



# NORTH AMERICAN INTEGRATION & DEVELOPMENT CENTER

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## **Research Technical Report on Pathways to Citizenship: The Economic Impact of Comprehensive and Inclusive Immigration Reform**

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**3-23-21**

On inauguration day 2021, the new Biden-Harris Administration released the outline of comprehensive immigration reform bill.<sup>2</sup> Within 30 days, the “US Citizenship Act of 2021” was introduced as draft legislation in both the Senate<sup>3</sup> and the House<sup>4</sup>. While no other administration in US history has acted on immigration so quickly and comprehensively, President Biden has also signaled that he was open to considering individual “trains” of legislation designed to address specific components of this comprehensive effort, including the Dream Act for DACA recipients<sup>5</sup>, the Promise Act focused on TPS recipients<sup>6</sup> and the Farm Workforce Modernization Act<sup>7</sup>. In parallel but not in contradiction to these efforts, House and Senate members have most recently introduced, “legislation to immediately protect

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<sup>2</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/fact-sheet-president-biden-sends-immigration-bill-to-congress-as-part-of-his-commitment-to-modernize-our-immigration-system/>

<sup>3</sup> <https://www.menendez.senate.gov/imo/media/doc/USCitizenshipAct2021BillText.pdf>

<sup>4</sup> <https://lindasanchez.house.gov/sites/lindasanchez.house.gov/files/2021.02.18%20US%20Citizenship%20Act%20Bill%20Text%20-%20SIGNED.pdf>

<sup>5</sup> <https://www.congress.gov/bill/116th-congress/house-bill/2820>

<sup>6</sup> <https://www.congress.gov/bill/116th-congress/house-bill/6>

<sup>7</sup> <https://www.congress.gov/bill/116th-congress/house-bill/5038>

essential workers and their families from deportation and provide them with a fast-track path to citizenship.”<sup>8</sup>

This research technical report is designed as a complement to the research brief entitled, “Path to Prosperity: The Macroeconomic Benefits of Four Immigrant Regularization Scenarios.”<sup>9</sup> This technical report presents more detailed data tables and a methodological note that supports the research findings reviewed in the brief. While the research brief is designed to report on projections of the macroeconomic impacts of different scenarios for regularizing all unauthorized workers by subgroups (essential workers, DACA, TPS and Agricultural), the data here presents a more complete picture of the relative characteristics of the different immigrant subgroups. We also present additional research data and findings on issues related to the different immigration bills but not directly addressed in the brief, including the impact of future legal immigration, the inclusion unauthorized workers in Covid-19 relief bills, the impact of immigration reform scenarios on remittances as well as the state geographical distribution of reform impacts.

The following presents key highlights of findings from the detailed tables contained in this technical report:

(1) Aggregate and sectoral structure of the total and essential unauthorized working population by immigration subgroups: DACA, TPS, and AG workers.

- The total number of unauthorized workers is 7.8 million. DACA recipients account for 5% of this figure, TPS recipients for 4%, and agricultural workers for 3%. Additionally, 77.9% of unauthorized workers are also classified as essential workers.

(2) Economic and fiscal contributions of unauthorized worker by subgroups.

- The total annual economic contribution of unauthorized workers is \$1,034 billion with \$259 billion in total taxes while the contribution of subgroups varies according to their relative size as well as sectoral employment, wages, and value added.

(3) Economic impacts of four scenarios for regularization and citizenship by unauthorized subgroup, including both the impact of regularizing current immigrants and new migration flows.

- The complete impact of the 2021 Citizenship Act would be \$2.5 trillion over ten years, with \$1.5 trillion attributed to regularization and \$1 trillion to new immigration.
- Economic impact of a scenario for the complete regularization of all unauthorized workers is \$1.5 trillion in additional cumulative GDP and \$367 billion in additional cumulative taxes over ten years.
- The impact of individual subgroup regularization varies according to relative size as well as sectoral employment, wages and value added.

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<sup>8</sup><https://www.congress.gov/bill/117th-congress/senate-bill/747/text?r=8&s=1>

[https://americasvoice.org/press\\_releases/incoming-california-senator-alex-padilla-and-texas-congressman-joaquin-castro-call-on-regularizing-for-unauthorized-essential-workers/](https://americasvoice.org/press_releases/incoming-california-senator-alex-padilla-and-texas-congressman-joaquin-castro-call-on-regularizing-for-unauthorized-essential-workers/)

<sup>9</sup> <https://latino.ucla.edu/research/four-citizenship-scenarios/>

- New immigration projections include recent trends, which show a declining share of new immigrants from Mexico in comparison to the growing share of new immigrants from China and India.

(4) Economic Impacts of COVID-19 relief by unauthorized worker subgroup.

- The net benefit of providing Covid-19 relief benefits to all unauthorized persons would be \$14.8 billion (the total initial cost) less the multiplier impact of this income transfer to low-income unauthorized households which would result in an increase of \$6.1 billion in total tax revenue, reducing the net cost of the program to \$8.7 billion.
- The economic benefit of regularization would similarly have positive multiplier effects, however the economic benefits from regularization would be the result of increases in wages, productivity and spending, and would not come from increased government expenditures.

(5) Impact of regularization scenarios on remittance flows to Mexico and Central America countries, addressing the “root causes” of migration.

- Regularization of all unauthorized workers plus new immigration would increase the total remittance flow to Mexico and Central America to \$1.2 trillion over the next ten years.
- Converting a portion of remittances into savings and investments through financial inclusion and international cooperation could assist in addressing the root causes of migration contemplated as a new goal with the 2021 Citizenship Act.

(6) State geographic distribution of GDP gains from regularization of unauthorized workers.

- The state distribution of 10-year benefits of cumulative GDP and taxes resulting from regularization and new legal immigration would be proportional to state shares of GDP.
- While state impacts of immigration reform proportionately benefit the largest states with large numbers of immigrants, the data also indicates the existence of a paradoxically higher relative benefits to smaller states with the lowest rates of unauthorized immigrants.

The follow provides more detailed description of data tables and research findings:

**1) Population Data of Essential Workers and Other Unauthorized Groups**

- Of all unauthorized workers (7.8 million), 77.9 % are defined by DHS as “Essential and Critical” workers totaling 6.079 million. (Tables 1 and Figure 1a).
- Of the total unauthorized essential worker population, 5 % are DACA, 4 % are TPS and 3 % are agricultural workers (Figure 1b).
- Essential workers make up 73.4 % of DACA, 87.9 % of TPS and 100% of agricultural workers (Table 2 and Figure 2).
- Also reported is the employment distribution for essential sectors by immigration status by thousands of workers (Table 3) and by share of employment (Table 4).

## **2) Economic and Tax Contributions of Essential Workers and Other Unauthorized**

- The annual economic contribution of all unauthorized workers is \$1,034 billion, including \$259 billion in total tax contributions. (Table 5)
- The GDP contribution of all essential unauthorized workers is \$805 billion, including \$201 billion in total taxes. (Table 5)
- The GDP contribution of DACA unauthorized workers is \$55 billion, including \$14 billion in total tax contributions. (Table 5)
- The GDP contribution of TPS unauthorized workers is \$34 billion, including \$8 billion in total tax. (Table 5)
- The GDP contribution of agricultural unauthorized workers is \$27 billion, including \$7 billion in total tax contributions. (Table 5)

## **3) Impact of COVID-19 Relief Legislation**

- We estimated the economic impacts of granting relief payments to unauthorized workers and their dependents assuming the payments would be \$1,400 per individual, or \$2,800 per married couple who file jointly, plus \$1,400 per dependent. Unlike previous stimulus checks, both children and adult dependents would qualify.
- Including unauthorized workers in federal government pandemic relief programs will generate greater direct consumption demand, generate additional tax revenue, boost employment, and have positive indirect and induced impacts on consumption.
- The initial cost of providing benefits to all unauthorized persons (10.6 million workers and dependents in total) would be \$14.8 billion. However, the multiplier impact of this income transfer to low-income unauthorized households would result in an increase of \$6.1 billion in total tax revenue (direct and indirect; federal, state, and local), reducing the net cost of the program to \$8.7 billion. (Table 6)

## **4) Impact of Regularization and Citizenship Scenarios for All Unauthorized Workers, by Essential Worker and Immigrant Status, and for New Immigration Scenario**

- The US Citizenship Act of 2021 would legalize all unauthorized workers and allow them to apply for citizenship after three years for essential workers and after eight years for non-essential workers, resulting in \$1,467 billion in additional GDP over 10 years, resulting in \$367 billion in taxes and an additional 371,000 jobs in the tenth year. (Table 7a)
- Legislation that would legalize all essential unauthorized workers and allow them to apply for citizenship after three years would result in \$1,193 billion in additional GDP over 10 years,

resulting in \$298 billion in taxes and 290,00 in additional employment in the tenth year. (Table 7b)

- Regularization and Citizenship for DACA would results in \$112 billion in additional GDP over 10 years, resulting in \$28 billion in taxes and 27,000 in additional employment in the tenth year. (Table 7c)
- Regularization and Citizenship for TPS would results in \$62 billion in GDP over 10 years, resulting in \$16 billion in taxes and 15,000 in additional employment in the tenth year. (Table 7d)
- In addition, the US Citizenship Act 2021 is estimated to provide for the introduction of 7 million new immigrants over the next 10 years which would add another nearly another \$1 trillion in cumulative GDP, resulting in \$239 billion in cumulative taxes and an additional 180,000 jobs in the tenth year (Table 8).
- Table 9 and Figure 3 show that the composition of trends in new immigration is shifting from Mexico to China and India.

#### **5) Impact on Remittance Flows of Regularization, Citizenship and New Immigration Scenarios**

- Remittances to Mexico and the Northern Triangle are projected to grow from \$84 billion in 2022 to \$135 billion in 2031 due to higher incomes of legalized current immigrants and new legal immigration, totaling \$1.2 trillion over the next ten years (Table 10 and Figure 4).
- The Citizenship Act of 2021 includes provisions to “address the root causes of migration” primarily through the use of US taxpayer funded foreign assistance of approximately \$1 billion per year for poor countries in Latin America that are the source of most new migrants.
- New international cooperative policies for financial inclusion of remittances with a 10% conversion to savings and investments would generate a total of \$120 billion of employment generating investments in migrant sending communities.
- The institutional framework for US-Mexico cooperative policies for the financial inclusion and mobilization of remittances for community investment and development in migrant sending areas is explicitly authorized in the founding charter of the North American Development Bank and Community Adjustment and Investment Programs.<sup>10</sup>

#### **6) Impact of Regularization and Citizenship Scenarios at the State Level**

- Table 11 presents the state distribution of 10-year benefits of cumulative GDP and taxes resulting from regularization and new legal immigration (based on state share of GDP);
- Also presented in Table 11 are unauthorized workers as a share of state labor force as well as the ratio of state GDP benefits from regularization of unauthorized workers to the states’ amount of unauthorized workers relative to the state labor force.

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<sup>10</sup> Raul Hinojosa Ojeda (2021, forthcoming). Historical Trajectories and Lessons Learned: The North American Development Bank and Community Adjustment and Investment Program. Colegio de la Frontera Norte and Rice University Center for the United States and Mexico.

- Figure 5 compares unauthorized workers as a share of state labor force (left axis) to the ratio of state GDP benefit to unauthorized workers as a share of state labor force (right axis).
- This data indicates is that the state impacts of immigration reform proportionately benefit the largest states with large numbers of immigrants, but the data also indicates the existence of a paradoxical disproportionate per-capita benefit to smaller states with the lowest rates of unauthorized immigrants. This data further confirms the well documented “Trump Paradox”<sup>11</sup> hypothesis whereby those areas of the country with negative attitudes towards immigrants who voted for Donald Trump, are also those areas with lower exposure to foreign born immigrants and, it now appears, with disproportionately benefit from immigration reform as well (Figure 4).

**Table 1: Total Unauthorized Workers and Essential Workers by Immigration Status (Thousands of Workers)**

Sectors	Total unauthorized	DACA	TPS	Agricultural
Total unauthorized workers	7,804	414	256	205
Total unauthorized essential workers	6,079	304	225	205
Total unauthorized non-essential workers	1,725	110	31	-

Note: Total unauthorized workers include DACA, TPS, and agricultural workers.

Source: estimations made by UCLA NAID Center based on IPUMS USA, Migration Policy Center, and Center for Migration Studies

**Table 2: Share of Total Unauthorized Workers and Unauthorized Essential Workers by Immigration Status (Percentage)**

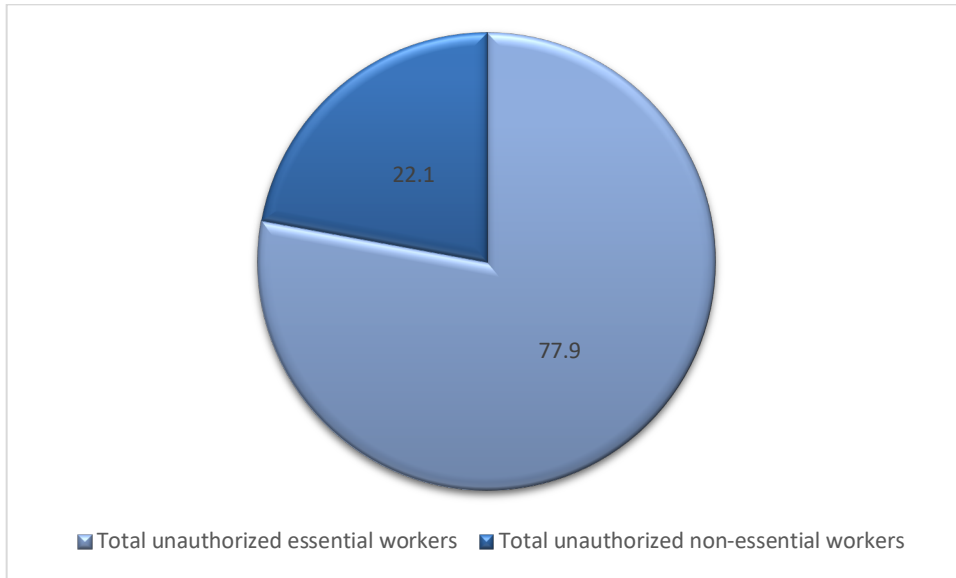
Sectors	Total unauthorized	DACA	TPS	Agricultural
Total unauthorized workers	100.0	100.0	100.0	100.0
Total unauthorized essential workers	77.9	73.4	87.9	100.0
Total unauthorized non-essential workers	22.1	26.6	12.1	0.0

Note: Total unauthorized workers include DACA, TPS, and agricultural workers.

Source: estimations made by UCLA NAID Center based on IPUMS USA, Migration Policy Center, and Center for Migration Studies.

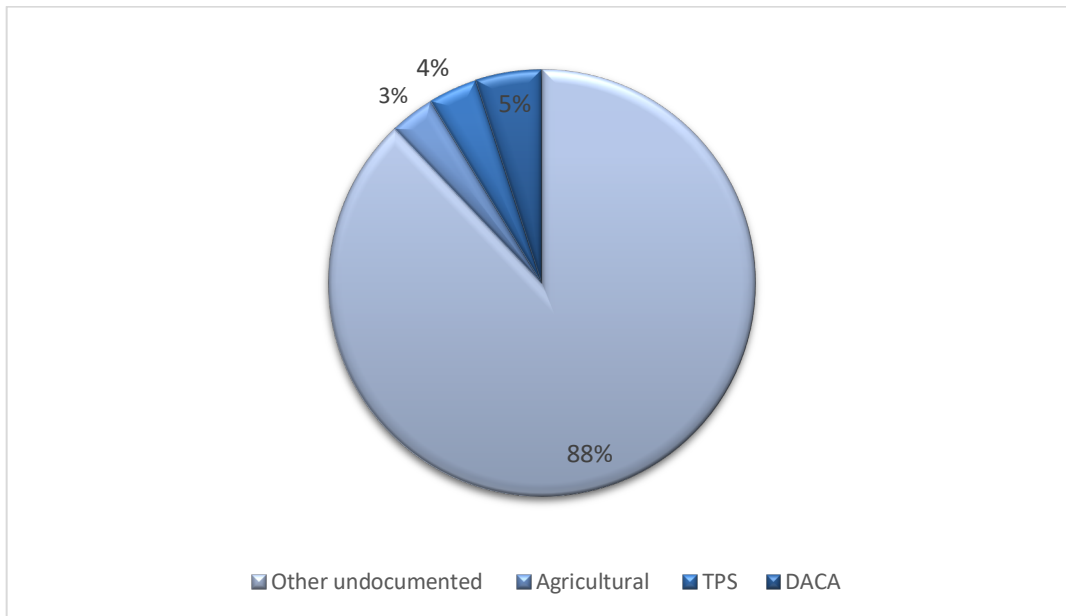
<sup>11</sup> Raul Hinojosa Ojeda and Edward Telles, eds. (2021). The Trump Paradox: Migration, Trade and Racial Politics in US Mexico Integration. University of California Press.

**Figure 1a: Total Unauthorized Workers, Essential and Non-Essential**



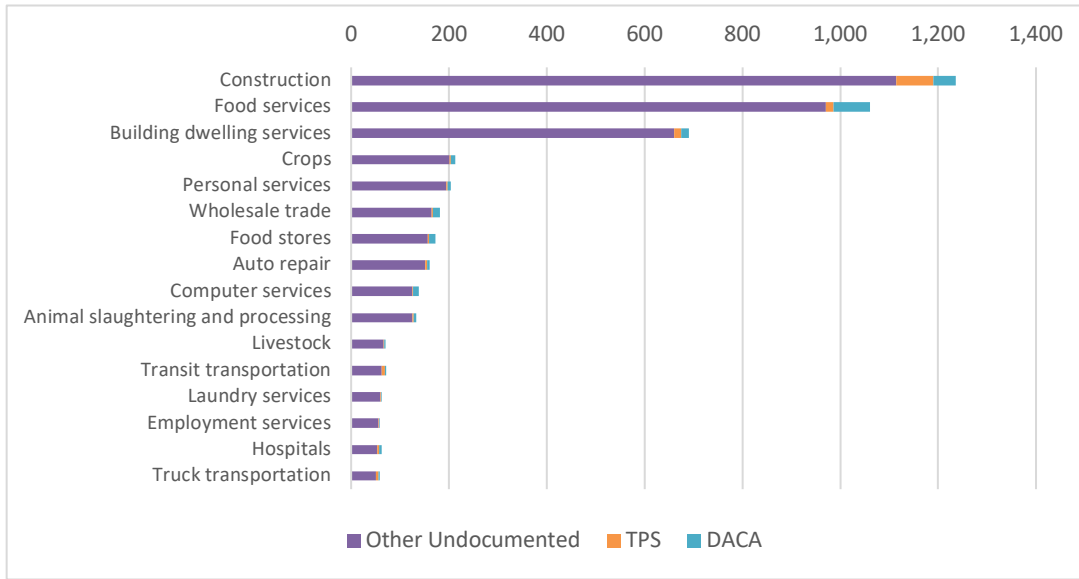
Source: estimations made by UCLA NAID Center based on Migration Policy Center, and Center for Migration Studies

**Figure 1b: Unauthorized Workers by Immigration Status as Share of Total Unauthorized Workers**



Source: estimations made by UCLA NAID Center based on Migration Policy Center, and Center for Migration Studies

**Figure 2: Employment by Sector for Essential Unauthorized Workers by Immigrant Status**



Source: estimations made by UCLA NAID Center based on IPUMS USA, Migration Policy Center, and Center for Migration Studies



**Table 3: Employment by Essential Sectors for Total Unauthorized Workers and by Immigration Status (Thousands of Workers)**

Sectors	Total unauthorized	DACA	TPS	Agricultural
Construction	1,236	46	77	-
Food services	1,061	74	16	-
Building dwelling services	690	15	15	-
Crops	213	10	2	131
Personal services	204	7	3	-
Wholesale trade	182	14	3	-
Food stores	172	13	3	-
Auto repair	161	6	4	-
Computer services	138	11	2	-
Animal slaughtering and processing	133	5	3	-
Transit transportation	72	3	6	-
Livestock	71	3	1	43
Laundry services	63	2	1	-
Hospitals	63	6	4	-
Employment services	59	1	1	-
Truck transportation	58	3	5	-
Other essential sectors	1,503	84	80	31

Source: estimations made by UCLA NAID Center based on IPUMS USA, Migration Policy Center, and Center for Migration Studies

**Table 4: Share of Employment by Essential Sectors for Total Unauthorized Workers and by Immigration Status (Percentage)**

Sectors	Total unauthorized	DACA	TPS	Agricultural
Construction	20	21	53	
Food services	17	34	11	
Building dwelling services	11	7	10	
Crops	4	5	2	60
Personal services	3	3	2	
Wholesale trade	3	6	2	
Food stores	3	6	2	
Auto repair	3	3	3	
Computer services	2	5	1	
Animal slaughtering and processing	2	2	2	
Transit transportation	1	1	4	
Livestock	1	2	1	20
Laundry services	1	1	1	
Hospitals	1	3	3	
Employment services	1	1	1	
Truck transportation	1	1	3	
Other essential sectors	25	38	55	20

Source: estimations made by UCLA NAID Center based on IPUMS USA, Migration Policy Center, and Center for Migration Studies

**Table 5: Economic Contribution of Unauthorized Workers and Unauthorized Essential Workers and by Immigration Status**

Worker characteristic	Total unauthorized	Total essential unauthorized	DACA	TPS	Agriculture
Number of workers (thousands)	7,804	6,079	414	256	205
Average wage per worker	-	28,842	39,596	35,711	23,046
GDP (\$ billion)	1,034	805	55	34	27
Taxes (\$ billion)	259	201	14	8	7

\*Total taxes paid due to the economic activity generated by workers. Total essential and non-essential unauthorized includes DACA, TPS, and agriculture workers.

Source: estimates made by UCLA NAID Center; taxes are estimated based on OECD total taxes rates over GDP and includes all personal direct and indirect taxes and business taxes based on unauthorized value added.

**Table 6: Estimated Economic Impacts of Granting COVID Relief for Unauthorized Population and Their Dependents.**

	Benefit*	Multiplier
Unauthorized persons (thousands of workers and dependents)	10,600	-
COVID relief to households check (dollars)	1,400	-
Total cost of the program	14.8	N/A
<b>Direct and indirect changes in macroaggregates</b>		
Household income increase	29.0	1.96
Gross Domestic Product (GDP) increase	21.8	1.47
Total tax revenue increase	6.1	0.41
Net cost of the program (program cost minus increase in tax revenue)	8.7	N/A

\*Billion of U.S. dollars, unless otherwise is specified.

Source: Multipliers from SAM multipliers analysis in table 13 at “Essential but Disposable: Unauthorized Workers and Their Mixed-Status Families”<sup>12</sup>. Population includes workers and non-citizen dependents.

**Table 7a: Economic Impact Over 10 Years of Regularizing total Unauthorized Workers (Selected Years)**

	2022	2026	2031
<b>Nominal GDP without regularizing</b>	<b>23,342</b>	<b>27,517</b>	<b>33,158</b>
<b>Regularizing of current immigrants</b>			
Cumulative gain in GDP (\$ bn)	85	564	1,467
GDP gain by year (\$ bn)	85	152	201
Additional jobs created (thousands)	157	281	371
Cumulative tax revenues increase (\$ bn)	21	141	367
Projected remittances to Mexico and Central America Northern Triangle per year (\$ bn)	78	100	121
Cumulative remittances increase over ten years (\$ bn)	152	507	1,068

Sources: Nominal GDP without regularizing estimated based on “An Overview of the Economic Outlook: 2021 to 2031”, Congressional Budget Office. Remittances are estimated based on data from World Development Indicators, World Bank. The other variables are UCLA NAID Center estimates using the baseline data presented before.

<sup>12</sup> Hinojosa, R., and Robinson, S. (2020). “Essential but Disposable: Unauthorized Workers and Their Mixed-Status Families”. UCLA North America Integration and Development Center. Available at: [http://www.naid.ucla.edu/uploads/4/2/1/9/4219226/essential\\_unauthorized\\_workers\\_final.pdf](http://www.naid.ucla.edu/uploads/4/2/1/9/4219226/essential_unauthorized_workers_final.pdf)

**Table 7b: Economic Impact over 10 Years of Regularizing Total Unauthorized Essential Workers**

Total Unauthorized Essential	2022	2026	2031
Average wage per worker (\$)	32,161	37,914	45,686
Cumulative gain in GDP (\$ bn)	66	463	1,193
GDP gain by year (\$ bn)	66	130	157
Additional jobs created (thousands)	122	241	290
Cumulative tax revenues increase (\$ bn)	17	116	298

Sources: UCLA NAID Center estimates based on data from Current Population Survey (CPS), and Pew Research Center estimates on unauthorized workforce, and baseline data presented before.

**Table 7c: Economic Impact Over 10 years of Regularizing DACA Total Workers**

DACA Total	2022	2026	2031
Average wage per worker (\$)	44,153	52,051	62,721
Cumulative gain in GDP (\$ bn)	6	43	112
GDP gain by year (\$ bn)	6	12	15
Additional jobs created (thousands)	11	22	27
Cumulative tax revenues increase (\$ bn)	2	11	28

Sources: UCLA NAID Center estimates based on “Employed Current DACA Recipients, by Major Industry Group”, Migration Policy Institute, and baseline data presented before.

**Table 7d: Economic Impact Over 10 years of Regularizing TPS Total Workers**

TPS Total	2022	2026	2031
Average wage per worker (\$)	39,821	46,944	56,567
Cumulative gain in GDP (\$ bn)	3	24	62
GDP gain by year (\$ bn)	3	7	8
Additional jobs created (thousands)	6	13	15
Cumulative tax revenues increase (\$ bn)	1	6	16

Sources: UCLA NAID Center estimates based on “A Statistical and Demographic Profile of the US Temporary Protected Status Populations from El Salvador, Honduras, and Haiti”, Center for Migration Studies, and baseline data presented before.

**Table 8: Economic Impact Over 10 Years of New Immigration with Legal Status (Selected Years)**

	2022	2026	2031
<b>Nominal GDP without regularizing</b>	<b>23,342</b>	<b>27,517</b>	<b>33,158</b>
<b>New immigration (with legal status)</b>			
Cumulative gain in GDP (\$ bn)	58	454	957
GDP gain by year (\$ bn)	58	89	103
Additional jobs created (thousands)	102	154	180
Cumulative tax revenues increase (\$ bn)	15	113	239
Projected remittances increase to Mexico and Central America Northern Triangle per year (\$ bn)	5	10	14
Cumulative remittances increase over ten years (\$ bn)	5	46	110

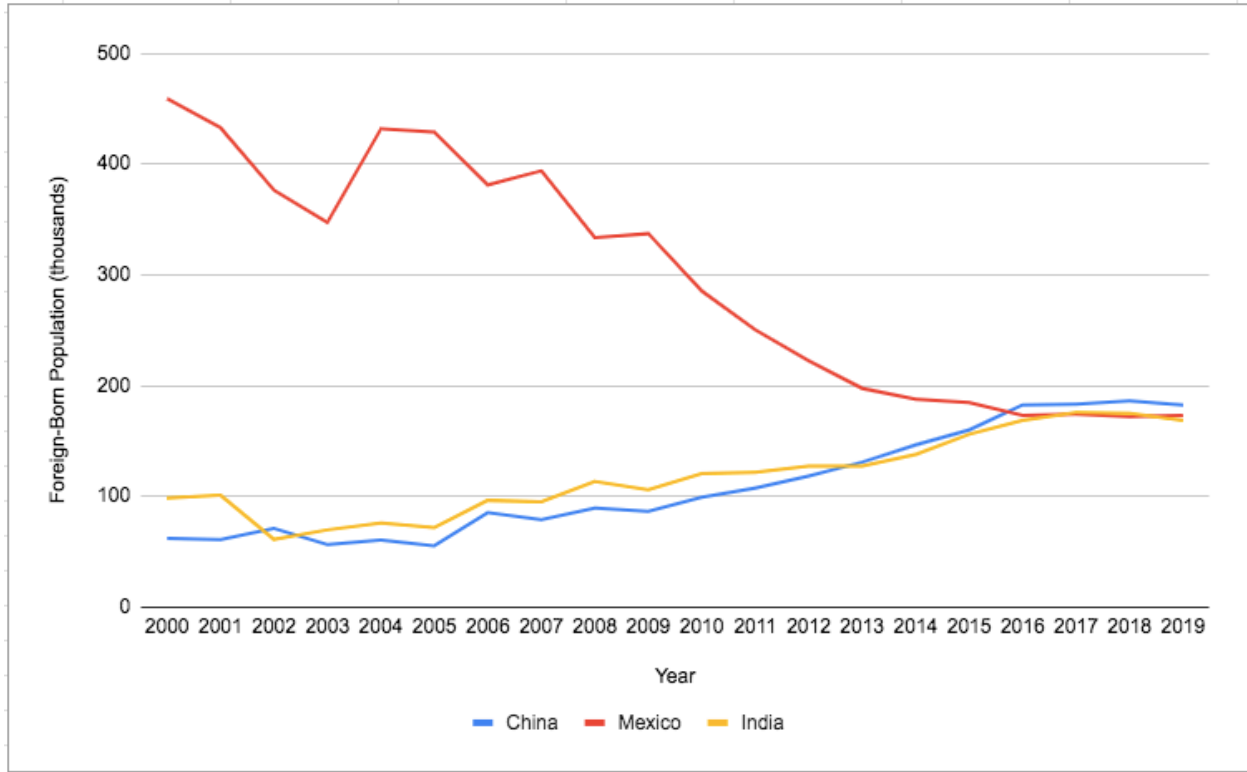
Sources: Nominal GDP without regularizing estimated based on “An Overview of the Economic Outlook: 2021 to 2031”, Congressional Budget Office. Remittances are estimated based on data from World Development Indicators, World Bank. GDP gain by year is a UCLA NAID Center estimate based on IMPLAN GDP per worker for the United States. The other variables are UCLA NAID Center estimates using the baseline data presented before.

**Table 9: Recent Mexican, Chinese, and Indian Immigrant Populations (in Thousands, with Residence Abroad One Year Ago), 2000-19**

Year	China	Mexico	India
2000	62	459	99
2001	61	433	101
2002	71	376	61
2003	57	348	70
2004	61	432	76
2005	56	429	72
2006	85	381	97
2007	79	394	95
2008	90	334	114
2009	87	337	106
2010	100	286	121
2011	108	250	122
2012	118	223	128
2013	131	198	127
2014	147	188	138
2015	160	185	156
2016	183	173	169
2017	183	174	176
2018	187	172	175
2019	183	173	169

Sources: 2009 to 2019 5-Year American Community Survey (ACS); 2007-2008 3-Year ACS; 2000-2006 ACS.

**Figure 3. Recent Mexican, Chinese, and Indian Immigrant Populations (with Residence Abroad One Year Ago), 2000-19**



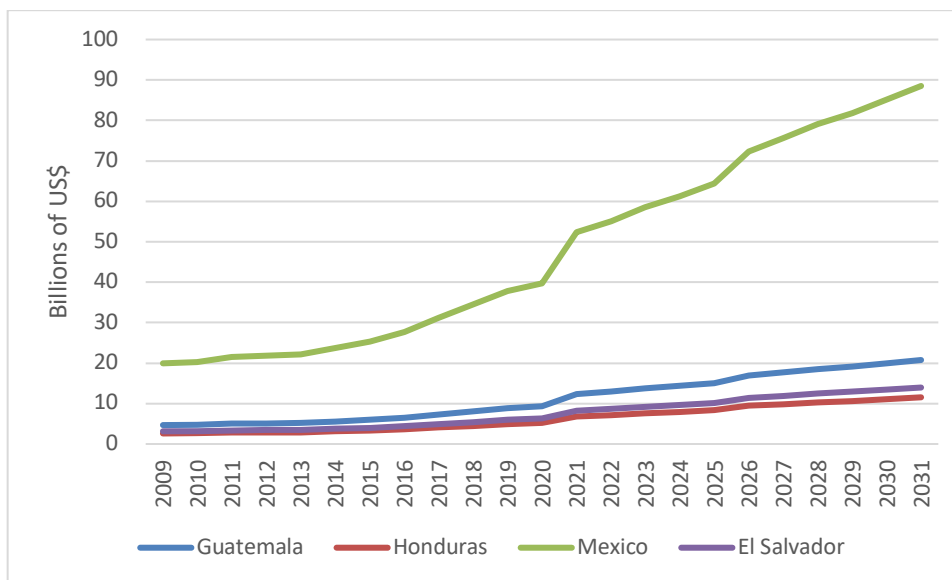
Sources: 2009 to 2019 5-Year American Community Survey (ACS); 2007-2008 3-Year ACS; 2000-2006 ACS.

**Table 10: Remittance Projections Under Different Scenarios**

Column1	2022	2026	2031
<b>No regularization and no new immigration scenario</b>			
Projected remittances to Mexico and Central America Norther Triangle (\$ bn)	68	80	97
Cumulative remittances over ten years (\$ bn)	68	435	883
<b>Regularization only scenario</b>			
Projected remittances to Mexico and Central America Norther Triangle (\$ bn)	78	100	121
Cumulative remittances over ten years (\$ bn)	153	508	1,068
<b>New immigration only scenario</b>			
Projected remittances to Mexico and Central America Norther Triangle (\$ bn)	74	90	111
Cumulative remittances over ten years (\$ bn)	144	481	993
<b>Regularization and new immigration scenario</b>			
Projected remittances to Mexico and Central America Norther Triangle (\$ bn)	84	110	135
Cumulative remittances over ten years (\$ bn)	164	554	1,179

Source: UCLA NAID Center estimations based on World Bank and, Bureau of Labor Statistics data

**Figure 4: Remittance Projections from Regularizing Unauthorized Workers and New Legal Immigration by Country of Destination**



Source: UCLA NAID Center estimations based on World Bank and, Bureau of Labor Statistics data

**Table 11: State Distribution of 10-year Benefit of Cumulative GDP and Taxes of Regularization and New Legal Immigration (Based on State Share of GDP); Unauthorized Workers as a Share of State Labor Force; Ratio of State GDP Benefit to Unauthorized Workers as a Share of State Labor Force.**

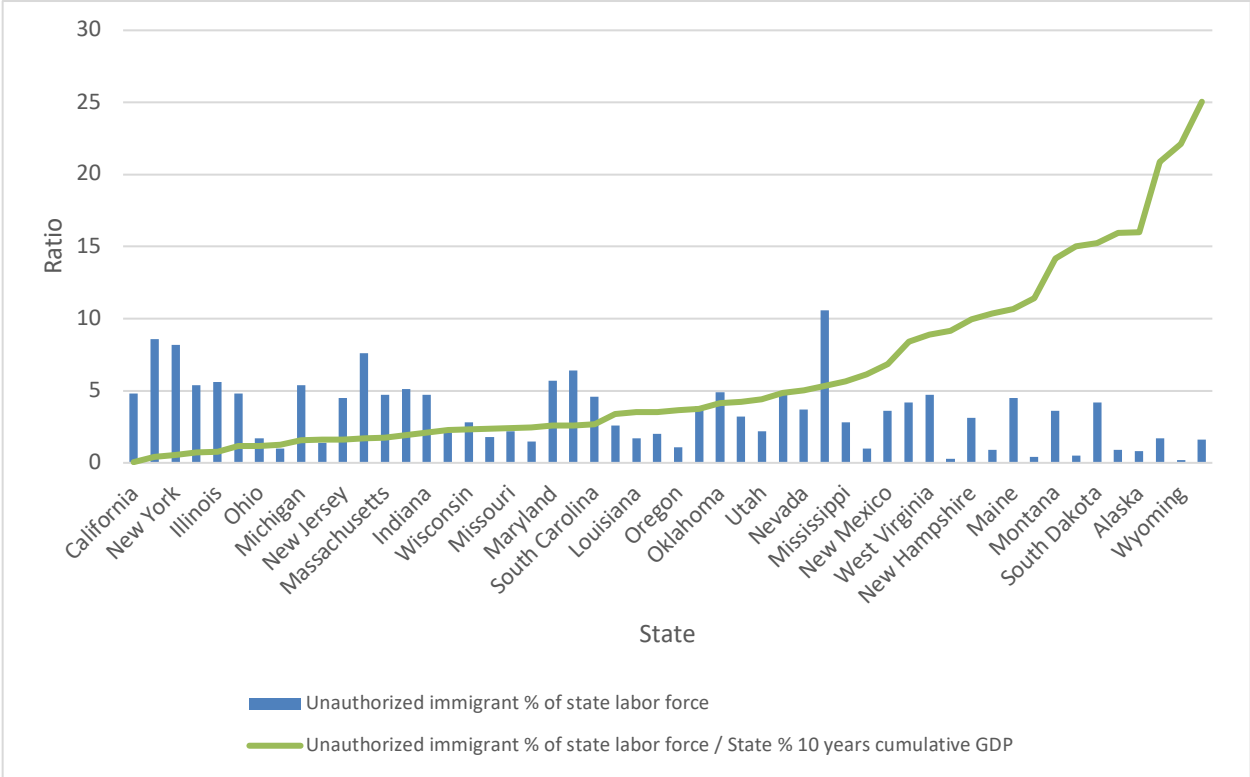
State	10 years cumulative GDP	10 years cumulative Taxes	Unauthorized immigrant % of state labor force	Unauthorized immigrant % of state labor force / State % 10 years cumulative GDP
US	2424	606	4.8	0.0
California	509	127	8.6	0.4
Texas	364	91	8.2	0.5
New York	177	44	5.4	0.7
Florida	175	44	5.6	0.8
Illinois	100	25	4.8	1.2
Pennsylvania	35	9	1.7	1.2
Ohio	19	5	1	1.3
Georgia	83	21	5.4	1.6
Michigan	21	5	1.4	1.6
North Carolina	68	17	4.5	1.6
New Jersey	108	27	7.6	1.7
Virginia	64	16	4.7	1.8
Massachusetts	64	16	5.1	1.9
Washington	54	13	4.7	2.1
Indiana	22	6	2.1	2.3
Tennessee	29	7	2.8	2.3
Wisconsin	18	5	1.8	2.4
Minnesota	22	6	2.2	2.4
Missouri	15	4	1.5	2.5
Arizona	54	13	5.7	2.6
Maryland	60	15	6.4	2.6
Colorado	42	10	4.6	2.7
South Carolina	19	5	2.6	3.4
Alabama	12	3	1.7	3.5
Louisiana	14	3	2	3.5
Kentucky	7	2	1.1	3.6
Oregon	25	6	3.9	3.7
Connecticut	29	7	4.9	4.2
Oklahoma	18	5	3.2	4.2
Iowa	12	3	2.2	4.4
Utah	24	6	4.8	4.9
Kansas	18	4	3.7	5.0



Nevada	48	12	10.6	5.3
Arkansas	12	3	2.8	5.7
Mississippi	4	1	1	6.2
Nebraska	13	3	3.6	6.8
New Mexico	12	3	4.2	8.4
District of Columbia	13	3	4.7	8.9
West Virginia	1	0	0.3	9.1
Idaho	8	2	3.1	10.0
New Hampshire	2	1	0.9	10.4
Hawaii	10	3	4.5	10.7
Maine	1	0	0.4	11.4
Rhode Island	6	2	3.6	14.2
Montana	1	0	0.5	15.0
Delaware	7	2	4.2	15.2
South Dakota	1	0	0.9	16.0
North Dakota	1	0	0.8	16.0
Alaska	2	0	1.7	20.9
Vermont	0	0	0.2	22.1
Wyoming	2	0	1.6	25.0

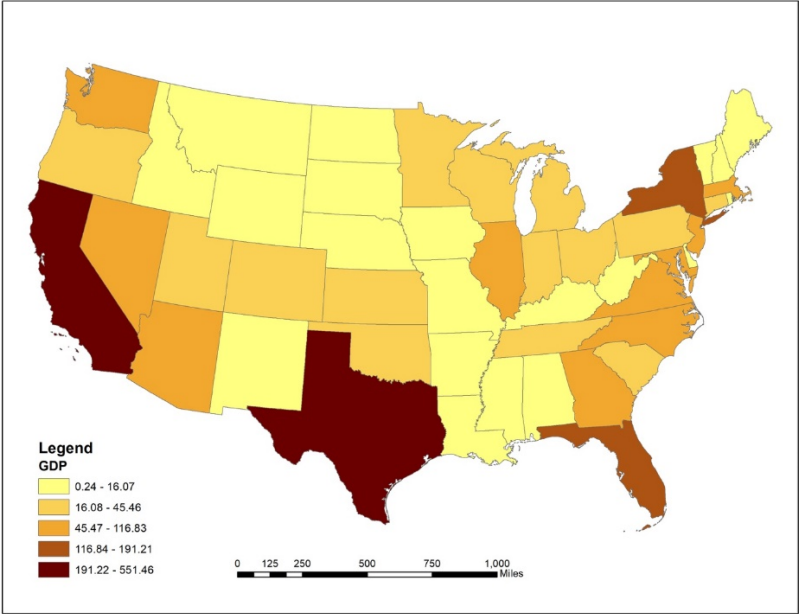
Source: UCLA NAID Center estimates based on previous data presented and “Estimated unauthorized population and selected characteristics, by state, 2016”, Pew Research Center.

**Figure 5: Unauthorized Workers as a Share of State Labor Force; Ratio of State GDP Benefit to Unauthorized Workers as a Share of State Labor Force.**

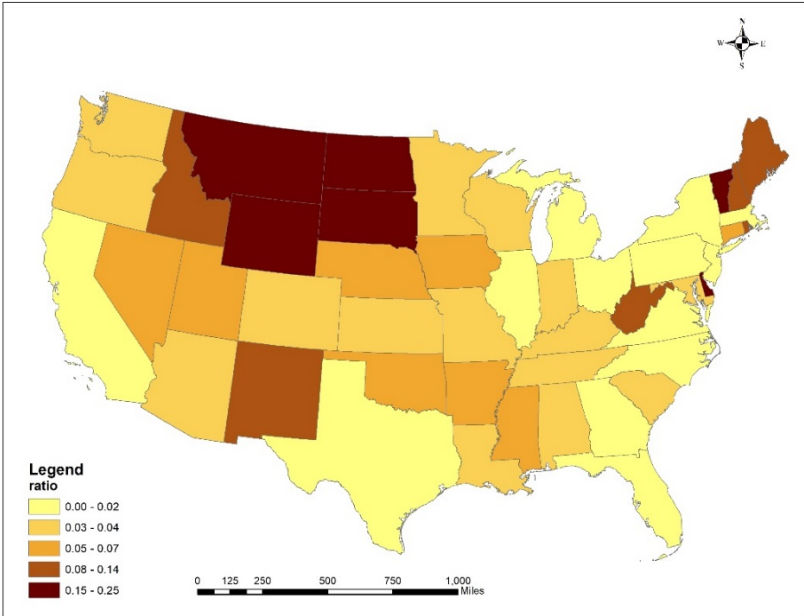


Source: UCLA NAID Center estimates based on previous data presented and “Estimated unauthorized population and selected characteristics, by state, 2016”, Pew Research Center.

**Figure 6a: Map of States by Unauthorized Workers as a Share of State Labor Force (left axis); Ratio of State GDP Benefit to Unauthorized Workers as a Share of State Labor Force (right Axis).**



**Figure 6b: Map of States by Ratio of State GDP Benefits from Regularization Compared to Unauthorized Workers as a Share of State Labor Force.**



Source: UCLA NAID Center estimates based on previous data presented and “Estimated unauthorized population and selected characteristics, by state, 2016”, Pew Research Center.

## Methodological Appendix

### Methodology for Estimating Essential and Total Unauthorized Employment

Our methodology is based on data for foreign-born nonnaturalized workers. The sources used for employment data for foreign-born nonnaturalized civilian workers by industry are IPUMS CPS, ASEC 2019 at the national, state, and county level. We also obtained data from IPUMS CPS, ASEC 2019 for households at the national, state and county level. Our estimates are based on 2019 IPUMS (<https://doi.org/10.18128/D010.V10.0>) and CPS ASEC; Census Bureau (<https://cps.ipums.org/cps/index.shtml>).

We calculated the ratio of unauthorized civilian workers to foreign-born nonnaturalized civilian workers based on Pew’s industry structure. We disaggregated the Pew data to estimate the number of unauthorized civilian workers in 184 sectors. To assign specific weights for our 184-sector industry classification we used the Pew Research Center’s industry classification and IPUM’s industry classification. The first step was to create a bridge between the two industry classifications. Once the bridge was calibrated, we used the Pew Research Center estimate of 7.8 million total unauthorized civilian workers and distributed them to the 184-industry classification database using Pew Research Center’s data showing shares of unauthorized workers by industries.

To estimate total unauthorized civilian workers, we consider those workers who are under DACA based on estimates by the Migration Policy Institute<sup>13</sup>, Temporary Protected Status based on estimates by the Center for Migration Studies<sup>14</sup>, and agricultural workers who are all potentially unauthorized immigrants due to their status.<sup>15</sup>

Once we had the total of unauthorized civilian workers, we used data from the “Guidance on the Essential Critical Infrastructure Workforce: Ensuring Community and National Resilience in COVID-19 Response” from the U.S. Department of Homeland Security. We then distributed the unauthorized immigrants working in the sectors classified as essential by DHS to our 184 sectors.

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<sup>13</sup> Migration Policy Institute (2020). “Deferred Action for Childhood Arrivals (DACA) Data Tools”. Available at: <https://www.migrationpolicy.org/programs/data-hub/deferred-action-childhood-arrivals-daca-profiles>

<sup>14</sup> Kerwin, D., and Warren, R. (2017). “A Statistical and Demographic Profile of the US Temporary Protected Status Populations from El Salvador, Honduras, and Haiti”. Journal on Migration and Human Security. Center for Migration Studies. Available at: <https://journals.sagepub.com/doi/pdf/10.1177/233150241700500302>

<sup>15</sup> Costa, D., and Martin, P. (2020). “Coronavirus and farmworkers: farm employment, safety issues, and the H-2A guestworker program”. Economic Policy Institute. Available at: <https://www.epi.org/publication/coronavirus-and-farmworkers-h-2a/>

Other studies from the Center for American Progress<sup>16</sup> (CAP) and FWD.us have estimated the number of unauthorized workers who are considered essential during the COVID-19 pandemic.<sup>17</sup> They both use the 2019 American Community Survey data on total immigrants. FWD.us' methodology is to assign an immigrant status (U.S. naturalized citizens, Lawful Permanent Residents, temporary immigrants) and, once they have assigned these categories, the residual between total immigrants and these categories are considered to be unauthorized immigrants, which includes those groups who may currently have lawful status but whose long-term status is precarious, such as TPS and DACA. TPS workers are assigned based on USCIS They estimated the latter groups using the criteria for eligibility and then randomly assigned them. We do not have enough information on the methodology used by CAP to be able to compare it with other approaches.

### **Methodology for estimating wages of unauthorized essential workers.**

To estimate the wages by immigration status we estimated the sectoral structure of employment, using the methodology for estimating essential and total unauthorized employment described above, as well as the foreign born non-naturalized wages by sector. IPUMS CPS, ASEC 2019 reports wages by sector.

For total unauthorized workers, we assigned specific weights for our 184-sector industry classification using the Pew Research Center's industry classification and IPUM's industry classification to create the sectoral employment structure. Then, based on those weights we multiplied the total non-naturalized wage bill by the share of unauthorized workers in each of the sectors, and then reduced the result by 15%, resulting in the total wage bill for unauthorized workers. Subsequently we estimated the average wage per worker by sector, and then we estimated the average wage for essential sectors using a weighted average between the sectoral employment structure and the average wage in those sectors.

For DACA we assigned specific weights for our 184-sector industry classification using the Pew Research Center's industry classification and the "Employed Current DACA Recipients, by Major Industry Group," from the Migration Policy Institute. Another difference is that we reduced their wages by 7.5% instead of 15%. With those differences noted, we used the same process as for unauthorized.

For TPS workers we assigned the specific weights for our 184-sector industry classification using the Pew Research Center's industry classification and data from Center for American Progress<sup>18</sup> and Center for

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<sup>16</sup> Prchal, N. (2020). "Protecting Unauthorized Workers on the Pandemic's Front Lines: Immigrants Are Essential to America's Recovery". Center for American Progress. Available at:

<https://cdn.americanprogress.org/content/uploads/2020/12/01095848/Making-The-Case-For-Regularizing.pdf>

<sup>17</sup> FWD.us (2020). "Immigrant Essential Workers are Crucial to America's COVID-19 Recovery". Available at: <https://36shgf3jsufe2xojr925ehv6-wpengine.netdna-ssl.com/wp-content/uploads/2020/12/FWD-essential-worker-report-FINAL-WEB.pdf>

<sup>18</sup> Prchal, N. (2020). "A demographic Profile of TPS Holders Providing Essential Services During the Coronavirus Crisis", Center For American Progress.

Migration Studies<sup>19</sup>. As we did with DACA, for TPS workers we reduced their wages by 10% instead of 15%. With those differences noted, we used the same process as for unauthorized workers.

### **Methodology for estimating the economic impacts of implementing alternative recovery (COVID relief pack for unauthorized)**

In our previous study on the importance of essential unauthorized workers<sup>20</sup>, we used a multiplier model based on a detailed Social Accounting Matrix (SAM) for the US. We used the SAM-multiplier model to estimate the impact of relief packages providing income support to unauthorized workers. We used the same SAM-multiplier results in this report to estimate the impact of including income support for all unauthorized workers and their dependents (a total of 10.6 million people) in the new COVID relief package.

### **Methodology for estimating the impact of regularizing unauthorized worker.**

To estimate the GDP impact of regularizing current unauthorized workers in the U.S. we used a two-step approach. We start by using the Current Population Survey, accessed through IPUMS USA to estimate the average wages for unauthorized workers, which are the base wages for 2020. We also used the Congressional Budget Office (CBO)<sup>21</sup> Economic Projections for Calendar Years 2021 to 2031 and assumed that the wage bill increases in the same proportion to GDP. This estimate provides the baseline economic growth without regularization. To estimate the impact of regularizing unauthorized workers currently living in U.S. on GDP, tax revenue, and job creation, we first estimate the direct macro impact of productivity gains from regularization of immigrant labor. Second, we estimate the indirect impact on GDP, employment, and taxes of increasing the income of these workers by using a multiplier model. We do the estimation separately for four immigrant categories: all unauthorized workers, unauthorized essential workers, unauthorized workers with DACA, and unauthorized workers with TPS.

Previous studies of the potential impacts of regularizing<sup>22</sup> have estimated that regularization of unauthorized workers would increase their productivity, and therefore raise their income, by 15% annually during the first five years, and 25% during the next five years due to acquired citizenship status.

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<sup>19</sup> Warren, R., and Kerwin, D. (2017). "A Statistical and Demographic Profile of the US Temporary Protected Status Populations from El Salvador, Honduras, and Haiti", Center for Migration Studies.

<sup>20</sup> Hinojosa, R., and Robinson, S. (2020). "Essential but Disposable: Unauthorized Workers and Their Mixed-Status Families". UCLA North America Integration and Development Center. Available at: [http://www.naid.ucla.edu/uploads/4/2/1/9/4219226/essential\\_unauthorized\\_workers\\_final.pdf](http://www.naid.ucla.edu/uploads/4/2/1/9/4219226/essential_unauthorized_workers_final.pdf)

<sup>21</sup> Congressional Budget Office (2021). "An Overview of the Economic Outlook: 2021 to 2031". Available at: <https://www.cbo.gov/system/files/2021-02/56965-Economic-Outlook.pdf>

<sup>22</sup> Lynch, R. and Oakford, P. (2013). "The Economic Effects of Granting Legal Status and Citizenship to Unauthorized Immigrants". Center for American Progress. Available at: <https://www.americanprogress.org/issues/immigration/reports/2013/03/20/57351/the-economic-effects-of-granting-legal-status-and-citizenship-to-unauthorized-immigrants/>

With this information we estimated the new aggregated personal income of these workers once they have been legalized and received citizen status and added that to the initial estimate of total personal income (holding constant the ratio of personal income over GDP for 2020), which results in a new estimate of GDP (at factor cost) considering only the direct impact on the personal income of the newly legalized workers. However, there is an additional indirect effect because the increase in personal income will boost spending and indirectly generate an additional increase in economic activity. For this analysis, we used an estimated multiplier from the Center for American Progress (CAP)<sup>23</sup> of 1.2, which is consistent with multipliers estimated by CBO and Moody’s Analytics, and which we consider as a conservative estimate. We applied this multiplier to the newly legalized worker’s personal income increases and added it to the previously estimated GDP, yielding the total GDP effect over ten years.

This 10-year cumulative GDP-growth estimate is consistent with—but should not be compared to—the findings of Raúl Hinojosa-Ojeda (2010), who concluded that comprehensive immigration reform would add 1.5 trillion to GDP over 10 years. The 2010 Hinojosa-Ojeda study has a different focus and methodology, using a computable general equilibrium [CGE] modelling approach. The study considers the economic impact of providing regularization and a road map to citizenship for the unauthorized population while also accounting for future immigration flows.<sup>24</sup>

To estimate the impact on tax revenue, we used the ratio of total taxes to GDP rate provided by OECD<sup>25</sup>, which estimates the revenue (direct and indirect taxes) due to the increase in total economic activity associated with increased labor income. To estimate the impact on employment, we assumed the creation of one job per each \$115,000 in GDP increase assumed by the CAP<sup>26</sup>, which is applied to the GDP increase by year.

**Table 8: Crucial parameters**

Induced spending multiplier	1.2
Unauthorized workers wage increase	15% over the first 5 years and 25% over the next five years
Jobs created	1 job per \$115,000 of product created
Tax increase	25% of GDP

<sup>23</sup> Idem

<sup>24</sup>See: Raúl Hinojosa-Ojeda, “Raising the Floor for American Workers” (Washington: Center for American Progress and Immigration Policy Center, 2010 Available at: <http://www.americanprogress.org/issues/immigration/report/2010/01/07/7187/raising-the-floor-for-american-workers/>

<sup>25</sup> OECD data (2020), “Tax revenue”. Available at: <https://data.oecd.org/tax/tax-revenue.htm>

<sup>26</sup> Idem

The Congressional Budget Office<sup>27</sup> and the Council of Economic Advisors<sup>28</sup> have measured the impact of regularizing unauthorized workers from the production side, assuming an aggregate Cobb-Douglas production function for GDP. They estimate the impact on GDP of changing the number of workers (an increase on the number of legalized workers over the time), while we assume that the regularizing of the current pool of unauthorized workers generates increased productivity, without increasing the number over the analysis period.

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<sup>27</sup> Congressional Budget Office (2013). “The Economic Impact of S.744, the Border Security, Economic Opportunity, and Immigration Modernization Act”. Available at:  
<https://www.cbo.gov/publication/44346#:~:text=June%2018%2C%202013-,S.,under%20current%20law%20until%202025.>

<sup>28</sup> Council of Economic Advisors (2015). “The Economic Effects of Administrative Action on Immigration”. Executive Office of the President of the United States. Available at:  
[https://obamawhitehouse.archives.gov/sites/default/files/docs/economic\\_effects\\_of\\_immigration\\_ea\\_february\\_2015\\_update\\_final\\_v2.pdf](https://obamawhitehouse.archives.gov/sites/default/files/docs/economic_effects_of_immigration_ea_february_2015_update_final_v2.pdf)