)
Tajikistan	2 (0.16)
Brunei	1 (0.08)
Maldives	1 (0.08)
Oman	1 (0.08)
Turkmenistan	1 (0.08)

ICD-10 codes used in analysis of stress-responsive diagnoses

Prior to collecting or observing any data, research team members chose the following ICD-10 codes to include in analysis of stress-responsive diagnoses.

eTable 3. ICD-10 Codes Included in Analysis of Stress-Responsive Clinic Diagnoses

Category	Diagnoses	ICD-10 codes
Mental health	Panic disorder GAD Anxiety New SI Depression Acute stress disorder Adjustment disorder	F41.0 Panic disorder [episodic paroxysmal anxiety] F41.1 Generalized anxiety disorder F41.3 Other mixed anxiety disorders F41.8 Other specified anxiety disorders F41.9 Anxiety disorder, unspecified F41 Other anxiety disorders (NB) F51.5 Nightmare disorder F32 Major depressive disorder, single episode (NB) F32.0 Major depressive disorder, single episode, mild F32.1 Major depressive disorder, single episode, moderate F32.2 Major depressive disorder, single episode, severe without psychotic features F32.3 Major depressive disorder, single episode, severe with psychotic features F32.4 Major depressive disorder, single episode, in partial remission F32.89 Other specified depressive episodes F32.9 Major depressive disorder, single episode, unspecified F33 Major depressive disorder, recurrent (NB) F33.0 Major depressive disorder, recurrent, mild F33.1 Major depressive disorder, recurrent, moderate F33.2 Major depressive disorder, recurrent severe without psychotic features F33.3 Major depressive disorder, recurrent, severe with psychotic symptoms F33.40 Major depressive disorder, recurrent, in remission, unspecified F33.41 Major depressive disorder, recurrent, in partial remission F33.42 Major depressive disorder, recurrent, in full remission F33.9 Major depressive disorder, recurrent, unspecified F31.30 Bipolar disorder, current episode depressed, mild or moderate severity, unspecified F31.9 Bipolar disorder, unspecified F06.31 Mood disorder due to known physiological condition with depressive features F43.0 (see below) F43.1 Post-traumatic stress disorder (PTSD) (NB) F43.10 Post-traumatic stress disorder, unspecified F43.11 Post-traumatic stress disorder, acute F43.12 Post-traumatic stress disorder, chronic F43.0 Acute stress reaction F43.8 Other reactions to severe stress F43.9 Reaction to severe stress, unspecified R45.7 State of emotional shock and stress, unspecified R46.6 Undue concern and preoccupation with stressful events Z63.7 Other stressful life events affecting family and household (NB) Z63.79 Other stressful life events affecting family and household Z73.3 Stress, not elsewhere classified F43.2 Adjustment disorders (NB) F43.20 Adjustment disorder, unspecified F43.21 Adjustment disorder with depressed mood F43.22 Adjustment disorder with anxiety F43.23 Adjustment disorder with mixed anxiety and depressed mood F43.24 Adjustment disorder with disturbance of conduct F43.25 Adjustment disorder with mixed disturbance of emotions and conduct F43.29 Adjustment disorder with other symptoms

Category	Diagnoses	ICD-10 codes
Sleep disorders	Insomnia	G47.0 Insomnia (NB) G47.00 Insomnia, unspecified G47.09 Other insomnia F51.0 Insomnia not due to a substance or known physiological condition (NB) F51.01 Primary insomnia F51.02 Adjustment insomnia F51.04 Psychophysiologic insomnia F51.05 Insomnia due to other mental disorder F51.09 Other insomnia not due to a substance or known physiological condition Z72.820 Sleep deprivation Z72.821 Inadequate sleep hygiene
Non-specific	Fatigue Malaise	R53 Malaise and fatigue (NB) R53.8 Other malaise and fatigue (NB) R53.81 Other malaise R53.83 Other fatigue
Gastrointestinal	GERD PUD (H. pylori) Abdominal pain (recurrent, NOS, flank pain, epigastric pain) Irritable bowel	K21 Gastro-esophageal reflux disease K21.0 Gastro-esophageal reflux disease with esophagitis K21.9 Gastro-esophageal reflux disease without esophagitis B96.81 Helicobacter pylori [H. pylori] as the cause of diseases classified elsewhere K27 Peptic ulcer, site unspecified (NB) K27.0 Acute peptic ulcer, site unspecified, with hemorrhage K27.3 Acute peptic ulcer, site unspecified, without hemorrhage or perforation K25 Gastric ulcer (NB) K26 Duodenal ulcer (NB) R10.10 Upper abdominal pain, unspecified R10.11 Right upper quadrant pain R10.12 Left upper quadrant pain R10.13 Epigastric pain R10.30 Lower abdominal pain, unspecified R10.31 Right lower quadrant pain R10.32 Left lower quadrant pain R10.33 Periumbilical pain R10.8 Other abdominal pain (NB) R10.84 Generalized abdominal pain R10.9 Unspecified abdominal pain K58 Irritable bowel syndrome (NB) K58.0 Irritable bowel syndrome with diarrhea K58.1 Irritable bowel syndrome with constipation K58.2 Mixed irritable bowel syndrome K58.8 Other irritable bowel syndrome K58.9 Irritable bowel syndrome without diarrhea K59.1 Functional diarrhea
Neuro	Headache	G43 Migraine (NB) G44 Other headache syndromes (NB) G44.209 Tension Headache G44.219 Tension Headache, episodic

Category	Diagnoses	ICD-10 codes
Food-related	Weight loss Poor appetite	R63.5 Abnormal weight gain R63.8 Other symptoms and signs concerning food and fluid intake F50.89 Other specified eating disorder R63.0 Anorexia R63.4 Abnormal weight loss R63.2 Polyphagia O26.10 Low weight gain in pregnancy
Pain Syndromes	Chronic Pain Back Pain	F45.41 Pain disorder exclusively related to psychological factors F45.42 Pain disorder with related psychological factors G89 Pain, not elsewhere classified (NB) G89.2 Chronic pain, not elsewhere classified (NB) G89.29 Other chronic pain G89.4 Chronic pain syndrome M79.601 Pain in right arm M79.602 Pain in left arm M79.603 Pain in arm, unspecified M79.671 Pain in right foot M79.672 Pain in left foot R52 Pain, unspecified M53.3 Sacrococcygeal disorders, not elsewhere classified M54.2 Cervicalgia M54.41 Lumbago with sciatica, right side M54.42 Lumbago with sciatica, left side M54.5 Low back pain M54.6 Pain in thoracic spine M54.8 Other dorsalgia (NB) M54.89 Other dorsalgia M54.9 Dorsalgia, unspecified

eTable 4. Emergency Department Acute Stress Diagnoses and Ambulatory Sensitive Conditions

Category	Diagnoses	ICD-10 codes
Stress-responsive diagnoses	Acute coronary syndrome Assault Suicide attempt Syncope	I21.0-I21.A; I24.9 Y09., Y08.89x, X99.0xx-X92.9xx; Y01.xxx, Y97.xxx, Y38.3x1- Y38.3x3; T54.1x3-T54.3x3; X98.0xx-X98.9xx; X93.xxx- X95.9xx; Y03.8xx; Y02.0xx, Y00.xxx, Y04.0xx- Y04.2xx, Y04.8xx; Y08.01x- Y08.09x
Ambulatory sensitive conditions	Angina Asthma Congestive heart failure COPD Hypertension Diabetes complications	I20, I24.0, I24.8–24.9 J45-46 Iii.0, I50, J81 J41-44, J47 I10, I11.9 E10.0–10.8, E11.0–11.8, E12.0–12.8, E13.0–13.8, E14.0–14.8

Analysis of pre-Order trends

In order to interpret the difference in differences presented in the manuscript as evidence of effects of the Muslim Ban, we would need to assume that in the absence of the executive order, the change in utilization and diagnoses would have been identical across groups. Although we cannot verify this assumption, we can observe whether or not differential trends appear before the executive order is issued. As the visualization in Figure 1 suggests, individuals from Muslim Ban targeted nations began to increase clinic utilization, relative to non-Latinx U.S.-born individuals, before the issuance of the executive order. Increases in stress-responsive diagnoses in the clinic are also observed before the executive order is issued. After restricting the comparison group through matching on patient demographics, these pre-Order trend differences are still present.

eTable 5. Analysis of Linear Time Trends in Pre-Order Periods, Group 1 vs 3 (Unweighted)

	Dependent Variable				
	Count of Visits or Diagnoses (Robust standard error)				
	Clinic Visits	Missed Appointments	Clinic Diagnoses	ED Visits	ED Diagnoses
Order Targeted	35.36 (4.79)	16.89 (2.00)	50.14 (12.14)	-11.90 (1.71)	-65.40 (6.01)
30 Day Period	-0.34 (0.09)	0.15 (0.03)	0.58 (0.25)	0. 03 (0. 05)	1.64 (0.22)
Order Targeted * 30 Day Period	3.13 (0.63)	0.006 (0.27)	5.01 (1.61)	-0.19 (0.23)	-1.62 (0.80)
Constant	158.30 (0.67)	29.86 (0.30)	419.89 (1.85)	32.07 (0.39)	129.62 (1.64)
Observations (N)	3016080	3016080	3016080	3016080	3016080
R^2	0.00003	0.00017	0.00001	0.00003	0.00006

eTable 6. Analysis of Linear Time Trends in Pre-Order Periods, Group 1 vs 3 After Exact Matching on Demographics

	Dependent Variable				
	Count of Visits or Diagnoses (Robust standard error)				
	Clinic Visits	Missed Appointments	Clinic Diagnoses	ED Visits	ED Diagnoses
Order Targeted	62.48 (5.21)	4.16 (2.26)	128.82 (13.34)	-64.17 (2.68)	-240.43 (10.00)
30 Day Period	-1.10 (0.31)	-0.19 (0.14)	-2.33 (0.81)	-0.23 (0.29)	3.89 (1.07)
Order Targeted * 30 Day Period	3.79 (0.69)	0.33 (0.31)	7.88 (1.78)	0.07 (0.36)	-3.85 (1.32)
Constant	129.86 (2.23)	42.35 (1.07)	339.48 (5.87)	84.40 (2.10)	304.82 (8.15)
Observations (N)	1303164	1303164	1303164	1303164	1303164
R^2	0.0003	0.00001	0.00019	0.00087	0.00078

Difference in differences estimates for all outcomes

Although we do not ascribe a causal interpretation to all difference in differences estimates, the full set of analyses originally planned are presented in Table S7. This is an expanded version of Table 2 in the main text.

eTable 7. Difference-in-Differences Estimates of the Effect of the Muslim Ban Order on all Outcomes Among Patients From Order Targeted Nations (Group 1)

Outcome (average per person)	**Difference in Differences Model**				**Matched Difference in Differences Model Estimate** (SE)	**Generalized Synthetic Control Model Estimate** (SE)
	Means (SD)	U.S.-born, non-Latinx	Order-Targeted	**Difference in Differences Estimate** (SE)		
Primary care visits	Pre-Order	160.5 (539.9)	175.5 (559.6)	**22.85**** (3.71)	**23.69**** (4.03)	**26.26**** (3.09)
	Post-Order	163.9 (552.6)	201.8 (620.8)			
	First Difference	**3.4**	**26.3**			
Missed primary care appointments	Pre-Order	28.9 (197.0)	45.8 (240.1)	**1.92** (1.47)	**2.99** (1.66)	**2.37** (1.17)
	Post-Order	29.4 (119.4)	48.1 (250.7)			
	First Difference	**0.4**	**2.4**			
Stress-responsive diagnoses in primary care	Pre-Order	416.1 (1476.5)	433.7 (1436.8)	**48.03**** (9.17)	**57.53**** (9.97)	**63.9**** (7.87)
	Post-Order	432.0 (1529.8)	497.6 (1574.0)			
	First Difference	**15.9**	**63.9**			
ED visits per person	Pre-Order	31.9 (119.0)	21.2 (214.7)	**3.41*** (1.53)	**5.00*** (2.34)	**4.41*** (2.00)
	Post-Order	32.9 (333.2)	25.6 (260.0)			
	First Difference	**1.0**	**4.4**			
ED ambulatory sensitive and acute stress diagnoses	Pre-Order	119.0 (1269)	64.1 (727.7)	**4.93** (5.79)	**-4.32** (9.09)	**19.3**** (8.90)
	Post-Order	133.3 (1428)	83.4 (956.8)			
	First Difference	**14.4**	**19.3**			

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

Note: As in the main text, difference in differences estimates are additional increases in each outcome (per 1000 people per 30-day time period) from the year before to the year after the Muslim Ban was issued among individuals from targeted nations, beyond the increases observed in a reference group. Robust standard errors are included in parentheses for difference in difference estimates, clustered at the individual level, with and without demographic matching. Parametric bootstrap standard errors are included in parentheses for generalized synthetical control model estimates. The estimated sampling distributions do not necessarily follow an approximately normal distribution centered at the point estimate.

Robustness checks

To assess the robustness of the difference in differences analysis presented in the manuscript, we conducted two additional checks. First, we report estimates from a model which allows for a linear time trend as an alternative to period fixed effects. Second, we report regression coefficients and sample characteristics for the difference-in-differences models comparing the individuals from targeted nations to U.S.-born non-Latinx individuals with similar age, sex, race, and insurance to those observed for individuals from targeted nations. This reference group was selected using exact matching on all available demographics.

eTable 8. Difference in Differences With Linear Time Trend

	Dependent Variable				
	Count of Visits or Diagnoses (Robust standard error, clustered by individual)				
	Clinic Visits	Missed Appointments	Clinic Diagnoses	ED Visits	ED Diagnoses
Order Targeted	14.12	16.95	17.61	-10.66	-54.50
	(3.49)	(1.25)	(8.30)	(1.15)	(4.20)
Order Targeted Post-Order	24.66	1.72	4.80	3.40	4.24
	(3.70)	(1.47)	(9.16)	(1.53)	(5.76)
Period	0.12	0.05	1.22	0.08	1.16
	(0.03)	(0.01)	(0.09)	(0.02)	(0.09)
Constant	162.20	29.14	434.03	32.39	126.15
	(0.44)	(0.14)	(1.09)	(0.23)	(0.94)
Observations	6032160	6032160	6032160	6032160	6032160
Adjusted R2	0.00007	0.00018	0.00006	0.00002	0.00007

eTable 9. Difference-in-Differences Estimates After Matching

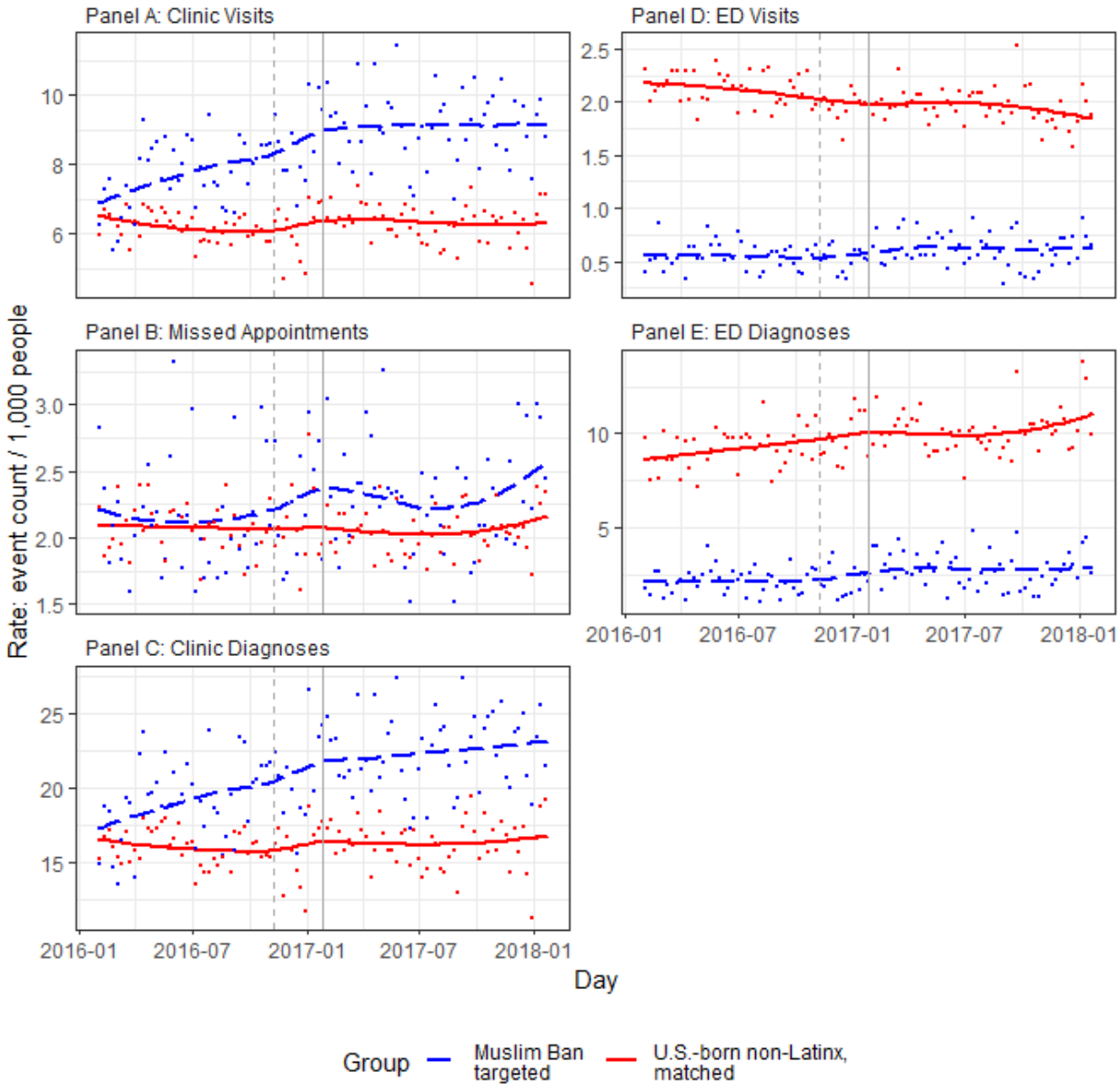
	Dependent Variable				
	Count of Visits or Diagnoses (Robust standard error, clustered by individual)				
	Clinic Visits	Missed Appointments	Clinic Diagnoses	ED Visits	ED Diagnoses
Order Targeted	37.86	2.04	77.57	-64.63	-215.38
	(3.91)	(1.46)	(9.37)	(1.95)	(7.28)
Order Targeted Post-Order	23.69	2.99	57.53	5.00	-4.32
	(4.03)	(1.66)	(9.97)	(2.34)	(9.09)
Constant	145.95	45.45	374.25	83.60	254.50
	(3.73)	(1.66)	(9.78)	(3.20)	(10.44)
Period FE	Yes	Yes	Yes	Yes	Yes
Observations	2606328	2606328	2606328	2606328	2606328
Adjusted R2	0.00067	0.00009	0.00056	0.0008	0.00078

eTable 10. Characteristics of HealthPartners Patients Seeking Care in a Primary Care Clinic or Emergency Department Between January 2016 and December 2017, After Reweighting Through Matching on Demographics

	Re-weighted after matching with race	
	Group 1 People born in an Order targeted nation (n = 5,654) No. (%)	**Group 3 U.S.-born, non-Latinx** (n = 102,943) No. (%)
Race		
American Indian/Alaskan Native	10 (0.2)	182.1 (0.2)
Asian	44 (0.8)	801.1 (0.8)
Black	5,229 (92.5)	95,205 (92.5)
Native Hawaiian/Pacific Islander	5 (0.1)	91 (0.1)
White	155 (2.7)	2822.1 (2.7)
Sex		
Female	3,360 (59.4)	61,175.9 (59.4)
Male	2,294 (40.6)	111,786 (40.6)
Age		
18-24	498 (8.8)	9,227.6 (9)
25-34	2,076 (36.7)	37,448 (20.3)
35-44	1,458 (25.8)	26,587 (25.8)
45-54	921 (16.3)	16,432.5 (16)
55-64	518 (9.2)	9,371.7 (9.1)
≥65	403 (7.1)	7,392.8 (7.2)
Insurance status		
Commercial	995 (17.6)	18,116.1 (17.6)
Medicare or Medicaid	4,419 (78.2)	80,457.2 (78.2)

Note: As in Table 1, missing or unknown data not included in table; sums may not add to 100%. Re-weighted groups correspond to the comparison groups used when matching on all demographics.

eFigure. Time Trends for all Primary Outcomes Among Patients From Muslim Ban-Targeted Nations and Demographically Matched US-Born Non-Latin American Patients, January 2016 to December 2017



Points indicate weekly average counts per 1,000 people in each group after demographic matching for A) clinic visits, B) missed clinic appointments, C) clinic stress-responsive diagnoses, D) ED visits, and E) ED stress-responsive diagnoses. A LOESS regression line summarizing the time trend is included for each re-weighted group, based on daily average counts. For all clinic outcomes, panels A, B, and C, non-business days are excluded from the analysis. The solid line marks the Order issuance and the dotted line marks the 2016 election, for reference.

Differences following the Muslim Ban among individuals from Muslim-majority nations not targeted in the Order

Because we observed utilization and diagnosis trends only for 1,254 individuals from other Muslim-majority nations, we are not able to robustly compare the experiences of these individuals from Muslim-majority nations that were and were not named in the executive order. Nonetheless, we note that a difference-in-differences analysis comparing individuals born in a Muslim majority nation not named in the Muslim Ban and U.S.-born, non-Latinx individuals reveals qualitatively similar trends to those observed for individuals from targeted nations.

eTable 11. Difference in Differences Comparing Individuals Born in a Muslim-Majority Nation Not Named in the Muslim Ban Order and US-Born, Non-Latin American Individuals

	Dependent Variable				
	Count of Visits or Diagnoses (Robust standard error, clustered by individual)				
	Clinic Visits	Missed Appointments	Clinic Diagnoses	ED Visits	ED Diagnoses
Muslim majority	4.38 (7.36)	4.38 (2.21)	26.16 (18.92)	-9.10 (2.95)	-35.02 (14.97)
Muslim majority Post-Order	30.55 (7.72)	6.73 (2.90)	72.98 (20.74)	1.59 (3.30)	-1.89 (15.38)
Constant	169.00 (1.13)	30.13 (0.41)	431.18 (3.03)	30.51 (0.61)	107.71 (2.38)
Period FE	Yes	Yes	Yes	Yes	Yes
Observations (N)	5926248	5926248	5926248	5926248	5926248
R^2	0.00027	0.00007	0.00036	0.00002	0.00006