US Foreign-Born Essential Workers by Status and State, and the Global Pandemic

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This paper provides comprehensive estimates on immigrant (foreign-born) workers in the United States, employed in "essential critical infrastructure" categories, as defined by the US Department of Homeland Security (DHS) (DHS 2020). It finds that immigrants in the labor force and age 16 and over, work at disproportionate rates in "essential critical infrastructure" jobs. In particular, 69 percent of all immigrants in the labor force and 74 percent of undocumented workers are essential infrastructure workers, compared to 65 percent of the native-born labor force.

The contributions of immigrants to the US labor force and economy have been well-documented. The labor force participation rates of the foreign-born, have long exceeded those of the nativeborn (BLS 2019). Immigrants fill gaps in the US economy, improve labor market efficiency, and support the aging US population (Sherman et al. 2019). Immigration has also "brought to the United States an inordinate share of the world's best talent which has been a windfall in a global economy where heavy advantages accrue to the most innovative companies and countries" (CFR 2009). This paper shows that immigrants, particularly the undocumented, work at high rates in essential critical infrastructure sectors. In the great majority of US states, the foreign-born participate in the essential workforce at higher rates than the native-born, and the foreign-born share of essential workers exceeds the share of all foreign-born workers in the state (Table 1 in appendix). In short, the paper shows that immigrants are working – often at great risk to their health and lives – to keep Americans safe, healthy, fed, and poised for economic recovery.

These findings are at odds with the policies of the current administration, which have consistently sought to divest immigrant populations of legal status and to decrease legal immigration through a variety of administrative measures (Kerwin and Warren 2019), including a recent presidential proclamation to suspend the admission of persons in many legal immigration categories (Trump 2020). In the same vein, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) denies a federal tax rebate to persons who have filed tax returns without a "valid identification number" (defined as a social security number) or, in the case of a joint return, if either spouse lacks a social security number. Individual Taxpayer Identification Numbers (ITINs) do not suffice. This requirement will exclude many US taxpaying, mixed-status families — families with undocumented and US citizen family members (typically children) — from obtaining badly needed federal stimulus relief. In 2018, 18.3 million persons lived 3.8 million "mixed-status" households. ITIN filers pay over \$9 billion in withheld payroll taxes annually and contribute to the solvency of federal retirement programs (Hallman 2018).

¹ Coronavirus Aid, Relief, and Economic Security Act (CARES Act), §2201, Pub. L. No. 116-136 (2020). https://www.congress.gov/bill/116th-congress/house-bill/748/text.

Top-line findings

Based on 2018 US Census data, the Center for Migration Studies (CMS) estimates that 19.8 million immigrants work in "essential critical infrastructure" categories (DHS 2020).² These workers meet the health, infrastructure, manufacturing, service, food, safety, and other needs of all Americans. Roughly one-half of US foreign-born essential workers – 9.6 million – are naturalized citizens, 4.6 million are legal noncitizens (mostly lawful permanent residents or LPRs), and 5.5 million are undocumented.³

CMS finds that 69 percent of US immigrant workers – those in the labor force and age 16 and over—work in essential critical infrastructure categories, including 74 percent of undocumented workers, compared to 65 percent of the native-born labor force.

Nationally, foreign-born workers comprise 18 percent of workers in essential critical infrastructure categories. In the overwhelming majority of states, immigrants make up a larger share of essential workers than the native-born, and a larger share than that of all immigrant workers in the state's labor market (Table 1). In California, immigrants comprise 36 percent of essential workers. Foreign-born workers comprise 31 percent of essential workers in both New York and New Jersey. In Florida and Nevada, they make up 28 and 27 percent of essential workers, respectively. They also account for more than 20 percent of essential workers in Texas (24 percent), Hawaii (24 percent), Massachusetts (23 percent), and Maryland (21 percent).

Naturalized citizens make up 67 percent of immigrants working in health care, including 74 percent of immigrants working in hospitals and 74 percent of those working in doctors' and dentists' offices. Many of these immigrants work on the front lines with coronavirus patients.

Undocumented immigrants comprise 54 percent of foreign-born workers in agriculture and farms, and 40 percent in disinfection. These workers contribute to the nation's food security and health. Undocumented immigrants also comprise 50 percent of foreign-born workers in construction, including plumbers and electricians, and the plurality of immigrant workers in tire, rubber, cement, and household appliance manufacturing. These workers will also be vital to the ability of the Americans and the US economy to rebound from the pandemic.

Table 2 provides CMS's estimates of undocumented immigrants, legal non-citizens, and naturalized citizens who work in essential critical infrastructure. A detailed explanation of the methodology used to produce these estimates can be found below.

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² An earlier CMS report produced estimates of immigrants in New York State working in "essential businesses", as identified by the state (not DHS) (Nicholson and Alulema 2020). CMS has also reported on the high number of DACA beneficiaries in select essential industries (Alulema 2020).

³ CMS's undocumented estimates include two legally present populations, Deferred Action for Childhood Arrivals (DACA) and Temporary Protected Status (TPS) recipients. Nearly one-half of all US foreign-born essential workers are naturalized citizens, while 28 percent are undocumented and 23 percent are legal non-citizens.

In particular, immigrants comprise:

- 16 percent of US health care sector workers.⁴
- 33 percent of health care sector workers in New York State, 32 percent in California, 31 percent in New Jersey, 23 percent in Massachusetts, 17 percent in Illinois, and 9 percent in Pennsylvania; these states have the highest numbers of confirmed coronavirus cases at this writing (CDC 2020).
- 26 percent of home health care workers and aides for the elderly.
- 22 percent of workers in scientific research and laboratories.
- 24 percent of workers in medical equipment manufacturing and 25 percent in pharmaceuticals manufacturing; i.e., businesses that supply the health care sector.
- 28 percent of janitors and building cleaners, 23 percent of workers in disinfection, and 23 percent of those who manufacture soap and cleaning compounds.⁵
- 52 percent of workers in the three industries (immediately above) in California, 44 percent in New Jersey, 40 percent in New York, 39 percent in Massachusetts, 27.5 percent in Illinois, and 14 percent in Pennsylvania.
- 26 percent of construction workers.
- 23 percent of US transportation industry workers, including buses, rails, water transport, and vehicles-for-hire, but excluding airlines.
- 28 percent of workers in telecommunications equipment manufacturing and 31 percent in computer and microelectronic manufacturing.
- 14 percent of workers in automobile and automobile parts manufacturing.
- 21 percent of workers in warehousing, distribution, and fulfillment (i.e., who handle customer orders for e-commerce businesses).
- 31 percent of US agricultural employees, 26 percent of workers in food and beverage manufacturing and processing, 26 percent of grocery wholesalers, and 17 percent in retail grocery and other food and beverage stores.
- 50 percent of workers in the four industries (immediately above) in California, 33 percent in New Jersey, 30 percent in New York, 24 percent in Massachusetts, 20 percent in Illinois, and 13 percent in Pennsylvania.

The 10 essential industries that employ the highest numbers of naturalized citizens include hospitals (862,400 workers), restaurants (741,700), construction (701,600), transportation (571,300), building cleaners (345,400), government (330,200), banks (325,100), doctors' and dentists' offices (309,900), nursing homes (302,100), and real estate (255,900).

⁴ A study by the New American Economy provides detailed estimates of immigrant health care workers, and highlights the immense demand for these workers in response to the pandemic (NEA 2020).

⁵ This sector also includes cosmetic products.

⁶ These essential worker figures are for 2018. While some construction sites and restaurants continue to operate, it is difficult to estimate the precise number of immigrants who continue to work in these sectors.

Undocumented immigrants work – by essential industry – in construction (1,320,500), restaurants (846,100), agriculture and farms (310,800), landscaping (277,600), building cleaners (268,400), food processing and manufacturing (193,900), transportation (181,000), grocery stores (147,300), hotels and other accommodations (137,000), and warehousing, distribution, and fulfillment of online orders (103,000).

Methodology

To arrive at these estimates, CMS used the "essential critical infrastructure" categories set forth by DHS's Cybersecurity and Infrastructure Security Agency (DHS 2020). DHS sets forth 17 categories of essential critical infrastructure workers. For simplicity and consistency with previous CMS reporting, CMS collapsed these 17 DHS categories into 14 categories that encompass all essential critical infrastructure workers. These 14 categories minimize overlap when matching Census industry codes to DHS categories.⁷

CMS matched each essential category with a 2017 industry code by the Census Bureau. In the few cases where essential infrastructure categories do not correspond to Census Bureau industry codes, CMS matched categories to 2018 Census Bureau occupational codes. It then calculated the number of workers in each essential industry using 2018 1-Year data from American Community Survey (ACS) data (IPUMS), weighted using individual weights calculated by the Census Bureau (Ruggles et al. 2020). CMS restricted the universe of employees to all individuals aged 16 and over.

Industry codes reflect the industries in which respondents to the ACS most recently performed their occupation. Likewise, occupation codes reflect most recent occupation. To restrict its estimates to individuals that were likely to be working in 2018, CMS included only individuals that were in the labor force at the time they responded to the ACS. Some individuals may work in more than one industry or occupation. For these individuals, the ACS records the industry or occupation in which they earned the most money.

Some industries (construction, restaurants, and hotels, for example) may include high numbers of workers in essential sectors who are not working during the pandemic. Some workers may be furloughed or may have lost their jobs since 2018. These estimates should, thus, be regarded as an upper bound on the number of workers in essential infrastructure by their immigration status as of 2018.

CMS used both industry and occupational codes from the ACS to derive its estimates. Since industry codes encompass many occupations, CMS corrected its estimates for double count.

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⁷ In some cases, CMS consolidated the main categories shown in Table 2 to avoid showing small, statistically unreliable numbers. Within each category, the estimates were ranked on total foreign-born, and the smallest categories were summed and shown as other categories. With some exceptions, estimates less than a few thousand are not shown.

⁸ These categories of essential businesses include corrections, electricians, plumbers, law enforcement, fire prevention and response, building inspection and code enforcement, security, emergency management and response, building cleaners and janitors, disinfection, and logistics.

To estimate the number of naturalized citizens, legal non-citizens, and undocumented immigrants, CMS used information collected in the ACS. The annual series of CMS estimates of undocumented residents includes all the detailed characteristics collected in the ACS (Ruggles et al. 2020). A description of CMS estimation procedures, as well as a discussion of the plausibility of the estimates, is provided in Warren (2020).

References

Alulema, Daniela. 2020. "DACA Recipients are Essential Workers and Part of the Front-line Response to the COVID-19 Pandemic, as Supreme Court Decision Looms," March 30. New York, NY: Center for Migration Studies. https://cmsny.org/daca-essential-workers-covid/

Centers for Disease Control. 2020. "Cases of Coronavirus Disease in the U.S." Atlanta, Georgia: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html (last visited Apr. 29, 2020).

CFR (Council on Foreign Relations). 2009. "US Immigration Policy." Independent Task Force Report No. 63. New York, NY: CFR. https://www.cfr.org/report/us-immigration-policy

BLS (US Bureau of Labor Statistics). 2019. "Foreign-Born Workers: Labor Force Characteristics—2018." Washington, DC:

BLS. https://www.bls.gov/news.release/forbrn.nr0.htm/labor-force-characteristics-of-foreign-born-workers-summary

DHS (US Department of Homeland Security, Cybersecurity and Infrastructure Agency). 2020. "Advisory Memorandum on Identification of Essential Critical Infrastructure Workers During Covid-19 Response." Washington, DC:

DHS. https://www.cisa.gov/sites/default/files/publications/Version_3.0_CISA_Guidance_on_Ess ential Critical Infrastructure Workers 4.pdf

Hallman, Hunter. 2018. "How do Undocumented Immigrants Pay Federal Taxes? An Explainer." Washington, DC: Bipartisan Policy Center. https://bipartisanpolicy.org/blog/how-do-undocumented-immigrants-pay-federal-taxes-an-explainer/

Kerwin, Donald, and Robert Warren. 2019. "Putting Americans First: A Statistical Case for Encouraging Rather than Impeding and Devaluing US Citizenship." *Journal on Migration and Human Security* 7(4): 108-22. https://journals.sagepub.com/doi/full/10.1177/2331502419894286

NEA (New American Economy). 2020. "Immigration and Covid-19," updated April 23. New York, NY: NEA. https://research.newamericaneconomy.org/report/immigration-and-covid-19/

Nicholson, Mike, and Daniela Alulema, with Robert Warren and Donald Kerwin. 2020. "Immigrants Comprise 31 Percent of Workers in New York State Essential Businesses and 70 Percent of the State's Undocumented Labor Force Works in Essential Businesses." New York, NY: Center for Migration Studies. https://cmsny.org/new-york-essential-workers/

Ruggles, Steven, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas and Matthew Sobek. IPUMS USA: Version 10.0 [dataset]. Minneapolis, MN: IPUMS, 2020. https://doi.org/10.18128/D010.V10.0

Sherman, Arloc, Danilo Trisi, Chad Stone, Shelby Gonzalez, and Sharon Parrott. 2019. "Immigrants Contribute Greatly to US Economy, Despite Administration's 'Public Charge' Rule Rationale," August 15. Washington, DC: Center on Budget and Policy Priorities. https://www.cbpp.org/research/poverty-and-inequality/immigrants-contribute-greatly-to-us-economy-despite-administrations

Trump, Donald. 2020. "Proclamation Suspending Entry of Immigrants Who Present Risk to the US Labor Market During the Economic Recovery Following the COVID-19 Outbreak," April 22. https://www.whitehouse.gov/presidential-actions/proclamation-suspending-entry-immigrants-present-risk-u-s-labor-market-economic-recovery-following-covid-19-outbreak/

Warren, Robert. 2020. "Reverse Migration to Mexico Led to US Undocumented Population Decline: 2010 to 2018." *Journal on Migration and Human Security* 8 (1): 32-41. https://journals.sagepub.com/doi/full/10.1177/2331502420906125

Appendix

Table 1: Foreign Born Essential Workers by State and Legal Status: 2018										
State	Naturalized Citizens	Legal Foreign- Born	Undocumented	Foreign- Born Share of All Essential Workers	Foreign- Born Share of Labor Force					
Total	9,609,000	4,619,600	5,531,300	18.3	17.5					
Alabama	23,300	14,700	30,100	4.5	4.5					
Alaska	20,500	6,800	2,700	11.4	10.6					
Arizona	183,400	104,600	133,500	18.9	17.2					
Arkansas	22,900	15,000	32,300	7.5	7.3					
California	2,256,200	1,076,900	1,206,600	35.9	33.3					
Colorado	108,400	61,300	84,600	12.9	12.0					
Connecticut	116,400	54,300	58,200	18.7	18.4					
Delaware	21,300	8,400	14,200	13.2	12.1					
District Of Columbia	16,600	14,600	10,900	18.6	16.7					
Florida	1,020,500	474,900	396,300	28.2	26.6					
Georgia	210,000	91,100	173,600	14.1	13.7					
Hawaii	70,100	33,200	18,300	23.6	22.4					
Idaho	21,500	10,700	26,000	10.2	8.6					
Illinois	407,000	171,800	244,000	19.2	18.1					
Indiana	63,200	37,500	52,500	6.7	6.8					
Iowa	35,400	28,200	29,800	8.0	7.7					

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Kansas	41,600	18,200	39,700	9.8	9.5
Kentucky	32,600	19,100	26,500	5.5	5.2
Louisiana	28,900	15,400	35,100	5.5	5.5
Maine	11,000	7,400	2,400	4.3	4.0
Maryland	237,400	90,500	118,300	21.2	20.1
Massachusetts	291,600	149,000	88,900	22.5	20.8
Michigan	155,400	72,400	55,400	8.4	8.2
Minnesota	118,800	61,600	48,700	11.4	10.7
Mississippi	10,500	6,600	11,200	3.2	3.2
Missouri	60,300	27,300	24,900	5.5	5.4
Montana	5,800	2,500	1,000	2.4	2.3
Nebraska	29,600	19,900	22,500	9.9	9.3
Nevada	127,000	51,400	84,900	27.4	25.5
New Hampshire	21,100	7,900	2,600	6.4	6.5
New Jersey	528,900	180,500	202,600	30.6	29.2
New Mexico	31,000	20,700	34,400	13.5	12.1
New York	1,100,300	480,700	360,800	31.0	28.2
North Carolina	136,100	80,500	158,600	11.2	10.9
North Dakota	7,100	6,000	5,200	6.0	6.3
Ohio	123,700	57,100	47,900	5.7	5.8
Oklahoma	41,900	24,900	48,100	9.0	8.1
Oregon	85,400	43,200	72,400	14.6	13.2
Pennsylvania	213,900	91,100	92,800	9.1	9.2
Rhode Island	34,000	11,500	12,100	16.4	16.2
South Carolina	45,400	26,600	40,000	6.8	6.6
South Dakota	9,900	4,900	2,100	5.2	4.7
Tennessee	64,000	41,200	66,900	7.7	7.1
Texas	820,800	515,200	918,500	24.0	22.4
Utah	44,800	32,000	49,800	12.9	11.2
Vermont	9,000	3,100	1,100	5.8	5.5
Virginia	244,100	92,400	144,200	17.1	16.8
Washington	232,500	116,600	148,800	19.7	18.8
West Virginia	4,900	800	2,300	1.5	1.7
Wisconsin	60,500	35,800	43,300	6.7	6.3
Wyoming	2,600	1,800	3,500	3.6	3.9
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Source: Center for Migration Studies of New York. See text for method of estimation. Data collected in the 2018 ACS.

Table 2. Foreign-born Essential Workers in the United States, by Legal Status: 2018										
				Foreign-						
	Legal sta	born								
Type of worker or economic activity				share of						
		Legal	Undoc-	essential						
	Naturalized	resident	umented	workers						
Total foreign-born essential workers	9,609,000	4,619,600	5,531,300	18.3						
Essential Health Care Operations	2,026,900	635,000	351,600	16.3						
Hospitals	862,400	212,000	94,800	16.1						
Nursing homes or residential health care										
facilities or congregate care facilities	302,100	115,700	78,900	16.9						
Offices of Doctors and Emergency Dentists	309,900	68,600	38,200	14.8						
Home Health Care Workers or Aides for										
the Elderly	220,000	108,000	64,600	25.7						
Walk-In Care Health Facilities	155,900	44,000	32,400	12.8						
Research and Laboratory Services	78,400	46,600	24,800	22.2						
Medical Wholesale and Distribution	21,400	11,300	6,300	16.2						
Emergency Veterinary and Livestock										
Services	10,500	5,800	2,800	5.1						
Other essential health care operations	66,400	22,800	8,800	11.1						
Essential Infrastructure	1,045,800	424,700	376,200	21.1						
Transportation Infrastructure such as Bus,										
Rail, or For-Hire Vehicles, Garages	571,300	238,000	181,000	22.8						
Hotels and Places of Accommodation	238,400	105,200	137,000	30.7						
Telecommunications and Data Centers	90,800	36,200	31,400	15.1						
Airports and Airlines	77,500	25,800	15,800	18.8						
Utilities, Including Power Generation, Fuel										
Supply, and Transmission	47,200	14,000	9,500	8.5						
Public Water and Wastewater	20,600	5,500	1,500	8.6						
Essential Manufacturing	1,198,800	699,400	857,000	20.8						

Agriculture and Farms	108,800	159,900	310,800	31.3
Food Processing, Manufacturing Agents,				
Including All Foods and Beverages	199,200	145,500	193,900	26.4
Microelectronics, Semi-Conductors	186,200	69,300	54,500	30.5
Motor vehicles and motor vehicle				
equipment manufacturing	86,000	64,200	47,200	13.6
Medical Equipment and Instruments	97,400	30,900	24,000	24.2
Pharmaceuticals	86,400	30,600	18,500	25.2
Aircraft and parts manufacturing	83,400	20,800	13,100	16.7
Plastics product manufacturing	35,300	19,600	23,900	17.5
Electric lighting and electrical equipment				
manufacturing, and other electrical				
component manufacturing, n.e.c.	42,700	16,000	14,600	20.0
Miscellaneous fabricated metal products				
manufacturing	24,800	14,500	15,100	15.6
Chemicals	26,800	13,800	12,100	12.1
Structural metals, and boiler, tank, and				
shipping container manufacturing	22,900	12,000	17,400	13.9
Household Paper Products	24,700	10,300	13,200	12.7
Machine shops; turned product; screw, nut,				
and bolt manufacturing	22,300	11,000	12,800	14.1
Telecommunications	23,600	8,500	4,400	28.0
Sanitary Products	15,000	11,300	7,600	23.2
Iron and steel mills and steel product				
manufacturing	15,200	7,300	10,700	11.9
Other essential manufacturing	98,200	53,900	63,000	12.1
Essential Wholesale	203,300	112,600	137,200	17.6
Grocery and related product merchant	200,000	112,000	137,200	17.0
wholesalers	81,200	56,600	76,300	26.0
Household appliances and electrical and	01,200	55,000	70,000	20.0
electronic goods merchant wholesalers	21,500	11,100	7,700	18.4

	109,900	112,200	277,600	35.3
Essential Services	761,200	461,700	661,100	20.2
Fuel dealers	3,300	1,300	2,200	7.3
Convenience Stores	28,900	10,200	13,900	15.8
Gas Stations	56,000	22,900	26,500	18.0
Hardware and Building Material Stores	64,200	28,300	28,900	9.3
Pharmacies	100,100	29,100	20,500	16.1
Beverage Stores	234,000	136,800	147,300	16.7
Grocery Stores including All Food and				
Restaurants	741,700	516,800	846,100	20.5
Essential Retail	1,228,100	745,400	1,085,200	18.4
- Carlot Gridigy Workers	0,100	2,700	3,000	7.0
Other energy workers	8,100	2,700	3,500	7.5
Oil and gas extraction	8,400	4,500	3,400	12.6
Petroleum refining	11,700	5,400	5,500	13.8
Support activities for mining	25,600	19,100	18,100	14.2
Energy	53,900	31,800	30,500	12.5
Other essential wholesale	25,400	12,500	17,100	15.3
Other essential wholesale	4,600	1,600	2,700	15.2
Paper and paper products merchant	4.000	1.000	0.700	45.0
merchant wholesalers	5,800	3,800	2,500	12.2
Petroleum and petroleum products				
wholesalers	10,500	5,200	3,900	11.0
equipment, and supplies merchant				
Hardware, and plumbing and heating				
merchant wholesalers	11,400	4,100	9,000	14.5
Lumber and other construction materials				
supplies merchant wholesalers	21,200	9,800	8,100	16.2
Motor vehicle and motor vehicle parts and				
merchant wholesalers	21,800	7,900	9,900	9.3
Machinery, equipment, and supplies				

Warehouse, Distribution, and Fulfillment	125,500	93,400	103,000	21.1
Auto Repair	130,600	73,000	102,200	17.0
Child Care Services	144,600	80,500	66,700	18.0
Mail and Shipping Services	139,000	44,700	26,800	13.5
Laundromats	42,600	21,500	42,800	37.9
Trash and Recycling Collection,				
Processing, and Disposal	33,900	16,400	25,700	15.8
Personal and Household Goods Repair	17,400	11,300	8,000	21.1
Animal Shelters	12,000	5,700	6,900	7.7
Funeral Homes, Crematoriums, and				
Cemeteries	6,000	3,100	1,500	7.1
News Media	46,700	20,600	16,600	12.2
Financial Institutions	1,020,900	337,100	229,300	14.4
Banks	325,100	111,900	85,000	15.8
Real Estate	255,900	66,000	51,800	14.6
Services Related to Financial Markets	166,100	65,300	41,600	14.2
Insurance	154,400	48,900	37,800	11.8
Payroll and Accounting	119,400	45,000	13,000	15.0
Providers of Basic Necessities to				
Economically Disadvantaged				
Populations and Employees at				
Correctional Facilities	223,300	81,700	38,600	14.8
Services to Individuals and Families	186,000	70,700	35,500	17.8
Food Banks and Shelters	11,000	4,500	2,600	11.7
Other Providers of Basic Necessities	26,300	6,600	400	6.4
Construction	799,800	604,100	1,398,500	24.8
Construction	701,600	555,900	1,320,500	26.0
Electricians	62,000	27,700	37,500	15.1
Plumbers	36,200	20,500	40,500	17.2

Defense	103,700	38,500	0	9.0
Essential Services Necessary to				
Maintain the Safety, Sanitation, and				
Essential Operations of Residences or				
Other Essential Businesses	539,600	336,800	342,200	19.1
Building Cleaners or Janitors	345,400	247,300	268,400	27.9
Security	80,400	33,700	24,700	13.5
Disinfection	32,200	36,500	45,100	23.2
Emergency Management and Response	9,700	2,800	3,100	5.8
Other Essential Services Necessary to				
Maintain Safety, Sanitation, and Essential				
Operations	71,900	16,500	900	5.9
Vendors that Provide Essential Services				
or Products, Including Logistics and				
Technology Support	357,100	90,200	7,300	9.8

Source: Center for Migration Studies. Data collected in the 2018 ACS. See text for method of estimation.

Table 3: Foreign-Born Essential Workers by Select States and Industries												
	California	Florida	Hawaii	Illinois	Maryland	Mass.	Mich.	Nevada	New Jersey	New York	Penn.	Texas
Number of:												
Health Care												
Workers	597,700	313,900	16,700	122,900	100,000	124,100	50,200	30,700	168,300	409,000	82,200	260,600
Janitors and												
Building Cleaners	173,000	86,900	5,000	36,400	17,900	24,200	5,200	16,100	36,600	100,300	17,500	105,600
Workers in												
Disinfection	33,100	12,300	1,400	2,800	700	3,400	1,000	2,500	3,200	7,500	2,000	15,100
Workers in												
Agriculture	291,093	35,346	2,540	3,982	1,010	1,096	5,330	1,237	3,675	6,454	7,334	32,198
Workers in Food												
and Beverage												
Manufacturing	112,800	22,800	1,700	29,600	3,100	10,200	9,400	3,300	20,300	21,900	16,600	44,600
Workers in												
Transport (Except												
Airlines)	225,700	111,500	5,900	60,400	18,300	22,000	12,900	13,300	51,500	159,200	18,600	100,100
Percentage of all:												
Health Care												
Workers	31.6	27.7	24.2	16.7	24.6	23.3	8.2	24.8	30.7	32.9	9.2	18.6
Janitors and	02.0						0.12			02.0		
Building Cleaners	52.4	41.9	31.6	28.7	32.2	39.1	4.9	51.2	46.9	40.8	13.7	41.1
Workers in												
Disinfection	53.7	30.5	39.2	16.8	12.7	36.2	5.9	47.3	38.6	32.7	12.8	31.6
Workers in												
Agriculture	68.4	48.2	35.1	7.3	8.6	10.9	12.9	19.2	32.1	15.6	14.9	30.0
Workers in Food												
and Beverage												
Manufacturing	44.1	37.7	32.6	27.0	15.5	38.5	19.8	35.7	45.5	29.6	18.5	33.6

Workers in												
Transport (Except												
Airlines)	42.5	38.1	31.8	25.9	22.9	30.8	12.3	27.7	36.7	47.1	10.3	25.3

Source: Center for Migration Studies of New York. See text for method of estimation. Data collected in the 2018 ACS.