A September 5 announcement from the Trump administration effectively ended Deferred Action for Childhood Arrivals (DACA)—a program that, since 2012, has helped nearly 800,000 young people gain a temporary reprieve from deportation and a work permit. The conversation has now shifted to the urgent need for Congress to pass legislation such as the Dream Act, which would provide permanent protection and a pathway to citizenship to unauthorized immigrants who came to the country as children.

To better understand the potential economic impact of passing the Dream Act, this issue brief calculates the economic gains that would stem from legalizing potentially eligible individuals already in the workforce. This analysis builds on the groundbreaking work of the Center for American Progress’ earlier study, “The Economic Impacts of Removing Unauthorized Immigrant Workers,” which calculated the economic contributions of unauthorized workers to each individual industry, each state, and the nation as a whole, and updates and applies that economic model to the population of workers eligible for the Dream Act.

This study finds, based on the methodology outlined below, that:

• Passing the Dream Act, and placing all of the potentially immediately eligible workers on a path to legal status, would add a total of $22.7 billion annually to the U.S. gross domestic product (GDP). Because the gains from legalization grow each year, the cumulative increase in GDP over 10 years would be $281 billion.

• If even half of all workers who are immediately eligible for the Dream Act complete the educational requirements to move from conditional status to lawful permanent residency—as distinct from the military service or employment paths—the annual gains could be even higher, creating what we term an “education bump” and reaching as high as $728.4 billion cumulatively over a decade.
• Extrapolating from the immediately eligible and employed population to the entire population who may one day be eligible for the Dream Act—either when they age into eligibility or complete the educational requirements—the economic gains could be roughly 42 percent higher.\(^5\)
  − Over a decade, this means the GDP gains from the Dream Act could be as high as a cumulative $400 billion.
  − With the education bump, the gains could be as high as a cumulative $1 trillion.

• On a per capita basis, passing the Dream Act would ultimately raise the average incomes of all Americans by between approximately $82 and $273, annually.

Overall, the data from this study are clear: Passing the Dream Act would significantly improve the American economy.

### Eligibility requirements for the Dream Act

While there are multiple versions of legislation that would provide a pathway to permanent legal status for young unauthorized immigrants—such as the Recognizing America’s Children Act,\(^6\) for which the Niskanen Center has produced an economic impact estimate,\(^7\) and the American Hope Act\(^8\)—this study focuses on the bipartisan Dream Act of 2017 introduced in July in both the U.S. Senate and the House of Representatives.\(^9\)

At a basic level, to be eligible for conditional status—the first step in achieving permanent residency—under the Dream Act, an individual would have to have entered the United States prior to age 18 and have been in the country continuously for four years. In addition, eligible dreamers must either have a high school diploma or General Educational Development (GED) certificate, be enrolled in a secondary school if they are between the ages of 14 and 17, or have been admitted to college.\(^10\)

To move from conditional status to lawful permanent resident (LPR) status, the Dream Act requires that an individual has done one of three things:

• Received an associate degree or completed two years of schooling toward a bachelor’s degree

  • Completed two years of military service and, if discharged, was discharged honorably

  • Worked for at least three cumulative years and at least three-quarters of any time in work-authorized status and not in school\(^11\)

The analysis in this issue brief focuses on two scenarios to illustrate the economic impact of the Dream Act:

• Scenario 1 is based solely on individuals in the workforce who meet the age at time of entry and length of residency requirements.

• Scenario 2 is based on individuals in the workforce who meet the age at time of entry and length of residency requirements and who also already meet the educational requirement for conditional status.

We include both scenarios for two reasons. First, we believe that passage of the Dream Act would be a big catalyst for people who currently do not meet the educational requirements for conditional status to complete either a high school diploma or a GED, thus making more people eligible.\(^12\)

Second, including both scenarios illustrates that the less onerous the path to conditional legal status under the legislation, the greater the economic benefits to the nation as a whole.
The demographics of the Dream Act-eligible population

As the Migration Policy Institute has found, there are 3.3 million people who could be eligible for the Dream Act. But because not every individual who could be eligible for the Dream Act is eligible immediately—either because they are younger than age 14, because they aren’t enrolled in high school if they are between ages 14 and 17, or because they do not have a high school diploma or GED—a smaller subset of individuals would be immediately eligible to apply for status under the bill.\(^{13}\)

Using data from the 2014 American Community Survey (ACS) provided by the Center for Migration Studies (CMS),\(^ {14}\) this analysis looks at the subset of individuals who would potentially be immediately eligible to apply for the Dream Act and who are currently employed—which is key for the type of economic analysis conducted here.

As Table 1 illustrates, there are 1.9 million young people in the workforce who would be immediately eligible for the Dream Act based on their age at time of entry and length of residency requirements (Scenario 1) and nearly 1.1 million young people who meet the age at time of entry, length of residency, and educational requirements (Scenario 2).

### TABLE 1

Dreamers in the workforce

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of Dream Act-eligible individuals in the workforce, Scenario 1</th>
<th>Percentage of overall workers who are Dream Act-eligible, by industry, Scenario 1</th>
<th>Number of Dream Act-eligible individuals in the workforce, Scenario 2</th>
<th>Percentage of overall workers who are Dream Act-eligible, by industry, Scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1,900,000</td>
<td>1.3%</td>
<td>1,089,000</td>
<td>0.8%</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>97,000</td>
<td>4.9%</td>
<td>28,000</td>
<td>1.4%</td>
</tr>
<tr>
<td>Construction</td>
<td>336,000</td>
<td>3.6%</td>
<td>135,000</td>
<td>1.4%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>201,000</td>
<td>1.3%</td>
<td>108,000</td>
<td>0.7%</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>277,000</td>
<td>1.3%</td>
<td>193,000</td>
<td>0.9%</td>
</tr>
<tr>
<td>Transportation and utilities</td>
<td>67,000</td>
<td>0.8%</td>
<td>44,000</td>
<td>0.5%</td>
</tr>
<tr>
<td>Educational and health services</td>
<td>114,000</td>
<td>0.3%</td>
<td>98,000</td>
<td>0.3%</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>405,000</td>
<td>2.8%</td>
<td>240,000</td>
<td>1.6%</td>
</tr>
</tbody>
</table>

Notes: Scenario 1 refers to people without legal status who arrived prior to age 18 and have been in the country for at least four years. Scenario 2 refers to people without legal status who arrived prior to age 18, have been in the country for at least four years, and are either in school or have a high school diploma or a GED certificate.

Source: Center for Migration Studies, “Estimates of the Unauthorized Population” (last accessed September 2017), on file with CMS. Data set is based on the augmented 2014 American Community Survey data files hosted by the Integrated Public Use Microdata Series. See Methodology for further detail.
The economic impacts of passing the Dream Act

While the Dream Act-eligible population consists of a wider range of people than those who have received DACA today, the experiences of individuals under DACA are a useful starting point. With DACA, beneficiaries have been able to get better and better paying jobs and in general become more financially stable.\(^{15}\) This, in turn, has meant more tax revenue and greater economic benefits for localities, states, and the nation as a whole.\(^{16}\) But DACA provides only temporary status, and a range of economic literature has found that when individuals are able to gain permanent status—and even more so when they gain citizenship—their earnings, their productivity, and their economic contributions only grow.\(^{17}\)

So what would happen if Congress were to pass the Dream Act and the immediately eligible population in the workforce were able to get legal status and eventual citizenship? To estimate the potential economic gains, the authors of this brief, building on the work of economist George Borjas and economists Gianmarco Ottaviano and Giovanni Peri,\(^{18}\) simulate the effects of legalization using a general equilibrium model of the economy that is calibrated using detailed information on wages, employment, and industry value added. See methodology below for more on this model.

### Explaining the stages in the growth of the economic impacts from passing the Dream Act

This brief assumes that the economic gains from legalization occur in three steps:

1. **The short run:** After applying for and receiving conditional status under the Dream Act, previously unauthorized workers are now able to operate under the same conditions as authorized workers at the same levels of education and work experience. In practical terms, obtaining legal status means that they will be more productive and able to get better jobs and earn higher wages, as surveys of DACA recipients have consistently shown.\(^ {19}\)

2. **The long run:** Over time, employers respond to the increased labor productivity of their newly documented workers by increasing investment in capital—in things such as tools, machinery, and supplies—which amplifies the gains from legalization.

3. **Education bump:** Finally, even more economic gains arise as those who receive conditional status under the Dream Act obtain lawful permanent residence by completing the educational requirements. While higher education is only one of the three pathways to LPR status under the Dream Act, it is an important one. This analysis assumes that half of those eligible for the Dream Act obtain LPR status through the educational pathway. In doing so, these individuals will become more-highly skilled workers with higher productivity, which increases their contributions to the U.S. GDP.
Table 2 illustrates the results of legalizing immediately Dream Act-eligible individuals in the workplace. As with our demographic findings, we divide the results into two scenarios, the first (Scenario 1) for those who meet only the age at time of entry and length of residency criteria of the Dream Act and the second (Scenario 2) for those who meet the age at time of entry, length of residency, and educational criteria.

Under Scenario 1, the immediate impact of legalization in the short run, as workers move to conditional legal status, would be an increase of $12.1 billion in U.S. GDP annually. Once the stock of capital adjusted in the long run, the annual gains would nearly double in size, to $22.7 billion.

Under Scenario 2, in which the pool of eligible Dreamers is smaller, the immediate impact of legalization in the short run would be $7.6 billion annually, rising to $13.6 billion in the long run.

In terms of individual industries, the Dream Act would bring the largest economic gains to wholesale and retail trade, leisure and hospitality, construction, manufacturing, and educational and health services.

On a per capita level, under Scenario 2, the long-run economic gains for GDP would be nearly $12,000 annually for each individual who is legalized and $40,000 annually for individuals with conditional status who obtain at least some college education.

And importantly, when GDP increases, prosperity increases as well. In the long run, after passage of the Dream Act, U.S. GDP would be 0.15 percent higher, and 0.5 percent higher with the education bump. Translating this out on a per capita basis, this means that the incomes of the average American would rise between about $82 and $273, annually.20 While small, these are important, positive increases in the economic well-being of the population.
Over 10 years, as employers gradually carry out additional capital investments, the gains from legalization would continue to grow. As Table 3 illustrates, the cumulative gains from legalization between 2018 and 2027 would amount to $281 billion.

Even so, these gains could be even greater as individuals complete the full requirements of the Dream Act to achieve LPR status. If even half of immediately eligible workers successfully complete the requirements for the educational path to permanent status—the “education bump” in Table 3—by obtaining either an associate degree or at least two years of college toward a bachelor’s degree, the 10-year cumulative gains from the Dream Act could be as high as $728.4 billion.

### TABLE 2

The economic impacts of legalizing Dreamers

Increases in gross domestic product

<table>
<thead>
<tr>
<th>Industry</th>
<th>Scenario 1</th>
<th>Scenario 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short run, GDP percentage increase</td>
<td>Short run, GDP increase</td>
</tr>
<tr>
<td>Total</td>
<td>0.08%</td>
<td>$12,093,000,000</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>0.14%</td>
<td>$284,463,000</td>
</tr>
<tr>
<td>Construction</td>
<td>0.26%</td>
<td>$1,747,340,000</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0.06%</td>
<td>$1,259,656,000</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>0.08%</td>
<td>$1,641,206,000</td>
</tr>
<tr>
<td>Transportation and utilities</td>
<td>0.06%</td>
<td>$475,975,000</td>
</tr>
<tr>
<td>Educational and health services</td>
<td>0.06%</td>
<td>$850,980,000</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>0.23%</td>
<td>$1,518,304,000</td>
</tr>
<tr>
<td>Total</td>
<td>0.05%</td>
<td>$7,557,922,000</td>
</tr>
<tr>
<td>Agriculture, forestry, fishing, and hunting</td>
<td>0.08%</td>
<td>$162,550,000</td>
</tr>
<tr>
<td>Construction</td>
<td>0.12%</td>
<td>$806,465,000</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0.03%</td>
<td>$629,828,000</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>0.06%</td>
<td>$1,230,905,000</td>
</tr>
<tr>
<td>Transportation and utilities</td>
<td>0.05%</td>
<td>$396,646,000</td>
</tr>
<tr>
<td>Educational and health services</td>
<td>0.06%</td>
<td>$850,980,000</td>
</tr>
<tr>
<td>Leisure and hospitality</td>
<td>0.13%</td>
<td>$858,172,000</td>
</tr>
</tbody>
</table>

Notes: Scenario 1 refers to people without legal status who arrived prior to age 18 and have been in the country for at least four years. Scenario 2 refers to people without legal status who arrived prior to age 18, have been in the country for at least four years, and are either in school or have a high school diploma or a GED certificate.

Source: Center for Migration Studies, “Estimates of the Unauthorized Population” (last accessed September 2017), on file with CMS. Data set is based on the augmented 2014 American Community Survey data files hosted by the Integrated Public Use Microdata Series. See Methodology for further detail.
Extrapolating out to the full Dream Act-eligible population

Up to this point, this brief has focused only on the population of people that would be immediately eligible for the Dream Act and who are in the workforce. In addition to these individuals, according to the Migration Policy Institute (MPI), there are 435,000 people who would be immediately eligible but are still in high school and a further 1.5 million people who are not eligible today but could be eligible in the future, either because they are under age 14, not enrolled in high school if between the ages of 14 and 17, or do not have a high school degree or GED.21

What would happen if the entire Dream Act-eligible population, including those who could become eligible in the future, were legalized? According to MPI estimates, the number of eligible individuals could be as many as 3.3 million,22 which, as a group, is 42 percent larger than the 1.9 million employed individuals we have focused on in this study.

Thus, our estimates are likely to underestimate the full economic gains from passing the Dream Act. Roughly speaking, if the additional 1.4 million potential Dreamers obtained legal status and entered the workforce alongside and in a similar distribution across industries as the 1.9 million immediately eligible Dreamers, then the gains from the Dream Act could reach as much as 42 percent higher, for a total of nearly $400 billion in GDP over a decade. With the education bump, these gains could rise to as much as $1 trillion.
While these figures represent upper bounds of the economic impacts from the Dream Act—particularly because the 1.4 million potential Dream Act-eligible individuals look different than their immediately eligible counterparts because, for example, they are too young or not currently in the workforce—they illustrate how much the United States as a whole stands to gain by providing a path to permanent legal status for a substantial share of unauthorized young people who first entered the country as children.
Conclusion

The results of this study illustrate the substantial and unequivocal gains for the entire U.S. economy from passing the Dream Act. In addition, as the two scenarios that comprise this analysis show, the less onerous the path to legalization of young unauthorized immigrants, the more people who would be potentially eligible and, ultimately, the bigger the economic benefits for the United States. As Congress debates the merits of the Dream Act, these numbers should be at the forefront of their deliberations.

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Methodology

This issue brief relies on the multinested constant elasticity of substitution (CES) analysis methodology created for an earlier CAP report, “The Economic Impacts of Removing Unauthorized Immigrant Workers,” which in turn was developed using the work of economist George Borjas and economists Gianmarco Ottaviano and Giovanni Peri. The model is calibrated with GDP estimates for 2014 from the Bureau of Economic Analysis and microdata from the American Community Survey. As with the previous study, this brief uses augmented versions of the American Community Surveys, with imputations of legal status created by researchers at the Center for Migration Studies. Unlike CAP’s previous study, which focused on 2011–2013 ACS data, this study uses the most up-to-date 2014 ACS data, provided by CMS.

The different types of labor are combined using a multinest CES aggregator. Capital and labor are then combined in a Cobb-Douglas fashion to produce output in each industry, with each industry’s labor share calibrated to match the aggregate labor shares observed in the data.

The setup for this brief distinguishes between two education levels, those with at most a high school degree and those with at least some college education, and eight potential experience groups. Within an education-experience cell, we assume that natives and immigrants are perfect substitutes. This assumption plays virtually no role in the output analysis but maximizes the impact of legalization on the wages of native workers, which should therefore be considered an upper bound on the size of the effects. In our calibration, we
consider workers of different experience but the same education to be imperfect substitutes, with an elasticity of substitution equal to six. Across the two education groups, we consider an elasticity of substitution of three. These values are standard and supported by the estimates used by Gianmarco Ottaviano and Giovanni Peri.\textsuperscript{26}

We then conduct simulations of the effects of legalization on the level of production in each (1-digit) industry. We do so by comparing industry output as currently observed in the data with output in a legalization counterfactual.\textsuperscript{27} In addition, we also perform the analysis on a dataset that pools all industries together. This study distinguishes between short- and long-run effects, where the latter scenario takes into account the adjustment to the capital stock following changes in the workforce and additional investments in education undertaken by unauthorized workers in order to obtain lawful permanent residence.

Estimates of the impacts of legalization

This study draws on previous work that estimates the effects of legalization and naturalization. The vast majority of these studies focus on the effects on the earnings of immigrants. Instead, the focus in this study is on output at the industry level, although we also report the effects of the policies on the average wages of native, and authorized foreign-born, workers. Economists Sherrie A. Kossoudji and Deborah A. Cobb-Clark, as well as Fernando A. Lozano and Todd A. Sorensen, analyzed the wage effects of the 1986 Immigration Reform and Control Act amnesty and estimated the wage penalty for being unauthorized to be around 20 percent.\textsuperscript{28} More recently, Robert Lynch and Patrick Oakford have estimated that gaining legal status and citizenship would allow unauthorized immigrants to earn 25 percent more within ten years of the reform, increasing U.S. GDP by $1.4 trillion cumulatively over a 10-year period.\textsuperscript{29} In contrast to those studies, Magnus Lofstrom, Laura Hill, and Joseph Hayes find no evidence of improved employment outcomes attributable to legal status, except among high-skilled workers.\textsuperscript{30}

Following the pioneer work of economist Barry Chiswick,\textsuperscript{31} several studies have attempted to estimate the income gains from naturalization for authorized immigrants. Bernt Bratsberg, James F. Ragan, and Zafar M. Nasir found wage gains of about 5 percent associated with obtaining citizenship.\textsuperscript{32} More recently, the analysis in Manuel Pastor and Justin Scoggins concludes that naturalization appears to lead to income gains of about 10 percent.\textsuperscript{33}

Relative to the existing literature, this study’s analysis is novel in several dimensions. First, we focus on the effects on the level of production at the industry level. Second, the analysis is based on a fully specified economic model that we calibrate using a combination of aggregate and individual level data. This model accounts for the degree
of complementarities in production between different types of workers. In addition, we show that the model can be calibrated to incorporate the large heterogeneity among the unauthorized workforce in terms of skills and productivity.

The three stages of legalization

It is helpful to conceptualize legalization and its effects on the economy as a three-stage process.

**The short-run: Gaining conditional status**

At first, legalization entails switching the legal status of eligible individuals as they acquire conditional status. Specifically, we leave their education, potential experience, and industry of employment unchanged and simply switch them from unauthorized foreign-born to authorized foreign-born.

From the perspective of the labor market, conditional status allows unauthorized foreign-born workers to operate under the same conditions as authorized foreign-born immigrants. In our framework, this can be simulated by assuming that unauthorized foreign-born workers become indistinguishable from authorized foreign-born workers possessing the same education and potential experience. This amounts to experiencing a productivity boost now that they are not constrained by the limitations of undocumented status in the labor market. For example, they can now obtain a driver’s license and apply to a wider range of jobs. This study assumes that this process occurs within the industry in which we observe the worker; we do not model interindustry mobility.

Individuals who may have DACA are included within unauthorized subpopulations in the ACS data, as estimated by CMS. The data will show any narrowing of the wage gap between authorized and unauthorized workers with the same education and experience that we expect to be associated with DACA. Thus, DACA status may be reducing the net productivity increase associated with legalization through the Dream Act in our simulation. If no individuals in the workforce had received DACA permits, legalization through the Dream Act would likely produce larger net increases in productivity and wages because it would bring about a more radical improvement in their labor market status than the data show.

**The long-run: The investment response**

Because unauthorized workers are now endowed with the higher productivity of authorized foreign-born workers, legalization entails an increase in the overall amount of labor in the economy. As a result, this study’s theoretical model implies that in the short-run, there will be a shortage of capital that will push up the marginal product of labor. Over time, employers will invest more in physical capital—tools, machinery, and more—to
regain the desired capital-labor ratio, which will provide an additional boost to production. As discussed earlier, this process of capital adjustment effectively renders the aggregate production function linear in labor. In most studies, this adjustment is assumed to take place within a few years. Here, we assume adjustment is completed by 10 years.

The education bump
Progressing from conditional status to permanent residence implies additional educational requirements for a portion of the Dream Act population. For the purposes of this study, we assume that half of all those who complete the pathway to LPR status do so by meeting the educational requirements. These additional educational investments further boost the economic gains from legalization. To assess the potential size of this effect, we conduct a simulation of the long-run effects of legalization, assuming that high school graduates on conditional status that did not have at least some college—an associate degree or two years toward a bachelor’s degree—now obtain it, but we keep their potential experience and industry of employment unchanged. We make no changes to the educational status of individuals on conditional status that already had an associate or higher degree.

Relative to baseline, there now is an increase in skilled labor input. This increase has two sources: the larger number of people with higher education, due to the education bump, and the enhanced productivity because of the switch to authorized status.
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Endnotes


10 The Dream Act provides no conditional residence or educational requirements of the legislation. See Ibid.

11 Ibid.

12 Indeed, the experience under DACA has illustrated that this impetus for individuals to complete a high school diploma or GED is a likely scenario. See Roberto G. Gonzales and others, “Taking Giant Leaps Forward: Experiences of a Range of DACA Beneficiaries at the 5-Year Mark” (Washington: Center for American Progress, 2017), available at https://www.americanprogress.org/issues/immigration/reports/2017/06/22/434822/taking-giant-leaps-forward/.

13 Batalova, Ruiz Soto, and Mittelstadt, “Protecting the DREAM.”

14 The estimates provided by CMS differ slightly from those of MPI but are largely comparable.


20 These figures are based on a 2014 per capita GDP figure of $54,651. See Bureau of Economic Analysis, “Table 7.1 Selected Per Capita Product and Income Series in Current and Chained Dollars,” available at https://www.bea.gov/national/nipaweb/DownS2.asp (last accessed September 2017).
21 Batalova, Ruiz Soto, and Mittelstadt, “Protecting the DREAM.

22 Ibid.

23 Edwards and Ortega, “The Economic Impacts of Removing Unauthorized Immigrant Workers.”

24 Borjas, “The Labor Demand Curve is Downward Sloping”; Ottaviano and Peri, “Rethinking the Effect of Immigration on Wages.”

25 Center for Migration Studies, “Estimates of the Unauthorized Population” (last accessed September 2017), on file with CMS. Data set is based on the augmented 2014 American Community Survey data files hosted by the Integrated Public Use Microdata Series. See Methodology for further detail.

26 Ottaviano and Peri, “Rethinking the Effect of Immigration on Wages.”

27 Unlike CAP’s previous study, which categorized workers into four educational groups, in this study we focus on two educational groups: those with a high school degree or less education and those with some college education or more.


